FILED
Oct. 22, 2026
DAVIDSON CO. CHANCERY CT

IN THE CHANCERY COURT OF DAVIDSON COUNTY, TENNESSEE
TWENTIETH JUDICIAL DISTRICT PART IV

KEVIN BURNS, et al.,	)	
	)	CAPITAL CASE
Plaintiffs,	)	
	)	No. 25-0414-IV
v.	)	Chancellor Russell Perkins
	)	
FRANK STRADA, et al.	)	
	)	
Defendants.	)	

MOTION FOR LEAVE TO FILE SUPPLEMENTAL COMPLAINT AND SUPPORTING MEMORANDUM

Plaintiffs hereby move this Court pursuant to Rule 15.04 of the Tennessee Rules of Civil Procedure for leave to file the attached [Proposed] Supplemental Complaint ("PSC") (Att. 1). The PSC adds no claims or parties, but pleads additional, intervening facts relevant to two issues: (1) the April of 2026 repeal of Tenn. Code Ann. § 10-3-121, which Defendants now claim is fatal to Plaintiffs' suit; and (2) the likelihood that TDOC will continue to mishandle key aspects of the execution process and/or impede access to the courts by an individual undergoing a botched execution attempt.

I. Background

Although Plaintiffs did not anticipate the need to file a supplemental complaint, these issues—that is, the repeal of section 10-3-121 and supposed changes in the caselaw surrounding maladministration claims—were raised by Defendants in an untimely Motion to Dismiss filed without leave of the Court on September 3, 2026.

See February 27, 2026 Revised Scheduling Order (Att. 2) at 1–2 (stating that "[t]here is no need for additional motions to dismiss" and setting out procedures for seeking relief from the Order). Insofar as the Court intends to grant Defendants retroactive leave to file that untimely motion, the interests of justice require that Defendants' arguments be evaluated in connection with up-to-date pleading.

II. Legal Standard

Rule 15.04 of the Tennessee Rules of Civil Procedure provides that, "[u]pon motion of a party the court may, upon reasonable notice and upon such terms as are just, permit the party to serve a supplemental pleading setting forth transactions or occurrences or events which have happened since the date of the pleading sought to be supplemented." Tenn. R. Civ. P. 15.04. "The goal behind Rule 15, as with all the Rules of Civil Procedure, is 'to insure that cases and controversies be determined upon their merits and not upon legal technicalities or procedural niceties.'" *Doyle v. Frost*, 49 S.W.3d 853, 856 (Tenn. 2001) (quoting *Karash v. Pigott*, 530 S.W.2d 775, 777 (Tenn. 1975)). Among the factors that courts consider in connection with a request for leave under Rule 15 are "[u]ndue delay in filing; lack of notice to the opposing party; bad faith by the moving party, repeated failure to cure deficiencies by previous amendments, undue prejudice to the opposing party, and futility of amendment." *Cumulus Broad., Inc. v. Shim*, 226 S.W.3d 366, 374 (Tenn. 2007) (quoting *Merriman v. Smith*, 599 S.W.2d 548, 559 (Tenn. Ct. App. 1979)).

III. Analysis

A. Supplementation relevant to Tenn. Code Ann. § 1-3-121.

Section 121 was repealed in April of 2026, more than a year after this case was commenced. *See* 2026 Tenn. Pub. Acts, ch. 664 (H.B. 1971). In Defendants' untimely Motion to Dismiss, they assert that that repeal eliminated Plaintiffs' causes of action for all claims. *See* Def. Memo. in Support of Motion to Dismiss at 8–9. Defendants are mistaken about the effect of the repeal of that short-lived statute, for reasons that Plaintiffs will explain at greater length in their responsive briefing. However, even if Defendants were correct about the effect of the repeal, their argument would, as they acknowledge, face a problem: Plaintiffs' claims alleging violations of the U.S. Constitution are still plainly cognizable under 42 U.S.C. § 1983, which creates a federal cause of action that, it is well-settled, may be considered in Tennessee state courts. *See, e.g., King v. Betts*, 354 S.W.3d 691 (Tenn. 2011) (considering § 1983 claim).

Defendants attempt to navigate that issue by arguing that the Court should nevertheless dismiss all of Plaintiffs' claims—well over a year and a half into this litigation—for the sole reason that Plaintiffs did not foresee future legislative events and prophylactically cite to § 1983 in their Complaint as an explicit backstop, should their cause of action under Tennessee law be abolished. This argument is mistaken for several reasons that Plaintiffs will address in connection with Defendants' motion. The entire issue can be effectively and appropriately bypassed, however, simply by allowing Plaintiffs to file a supplemental complaint with the following short paragraphs:

> In April of 2026, the Tennessee General Assembly repealed Tenn. Code Ann. § 1-3-121, a 2018 law that had briefly acknowledged an arguably expanded right to seek judicial review of official action in Tennessee.
>
> However, that repeal did not extinguish Plaintiffs' causes of action, which continue to be cognizable pursuant to 42 U.S.C. § 1983, the Declaratory Judgment Act, and Tennessee common and statutory law, pursuant to Plaintiffs' concrete and particularized injuries and against Defendants in their official capacities.

That amendment should, in Plaintiffs' view, not be strictly necessary, because this Court is free to construe the Complaint liberally as stating a claim under § 1983 regardless. *See Abshure v. Methodist Healthcare-Memphis Hosps.*, 325 S.W.3d 98, 104 (Tenn. 2010) ("Reviewing courts should avoid construing pleadings in an artificial, technical sense. They should construe the pleading's language fairly and naturally and should give effect to the substance of the pleading rather than its form.") (collecting cases). However, allowing express supplementation would simplify matters by eliminating Defendants' purely formalistic argument.

B. Supplementation relevant to Claim 1.2 and access to courts

Plaintiffs' Claim 1.2 asserts that TDOC's "culture of noncompliance, recklessness, and secrecy," combined with its refusal to take necessary "steps to ensure competence, compliance with the law, and adherence to appropriate procedures," has resulted in an intolerable risk of substantial, superadded suffering due to execution maladministration. Compl. ¶¶ 684–91. In Defendants' first Motion to Dismiss, they argued that Claim 1.2 should be dismissed as "too speculative." This Court correctly rejected that argument. Order of May 15, 2025 at 18–21. In

Defendants' untimely second Motion to Dismiss, they raise the exact same argument again—justified, supposedly, by the fact that they believe that the law has changed favorably toward their position.

Even if that were true—which Plaintiffs will dispute—any change in the law is miniscule compared to the relevant changes in the underlying facts. While Plaintiffs dispute that their claims were ever "too speculative," they acknowledge that, when they filed their Complaint, no one knew, with certainty, how the 2025 Lethal Injection Protocol would hold up in practice. Now, however, the truth is unmistakable: the 2025 Lethal Injection Protocol has led to multiple actual botched executions, including what was arguably the most egregiously and torturously botched execution by lethal injection in American history.

Defendants have attempted to execute three people in 2026. One of those individuals—the already critically ill Darrell Hines—was killed by Defendants on August 13, 2026. Both other attempts were disastrous failures—with Defendants torturing, but failing to kill, both Tony Carruthers and Christa Pike before returning the former to the population of death row and relinquishing the latter to a hospital to be treated for the injuries she suffered at the hands of Defendants' execution team. The specific failures that Mr. Carruthers and Ms. Pike endured were predicted, in detail and at length, in Claim 1.2. *See* Att. 3 (Excerpts from Complaint). As described in the PSC, multiple other executions included overt errors and/or signs of distress during administration of the killing poison. Nevertheless, Defendants have sought, through their untimely Motion to Dismiss, to have Claim 1.2 dismissed on the

improbable ground that those actually-realized concerns are too "speculative" to support a claim. *See* Motion to Dismiss at 1; Memorandum in Support of Motion to Dismiss at 1, 3, 5–8.

Plaintiffs had reasonably presumed that the details set out in the PSC could be addressed in connection with motions for summary judgment or at trial. However, insofar as Defendants are going to be permitted yet another bite of the apple in terms of attempting to resolve this case on the pleadings, Plaintiffs should be permitted to supplement those pleadings to include the relevant facts, including, in particular, the fact that Plaintiffs' supposedly speculative concerns have now resulted in the torture of at least two individuals and that Defendants have failed in two of the last three attempted executions.

C. Remaining relevant factors

Plaintiffs have sought no prior amendments or supplementation, have engaged in no bad faith, have not been in any way dilatory, and seek only to plead allegations directly relevant to claims already pending before the Court. Defendants would experience no meaningful hardship from this supplementation and, insofar as they might face some minor inconvenience, it would be entirely occasioned by (1) Defendants' own decision to file an untimely Motion to Dismiss without honoring this Court's express provisions for seeking relief from the scheduling order and (2) Defendants' own insistence on calling risks "speculative" even after those risks have been fully realized.

D. Effect of Supplemental Complaint on trial date

Plaintiffs do not believe that the filing of the PSC will, in and of itself, have a meaningful effect on the current February 22, 2027 trial date, because all of the facts pleaded in the PSC will be relevant to the claims at issue whether or not supplementation is granted. Plaintiffs believe that there are substantial obstacles to proceeding on February 22, 2027, but those obstacles stem from the occurrence of recent factual developments, not the scope of the pleadings. It is a matter of blackletter law that a Complaint need not include "all the facts giving rise to the claim," let alone all of the evidence on which a plaintiff will rely. *Webb v. Nashville Area Habitat for Human., Inc.*, 346 S.W.3d 422, 427 (Tenn. 2011) (quoting *Abshure v. Methodist Healthcare–Memphis Hosps.*, 325 S.W.3d 98, 103 (Tenn. 2010)); *see In re Healthways, Inc. Derivative Litig.*, No. M2009-02623-COA-R3CV, 2011 WL 882448, at *11 (Tenn. Ct. App. Mar. 14, 2011) (stating that a plaintiff "is not required to plead evidence") (citation omitted). The evidence of TDOC's mishandling of executions will be relevant to this case regardless of whether supplementation is granted. The potential need for any delay will be a feature of the recency of important evidence and the fact that discovery is not yet concluded, not the outcome of this Motion.

IV. Conclusion

For the foregoing reasons, this Motion should be granted, and any ruling on the Motion to Dismiss should be made with the benefit of the facts set out in the PSC.

CERTIFICATE OF CONSULTATION

The parties met and conferred regarding the subject matter of this motion on October 20, 2026. Counsel for Defendants indicated that they were unwilling to support the Motion for Leave unless granted prior review of the PSC in full. Counsel for Plaintiffs explained that the PSC was in the process of being written but conveyed its contents, including by reference to prior briefing touching on many of the same facts. The parties continued to be unable to reach an agreement.

NOTICE OF HEARING

Plaintiffs hereby give notice pursuant to Local Rule 26.05 that this Motion will be heard **Friday, Nov. 6, 2026, at 9:00 AM. Failure to file and serve a timely written response will result in the motion being granted without further hearing.**

Respectfully submitted this the 22nd day of October, 2026.

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Counsel for Plaintiff

CERTIFICATE OF SERVICE

I, Elijah W. Swiney, certify that on October 22, 2026, a true and correct copy of the foregoing was served via email and the Court's electronic filing system to opposing counsel, John W. Ayers, Assistant Attorney General. Video exhibits to the Proposed Supplemental Complaint were served only by email.

/s/ Elijah W. Swiney
Elijah W. Swiney

ATTACHMENT 1

FILED
2025 DEC 22 AM 10: 06
CLERK & MASTER
DAVIDSON CO. CHANCERY CT.
2:30 P.M.

IN THE CHANCERY COURT OF DAVIDSON COUNTY, TENNESSEE
TWENTIETH JUDICIAL DISTRICT PART IV

KEVIN BURNS, et. al, *Plaintiffs,* v. FRANK STRADA, et. al, *Defendants.*	)	CAPITAL CASE No. 25-0414-IV Chancellor Russell Perkins

[PROPOSED] SUPPLEMENTAL COMPLAINT

I. SUPPLEMENTAL FACTUAL ALLEGATIONS

A. Defendants failed to install an EKG printer for Oscar Smith's execution on May 22, 2025.

1. The Tennessee Department of Correction ("TDOC") Lethal Injection Execution Protocol finalized on January 8, 2025 ("2025 Protocol") requires that a person being executed be consistently monitored by an electrocardiograph.[1] Ex. 1 (2025 Protocol) at 20.

2. The 2025 Protocol tasks the IV Team with "confirm[ing] that the electrocardiograph is functioning properly." *Id.*

3. During a deposition on November 17, 2025, Warden Nelsen testified that members of the Special Operations Team are responsible for setting up the

[1] An electrocardiograph is the machine used to record the heart's electrical activity. An electrocardiogram (often abbreviated as "EKG" or "ECG") is the actual printed or digital readout produced by that machine.

electrocardiograph and ensuring that it is working properly. Ex. 2 (Nelsen Deposition) at 27.[2]

4. Plaintiff Oscar Smith was executed on May 22, 2025.

5. Mr. Smith was 75 years old at the time of his execution and suffered from several medical conditions, including heart failure and chronic kidney disease.

6. For at least part of Mr. Smith's execution, the media witnesses' view was obstructed by Mr. Smith's spiritual advisor, who was standing next to the gurney, between the Official Witness Room and Mr. Smith. Ex. 3 (Smith Post-Execution Press Conference).

7. Mr. Smith did not have an autopsy.

8. On October 20, 2025, Defendants informed Plaintiffs' counsel that no printout of Mr. Smith's EKG exists—either because the electrocardiograph was not loaded with paper or because of some other technical difficulty. *See* Ex. 4 (Decl. of Ben Leonard).

9. During a deposition on November 13, 2025, TDOC General Counsel Jennifer Brenner confirmed that Defendants had failed to install a printer on their electrocardiograph prior to Mr. Smith's execution. Ex. 5 (Brenner Deposition Excerpt) at 113.

10. Ms. Brenner testified that a printer was installed prior to the execution of Byron Black on August 5, 2025. *Id.* at 113, 117.

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[2] The transcript of Warden Nelsen's deposition was mislabeled "attorneys' eyes only." The parties have conferred and have agreed that the reporter can remove the label. Once the erroneous designation is removed, Plaintiffs will file this exhibit with the Court.

11. Ms. Brenner testified that the printer component prints out EKG data simultaneously with the execution. *Id.* at 118.

12. Ms. Brenner described the purpose of the electrocardiograph as a "tool for the doctor to use if he or she desires." *Id.* at 118–119, 122.

B. Defendants botched the execution of Byron Black on August 5, 2025.

13. Defendants executed Plaintiff Byron Black on August 5, 2025.

14. Mr. Black was 69 years old at the time of his execution and suffered from chronic health issues—including end-stage kidney failure, prostate cancer, and congestive heart failure, requiring an implantable cardioverter-defibrillator ("ICD").

15. To undersigned counsel's knowledge, Defendants did not deactivate Mr. Black's ICD before injecting him with lethal chemicals.

16. It took TDOC's IV Team several attempts and approximately 10 minutes to set Mr. Black's peripheral IV lines. Ex. 6 (Black Post-Execution Press Conference).

17. Media witnesses reported that, during the execution, Mr. Black raised his head, groaned, breathed deeply, and audibly stated, "I can't do this," and "[i]t hurts so bad." *Id.*

18. Several media witnesses described seeing Mr. Black exhibiting signs of distress. And media witness Steve Cavendish stated, "I just wanted to speak up and say that it was unanimous among all of us that we saw [Mr. Black] in distress and we heard him in distress after the . . . administration of the pentobarbital had begun . . . several minutes afterwards." *Id.*

19. Mr. Black's autopsy report revealed pulmonary edema. Ex. 7 (Black Autopsy Report).

20. Under the 2025 Protocol, the execution physician is responsible for entering the Execution Chamber five minutes after the lethal chemicals have been administered to determine whether the person being executed has died. Ex. 1 (2025 Protocol) at 21.

21. In Tennessee, death is defined as the "(1) [i]rreversible cessation of circulatory and respiratory functions ["cardiopulmonary death"]; or (2) [i]rreversible cessation of all functions of the entire brain, including the brain stem ["brain death"]." Tenn. Code Ann. § 68-3-501.

22. Tennessee law requires that "[a] determination of death must be made in accordance with accepted medical standards." *Id.*

23. Brain death cannot be legally declared anywhere in the United States if there are barbiturates or other brain-suppressing toxins present in the persons' bloodstream. *See* Ex. 8 (Dr. Van Norman Expert Report) at 36.

24. TDOC must therefore declare death in pentobarbital executions using cardiopulmonary death criteria, not brain death criteria. *See id.*

25. Cardiac arrest does not become irreversible in most people for at least four-and-a-half minutes after the last heartbeat. Clinical guidelines therefore call for physicians to listen and observe for at least a full five minutes after suspected cardiac arrest before declaring death. *See id.* at 37.

26. Under the 2025 Protocol, if the Physician determines that the person being executed is not dead, TDOC must administer a second dose of pentobarbital (another five grams). Ex. 1 (2025 Protocol) at 21.

27. Mr. Black's time of death was declared by Physician A at 10:43 AM—one minute after Physician A entered the Execution Chamber. Ex. 6 (Black Post-Execution Press Conference).

28. Mr. Black's EKG printout, however, showed continuous cardiac electrical activity until the time the EKG was terminated at 10:44:54 AM—nearly two minutes after Mr. Black was declared dead. Ex. 8 (Dr. Van Norman Expert Report) at 37; Ex. 9 (Redacted Physician A Deposition) at 59.

29. When undersigned counsel presented a copy of Mr. Black's EKG printout to Physician A during his deposition on October 27, 2025, Physician A testified that the EKG showed "sinus rhythm" until 10:44:54 AM on the strip. Ex. 9 (Redacted Physician A Deposition) at 50.

30. Dr. Gail Van Norman, a cardiothoracic anesthesiologist, has opined that Mr. Black's EKG printout "reveals that [his] heart was showing normal sinus rhythm for at least 2 minutes after the physician declared him to be dead—and probably much longer, since 2 minutes after the declaration, while electrical activity of the heart was still regular and within a normal heart rate range of 60, the ECG printer was simply turned off." Ex. 8 (Dr. Van Norman Expert Report) at 37.

31. During his deposition, Physician A admitted that he did not consult the EKG when declaring Mr. Black dead, even though he was aware that there was an EKG monitor being used. Ex. 9 (Physician A Deposition) at 54, 63.

32. Nevertheless, Physician A testified that "[i]f there had been a pulse, I'd have found it" and "[i]f the heart was beating I'd have heard it." *Id.* at 60.

33. However, according to Dr. Van Norman, "[a]dministration of pentobarbital during lethal injection executions . . . can interfere with feeling a pulse," "because it lowers blood pressure." Ex. 8 (Dr. Van Norman Expert Report) at 37.

34. Moreover, according to Dr. Van Norman, a large dose of pentobarbital "can cause heart sounds to be very soft or even inaudible, while cardiac activity is still present." *Id.*

35. Dr. Van Norman has opined that "it is well known that in many instances, a heartbeat cannot be heard in many patients, particularly if blood pressure is low, as it would have been after injection of pentobarbital." *Id.* at 38.

36. During his deposition, Physician A admitted that he did not reposition or remove any of the straps over Mr. Black's chest when listening for heart sounds. Ex. 9 (Deposition of Physician A) at 43.

37. Indeed, a photograph of Mr. Black after he was declared dead shows Mr. Black lying on the gurney, with his shirt and chest-restraints undisturbed over his chest.

38. Dr. Van Norman reviewed this photograph and stated that "[c]risscrossing [Mr. Black's] chest over the top of his clothing, and appearing to cover all of the five critical points for cardiac auscultation are thick, black restraining straps, still buckled together over a shirt or gown." Ex. 8 (Dr. Van Norman Expert Report) at 38.

39. According to Dr. Van Norman, "[i]t would have been impossible to hear heart sounds at all through the straps, even if heart sounds had been present." *Id.*

40. Thus, Dr. Van Norman concluded that "[i]n my expert opinion, Mr. Black had clearly not shown irreversible cessation of all cardiac function at the time his death was declared, and the declaration of death did not meet medical or legal criteria." *Id.* at 38–39. "In my expert opinion, . . . the declaration of death occurred while Byron Black was still alive." *Id.* at 5.

C. Harold Wayne Nichols appeared to be in distress during his execution on December 11, 2025.

41. Defendants executed Harold Wayne Nichols on December 11, 2025.

42. Mr. Nichols was 64 years old at the time of his execution.

43. During the execution, media witnesses reported that Mr. Nichols made loud breathing sounds, sighed, groaned, grunted, and made congested/snoring sounds. Witnesses also reported that Mr. Nichols's chest went up and down repeatedly and that his face turned purple. Ex. 10 (Nichols Post-Execution Press Conference).

44. Mr. Nichols's autopsy report suggests pulmonary edema. Ex. 11 (Nichols Autopsy Report).

D. Defendants botched the attempted execution of Tony Carruthers on May 21, 2026.

45. On Wednesday, May 21, 2026, members of TDOC's IV Team tried and failed for approximately 30 minutes to establish a secondary peripheral IV line in Tony Carruthers—puncturing Mr. Carruthers six to seven times in his left arm and hand. *See* Ex. 12 (Decl. of Maria DeLiberato) at 2–3.

46. Under the 2025 Protocol, if the IV Team is unable to establish peripheral IV access, the execution physician may to attempt to "establish[] central line IV access if necessary." Ex. 1 (2025 Protocol) at 8.

47. The 2025 Protocol does not provide for the execution physician to assist the IV Team with peripheral IV catheterization. Ex. 1 (2025 Protocol) at 8, 20.

48. Nevertheless, TDOC officials apparently called upon their execution physician, Physician A, to assist the IV Team with peripheral IV catheterization, or failed to stop Physician A when he intervened prematurely of his own accord. Ex. 12 (Decl. of Maria DeLiberato) at 3.

49. Upon entering the Execution Chamber, Physician A identified himself by name and proceeded to direct the IV Team's efforts to obtain peripheral IV access in Mr. Carruthers's feet. *Id.*

50. Concerned about the already harrowing ordeal that Mr. Carruthers was being forced to endure, Ms. DeLiberato asked to use a phone. *Id.*

51. Warden Nelsen and the lawyer with the Attorney General's office who were present in the Execution Chamber both had cellphones on them. However, neither offered to let Ms. DeLiberato use their phone. *Id.*

52. TDOC likewise refused to allow Ms. DeLiberato to use a wall phone in the Execution Chamber itself or the one in the adjoining Official Witness Room, *id.*, despite the fact that during his deposition on November 17, 2025, Warden Nelsen testified that an attorney-witness would be allowed to use a phone in the Execution Chamber, if needed. Ex. 2 (Nelsen Deposition) at 44–46.

53. The Warden's secretary then began looking for a phone that Ms. DeLiberato could use. Ex. 12 (Decl. of Maria DeLiberato) at 3.

54. Eventually, she escorted Ms. DeLiberato to the Death Watch Area. *Id.*

55. When they arrived, the phones in the Death Watch Area were not plugged in. *Id.*

56. The Warden's secretary proceeded to plug in a phone while Ms. DeLiberato waited. *Id.*

57. During this time, Ms. DeLiberato could not hear or see Mr. Carruthers. *Id.*

58. Once the phone was working, Ms. DeLiberato called Mr. Carruthers's other attorneys, undersigned counsel, who informed her that TDOC was allowed to attempt to place a central line. *Id.*

59. When Ms. DeLiberato returned to the Execution Chamber approximately ten minutes after she left, Physician A and the IV Team were still trying to obtain peripheral IV access in Mr. Carruthers's left foot. *Id.*

60. Mr. Carruthers was wincing during these efforts and seemed to be in pain. *Id.*

61. Physician A then announced that he was going to place a central line. *Id.*

62. Physician A first attempted to place a central line in Mr. Carruthers's jugular vein. He asked whether any of the members of the IV Team had experience with jugular access and one of the members said that they did. *Id.*

63. Physician A and the IV Team member then assessed Mr. Carruthers's neck using an infrared vein finder (a device which cannot, in fact, be used to locate the internal jugular vein). *Id.*; Ex. 13 (Decl. of Dr. Van Norman) at 6.

64. After the IV Team member who had volunteered expressed his misgivings about attempting the jugular placement, they abandoned this effort. Ex. 12 (Decl. of Maria DeLiberato) at 3.

65. Physician A then attempted to set a central line in Mr. Carruthers's chest—specifically his subclavian vein (under the right collar bone). *Id.* at 4.

66. Before proceeding with the insertion, Physician A asked if Mr. Carruthers was allergic to lidocaine. *Id.* at 4.

67. No one in the room knew the answer. *Id.*

68. Physician A nevertheless injected Mr. Carruthers's shoulder with lidocaine and proceeded to wait five minutes for the lidocaine to take effect. *Id.*

69. Ms. DeLiberato used this opportunity to call Mr. Carruthers's other attorneys, undersigned counsel—again from a phone in the Death Watch Area. *Id.*

70. Undersigned counsel informed Ms. DeLiberato that they had deposed Physician A and that Physician A was not qualified to place a central line. *Id.*

71. Ms. DeLiberato returned to the Execution Chamber, where she objected to Physician A's attempts to place a central line in Mr. Carruthers, arguing that he was insufficiently qualified. *Id.*

72. Physician A snapped back that he *was* qualified, and Warden Nelsen directed him to proceed with his attempts. *Id.*

73. Physician A then poked Mr. Carruthers with a needle in the area where he had administered the lidocaine and asked Mr. Carruthers if it hurt. Mr. Carruthers replied that it did. *Id.*

74. However, instead of administering a second dose of lidocaine, as is the proper standard of care, Physician A proceeded with his attempts to place the subclavian central line. *Id.*

75. According to Ms. DeLiberato, Mr. Carruthers groaned in pain during these attempts and said, "it hurts, it hurts." *Id.*

76. Later, a tearful Mr. Carruthers told Ms. DeLiberato that Physician A "was hurting me and he knew he was hurting me." *Id.* at 6.

77. At 11:40 AM, after over an hour of failed IV catheterization attempts—wherein Mr. Carruthers was subjected to over a dozen puncture wounds, potential internal injuries, extreme terror, pain, and humiliation—Governor Bill Lee intervened to stop the execution and granted Mr. Carruthers a one-year reprieve. *Id.* at 5; Ex. 14 (Carruthers Reprieve).

78. On information and belief, TDOC never consented to the examination of Mr. Carruthers's injuries by an independent physician.

E. Mr. Carruthers's attempted execution was botched, in part, due to TDOC's reckless reliance on unqualified personnel.

79. As noted, TDOC's execution physician is or was "Physician A"—an individual whose identity is known to the parties, this Court, and the public due to Defendants' and Physician A's repeated disclosures.

80. Physician A was deposed in this litigation on October 27, 2025.

81. During that deposition, Physician A seemed unaware that the 2025 Protocol required him to be able to set a central line, until that requirement was pointed out to him by undersigned counsel:

> Q. Okay. Can you tell me what you believe your role to be under that protocol as the physician?
>
> A. Certify the death of the inmate.
>
> Q. Okay. Anything else?
>
> A. That's it.
>
> MR. BRAZER: . . . [Physician A], I'm directing you to Page 8 of the 2025 Lethal Injection Protocol. . . . [Physician A], would you mind reading the paragraph under the word physician on Page 8?
>
> A. "The physician is responsible for determining that the inmate is deceased using acceptable -- acceptable medical standards and establishing central IV access if necessary."

Ex. 9 (Redacted Deposition of Physician A) at 29.

82. Physician A—having apparently learned for the first time that the State of Tennessee was expecting him to be capable of setting a central line—testified that he had not done so since 2013 and had only performed the procedure about a dozen times. *Id.* at 32.

83. Physician A also testified that he had never used an ultrasound to place a central line, which is the standard of care. *Id.* at 31; Ex. 13 (Decl. of Dr. Van Norman) at 37.

84. Physician A testified that he had only used the subclavian approach—a method that is associated with significantly higher severe vascular and thoracic

complications. Ex. 9 (Redacted Deposition of Physician A) at 29; Ex. 13 (Decl. of Dr. Van Norman) at 5.

85. Physician A admitted that during one of his previous central line placements, he placed a guidewire into the carotid "vein." Ex. 9 (Redacted Deposition of Physician A) at 32.

86. There is no blood vessel known as the "carotid vein."

87. After reviewing Physician A's deposition transcript, Dr. Van Norman testified that Physician A must have meant the "carotid artery." Ex. 13 (Decl. of Dr. Van Norman) at 5.

88. As Dr. Van Norman explained, placing a guidewire in the carotid artery "is an injury to a 'great vessel,' and is considered a major vascular complication that by itself can cause stroke and death." Ex. 13 (Decl. of Dr. Van Norman) at 5.

89. Dr. Van Norman has placed more than 5,000 central lines over the course of her career and had privileges to do so at the University of Washington Medical Center for over 35 years. Ex. 13 (Decl. of Dr. Van Norman) at 3.

90. For approximately 10 years, Dr. Van Norman oversaw the granting of privileges at the University of Washington Medical Center to place central lines. *Id.*

91. Dr. Van Norman testified that "[d]ue to the special skills needed for central line placement, healthcare systems (including the University of Washington Medical Center) now generally require proof that a practitioner has both appropriate training in central line placement and also recently demonstrated competency in the procedure." *Id.* at 3–4.

92. She explained that "[b]y requiring that providers have recent, demonstrated competency in central line placement (in addition to appropriate training), healthcare systems minimize the risk that patients will suffer complications during central line placement due to the provider's lack of continued proficiency." *Id.* at 4.

93. Dr. Van Norman testified that, having not placed a central line in at least thirteen years, "Physician A does not have the current experience or training that would be required to obtain or retain privileges to place central lines at many, if not most, major healthcare institutions today." *Id.* at 5.

94. She likewise testified that "Physician A's lack of sufficient qualifications to perform central line placement are evidenced by his actions on May 21, 2026, during the attempted execution of Tony Carruthers." *Id.*

95. Dr. Van Norman explained that during Physician A's failed attempts to establish a central line in Mr. Carruthers's subclavian vein, Physician A violated the standard of care by failing to use ultrasound guidance and by failing to place Mr. Carruthers in Trendelenburg position—an inclined position that mitigates the risks associated with subclavian vein catheterization. *Id.* at 6.

96. She also noted that Physician A's apparent attempt to locate Mr. Carruthers's internal jugular vein using an infrared vein finder (which cannot be used for that purpose) evinces his lack of knowledge and experience. *Id.*

97. Thus, Dr. Van Norman concluded that "[b]ased on Ms. DeLiberato's recitation of Physician A's actions and his ultimate failure to establish central IV

access, as well as the representations that Physician A made during his deposition about his lack of recent experience in central line placement, it is my professional and ethical opinion that Physician A lacks the competency to place central lines of any kind, and that he should not have attempted to place a central line in Mr. Carruthers." *Id.* at 6.

F. In the wake of the Carruthers botch, Defendants ignored calls to pause executions and to review Tennessee's execution protocol.

98. In a letter to Governor Lee, dated June 25, 2026, Tennessee Republican lawmakers called for "a full accounting of how the [execution] personnel involved were selected, what credentials they held, and whether they were qualified to perform the procedures the protocol requires." Ex. 15 (Tennessee Senators' Letter) at 2.

99. They likewise called on Defendants to "[c]orrect every deficiency that review identifies—including independent testing of the execution drugs for potency, sterility, and contamination, written confirmation that the drugs are not expired, and verification that all personnel are properly qualified—*before* the State attempts another execution." *Id.* (emphasis added).

100. Defendants and Governor Lee ignored similar calls from a group of over 40 Tennessee medical professionals, who signed a letter in July 2026 asking Governor Lee to "put a halt to executions in Tennessee until TDOC demonstrates it has made the significant reforms needed to ensure these problems do not continue." Ex. 16 (Tennessee Medical Professionals' Letter) at 2.

101. Instead, Defendants chose to recklessly charge forward with executions, without—to Plaintiffs' knowledge—correcting any deficiencies in the 2025 Protocol or replacing any execution team personnel, including Physician A.

G. Darrell Hines appeared to be in distress during his execution on August 13, 2026.

102. On August 13, 2026, Defendants executed Plaintiff Anthony Darrell Hines.

103. Mr. Hines was 66 years old at the time of his execution and in extremely poor health—having suffered two strokes in December 2025 and January 2026, which were not appropriately treated. *See* Ex. 17 (Decl. of Dr. Nadkarni).

104. During his execution, media witnesses reported that Mr. Hines let out a loud groan, made coughing/gurgling sounds, took labored breaths, and that his face turned purple. Ex. 18 (Hines Post-Execution Press Conference).

105. According to one media witness, Karen Aguilar with Fox17 News, Mr. Hines sounded "as if he was in pain." *Id.*

106. Later that day, Physician A spoke to the press and confirmed that he was the physician for Mr. Hines's execution and that he would also be the physician for Christa Pike's execution. Ex. 19 (Erik Ortiz & Abigail Brooks, *Doctor involved in past failed Tennessee execution participates in Anthony 'Darrell' Hines' lethal injection*, NBC News (Aug. 13, 2026)); Ex. 20 (Sydney Keller et al., *Doctor who oversaw failed Tennessee procedure to handle Christa Pike's execution*, Fox17 (Aug. 14, 2026)).

107. Mr. Hines did not have an autopsy.

H. Defendants botched the attempted execution of Christa Pike on September 30, 2026.

108. On September 30, 2026, TDOC tried and failed for over two hours to kill Christa Pike.

109. TDOC's IV Team punctured her with nearly a dozen needles and their Special Operations Team Leader injected her with approximately 400 mL of fluid, including two doses of pentobarbital (10 grams total). *See* Ex. 21 (Decl. of Randy Spivey) at 4–6; Ex. 1 (2025 Protocol) at 21, 27–30.

110. Remarkably, Ms. Pike survived—making her the only person in the modern era of capital punishment to survive the administration of lethal chemicals. *See* Ex. 22 (Death Penalty Information Center Statement) at 1.

111. This attempted execution has been described by subject matter experts as the worst botched attempted execution in the modern history of the death penalty. *See, e.g., id.*

112. As with the Carruthers botch, the problems during Ms. Pike's attempted execution began with IV catheterization.

113. TDOC's IV Team struggled for nearly an hour to obtain peripheral IV access in Ms. Pike, Ex. 21 (Decl. of Randy Spivey) at 2–5, likely due to Ms. Pike's small veins and the IV Team's demonstrated incompetence.

114. According to Ms. Pike's attorney-witness, Randy Spivey, the IV Team members indicated several times that they had established a patent (meaning an open, clear, and functioning) line in Ms. Pike's left arm, only to discover they had not. *Id.*

115. At no point did the execution physician attempt to place a central line, notwithstanding these peripheral access difficulties. *Id.*

116. Even before the first dose of pentobarbital was administered, there were clear signs that Ms. Pike's IV lines were not properly placed.

117. Members of the execution team in the Lethal Injection Room—likely including the Special Operations Team Leader, who is responsible for pushing the 50 mL saline and 50 mL pentobarbital syringes into tubing that runs through the wall and into the IV catheters, *see* Ex. 1 (2025 Protocol) at 21—called into the Execution Chamber several times to ask members of the IV Team to check Ms. Pike's left IV line. Ex. 21 (Decl. of Randy Spivey) at 4–5.

118. According to Mr. Spivey, the execution team members in the Lethal Injection Room seemed to be having difficulty pushing saline through the IV lines. *Id.* at 5.

119. Nevertheless, Mr. Spivey reports that the Warden described the problem as "positional" and due to the fact that the line was taped "too tight." *Id.*

120. We do not yet know what time the Special Operations Team Leader actually began injecting the pentobarbital solution into Ms. Pike's IVs.

121. At 7:26 PM, the curtain covering the Official Witness Room's window into the Execution Chamber was opened. *Id.*

122. Mr. Spivey reports that at 7:29 PM, Ms. Pike began "sighing" a lot. *Id.*

123. At 7:34 PM, Ms. Pike stated that she felt like her arm was "about to bust." *Id.*

124. Ms. Pike said that one spot on her arm was "really burning." *Id.*

125. At 7:41 PM, a white "rock" was placed in the port between the Lethal Injection Room and Execution Chamber. *Id.* at 6.

126. The placement of this "rock" signals that the lethal injection chemicals have been fully administered. Ex. 2 (Nelsen Deposition) at 38–39.

127. While discovery will be needed to ascertain the exact times the lethal chemicals were administered, it appears that it took the Special Operations Team Leader anywhere from 7 to 15 minutes to fully administer Primary Syringe Set A.

128. Ms. Pike was still talking with her spiritual advisor several minutes after the lethal injection chemicals were fully administered. Ex. 21 (Decl. of Randy Spivey) at 6.

129. At 7:44 PM, Ms. Pike's breathing was obviously labored. *Id.*

130. At 7:46 PM, Ms. Pike began making an agitated snoring sound. *Id.*

131. TDOC then closed the curtains to the Official Witness Room, cutting off the witnesses' view. *Id.*

132. Per the 2025 Protocol, the execution physician then presumably entered the Execution Chamber to determine if Ms. Pike was deceased. *See* Ex. 1 (2025 Protocol) at 21.

133. During this time, the witnesses in the Official Witness Room could all clearly hear Ms. Pike struggling to breathe. Ex. 21 (Decl. of Randy Spivey) at 6.

134. Obviously, then, Ms. Pike was not dead. And yet, it took TDOC at least three minutes to reopen the curtains. *Id.*

135. At 8:01 PM, a white rock was placed in the Lethal Injection Room port a second time—indicating that the back-up set of syringes (including another five-gram dose of pentobarbital) had been administered. *Id.*; Ex. 1 (2025 Protocol) at 28.

136. At 8:03 PM, Mr. Spivey noticed that Ms. Pike's right arm appeared to be purple below the elbow. Ex. 21 (Decl. of Randy Spivey) at 6.

137. Ms. Pike's snoring/choking seemed to get louder, and she made rhythmic gasping sounds, with her stomach moving up and down. *Id.*

138. At 8:05 PM, TDOC closed the curtains again. *Id.*

139. For the next hour, Mr. Spivey and the media witnesses sat in the dark, listening to Ms. Pike as she struggled to breathe. *Id.* at 6–7.

140. When Mr. Spivey asked for a phone to call his co-counsel at 8:15 PM, his access was impeded. *Id.* at 7.

141. Rather than allow Mr. Spivey to use the phone in the Official Witness Room—which he had been permitted to use to call out of the prison earlier that day—TDOC insisted on taking Mr. Spivey along a circuitous route to a phone near the Death Watch Area. *Id.*

142. Mr. Spivey and his escort were forced to traverse approximately five sallyports (i.e., remote-controlled locked doors) on their route to the phone, which caused the entire trip to take about seven minutes. *Id.*

143. Before leaving the Official Witness Room and upon returning, Mr. Spivey insisted to both the Warden's secretary and the Deputy Attorney General

witness that TDOC was not authorized under the Protocol to give Ms. Pike a third dose of pentobarbital. *Id.*

144. After an agonizing hour of listening to Ms. Pike struggle to breathe, Mr. Spivey was informed at 8:50 PM that an ambulance was *en route* to the prison. *Id.*

145. However, the EMTs did not actually reach Ms. Pike until over a half an hour later—due to a communications breakdown between TDOC and Nashville's emergency services department. *See* Ex. 23 (Steve Mehling, *It took 35 minutes for first responders to reach Christa Pike after a 911 call; the reason why is a verification code the caller didn't know*, WSMV (Oct. 13, 2026)).

146. Recent reporting indicates that someone at Riverbend Maximum Security Institution—where Ms. Pike's attempted execution took place—called 911 for an ambulance at 8:40 PM. *Id.*

147. However, the caller did not have a code needed to verify that the request was legitimate. *Id.*

148. First responders arrived outside of the prison checkpoint by 8:56 PM; however, they were not allowed entry. *Id.*

149. Dispatchers called the prison twice to verify the 8:40 PM call. They were told, at 8:59 PM, that the call was not legitimate. *Id.*

150. Shortly thereafter, corrections officers at the prison gate told emergency responders that the request was, in fact, real. *Id.*

151. The 911 call, however, was not validated until 9:11 PM, when dispatchers finally received the code from the prison. *Id.*

152. First responders were able to enter the prison at 9:15 PM.

153. Ms. Pike was transported out of the prison at 9:26 PM. *Id.*

154. She remained unresponsive, in critical condition, at a hospital for nearly a week before regaining consciousness on October 6, 2026. Ex. 24 (Emily Mae Czachor, *Christa Pike suffering from pneumonia, unable to move arms after botched execution, lawyers say*, CBS News (Oct. 8, 2026)).

155. Ms. Pike's attorneys had previously been told that Ms. Pike was brain-dead and expected her to be removed from life support. *Id.*

156. The extent of Ms. Pike's injuries is presently unknown to Plaintiffs' counsel. However, shortly after Ms. Pike regained consciousness, her attorneys reported that she had pneumonia, a blood clot, trouble swallowing, trouble walking, swollen hands, cognitive difficulties, and was unable to move her arms or hands, among other issues. *Id.*

157. During his deposition on November 18, 2025, Commissioner Strada refused to answer why the 2025 Protocol does not have any provisions for emergencies and contingencies during an execution. Ex. 25 (Strada Deposition Excerpt) at 89.

I. The repeal of Tenn. Code Ann. § 1-3-121 does not affect the cognizability of Plaintiffs' claims.

158. In April 2026, the Tennessee General Assembly repealed Tenn. Code Ann. § 1-3-121, a 2018 law that had briefly acknowledged an arguably expanded right to seek judicial review of official action in Tennessee.

159. However, that repeal did not extinguish Plaintiffs' causes of action, which continue to be cognizable pursuant to 42 U.S.C. § 1983, the Declaratory

Judgment Act, and Tennessee common and statutory law, pursuant to Plaintiffs' concrete and particularized injuries and against Defendants in their official capacities.

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CERTIFICATE OF SERVICE

I, Elijah W. Swiney, certify that on October 22, 2026, a true and correct copy of the foregoing was served via email to opposing counsel, John W. Ayers, Assistant Attorney General. Video exhibits to the Proposed Supplemental Complaint were served only by email.

/s/ Elijah W. Swiney
Elijah W. Swiney

EXHIBIT 1

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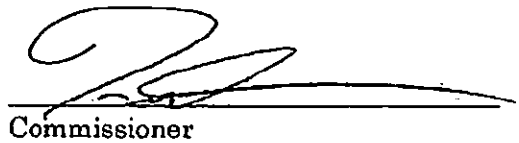
TENNESSEE DEPARTMENT OF CORRECTION

LETHAL INJECTION EXECUTION PROTOCOL

COMMISSIONER'S STATEMENT

The Tennessee Department of Correction ("the Department") is responsible for the incarceration of convicted felons serving sentences ranging from one year to death. Inmates sentenced to death are executed at Riverbend Maximum Security Institution ("RMSI").

As Commissioner of the Department, it is my duty to oversee the humane and constitutional execution of inmates sentenced to death in Tennessee. Tennessee law establishes lethal injection as the primary method for carrying out a death sentence and authorizes the Department to promulgate rules and regulations to facilitate executions by lethal injection. This Protocol will be reviewed as needed by me and/or my designee(s).



Commissioner

1-8-2025

Date

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I. INTRODUCTION

This Protocol summarizes the most significant events, Department procedures, and personnel responsibilities for carrying out the Tennessee Supreme Court's orders on executions by lethal injection. It will be used to ensure the humane and constitutional execution of inmates sentenced to death in Tennessee. There will be no deviation from this Protocol except by order of the Commissioner, when deemed necessary to effectuate the purpose of this Protocol.

II. PRIMARY RESPONSIBILITIES OF DEPARTMENT AND NON-DEPARTMENT PERSONNEL

CENTRAL OFFICE PERSONNEL

COMMISSIONER

The Commissioner is responsible for overseeing the administration of humane and constitutional executions in Tennessee.

[redacted]

[redacted] is responsible for the planning and overall direction of all pre-execution, execution, and post-execution activities.

[redacted]

[redacted] is responsible for notifying the inmate and the inmate's counsel of the execution date, obtaining a completed Affidavit for Method of Execution from the inmate, and serving as custodian of the Department's records related to executions in Tennessee.

PERSONNEL AT RMSI

WARDEN

The Warden is responsible for carrying out the directives of the Assistant Commissioner of Prison Operations to ensure that this Protocol is followed.

SPECIAL OPERATIONS TEAM

The Special Operations Team is responsible for preparing the lethal injection chemicals ("LIC") for administration.

RESTRAINT TEAM

The Restraint Team is responsible for inmate management immediately before, during, and after the execution, including the use of appropriate restraint procedures.

ESCORT TEAM

The Escort Team is responsible for coordinating the movement of all pre-approved witnesses.

[redacted]

NON-DEPARTMENT PERSONNEL

IV TEAM

The IV Team is responsible for establishing properly functioning IV lines for administration of the LIC.

PHYSICIAN

The Physician is responsible for determining that the inmate is deceased using accepted medical standards and establishing central line IV access if necessary.

CLERGY

Clergy, [redacted], may be approved in accordance with state law and Department policy to deliver chaplaincy services to the inmate and the inmate's family as requested.

III. COMPOSITION, SELECTION, AND TRAINING OF DEPARTMENT AND NON-DEPARTMENT PERSONNEL

COMPOSITION AND SELECTION OF THE EXECUTION TEAM

The Execution Team includes the following individuals and teams:

1. [redacted]

2. RMSI Warden.

3. Special Operations Team: consists of a team leader, two members and one alternate member. The team leader and members are selected by [redacted] with documented approval of the Commissioner.

4. Restraint Team: consists of a team leader, five other members, and two more alternate members. The team leader, members and alternate members are selected by [redacted] with documented approval by the Commissioner.

5. Escort Team: consists of a team leader and at least six other team members. The team leader and members are selected by the Warden.

SELECTION CRITERIA FOR MEMBERS OF THE EXECUTION TEAM

Members of the Execution Team are selected based on factors that include:

1. Length of service with the Department;
2. Job performance;
3. Professionalism;
4. Review of the individual's personnel file;
5. Staff recommendations;
6. Ability to maintain confidentiality;
7. Willingness to participate;
8. Any other relevant or specialized training related to the position.

SELECTION OF SPECIALLY TRAINED NON-DEPARTMENT PERSONNEL

Non-department personnel are selected for roles in the execution as follows:

1. IV Team: consists of at least two members who are either physicians, physician assistants, nurses, emergency medical technicians ("EMTs"), paramedics, military corpsman with relevant medical training, or other certified or licensed personnel including those trained in the United States Military. All team members are currently certified, licensed and/or qualified within the United States to place IV lines. IV Team members are selected by the Commissioner.

2. The Physician is selected by the Commissioner.

SELECTION CRITERIA FOR SPECIALLY TRAINED NON-DEPARTMENT PERSONNEL

Specially trained, non-department personnel are selected based on factors that include:

1. Education, training, and experience;

2. Professionalism;

3. Personal and professional recommendations;

4. Ability to maintain confidentiality;

5. Willingness to participate;

6. Any other relevant or specialized training related to the position.

PROTOCOL REVIEW, PRACTICE SESSIONS, AND SPECIALIZED TRAINING FOR EXECUTION TEAM MEMBERS

Review of the Lethal Injection Execution Protocol

1. After selection, the Execution Team, the IV Team, and the Physician must review this Protocol. This review is documented.

2. At least annually, the Warden or designee reviews the Protocol in its entirety with the Execution Team. This review is documented.

Monthly Practice Sessions

[redacted] ensures that monthly practice sessions are conducted. Practice sessions are attended by the Warden, the Special Operations Team, the Restraint Team, and the Escort Team. These regular practice sessions include simulations of all steps of the execution process beginning 2 hours before the execution, with the following exceptions:

1. Volunteers play the role of the inmate and the Physician.

2. No IV is inserted into the person playing the role of the inmate.

3. Saline solution is substituted for the LIC.

4. A body is not placed in a body bag.

Additional Pre-Execution Practice Sessions

Additional practice sessions are held at least twice weekly starting two weeks before a scheduled execution. Attendance of all practice sessions during this period is required absent illness or other unavoidable circumstances.

Documentation of Practice Sessions

All practice sessions are documented with the date and time, as well as the printed names and signatures of all participants.

Specialized Training for Department Personnel

Members of the Special Operations Team receive training in vascular access/IV therapy by a qualified third party. Updated training is conducted annually.

CHEMICALS USED IN LETHAL INJECTION

The Department uses the following LIC for executions by lethal injection:

Pentobarbital **100 ml of a 50 mg/ml solution (a total of 5 grams)**

The Department will procure a sufficient supply of LIC to be used in lethal-injection executions. The LIC is subject to quality assurance and quality control testing. The Department will follow recommended guidelines for safe transportation and storage of LIC.

LIC will be secured [redacted]

[redacted] and RMSI Warden will conduct a semi-annual inventory of the container to verify its contents and the expiration dates of LIC. An additional inventory will be conducted 30 days before a scheduled execution. All inventories will be conducted by a minimum of two persons and documented in the log. If an inventory reveals expired LIC, appropriate disposal will occur.

[redacted]

IV. PROCEDURES BEGINNING 30 DAYS BEFORE EXECUTION

30 Days before the Day of Execution

I. Central Office Personnel

A. [redacted]

1. Reviews documentation of training.

2. Confirms team leaders and members with documented approval by the Commissioner.

3. Sets pre-execution practice schedule.

4. Confirms that equipment inventory is completed and that any needed maintenance occurs.

5. Verifies and documents with the Warden the LIC to be used, including its quantity and expiration date.

B. Communications: Issues a news advisory about the date and time of the execution.

C. Office of Victim Services: Identifies family members of the victim(s) of the crime(s) for which the inmate was sentenced to death and advises them of the scheduled date and time of the execution.

II. RMSI or Debra Johnson Rehabilitation Center ("DJRC") Personnel

Warden:

1. Collects the Affidavit For Method of Execution from the inmate (if applicable) and provides copies to the Commissioner and [redacted] (See Appendix, p. 25).

2. Provides to the inmate the Affidavit to Select Defense Counsel Witness to Execution and Affidavit to Select Member of Clergy Preparing Inmate for Death. (See Appendix, p. 26).

3. RMSI Warden verifies and documents with the [redacted] the LIC to be used, including the quantity and expiration date.

4. RMSI Warden confirms that equipment inventory is completed and that any needed maintenance occurs.

5. Notifies the inmate about changes to the conditions of confinement over the next 30 days.

21 Days before the Execution

Central Office Personnel

Communications:

1. Receives media-witness applications, initiates background investigations on the applications, and advises the Commissioner of any issues arising from the investigations.

2. Sends witness agreement forms (Official Witness Agreement Form, Official Witness/Pool Reporter Agreement Form) to selected witnesses and establishes a deadline to return all completed forms.

14 Days before the Execution

I. Central Office Personnel

A. [redacted]

1. Directs the initiation of the Continuous Observation Logs, which record all daily activities of the inmate beginning 14 days before the execution. The logs are maintained at each post where the inmate is located until the execution occurs or a stay of execution is issued.

2. Directs the initiation of the final practice schedule.

B. [redacted]

Finalizes a list of all witnesses and prepares written invitations.

II. RMSI or DJRC Personnel

Warden:

1. Confirms receipt of Affidavit to Select Defense Counsel Witness to the Execution and Affidavit to Select Member of Clergy Preparing Inmate for Death.

2. Directs the transfer of the inmate to a cell for enhanced monitoring.

3. RMSI Warden finalizes arrangements with the [redacted] for disposition of the inmate's body.

4. RMSI Warden confirms maintenance staff are scheduled to be at RMSI at least 4 hours before the scheduled execution.

48 Hours before the Execution

I. Central Office Personnel

[redacted]

1. Confirms adequate staffing and vehicles are in place for regular operations and the execution.

2. Ensures that each room in the Capital Punishment Unit receives final inspection specific to its functions. The Capital Punishment Unit includes, but is not limited to, the inmate's cell, contact and non-contact visitation areas, the control room, the secure monitoring area, execution chamber, and lethal injection room.

3. Oversees transfer of female inmate from DJRC to RMSI, if applicable.

II. RMSI Personnel

Warden:

1. Verifies inventory and functionality of equipment in the Capital Punishment Unit.

2. Oversees the transfer of the inmate to a cell in the Capital Punishment Unit.

12 Hours before the Execution

RMSI Personnel

Warden:

1. Ensures that access to RMSI during the 12 hours before the execution is limited to:

   a. On-duty Department personnel;

   b. On-duty contract workers;

   c. Volunteers deemed necessary by the Warden;

   d. Approved delivery vehicles;

   e. Law enforcement personnel on business-related matters;

   f. Approved witnesses (i.e. defense counsel, clergy, Attorney General's designee).

2. Initiates lockdown of RMSI that will continue through the duration of the execution.

3. Ensures the inmate concludes the last meal by 12:00 a.m. the night before the execution and that all eating utensils and leftover food are removed from the cell.

4. Ensures non-contact visits and phone calls—excluding visits and calls from the inmate's attorney of record—are concluded 12 hours before the scheduled execution unless expressly approved by the [redacted]

Day of Execution

8:00 a.m.

A. Commissioner or designee:

Provides a brief overview of the execution for the official witnesses.

B. Special Operations Team:

1. Team Leader retrieves LIC with the Warden and/or [redacted]

2. Confirms that the phones in the execution chamber are operational.

3. Confirms that the camera used to monitor the IV site is operational.

4. Team Leader prepares the syringes of saline and Pentobarbital which shall be labeled as follows:

CHEMICAL CHART	
Syringe	Label
1A	50 ml Sterile Saline Solution, BLACK
2A	50ml (50mg/ml solution) Pentobarbital, GREEN
3A	50ml (50mg/ml solution) Pentobarbital, GREEN
4A	50 ml Sterile Saline Solution, BLACK

Preparation of syringes occurs in the Lethal Injection Room.

a. One complete primary set ("Set A") of syringes is prepared and administered in carrying out the death sentence and an additional amount of LIC is available in the Lethal Injection Room for a backup set (Set "B"). Set B is only prepared if the inmate is not deceased after administration of Set A, applicable waiting period, and examination by the Physician.

b. The syringes are labeled, identifying the chemical contained in each syringe by (i) assigned number, (ii) chemical name, (iii) chemical amount and (iv) the designated color, as set forth in the chemical chart above. This information is preprinted on a label, with one label affixed to each syringe to ensure the label remains visible.

c. Once prepared, each syringe is placed into a designated tray in the order in which they are to be administered. The preparation of syringes is documented by a designated member of the Special Operations Team on the Chemical Preparation Time Sheet. (See Appendix p. 27).

5. After the Special Operations Team prepares the primary-Set A

syringes, the Special Operations Team prepares the IV lines for use by the IV Team. Each IV line consists of a sodium chloride bag, solution set, extension sets, and hemostatic clamps.

C. Escort Team:

1. Official witnesses report to the Administration Building no later than 8:30 a.m. They are greeted by the Escort Team, processed through checkpoint, and moved to the Administration Building conference room. Official witnesses are moved to the Parole Board Room in Building 8 no later than 9:45 a.m., where they remain until final movement to the official witness room.

2. Immediate family members of the victim(s) report to the Administration Building no later than 9:15 a.m. They are greeted by the Escort Team, processed through checkpoint, and moved to the conference room in Building 8 no later than 9:45 a.m., where they remain until final movement to the victim witness room.

3. The Escort Team processes, transports, and remains with the pre-approved official witnesses and victim witnesses through the conclusion of the execution and their return to designated staging areas and ensures that each witness group is always separated from the other groups.

4. [redacted] and the Physician are stationed in the capital punishment garage.

10:00 a.m.

1. At the command of the Warden, the Restraint Team removes the inmate from the holding cell, places him/her on the gurney, and secures him/her with restraints.

2. The Restraint Team moves the inmate to the execution chamber and secures the gurney. The Restraint Team secures the inmate's arms to arm extensions on the gurney. The Restraint Team confirms that the restraints are not so restrictive as to impede the inmate's circulation, yet sufficient to prevent the inmate from manipulating the catheter and IV lines.

3. The Warden, [redacted] Attorney General or designee, defense counsel witness and clergy, if requested, enter the execution chamber with the inmate.

4. Once the inmate is secured, the IV Team attaches the leads from the electrocardiograph to the inmate's chest. The IV Team confirms that the electrocardiograph is functioning properly. A backup electrocardiograph is on site and readily available, if necessary.

5. The IV Team determines the IV sites. The IV Team members insert a primary IV catheter and a backup IV catheter. The primary IV catheter is used to administer the LIC. The backup catheter is reserved in case the primary fails.

6. The Special Operations Team Leader ensures that the catheters are properly secured, properly connected to the IV lines, and out of reach of the inmate's hands. The Special Operations Team Leader opens the IV line to start a flow of sterile saline solution in each line and administers at a slow rate to keep the lines open. Any failure of an IV line shall be immediately reported to the Commissioner.

7. If necessary, the Physician will insert a central line.

8. The Escort Team secures official witnesses and victim witnesses in the appropriate witness rooms.

9. The Attorney General/designee, defense counsel witness, and any clergy member are escorted to the official witness room.

10. The camera and audio system are activated from the control room.

10:10 a.m.

1. The Warden and [redacted] open the blinds to the witness rooms.

2. The Warden contacts the Commissioner to ensure that no last-minute stay or reprieve has been granted.

3. The Warden asks the inmate if he/she wants to make a last statement.

4. The Warden gives the signal to proceed. The Special Operations Team Leader directs the assigned Special Operations Team Member to confirm the chemical name and order of syringes in the Primary Set A.

5. The Special Operations Team Leader administers all syringes in Primary Set A. In the event of a primary line failure with the first syringe of saline, the Special Operations Team Leader switches to the back-up IV line and administers the complete set of syringes.

6. After the four syringes in Primary Set A have been administered, the Special Operations Team Leader signals to the Warden at which time a 5-minute waiting period begins.

7. After the waiting period, all witness blinds are closed, the camera is disengaged, and the privacy curtains are closed. The Warden asks the Physician to enter the room to examine the inmate and determine if he/she is deceased. The Physician determines whether the inmate is deceased.

8. The Physician reports his findings to the Warden.

9. If the inmate is not deceased, a Backup Set B of syringes is prepared, the blinds are reopened, and steps 5 through 8 are repeated.

10. A designated member of the Special Operations Team will document all information contained on the Lethal Injection Chemical Administration Record (See Appendix, pp. 31-33).

11. The Warden announces that the sentence has been carried out and directs the witnesses to exit.

POST-EXECUTION PROCEDURES

1. The Commissioner notifies the Governor or designee and [redacted] via telephone that the sentence has been carried out and the time that death occurred.

2. The IV Team clamps and cuts the IV lines leaving them connected to the inmate for examination by [redacted]

3. [redacted] takes appropriate investigative measures and takes custody of the deceased inmate.

4. Witnesses are escorted out of the Capital Punishment Unit. Each group of witnesses is kept separate from the other.

5. Official witnesses who are media pool reporters are returned to the media tent to participate in the media briefing.

6. Victim witnesses who wish to speak with the media are escorted to the media tent.

7. Media may remain on site in a designated location outside the secure perimeter to complete live broadcasts.

8. The Warden determines when the prison will resume normal operations after consultation with [redacted]

9. [redacted] collects the Department's records relating to the execution.

10. The Commissioner, [redacted] the Warden and other relevant personnel, if any, review the execution process and determine whether any changes or modifications should be made.

STAY OF EXECUTION

1. Upon receiving notification that a court has issued a stay of execution, or the Governor has issued a reprieve, the Commissioner consults with [redacted] and advises the Warden.

2. Upon receiving notification, the Warden:

   a. Advises the witnesses that a stay or reprieve has been issued.

   b. After consultation with the Commissioner, directs the IV Team to remove the catheters, if applicable, and directs the Restraint Team to return the inmate to the holding cell.

3. The Warden informs the appropriate personnel of the stay or reprieve.

4. The Traffic Control Team Leader notifies any protestors of the stay or reprieve.

5. The Escort Team escorts witnesses from the Capital Punishment Unit.

V. APPENDIX AND FORMS

AFFIDAVIT FOR METHOD OF EXECUTION

Under Tennessee law, you have the right to have your execution carried out by lethal injection. You also have the option of waiving this right, and choosing electrocution as the method of your execution. The purpose of this affidavit is to allow you an opportunity to either waive your right to have your execution carried out by lethal injection or to decline to waive that right. Failure to complete this form will result in the execution being carried out by lethal injection. You will not be given another opportunity to waive your right to have your execution carried out by lethal injection. If you waive your right to have your execution carried out by lethal injection, you may rescind that waiver by contacting the Warden **no later than 14 days before the date of the execution** and signing a new affidavit to that effect.

I, _____ TDOC No. _____, make the following choice concerning the method of my execution set to be carried out on the ____ day of _____, _____:

_____ I waive the right to have my execution carried out by lethal injection and choose to be executed by electrocution.

_____
Signature of Inmate

_____ I have been given the opportunity to waive my right to have my execution carried out by lethal injection and I decline to waive that right.

_____
Signature of Inmate

I certify that I presented this Affidavit For Method of Execution to inmate _____, TDOC No. _____, and

_____ The inmate refused to sign.

_____ I witnessed the inmate sign this affidavit.

_____
Signature of Warden/Designee

Sworn to and subscribed before me this _____ day of _____, 20____.

_____
Notary Public

My Commission expires _____.

AFFIDAVIT TO SELECT INMATE WITNESSES TO EXECUTION

Under Tennessee law, Tenn. Code Ann. § 40-23-116, you may select one (1) defense counsel, a member of the clergy, and adult members of your immediate family to witness your scheduled execution. Below, please provide the full names of your selected witnesses.

Defense Counsel_____
Clergy _____
Inmate's immediate family_____

I, _____, TDOC No._____, select the above

witnesses:

_____ _____
Signature of Inmate Date

I certify that I presented this Affidavit to Select Inmate Witnesses to Execution to inmate

_____, TDOC No. _____, and

_____ The inmate refused to sign.

_____ I witnessed the inmate sign this affidavit.

_____ _____
Signature of Warden/Designee Date

Sworn to and subscribed before me this _____ day of _____, 20_____

_____ My Commission expires _____
Notary Public

CHEMICAL PREPARATION TIME SHEET

Date_____

PRIMARY SYRINGE SET

Syringe 1A-BLACK-50 ml of Sterile Saline Solution prepared by_____

at _____ a.m.

Witnessed by _____

Syringe 2A-GREEN-50 ml (50mg/ml solution) of Pentobarbital prepared

by_____at _____ a.m.

Witnessed by _____

Syringe 3A-GREEN-50 ml (50 mg/ml solution) of Pentobarbital prepared

by_____at _____ a.m.

Witnessed by _____

Syringe 4A-BLACK-50 ml of Sterile Saline Solution prepared by_____

at _____ a.m.

Witnessed by _____

CHEMICAL PREPARATION TIME SHEET

Date_____

BACKUP SYRINGE SET

Syringe 1B-BLACK-50 ml of Sterile Saline Solution prepared by_____

at _____ a.m.

Witnessed by _____

Syringe 2B-GREEN-50 ml (50mg/ml solution) of Pentobarbital prepared

by_____ at _____ a.m.

Witnessed by _____

Syringe 3B-GREEN-50 ml (50 mg/ml solution) of Pentobarbital prepared

by_____at _____ a.m.

Witnessed by _____

Syringe 4B-BLACK-50 ml of Sterile Saline Solution prepared by_____

at _____ a.m.

Witnessed by _____

LETHAL INJECTION CHEMICAL ADMINISTRATION RECORD

Inmate Name_____ **Inmate #**_____

Date_____

PRIMARY SET A

	Chemical	**Time Begin**
Syringe 1-A	Saline 50 ml	_____
Syringe 2-A	Pentobarbital 50 ml	_____
Syringe 3-A	Pentobarbital 50 ml	_____
Syringe 4-A	Saline 50 ml	_____

End Time _____

Recorder Signature _____

LETHAL INJECTION CHEMICAL ADMINISTRATION RECORD

Inmate Name_____ **Inmate #**_____

Date_____

BACKUP SET B

	Chemical	**Time Begin**
Syringe 1-B	Saline 50 ml	_____
Syringe 2-B	Pentobarbital 50 ml	_____
Syringe 3-B	Pentobarbital 50 ml	_____
Syringe 4-B	Saline 50 ml	_____

End Time _____

Recorder Signature _____

DAY OF EXECUTION – LETHAL INJECTION EXECUTION RECORDER CHECKLIST

Inmate Name_____ **Inmate #**_____

Date_____

TIME	
_____	Report to designated area for final briefing
_____	Restraint Team and Special Operations Team report to Execution Chamber for final briefing. Special Operations Team sets up IV system.
_____	Physician in place
_____	IV Team in place (EMTs)
_____	[redacted] in place
_____	Warden in place
_____	Check blinds and curtains
_____	Advise Escort Team to transport Official Witnesses to Parole Room
_____	Advised by Escort Team that Official Witnesses are in Parole Room
_____	Advise Escort Team to escort Victim's Witnesses to Viewing Room
_____	Advised by Escort Team that Victim's Witnesses are in place
_____	Warden or designee checks to ensure execution is to proceed
_____	Gurney positioned in Death Watch Area
_____	Restraint Team enters cell and secures condemned inmate to gurney
_____	Advise Escort Team to transport Official Witnesses to Death Watch vestibule
_____	Advised by Escort Team that Official Witnesses are in the vestibule
_____	IV Team enters the Execution Chamber
_____	IV Team exits the Execution Chamber
_____	Advise Escort Team to "Transport Official Witnesses in place"

Recorder's Initials_____

DAY OF EXECUTION – LETHAL INJECTION EXECUTION RECORDER CHECKLIST (continued)

Inmate Name_____ **Inmate #**_____

Date_____

TIME

_____ Advised by Escort Team that "Witnesses are in place"

_____ Warden checks with Commissioner to proceed

_____ Warden orders blinds opened, closed circuit TV activated, and audio activated for viewing rooms.

_____ Warden asks inmate for any last comments

_____ Warden orders Special Operations Team to proceed

_____ Lethal Injection process completed

_____ Blinds and curtains closed and closed-circuit TV deactivated

_____ Physician enters the Execution Chamber

_____ Physician pronounces death – exact time

_____ Audio deactivated to witness rooms

_____ Advise Escort Team to remove Victim's Witnesses

_____ Advise Commissioner or designee that execution is completed

_____ Physician and EMTs depart

_____ [redacted] escorted to chamber to take possession of body. Pictures will be taken of body and Execution Chamber before removal of body

_____ Advised by Escort Team Victim's Witnesses are at Checkpoint

_____ Advise Escort Team to remove Official Witnesses

_____ Advised by Escort Team that Official Witnesses are at Checkpoint

_____ The body removed from the institution

Recorder's Initials _____

DAY OF EXECUTION – LETHAL INJECTION EXECUTION RECORDER CHECKLIST (continued)

Inmate Name_____ **Inmate #**_____

Date_____

Inmate's Comments if any:

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____

Lethal Injection Recorder **Date**

SPECIFIC POST ORDERS – Special Operations Team (3 Members including a Team Leader and 1 Alternate)

Duty Hours – 6:00 AM – Until properly relieved.

Composition of Team

1. Team Leader
2. Recorder
3. Camera Operator
4. Alternate Member

Equipment

[redacted]

Primary Responsibility

You have the responsibility of overseeing and leading the preparation/administration of the lethal injection chemicals, recording the steps and times of the chemical preparation/administration process, and operating the camera in the execution chamber throughout the process.

These are not all-inclusive duties; therefore, staff are subject to other duties as assigned.

Duties:

Team Leader:

1. Upon arrival at the post, visually inspects the area to ensure it is ready to carry out the sentence.

2. Ensure the camera operator tests the equipment upon arrival to the area.

3. Retrieve lethal injection chemical with either the Warden or [redacted] and complete inventory.

4. Retrieve IV lines, syringes, saline solution, supplies, etc. needed to perform the injection and complete inventory.

5. Ensure preparation of the lethal injection chemical.

6. Begin setup for lethal injection portion of execution process.

7. Ensure the recorder documents all steps on the Chemical Preparation Time Sheet and Lethal Injection Chemical Administration Record.

Recorder

1. Document all information on the Chemical Preparation Time Sheet(s).

2. Document all information on the Lethal Injection Chemical Administration Record(s).

3. Perform other duties as assigned by the Team Leader.

Camera Operator

1. Operate the overhead camera that monitors the IV catheter during the lethal injection process.

2. Perform other duties as assigned by the Team Leader.

Alternate Member

1. Cross train with team members to learn all duties in case the need arises.

Depart the area once properly dismissed by the Warden or [redacted]

**********END**********

SPECIFIC POST ORDERS – Restraint Team (1 Leader/Supervisor, 5 Members, and 2 Alternates)

Duty Hours – 6:00 AM – Until relieved by a supervisor (Lieutenant or above).

Composition of Team

The team will consist of 1 Team Leader, 5 members, and two alternates.

Equipment

[redacted]

Primary Responsibility

You have the responsibility of safely and securely removing the inmate from the holding cell in the Capital Punishment Unit, securing the inmate to the gurney, and moving the inmate to the Execution Chamber.

Duties:

1. As a team, report to the holding cell to remove the inmate.

2. Team Leader will ask the inmate to approach the cell door and submit to restraints. If the inmate is compliant, the restraints will be applied.

3. If the inmate is non-compliant but passive, inform the inmate you will be entering the cell to apply restraints and remove him/her. The restraint team will enter the cell in the use-of-force formation and apply restraints.

    a. Team Leader/Supervisor oversees movement and directs team members during move.
    b. Team member 1 is responsible for pinning, if necessary, monitoring inmate, and maintaining/utilization of the cutters.
    c. Team member 2 secures the inmates upper right appendage and applies wrist restraint.

d. Team member 3 secures upper left appendage and applies wrist restraint.
e. Team member 4 secures the lower right appendage and applies leg restraint.
f. Team member 5 secures the lower left appendage and applies leg restraint.

4. In the event the inmate is non-compliant and exhibits threatening behavior, Team Leader will treat the situation as a potential use of force and begin de-escalation efforts to try and gain voluntary compliance. Should these efforts fail, the team will use force to remove the inmate from the cell.

5. Upon application of hand restraints, the team will remove the inmate from the cell, search the inmate, and secure the inmate on the gurney.

6. The team will transport the inmate on the gurney to the Execution Chamber. Once the gurney is in place, secure the inmate's arms to the arm extensions on the gurney.

7. The team will perform other duties as assigned.

**********END**********

SPECIFIC POST ORDERS – Escort Team (At least 6 Members and 1 Leader/Supervisor)

Duty Hours – 6:00 AM – Until relieved by a supervisor (Lieutenant or above).

Composition of Team

The team will consist of at least 6 members and 1 Team Leader.

Equipment

[redacted]

Primary Responsibility

Escorts are responsible for escorting official witnesses and immediate family members of the victim(s) to designated areas.

Duties:

1. The Escort Team reports to the Administration Building conference room no later than 8:00 AM to receive instructions.

2. The escorts will receive and greet official witnesses at 8:30 AM in the Administration Building. After the official witnesses are processed through checkpoint, they are moved to the Administration Building conference room. They are then escorted to the Parole Board Room in Building 8 no later than 9:45 AM. The official witnesses will remain in the Parole Board Room until final movement to the witness room.

3. The escorts will receive and greet the immediate family members of the victim at 9:15 AM in the Administration Building. After they are processed through checkpoint, the victim witnesses are moved the conference room in Building 8 no later than 9:45 AM. The victim witnesses will remain in the conference room until final movement to the victim witness room.

4. The Escort Team processes, transports, and remains with the pre-approved official witnesses and victim witnesses through the conclusion of the execution and the witnesses' return to the designated staging areas. The Escort Team ensures that each witness group always remains separated from the other groups.

5. Upon pronouncement of the inmate's death, the Escort Team will escort immediate family members of the victim(s) out of the Capital Punishment Unit to the Administration Building for departure.

6. Once confirmation is received that immediate family members of the victim have departed, the Escort Team will escort official witnesses from the Capital Punishment Unit to the Administration Building for departure.

7. Escorts may perform other duties as assigned by a supervisor.

**********END**********

SPECIFIC POST ORDERS – Building 8 Control Room Officer

Duty Hours – 6:00 AM – 6:00 PM (Shift 2) (10A – 6P on day of move)
6:00 PM – 6:00 AM (Shift 1)

Report to Building 8 at approximately 10:00 AM (48 hours before scheduled execution) wearing the prescribed uniform and assume the duties in the Control Room in preparation for the inmate's arrival to a holding cell. If applicable, make your relief, as the equipment is issued on a 24-hour basis, you are required to indicate the key ring number and type of equipment accounted for in your post logbook. Count the keys to ensure the number of keys corresponds with the total number on the key ring chit. Key rings must be secured to a belt by a clip and a metal chain. Contact the Control Center and test your radio/body alarm.

Documentation

Logbook entries must be legible, documenting routine and unusual activity. An example of a log entry is:

> 6:00 AM Relieved Officer Williams and assumed duties as the Unit 2 Officer. Key Rings F-1, X-22, Radio, (1) set of handcuffs, (1) set of leg irons, (1) handheld metal detector, and (1) flashlight accounted for.
> 12:01 PM Count announced, Officer Smith backing count.
> 12:47 PM Clear count with 32 inmates.

Primary Responsibility

This post commences at approximately 10:00 AM, 48 hours before the scheduled execution. You have the responsibility of controlling all electronic access points to the Capital Punishment Unit and recording all activity. In addition, you are responsible for completion of the Lethal Injection Recorder Checklist, including when the time-specific events occur. Other non-routine activity should be noted in the post's logbook.

These are not all-inclusive duties. You are subject to other duties as assigned.

Security Measures

Building access - only authorized staff will be given access to areas within the Capital Punishment Unit. Questions regarding persons other than those with a role or previously identified in the protocols must be approved by the Warden prior to granting access. The request/approval is to be documented in the logbook.

Official count times - Official counts are conducted [redacted]

Duties:

1. Always remain alert and continuously monitor the unit's activity.

2. Complete the Lethal Injection Recorder Checklist form and note the times any identified activity occurs.

3. Announce official count times to the unit's observation officer.

4. Document the identity of all individuals who access the Capital Punishment Unit, including all staff and inmate visitors.

5. Conduct security inspection of the control room and document discrepancies in the log and submit work request for repairs.

6. Conduct key and equipment accountability during shift.

[redacted]

**********END**********

SPECIFIC POST ORDERS - Unit 2 Housing Observation Officer

Duty Hours – 6:00 AM – 6:00 PM (Shift 2)
6:00 PM – 6:00 AM (Shift 1)

Report to Unit 2 wearing the prescribed uniform and relieve the outgoing officer. After you make your relief, as the equipment is issued on a 24-hour basis, you are required to indicate the key ring number and type of equipment accounted for in your post logbook. Count the keys to ensure the number of keys corresponds with the total number on the key ring chit. Key rings must be secured to a belt by a clip and a metal chain. Contact the Control Center and test your radio/body alarm.

Equipment

[redacted]

Primary Responsibility

This post commences 14 calendar days before a scheduled execution. You have the responsibility of continuous direct supervision of the inmate while he/she is housed in the designated general population housing-unit cell in preparation for his/her sentence being carried out. You will be positioned directly outside the inmate's cell with a line of sight inside the cell.

These are not all-inclusive duties. You are subject to other duties as assigned.

Documentation

Logbook entries must be legible and intelligible, documenting routine and unusual activity. An example of a log entry is:

> 6:00 AM Relieved Officer Williams and assumed duties as the Unit 2 Officer. Key Rings F-1, X-22, Radio, (1) set of handcuffs, (1) set of leg irons, (1) handheld metal detector, and (1) flashlight accounted for.
> 12:01 PM Count announced, Officer Smith backing count.
> 12:47 PM Clear count with 32 inmates.

Security Measures / Conditions of Confinement

Restraints – The inmate will be restrained from the rear when going to the recreation area or other unit based out of cell activity. Full restraints will be used when inmate is moved outside of the unit.

Meals – The inmate will be provided meals consistent with the unit feeding schedule. All utensils and feeding materials will be retrieved following each meal.

Telephone use – The inmate will be permitted routine use of the telephone. All requests and initiated/completed calls will be documented in the logbook.

Visits – All inmate requested visits must be made in writing and approved by the Warden.

Personal property – Personal property may be transferred into the cell by/with the inmate upon prior approval from the Warden after consultation with Assistant Commissioner, Prison Operations. All items will be searched prior to allowance into the cell. He/she will be permitted to purchase commissary from the unit's approved list, maintain in the cell legal and religious materials, pencil, paper, and books. Use of hygiene items (soap and toothpaste) toothbrush, and a comb are permissible.

Females may have feminine hygiene items as needed.

All personal property will by visually inspected and electronically screened via x-ray each time items are removed are permitted inside the cell.

Recreation – The inmate will be permitted out of cell, outdoor recreation in one-hour increments on five separate days for a total of five per week. Recreation will be scheduled when the inmate is the sole person in the outdoor recreation area.

Clothing exchange – All clothing issued will be visually and electronically screened for contraband.

Bedding /Mattress– Upon initial placement, issue a new mattress, all new bedding, and towels. Authorized items include two sheets, one blanket, one pillow, one pillowcase, two wash clothes and one towel.

Showers – Upon request, razors will be issued and retrieved upon use each time.

Cell sanitation – Upon request by the inmate, sanitation supplies (broom and cleaner) may be issued only when a supervisor is present in the unit. The items must be collected immediately upon completed use.

Official count times – Official counts are conducted [redacted]

Clinical rounds – Ensure that Clinical Services staff visits the unit daily. The staff member will be required to initial the CR-2578 form and the officer make an entry documenting their presence in the post logbook.

Duties:

1. Always remain alert and continuously monitor inmate.

2. Ensure inmate is issued one set of clean clothing initially prior to entering cell and exchange clothing prior to re-entering the cell after each exit (shower, recreation, visitation, etc.).

3. Search inmate after each cell exit and prior to re-entering. All searches will include the use of a handheld metal detector.

4. Conduct official counts with a second staff member, sign slip, and submit to the Control Center. Staff must be certain they are observing living, breathing flesh in making an accurate count.

5. Document inmate's actions that are not indicated on the Segregation Unit Record (reading, writing, listening to music, watching tv, etc.) in the post logbook.

6. Document in the post logbook, each request made by the inmate and actions taken.

7. Document the beginning and ending times of meals, visits, and telephone calls.

8. Request a security supervisor or higher prior to removing the inmate from a secured area for supervision oversight and guidance.

9. Conduct a proper search of all items and will document the search in the logbook. Legal mail will be scanned for contraband and opened in the presence of the inmate.

[redacted]

**********END**********

FILED
2026 OCT 22 AM 10:41
CLERK & MASTER
DAVIDSON CO. CHANCERY CT
D.C. & M.

EXHIBIT 2

The transcript of Warden Nelsen's deposition was mislabeled "attorneys' eyes only." Once that erroneous designation is removed, Plaintiffs will file this exhibit with the Court.

FILED
2026 OCT 22 AM 10:42
CLERK & MASTER
DAVIDSON CO. CHANCERY CT
D.C. & M.

EXHIBIT 3

Smith Post-Execution Press Conference Video
Manually Filed

EXHIBIT 4

FILED
2026 OCT 22 AM 10:42
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DAVIDSON CO. CHANCERY CT
2180

DECLARATION OF BEN LEONARD

I, Ben Leonard, being of lawful age, declare the following to be true and correct:

1. My name is Ben Leonard. I am a resident of Nashville, Davidson County, Tennessee. I am employed as an investigator in the Capital Habeas Unit of the Office of the Federal Public Defender, Middle District of Tennessee. I have held that position since 2007. I am currently the Coordinating Investigator for the Unit.

2. I received my Bachelor of Science Degree in Criminal Justice with Minors in Psychology and Sociology from MTSU in 1994. I also have an Associate Degree in Law Enforcement from MTSU. I began my work in criminal investigations while still a student at MTSU by working at the Davidson County Public Defender's Office. I continued my work at the Davidson County office until 1997. I left the public defender's office for private practice in 1997 when I joined Inquisitor, Inc. as a private investigator. In 1998, I returned to my home state of Texas and joined the firm of Francis and Associates. From 1998 to 2000 I worked exclusively in the arena of capital defense at both trial and post-conviction levels. In 2000, I joined the Office of the Federal Defenders of Eastern Washington and Idaho as an investigator in the Capital Habeas Unit. I held that position from 2000 until 2007, when I was offered the job in Nashville.

3. As part of my official duties on October 21, 2025, I attended a meeting at the Tennessee Attorney General's Office for the purpose of viewing the EKG strip from the execution of Byron Black. Present at the meeting from the Tennessee Attorney General's Office were attorneys Matt Kubicek, David Wickenheiser, and Samantha Morris, and a support staff member identified as Josh. Present from my office besides myself were attorneys Kelley Henry, Katherine Dix, and Drew Brazer.

4. As we entered the room, Mr. Kubicek pointed to a tightly rolled paper in the middle of the conference table and said, "There it is." Ms. Henry asked, "Is this from Byron Black?" Mr. Kubicek indicated that it was. Ms. Henry asked about the strip from Oscar Smith's execution. Mr. Kubicek indicated that, "there isn't one."

5. I went about my task which was to take a video of the EKG strip from Mr. Black's execution. I had wanted to scan the strip, but it was too long to fit on our portable scanner. I used a digital camera to record the video. Attorney Drew Brazer used an iPhone 16 Plus to also record the EKG strip. We took our recording of the EKG in three segments so that the portion of the strip

BL

could be laid flat on the table for the clearest image. I have viewed the videos taken on the iPhone 16 Plus by Mr. Brazer and compared them to the video recordings I made and can confirm that they are a true and accurate representation of the EKG strip represented to be taken at the time of Mr. Black's execution.

6. As we were taking our video recording of the EKG strip, Ms. Henry inquired further about the absence of a paper EKG strip from Oscar Smith's execution. Mr. Wickenheiser stated, "apparently there wasn't any paper in the machine or something malfunctioned, but there was never a paper strip."

7. Mr. Kubicek stated that the Attorney General's office was trying to get electronic data from the machine but was having trouble doing so.

8. I have been a witness to multiple meet and confer meetings with the Attorney General's office in this case. This was the first time I had heard that a paper EKG strip from the Oscar Smith execution did not exist.

I declare under penalty of perjury and the laws of the United States and Tennessee that the foregoing is true and correct. Dated this 22nd day of October, 2025, in Nashville, Davidson County, Tennessee.

Ben Leonard

Ben Leonard

BL

EXHIBIT 5

FILED
2026 OCT 22 AM 10:42
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D.C.&M.

IN THE CHANCERY COURT FOR THE STATE OF TENNESSEE
TWENTIETH JUDICIAL DISTRICT, DAVIDSON COUNTY

KEVIN BURNS, et al.,

Plaintiffs,

vs. Case No.: 25-0414-IV

FRANK STRADA, et al.,

Defendants.

Deposition of:

JENNIFER BRENNER

Taken on behalf of the Defendants
November 13, 2025

Linder Reporting, LLC
Sarah N. Linder, LCR
437 Wellington Square
Nashville, Tennessee 37214
(615)415-7764

contained in the protocol. And those documents are found on pages 25 through 33. 12:42:11 12:42:14

Q. Are there other documents that you collect besides those that are contained in the doc- -- pages 25 through 33? 12:42:21 12:42:23 12:42:27

A. I collect logbooks. I collect the observation logs. And I -- I don't recall what all is -- what all is in that packet, but I think it is -- that encompasses it. Any logs, any observation sheets. I will have the -- I mean, there's other documents that I maintain but not that I collect on that day; like the election form, the witness notification letters, those types of things. But on the day of the execution, I'm collecting the forms that are in the protocol, and logs, and observation records. I can't tell you what that encompasses. I'm just drawing a blank, but that there may be other things that are collected on that day. I just can't recall what they are. 12:42:28 12:42:44 12:43:02 12:43:09 12:43:14 12:43:21 12:43:26 12:43:35 12:43:40 12:43:43 12:43:48 12:43:54 12:43:58 12:44:01

Q. What about the EKG printouts? 12:44:02

MR. BRANDON: Objection, assuming the premise. 12:44:05 12:44:07

THE WITNESS: For the Byron Black execution, I collected the EKG readout. 12:44:09 12:44:11

BY MS. HENRY: 12:44:16

Q. What about for Oscar Smith? 12:44:16
A. There wasn't one. 12:44:18
Q. Do you know why? 12:44:19
A. I do know why. 12:44:20
Q. Why? 12:44:21
A. Because we did not realize until we went to print out that EKG strip that it wasn't -- that the equipment that we had purchased didn't have the capability to print. It was an extra component that you had to order separately. But the compartment for the paper was concealed so you have to remove part of the component, buy additional -- an additional component for the printer and the paper and that those were not contained in the EKG machine when we initially purchased it. 12:44:25 12:44:31 12:44:38 12:44:43 12:44:47 12:44:53 12:44:57 12:45:03 12:45:09 12:45:14

What our understanding was is that we would have an electronic copy that we could then download and share that way. So we still have that data on the EKG machine from the Oscar Smith execution. We've preserved that but -- and, in fact, I don't know that there was ever -- I just can't speak to whether or not there was any purpose or plan to have an actual tape. I just don't know the answer to that. But it wasn't until after the execution that we realized that the machine had not come with this 12:45:15 12:45:21 12:45:28 12:45:34 12:45:40 12:45:44 12:45:52 12:45:59 12:46:05 12:46:07

extra accessory, component part is required in order to print the actual paper. 12:46:10 12:46:15

Q. So there's a lot of information that you just gave me that I'm gonna need to unpack. 12:46:21 12:46:24

A. Okay. 12:46:26

Q. Am I correct in understanding from your testimony that the EKG machine that was utilized during the Oscar Smith execution had been purchased by the Department of Correction for the expressed purpose of using it in executions? 12:46:29 12:46:31 12:46:37 12:46:41 12:46:46

A. That's correct. 12:46:49

Q. When was it purchased? 12:46:50

A. I don't know that. 12:46:56

Q. Was it days before the execution? 12:46:57

A. I don't know the answer to that, but I know that the -- that -- I don't know the answer to that. 12:47:03 12:47:06

Q. Was it purchased prior to -- and if I don't state this right, just correct me. I'm trying to figure out how to say this right. There are practice sessions that occur? 12:47:16 12:47:27 12:47:31 12:47:34

A. Correct. 12:47:35

Q. How often do those practice sessions occur generally? 12:47:36 12:47:41

A. At least monthly. 12:47:42

Q. During the six weeks prior to an execution, 12:47:44

do those practice sessions increase in frequency? 12:47:50
A. Yes. 12:47:55
Q. How often are practice sessions occurring in 12:47:56
the six weeks prior to an execution? 12:48:00
A. I would refer you to the protocol. I just 12:48:05
don't have that -- I can't pull that from memory, but 12:48:08
I do know they're daily as we approach the execution, 12:48:13
if I'm not mistaken. 12:48:17
Q. So during those practice sessions, do they 12:48:19
not practice the EKG? 12:48:25
MR. BRANDON: Objection to form. 12:48:28
THE WITNESS: They -- they had practiced 12:48:31
it and the data was captured. We were of the belief 12:48:33
that we would be able to capture that data through a 12:48:39
flash drive or whatever. And if you -- if you go 12:48:45
back today, it's still there, the Oscar Smith 12:48:52
execution, the data is still on the machine. But we 12:48:57
didn't print it on the day of the execution because 12:49:07
we realized that there wasn't a printer function on 12:49:11
the EKG machine. 12:49:16
But they had practiced; they had attached 12:49:17
the leads (indicating), the nodes to ensure it was 12:49:21
working properly but did not use a paper printout 12:49:26
when they practiced it. 12:49:31
BY MS. HENRY: 12:49:35

Q. And you're just gonna have to forgive me for asking some basic questions because I don't know the model or serial number of this EKG. I don't -- I'm gonna have to fumble around with some of my questions. 12:49:35 12:49:39 12:49:43 12:49:47 12:49:50

A. Sure. 12:49:50

Q. Okay. It has been represented to us and it has been our experience that the data from that machine is readable. How are you able to read it? 12:49:50 12:49:53 12:49:55

A. My understanding is that the data does not even -- isn't in a form that probably any of us would expect it to be in. And that's about the extent of my knowledge of EKG machines. But in my naive understanding, I believe that you could take the data from the EKG machine, put it on a flash drive, and then go produce some sort of report. 12:50:05 12:50:08 12:50:15 12:50:20 12:50:28 12:50:32 12:50:36

What I believe to be the case is that's not gonna be a fulsome report that you would expect to see in realtime, but I -- I don't know that for certain. And I just don't know what that report is going to look like. All I know is that we have preserved that data. We have it in a -- we have it on a flash drive. And I think that's been provided to you. But I'm not certain how it is that that data will be transcribed, or interpreted, or whatever. 12:50:39 12:50:43 12:50:49 12:50:53 12:50:55 12:50:58 12:51:02 12:51:06 12:51:11

All I know is that it was not destroyed; that we have preserved that, that data. And -- but I don't -- I don't know what that -- I don't know what it could produce. 12:51:14 12:51:17 12:51:25 12:51:29

I think I just -- I had a misunderstanding of what an EKG machine would do. But once we obtained the printer component and the paper, then, obviously, it can print it out like we did with Byron Black. We just weren't aware for the Oscar Smith that we wouldn't have that paper copy of the data. 12:51:29 12:51:32 12:51:39 12:51:43 12:51:52 12:51:53

Q. You said that during the practice, they practiced with the machine and it worked. How did they know if there was no paper printout? 12:51:59 12:52:04 12:52:07

A. Because they could see it on the digital display. 12:52:09 12:52:14

Q. What did they see on the digital display? 12:52:14

A. I don't know. I mean, they -- it appeared to be functioning normally, but I wasn't there for that. 12:52:18 12:52:20

Q. Is it possible to go today and run the data on the EKG machine, itself, and view the data in a readable format fashion? 12:52:25 12:52:32 12:52:36

A. I can't answer that. 12:52:38

Q. Is the machine that was used for the Byron Black -- is the EKG machine used for the Byron Black execution the same EKG machine that was used for the 12:52:41 12:52:47 12:52:49

Oscar Smith execution? 12:52:53
A. Yes. 12:52:54
Q. During the Byron Black execution, was the paper running simultaneous with the execution or was it printed out at a later date? 12:52:54 12:52:59 12:53:02
A. It was running simultaneously. 12:53:05
Q. So they could actually see it coming out of the printer? 12:53:08 12:53:11
A. Yes. 12:53:12
Q. Whose job is it under the protocol to ensure that the EKG machine is functioning? 12:53:19 12:53:25
MR. BRANDON: Objection, assuming the premise. 12:53:28 12:53:31
THE WITNESS: It -- I could -- I mean, I would refer you to the protocol. 12:53:32 12:53:34
BY MS. HENRY: 12:53:36
Q. If the protocol doesn't say, whose job would it be? 12:53:38 12:53:43
MR. BRANDON: Same objection with the assumption. 12:53:43 12:53:45
BY MS. HENRY: 12:53:50
Q. Okay. Let's explore my assumption. The EKG is a part of the protocol, correct? 12:53:50 12:53:54
A. We have an EKG machine. 12:53:56
Q. What is the purpose of the EKG machine in the 12:53:56

protocol? 12:54:04
A. It is a tool for the doctor to use if he or 12:54:07
she desires. 12:54:10
Q. Can you explain that further for me, please? 12:54:11
A. No. 12:54:14
Q. There wasn't an EKG machine in the old 12:54:17
protocol and there is in the new protocol. So is the 12:54:20
EKG machine in the new protocol intended to address 12:54:25
some of the shortcomings in the old protocol? 12:54:28
MR. BRANDON: Objection to form. 12:54:31
THE WITNESS: Yeah, I can't answer that. 12:54:33
BY MS. HENRY: 12:54:40
Q. Why is the EKG machine located inside the 12:54:43
executioner's room as opposed to the execution 12:54:47
chamber? 12:54:58
A. I can't answer that either. 12:54:58
Q. Whose decision was it to place the EKG 12:55:00
machine inside the executioner's room instead of the 12:55:03
execution chamber? 12:55:06
MR. BRANDON: Objection. If you can 12:55:06
answer that without disclosing any identities that 12:55:08
are protected under the protective order, you may 12:55:11
answer. 12:55:14
THE WITNESS: I can't answer that. 12:55:14
BY MS. HENRY: 12:55:15

Q. Because it would identify someone whose name -- identity is under the protective order or because you don't know the answer? 12:55:15 12:55:18 12:55:21

A. I don't know whose decision that was. 12:55:23

Q. Who purchased the EKG machine? 12:55:39

A. I don't know. 12:55:41

Q. Whose responsibility should it be to determine that the EKG is functioning properly? 12:55:49 12:55:55

MR. BRANDON: Objection. If you can answer the question without disclosing the identities that are covered by the protective order, you can answer. 12:55:59 12:56:01 12:56:04 12:56:06

THE WITNESS: I can't answer that question. 12:56:06 12:56:08

BY MS. HENRY: 12:56:08

Q. Can you describe the role without identifying who? 12:56:08 12:56:12

A. No. 12:56:13

Q. Why not? 12:56:14

A. Will you restate that question? 12:56:28

Q. Can you describe -- tell me whose role it is without telling me the name of the person; just who generally is charged with ensuring that the EKG machine is functioning? 12:56:30 12:56:34 12:56:43 12:56:45

MR. BRANDON: And I'll object. To the 12:56:47

extent that your answer would disclose a role that's readily identifiable that would disclose someone's identity under the protective order and instruct you not to reveal that. But if there's some other way to give an answer, you can. 12:56:49 12:56:52 12:56:56 12:56:58 12:57:03

THE WITNESS: I would decline to answer that. 12:57:04 12:57:07

BY MS. HENRY: 12:57:07

Q. On the basis of? 12:57:07

A. Of the privilege. 12:57:08

Q. Does the warden have any role in ensuring that the EKG machine is functioning? 12:57:09 12:57:14

A. I mean, I guess I would question what you mean by role and what you mean by functioning. 12:57:24 12:57:30

Q. Well, somebody needs to make sure the thing is working, right? 12:57:34 12:57:36

A. It was tested. 12:57:38

Q. Okay. Who's -- you've mentioned the word accountability before and there being checklists to ensure accountability. Who is supposed to be accountable to ensuring that the EKG machine is working properly? 12:57:39 12:57:43 12:57:45 12:57:50 12:57:53

MR. BRANDON: Same objection on disclosing identities. 12:57:53 12:57:55

THE WITNESS: But the protocol does not 12:57:57

require that we have an EKG machine that prints data. 12:58:00
BY MS. HENRY: 12:58:03
Q. So is it a prop? 12:58:03
MR. BRANDON: Objection, argumentative. 12:58:05
THE WITNESS: It's a tool for the doctor 12:58:07
to use if he or she desires to use it. 12:58:09
BY MS. HENRY: 12:58:21
Q. The EKG machine, itself, can you -- how big 12:58:21
is it? 12:58:29
A. I can't estimate that. 12:58:36
Q. Is there anyone in the executioner's room 12:58:39
during an execution who's qualified to read an EKG 12:58:42
printout? 12:58:49
MR. BRANDON: So I'm gonna object in 12:58:51
part; obviously instruct you not to identify any of 12:58:56
the individuals in that room under the protective 12:59:00
order and not speak to any individual qualifications 12:59:04
that could be used to select down a member. But you 12:59:08
can -- I think if you're able to answer the 12:59:14
fundamental question about is there a qualification 12:59:18
without speaking to the specific qualifications, you 12:59:20
may. 12:59:24
THE WITNESS: I just don't know the 12:59:25
answer to that. 12:59:26
BY MS. HENRY: 12:59:27

Q. How big is the digital display? 12:59:27
A. I can't estimate that. 12:59:31
Q. Have you seen it? 12:59:33
A. Yes. 12:59:34
Q. Is it as big as a legal pad? 12:59:39
A. No. 12:59:43
Q. Half the size of a legal pad? 12:59:44
A. I couldn't tell you that. 12:59:46
Q. Is it viewable with the naked eye? 12:59:48
A. Of course. 12:59:52
Q. Should the physician wish to consult with the EKG machine, would he be permitted to enter the executioner's room to view it? 12:59:56 13:00:00 13:00:05
A. Yes. 13:00:08
Q. There would be no concern about him identifying the executioner or the person inside that room? He wouldn't be prohibited from seeing them? 13:00:09 13:00:12 13:00:14
MR. BRANDON: Objection to form. 13:00:18
THE WITNESS: No. 13:00:20
BY MS. HENRY: 13:00:34
Q. Has any manufacturer of EKG machines written you a letter asking you not to use their EKG machine in an execution? 13:00:34 13:00:39 13:00:42
A. I'm not aware of that. 13:00:44
Q. Is there any concern on your part that if the 13:00:45

make and model of the EKG machine were disclosed to defense counsel that you would have to return the EKG machine to the manufacturer? 13:00:49 13:00:53 13:00:56

MR. BRANDON: Objection to form. 13:00:58

THE WITNESS: I have not given that any thought. 13:00:59 13:01:02

BY MS. HENRY: 13:01:05

Q. Would providing us the make and model of the EKG machine reveal the identities of any participant in the execution protocol? 13:01:06 13:01:09 13:01:15

MR. BRANDON: Objection to form and also calls for a legal conclusion, interpretation of the confidentiality statute. 13:01:17 13:01:20 13:01:23

THE WITNESS: It could. 13:01:27

BY MS. HENRY: 13:01:29

Q. How so? 13:01:29

A. I decline to answer that. 13:01:31

MS. HENRY: Let's certify that question. 13:01:34

BY MS. HENRY: 13:01:41

Q. Have you received letters from manufacturers of lethal injection chemicals asking you not to use their chemicals in lethal injections? 13:01:41 13:01:44 13:01:47

A. I don't recall that. 13:01:54

Q. If letters from manufacturers have been presented in other legal proceedings, would you have 13:01:56 13:02:01

EXHIBIT 6

Black Post-Execution Press Conference Video
Manually Filed

EXHIBIT 6

Black Post-Execution Press Conference Video
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EXHIBIT 6

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EXHIBIT 7

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OFFICE OF THE MEDICAL EXAMINER
Center for Forensic Medicine
Nashville, Tennessee

REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER

Prison (ST) County Medical Examiner:

Judicial District Number:

District Attorney:

State Number: 25-05-0086

Case Number: MEC25-2730

Name of Decedent	Age	Race	Date of Birth	Sex
Byron Lewis Black	69 Years	Black	03/23/1956	Male

Address
Riverbend Maximum Security Institution-TDOC, 7475 Cockrill Bend Boulevard, Nashville, TN 37209

Date of Death	Investigating Agency/Complaint #:
08/05/2025 10:43 AM	TN Department of Corrections

Place of Death
Riverbend Maximum Security Institution, Nashville, TN

Narrative Summary

The decedent was reportedly a 69-year-old male who was an inmate at the Riverbend Maximum Security Institution (RMSI) who was executed via means of lethal injection on 8/5/2025. This investigator, DOI Kelly Nicholson, and Middle Tennessee Removal Service personnel responded to RMSI where death was later pronounced at 1043 hours by Dr. [redacted]. A brief body examination and scene investigation was completed and documented through photography, and the decedent was transported to the Center for Forensic Medicine via MTRS for examination and determination of cause and manner of death.

Investigator Sunny Lusins
8/5/2025 1212 hours

Jurisdiction Accepted	Autopsy Ordered	Toxicology Ordered
Yes	Yes	Yes

Physician Responsible for Death Certificate
Scott J Collier, M.D.

Funeral Home
The Cremation Company

Cause of Death
Pentobarbital and hydrocodone toxicity

Contributory Cause of Death

Manner of Death
Homicide

OFFICE OF THE MEDICAL EXAMINER
Center for Forensic Medicine
850 R.S. Gass Blvd.
Nashville, Tennessee 37216-2640

CASE: MEC25-2730
County: Prison (ST)

AUTOPSY REPORT

NAME OF DECEDENT: Black, Byron **SEX:** Male **AGE:** 69 years

DATE AND TIME OF AUTOPSY: August 6, 2025 at 0930 hours

FORENSIC PATHOLOGIST: Scott J. Collier, M.D.

PATHOLOGIC DIAGNOSES

1. Pulmonary congestion and edema.
2. Nephrosclerosis.
3. Cerebrovascular atherosclerosis.
4. Obesity.

CAUSE OF DEATH:	Pentobarbital and hydrocodone toxicity
MANNER OF DEATH:	Homicide
CIRCUMSTANCES OF DEATH:	Judicial execution by lethal injection

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The autopsy was performed at the Center for Forensic Medicine. The purpose of this report is to provide a certified opinion to the County Medical Examiner and District Attorney General. The facts and findings to support these conclusions are filed with the Tennessee Department of Health. The autopsy was performed in the presence of Brianne Flynn, M.D.

EVIDENCE OF INJURY

There is no overt evidence of acute injury.

EXTERNAL EXAMINATION - *Injuries are described in "EVIDENCE OF INJURY"*

Rigor:	Present in the jaw, neck, and extremities.
Livor:	Consistent with body position, fixed.
Algor:	Cold.
Length:	68 inches.

Weight: 207 pounds.

BMI: 31.5 kg/m^2

Hair: Brown scalp hair. Facial hair consists of a moustache.

Eyes: Brown.

Dentition: Natural.

Scars: As photographed and diagrammed.

Therapy: Intravenous catheters are in bilateral antecubital fossae.

General: The decedent is received in a body bag. The bag is opened to reveal the unembalmed body of a well-nourished, well-developed adult male who appears consistent with the reported age. The corneas are cloudy, the sclerae are congested, and the conjunctivae are pale with no petechiae or hemorrhage. The external auditory canals and nares are free of debris and lesions. The lips and mouth are uninjured and the frenula are intact. The neck is free of trauma. The chest and back are normally formed. A palpable automatic implantable cardioverter-defibrillator (AICD) is on the left side of the chest wall. The abdomen has no palpable masses. The external genitalia and anus appear uninjured. The fingernails are intact. The extremities are well-developed and symmetrical.

INTERNAL EXAMINATION - *Injuries are described in "EVIDENCE OF INJURY"*

GENERAL: The body is opened by a standard Y-shaped thoraco-abdominal incision. The chest wall contains an AICD. The ribs, sternum, and clavicles are intact. The body cavities have no significant collections of fluid or fibrous adhesions. All examined body organs are in their normal anatomical positions.

ORGAN WEIGHTS:
Brain: 1060 grams
Heart: 460 grams
Right lung: 590 grams
Left lung: 550 grams
Liver: 1830 grams
Spleen: 260 grams
Right kidney: 120 grams
Left kidney: 140 grams

NERVOUS SYSTEM: The scalp has no hematomas. The calvarium and basilar skull have no fractures. The dura mater and falx cerebri are intact. There is no epidural, subdural, or subarachnoid hemorrhage. The leptomeninges are thin, delicate and translucent. The cerebral hemispheres are symmetrical. The vessels at the base of the brain are intact and have no evidence of aneurysm or thrombosis and have mild atherosclerosis. Cut surfaces of the cerebrum show good demarcation of gray and white matter. There are no space occupying lesions or hemorrhage. The deep nuclei of the brain and the bilateral hippocampi are normally formed. The cut surfaces of the midbrain, medulla, pons and cerebellum are grossly unremarkable.

NECK STRUCTURES: The cervical spine is structurally intact. The hyoid bone and thyroid and cricoid cartilages are intact. The soft tissues and strap muscles have no abnormalities. The larynx is clear.

CARDIOVASCULAR SYSTEM: The pericardial sac is free of significant fluid and adhesions. The epicardium is shiny and unremarkable. The coronary arteries arise normally and follow the usual courses with no significant atherosclerosis. The chambers and valves exhibit the usual positional relationships. The tricuspid, pulmonic, mitral, and aortic valves are thin, pliable, and translucent. The chordae tendineae and papillary muscles have no abnormalities. The myocardium is brown-red and firm. The left and right ventricular walls are 1.2 centimeters and 0.3 centimeters thick, respectively. The endocardium is thin and glistening. The atrial and ventricular septa are intact. AICD wires are noted and appear intact. The aorta and all major branches arise normally, follow the usual course, and have minimal atherosclerosis.

RESPIRATORY SYSTEM: The upper airway and bronchi are clear of debris and foreign material. The pleural surfaces are smooth and glistening and have moderate anthracotic pigmentation. The pulmonary parenchyma is non-crepitant, red-purple and exudes moderate amounts of fluid and has no focal lesions. The pulmonary arteries are patent and have no thrombi or emboli.

DIGESTIVE SYSTEM: The tongue is atraumatic. The oropharynx is unobstructed. The esophagus is lined by gray-white, smooth mucosa. The gastroesophageal junction is well-defined. The stomach is normal in size and shape and contains approximately 100 milliliters of tan-green fluid. The gastric mucosa has no ulcerations or masses. The small and large intestines and the appendix are grossly unremarkable. The pancreas is pink-tan and the lobular architecture is intact.

HEPATOBILIARY SYSTEM: The liver has a smooth, glistening, intact capsule covering dark-brown parenchyma with no focal lesions. The portal vein, hepatic artery, and hepatic veins are patent. The gallbladder contains a small amount of viscid bile and no calculi. The gallbladder mucosa is green and velvety. The extrahepatic bile ducts are patent.

HEMATOPOIETIC SYSTEM: The spleen has a smooth, intact capsule covering red-purple, firm parenchyma. Regional lymph nodes have a normal distribution and appearance.

URINARY SYSTEM: The renal capsules are smooth, thin, and semi-transparent and cover granular and scarred, red-brown cortical surfaces. The renal cortices are normal in thickness, slightly congested, and have well delineated corticomedullary junctions. The calyces, pelves, and ureters are not dilated. The urinary bladder contains approximately 60 milliliters of urine and the bladder mucosa is gray-tan and wrinkled.

REPRODUCTIVE SYSTEM: The testes have tan parenchyma without evidence of trauma. The prostate gland is not visualized.

ENDOCRINE SYSTEM: The pituitary, thyroid, and adrenal glands are grossly unremarkable.

MUSCULOSKELETAL SYSTEM: The musculature is normally developed. The axial and appendicular skeleton is normal.

ADDITIONAL PROCEDURES

Toxicology: Samples of vitreous fluid, urine, and postmortem blood are submitted for toxicology analysis. See separate report.

Evidence Collected: Documentary photographs, blood spot cards, "Pacemaker", and portions of tissue retained in 10% formalin.

SUMMARY AND INTERPRETATION

This 69-year-old male inmate of the Riverbend Maximum Security Institution, identified as Byron Black, was witnessed to undergo judicial execution by lethal injection.

Autopsy examination had findings of pulmonary congestion and edema, and nephrosclerosis. Toxicology studies performed on postmortem femoral blood detected a lethal level of pentobarbital and a therapeutic level of hydrocodone. The synergistic effects of the drugs detected resulted in respiratory/central nervous system depression and/or cardiac toxicity causing the decedent's death.

The cause of death is pentobarbital and hydrocodone toxicity. As the death is the result of judicial execution, the manner of death is classified as homicide.

Electronically signed by Scott J. Collier, M.D. on Thursday, August 21, 2025*

Scott J. Collier, M.D.
Assistant Medical Examiner

SJC/sjc
T: 8/6/2025

NMS LABS

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Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

CONFIDENTIAL

Toxicology Report

Report Issued 08/20/2025 18:06

To: **10341**
Forensic Medical Management Services - Nashville
850 R.S. Gass Blvd.

Nashville, TN 37216

Patient Name	BLACK, BYRON
Patient ID	25-2730
Chain	NMSCP471375
DOB	Not Given
Sex	Male
Workorder	25348934

Positive Findings:

Analyte	Result	Units	Matrix Source
Pentobarbital	**35**	**mcg/mL**	**001 - Femoral Blood**
Dihydrocodeine / Hydrocodol - Free	**7.1**	**ng/mL**	**001 - Femoral Blood**
Hydrocodone - Free	**44**	**ng/mL**	**001 - Femoral Blood**

See Detailed Findings section for additional information

Testing Requested:

Test	Test Name
8633B	Phenobarbital, Blood (Forensic)
8041B	Postmortem, Basic w/Vitreous Alcohol Confirmation, Blood (Forensic)

Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Labeled As
001	Gray Stopper Glass Tube	9.25 mL	08/06/2025 11:36	Femoral Blood	25-2730
002	Lavender (Purple) Stopper Plastic Tube	5 mL	08/06/2025 11:36	Femoral Blood	25-2730
003	Red Stopper Glass Tube	7 mL	08/06/2025 11:36	Vitreous Fluid	25-2730
004	White Cap Plastic Container	45 mL	08/06/2025 11:36	Urine	25-2730

All sample volumes/weights are approximations.

Specimens received on 08/12/2025.

Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Pentobarbital	35	mcg/mL	1.0	001 - Femoral Blood	GC/MS
Dihydrocodeine / Hydrocodol - Free	7.1	ng/mL	5.0	001 - Femoral Blood	LC-MS/MS
Hydrocodone - Free	44	ng/mL	5.0	001 - Femoral Blood	LC-MS/MS

Examination of the specimen(s) submitted did not reveal any reportable findings by procedure(s) outlined in the accompanying Analysis Summary, other than those listed above. Interpretation of reported findings should be based on the totality of available case information. Reference information is not case-specific but is provided as a general guide.

Reference Comments:

1. Dihydrocodeine / Hydrocodol - Free (Hydrocodone Metabolite) - Femoral Blood:

   Dihydrocodeine (6-alpha-hydrocodol) is an opiate analgesic. It is available as a therapeutic agent (in products such as Synalgos-DC® and DHC Plus®) for oral use and can be formed in vivo as a metabolite of hydrocodone.

   This analyte is metabolized by N-demethylation to nordihydrocodeine and by O-demethylation to dihydromorphine; these analytes may be found in very low concentrations in blood after the use of the parent drug. Higher concentrations of these metabolites (and their conjugates), as well as dihydrocodeine are eliminated into the urine.

   The reported peak plasma concentration of dihydrocodeine following a single 30 mg oral dose approximates 70 ng/mL (at 1.6 hours) and after a single 60 mg oral dose is between 150-200 ng/mL (within 2 hours).

   A lethal dose of dihydrocodeine in naive users is estimated at about 0.5 g; opiate abusers may tolerate as much as 5 g. In fatal overdose cases involving dihydrocodeine, postmortem blood concentrations have been reported to exceed 7000 ng/mL.

2. Hydrocodone - Free (Vicodin®; Zohydro®) - Femoral Blood:

   Hydrocodone is a DEA Schedule II semisynthetic narcotic analgesic. It is similar to codeine in analgesic activity and is also widely used in cough syrups for its antitussive activity. This analyte is reported to be highly addictive. For relief of pain, hydrocodone, as the bitartrate salt, is only available in oral form in combination with non-opiate drugs, e.g., acetaminophen. Active metabolites of hydrocodone include hydromorphone and hydrocodol (dihydrocodeine). Normal adult oral dosages range from 5 to 10 mg every 4 to 6 hr. Hydrocodone has also been demonstrated to be a metabolite of codeine.

   After a single oral administration of 10 mg, mean peak serum levels of 20 ng/mL were reported at 1.5 hr; levels dropped to 7 ng/mL at 8 hr.

   Hydrocodone is reported to be more toxic than codeine. In overdose, it produces the same manifestations as other opiates including: drowsiness, sedation, respiratory depression, coma and death. In reported overdosage, post-mortem blood levels ranged from 130-7000 ng/mL

3. Pentobarbital - Femoral Blood:

   Pentobarbital is a barbiturate sedative hypnotic agent with a short duration of action. It has been used to treat insomnia, for pre-surgical anxiety, and in the control of seizures. It is subject to abuse. Reported plasma concentrations ranging from 1-5 mcg/mL are reported for the sedation-producing effects of pentobarbital whereas concentrations of 5-15 mcg/mL generally produce sleep. Plasma concentrations greater than 10 mcg/mL may produce deep coma. Major adverse effects associated with pentobarbital derive from its CNS-depressant properties including sedation, drowsiness, lethargy, respiratory depression, and coma.

   Reported postmortem concentrations of pentobarbital in fatalities from the substance range from 5-112 mcg/mL.

Sample Comments:

001 Physician/Pathologist Name: Dr. S Collier

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded one (1) year from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Workorder 25348934 was electronically signed on 08/20/2025 16:05 by:

Victoria L. Hill, MSFT, D-ABFT-FT
Forensic Toxicologist

Analysis Summary and Reporting Limits:

The following test(s) were performed for this case; the scope of each test includes the analyte(s) listed along with the associated reporting limit(s). The reporting limit is the lowest concentration of the analyte that will be reported as positive. Only results that meet reporting criteria at or above the reporting limit appear in the Positive Findings section of the report.

Test 50011B - Barbiturates Confirmation, Blood: 001 - Femoral Blood

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Butalbital	0.20 mcg/mL	Phenobarbital	0.50 mcg/mL
Pentobarbital	1.0 mcg/mL	Secobarbital	0.20 mcg/mL

Test 50016B - Opiates - Free (Unconjugated) Confirmation, Blood: 001 - Femoral Blood

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
6-Monoacetylmorphine - Free	1.0 ng/mL	Hydromorphone - Free	1.0 ng/mL
Codeine - Free	5.0 ng/mL	Morphine - Free	5.0 ng/mL
Dihydrocodeine / Hydrocodol - Free	5.0 ng/mL	Oxycodone - Free	5.0 ng/mL
Hydrocodone - Free	5.0 ng/mL	Oxymorphone - Free	1.0 ng/mL

Test 8041B - Postmortem, Basic w/Vitreous Alcohol Confirmation, Blood (Forensic): 001 - Femoral Blood

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Amphetamines	20 ng/mL	Fentanyl / Acetyl Fentanyl	0.50 ng/mL
Barbiturates	0.040 mcg/mL	Methadone / Metabolite	25 ng/mL
Benzodiazepines	100 ng/mL	Methamphetamine / MDMA	20 ng/mL
Buprenorphine / Metabolite	0.50 ng/mL	Opiates	20 ng/mL
Cannabinoids	10 ng/mL	Oxycodone / Oxymorphone	10 ng/mL
Cocaine / Metabolites	20 ng/mL	Phencyclidine	10 ng/mL

-Analysis by Headspace Gas Chromatography (GC) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Acetone	5.0 mg/dL	Ethanol	10 mg/dL

Analysis Summary and Reporting Limits:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Isopropanol	5.0 mg/dL	Methanol	10 mg/dL

Test 8633B - Phenobarbital, Blood (Forensic): 002 - Femoral Blood

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Phenobarbital	0.50 mcg/mL		

Digital data review may have taken place remotely by qualified NMS staff utilizing a secure VPN connection for some or all of the reported results. This is in accordance with and follows CLIA regulations.

EXHIBIT 8

FILED
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Expert Report of Gail A. Van Norman MD in the Case of Burns v. Strada

December 9, 2025

Gail A. Van Norman MD
Professor Emeritus of Anesthesiology and Pain Medicine
University of Washington, Seattle, WA

Prepared for:

Kelley J. Henry
Chief, Capital Habeas Unit
164 Rosa L. Parks Blvd
Nashville, TN 37203

Expert Qualifications (see curriculum vitae in Appendix I):

I attended the University of Washington School of Medicine in Seattle, Wash. from 1977 to 1981, graduating with an MD with honors. During medical school training, I received the following honors: Medical-Scientist Traineeship Grant 1978, invitation to Alpha Omega Alpha, the medical school honor society in 1980, the Merck Manual Medicine Award in 1981 and the John J. Bonica Anesthesiology Award in 1981.

My postgraduate medical training consisted first of internal medicine residency training at Virginia Mason Medical Center in Seattle, Wash., and board certification from the American Board of Internal Medicine (ABIM) in 1984. I practiced internal medicine from 1984 to late 1986, including experience in intensive care medicine. I underwent residency training in anesthesiology from 1986 to 1988 at the University of Washington, obtaining board certification in 1990. I completed cardiothoracic anesthesia fellowship training in 1989, after which I achieved testamur status in perioperative echocardiography. After five years in private practice, I returned to the University of Washington as faculty, where I served as the acting chief of cardiothoracic anesthesiology and as medical director of the PreAnesthesia Clinic. I became certified in clinical ethics, and also served as the co-chair of the University of Washington Medical Center Committee on Ethics. In 2000, I was recruited to join a private practice anesthesia group, Pacific Anesthesia, in Tacoma, Wash., where I served as the clinical director, director of perioperative echocardiography, and as corporate vice president, but I returned to the University of Washington Medical Center to serve as director of the PreAnesthesia Clinic and the compliance officer for the Department of Anesthesiology and Pain Medicine. I currently hold positions as professor emeritus of Anesthesiology and Pain Medicine and past adjunct professor of bioethics at the University of Washington. I maintain an active clinical practice at the time of the creation of this report.

Following graduation from residency training I received honors from the Spokane Urban Indian Health Service, the President's Award from Pacific Anesthesia, and the Mary Jane Kugel Award from the Juvenile Diabetes Research Foundation.

I was recruited in 1992 to serve on the Committee on Ethics for the American Society of

Anesthesiology, the national professional organization for the specialty of anesthesiology. I served for 22 years on the committee, and served as the chair of the ASA Committee on Ethics for three years. I attended the Brocher Foundation in Geneva, Switzerland, as an ethics scholar-in-residence in 2011.

I have over 160 publications in peer-reviewed journals, textbooks, and other venues that include topics of cardiac anesthesia research, ethics, geriatric medicine, perioperative medicine and intensive care. I have also served as a reviewer for journals such as *Anesthesia and Analgesia, Anesthesiology, Journal of Obstetrics and Gynecology, Mayo Clinic Proceedings, Journal of Philosophy, Ethics and Humanities, and European Journal of Anaesthesiology.* I was consulting editor for the ASA Syllabus on Ethics from 1997 to 2003, and an associate editor for the Journal of Bioethical Inquiry, an international journal, from 2012 to 2017. I published a textbook entitled "The Cambridge Textbook of Clinical Ethics for Anesthesiologists," with Cambridge University Press in 2011, and I have expertise and publications in end-of-life issues, including physician-assisted suicide, euthanasia and lethal injection executions.

As an expert in cardiovascular and perioperative issues, I have served nationally and internationally as an invited speaker at such venues as the American Society of Anesthesiologists, American Society of Interventional Pain Physicians, Harvard Medical School, American Society of Bioethics and Humanities, World Congress of Anesthesiologists, the Royal College of Anaesthetists and many others. As an expert in ethical issues in anesthesia care, I have been an invited speaker in Canada, Great Britain, Italy, Austria, the Czech Republic, Hong Kong, Chile, Switzerland and throughout the United States. Full details of my publications and invitational lectures can be found in the attached curriculum vitae as **Appendix I**.

Clinically Relevant Specialty Experience

A majority of my clinical experience has been based in cardiac and general anesthesiology, as well as perioperative care of the anesthesia patient. Because I trained in the 1980s when intravenous (IV) barbiturates were more commonly used, I have extensive personal experience administering IV barbiturates, such as thiopental and pentobarbital. As a cardiac anesthesiologist, I am trained in the recognition, diagnosis, and treatment of cardiac arrhythmias, and as a member of the cardiac device management team at the University of Washington, I have specific training and extensive experience programming implanted cardiac devices such as pacemakers and defibrillators for perioperative care. Additionally, during my career I have performed anesthesia management for between 3,500 to 4,500 cardiac surgeries, each of which required me to place a central line.

Expert Witness Experience

Over the course of my career, I have been consulted as an expert witness in approximately 23 legal cases, both as a defense and as a plaintiff's expert in approximately equal numbers, and both as a paid and as a pro bono expert. In 13 of these cases, I was consulted as an expert in bioethics, i.e., regarding informed consent and end-of-life issues. In the remainder, I was consulted as an expert in the anesthesia care of a patient, or as an expert on the actions of anesthetic drugs. In the last four years, I have provided testimony at trial or by deposition in six cases. The list is included in **Appendix II** following this report.

I am not now, nor have I ever been, an employee of any legal firm or entity.

Materials Reviewed

Please note while this report contains material that previously appeared in a report I prepared for the Court in the case of Byron Black v. Strada, dated June 27, 2025, this report has been updated and provides new information and opinions formulated following review of additional materials, most of which were not available to me at the time of the July 2025 hearing.

I have reviewed and relied upon the following materials in preparing this report:

1. A document entitled "Tennessee Department of Correction Lethal Injection Protocol," signed by the TDOC Commissioner and dated Jan. 8, 2025.
2. A diagram of the execution room and adjacent rooms, received Nov. 21, 2025
3. A transcript of eyewitness reports immediately following the execution of Byron Black on Aug. 5, 2025.
4. Eyewitness account of Stephen Cavendish re: the execution of Byron Black, presented in the podcast "Exploring the unusual execution of Byron Black"[1]
5. Twenty-nine autopsy reports of prisoners executed by lethal injection (**Appendix III**), in which the only or the primary drug was pentobarbital, or a virtually identical drug, thiopental.[2]
6. Full interrogation report of the implanted cardioverter defibrillator (ICD) retrieved from the body of Byron Black after execution dated Aug. 5, 2025
7. The continuous, real-time electrocardiogram tracing (EKG) of Byron Black from prior to injection of lethal injection drugs and continuing for approximately two minutes after declaration of death following execution on Aug. 5, 2025
8. Postmortem photographs of the body of Byron Black taken in the execution chamber following declaration of death on Aug. 5, 2025.
9. Deposition of the Physician in attendance who declared the death of Byron Black in the death chamber following his execution on Aug. 5, 2025
10. The Report of Investigation by County Medical Examiner: Byron Lewis Black dated Aug. 6, 2025
11. Various authoritative texts, published medical journals and other scientific publications, and reports, as footnoted in this report.
12. Thirty-eight years as a clinical practitioner of anesthesiology with extensive personal experience in the administration of intravenous (IV) barbiturates identical in clinical actions to pentobarbital.

The Tennessee Execution Protocol

I will refer to the document provided to me, described as the Tennessee Department of Correction Lethal Injection Protocol, as the "the Protocol" or "the Tennessee Protocol" throughout my statement.

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[1] Kalodimos D, Sabella L. Exploring the unusual execution of Byron Black. The Nashville Banner. August 10, 2025. Available at: https://nashvillebanner.com/2025/08/10/execution-tennessee-byron-black-defibrillator/ Accessed November 24, 2025

[2] Pentobarbital and Thiopental (aka thiopentone) are both short-acting barbiturates that share virtually identical chemical structure. Pentobarbital (a.k.a. Nembutal, pentobarbitone) differs only slightly from Thiopental (a.k.a. thiopentone): thiopental contains a sulfur molecule, while pentobarbital does not. Pentobarbital and Thiopental are equivalent in all chemical and clinical characteristics relevant to lethal injection executions.

The Protocol is briefly described here as a "single-drug" protocol, calling for the intravenous injection of 4 syringes in consecutive series:

> #1A containing 50 ml of a sterile saline solution,
> #2A containing 50 mL of a 50mg/mL solution of Pentobarbital, #3A containing 50 mL of a 50mg/mL solution of Pentobarbital, and #4A containing 50 ml of sterile saline solution.

The total dose of IV pentobarbital in this protocol equals 5 gm. According to the Protocol, there will be a 5-minute waiting period after injection. The Protocol indicates that a physician who is waiting in the "capital punishment garage" will then be called into the building to examine the patient. If the physician determines that the prisoner has not expired, then and only then will a second set of syringes, labelled 1B, 2B, 3B, and 4B, be prepared with the same contents, after which the prisoner will be injected in a similar manner to the first set.

Expert Opinion Questions

I have been asked to address the following issues:

1) What are the effects of intravenous (IV) barbiturates on consciousness, awareness, and responsiveness?
2) Will administration of pentobarbital ensure unconsciousness of the prisoner during parts of the execution that cause the most pain or suffering?
3) Are there aspects of the Tennessee Protocol that could cause increased pain and suffering for prisoners?
4) How does the Tennessee Protocol differ from the practice of administration of general anesthesia?
5) What is the medical interpretation of the postmortem interrogation of Byron Black's implantable cardiac device (ICD, a.k.a. "implanted defibrillator").
6) What is the medical interpretation of the EKG recordings made by the execution team before, during and after Byron Black's execution and declaration of death?
7) What are the medical standards for declaration of death and were they properly applied during Byron Black's execution?

In order to answer these questions, this declaration discusses: 1) known clinical effects of IV barbiturates with regard to pain relief, consciousness, awareness, recall, responsiveness; 2) known and well-described complications of barbiturate overdose, including airway obstruction and flash pulmonary edema; 3) sensations associated with drowning and suffocation from pulmonary edema and airway obstruction after pentobarbital injection; 4) relevant issues regarding the Tennessee Protocol; 5) problems with compounded drugs and potential complications of lethal injection 6) differences between general anesthesia and lethal injection executions, and 7) recommendations and standards with regard to declaration of death.

I reserve the right to revise my opinion should further relevant information come to my attention that clarifies, strengthens, or changes my opinion in the course of continued review.

SUMMARY OF OPINIONS

1. ***In my expert opinion, it is extremely likely prisoners will remain aware, but unable to respond, following IV injection of 5 g of pentobarbital, and that awareness will not be obvious to observers, since the prisoner will be unable to signal that they are conscious.***

2. ***In my expert opinion it is a virtual medical certainty that prisoners will experience pulmonary edema and sensations of suffocation and drowning after injection of pentobarbital 5 g IV.***

3. ***In my expert opinion, lethal injection executions and prisoner autopsies have demonstrated that IV line placement complications occur frequently, prolong executions, and have even led to executions being halted after protracted efforts that caused prisoners extreme pain and suffering.***

4. ***Lethal injection execution is not analogous to administration of general anesthesia, which requires specialty training and significant experience for the administration of multiple medications, both IV and gaseous, to target multiple brain receptors to produce profound analgesia, and amnesia.***

5. ***In my expert opinion, the Tennessee Protocol is unusually vague and its lack of detail impedes critical review. Multiple problems in the Protocol increase the risk of prolonging the execution, increasing prisoner pain and suffering, and increasing the possibility of premature declaration of death.***

6. ***In my expert opinion, EKG readings recorded during Byron Black's execution on Aug. 5, 2025 demonstrate continued cardiac electrical function and activity, that the declaration of death did not meet legal or medical standards or definitions of death, and that the declaration of death occurred while Byron Black was still alive.***

DISCUSSION

I. PENTOBARBITAL: CHARACTERISTICS AND CLINICAL EFFECTS

A. Basic Characteristics and Storage Requirements of Pentobarbital

Pentobarbital (a.k.a. Nembutal, pentobarbitone) is a short-acting member of the class of drugs called barbiturates, along with thiopental (a.k.a. thiopentone). For the purposes of discussion of judicial lethal injection, only the short-acting group of barbiturates is relevant. Pentobarbital and thiopental have been used in medical care and are essentially equivalent in all pharmacological characteristics relevant to lethal injection executions. For these purposes, data regarding thiopental predicts the behavior and effects of pentobarbital and is included in discussion. Pentobarbital is stable in crystalline form for up to one month when stored at "room temperature" (25°C, or approximately 77°F), but degrades with exposure to higher temperatures. Thus, FDA guidelines state that the drug in its salt form must be stored in a temperature-controlled environment, at 15-25°C (59-77° Fahrenheit) to

maintain quality. Only "brief excursions" above 30°C (86°F) are permitted.[3] When mixed in saline or water, pentobarbital forms an unstable alkaline salt. To be stable, the drug must be mixed in polyprophylene or polyethylene glycol solutions.[4]

B. Clinical Effects of Short Acting Barbiturates Pentobarbital and Sodium Thiopental

Thiopental was introduced in the United States in the 1930s as an anesthetic "induction" agent, meaning as the first drug in a series of drugs used at the beginning of general anesthesia. Pentobarbital itself has never been widely used for anesthesia in humans in the United States due to its adverse effects on the cardiovascular system (e.g., low blood pressure, slow heart rate, and decreased strength of the pumping action of the heart). It has been employed as a sedative, in the treatment of epilepsy, and as a drug to reduce brain swelling in patients who have high intracranial pressure (pressure on the brain) due to trauma, or other causes.[5]

Barbiturates do not have any "analgesic" (i.e., pain-relieving) properties, and, at least in lower doses, actually *amplify* pain.[6] Side effects include paradoxical excitement of the nervous system, and myalgic (muscle), neuralgic (nerve) and arthralgic (joint) pain.[7]

The intended and unintended effects of all barbiturates are highly dependent on factors related to the **pharmacokinetic** characteristics of the drug, e.g. how quickly it is redistributed to places in the body, such as muscle, where it will have no **pharmacologic** (clinical) effects; the method of administration of the drug; the individual to whom it is administered; and the nature of the surgical or other stimulus applied after the drug is administered.

Like all barbiturates, the dose of pentobarbital required to produce its physiologic effects is dependent on the size, sex, and age of the recipient, as well as their individual medical conditions. Prior or concomitant use of prescription medications can amplify or mute the onset of the clinical actions of barbiturates and shorten or augment their clinical effects and duration of action. Prior or concomitant illicit drug use by the recipient can both reduce the effects of pentobarbital (thus requiring markedly higher than expected doses to produce a desired effect), or alternatively can augment the effects of the drug through **synergistic** action.[8] The effects of an overdose of all of the short-acting barbiturates, including pentobarbital, are effects on breathing: either inadequate breathing or interruption of breathing that results in subsequent suffocation, obstruction of breathing, or the filling of

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[3] FDA required package insert information for Pentobarbital Sodium injection. Available at Drugs.com, professional edition. https://www.drugs.com/pro/pentobarbital-sodium-injection.html Accessed July 24, 2025

[4] Drugs.com Barbiturates. 2000-2025. Available at: https://www.drugs.com/monograph/barbiturates-general-statement.html Accessed Nov 24, 2025

[5] Lopez-Munoz F, Ucha-Udabe R, Alamo C. The history of barbiturates a century after their clinical introduction. Neuropsych Dis Treat 2005; 1:329-43

[6] Sanders RD, Tononi G, Laureys G, Sleigh JW. Unresponsiveness ≠ unconsciousness. Anesthesiology 2012;116:946- 9.

[7] Drugs.com Barbiturates. 2000-2025. Available at: https://www.drugs.com/monograph/barbiturates-general-statement.html Accessed Nov 24, 2025

[8] **Synergism** between drugs means that the total effect of two or more drugs administered together is greater than the effect that would be expected by simply adding them together: they interact in such a way that 2 + 2 does not equal 4, but rather results in 8, for example. Each drug is said to enhance, or *potentiate,* the effects of the other(s).

the air passages with fluid due to pulmonary edema, or with gastric contents due to vomiting. Barbiturate overdose can cause interference with the brain's regulation of breathing. For example, barbiturate-induced sedation can lead to mechanical airway obstruction due to the collapse of the tissues into the airway because of reduced muscle tone in the throat.

Pentobarbital and other short-acting barbiturates owe their short duration of action to "redistribution" within body tissues, rather than to "clearance," or removal, of the drug from the body. This means that after the drug enters the bloodstream and flows to the brain, where it has its effects, it then immediately begins to leave the brain and bloodstream as it is "soaked up" by muscle and fat. This latter process occurs so rapidly that the drug levels in the brain are already falling (and the sedative properties of the drug are decreasing) in less time than it would generally take to inject the total volume of drug called for in the Tennessee Protocol (150 cc through a standard IV line).[9] The drug is later removed from the body by the kidneys and liver, long after the action of the drugs has ended. The onset and duration of the clinical actions of short-acting barbiturates like pentobarbital are also strongly affected by the dose and how quickly the drug is injected: the larger the dose, the quicker the onset. The more rapid the injection the quicker the onset, but the faster the drug is redistributed, and the shorter the duration of action for any given dose.

Short-acting barbiturates such as pentobarbital when given in clinically appropriate doses have an initial onset of action within a few seconds, and cause unresponsiveness within about 1.5 minutes of injection. Redistribution of the drug out of the brain begins immediately, and drug levels in the brain begin to fall 1.5 to 2 minutes after injection, as the drug is "soaked up" into other tissues.[10] Most patients become responsive again within 3 to 5 minutes of a 2.5 mg/kg dose of thiopental.

Barbiturates cause a dose-dependent depression of respiratory function with maximum depression after 1 to 1.5 minutes after a 3.5 mg/kg injection. Additional effects are initial slowing of the heart rate, depression of the strength of contraction of the heart, dilation of peripheral veins causing low blood pressure ("hypotension"). The degree of these latter actions appears largely unrelated to dose in higher dosing ranges.[11]

C. Brain Effects of Pentobarbital

"Neurotransmitters" are the chemicals manufactured in the brain that are largely responsible for transmitting information in the brain and peripheral nervous system. They

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[9] In my personal experience, IV injection of 150 cc of fluid (as designated in the Tennessee Protocol) into a peripheral vein, even given as rapidly as possible by individual syringes as described in the protocol takes several minutes. Faster injection of any fluid through a peripheral IV, aside from being very difficult, predisposes to damage to the vein, with resultant infiltration and extravasation (injection outside of the blood vessel into tissue) of the drug, loss of drug, excruciating pain during injection, and other issues. This is particularly true if the IV catheter is small, e.g. 20 g or less. Central IV lines (e.g. femoral, jugular and subclavian vein catheters) have a much greater length than peripheral IV catheters, exhibit much higher resistance to injection, and will usually require slower injections that peripheral lines.

[10] Vuyk J, Sitsen E, Reekers M. Intravenous anesthetics. In: Miller's Anesthesia 9th edition. Gropper MA, Editor- in-Chief. Elsevier Saunders Publications, Philadelphia PA. 2019. pp 648-53. See Figure 23.7, page 651.

[11] Ibid.

can be "excitatory"—meaning they cause increased metabolic, electrical and chemical activity in the cells they reach—or "inhibitory"—meaning they reduce the metabolic, electrical and chemical activity in the cells they reach. A balance of excitatory and inhibitory influences governs how the brain, spinal cord and nerves will react to a given stimulus. The mechanisms of action of barbiturates are grouped into two categories: 1) enhancement of the actions of inhibitory neurotransmitters and 2) blockade of the actions of excitatory neurotransmitters. The precise mechanisms of action of barbiturates are largely unknown, except for their actions at the GABA receptor in the brain.

GABA (gamma aminobutyric acid) is the primary *inhibitory* neurotransmitter in the mammalian central nervous system (i.e. brain and spinal cord). One receptor for GABA, the $GABA_A$ receptor, is the only studied site of action of the barbiturates in producing unresponsiveness. Barbiturates bind a site on the $GABA_A$ receptor and are able to 1) enhance the effects of the brain's intrinsic GABA at its receptor site, as well as 2) mimic GABA itself with a direct action on the receptor without using GABA.

D. Consciousness, Awareness, Responsiveness, and Recall

A prisoner undergoing lethal injection execution using pentobarbital will very likely be conscious and aware of the painful sensations of execution (e.g. severe pain of injection and sensations of drowning and suffocation) even if they do not show outward signs that most people believe indicate consciousness. This is because the ability of the prisoner to respond physically to those sensations is often severely impaired by the execution drug itself. This fact is supported by a number of scientific and medical studies, as well as reports from executions in which prisoners have retained some ability to respond.

"Pain" and "suffering" are terms that refer to subjective experiences of physical sensations. In order to feel either pain or suffering, awareness or consciousness of the sensation is necessary. So an important question regarding judicial lethal injection with pentobarbital is the effects it is likely to have on consciousness.

The medical study of drugs that affect "consciousness" is plagued by the indiscriminate and inaccurate use and interchange of the terms "consciousness" and "recall," which represent two entirely different things. This misuse has led to confusion and false claims about whether and how general anesthesia and drugs used during general anesthesia affect consciousness. Medical study of consciousness and—more importantly in this case—human experience is further challenged by the fact that consciousness and experience *cannot be studied in unresponsive animals*: in the absence of a physical response we cannot ask a nonhuman animal later if they recall an event or what their subjective experience was. Even when there is a physical response, we cannot know for sure what the animal's subjective experience was. Thus, most animal studies of "consciousness" are actually studies of responsiveness, and not relevant to the understanding of awareness during lethal injection executions.

In order to understand these issues and how they impact a prisoner's experience of pain and suffering during judicial lethal injection, it is important to understand the concepts of **consciousness, awareness, responsiveness** and **recall**. Although traditional textbooks and authors report that the inhibitory effects of barbiturates cause "unconsciousness,"

authoritative publications should properly describe anesthetic drugs as producing "unresponsiveness," since how, and even whether, anesthetic drugs affect consciousness is seriously questioned.[12,13]

The term "**consciousness**" describes a state of having a subjective experience of something. Consciousness can be "connected" or "disconnected." **Connected consciousness**—also called **awareness**—is the subjective physical, emotional or psychological experience of an event in the "real" environment.[14] Awareness is present, for example, when an awake person savors a meal. They are having a subjective experience that is directly related to a "real world" occurrence. **Disconnected consciousness** usually occurs when we are dreaming, for example, and are for the most part unaware of our "real world" environment.[10] Dreams are also subjective experiences—we might remember them when we wake, may have intense emotional reactions to them, and may even respond physically to them by moving and vocalizing in our sleep—but the dreamer is not usually reacting to what is happening to them in the physical world. When the outside world intrudes, and the dreamer "awakes," they move from disconnected consciousness to connected consciousness—aware of and responding directly to their environment once again. There is a spectrum of brain responses that constitute awareness, rather than a "light-switch" or on-off effect. Some "connected consciousness" states can involve dream-like qualities, some disconnected consciousness states can involve responses to the real world.

Unfortunately, **consciousness** is often inaccurately equated—even in the medical literature—with **responsiveness**, although these terms refer to entirely different things. While consciousness is the subjective experience of something, responsiveness is the ability to react *physically* to that experience. Consciousness and responsiveness do not go hand-in-hand. A person can respond to a stimulus but not have connected consciousness of it, and, conversely, a person can have connected consciousness, and yet be unable to respond and demonstrate that they are conscious. Sleepwalking is an example of a state in which a person is responsive (e.g. can navigate walking around their physical environment), but does not have connected consciousness (is usually not aware of the real environment) and does not take commands.[15]

There are also many examples where people have connected consciousness and are aware and experiencing their environment, but are unable to respond to it, and so appear to be "asleep." Unresponsiveness can occur due to physical impediments, e.g. a person may be given a drug that paralyzes their muscles so that they relax enough that the surgeon can work within the belly, and yet remain fully awake; by nonphysical impediments, e.g. being "frozen" by terror or trauma; and by physiological problems within the brain itself, such as strokes and the effects of drugs that prevent purposeful movement even though the

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[12] Russell IF. Conscious awareness during general anaesthesia: relevance of autonomic signs and isolated are movements as guides to depth of anaesthesia. In: Baillière's Clinical Anaesthesiology. 1989; 3(3):511-32

[13] Pryor K, Jiang Y, Sleight J. Anesthetic amnesia: the forgotten importance of forgetting? Anesthesiology 2025; 143:750-71

[14] The special case of "lucid" dreaming is a state in which a person is dreaming, but probably does have connected consciousness. They are aware they are dreaming, and can communicate to the external world. It is not known if they will take commands and much more research is needed to fully define this state of consciousness as either being more connected, unconnected, or something entirely different.

[15] Sanders RD, Tononi G, Laureys S, Sleigh JW. Unresponsiveness ≠ unconsciousness. Anesthesiology 2012;116:946-59

person is conscious and the muscles are not paralyzed.

In considering the actions of a barbiturate such as pentobarbital on the brain during judicial lethal injection, we are concerned primarily with connected consciousness—the subjective experiences of the prisoner in his/her physical environment—such as whether they are able to experience pain or sensations including drowning and suffocation, despite being unable to respond to them. *A lack of responsiveness is neither a reliable, nor even a good indicator of connected consciousness, as a vast amount of research in anesthesia demonstrates, as discussed below.*

As it relates to a lethal injection protocol, it is absolutely critical to understand that **awareness** (another term for consciousness) and **recall** are also distinctly different, and that lack of recall in no way equates to a lack of consciousness.[16] Pryor et al, acknowledge that evidence is increasingly demonstrating that anesthesia is often not the absence of consciousness:

> [during general anesthesia].. "it is increasingly apparent that this impairment of consciousness does not necessarily imply the complete absence of consciousness. It is mostly assumed that anesthesia is an absence of experience but we may have to accept as truth that some experience is present and that the illusion of the absence of subjective experience is created through amnesia."[17]

Research into awareness under anesthesia, and other conditions such as strokes, is fraught with the misuse of terms regarding awareness, and a lack of understanding of how awareness is determined. Many clinicians and researchers, and even experienced and expert anesthesiologists, erroneously use the terms awareness and recall interchangeably, and rely on data regarding *recall* to comment on the incidence of *awareness*.[18,19] The vast majority of our conscious experiences will all be forgotten and never recalled. *But the failure to remember an event is not an indication that it did not occur, nor that it did not result in terrible suffering.* Who among us has not had the experience of driving home from work after a long day, and realizing once we arrived that we had no memory of parts of the drive? We clearly were not unconscious on the drive: we were able to negotiate complex streets, read and respond to traffic signs and lights, and put on the brakes to avoid colliding with the car stopping ahead of us. We simply can no longer recall doing so. This can occur for many reasons. For example, the events may have been relatively insignificant (i.e. "not worth remembering"). But it can also occur due to physically, emotionally or psychologically traumatic events, which are known to be associated with significant *lapses* in memory.[20]

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[16] Pryor KO, Uandong J, Sleigh JW. Anesthetic amnesia: the forgotten importance of forgetting? Anesthesiology 2025; epub ahead of print July 8, 2025.

[17] Ibid.

[18] Absalom A, Nagels W Fentanyl and midazolam anaethesia for coronary artery bypass surgery. [letter to the editor]. Br. J Anaesth 2000; 85:940-1

[19] Russel IF. Midazolam-alfentanil: an anaesthetic? An investigation using the isolated forearm technique. Br. J Anaesth 1993; 70:42-6

[20] Salama AZ, Dabash MR, Elayan A, et al. Dissociative trance led to a catastrophe: a case report. Cureus 2024; doi: 10.7759/cureus.76458. Note that this article illustrates misuse of the term "awareness"—the authors describe a patient who was in a dissociative state, had memory for the event, and was able to control some of her actions. By definition the patient was conscious.

Unfortunately, it is common for physicians and laypersons to mistakenly believe that patients who do not *recall* intraoperative events were not therefore conscious or aware of them at the time they occurred. Quite the opposite has been clearly shown in multiple clinical studies of full-dose general anesthetics during both major and minor surgery to be true.[21,22,23,24,25] Reports regarding these studies in humans demonstrate that a disturbing number of patients retain some awareness of what is happening to them during surgery, but simply cannot recall it later. One reason is that drugs such as barbiturates are adept at causing *amnesia* (or memory loss), even when they don't produce unconsciousness.

Many studies purporting to be of *awareness* during anesthesia are in fact studies of *recall*, and because even accomplished authors have misused these terms, studies involving "awareness" must be read and interpreted very carefully. Because anesthetic drugs are excellent at producing amnesia, *recall* is rare, and estimated to happen in less than 0.5 percent of anesthesia cases. However, current research shows that *awareness* is disturbingly common. Obviously in the case of lethal injection, recall is irrelevant. However, *awareness*, which allows extreme pain and suffering during the execution process, is extremely relevant.

Further complicating the study and understanding of awareness during general anesthesia and other uses of "anesthetic" drugs, such as barbiturates, is the fact that connected consciousness is also related to the level of stimulus that the subject receives. A sleeping person without connected consciousness may not respond to softly spoken words in their physical environment because the stimulus is too little to rouse them to connected consciousness, but will awaken if the same words are shouted. The level of stimulus bears little relationship to whether recall is reported later. However, as the level of stimulus increases—louder sounds, greater pain, growing air hunger—so does the probability that connected consciousness (awareness) will occur. It is common for an anesthesiologist to induce unresponsiveness in a non-paralyzed patient, observe them "sleeping" quietly while their body is prepped and draped for surgery, only to have them move, groan and even try to reach or sit up when the surgery begins. Additional anesthetic drugs have to be administered by the time the surgery starts (this is called "deepening the anesthetic") to adjust the level of drugs to meet the stimulus that is now occurring. For example, during lethal injection, as the prisoner begins to experience suffocation and the sensations of drowning with flash pulmonary edema (discussed later in this report), they will become progressively more aware.

E. Connected Consciousness in "Asleep" Patients During General Anesthesia

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[21] Mainzer J. Awareness during fentanyl anesthesia. Anesthesiology 1982; 56:331-2

[22] Mark JB, Greenberg LM. Intraoperative awareness and hypertensive crisis during high-dose fentanyl-diazepam- oxygen anesthesia. Anesth Analg 1983; 62:698-700

[23] Hilgenberg JC. Intraoperative awareness during high-dose fentanyl-oxygen-anesthesia. Anesthesiology 1981; 54:341-3

[24] Mummaneni N, Rao T, Montoya A. Awareness and recall with high-dose fentanyl-oxygen anesthesia. Anesth Analg 1980; 59:948-9

[25] Andrade J, Stapleton CL, Harper C, Englert L, Edwards ND. The contribution of surgery to learning and memory in anaesthesia. In: Memory and Awareness in Anaesthesia IV. Jordan C, Vaughan DJA, Newton DEF, eds. Imperial College Press, London UK. 2000. Pp 141-63

Multiple case reports and clinical studies in the literature have demonstrated that even "massive" doses of non-barbiturate drugs or simple combinations of one or two classes of non-barbiturate drugs that supposedly produce "unconsciousness" actually do not guarantee that a surgical patient is unconscious. These studies are important and relevant here, even when they do not involve short-acting barbiturates, because they illustrate past misperceptions about anesthetic drugs, and they show that hypnotic (sleep) drugs often do not prevent awareness, regardless of the class of drug.

A flood of publications in the 1980s showed that high-dose diazepam or another benzodiazepine, usually in combination with fentanyl (which enhances the benzodiazepine effects), failed to prevent intraoperative awareness.[26,27,28,29] In 1987, investigators demonstrated significant levels of perioperative awareness in patients who received a combination of high doses of the drugs lorazepam (another potent benzodiazepine) and fentanyl (a narcotic) for induction of anesthesia. Two patients had recall during their surgery that was specific enough to report details of conversations in the operating room.[30] Similarly, in a study reported in 2011, in patients who received high doses of lorazepam plus temazepam plus midazolam (all members of the same class of drugs, benzodiazepines), a significant number were found to have awareness after induction, some with recall specific enough to report noises and entire conversations in the operating room.[31] A few studies using a special technique to determine awareness, rather than recall, show that this is also true when short-acting barbiturates, such as pentobarbital, are administered (see **Isolated Forearm Technique** below).

The normal conduct of a general anesthetic involves several stages: induction, maintenance and emergence. Induction is the phase in which hypnotic ("sleep") drugs, sometimes accompanied by narcotic analgesic (pain relieving) drugs are given in sufficient doses to allow the patient to tolerate procedures that precede the actual surgery and that would generally be intolerable without medication, such as placement of a breathing tube into the trachea. During this time, other things are also happening, such as positioning of the patient, sterile prep of the surgical field, possible placement of additional peripheral or central intravenous lines, etc. Immediately following placement of a breathing tube ("intubation") while these events take place, the anesthesiologist begins to "deepen" the anesthetic by administering additional drugs in preparation for the stronger stimulus that will occur when an incision is made. This can include administering more of the drugs that were given during induction, but also includes the administration of different drugs, such as inhaled anesthetic gases (e.g. sevoflurane or others), nitrous oxide, and possibly intravenous drugs of different classes. When

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[26] Mainzer J. Awareness during fentanyl anesthesia. Anesthesiology 1982; 56:331-2

[27] Mark JB, Greenberg LM. Intraoperative awareness and hypertensive crisis during high-dose fentanyl-diazepam- oxygen anesthesia. Anesth Analg 1983; 62:698-700

[28] Hilgenberg JC. Intraoperative awareness during high-dose fentanyl-oxygen-anesthesia. Anesthesiology 1981; 54:341-3

[29] Mummaneni N, Rao T, Montoya A. Awareness and recall with high-dose fentanyl-oxygen anesthesia. Anesth Analg 1980; 59:948-9

[30] Robinson JF, Boright WA, Ligier B, Melivena K, Metcalf LR, Truong DT. The incidence of awareness, and amnesia for perioperative events, after cardiac surgery with lorazepam and fentanyl anesthesia. J Cardiothor Anesth 1987; 1:524-30

[31] Lala HM, Lala MP, Kibblewhite DP, Chan BO, Barnard JPM. Awareness during cardiac surgery—a single centre prospective clinical audit of 1060 patients. Anaesth Intensive Care 2011; 39:973-4

anesthetic gases are given, unlike IV administration of medications, the rise in concentration of these agents in the patient does not occur instantaneously, but takes a variable amount of time—from five to 10 minutes. The amount of these additional drugs and repeat boluses of drugs that can be given before surgical incision is somewhat limited, because they can cause potentially deleterious effects on blood pressure, heart rate, and other vital organ functions of patients, that will be offset by a rise in blood pressure and heart rate once surgical incision is made. After incision, additional drugs can generally be given.

The phase from just prior to incision, through to the end of surgery, is the "maintenance" phase of anesthesia. "Emergence" is the phase in which surgery is ending, the anesthetic drugs are wearing off and/or being discontinued, and the awakening of the patient begins. The period from first administration of induction drugs to incision is highly variable, but in most studies of awareness using a special technique called the isolated forearm technique (IFT, see below), when this length of time was recorded, it was between nine and 10 minutes in length.[32] Studies of awareness during this period of anesthesia—from the administration of induction drugs to the point of stimulation by surgical incision—are the most informative about how consciousness, pain and suffering occurs during judicial lethal injection.

F. The Isolated Forearm Technique (IFT) and Awareness in Humans

Because many anesthetic techniques require administration of a drug to paralyze the muscles (in order to place a breathing tube, or so that the patient's muscles are sufficiently relaxed for the surgeon to work within body cavities such as the abdomen), researchers realized that movement and other potential signals of awareness and pain would be impossible to detect.[33] A special technique, called the "isolated forearm technique" (IFT), was developed to study true awareness under these conditions. The IFT is now considered the "gold standard" in researching awareness during anesthesia,[34] and at this time, over 80 peer-reviewed publications appear in PubMed, the online access to the National Library of Medicine, concerning the technique. With the IFT technique, prior to administration of the paralytic agent and other anesthetic drugs, one forearm is isolated from the circulation (and exposure to the anesthetic drugs) to prevent the arm from being paralyzed and allow the patient to move that arm in response to commands if they are aware. This is done by placing a tourniquet on the forearm and inflating it to prevent blood from entering the forearm while the paralytic drug is being given. Following a specific command (such as "move your right arm" or "raise your right hand") *requires awareness:* the patient must hear the instruction, realize what they are being told to do, and carry out the action in the instruction.

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[32] Russell IF, Wang M. Absence of memory for intraoperative information during surgery under adequate general anaesthesia. Br J Anaesth 1997; 78:3-9

[33] Even in cases where patients are not given drugs that directly paralyze the muscles during general anesthesia, anesthetic drugs appear to be able to prevent responsive movement through effects in the brain. See discussion of "locked in syndrome," below.

[34] Linassi F, Zanatta P, Tellaroli P et al. Isolated forearm technique: a meta-analysis of connected consciousness during different anaesthesia regimens. Brit J Anaesth 2018; 121:198-209

In one study using the IFT technique, in which full-dose IV general anesthetics were administered with the intention of producing unconsciousness for patients undergoing major intrapelvic and abdominal surgeries, ***72 percent*** of patients— all of whom the anesthesiologists assessed to be "unconscious" after administration of a combination of two non-barbiturate induction drugs for general anesthesia was given — responded to explicit commands, causing the author to question whether a combination of these drugs was actually an anesthetic at all.[35] The same author found that other anesthetic regimens, including regimens that utilized thiopentone, etomidate or fentanyl, were also associated with a 44 percent rate of response to commands, indicating awareness.[36] Other studies have shown awareness in 73 percent of patients undergoing major gynecologic surgery with full general anesthesia involving induction with one drug.[37]

Studies using the IFT technique and others, and employing a variety of general anesthetic regimens intended to produce unconsciousness for hundreds of patients undergoing both minor surgeries and major surgeries involving the removal of abdominal or pelvic organs, have demonstrated that clinical parameters (i.e. changes in heart rate, blood pressure, loss of eyelash reflex, response to moderately painful stimuli, tearing or sweating) reliably identify whether a patient is aware[38,39,40,41,42,43] and *no reliable technical monitor for detecting connected consciousness in anesthetized patients has ever been found.* IFT studies during full general anesthesia for major surgeries that involved opening the chest, abdomen or pelvis, such as surgeries on the heart, and major intrapelvic and intrabdominal organs, have shown that physical maneuvers, such as calling the patient's name, testing for eyelash reflex, or providing a mild to moderately painful stimulus such as pinch or sternal rub do not predict whether a patient is aware, nor whether they will have recall.[44,45,46,47] Research also has proven that "brain wave" monitors (e.g. EEG, BIS, Lifescan and other processed EEG methodologies) cannot reliably detect consciousness during full general anesthesia for major gynecological surgeries, major orthopedic surgeries including total

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[35] Russell IF. Midazolam-alfentanil: an anaesthetic? An investigation using the isolated forearm technique. Br J Anaesth 1993;70:42-6

[36] Russell IF. Comparison of wakefulness with two anaesthetic regimens. Total i.v. balanced anaesthesia. Br J Anaesth 1986; 58:965-8

[37] Russell IF. The ability of bispectral index to detect intraoperative wakefulness during total intravenous anaesthesia compared with the isolated forearm technique. Anaesthesia 2013; 68:502-11

[38] Baker AB. Induction of anesthesia with diazepam. Anaesth 1969; 24:388-92

[39] Blackmon BB, Mahaffey JE, Baker JD. Clinical comparison of midazolam hydrochloride and midazolam maleate for anesthesia induction. Anesth Analg 1984; 63: 1116-20

[40] Gamble JAS, Kawar P, Dundee JW, Moore J, Briggs LP. Evaluation of midazolam as an intravenous induction agent. Anaesthesia 1981; 36:868-73

[41] Russell IF. Comparison of wakefulness with two anaesthetic regimens. Br J Anaesth 1986; 965-8

[42] Russell IF. Midazolam-alfentanil: an anaesthetic? An investigation using the isolated forearm technique. Br J Anaesth 1993;70:42-6

[43] Russell IF. Conscious awareness during general anaestheisa: relevance of autonomic signs and isolated are movements as guides to depth of anaesthesia. In: Baillière's Clinical Anaesthesiology. 1989; 3(3):511-32

[44] Robinson JF, Boright WA, Ligier B, Melivena K, Metcalf LR, Truong DT. The incidence of awareness, and amnesia for perioperative events, after cardiac surgery with lorazepam and fentanyl anesthesia. J Cardiothor Anesth 1987; 1:524-30

[45] Lala HM, Lala MP, Kibblewhite DP, Chan BO, Barnard JPM. Awareness during cardiac surgery—a single centre prospective clinical audit of 1060 patients. Anaesth Intensive Care 2011; 39:973-4

[46] Russell IF, Wang M. Absence of memory for intraoperative information during surgery under adequate general anaesthesia. Br J Anaesth 1997; 78:3-9

[47] Linassi F, Zanatta P, Tellaroli P et al. Isolated forearm technique: a meta-analysis of connected consciousness during different anaesthesia regimens. Brit J Anaesth 2018; 121:198-209

joint replacement surgeries, and others .[48,49,50,51,52] Scott Kelley, vice president and medical director of Aspect Corporation, the company that made and marketed the BIS monitor, himself stated that there is no assurance that "BIS monitoring alone would prevent an inmate from suffering" during lethal injection.[53] Processed brainwave monitors in the OR have long since been proven to be unreliable in detecting awareness, even in patients in whom the IFT shows awareness is present.[54,55] Studies using the BIS and other brain wave monitors as evidence of lack of awareness must therefore be set aside in this discussion.

G. Awareness and Barbiturates

The Brain Still Responds to Sensations from the Body During High-Dose Pentobarbital-Induced Coma

A recent study in human patients is particularly informative regarding pentobarbital. IV pentobarbital was given in high enough doses to cause the EEG to go "flatline" in patients experiencing status epilepticus—a condition in which the patient has prolonged seizures, or repeated seizures with minimal or no recovery time in between. Even though there was no detectable brain electrical activity at rest, and no visible physical response to stimuli, relatively light stimuli, such as sound (calling the patient's name, clapping hands, shutting a door), visual (flashing lights) and physical touch (lightly touching the face, chest, arms, and gently moving the limbs) still resulted in specific brain responses and connectivity on the EEG (meaning the stimulus was received in one part of the brain, and then signals were sent to the cortex and other areas for processing). The authors concluded that the peripheral nervous system that senses pain, for example, *remained intact* even when enough pentobarbital was given to abolish readings at rest from the EEG, that brain *pathways were still able to integrate information received from the peripheral nervous system*, and that cortical responses (generally associated with interpreting the information coming from the peripheral nervous system) were *actually augmented.* In the authors' words, "barbiturate-induced continuous isoelectric EEG reflects a quiescent—rather than over inhibited—brain state preserving the intrinsic excitability of neurons and their capacity to respond to direct and sensory input." The brain, in other words, could still receive and process sensations from the body.[56]

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[48] Russell IF. The Narcotrend 'depth of anaesthesia' monitor cannot reliably detect consciousness during general anaesthesia: an investigation using the isolated forearm technique. Br J Aanesth 2006; 96:346-52

[49] Schneider G, Wagner K, Reeker W, Hanel F, Werner C, Cochs E. Bispectral index (BIS) may not predict awareness reaction to intubation in surgical patients. J Neurosurg Anesthesiol 2002; 14:7-11

[50] Kerssens C, Gaither JR, Sebel PS. Preserved memory function during bispectral index-guided anesthesia with sevoflurane for major orthopedic surgery. Anesthesiology 2009; 111:18-24

[51] Avidan MS, Zhang L, Burnside BA, et al. Anesthesia awareness and the bispectral index. N Eng J Med 2008; 358: 1097-108

[52] Gaskell AL, Hight DF, Winders J, et al. Frontal alpha-delta EEG does not preclude volitional response during anaesthesia: prospective cohort study of the isolated forearm technique. Br J Anaesth 2017; 119:664-73

[53] Steinbrook R. New technology, old dilemma—monitoring EEG activity during executions. New Eng J Med 2006; 354:2525-27

[54] Russell IF. The ability of bispectral index to detect intraoperative wakefulness during total intravenous anaesthesia compared with the isolated forearm technique. Anaesthesia 2013; 68:502-11

[55] Ibid.

[56] Altwegg-Boussac T, Schramm AE, Ballestero J, et al. Cortical neurons and networks are dormant but fully responsive during isoelectric brain state. Brain 2017; 140:2381-98

Awareness in Patients Undergoing Barbiturate Anesthetics

Because the barbiturates stopped being widely used in clinical anesthesia practice about 40 years ago, only a few studies of awareness using the IFT have specifically involved pentobarbital or other short-acting barbiturates, such as thiopental. ***But those studies have indicated that barbiturates do not guarantee unconsciousness, even when the patients appear to be unconscious by all clinical measures, including EEG monitoring.***

In 1993, King et al. demonstrated recall in patients undergoing C-section after induction with thiopental as a solo agent. Following thiopental administration, and after disappearance of the eyelash reflex, patients received taped instructions to flex their fingers to indicate if they could hear, make a fist or squeeze the researcher's hand if they felt pain, and to respond with various physical cues during interviews after the anesthetic. They also were given 6 target words to remember. *Over 96 percent of patients (who were assessed by traditional measures as being unconscious) responded and indicated awareness at one minute after induction.* Twenty percent indicated persistent awareness for an additional two minutes. It should be noted that EEG monitoring (via Lifescan) *showed no activity during intubation, a very noxious stimulus, even while one-third of the patients indicated that they were awake. None* of the patients had later recall of the events.[57] Gaitini et al. found that over half of women undergoing C-section following thiopentone induction moved their hands in response to commands, although none recalled the operation later.[58]

In 1997, Russell and Wang, using the IFT and similar instructions and commands following induction of full-dose general anesthesia with thiopentone in 68 women undergoing major intrapelvic and abdominal surgery, found that even though none of their patients followed commands after induction, five women later showed evidence of explicit recall of intraoperative events, including hearing voices and conversation, and being aware of incision.[59] Slavov et al. demonstrated movement in response to intubation (placement of an endotracheal tube) despite no apparent change in the EEG monitoring (BIS monitor) in 24 percent of patients who had full general anesthesia induced with fentanyl plus thiopental. No patient had recall of events later.[60] In 1989, Tunstall and Shiek found using the IFT that 42 percent of women who were under full general anesthesia for cesarean section were responsive to command two minutes after the beginning of the injection of thiopentone for induction of general anesthesia—at the time in which the clinical effects of the drug would be at their peak. None of the women had recall of the events.[61]

Overall, awareness has been reported to occur in up to 71 percent of patients studied who

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[57] King H, Ashley S, Brathwaite D, Decayette J, Wooten D. Adequacy of general anesthesia for cesarean section. Anesth Analg 1993; 77:84-8

[58] Gaitini L, Vaida S, Collins G, Somri M, Sabo E. Awareness detection during Caesarean section under general anaesthesia using EEG spectrum analysis. Can J Anaesthesia 1995; 42:377-81

[59] Russell IF, Wang M. Absence of memory for intraoperative information during surgery under adequate general anaesthesia. Br J Anaesth 1997; 78:3-9

[60] Slavov V, Motamed C, Massou N, Rebufat Y, Duvaldestin P. Systolic blood pressure, not BIS, is associated with movement during laryngoscopy and intubation. Can J Anaesth. 2002; 49:918-21

[61] Tunstall ME, Sheikh A. Comparison of 1.5% enflurane with 1.25% isoflurane in oxygen for caesarean section: avoidance of awareness without nitrous oxide. Br J Anaesth 1989; 62:138-43

received induction with drugs that were given IV,[62] and appears to be more common with IV anesthetic drugs compared to inhaled anesthetic gases.

Furthermore, the remaining 29 percent of patients who did not respond under IFT were not necessarily "unaware." In one study, a patient who did not follow commands during IFT awareness testing during anesthesia *including thiopentone*, but her isolated arm engaged in "vigorous, purposeful actions which threatened to interfere with the surgical field."[63] Studies have also reported patients who did not move in response to commands during IFT testing performed during thiopentone anesthesia yet reported later being awake at the time the tests were done.[64] So the IFT itself *underestimates awareness*: for the technique to demonstrate that the patient is aware, the patient must not only be aware, but be capable of understanding the command, capable of perceiving that movement is required, physically capable of producing that movement, and then execute the movement on command. But many mechanisms are known to impair the ability to move in a conscious person. Terror and pain are known to impair the ability of persons to understand, and carry out complex tasks during traumatic events, "freezing" them from being able to respond even when they are conscious and not under the influence of drugs. Recent research regarding how the brain processes and responds to information offers a more fundamental explanation for involuntary unresponsiveness during awareness, and scientific evidence suggests that the very drugs we often rely upon to produce unconsciousness may actually produce "locked-in" syndrome, a known condition that produces an inability to respond physically and mimics unconsciousness, even when a person retains awareness (**see below**).

H. Theories About Mechanisms of Awareness

While the "cortex" of the brain (the so-called "gray matter" that makes up a large part of the brain and gives the brain its traditional shape) is traditionally thought of as ruling thought, consciousness, and responsiveness, it turns out that much deeper core brain structures and their interactions with the cortex are even more critical to consciousness, recall, and responsiveness. Much of the current research regarding mechanisms of consciousness focuses on the role of the thalamus,[65,66] and how anesthetic agents affect these deep brain structures.[67]

The thalamus lies buried deep within the core of the brain, and it is responsible for receiving and selecting what responses to give for the billions of bits of data and sensory input received by the nervous system every moment. It processes data and sensory input

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[62] Russell IF. Comparison of wakefulness with two anaesthetic regimens. Total i.v. balanced anaesthesia. Br J Anaesth 1986; 58:965-8

[63] Ibid.

[64] Russell IF. Conscious awareness during general anaesthesia: relevance of autonomic signs and isolated are movements as guides to depth of anaesthesia. In: Baillière's Clinical Anaesthesiology. 1989; 3(3):511-32

[65] Cacciatore M, Magnani FG, Barbadoro F, et al. Thalamus and consciousness: a systematic review on thalamic nuclei associated with consciousness. Front Neurol 2025 June 18; 16:1509668. Doi:10.3389/fneur.2025.1509668

[66]Periera M, Faivre N, Bersnasconi F, et al. Subcortical correlates of consciousness with human single neuron recordings. Elife 2025 May 22:13:RP95272. Doi:10.7554/eLife.95272

[67]Zhou Y, Huang S, Zhang T, et al Deciphering consciousness: the role of corticothalamocortical interactions in general anesthesia. Pharmacol Res 2025; 212:107593.

by selecting some and rejecting others, and then connects with the cortex as well as arousal centers deeper in the brain to integrate consciousness of and responsiveness to those inputs. The thalamus thus behaves much like a giant, multimodal switching center in a hugely complex railyard of electrical signals and inputs, sending millions of signals at nearly the speed of light along some tracks to the cortex and others along different tracks to arousal centers or other areas of the midbrain for processing, and also sometimes simply allowing some signals to be extinguished without a response. Along the way, the signals that travel the tracks are amplified or dampened by additional signaling and chemicals in the brain.

Experiments have shown that during deep, dreamless sleep, connections and relays between the thalamus and the cortex break down. In dreaming sleep (so-called REM sleep for the Rapid Eye Movements seen in dreaming subjects) cortico-thalamic connectedness looks essentially the same as the connections during full wakefulness.[68] In other words, intact cortico-thalamic connectedness, for all intents and purposes, indicates consciousness, either connected or disconnected. Experiments have shown that cortical connectivity (and therefore connected consciousness or awareness) changes *independently* from responsiveness: one can be suppressed while the other is intact. In other words, unresponsiveness does not equal unconsciousness, even when nothing is physically preventing the subject from responding. To produce unconsciousness, it appears that a drug must therefore sever cortical-thalamic connectivity, and not merely suppress responsiveness.

An important chemical in maintaining cortico-thalamic connectivity and consciousness is norepinephrine. Norepinephrine suppression reduces the brain's attention to external stimuli, even while still allowing sensory information to occur. Experiments have shown that during administration of individual anesthetic drugs (as opposed to administration of multiple anesthetic drugs together, as is done in the practice of anesthesia, see below), connectivity of attention-rousing areas of the brain to the corticothalamic network are not suppressed, and norepinephrine signaling continues. Rises in levels of another adrenergic chemical, adrenalin, have been shown in rats subjected to pentobarbital and chloral hydrate anesthesia, to *enhance* learning and awareness.[69,70] This may explain in part why persons exposed to experiences, such as terror, pain, anxiety, and anger are therefore more likely to be aware, and also more likely to experience some amnesia for traumatic events.

GABAergic anesthetic drugs such as barbiturates— including pentobarbital—are known to be poor at suppressing norepinephrine signaling in the human brain, and it is felt that this may explain why patients who receive anesthetic drugs and who are aware may still not move— will appear to be asleep— even when connected consciousness is present. The thalamus receives major input via norepinephrine. And GABAergic drugs are poor at suppressing thalamic activity at doses that are known to prevent spontaneous

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[68]Sanders RD, Tononi G, Laureys S, Sleigh JW. Unresponsiveness ≠ unconsciousness. Anesthesiology 2012; 116:946-59

[69]Gold PE, Weinberger NM, Sternberg DB. Epinephrine-induced learning under general anesthesia: retention performance at several training-testing intervals. Behav Neurosci 1985; 99:1019-22

[70] Weinbergerger NM, Gold PE, Sternberg DB. Epinephrine enables Pavlovian fear conditioning under general anesthesia. Science 1984;233:605-7

responsiveness.[71] The continued actions of norepinephrine during GABAergic drug administration leave the brain able to perceive sensory input, even while the body is unable to respond. This may explain why some patients who are aware and report recall after an anesthetic, still do not move during the anesthetic in response to pain or noxious stimuli (or even during IFT when given commands) even though they are not paralyzed.[72]

Locked-In Syndrome: What it Feels like to be Conscious, Not Paralyzed, But Unable to Respond

Since connected consciousness, unresponsiveness and recall have been reported together in general anesthesia only on exceedingly rare occasions (< 0.5 percent), it is difficult to ask people what it feels like under those circumstances. However, conditions involving the failure of cortico-thalamic connections that leave a conscious person unable to move despite not being paralyzed are actually well-described in various "locked-in syndromes." They can give us an idea of what patients who have awareness under general anesthesia might be experiencing. Some forms of locked-in syndrome are produced by certain neurological diseases, particularly a special type of stroke affecting the deep brain. In about 1 percent of strokes, despite having intact nerves and muscles, intact sensation, and full consciousness, patients are partially or wholly unable to move.[73] Survivors, which are uncommon, frequently report terror, loneliness, and desperation.

One patient who survived later reported being able to hear every word and understand everything around him, including the doctors telling his wife that he had a less than 2 percent chance of survival, but was unable to tell them he was alive, "...in my mind I was screaming 'No!'"[74]

Locked-in syndrome has also been reported as an occasional complication after the administration of a certain class of drugs used in both anesthesia and psychiatric treatment, the butyrophenones (e.g. haldol and droperidol). The condition consists of being awake and aware, yet unable or minimally able to initiate movement despite not being physically paralyzed. Patients and anesthesiologists described the condition as "outward calm, but inward panic." The anesthetic technique using butyrophenones has been all but abandoned due in large part because so many patients reported terrible nightmares, panic, and feelings of "being locked in" during induction of anesthesia.[75,76,77]

Studies indicate that almost all patients given IV short-acting barbiturates such as

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[71]Mashour GA, Pryor KO. Consciousness, Memory and Anesthesia. IN: Miller's Anesthesiology 9th Ed. Gropper MA, Ed. Elsevier, Inc. Philadelphia PA. 2002. Pp 260-66

[72]Sanders RD, Tononi G, Laureys S, Sleigh JW. Unresponsiveness ≠ unconsciousness. Anesthesiology 2012; 116:946-59

[73] Patterson JR, Crabois M. Locked-in syndrome: a review of 139 cases. Stroke 1986; 17:758-64

[74] Locked-in syndrome: rare survivor Richard March recounts his ordeal. The Guardian. Aug 7, 2012

[75] Rennemo F, Larsen R, Breivik H. Avoiding psychic adverse effects during induction of neurolept anaesthesia with levomepromazine. A double-blind study of levomepromazine and droperidol. Acta Anaesthesiol Scan. 1982; 26:108-11

[76] Brown E, Purdon PL, Van Dort CJ. General anesthesia and altered states of arousal: a systems neuroscience analysis. Ann Rev Neurosci 2011; 34:601-28

[77] Russell IF. Balanced anaesthesia: does it anesthetize? Anesth Analg 1985:64:941-2

pentobarbital retain awareness for significant periods of time following injection[78] and may only lose consciousness, if at all, after additional administration of multiple other drugs from different pharmacological classes. During that time, they do not respond with movement to even strong stimuli, such as a surgical incision, despite being aware. We can expect that prisoners who are executed using pentobarbital will also retain awareness, and may not show responsiveness even though they feel pain, suffocation and drowning sensations.

As already mentioned, although patients may be able, with special testing such as the IFT, to show awareness, they do not do so in all cases when they are nevertheless aware,[79] and therefore the IFT underestimates rates of true awareness. In one study by King et al., in patients undergoing cesarean section under general anesthesia using pentobarbital as a solo agent, after injection of thiopental and after common signs of "consciousness" were absent, *over 96 percent of patients responded to commands* and indicated they were aware.[80] Similar findings of awareness during surgery after barbiturate anesthesia induction have been confirmed in other studies.[81,82,83,84] Many of these patients do not spontaneously respond to painful stimuli, and need to be given a direction before they move. This is possibly due to other, direct effects of barbiturates on the cortex and thalamus of the brain—but the exact reasons for this phenomenon are not known.

Based on studies of responsiveness to commands following induction of anesthesia, the effect of IV short-acting barbiturates in a high percentage of cases is *unresponsiveness* rather than unconsciousness, and it is extremely likely that prisoners given even high doses of barbiturates retain consciousness long enough to experience pain and suffering from sensations of drowning and suffocation during the execution process using single-drug pentobarbital. This is borne out by examining eye-witness accounts of pentobarbital executions, including most recently that of Byron Black on Aug. 5, 2025.[85]

Catherine Sweeney WPLN: "At 10:33 he was sighing heavily. He told his advisor 'It's hurting so bad.' And she said 'I'm so sorry.' Um he was groaning in pain saying 'ooo' a lot. Um at 10:34 one of the TDOC workers pulled the sheet back some. His hands were

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[78] Gaitini L, Vaida S, Collins G, et al. Awareness detection during caesarean section under general anaesthesia using EEG spectrum analysis. Can J Anaesth 1995; 42:377-81.

[79] The reasons why some aware patients do not respond are not yet clear, but a subject of research. Possible factors include effects of sedatives on "executive function" areas of the brain that made decisions about how to react to various stimuli. At least one patient reported to researchers that she simply "did not feel like" responding. Others may avoid responding out of fear of increased pain. Interestingly enough, when told what to do e.g. "if you feel pain, squeeze my fingers," they are much more likely to respond.

[80] King H, Ashley S, Brathwaite D, et al. Adequacy of general anesthesia for cesarean section. Anesth Analg 1993; 77:84-8.

[81] Gaitini L, Vaida S, Collins G, et al. Awareness detection during caesarean section under general anaesthesia using EEG spectrum analysis. Can J Anaesth 1995; 42:377-81.

[82] Tunstall ME, Sheikh A. Comparison of 1.5% enflurane with 1.25% isoflurane in oxygen for caesarean section: avoidance of awareness without nitrous oxide. Br J Anaesth 1989; 62:138-43.

[83] Russell IF, Wang M. Absence of memory for intraoperative information during surey under adequate general anaesthesia. Br J Anaesth 1997; 78:3-9.

[84] Slavov V, Motamed C, Massou N, et al. Systolic blood pressure, not BIS, is associated with movement during laryngoscopy and intubation. Can J Anaesth 2002; 49:918-21.

[85] Transcript of eyewitness reports immediately following Byron Black's execution, August 5, 2025

revealed. They were taped as they were last time seemingly with kinesiology tape. Um that makes it hard to notice if the fingers were trembling. Uh that's sometimes a sign of distress. Um at 10:34 he was still groaning and raised his head again."

Hope Salman, WZTV: "His head was going back up and down. He was giving a deep breath and then as his breathing continued he said at some point this is hurting so bad. That was near 10:33. He was doing a lot more deep breaths and um he was letting a lot of sighs like this *sighs* He continued to do that for a while..."

Torri Gessner WKRN: "He was heavily breathing um multiple times he lifted up his head um but I have about three times where he did that at 10:33 he mumbled a little and then said 'it's hurting so bad' um let's see what else yeah lots of moaning and huffing and puffing..."

Nikki Howard, WTVF: "Uh his head did go up a couple of times and then back down on the sheet. Uh I'm going to repeat this part because it feels critically important. At one point he does lift up and he says 'I can't do this.' Maybe whispers, but it was audible. There was a beat and then he said something along the lines of 'It hurts so bad.' Um the spiritual advisor replied to him 'I'm so sorry.' And he audibly gasped um or uh made a sound out loud."... "Uh his feet were moving at some point and he did keep uh bringing his head back up and then down."

Kelly Puente, The Tennessean: "Um I don't have too much more to add. Uh but I will say that Byron Black did appear to show uh visual visible signs of distress. He uh moaned at times. Uh had deep breaths. At uh 10:33 uh he did murmur to his spiritual advisor something along the lines of 'this is hurting so bad' and she replied 'I'm sorry' uh she was trying to calm him telling him to take deep breaths. At 10:34 he lifted his head up and appear and moved back and forth..."

Jonathan Mattise, Associated Press: "I would say at least three or four, uh Byron Black picked his head up, kind of looked around, moved his head around a little bit. He exhaled deeply uh during several of those occasions. At about 10:33 uh his head was tilted towards the spiritual advisor and he just says 'Oh, it's hurting so bad.' His spiritual advisor replied 'I'm so sorry. Just listen to my voice.' Uh shortly after he groaned again."Steve Cavendish, Nashville Banner: "I just wanted to speak up and say that it was unanimous among all of us that we saw him in distress and we heard him in distress after the uh after the administration of the pentobarbital had begun ... several minutes afterwards, uh the quotes were the quotes were as everyone else has said 'oh this hurts so bad' and 'I'm so sorry.'"

Kelley Henry, counsel for Byron Black: "I heard the rest of what everyone else said. Um, I heard him saying 'It hurts so much.' I heard it hurts so much twice. I saw his stomach rising and falling. I heard sounds of difficulty breathing."

In the case of Byron Black, there were concerns that a cardiac device that was implanted in his chest, called an implantable cardiac defibrillator (ICD), might deliver shocks during the execution and cause pain. However, postmortem interrogation of the ICD indicated that no shocks were delivered during the execution, and thus other factors in the execution were responsible for his pain and suffering. The medical examiner documented, for

example, the presence of pulmonary edema and congestion.

Inability to Diagnose Awareness in Unresponsive Patients

As discussed above, studies using the IFT technique and others have demonstrated that no clinical parameters (i.e., changes in heart rate, blood pressure, loss of eyelash reflex, response to moderately painful stimuli such as sternal rub, tearing or sweating) reliably identify whether a patient is aware during full dose general anesthetics that are intended to produce and maintain unconsciousness,[86,87,88,89,90] and *no reliable technical monitor for detecting consciousness in anesthetized patients has ever been found.* Research now has proven that EEG monitors cannot reliably detect consciousness.[91,92,93,94,95] Thus, regardless of what maneuvers, monitors or examinations are performed, the prison warden, physician, and any other witnesses to the execution will not be able to discern whether the prisoner is unconscious, or aware but unable to respond.

I. Patients Who Are Aware by IFT Feel Pain and Suffering

Studies using the IFT not only demonstrate that patients are aware in a significant portion of cases, but also that they can and do experience pain, panic and other distress during that awareness. Studies of the awareness that occurs between the administration of induction drugs and surgical incision and shortly thereafter are the most informative about how pain is affected during administration of solo hypnotic ("sleep" inducing) drugs, simple combinations of drugs, or full general anesthesia when multiple classes of drugs are being administered.

Gaitini[96] found that over half of patients given thiopental for induction were aware for more than 12 minutes after induction—awareness began to fall only as halothane and nitrous oxide, two different inhaled anesthetic gases that were also administered, began to reach their effective levels. Furthermore, during this critical period of time, not only was

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[86] Baker AB. Induction of anesthesia with diazepam. Anaesth 1969; 24:388-92

[87] Blacknion BB, Mahaffey JE, Baker JD. Clinical comparison of midazolam hydrochloride and midazolam maleate for anesthesia induction. Anesth Analg 1984; 63: 1116-20.

[88] Gamble JAS, Kawar P, Dundee JW, Moore J, Briggs LP. Evaluation of midazolam as an intravenous induction agent. Anaesthesia 1981; 36:868-73.

[89] Russell IF. Comparison of wakefulness with two anaesthetic regimens. Br J Anaesth 1986; 965-8.

[90] Russell IF. Midazolam-alfentanil: an anaesthetic? An investigation using the isolated forearm technique. Br J Anaesth 1993;70:42-6.v

[91] Russell IF. The Narcotrend 'depth of anaesthesia' monitor cannot reliably detect consciousness during general anaesthesia: an investigation using the isolated forearm technique. Br. J Anaesth 2006; 96:346-52

[92] Schneider G Wagner K, Reeker W et al. Bispectial index (BIS) may not predict awareness reaction to intubation in surgical patients. J Neurosurg anesthesiol 2002; 14:7-11

[93] Kerssens C, Gaither JR, Sebel PS. Preserved memory function during bispectral index-guided anesthesia with sevoflurane for major orthopedic surgery. Anesthesiology 2009; 111:18-24.

[94] Avidan MS, Zhang L, Burnside BA, et al. Anesthesia awareness and the bispectral index. N Eng J Med 2008; 358: 1097-108.

[95] Gaskell AL, Hight DF, Winders J, et al. Frontal alphas-delta EEG does not preclude volitional response during anaesthesia: prospective cohort study of the isolated forearm technique. Br J Anaesth 2017; 119:664-73.

[96] Gaitini L, Vaida S, Collins G, et al. Awareness detection during caesarean section under general anaesthesia using EEG spectrum analysis. Can J Anaesth 1995; 42:377-81.

awareness found in studies by both Gaitini[97] and King,[98] but 63 percent of patients in the King study indicated they felt pain. Pain with awareness has been confirmed in multiple other studies using the IFT—in one study pain was demonstrated in 42 percent of patients who were aware, and "pain and distress" in 75 percent—but decreased awareness and decreased pain occurred when volatile anesthetic gases were added.[99]

Thus, awareness occurs in many patients during the induction and maintenance phases of general anesthesia, and pain is reported with awareness in a significant number of them. Both pain and awareness decrease during the general anesthesia after the further administration of multiple, additional, potent anesthetic agents from different drug classes than the barbiturates. This will not be the case in judicial lethal injection using the Tennessee Protocol.

Summary Regarding Pentobarbital Use in Lethal Injection Executions

1. ***Pentobarbital is a short-acting drug of the class barbiturates, which has no analgesic (pain-relieving) properties and in lower doses actually increases sensations of pain. It has onset of clinical actions within a few seconds, and causes unresponsiveness in higher doses within about 1.5 minutes of injection. However, unresponsiveness does not equate with unconsciousness or unawareness.***

2. ***Consciousness, awareness, responsiveness and recall are terms that are frequently misused by physicians and researchers. "Consciousness" (or "awareness") is the subjective experience of events. "Pain" and "suffering" are two kinds of subjective experience that require consciousness. Consciousness exists on a spectrum, that includes experiences of the "real world" (connected consciousness) and experiences in dreams (disconnected consciousness), but both can involve elements of the other. "Responsiveness" is the ability to show physical reactions to events, whether real or imagined. "Recall" is the ability to remember conscious experiences. The medical literature frequently confuses these terms and must be read with caution: most studies of "consciousness" are really studies of "recall."***

3. ***Consciousness cannot be studied in an unresponsive, nonhuman animal.***

4. ***Consciousness can be present without responsiveness or without recall. Recent advances indicate that general anesthetics often fail to produce unconsciousness.***

5. ***Multiple studies using the gold standard for detecting awareness under general anesthesia, the IFT, have shown that many patients (up to 72 percent) are aware under general anesthesia, can feel pain and distress, and can respond, but that they seldom recall events under anesthesia.***

6. ***No clinical parameters (sweating, fast heart rate, tearing, high blood pressure, response to eyelash stimulation, response to trapezius pinch, etc.) accurately detect***

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[97] Ibid

[98] King H, Ashley S, Brathwaite D, et al .Adequacy of general anesthesia for cesarean section. Anesth Analg 1993; 77:83-8.

[99] Sanders RD, Gaskell A, Rax A, et al. Incidence of connected consciousness after tracheal intubation. A prospective, international, multicenter cohort study of the isolated forearm technique. Anesthesiology 2017; 126:214-222

or rule out consciousness/awareness and no neuromonitoring technology accurately detects or rules out consciousness.

7. ***Brain responses to visual, auditory and physical stimuli measured in human patients show that even after very high clinical doses of pentobarbital (enough to render the electroencephalogram, a brainwave monitor, completely flatline) the brain is still able to receive and process physical sensations.***

8. ***Situations such as "locked-in" syndrome both demonstrate physical states in which consciousness is present but the patient cannot respond despite not being paralyzed, and also demonstrate that patients experience extreme terror and desperation while in such states.***

9. ***IV injection of pentobarbital causes onset of unresponsiveness within several minutes of IV injection. Up to 96 percent of patients who are anesthetized using barbiturates retain consciousness for a significant period of time after barbiturate injection. Because most anesthetic drugs cause amnesia, those patients seldom later recall doing so, but during the experience have reported pain and distress.***

10. ***It is very likely that a person injected with pentobarbital under the Tennessee Protocol will be conscious, aware, and feeling sensations of pain, drowning and suffocation for a significant period of time during and after injection, even if the body shows no responsiveness.***

II. GENERAL ANESTHESIA AND JUDICIAL LETHAL INJECTION: CRITICAL DIFFERENCES

It should be emphasized that the administration of general anesthesia is critically different from administration of drugs for judicial lethal injection, even though they may involve some of the same drugs. General anesthesia for severely noxious stimuli, such as the procedures performed during surgery, virtually *never* consists of giving only one drug or one class of drug alone. While single "brain chemicals" can be administered as "anesthesia" for techniques involving minor amounts of pain or discomfort, or that are extremely brief in duration, today it is very uncommon to do so because our understanding of the deficiencies of such techniques has evolved. Solo anesthetic drugs are never sufficient to produce appropriate anesthesia for significant procedures that involve significant pain. During general anesthesia, multiple drugs are given to target multiple areas in the brain with the intent of diminishing the pain and awareness, that would occur when only one or even a couple of drugs are given.

The administration of general anesthesia requires knowledge, years of training and a thorough understanding of the effects of multiple drugs as they will work in combination. Even a very simple, balanced anesthesia technique requires administration of multiple chemicals targeting different areas of the brain and different neurotransmitter systems, and some primarily targeting the musculoskeletal system. This involves use of entirely different classes of drugs in combination to produce multiple effects in the brain.[100] The administration of a single drug

[100] Examples include 1) propofol, etomidate, barbiturates, and benzodiazepines that affect the $GABA_A$ receptor and GABA itself; 2) inhaled anesthetics such as isoflurane and sevoflurane that have multiple effects throughout the brain and spinal cord

that acts at very narrowly defined areas in the brain, such as in lethal injection executions, can in no way be equated to, nor act in even similar ways to, general anesthesia, which aims to produce unconsciousness, immobility, analgesia and amnesia.

In studies of patients undergoing anesthesia, awareness as measured by IFT was highest when only one or sometimes two IV drugs have been administered, and fell as the actions of multiple drugs that affect different types of receptors in the brain were rising to effective levels in the body. In the studies of awareness in which thiopental was the solo induction agent or was used in combination with just one other drug (usually a narcotic), awareness was most pronounced during the first 10 to 12 minutes of the anesthetic, or from the period immediately following injection of the barbiturate, to several minutes following incision, when the additional drugs—often an anesthetic gas plus nitrous oxide[101]—could be expected to have reached their effective doses. Russell found that awareness following administration of thiopental as measured by IFT was highest for several minutes, until nitrous oxide and other drugs were given.[102] King found that after thiopental induction, in 30 patients, 76 percent demonstrated awareness on IFT at surgical incision, which can occur 15-20 minutes after induction, and that IFT responses began to fall thereafter at the time when the halothane and nitrous oxide (that had been started after induction) would finally have reached their effective levels.[103] Without the addition of the inhalational agents, it is very likely that awareness would have persisted longer.

Summary of Lethal Injection Versus General Anesthesia

1. ***The practice of anesthesiology and administration of general anesthesia is not related in any way medically to judicial lethal injection, although they may look similar to the uneducated observer.***

2. ***General anesthesia for procedures that are more than minimally painful or that last more than a few moments never consists of administration of a single drug that affects just one brain receptor, but rather administration of up to 10 different anesthetic drugs in IV and gas that affect multiple different receptors in the brain***

3. ***Understanding brain effects of anesthetics, and designing and administering a combination of multiple drugs tailored to the medical needs of individual patients, takes years of specialized training and experience.***

III. FLASH PULMONARY EDEMA: SUFFOCATION AND DROWNING AFTER IV

that are independent of GABA and the $GABA_A$ receptor but that affect other sites, such as potassium channels and direct effects on the spinal cord; 3) the inhaled analgesic nitrous oxide that relies on N- methyl-D-aspartate (NMDA) receptors and potassium channel activation; 4) ketamine that relies on NMDA receptor effects; dexmedetomidine that promotes alpha adrenergic neurotransmitter effects; 5) droperidol that acts on sites affected by the neurotransmitters norepinephrine, dopamine, and serotonin; 6) scopolamine or other anticholinergic agents that act on cholinergic receptors; and 7) opioids such as fentanyl, sufentanil, alfentanil, remifentanil, morphine, demerol and other that act on specific opioid binding sites in the brain and spinal cord; as well as many others.

[101] Nitrous oxide is not an "anesthetic" gas, since at its maximum dose it does not as a solo drug prevent response to surgical incision. It does, however, reduce pain and is termed an "analgesic".

[102] Russell IF. Midazolam-alfentanil: an anaesthetic? An investigation using the isolated forearm technique. Br J Anaesth 1993;70:42-6

[103] King H, Ashley S, Brathwaite D, et al. Adequacy of general anesthesia for cesarean section. Anesth Analg 1993; 77:84-8.

OVERDOSE OF PENTOBARBITAL

A. Pulmonary Edema is a Known Result of Barbiturate Overdose

It has been known for many decades that a direct complication of barbiturate overdose is pulmonary edema, or fluid leakage into the tissues of the lungs.[104] IV injection of high-dose barbiturates including pentobarbital has been shown to be associated with "flash" pulmonary edema in both animals and humans,[105,106,107,108] in which the lungs immediately flood with fluid, causing shortness of breath, air hunger, increased work of breathing, and excruciating sensations of drowning.[109,110] This occurs because of several long-known, scientifically proven and well-studied effects of high-dose barbiturates, including 1) direct damage to pulmonary capillary membranes, 2) depression of the pumping strength of the left ventricle, and 3) collapse of the upper airway causing negative "suction" pressure in the lung that pulls fluid into the air containing spaces (aka alveoli).[111] Flash pulmonary edema occurs in lethal injection executions using pentobarbital due to all of these mechanisms:

1. Barbiturates are very alkaline (pH 9.0-10.5)[112] and in high doses cause immediate caustic burns on exposed internal tissues, such as lung membranes. When injected intravenously, the barbiturate travels through the veins, causing chemical burns to the lining of the veins and extreme pain as the drug travels to the heart, and before it has reached the brain. The barbiturate then passes through the right ventricle of the heart, and travels to the lungs. When it comes into contact with the delicate membranes that line the air-exchanging chambers of the lungs (the alveoli and capillary membranes), this alkaline solution causes immediate direct caustic damage (severe burns) that destroys elements of those membranes. This initiates a sequence of events in which blood plasma and tissue fluids immediately pass through the burned tissue and fill the spongey part of the lungs with fluid, a condition called "pulmonary edema." Only after passage through the lungs, does the barbiturate then travel through the left ventricle of the heart, and is pumped out to the rest of the body, including the brain.

2. After the barbiturate leaves the lungs and reaches the left ventricle of the heart, it

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[104] Nilsson E. Care of respiratory and air passages in connection with barbiturate poisoning. Int Anesthesiol Clin 1966 Summer; 4:309-22

[105] Nilsson E. Care of respiration and air passages in connections with barbiturate poisoning. Int Anaesthesiol Clin. 1966; 4:309-22.

[106] Goodman JM, Bischel MD, Wagers PW, Barbour BH. Barbiturate intoxication: morbidity and mortality. West J Med 1976; 124:179-86

[107] Lee WJ, Rie EU. OH DR, et al. A patient with pulmonary edema and cardiac arrest after phenobarbital overdose. J Korean Soc Emerg Med 1999; 10:294-300.

[108] Schoenfeld MR. Acute pulmonary edema caused by barbiturate poisoning: a consideration of its genesis and therapy. Angiology 1964; 15:445-53.

[109] Wedro B. Pulmonary edema. Emedicinehealth. Updated 2/1/19. Available at: http://emedicinehealth.com/pulmonary_edema/article_em.htm#what_are_the_symptoms_of_pulmonary_edema. Accessed October 18, 2019

[110] Gagne D. Acute pulmonary edema. CathLabDigest September 5, 2012. Volume 20. Available at: https://cathlabdigest.com/Acute-Pulmonary-Edema. Accessed Nov 4, 2025.

[111] Schoenfeld MR. Acute pulmonary edema caused by barbiturate poisoning: a consideration of its genesis and therapy. Angiology 1964; 15:445-53.

[112] Pentobarbital Sodium. Drugs.com. Available at: https://www.drugs.com/pro/pentobarbital-sodium-injection.html. Accessed April 8, 2025

virtually instantaneously depresses the main pumping chamber of the heart. Blood backs up in the left-sided heart chambers and lungs, raising the pressure in the blood vessels in the lungs and "pushing" fluid even more rapidly across the damaged membranes into the air-exchanges spaces.

3. After those processes are underway, the barbiturate finally reaches the brain, and direct neural effects cause the muscles in the airway to collapse, partially or completely obstructing the airway. This, along with pulmonary edema, causes extreme sensations of drowning and suffocation. Increased efforts to draw in air against the obstructed airway causes a drop in pressure inside the chest which would normally cause the lungs to fill with air if the airway were not obstructed. With airway obstruction, the negative pressure ("suction") inside the chest that results from increasing gasping efforts to breathe causes more blood and fluids to enter the chest from the lung capillaries, further pulling fluid into the damaged lung tissue. This well-described phenomenon is called "negative pressure pulmonary edema."[113]

4. The sudden fluid buildup in the lungs is called "flash pulmonary edema," because it can happen in a matter of seconds to minutes. It is well known in barbiturate overdoses, even those not associated with lethal injection executions. It can occur almost instantly following IV barbiturate injection.[114] I have personally witnessed a patient develop flash pulmonary edema *after a single attempt to take a breath* while their airway was obstructed.

B. Sensations of Drowning/Suffocation

Not being able to breathe during drowning or asphyxiation is one of the most powerful, excruciating feelings known to man. It is nearly impossible for most untrained human beings to hold their breath voluntarily for much more than 1 minute. Unless specially trained and breathing 100 percent oxygen at the time that they begin breath holding, most human beings will reach a "break point" and take a breath long before they run out of oxygen or have enough carbon dioxide in their system to force them to do so.[115] The mechanism of this is not entirely understood, and may have to do with the signals reaching the brain that the diaphragm is not moving, but in under 60 seconds, sensations of asphyxia and compulsion to breathe appear and rapidly overwhelm the brain. Panic and terror, and the attempt to fight take over. *Even human beings who are underwater will reach such a level of agony that they will be compelled to take a "breath" although it may take a little longer than 1 minute for them to reach the breakpoint.*[116] The sensation of suffocation and drowning is one that is deliberately elicited in "the enhanced interrogation technique" called waterboarding, which is defined by the European Court of Human Rights as a form of torture.[117] These sensations occur whether or not the victim is able to take that breath.

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[113] Bhattacharya M, Kallet RH, Ware LB, Matthay MA. Negative-pressure pulmonary edema. Chest 2016; 150:927- 33.
[114] Potts MW, Smethurst PW. Pleural effusion complicating thiopentone administration. A case report. Br J Anaeth 1967; 39:78-8.

[115] Parkes MJ. The limits of breath holding. Scientific American. April 2012; pp74-9.
[116] Ibid.
[117] European Court of Human Rights Former fourth section: case of Husayn (Abu Zubaydah) v Poland. (Application no. 7511/13) judgement. Strasbourg 24 July 2014. FINAL 16/02/2015. Treatment to which the applicant was subjected at the relevant time. Paragraph 511. http://hudoc.echr.coe.int/eng?i=001-146047.Accessed November 16, 2025.

The victim may be physically unable (for example paralyzed by a paralytic drug), or physiologically impaired by drugs that "lock in" the brain and make it impossible for the brain to act on these sensations. A lack of visible breathing effort therefore does not indicate that sensations of drowning and suffocation are absent.

C. Autopsy Evidence Regarding Flash Pulmonary Edema During Lethal Injection with Barbiturates

As part of this report, I have reviewed autopsy findings in 29 prisoners who were executed in Florida, Arizona, Georgia, South Carolina, Oklahoma and Tennessee between 2001 and 2025 by judicial lethal injection of barbiturates alone or in combination with other drugs (see **Appendix III**). Of the 29 autopsies, the pathologist failed to comment on the presence or absence of pulmonary edema and/or failed to report taking sections of lung tissue in seven cases.[118] Of the 22 cases in which commentary was made on the lungs, *100 percent demonstrated pulmonary congestion and pulmonary edema,* which are not normal autopsy findings. In 45 percent of the cases, edema was rated as moderate, and in 45 percent of cases edema was rated severe, abundant, intense, and/or was associated with fluid in the main airways (indicating severe pulmonary edema). In two cases (10 percent), edema was present, but not characterized. In three-quarters of severe cases, fluid was found filling the main airways and tracheobronchial tree—in one case filling the airways all the way up to the back of the throat. Thus, at least 90 percent of the cases of pulmonary edema were moderate to severe, many with fluid filling the major airways.

Studies of patients who die suddenly without significant lung trauma do not show the development of pulmonary edema after death. Shiotani et al.[119] attempted to determine whether lungs underwent specific changes following death that could be detected on CT scan. They undertook a poorly designed study in just three patients to examine CT scans of lungs in people who had died following cardiopulmonary resuscitation (CPR – which causes direct trauma to the bones and tissues of the chest) as well as the infusion of an unknown quantity of fluid following illnesses in the hospital that led to cardiac arrest. Although their study confirmed pulmonary edema was present on autopsy at a single point in time after two CT scans, the authors admit that the cardiac deaths, CPR and probably chest trauma, together with a failure to document fluid infusions were serious problems with the study, and that fluid found in the lungs on CT and later autopsy could have been due to those factors and required further investigation. Ishida et al[120] studied CT examinations in patients who died without trauma, most of whom had heart failure and other problems that increase fluids in the lungs. They actually did not examine pulmonary edema, but rather studied pleural effusions (fluid that is in the chest, but outside of the lung tissue itself). Their study demonstrated that fluid that was already present at death "settled" into lower areas in the airways—i.e. the bronchi and trachea, not the lung tissue—and accumulated into pools with time, not that pulmonary edema fluid actually developed and

[118] Three of these cases took place in Arizona and were autopsied by the same examiner, so this may represent a local or individual practice, and two more were performed by a pediatric pathologist, and may represent personal practice, or pediatric practice rather than routine adult practice.

[119] Shiotani S, Kobayashi T, Hayakawa H, et al. Postmortem pulmonary edema: a comparison between immediate and delayed postmortem computed tomography. Legal Med 2011; 13:151-5

[120] Ishida M, Gonoi W, Hagigawa K, et al. Fluid in the airway of nontraumatic death on postmortem computed tomography. Am J Forensic Med Path 2014; 35:113-17

increased in the lung tissues of a dead body. Joachim et al,[121] on the other hand, did the only study using autopsies on normal lungs from 10 patients who died very suddenly and without cardiopulmonary disease. Because the patients did not survive for any significant length of time after their fatal event, the heart was unable to pump fluid into the lungs and cause pulmonary edema before death. Not only was no pulmonary edema found in these patients, but the time between death and autopsy did not affect the amount of fluid in the lungs—i.e. fluid did not accumulate after death when the autopsies were delayed.

In fact, a recent review and update of what should be considered "normal" human organ weights at autopsy undertaken by Bell et al, on behalf of the Autopsy Committee of the College of American Pathologists found that normal lung weights at death are much lower than previously recognized.[122] This means that the increase in lung weights seen after lethal injection executions is far *greater* than previously recognized, and represents *much worse pulmonary edema* than previously thought. The new values found by the committee may not be reflected in textbooks for another five to 10 years,[123] and so the authors have recommended use of their updated tables for current work.

Development of pulmonary edema requires blood pressure in the blood vessels of the lungs to push fluid into the air containing spaces: and blood pressure requires the presence of a beating heart. Because the pulmonary edema found in prisoners had to develop while the prisoners were still alive during the execution protocol (i.e., not over hours or days beforehand), the autopsies of prisoners executed using pentobarbital all demonstrate "flash" pulmonary edema. In addition, pulmonary edema was found in a woman as well as men, and across a wide age range. Flash pulmonary edema developed in prisoners who had no known cardiovascular or pulmonary disease, indicating that it was not due to chronic heart failure, and was rather due to immediate toxic/caustic damage to the pulmonary capillaries by the barbiturate, possibly combined with negative pressure pulmonary edema due to upper airway edema and other causes of airway obstruction, including barbiturate-triggered laryngospasm (spasm of the upper airway) and bronchospasm (constriction of the lower airways, similar to asthma).

Experience in humans and animal models indicate that flash pulmonary edema begins virtually immediately during high-dose barbiturate injection, and well within a timeframe before peak drug effects on the brain have occurred.

Summary of Flash Pulmonary Edema

1. ***Pulmonary edema and flash pulmonary edema only occur in living patients while the heart is still beating.***

2. ***Both are well-described and well-known to occur in barbiturate overdoses, whether by oral overdose or IV injection.***

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[121] Joachim II, Riede UN, Mittermayer CH. The weight of human lungs as a diagnostic criterium. Path Res Pract 1978; 162:24-40

[122] Bell MD, Long T, Roden AC, et al. Updating normal organ weights using a large current sample database. Arch Pathol Lab Med 2022; 146:1486-95

[123] This is based on the normal cycle of textbook updates (approximately every 10 years) plus the time to publication from writing dates (approximately two years).

3. ***Flash pulmonary edema has been demonstrated to occur in patients within seconds to minutes of IV injection.***

4. ***Pulmonary edema produces profound sensations of drowning, suffocation, and terror in patients.***

5. ***Autopsies of prisoners executed using pentobarbital or thiopental as a single drug or part of a multiple drug lethal injection protocol demonstrate that when a full examination of the lungs is documented, 100 percent of prisoners developed flash pulmonary edema before death.***

IV. RISKS AND DEFICIENCIES OF THE TENNESSEE LETHAL INJECTION PROTOCOL PROCESSES

The Tennessee Protocol is inherently vague, and obscures important aspects of the state's intended preparation for and implementation of executions. The lack of crucial details in the Protocol creates a significant impediment to critical review. Crucial and obvious deficiencies in the Protocol and processes are as follows:

A. Specific Training and Experience of Specially Trained Non-Department Personnel

1. The Protocol specifies that the TDOC Commissioner will choose members of the IV Team and the Physician:

a. The IV Team

While the Protocol specifies the types of professionals "with relevant training" who can serve on the IV team, it is nonspecific with regard to what experience and what skills are actually required to be eligible. Training and certification in peripheral IV placement in the limbs has proven in many executions to not be sufficient for executions. For example, a high number of IVs end up being placed into central veins in the chest, neck and groin. Repeat and protracted IV starts, and placement of central venous access are painful, and are associated with increased risks of mal-placement and failure to deliver the full dose of pentobarbital into a vein. When IV starts are difficult or protracted, "cut downs" have been used during lethal injection executions, a surgical procedure in which large incisions are made in the arms, legs or other areas, the tissue is dissected with a scalpel down to a vein, and the catheter is placed in the exposed vein. Reports from "survivors" of lethal injection execution attempts indicate that at times this is done without anesthetic, causing excruciating pain.[124,125]

Skills for difficult IV access, including surgical access of veins as in cut- downs, required continuing practice, and past certification does not mean that an individual has current skills. The TDOC Commissioner is unlikely to have the knowledge necessary to ascertain the actual current skill level of IV team

[124] Pilkington E. What is it like to survive an execution by lethal injection? *The Guardian.* December 28, 2022. Available at: https://www.theguardian.com/world/2022/dec/28/lethal-injection-surviving-execution-attempt-alabama Accessed Jan 14, 2024

[125] Broom R, Nonhebel C. *Survival on Death Row.* Independently published. March 17, 2019. ISBN 1795025034

participants, unless the Commissioner is a medical professional themselves.

b. The Physician

There is no specification of the professional knowledge and skills of the Physician who will be chosen, nor on what basis the TDOC Commissioner will make this determination. There are no parameters given for the Commissioner to follow, such as which medical specialists would have appropriate knowledge and skills, how much experience the Physician must have, and what skills need to be verified.

Having an MD degree is not sufficient to assure that the individual will have skills in helping to place central IV lines if they become necessary, or in doing an appropriate evaluation to determine death. A brand new medical school graduate with no clinical experience, allergists, ophthalmologists, dermatologists, and psychiatrists are all physicians, for example, but none is likely to have current skills in central line placement or declaring death. Internists and other primary care practitioners would not be generally qualified or skilled in regularly performing femoral cut-down procedures to access a femoral vein, which is a surgical procedure requiring specific training and current skills that has been commonly used in lethal injection cases.

Whether central IV placement is successful and relatively pain-free is significantly affected by the number of lines and the frequency with which the Physician places them.[126] The incidences of line infiltration and inadvertent placement into an artery instead of a vein are high for physicians without significant, ongoing and routine practice of those lines, even if they have technical knowledge about how they are done.[127]

Repeat attempts to establish peripheral or central venous access, line infiltration and/or inadvertent intra- arterial injection of pentobarbital sodium are excruciating events and poor line placement can result in slow suffocation if only partial injection is achieved, and a lingering and extremely painful death and/or failure of the execution altogether.

Due to the special skills needed in central line placement, healthcare systems now generally require proof that a practitioner has appropriate training and also has continued proficiency (meaning they have actually placed central

[126] McGee DCI, Gould MK. Preventing complications of central venous catheterization. New Eng J Med 2003; 348:1123-33

[127] Theodoro D, Krauss M, Kollef M, Evanoff B. Risk factors for acute adverse events during ultrasound-guided central venous cannulation in the emergency department. Acad Emerg Med 2010; 17:1055-61

lines in patients recently).[128,129,130,131,132] Generally speaking, training and demonstration of competency is required for each central line insertion site (e.g. femoral, subclavian, internal jugular) separately, since the techniques differ. Practitioners may have to show that they have placed up to 10 central lines during training and/or in the preceding privileging period—which is usually two years.[133,134,135,136,137] Professional guidelines and recommendations, professional publications, and many institutions now require the use of ultrasound for central line placement,[138] which entails additional specialized training as well.[139,140]

In his deposition on Oct. 27, 2025, the Physician who attended the execution of Byron Black on August 5, 2025 stated that he has also attended (on other dates) the executions of other prisoners (whose names he does not recall).[141] He admitted that he has not placed a central line in over 12 years, has only placed a total of about a dozen central lines in his entire career, has never used ultrasound to place a central line, and only "uses" the subclavian approach—a method that is associated with significantly higher severe vascular and thoracic complications (**see IV complications**, below)-- in one series, 90 percent of one of the most serious complications of central line placement, injury to and perforation of the great vessels of the chest, was

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[128] Johns Hopkins Hospital. Vascular access device (VAD) policy, adult. Effective date 3/1/2008. Available at: https://www.ahrq.gov/sites/default/files/wysiwyg/hai/clabsi-tools/vascular-access-device-policy.pdf Accessed Nov 4, 2025

[129] Carilion Clinic Medical Education Policy: Central Venous Catheter (CVC) Placement. Updated 2019. Available at: https://www.carilionclinic.org/gme-cvc-placement Accessed Nov 4, 2025

[130] UCSF Medical Center. Central line placement and temporary nontunnelled central venous dialysis catheter insertion (Adults, peds). Updated March 2016. Available at: https://medicalaffairs.ucsf.edu/sites/g/files/tkssra856/f/wysiwyg/ahpPrivileges/Central%20lines.pdf Accessed Nov 15, 2025

[131] Erlanger. Central line management practice management guideline (Tennessee hospitals only). Available at: https://www.erlanger.org/-/media/file/stg/central-line-management-practice-management-guideline.ashx Accessed Nov 4, 2025

[132] University of Washington Medicine. Vascular Access Management in Adult Patients. Updated 2023. Available at: https://one.uwmedicine.org/sites/Policies/Policies%20Live/uwm-ea-3338.pdf#search=vascular%20access%20management%20adult Accessed Nov 4, 2025

[133] Johns Hopkins Hospital. Vascular access device (VAD) policy, adult. Effective date 3/1/2008. Available at: https://www.ahrq.gov/sites/default/files/wysiwyg/hai/clabsi-tools/vascular-access-device-policy.pdf Accessed Nov 4, 2025

[134] Carilion Clinic Medical Education Policy: Central Venous Catheter (CVC) Placement. Updated 2019. Available at: https://www.carilionclinic.org/gme-cvc-placement Accessed Nov 4, 2025

[135] UCSF Medical Center. Central line placement and temporary nontunnelled central venous dialysis catheter insertion (Adults, peds). Updated March 2016. Available at: https://medicalaffairs.ucsf.edu/sites/g/files/tkssra856/f/wysiwyg/ahpPrivileges/Central%20lines.pdf Accessed Nov 15, 2025

[136] Erlanger. Central line management practice management guideline (Tennessee hospitals only). Available at: https://www.erlanger.org/-/media/file/stg/central-line-management-practice-management-guideline.ashx Accessed Nov 4, 2025

[137] University of Washington Medicine. Vascular Access Management in Adult Patients. Updated 2023. Available at: https://one.uwmedicine.org/sites/Policies/Policies%20Live/uwm-ea-3338.pdf#search=vascular%20access%20management%20adult Accessed Nov 4, 2025

[138] Johnston AJ, Simpson MJ, McCormack V, et al. Association of Anaesthetists guidelines: safe vascular access 2025. Anaesthesia 2025; 80:1382-96

[139] Vegas A, Wells B, Braum P, et al. Guideline for performing ultrasound-guided vascular cannulation: recommendations fo the American Society of Echocardiography. J Am Soc Echocardiogr 2025; 38:57-91

[140] McGee DCl, Gould MK. Preventing complications of central venous catheterization. New Eng J Med 2003; 348:1123-33

[141] Deposition of the Physician, November 7, 2025, pages 29-33.

associated almost exclusively with the subclavian vein approach.[142] The Physician admitted that during one of his own central line placements, he placed a guidewire into the carotid "vein"— which is an injury to a great vessel, and is considered a major vascular complication that by itself can cause stroke and death. He also stated that he does not perform femoral cut-down IV placements. Based on his own statements in his deposition, the Physician involved in the executions of Byron Black and Oscar Smith does not have the current experience or training that would be required to obtain or retain privileges to place central lines at many, if not most, major healthcare institutions today.

c. The Protocol fails to state what would qualify as a professional disqualification.

Under the terms of the Protocol, licensed physicians, nurses and others who had committed proven malpractice, or been subject to professional disciplinary action or license removal due to incompetence would be considered "qualified," although they may present serious risks to the prisoner.

d. The Physician is not present during periods of the execution in which he is charged with making key decisions.

According to the Protocol, the Physician will be "stationed" in the Capital Unit Garage. The Physician will therefore actually not be able to directly observe and determine, for example, that there have been too many IV attempts and if a central line is needed. At best, this will delay interruption of painful, unsuccessful attempted procedures until someone recognizes that they need to stop, and notifies the Physician. Similarly, the sequence of events outlined in the Protocol describes the following steps after injection of the pentobarbital:

- After injection of the first 4 syringes, a 5-minute waiting period begins.
- After the waiting period the blinds are closed and camera turned off. "The Warden asks the Physician to enter the room"—presumably by sending word to the Physician who is waiting in the Capital Unit Garage.
- The Physician determines whether the inmate is deceased.
- A determination by the Physician that the inmate is not deceased requires the executioner to then and only then prepare a backup set of syringes (Set B) for administration.
    - Note that it is not clear from the Protocol whether the pentobarbital is supplied to the prison in pre-filled syringes, or even if it is in solution. If the drug is supplied in crystalline form, the executioner will have to

[142] Robinson JF, Robinson WA, Cohn A, et al. Perforation of the great vessels during central venous line placement. Arch Int Med 1995; 155:1225-8

reconstitute the drug as well as draw it up into syringes, further delaying the process, all the while under pressure to proceed with the execution.

- The blinds are reopened and [the injection] is repeated.

Stationing of the Physician in another location—the garage—means that critical steps in the execution will be prolonged. The prisoner must wait while the Physician is summoned, examines them and orders a second injection, the new set of syringes is prepared, the curtains are opened and a second injection given, all the while experiencing feelings of suffocation and drowning while the progression of the execution is delayed.

A diagram of the execution chamber and its surrounding rooms demonstrates that this will require someone to cross out of the execution chamber, pass through another room, and locate the Physician in the garage. The Physician will have to pass back through that pathway to the execution chamber, where he will examine the prisoner. If, after examination, the prisoner is still alive, the executioner must then leave the lethal injection room, pass through a separate room and exit it, entering the injection supply room, unlock the storage container holding the lethal injection supplies, and remove the lethal injection drug. The Protocol does not specify whether the lethal injection drug will be stored in its crystalline form or require reconstitution (suspension in liquid). If reconstitution is needed, the executioner must locate supplies to reconstitute the drug, carry out a careful and accurate reconstitution to assure the correct drug dosage, travel back through the intermediate room once more to return to the execution injection room, and apply the syringes to the prisoner's IV and inject them in the correct order.

B. Execution Equipment and Procedures

The Protocol does not specify critical equipment and procedures to be used during the execution:

1. Monitoring Equipment

ECG

The Protocol mentions attaching an "electrocardiograph" (ECG, or EKG), but does not specify any other monitoring. ECGs can be difficult to interpret, and lead displacement is common in patients, particularly if they are sweaty, anxious, or moving—all of which can be presumed to occur in the prisoner awaiting execution. In addition, the Protocol does not indicate how many and which electrical leads will be placed and monitored. Diagnosing electrical activity (or absence thereof) requires using several different ECG leads and not just one—due to the orientation of the heart relative to the leads on the chest wall, it is possible for some leads to show no activity, even while others continue to show normal electrical activity of the heart.

IV size

Infiltration and extravasation increase with small IV size and shorter IV catheter length and can lead to an excruciating death (see Risks of IV access, below). The length of tubing permitted from the injection port for the drug and the prisoner's vein is important—the longer the tubing the higher the resistance and pressure in the IV line, leading to increased risk of infiltration and extravasation, and to slower delivery of drug and lower drug levels in the bloodstream.

Restraints

The Protocol does not specify the purpose for and type of restraints used in the execution, and taping of the fingers and hands prevents signs of distress from being seen by eyewitnesses.

Some restraints that have been used in Tennessee executions do not serve any discernable purpose with regard to preventing disruption of the execution. These include taping the hands and fingers (as well as covering them with a sheet). Multiple eyewitnesses reported that in the executions of Byron Black and Oscar Smith, the fingers of the hands appeared to be taped with kinesiology tape.[143] And postmortem photographs of Byron Black (and Oscar Smith) confirm this. My own review of other executions, and personal experience at the execution of Gilbert Postell in Oklahoma (February 17, 2022) indicates that this has not been done in other states' executions. Since arm/wrist restraints alone would prevent any inadvertent movements of the prisoner or significant attempt to dislodge an IV, taping the hands and fingers merely prevent eyewitnesses from being able to see small movements of the hands and observe indications that the prisoner might be suffering during pentobarbital injection, that they are aware and reacting, and therefore whether there were additional signs of physical distress.

Postmortem photographs of Byron Black in the death chamber also demonstrate that thick restraining straps along with shirt and possible blanket material was placed on his chest precisely over areas that are required for medically appropriate auscultation of the heart (i.e. use a stethoscope to listen to the heart) before declaring death. This increases the likelihood that the sounds of a beating heart will be obscured (see below under the Physician's methods for declaration of death).

2. IV Access: Sites, Number of Attempts, and Prolonged Attempts at Placement

The Protocol states that, if necessary, the Physician will place a central line. But who will decide if a central line is needed instead of a peripheral IV line? Is there a time limit? Can the team keep making attempts for an hour or more before determining that a different type of IV is needed? How many attempts is too many? Problems with IV access and the associated pain with repeated attempts, and suffering following infiltration of lethal injection drugs into tissues, constitute one of the most frequent complications of judicial lethal injection. About one-third of executions in

[143] Transcript of eyewitness reports from Aug. 5, 2025, immediately following Byron Black's execution and postmortem photographs of Byron Black's body in the execution chamber following lethal injection.

2022 were "botched," most due to IV access issues[144] (for examples of IV complications, see section on **Complications of IV Access,** below).

The Protocol calls for a second round of pentobarbital to be injected if after 5 minutes an examination by the Physician demonstrates that the prisoner has not expired. However, according to the Protocol, the syringes will not be drawn up until after the Physician has performed that examination. **The Protocol further specifies that the physician will be stationed and waiting in "the capital punishment garage."** Thus, according to the Protocol there will be a 5-minute wait, and then additional time while the physician is summoned, comes to the execution chamber, and performs an examination and determines that a second dose of pentobarbital is needed. If the prisoner is not dead, there will be more time needed to draw up the pentobarbital and saline into separate syringes during a period that is certainly going to be fraught with pressure and anxiety among participants, all while the prisoner awaits another injection. Not only will this prolong the execution but it increases the risks that errors in the sequence and drug handling will occur.

3. The Physician's methods for declaration of death must meet medical standards, and also legal standards under the Uniform Definition of Death Act passed by the states: *they are not at the discretion of the Physician.*

While absence of breath sounds, heart sounds and absence of electrical activity on the ECG are all parameters that are used in various combinations to declare death, the specific criteria are not delineated for declaring death in the Tennessee Protocol. It should be noted that brain death cannot be legally declared anywhere in the United States if there are barbiturates or other brain-suppressing toxins present in the persons' bloodstream.[145]

Since declaration of death must legally conform with cardiopulmonary, and not brain death criteria, a prisoner must have "irreversible cessation of all circulatory and respiratory function" to be legally declared dead.[146] A prisoner may have a lack of breath sounds and heart sounds, for example, but still have electrical activity and function in the heart, and therefore not meet the legal or medical definition of death.

Heart Sounds

Many conditions can cause heart sounds to be difficult to hear or even inaudible even though the heart is still beating, including obesity, chronic obstructive pulmonary disease, fluid around the heart, low blood pressure and/or shock, improper placement of the stethoscope on the chest, and clothing or other material between the chest wall and the stethoscope. Studies demonstrate that some or all heart sounds are frequently

[144] Kim J. More than a third of executions in 2022 were 'botched,' a report finds. NPR. December 21, 2022. Available at: https://www.npr.org/2022/12/21/1144188268/executions-2022-botched-lethal-injection Accessed July 25, 2025

[145] Gabrielli EM. Clinical Overview: Brain death diagnosis in Adults. Elsevier Inc. Philadelphia PA. 2024. Available at: https://www.clinicalkey.com/#!/content/clinical_overview/67-s2.0-V2199 Accessed July 25, 2025

[146] Uniform Determination of Death Act. National Conference of Commissioners on Uniform State Laws. 1980. Available at: https://lchc.ucsd.edu/cogn_150/Readings/death_act.pdf Accessed July 25, 2025

clinically inaudible in alive, hospitalized patients.[147] Administration of pentobarbital during lethal injection executions, because it lowers blood pressure, can interfere with feeling a pulse, and can cause heart sounds to be very soft or even inaudible, while cardiac activity is still present. The "gold standard" for listening for heart sounds is to apply the stethoscope directly to the bare skin of the chest over five critical areas of the chest in turn.[148]

Irreversible Cessation Cardiac Function—the ECG

Even if the ECG initially has an absence of electrical activity, spontaneous recovery of electrical activity has been shown to occur in a large majority of patients before death, and does not become irreversible in most for at least 4.5 minutes after the last heartbeat.[149] Clinical guidelines thus call for the physician to listen and observe for at least a full 5 minutes after suspected cardiac arrest before declaring death.[150] In a study of 480 dying patients that was published in the New England Journal of Medicine, for example, after brief periods of a "flat" ECG, 1 in 7 showed return of heart activity that then sometimes persisted for up to 30 minutes after initial "flatline."[151] In many patients, a pulse could not be felt while the heart continued to show electrical activity—this can happen in the presence of a beating heart when the blood pressure is too low for a pulse to be felt.

Unless the Physician is knowledgeable about legal and medical criteria for death, death could be declared while the prisoner still has a beating heart and is not actually dead. In fact, this appears to be exactly what happened during the Byron Black execution. Review of the continuous, real-time ECG readings during Byron Black's execution on Aug. 5, 2025, reveals that the heart was showing normal sinus rhythm for at least 2 minutes *after* the physician declared him to be dead—and probably much longer, since 2 minutes after the declaration, while electrical activity of the heart was still regular and within a normal heart rate range of 60, the ECG printer was simply turned off.[152]

In his deposition on Oct. 27, 2025, the Physician admitted that he had not checked the ECG tracing for Byron Black's heart before declaring death, even though he was well

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[147] Jariwala N, Czako S, Brenton L, et al. Clinically undetectable heart sounds in hospitalized patients undergoing echocardiography. JAMA Int Med 2021; 182:86-7

[148] The 5 points are just to the left of the sternum in the 2nd intercostal space, just to the right of the sternum in the 2nd intercostal space, Erb's point to the left of the sternum in the 3rd intercostal space, left sternal border in the 4th intercostal space, and in the 5th intercostal space at the midclavicular line.

[149] Dhanani S, Hornby L, van Beinum A, et al Resumption of cardiac activity after withdrawal of life-sustaining measures. New Eng J Med 2021; 384:345-52

[150] Academy of Medical Royal Colleges. Code of Practice for the Diagnosis and Confirmation of Death. 2008. Available at: https://www.aomrc.org.uk/wp-content/uploads/2025/01/Code_of_Practice_Diagnosis_of_Death_010125.pdf Accessed Nov 4, 2025

[151] Dhanani S, Hornby L, van Beinum A, et al Resumption of cardiac activity after withdrawal of life-sustaining measures. New Eng J Med 2021; 384:345-52

[152] We know that the EKG printer was turned off manually at that point. When the EKG printer is turned off manually while the monitor itself remains on, the printout creates a label at the time of final printout that includes an identification of the person being recorded (in this case Byron Black), date of recording, and printout time (in this case 10:44:54) as well as a statement of the current heart rate at the time the printer was stopped (in this case the heart rate was 60) and an indicator of the paper speed and amplitude scale; all of these are clearly visible in the printout label at the end of the EKG monitor strip for Mr. Black.

aware that an ECG monitor was being used. The Physician stated that "if there had been a pulse, I'd have found it," but it is well known that a pulse is often not palpable if a person has low blood pressure, which would certainly have been the case after injection of pentobarbital. He also states that "if the heart was beating I'd have heard it" but it is well known that in many instances, a heartbeat cannot be heard in many patients, particularly if blood pressure is low, as it would have been after injection of pentobarbital. Finally, Exhibit #8 from the Physician's deposition includes a postmortem photograph of Byron Black after his declaration of death, in which he is lying on the gurney, his gown in normal position and undisturbed over his chest. Criss-crossing his chest over the top of his clothing, and appearing to cover all of the five critical points for cardiac auscultation are thick, black restraining straps, still buckled together over a shirt or gown. It would have been impossible to hear heart sounds at all through the straps, even if heart sounds had been present.

Summary of Discussion of the Tennessee Protocol:

The vagueness of the Tennessee Protocol impedes critical review, but what is present in the Protocol raises multiple significant issues:

1. **Multiple problems in the Tennessee Protocol increase risks of prolonging the execution and prisoner pain and suffering, including lack of criteria for selection of execution personnel, and lack of details about procurement and management of pentobarbital.**

2. **The stationing of the physician outside of the immediate area of the execution chamber is particularly astounding, and nonsensical since the Physician is charged with critical portions of the execution procedure such as determining IV placement, placing a central venous line if necessary, and declaring death. Placing the Physician in the garage will prolong execution time if IV access is difficult, and will prolong the prisoner's suffering (if the first dose of the lethal injection does not result in their death), while they wait for the Physician to be retrieved from the garage, perform the examination and order a second dose of the drug.**

3. **The second dose of pentobarbital will only be prepared after the Physician declares that the prisoner is not dead; this will not only prolong the execution, but increases the risk that under the pressure to proceed as soon as possible, errors can be made in drug and syringe handling.**

4. **Characteristics of the IV, the allowed sites, and the allowed number of attempts are not included, and increase the risk of protracted and painful efforts to establish IV access, one of the most common complications during lethal injection executions.**

5. **Criteria to determine death must legally conform with a definition of cardiopulmonary death. Presumption of "brain death" is not legal anywhere in the United States in the presence of barbiturates or other potential brain-suppressing toxins. Respiratory and cardiac functions must have "irreversibly ceased" to meet both medical and legal standards.**

6. **In my expert opinion, Mr. Black had clearly not shown irreversible cessation of all**

cardiac function at the time his death was declared, and the declaration of death did not meet medical or legal criteria.

V. Complications of IV Access: Extravasation, Infiltration, and Inadvertent Intra-arterial Injection of Barbiturates; and Complications of Central Line Placement

Barbiturates are strongly alkaline, and cause immediate caustic destruction of tissues when direct contact occurs (akin to lye).[153] With dilution in IV fluid and further dilution in blood, the drug is reasonably well tolerated in small doses with IV injection, but infiltration or extravasation of even small amounts of the drug causes instant, excruciating pain that patients liken to being set on fire, and requires emergency intervention to reduce extensive tissue damage. Often, gangrene of the arm and hand results.[154] Inadvertent arterial injection (the catheter has been unintentionally placed in an artery rather than a vein) causes instant arterial spasm, pain, excruciating local tissue destruction, and also immediate ischemia (i.e. lack of oxygen, tissue damage and necrosis) in the area of the body supplied by the artery—e.g. infiltration of pentobarbital in an IV at the elbow (antecubital or AC location) can cause the entire arm from the IV site down to the hand to immediately turn white and generate excruciating pain.

In reviewing 29 autopsies of patients executed with pentobarbital or thiopental single or multiple-drug protocols (see **Appendix III**), complications of peripheral line placement was common: only 44 percent of cases in which IV lines were described appeared to be uncomplicated. Problems included multiple attempts in 32 percent, evidence of apparent extravasation in 12 percent, and necessity of central line placement in 24 percent of cases. Some lines were associated with multiple problems.

Professor Michael L. Radelet at the University of Colorado has compiled a list of "botched" executions and their causes.[155] Lethal injection executions that were delayed or halted due to problems related to IV access include:

Executions delayed due to multiple prolonged attempts to start an IV or problems with incomplete delivery of drug into the vein: Stephen Morin (IV attempts lasted 45 minutes), Elliot Johnson (IV attempts lasted > 1 hour), Raymond Landry (IV "blowout" after beginning of injection), Charles Walker (IV placed facing the wrong way), Rickey Rector (IV attempts lasted 50 minutes), Billy White (prolonged IV access attempts, time not documented), John Gacy (drugs precipitated and clogged the IV after the start of injection—IV had to be replaced), Emmitt Foster (drugs stopped flowing into the IV), Richard Townes Jr (IV attempts for 22 minutes), Tommie Smith (attempts for 49 minutes), Michael Eugene Elkins (attempts for > 1 hour), Joseph Cannon (IV came out during injection), Genaro Camacho (attempts for > 2 hrs), Roderick Abeyta (attempts for 25 minutes), Christina Riggs (attempts for 18 minutes), Bennie Demps (attempts for 33 minutes including groin and leg cut downs), Claude Jones (attempts for 30 minutes), Jose High (initial attempts for 15-20 minutes followed by insertion of an IV

[153] Shibata Y, Yokooji T, Itamura R, et al. Injury due to extravasation of thiopental and propofol: risks/effects of local cooling/warming in rats. Biochem Biophys Rep 2016; 8:207-11

[154] Davies DD. Local complications of thiopentone injection. Br J Anaesth 1966; 38:530-2

[155] Radelet ML. Examples of post-furman botched executions. Death Penalty Information Center. Last updated June 4, 2025. Available at: https://deathpenaltyinfo.org/executions/botched-executions Accessed July 25, 2025.

in his neck), Joseph Clark (attempts for 22 minutes, then IV infiltrated during injection and required replacement), Christopher Newton (more than 10 IV attempts), John Hightower (attempts for 40 minutes), Curtis Osborne (attempts for 35 minutes), Brandon Rhode (attempts > 30 minutes), Brian Terrell (attempts for > 1 hour), Brandon Jones (attempts for > 45 minutes), Clarence Dixon (attempts for > 25 minutes, requiring cut-down), Frank Atwood (multiple attempts), Joe Nathan Jr (execution delayed 3 hours while IV team attempted to place IV access involving puncture wounds in the muscles of the arms, unexplained incisions in his arm, and bleeding and bruising of the wrists, Stephen Barbee (time of IV insertion attempts not included in report), and Murray Hooper (time of IV insertion attempts not included in report), and Angel Diaz (2 doses administered and death took 34 minutes—autopsy showed that both IVs were not in the veins and that drug had been injected into tissue).

Lethal injection executions that have been halted after prolonged, failed attempts at IV placement: Romell Brown (execution stopped after 2 hours of failed attempts to establish an IV), Clayton Lockett (1 hour to place a catheter "in the groin" that proved later to be infiltrated into tissue, prisoner died of a heart attack 43 minutes later after the execution had been halted), Alva Campbell (> 80 minutes of attempts, execution halted for inability to achieve a working IV), Doyle Hamm (execution halted after IV attempts for 2.5 hours, including 6 groin attempts, and attempts that punctured his bladder and femoral artery), Alan Miller (execution halted after at last 90 minutes of attempts at IV access), Kenneth Smith (execution halted after at least 81 minutes of IV attempts), and Thomas Creech (execution halted after 58 minutes of failed IV attempts).

Central venous access catheters (CV lines) are, in the words of one author "relatively dangerous, problem-prone devices" for which mechanical complications during placement remain "a significant cause of morbidity and mortality."[156] The majority of mechanical complications are vascular injuries,[157] and several complications are relevant to judicial lethal injection, because they are either extremely painful in and of themselves; would lead to extravasation, infiltration or intra-arterial injection of the pentobarbital, which would be excruciating; or lead to failure of delivery of the intended dose of pentobarbital, potentially prolonging death while excruciating suffocation occurs. The overall rate of vascular complications during placement is about one in five.[158] The rate of all complications are significantly affected by the experience of the person placing the line, with those of relatively inexperienced providers (e.g. interns) nearly double that of more experienced physicians.[159]

Intra-arterial puncture occurs in almost 1 in 10 cases in experienced hands, and a small number (about 1 percent of all CV lines) result in intra-arterial placement of the entire line. This can result in rapid loss of large amounts of blood, or intra-arterial injection of pentobarbital in the neck, chest wall, or groin, depending on the location of the line. Both are both gruesome and excruciating injuries, the latter leading to both excruciating pain and prolongation of the execution due to failure to deliver drug into the bloodstream. This injury is most common with

[156] Bowdle A. Vascular complication of central venous catheter placement: evidence-based methods for prevention and treatment. J Cardiothor Vasc Anesth 2014; 28:358-68

[157] Domino KB, Bowdle TA, Posner KL, et al. Injuries and liability related to central vascular catheters: a closed claims analysis. Anesthesiology 2004; 100:1411-8

[158] Kusminsky RE. Complications of central venous catheterization. J Am Coll Surg 2007; 204:681-96

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femoral line placement,[160] which appears to be common in judicial executions: in 24 percent of autopsies I reviewed, central venous access was obtained via a triple lumen line in the femoral vein.

Through-and-through injuries of the vein also occur. This increases the risk that pentobarbital will be injected into soft tissue surrounding the vein in the neck, groin, or chest, also causing excruciating pain due to the caustic effects of the drug on soft tissues, and potentially also prolonging the execution by failing to deliver all or part of the drug to the bloodstream.

Injury to large nerves in the neck (the brachial plexus, a bundle of all of the nerves running to the arm) or groin (femoral nerve supplying sensation and muscle movement and strength to the leg) during placement is not rare, leading to immediate piercing pain when the needle damages the nerves.

Summary of Peripheral (Limb) IV and Central Line Complications

1. ***Placement of peripheral (limb) IV access requires training and demonstrated continuing competency.***

2. ***IV access issues are the most common problem in lethal injection executions, frequently leading to protracted and painful attempts to place the IV. Furthermore, reports show that difficult IV access can lead to protracted and painful attempts that have persisted in many cases for an hour or more; and executions have been halted due to inability to obtain IV access after prolonged attempts.***

3. ***Placement of a central line for venous access during judicial lethal injection is common (in autopsies I reviewed, at least 24 percent), is fraught with potential mechanical complications, and requires personnel experienced and adept in their placement. While many complications of central line placement occur, the most relevant to lethal injection are mechanical complications of peripheral or central line placement that cause vascular injury and inadvertent injection of pentobarbital into surrounding tissues, causing immediate, severe caustic injury, and failure to deliver all or part of the pentobarbital into the blood stream, resulting in prolongation of the execution and excruciating pain.***

Signed:

Jaf A. Ven Norman MD

Dated:

December 9, 2025

[160] Ibid.

Appendix I: Curriculum Vitae for Gail A. Van Norman MD

CURRICULUM VITAE
Gail A. Van Norman, M.D.

Education:

1973-1977	University of Washington, Seattle, Washington	Honors B.S, Microbiology
1977-1981	University of Washington School of Medicine, Seattle, Washington	M.D. with Honors

Postgraduate Training:

1981-1982	Virginia Mason Hospital, Seattle	Internship	Internal Medicine Washington
1982-1984	Virginia Mason Hospital, Seattle, Washington	Residency	Internal Medicine
1986-1988	University of Washington, Seattle, Washington	Residency	Anesthesiology
1988-1989	University of Washington, Seattle, Washington	Fellowship	Cardiothoracic Anesthesiology
1992-1993	University of Washington, Seattle, Washington, Department of Biomedical Ethics	Certification	Health Care Ethics
2001	Perioperative Transesophageal Echocardiography Examination	Testamur	
2011	ASA Business Management Certification	Certification	

Faculty Positions Held:

1989-1994	Clinical Acting Instructor, Department of Anesthesiology, University of Washington, Seattle, Washington
1994-1995	Acting Instructor, Department of Anesthesiology, University of Washington, Seattle, Washington
1995-1997	Acting Assistant Professor, Department of Anesthesiology, University of Washington, Seattle, Washington
1997-2000	Assistant Professor, Department of Anesthesiology, University of Washington, Seattle, Washington
1997-2000	Adjunct Assistant Professor, Department of Internal Medicine, University of Washington, Seattle, Washington
2000-2001	Clinical Assistant Professor, Department of Anesthesiology, University of Washington, Seattle, Washington
2001 -2008	Clinical Associate Professor, Department of Anesthesiology, University of Washington, Seattle, Washington
2008-2022	Professor, Department of Anesthesiology, University of Washington, Seattle, Washington
2008-2022	Adjunct Professor, Department of Biomedical History and Ethics, University of

	Washington, Seattle, Washington
July 2022-present	Professor Emeritus, Department of Anesthesiology and Pain Medicine, University of Washington, Seattle, Washington

Hospital Positions Held:

1984-1985	Attending Internist, Jefferson Memorial Hospital, Port Townsend, Washington
1985-1986	Attending Internist, Highline Community Hospital, Burien, Washington
1989-1992	Staff Anesthesiologist, Northwest Hospital, Seattle, Washington
1992-1994	Staff Anesthesiologist, Swedish Hospital, Seattle, Washington
2000 – 2008	Staff Anesthesiologist, St. Joseph Medical Center, Tacoma, Washington
2000 – 2006	Director, Transesophageal Echocardiography Education, Department of Anesthesiology, St. Joseph Medical Center, Tacoma, Washington
2003-2004	Clinical Director, Department of Anesthesiology, St. Joseph Medical Center, Tacoma, Washington
2008-2013	Medical Director, PreAnesthesia Clinic, University of Washington Medical Center, Seattle, Washington
2010-2021	Physician Champion, Compliance Officer, Dept of Anesthesiology and Pain Medicine, University of Washington, Seattle WA
2009-2021	Member, Perioperative Cardiac Device Management Team, Department of Anesthesiology and Pain Medicine, University of Washington Medical Center, Seattle WA.

Non-Hospital Positions Held:

1984-1985	Consulting Internist, Spokane Urban Indian Health Center, Spokane, Washington
1985-1986	Consulting Internist, Seattle Community Health Clinics serving economically disadvantaged patients; for Group Health Cooperative of Puget Sound, Seattle, Washington
2005-2006	Chair CQI Process, Pacific Anesthesia, Inc., Tacoma, Washington
2006 -2008	Board of Directors, Pacific Anesthesia, Inc., Tacoma, Washington
2007-2008	Vice President, Pacific Anesthesia, Inc., Bellevue, Washington

Honors:

1978	Medical-Scientist Traineeship Grant, University of Washington, Seattle, Washington
1980	Alpha Omega Alpha
1981	Merck Manual Medicine Award
1981	John J. Bonica Anesthesiology Award, Department of Anesthesiology, University of Washington
1985	Award of Merit for Service to the Health Care Needs of Native Americans, Spokane Urban Indian Health Service
2000	President's Award, Pacific Anesthesia, Inc. Tacoma, Washington
2008	Mary Jane Kugel Award, Medical Science Review Committee, Juvenile Diabetes Research Foundation International
2011	Brocher Foundation Residency in Ethics

Board Certification:

1984	American Board of Internal Medicine
1990	American Board of Anesthesiology

License to Practice:

1981-	Washington State
1991-2003	Wisconsin

Professional Organizations:

1984-1987	American Society of Internal Medicine
1989-2000	King County Medical Society
1989-2000	Washington State Society of Anesthesiologists; Co-chair, Medical Education Committee, 1994-1997
1989-2013	American Society of Anesthesiologists; Committee on Ethics, 1992-2013
2003-2007	Society of Cardiovascular Anesthesiologists; Committee on Ethics; 2003-2007
2008-2013	American Society of Bioethics and Humanities
2015-present	International Academy of Law and Mental Health
2015-present	Overseas Fellow, Royal Society of Medicine

Teaching Responsibilities:

Lectures:

Undergraduate Student Lectures:

1999-2008	University of Washington, Undergraduate Introduction to Bioethics Course (MHE 411) "Informed Consent"
2001	University of Washington, Seattle Biomedical Ethics for Medical Students Lecture Series, "Informed Consent"
2008	University of Washington Dept. of Biomedical History and Ethics: MHE 597C, Informed Consent in Clinical Practice
2009-2017	University of Washington Dept. of Biomedical History and Ethics: MHE 597C, Informed Consent

Resident Lectures:

1992-1994	University of Washington, Department of Anesthesiology, "Clinical Ethical Issues in Anesthesia Practice"
1994-2000	University of Washington, Department of Anesthesiology, Resident Core Lecture series, "Perioperative Diabetes Management"
1994-2000	University of Washington, Department of Anesthesiology, Resident Core Lecture Series "Anesthetic Implications of Neuromuscular Disease"
1994-2000	University of Washington, Department of Anesthesiology, Resident Core Lecture Series, "Pathophysiology of Ischemic Heart Disease"
1994-2000	University of Washington, Department of Anesthesiology, Resident Core Lecture Series, "Intraoperative Management of the Patient with Ischemic Heart Disease"
1994-2000	University of Washington, Department of Anesthesiology Resident Core Lecture Series, "Preoperative Evaluation of the Patient for Anesthesia and Surgery"
1994-2000	University of Washington, Department of Anesthesiology, Resident Core Lecture Series, "CQI: Quality Improvement in Practice"
1994-2000	University of Washington, Department of Anesthesiology, Resident Core Lecture Series, "Post Operative Cognitive Dysfunction"
1994-	University of Washington, Department of Anesthesiology, Resident Core Lecture Series, "Clinical Ethical Issues in the Practice of Anesthesiology,"
1994-	University of Washington, Department of Anesthesiology R2 Core Lecture series, "Ethical Issues of Informed Consent"
1994-	University of Washington, Department of Anesthesiology R2 Core Lecture series, "Do Not

	Resuscitate Orders in the Operating Room"
1994-	University of Washington, Department of Anesthesiology R3 Core Lecture series, "Ethics of Surrogate Consent"
1994-	University of Washington, Department of Anesthesiology R3 Core Lecture series, "Ethical Issues in Organ Transplantation"
1994-	University of Washington, Department of Anesthesiology R4 Core Lecture series, R4 Seminar: "Allocation of Scarce Resources in a Managed Care Environment"
1995	University of Washington, Department of Anesthesiology, Resident Special Evening Lecture Series: Forum on Ethical Issues in Anesthesiology, "Informed Consent and Surrogate Consent: Who Speaks for the Patient?"
1995	University of Washington, Department of History and Ethics, Ethics Brown Bag Lecture Series, "Ethical Dilemmas in the Operating Room"
1995, 1997	University of Washington Department of Anesthesiology, Evening Resident Special Workshop, " Fiberoptic Intubation and Management of the Difficult Airway"
1996	University of Washington, Department of Anesthesiology, Resident Special Evening Lecture Series: Forum on Ethical Issues in Anesthesiology, "Ethical Issues in Organ Transplantation, and The Impaired Practitioner"
1997	University of Washington, Department of Anesthesiology, Resident Special Evening Lecture Series: Forum on Ethical Issues in Anesthesiology, "Physician-Assisted Suicide, and the Impaired Physician,"
1997	University of Washington, Department of History and Ethics; Ethics Brown Bag Lecture Series "DNR in the Operating Room: Should Different Rules Apply?"
1997	University of Washington, Department of History and Ethics, Ethics Brown Bag Lecture Series "Ethical Pain Management in the Addicted Patient Undergoing Surgery--Is There A Duty to Rescue?"
1999	University of Washington, Department of Biomedical Ethics and History, Master's Course in Biomedical Ethics, "Informed Consent."
1999	University of Washington, Department of Biomedical Ethics and History Ethics, Brown Bag Lecture Series, "Who is Captain of the Ship on the Multidisciplinary Team: Lessons from the Operating Room"
2004	University of Washington, Department of Anesthesiology, Resident Special Evening Lecture Series: Forum on Ethical Issues in Anesthesiology "Ethics of Organ Transplantation"
2008-	University of Washington, R2 Core lecture "Introduction to Preoperative Evaluation."
2008-present	University of Washington CA1 PAC lecture series: "informed Consent/Informed Refusal"
2010-present	University of Washington Resident Introductory Lecture series: "EHR Integrity"
2010-present	University of Washington R2 and R3 Core Lectures: "Coding and Documentation"
2021-present	University of Washington Resident Core Lectures, CA1-3, Ethical Responsibilities of Anesthesiologists

Grand Rounds Lectures

1994-1996	New England Deaconess Hospital, Boston, Massachusetts: "Ethical Issues in Anesthesia Practice"
1994	University of Washington, Ethics Grand Rounds, "DNAR in the Operating Room"
1996	University of Washington, Hematology Grand Rounds, "Antifibrinolytics, Use, Clinical Efficacy, and Cost Effectiveness"
1998	Providence Medical Center, Department of Surgery, Surgery Grand Rounds "Ethical Issues in Surgical Care: A Panel Discussion"
1998	University of Washington School of Medicine: Combined Cardiothoracic Surgery/Cardiology Grand Rounds, "Brain Death and Organ Donation"
2001	Rush-Presbyterian-St. Luke's Medical Center, Anesthesia Grand Rounds, Department of Anesthesiology Chicago, Illinois, "Historical Perspectives on the Ethics of Clinical Research"
2002	University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, Department of

Anesthesiology, Anesthesia Grand Rounds, "Ethical Issues in Brain Death"

2008 University of Washington Anesthesiology Grand Rounds: "Perioperative Management of Pacers and AICDs"

2009 University of Washington Medical Center Combined Anesthesiology and Surgery Grand Rounds "Preoperative Evaluation: Where Have We Been, Where are We Going?"

2009 University of Oklahoma Anesthesiology Grand Rounds, "Is a Free Pen Just a Free Pen? Conflicts of Interest in Clinical Practice, Research and Industry." February, 2009.

2009 University of Washington Department of Anesthesiology; DNR in the Operating Room April, 2009

2010 University of Washington Department of Orthopedics; Preoperative Testing: Should Your Patient have a Preoperative Chest XRay? April, 2010.

2010 University of Washington Department of Obstetrics and Gynecology: Preoperative Testing: Less is More. May, 2010

2011 MD Anderson Cancer Center; Houston Texas. Dept of Anesthesiology. Fraud and Plagiarism in Medical Research. February 14, 2011

2012 MD Anderson Cancer Center: Houston Texas. Dept of Anesthesiology. Physician Assisted Suicide and Euthanasia. April 18, 2012

2012 MD Anderson Cancer Center, Houston Texas. Risk Management Department. Fraud and Plagiarism in Medical Research. April 18 2012

2012 Overlake Medical Center Department of Anesthesiology: Lifeboat Ethics. April, 2012 Bellevue, WA

2018 University of Washington "Respecting Patient Privacy". Feb 28, 2018

2021 University of Washington. Compliance and Key Documentations Changes in EPIC. January 20, 2021

Resident Journal Club:

1995 University of Washington, Department of Anesthesiology "Use of Magnesium for Cardiac Surgery Patients"

1996 University of Washington, Department of Anesthesiology; "Anesthesia for IVF, Teratogenicity of Anesthetics, and Anesthesia and the Breast-Feeding Patient"

1996 University of Washington, Department of Anesthesiology, "N2O: Friend or Foe?"

Faculty Lectures:

1995 University of Washington, Department of Anesthesiology, CME lecture, "Ethics and the Examiners"

Workshops:

1994-1996 University of Washington, Department of Anesthesiology, CME Workshop, "Difficult Airway"

1996 University of Washington School of Medicine CME Workshop, "Aprotinin and Other Antifibrinolytics," Blood Therapy: Applications and Alternatives"

Nursing Lectures:

1996-1997 University of Washington Medical Center, Pre-Surgical Clinic Nursing Lecture Series; "Preoperative Assessment of the Patient for Anesthesia"

1999 University of Washington Medical Center Operating Room, Nurses Weekly Conference, "Informed Consent in the Operating Room."

1999 University of Washington, Association of Operating Room Nurses, Perioperative Nursing Internship Program "Informed Consent in the Operating Room"

2000 University of Washington, Department of Radiology Nursing Staff Lectures, "Sedation of

	the Patient with Severe Liver Disease for TIPS Procedure"
2008	University of Washington Medical Center Operating Room Nursing Conference, "Informed Consent in the Operating Room."
2011	Overlake Medical Center, Bellevue WA. Perioperative Nursing Education. DNR in the OR.
2020-present	PreAnesthesia Clinic Daily Huddle "Covid Moment"—developments in covid pandemic, including viral behavior, vaccine development and variants of the virus.

Editorial Responsibilities:

1997-2003	Consulting Editor, ASA Syllabus on Ethics, American Society of Anesthesiologists, Park Ridge, Illinois
2004-	Editor, ASA Syllabus on Ethics, American Society of Anesthesiologists, Park Ridge, Illinois.
2009	Editor-in-Chief, *Clinical Ethics for Anesthesiologists, a Cambridge University Press Case-Based Textbook.*
2012-2017	Associated Editor, North America Clinical Ethics, Journal of Bioethical Inquiry.
2019	Editorial Board Member, ClinicalKey Procedures, Elsevier Inc, Philadelphia PA
2021	Editorial Board Member, ClinicalKey Clinical Reviews, Elsevier Inc, Philadelphia PA
2020-2021	Invited Editor, Journal of Bioethical Inquiry, Springer, Australia
2021-present	Board Member and Editor: Elsevier Clinical Reviews, Elsevier Inc, Philadelphia PA
2023-2024	Co-editor (with Neal Cohen MD), Anesthesiology Clinics Ethical approaches to the practice of anesthesiology—Part 1. Overview of ethics in clinical care: history and evolution. Elsevier Inc, Philadelphia PA. September 2024.
2023-24	Co-editor (with Neal Cohen MD), Anesthesiology Clinics Ethical approaches to the practice of anesthesiology—Part 2. Accepted. Publication Anticipated December 2024.

Special National/International Responsibilities:

1992-2014	Committee on Ethics, American Society of Anesthesiologists, Park Ridge, Illinois
1994	Panelist, American Society of Anesthesiologists Annual Meeting, Panel on Ethics: Ethical Issues in Anesthesiology
1995	Moderator Ethics Panel, American Society of Anesthesiologists, Annual Meeting, "Is There a Role for the Anesthesiologist in Physician-Assisted Suicide?"
1996-2006	Moderator Clinical Forum, American Society of Anesthesiologists, Annual Meeting, "Ethics/Geriatrics"
1996-1999	Moderator Problem-Based Learning Discussion, American Society of Anesthesiologists Annual Meeting, Ethics cases
1997	Panelist, American Society of Anesthesiologists Annual Meeting Panel on Education, "Can Ethics be Taught?"
1998	Workshop Organizer and Lecturer, American Society of Anesthesiologists, "Teaching Clinical Ethics in Anesthesia Residency"
1999	Invited Participant, Duke University, Durham, North Carolina, Second Duke Conference on Surgery and the Elderly
2001	Panelist, American Society of Anesthesiologists Annual Meeting Panel on Professionalism, "Defining and Demanding Excellence in Anesthesia Job Performance"
2004	Panelist International Liver Transplantation Society Annual Meeting, "Ethics of Liver Transplantation, NHB/DCD Donors: Perioperative Issues in Liver Transplantation"

2005	Representative for the American Society of Anesthesiologists (one of four), First National (UNOS) Conference on Donation After Cardiac Death, Philadelphia [please see Bernat J.L. et al. Report of a National Conference on Donation After Cardiac Death. Am J Transpl 6: 281-91, 2006.]
2005-	Ethics Reviewer, Research and Funding Department, Juvenile Diabetes Research Foundation, New York
2006	Panelist, American Society of Anesthesiologists Annual Meeting, Panel on Professionalism, "Role of the Anesthesiologist in End-of-Life Care –Do physicians have conflicts of interest?"
2006	Panel Moderator, American Society of Anesthesiologists Annual Meeting, Panel on Professionalism, "Working Hard—or Sleeping at the Wheel. Should the ASA adopt aviation-style standards for work hours for anesthesiologists?"
2006	Panel Moderator, American Society of Anesthesiologists Annual Meeting: Panel on Ethics, "Should Anesthesiologists Participate in Executions?"
2006-2008	Ethicist, Medical Science Review Committee, Juvenile Diabetes Research Foundation International.
2007	Panelist, ASA Panel on Ethical Issues in Perioperative Medicine
2007	Panelist, ASA Panel on Professionalism in Multidisciplinary Teams: Palliative Care and Multidisciplinary Pain Management
2007	Panelist, ASA Panel "What is Professionalism? Do I Need it? Do I Have it?"
2007	ASA Clinical Forum: Special Topics in Bioethics
2008-2011	Chair, American Society of Anesthesiologists Committee on Ethics
2008	Panelist, ASA Panel "Lethal Injection."
2008	Panelist, ASA Panel "DCD—do we need it? Con."
2008	Moderator, ASBH panel "Opioid Pain Medication for Chronic Nonmalignant Pain: A Right or a Wrong?" American Society of Bioethics and Humanities
2008	Invited lecturer: 37th Annual Advances in Family Practice and Primary Care, August. Seattle WA: "DNR and Other Advance Directives in the OR"
2008	Invited Lecturer: AANA. "Preoperative Testing" and "Perioperative beta blockade." September. Spokane, WA
2009	Refresher Course Lecture: Ethics for Anesthesiologists in the 21st Century. New Orleans LA.
2010	Refresher Course Lecture: Protecting Vulnerable Subjects in Research: Ethical Obligations to Human and Animal Research Subjects. San Diego, CA
2010	Panelist, ASA Panel "Health Care Reform." ASA Annual Meeting, San Diego, CA.
2011	Invited lecturer: "DNR Orders in the Perioperative Period." Overlake Medical Center, Bellevue Washington.
2011	Should Anesthesiologists Participate in Physician-Assisted Suicide? Pro and Con. American Society of Anesthesiologists Annual Meeting. Chicago, Il. 2011
2012	Invited Lecturer: Informed Consent and Informed Refusal in the OR. Puget Sound Multi-Chapter AORN Coalition. Kent, WA Jan 2012
2012	Invited lecturer, American Society of Interventional Pain Physicians Refresher Course and Review. Fraud in Anesthesia Research, and Ethics of Interventional Pain Management. April 2012 Phoenix, AZ
2012	Invited lecturer, American Society of Interventional Pain Physicians Refresher Course and Review. Fraud in Anesthesia Research, and Ethics of Interventional Pain Management. August 2012 San Francisco, AZ
2012	Invited Lecturer: 41st Annual Refresher Course for Nurse Anesthetists. Ethics of Informed Consent; Ethics of Informed Refusal; Ethical Issues in Preoperative Testing. Nov 2012 Orlando, FL.
2012	Invited Lecturer: Idaho State Society of Anesthesiologists: The Ethics of Preoperative Testing. Boise, Idaho, Spring 2012.
2013	Invited lecturer, American Society of Interventional Pain Physicians Refresher Course and Review. Ethics of Interventional Pain Management. February 2012 Phoenix, AZ
2013	Invited lecturer, American Society of Interventional Pain Physicians Refresher Course and Review. Ethics of Interventional Pain Management. October 2013 Denver, CO

2013	Panelist: Controversial Cases in Organ Donation and End-of-Life Care, American Society of Anesthesiologists Annual Meeting, San Francisco CA.
2014	Panelist: Controversies in Organ Transplantation, American Society of Anesthesiologists Annual Meeting, New Orleans LA
2014	Ethical Issues Regarding Open Access Journals, American Society of Bioethics and Humanities Annual Meeting, San Diego CA.
2015	Harvard Anesthesia Update 2015. Point/Counterpoint. Physician Involvement in Lethal Injection. May 2015
2015	Invited lecturer, American Society of Interventional Pain Physicians Refresher Course and Review. Ethics of Interventional Pain Management. Chicago Il, July 2015
2015	Faculty, Moya Annual CRNA Refresher Course. Orlando, FA. Nov 2015
2020	Invited Panelist, When does the anesthesiologist get to decide? Conscientious Objection: What it Is—and What it Isn't. American Society of Anesthesiologists Annual Meeting. (held virtually due to COVID 19)
2022	Invited panel moderator. International Academy of Law and Mental Health. Lyons, France. July, 2022
2022	Invited speaker, Joint Session of the WSSA and BCA, Vancouver BC. Ethics in Anesthesia Practice November 2022
2023	Invited speaker, 11th International Conference on Ethics in Biology, Engineering and Medicine. Off-Label Marketing: Risks to the Clinician and Researcher. Seattle, WA. April 2023
2023	Invited speaker, 16th Brocher Foundation Meetup: "Three approaches to Death and Dying: Japanese, Sub-Saharan African and American". Virtual international conference. Aug 21, 2023

Special Regional Responsibilities:

1991-1993	Member, Medical Ethics and Practice Committee, King County Medical Society, Seattle, Washington
1992-1994	Member, Professional Liability Panel, King County Medical Society, Seattle, Washington
1992-1996	Co-chair, Committee on Education, Washington State Society of Anesthesiologists, Seattle, Washington
1995	Program Chair, Washington State Society of Anesthesiologists Spring Meeting, "Controlling Our Destiny: Leadership Opportunities Beyond the Operating Room"
1995	Program Chair, Washington State Society of Anesthesiologists Fall Meeting, "The Difficult Airway: Clinical Approaches and Risk Management"
1996	Program Co-Chair, Washington State Society of Anesthesiologists Spring Meeting, "Preoperative Issues for the Surgical Patient"
1996	Representative, Washington State Society of Anesthesiologists, ASA Legislative Session, Washington, DC
2021	Group/Discussion leader for University of Washington Department of Bioethics and Humanity's annual Summer Seminar in Healthcare Ethics. Seattle WA. August 2021

Special Local Responsibilities:

1991-1993	Ethics Committee, Swedish Hospital, Seattle, Washington
1995-2000	Associate Medical Director, Pre-surgery Clinic, University of Washington Medical Center, Seattle, Washington
1996-1997	Member, Advisory Committee on Ethics, University of Washington Medical Center, Seattle, Washington
1998-2000	Chair, Continual Quality Improvement University of Washington Medical Center, Department of Anesthesiology

1997-2000	Co-chair, Advisory Committee on Ethics, University of Washington Medical Center, Seattle, Washington
1999-2000	Acting Chief, Cardiothoracic Anesthesia, University of Washington Department of Anesthesiology
2006 -	Regional Ethics Committee member, Franciscan Health Care Systems, Tacoma, Washington
2006-2008	Member, Regional Committee on Organ Transplantation, Franciscan Health Care System, Tacoma, Washington
2008-2009	Member, Joint Transfusion Committee, HMC and UWMC
2009-2010	Member, Standards and Finance Committee, University of Washington Department of Anesthesiology and Pain Medicine
2010-2016	Member, Business Excellence Committee, University of Washington Physicians
2010-	Chair/co-chair Standards and Finance Committee, University of Washington Department of Anesthesiology and Pain Medicine
2010-2022	Compliance Officer, Department of Anesthesiology and Pain Medicine, University of Washington, Seattle WA.
2014-present	Member, Dept of Anesthesiology and Pain Medicine Promotions Committee

Research Funding:

University of Washington Department of Anesthesiology; "The Effects of PTCA vs. CABG in Reducing Postoperative Cardiac Morbidity in Patients Undergoing Noncardiac Surgery"; 1995; $500 [Investigators: Chan V, Van Norman G, Posner K]

Washington State Society of Anesthesiologists; The Effects of PTCA vs. CABG in Reducing Postoperative Cardiac Morbidity in Patients Undergoing Noncardiac Surgery; 1995; $2000; [Investigators: Chan V, Van Norman G, Posner K]

Washington State Society of Anesthesiologists: Echocardiography Screening in the PreAnesthesia Clinic. 2010. $5000 [Investigators: Wako E, Van Norman GA, Rooke A, Otto C.]

BIBLIOGRAPHY

Publications in Refereed Journals or Websites:

1. Van Norman G., Groman N.. A Method of Quantitating Sensitivity to a Staphylococcal Bacteriocin. Infection and Immunity 26(2): 787-789, 1979.

2. Dreis D., Winterbauer R., Van Norman G, Sullivan S., Hammer S. Cephalosporin-Induced Interstitial Pneumonitis. Chest 86(1): 138-140, 1984.

3. Winterbauer R., Hammer S., Van Norman G. Histiocytosis X, Case Report and Discussion. J Resp Dis February 1985.

4. Van Norman G, Pavlin E, Eddy C, Pavlin J. Hemodynamic and Metabolic Effects of Aortic Unclamping Following Emergency Surgery for Traumatic Thoracic Aortic Tear in Shunted and Unshunted Patients. J Trauma 31(7): 1007-1016, 1991.

5. Van Norman, G. Diabetes in the Operating Room: Metabolic Challenges for the Anesthesiologist. Seminars Anesth 14(3): 210-220,1995

6. Van Norman, G. Precperative Assessment of Common Diseases in the Outpatient Setting. Anesthesiology Clinics of North America. 14(4): 631-654,1996.

7. Van Norman G. Preoperative Management of Common Minor Medical Issues in the Outpatient Setting. Anesthesiology Clinics of North America. 14(4): 655-678, 1996.

8. Aziz S, Haigh W, Van Norman G, Kenney R, Kenney M. Blood Ionized Magnesium Concentration During Cardiopulmonary Bypass and Their Correlation with Other Circulating Cations. J Card Surg Sep-Oct 11(5): 341-7, 1996.

9. Van Norman G, Gernsheimer T, Chandler W, Cochran P, and Spiess B. Indicators of Fibrinolysis During Cardiopulmonary Bypass After Exogenous Antithrombin III Administration for Acquired Antithrombin III Deficiency. J. Cardiothoracic Vasc Anesth 11(6): 760-763, 1997.

10. Jackson S, Palmer S, Van Norman G, et al. Ethical Issues in Anesthesia. Adv Anesth 14:227-260, 1997.

11. Van Norman G. A Matter of Life and Death: What every anesthesiologist should know about the medical, legal, and ethical aspects of declaring brain death. Anesthesiology 91(1): 275-287, 1999.

12. Posner K, Van Norman G, Chan V. Adverse Cardiac Events Following Noncardiac Surgery in Patients with Coronary Artery Disease Undergoing Prophylactic PTCA. Anesth Analg 89: 553-60, 1999.

13. Reilly DF, McNeely JM, Doerner D, Greenberg DL, Staiger TO, Geist MJ, Vedovatti PA, Coffey JE, Mora MW, Johnson TR, Guray Ed, Van Norman GA, Fihn S. Self-Reported Exercise Tolerance and the Risk of Serious Perioperative Complications. Arch Int Med 159: 2185-92,1999.

14. Van Norman G. Ethics and The Elderly Patient. Current Anesth Rep 1:13-17, 1999.

15. Pavlin DJ, Arends RH, Gunn H, Van Norman G, Keorschgen M, Shen D. Optimal Propofol-Alfentanil Combinations for Supplementing Nitrous Oxide for Outpatient Surgery. Anesthesiology 91(1): 97-108, 1999.

16. Jackson S, Van Norman, G. Goals and Values Directed Approach to Informed Consent in the "DNR" Patient Presenting for Surgery--More Demanding of the Anesthesiologist? Editorial. Anesthesiology 90:3-6, 1999.

17. Pavlin JD, Colley PS, Weymuller EA, Van Norman GA, Gunn HC and Koerschgen M. Propofol Versus Isoflurane For Endoscopic Sinus Surgery. Am J Otolaryn; 10: 96-101, 1999.

18. Van Norman, G. Angioplasty and Noncardiac Surgery: Risks of Myocardial Infarction. Current Opinion in Anesthesiology, 12(1):15-20, 1999.

19. Van Norman, G. Response: Re: Can Brain Death Testing Be Perfect? Anesthesiology. 92(4): 1204-5, 2000.

20. Van Norman G, Patel MA, Robledo J, Chandler W, and Vocelka C. Effect of Hemofiltration on Serum Aprotinin Levels in Patients Undergoing Cardiopulmonary Bypass. J. Cardiothor Vasc Anesth 14(3): 253-256, 2000.

21. Van Norman G, Palmer S. Coercion and Restraint in Anesthesia Practice. International Clinics of Anesthesiology. Medical Ethics 39(3): 131-143, 2001.

22. Van Norman G. Misinformed consent: A problem in the operating room? Ethical principles of informed consent and their application for the anesthesiologist. ASA Refresher Courses in Anesthesiology 2001; 29:215-23

23. Van Norman, G. Ethical Issues and the Role of Anesthesiologists in Non-Heart-Beating Organ Donation. Current Opinion Anesthesiology 16(2): 215-9, 2003

24. Van Norman G. Another Matter of Life and Death; What Every Anesthesiologist Should Know About the Ethical, Legal and Policy Implications of the Non-Heart-Beating Organ Donor. Anesthesiology 2003. 98(3):763-73.

25. Van Norman G, Jackson S, Waisel D. Ethical Issues in Informed Consent. Current Opinions in Anesthesiolcgy 17(2): 177-81, 2004.

26. Van Norman GA. Ethical Issues of Importance to Anesthesiologists Regarding Organ Donation After Cardiac Death. Current Opinion Organ Transplant 10(2): 105-109, 2005.

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OTHER

International and National Invitational Lectures:

1. "DNR in the OR: Am I a Bad Doctor if I Let My Patient Die?" American Society of Anesthesiologists, Refresher Course, San Francisco, CA, June 29, 1996.

2. "Misinformed Consent: Is This a Problem in the Operating Room?" American Society of Anesthesiologists Refresher Course, San Francisco, CA, June 29, 1996.

3. "Ethics: A New Hot Topic in Resident Education," The Society for Education in Anesthesia Fall Meeting: Educational Strategies for the 21st Century, New Orleans, 1996.

4. "Ethics: A New Hot Topic in Resident Education," The Society for Education in Anesthesia Fall Meeting: Educational Strategies for the 21st Century, San Diego, CA, October 1997.

5. "Misinformed Consent: A Problem in the Operating Room?" American Society of Anesthesiologists Workshop in Practical Bioethics for the Anesthesiologist, Boston, MA, 1997.

6. "Brain Dead, or Only Mostly Dead? What's the Difference, I'm Just the Anesthesiologist!" American Society of Anesthesiologists Workshop in Practical Bioethics for the Anesthesiologist, Boston, MA, 1997.

7. "PTCA prior to Noncardiac Surgery." World Congress of Cardiovascular Anesthesiologists, Santiago, Chile, 1998.

8. "Ethics Case Discussion: Assessing Cardiac Risks for Patients with Coronary Artery Disease Undergoing Noncardiac Surgery" and "Ethics Case Discussion: Assessing Brain Death" Rush-Presbyterian-St. Luke's Medical Center, Chicago Illinois, Visiting Professorship, 1998

9. "Brain Death: What Every Anesthesiologist Should Know" Midwest Anesthesia Conference and Peri-Anesthesia Care Symposium, Chicago, Il, 1999.

10. "Ethical Issues in the Operating Room," American Society of Anesthesia Technologists and Technicians, Seattle, WA, 2000.

11. "Ethical Issues in the Operating Room," American Society of Extracorporeal Technologists, Seattle, WA, 2000.

12. "Ethical Boundaries of Persuasion: Ccercion and Restraint in Pediatric Anesthesia Practice," Mid-Year SAMBA meeting, New Orleans, LA, 2001.

13. "Ethics: Brain Death and Organ Donation" Rush-Presbyterian-St. Luke's Medical Center and Rush University, Chicago, Illinois Department of Anesthesiology and Undergraduate Medical School; Inaugural Speaker, Katalin Selemczi MD Memorial Lecture Series in 2001

14. "Donation After Cardiac Death—Stretching the Definitions of Death Too Far?" Invited lecturer; European Society of Anesthesiology, Copenhagen Denmark, May 2008.

15. "Conflicts of Interest: Industry Reps." February 2009; Visiting Professor, University of Oklahoma Department of Anesthesiology. Oklahoma City, OK

16. "DNR in the Patient Undergoing Surgery and Anesthesia." Sept 2009 Primary Care Medicine. Seattle, WA

17. Perioperative Beta Blockers." National Association of Nurse Practitioners. Aug 2010. Seattle, WA

18. Ghosts of OR Cancellations Past and Present." Combined WSSA, BCAA international meeting. Dec 2010 (Elizabeth Wako MD and Gail Van Norman MD speakers)

19. Ethics of Organ Donation After Cardiac Death. Society for Cardiovascular Anesthesiologist. Annual Meeting, April 2011. Savannah, Georgia.

20. Ethics of Organ Donation After Cardiac Death. Dept of Anaesthesiology and Intensive Care, St. Mary's Hospital. London, UK. August 2011.

21. Physician-assisted Suicide and Euthanasia. Brocher Foundation. Hermance, Switzerland, August 2011.

22. Fraud in Publication and Medical Research. Dept of Anaesthesiology and Intensive Care Medicine, University of Geneva. Geneva, Switzerland. Sept 2011.

23. Informed Consent and Informed Refusal in the Operating Room. AORN annual meeting, Seattle, WA Jan. 2012

24. Fraud and Plagiarism in Research. Risk Management Division, MD Anderson Medical Center, Houston TX, April 18, 2012

25. Physician-Assisted Suicide and Euthanasia, Department of Anesthesiology, MD Anderson Medical Center, Houston TX, April 18, 2012

26. Ethics in Anesthesiology. Annual Review Course for Certified Nurse Anesthetists. Orlando Florida, November 2012

27. Invited Lecturer: Ethics of Interventional Pain Management. ASIPP. Phoenix, AZ. Feb 2012

28. Invited Lecturer: Ethics of Interventional Pain Management. ASIPP. San Francisco CA Aug 2012.

29. Invited Lecturer: Ethics of Interventional Pain Management. ASIPP. Phoenix, AZ. July 2013

30. Invited Lecturer: Ethics of Interventional Pain Management. ASIPP. Denver CO; Oct 2013

31. Invited Lecturer; Controversial Cases in Organ Transplantation: clinical forum. American Scciety of Anesthesiologists Annual Meeting. San Francisco CA. Oct 2013

32. Invited Lecture: Ethics of DCD Organ Donation. St. Mary's Hospital Dept of Anesthesiology and Critical Care, London UK. Dec 2014

33. Invited Lecture: DNR in the OR. London Soc Anesthesiology, UK. Dec 2014

34. International Academy of Law and Mental Health. Moderator: Brain Death, Personhood, Body Integrity: Ethical and Legal Considerations in Vital Organ Transplantation. Vienna Austria July 2015

35. Invited Lecturer: Harvard Anesthesia Update Spring 2015. Pro/Con Debate: Should Physicians Participate in Lethal Injection.

36. Invited Lecturer: Ethics of Interventional Pain Management. ASIPP, Chicao Il. July, 2015

37. Keynote Speaker: Terminal Sedation in Pediatric Sedation: Suffering, Palliation and Transcendance (working title). Conference for Pediatric Sedation Outside of the Operating Room. Cancun, Mexico Sept 2015

38. Invited Ethics Lecturer: Moya Review Course for Nurse Anesthetists. Orlando Fl, November 2015

39. Invited Participant; 2015 Alumni Meeting of the Scholars of the Brocher Foundation, Geneva Switzerland, June 16-18, 2015.

40. Invited Speaker: 2016 World Congress of Anesthesiologists. Ethics Section. Hong Kong, Aug 27-Sept 1, 2016

41. Invited Lecturer; Medical Professionalism. St. Mary's Hospital Department of Anesthesiology and Critical Care. London, UK. July 2016

42. 2017 International Academy of Law and Mental Health. Invited panelist, moderator. Ethics of Psychosurgery. Prague, Czech Republic, July 2017

43. 2017 Mazama Spine Summit, Mazama WA. Invited Speaker: What is Professionalism and the Practice of Medicine? Lessons from the Michael Jackson Case.

44. 2019 International Academy of Law and Mental Health. Invited panelist, moderator. Physician Assisted Suicide in the United States: Current Status. Rome, Italy. July 2019.

45. 2019. Brocher Foundation Reunion of Scholars, 2019. Lethal Injection in the United States: personal experience as an expert witness for the prisoner. Geneva, Switzerland. June 2019

46. 2022 International Academy of Law and Mental health. Invited panelist and moderator. Legal and Philosophical Issues in Brain Injury and Death, and Artificial Intelligence. Lyon, France. July 2022.

47. 2022. Animal Testing: History and Limitations. Successful Alternatives to Animal Testing. Elsevier Life Science Webinar Series. Invited speaker. September 28, 2022

48. 2022. Ethical Issues in Anesthesia Practice. Invited Commentator, WSSA/BCA joint meeting. Vancouver, British Columbia. November 12, 2022

49. 2024. Invited Panel Moderator and Speaker. Session Title: Truth.... and Doubt. Perspectives on Appellate Lethal Injection Cases in the United States: Perspective from an Expert Witness—What is the Truth? International Academy of Law and Mental Health. Barcelona Spain, July 2024

50. 2024. Invited Speaker. Ethics of Mandatory Pregnancy Testing for Surgery and Anesthesia. 6th World Surgeons Congress 2024. Las Vega, NV. USA. October 7, 2024.

51. 2025. Invited Keynote Speaker. Conscientious Objection in Medicine: Honoring Moral Diversity While Still Putting Patients First. Royal College of Anaesthetists. Belfast, Ireland. May 22, 2025

Regional Invitational Lectures:

1. "Treatment of Intraoperative Emergencies: Wheezing; Inability to Ventilate" CME Lecture, Washington State Society of Anesthesiologists, Seattle, WA, 1991.

2. "Ethical Issues in Anesthesiology," Washington State Scciety of Anesthesiologists, Moderator and CME Lecturer, Seattle, WA, 1993.

3. Washington State Association of Nurse Anesthetists, Tukwila, Washington "Ethical Issues in Anesthesia Practice", 1995.

4. Washington State Association of Nurse Anesthetists "Ethical Issues in Anesthesia Practice" Seattle, WA, 1998.

5. "Management Issues In the Preoperative Clinic." Society for Ambulatory Anesthesia (SAMBA), Seattle, Washington, 1999.

6. "Physiology of Perioperative Myocardial Blood Flow." Washington State Society of Nurse Anesthetists, Seattle, WA, 1999.

7. "Ethical Issues in the Operating Room." American Society of Anesthesiology Technologists, Seattle, WA, 2000.

8. "DNR orders in the Operating Room," Combined Anesthesia and Surgery Grand Rounds, Southwest Washington Medical Center, Vancouver, WA, 2001.

9. "Medical Ethics: Balancing Patient Advocacy and Managed Care." Western Pension and Benefits Conference, Seattle, WA, 2003.

10. "Conscious Sedation for Radiological Procedures in the Outpatient," Northwest Hospital Radiology Department, Seattle, WA, 1991.

11. Instructor, Certified Post Anesthesia Nurse (CPAN) Certification Course, Northwest Hospital, Seattle, WA, 1991.

12. Conflicts of Interest with Industry. AORN winter meeting, Kent WA, 2009

13. "Preoperative Testing." Wash. State Nurse Anesthetists. Sept 2009, Spokane, WA

13. "Implementing Intra-Operative Glucose Control: What Does it Take?" Washington State Hospital Association. April 2014, Seattle, WA

14. "Who's Doing Your Surgery and Anesthesia? Ethical Issues in Informed Consent in Medical Direction and Overlapping Surgeries." Washington Ambulatory Surgery Association 2018 Conference. November 2018, Seattle WA.

15. The MAD physician and why he is a constant danger to your patients and your institution. Ethical management of the abusive physician in the operating room. Washington Ambulatory Surgery Association 2019 Conference. November 2019, Everett WA.

16. Would You Like Some Fish with Your Propofol? Reducing environmental contamination from the Operating Room. Washington Ambulatory Surgery Association Conference, November 2021

17. Off-Label Marketing of Drugs. Washington Ambulatory Surgery Association Conference, November 2024

Invited Journal Reviews:

1. Invited Journal Reviewer, cardiovascular anesthesia, *Anesthesia and Analgesia,* 1998 to present.
2. Invited Journal Reviewer, medical ethics, *Anesthesiology,* 1998 to present.
3. Invited Journal Reviewer, medical ethics, *Journal of Obstetrics and Gynecology,* 1998.
4. Clinical Reviewer, *FirstConsult.* Medical website for primary care physicians, Elsevier publications, London UK. *[www.firstconsult.com]* ,1998 to present.
5. Invited Journal Reviewer, medical ethics, *Mayo Clinic Proceedings,* 2006-2009.
6. Invited Journal Reviewer, *Journal of Philosophy, Ethics, and Humanities,* 2007.
7. Invited Journal Reviewer, *European Journal of Anaesthesiology,* 2013
8. Invited Journal Reviewer, *PLos One,* 2021

Web Authorships

1. Update Author, *Anesthesia, 6th Edition,* on-line version. Ron Miller MD, Editor. Elsevier Scientific Publications, Philadelphia. *[www.anesthesiatext.com]* 2004 to present.

2. Update Author, *Sleisinger and Fordtran's Gastrointestinal and Liver Disease, 7th Edition,* on-line version. Mark Feldman MD, Editor. Elsevier Scientific Publications, Philadelphia *[www.sfgastro.com],* 2003 to 2006.

3. Update Author, *Diseases of the Heart, 6th Edition,* on-line version. Eugene Braunwald MD, Editor. Elsevier Publications, Philadelphia [*www.branwalds.com],* 2004 to present.

4. Update Author, *Murray and Nadel's Textbook of Respiratory Medicine,* on-line version. Robert J. Mason MD, John F. Murray MD, V. Courtney Broaddus MD, and Jay A Nadel MD, editors. Elsevier publications, Philadelphia *[www.respmedtext.com],* 2005-2006.

5. Update Author, *Drugs for the Heart,* on-line version. Lionel H Opie MD and Bernard J Gersh MD, editors. Elsevier publications, Philadelphia *[www.opiedurgs.com],* 2005 to present.

6. Update Author, *Clinical Gastroenterology and Hepatology,* on-line version, Wilfred M Weinstein MD, C J Hawkey MD, J Bosch MD, editors. Elsevier publications, Philadelphia *[www.clingastrotext.com],* 2005-2006

7. Medifile Author for *FirstConsult,* Medical website for primary care physicians. Elsevier publications, London UK *[www.firstconsult.com],* 1998 to 2006

8. Medical Writer, *Procedures Consult,* Anesthesia Procedures. Elsevier publications, Philadelphia, PA. 2007-2008

9. Review and update Procedures Consult for Anesthesia, Surgical, Cardiovascular, and Primary Care Procedures. Elsevier publications, Philadelphia PA. 2020-2021

10. Review and update Procedures Consult for Anesthesia, Surgical, Cardiovascular, Orthopedic, and Primary Care Procedures. Elsevier publications, Philadelphia PA. 2023

Broadcasts, Media interviews

Oct 26, 2022	FDA: is there something rotten here? *Calling Bullshit.* Available at: https://www.callingbullshitpodcast.com/is-there-something-rotten-fda/
Jan 2023	Interview for Xtalks. Kovacevic V. Decentralized Clinical Trials.
Feb 2023	Interview for Medical Ethics Advisor. Kusterbeck S. Court case centers on physician autonomy if patients request ineffective treatments. Published Feb 2023, vol 39(2):17-32
July 2023	Ready, T. Off-Label Meds: Promising Long-COVID Treatments? Medscape Anesthesiology. July 24, 2023.

Miscellaneous:

Consulting Anesthesiologist, Woodland Park Zoological Society, 1992-2002.
Medical writer Handbook for Stoelting's Anesthesia and Co-Existing Disease, 3rd Edition 2009
Content/formatting editor, Journal of American College of Cardiology 2015-2020
Medical Writer, Journal of American College of Cardiology 2016-present

Updated, December 2025

Gail A. Van Norman MD
Expert Witness Deposition or Testimony During the Last 4 Years (November 2021-December 2025):

1. **2022: King v. Parker, et al.** State of Tennessee lethal injection protocol. Deposition. For plaintiffs. Case pending.
2. **2022: Glossip v. Chandler.** State of Oklahoma lethal injection protocol. For plaintiffs. Deposition and court testimony..
3. **2022: The State of Texas, ex rel. Health Choice Advisory LLC vs. Shire PLC; Baxter International Inc; Baxalta Inc; and Viropharma Inc.** Ethical issues in off-label marketing. For plaintiffs. Deposition..
4. **2025: In the Case of Kevin Burns et al, v. Frank Strada et al; as Regarding Plaintiff Byron Black.** Court testimony. For plaintiff.
5. **2025: In the Case of State of Texas, ex rel. SCDEF, et al. V. AstraZeneca Pharmaceuticals, LP.** For plaintiff. Deposition Sept 2025; case ongoing.
6. **2025: In the Case of Barbara Myers v. Fisher-Titus Medical Center.** Deposition for plaintiff. November 2025. Case pending.

Appendix III

Names of Prisoners Whose Autopsy Reports Were Reviewed Following Lethal Injection Execution with Single-Drug Barbiturate

1. Daniel Wayne Cook. Executed in Arizona August 8, 2012 using single-drug pentobarbital, 5 gm
2. Thomas Arnold Kemp. Executed in Arizona April 25, 2012 using single-drug pentobarbital, 5 gm
3. Samuel Villegas Lopez. Executed in Arizona June 27, 2012, using single-drug pentobarbital, 5 gm
4. Robert Henry Moorman. Executed in Arizona February 29, 2012, using single-drug pentobarbital, 5 gm
5. Robert Charles Towry. Executed in Arizona March 8, 2012, using single-drug pentobarbital, 5 gm
6. Thomas Paul West. Executed in Arizona July 19, 2011, using 3-drug protocol with pentobarbital, 5 gm
7. Donald Edward Beaty. Executed in Arizona May 25, 2011, using 3-drug protocol with thiopental, 5 gm
8. Richard Lynn Bible. Executed in Arizona June 30, 2011, using 3-drug protocol with thiopental, 5 gm
9. Marshall Gore. Executed in Florida October 1, 2013, using 3-drug protocol with pentobarbital, 5 gm
10. Joshua Daniel Bishop. Executed in Georgia March 31, 2016 using single-drug protocol with pentobarbital, 5 gm
11. Robert Earl Butts Jr. Executed in Georgia May 4, 2018, using single-drug protocol with pentobarbital, 5 gm
12. Roy W. Blankenship. Executed in Georgia June 23, 2011, using single-drug protocol with pentobarbital, 5 gm
13. Andrew Howard Brannan. Executed in Georgia Jan 15, 2015, using single-drug protocol with pentobarbital, 5 gm
14. John Conner. Executed in Georgia July 15, 2016 using single-drug protocol with pentobarbital, 5 gm
15. Andrew Cook. Executed in Georgia February 21, 2013 using single-drug protocol with pentobarbital, 5 gm
16. Kenneth E. Fults. Executed in Georgia April 12, 2016 using single-drug protocol with pentobarbital, 5 gm
17. Kelly Renee Gissendaner. Executed in Georgia September 20, 2015 using single-drug protocol with pentobarbital, 5 gm
18. Warren Lee Hill Jr. Executed in Georgia January 27, 2015 using single-drug protocol with pentobarbital, 5 gm
19. Travis Hitson. Executed in Georgia February 17, 2016 using single-drug protocol with pentobarbital, 5 gm
20. Robert Wayne Holsey. Executed in Georgia December 9, 2014 using single-drug protocol with pentobarbital, 5 gm

21. Marcus Ray Johnson. Executed in Georgia November 19, 2015 using single-drug protocol with pentobarbital, 5 gm
22. Brandon A. Jones. Executed in Georgia February 3, 2016 using single-drug protocol with pentobarbital, 5 gm
23. Danieal Anthony Lucas. Executed in Georgia April 27, 2016 using single-drug protocol with pentobarbital, 5 gm
24. Bryan Terrell. Executed in Georgia December 9, 2015 using single-drug protocol with pentobarbital, 5 gm
25. Marcus Wellons. Executed in Georgia June 17, 2014 using single-drug protocol with pentobarbital, 5 gm
26. Michael Wilson. Executed in Oklahoma January 9, 2014 using a 3-drug protocol with pentobarbital, 5 gm
27. Llyod Lafevers. Executed in Oklahoma January 30, 2001 using a 3-drug protocol with thiopental, 5 gm
28. Marion Bowman, Executed in South Carolina January 31, 2025, using a single drug protocol with pentobarbital.
29. Byron Black, Executed in Tennessee Aug 5, 2025, using a single drug protocol with pentobarbital.

EXHIBIT 9

FILED
2025 OCT 28 AM 10:44
DAVIDSON CO. CHANCERY CT.

IN THE CHANCERY COURT OF DAVIDSON COUNTY, TENNESSEE
TWENTIETH JUDICIAL DISTRICT PART IV

KEVIN BURNS ET AL.,

Plaintiffs,

vs. NO. 25-0414-IV

FRANK STRADA, ET AL.,

Defendants.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

DEPOSITION OF

DR. [redacted]

PHYSICIAN A

October 27, 2025

12:53 p.m. (ET)

Holiday Inn Express Union City

810 Bream Boulevard

Union City, Tennessee 38261

Chloe Fry, 1088

ESQUIRE DEPOSITION SOLUTIONS
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

[redacted]

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[redacted]

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WITNESS: DR. [redacted]

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[redacted]

DEPOSITION OF DR. [redacted]

October 27, 2025

DR. [redacted] having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRAZER:

Q. Good afternoon, Dr. [redacted] My name is Drew Brazer.

A. Good afternoon.

Q. I'm one of the employees with the Federal Public Defender's Office, representing the plaintiffs in the case of Burns v. Strada.

A. Okay.

Q. Thank you for coming here today. We appreciate your time.

A. Yes, sir.

Q. Our goal is to learn more about your role with respect to Tennessee's execution process.

A. Yes.

MR. WICKENHEISER: And I'm very sorry, just before we get started, I wanted to put on the record that we had agreed to stipulate -- or to reserve all objections except for objections to form.

MR. BRAZER: Yep. Thank you, David.

[redacted]

BY MR. BRAZER:

Q. Dr. [redacted] are you represented by an attorney today?

A. I'm represented by the gentleman to my right.

Q. Okay. And are you an employee of the Tennessee Department of Corrections?

A. Yes.

Q. You are?

A. In a limited sense, yes.

Q. Okay. Could you tell me more about that role? Or roles?

A. I do contract work for them and attend executions.

Q. Okay. Are you also an employee of Centurion?

A. Not at this time.

Q. Okay. Dr. [redacted] have you ever sat for a deposition before?

A. Yes.

Q. How many?

A. Ten, 15.

Q. Ten, 15? Okay. Were you deposed as a fact witness or an expert witness?

A. Both.

Q. Both. Have you ever taken a deposition before as an attorney?

[redacted]

A. Yes.

Q. Okay. How many?

A. A handful.

Q. Okay. Well, it sounds like you're an old hand at this, but, you know, please remember to answer orally, speak up, so that the court reporter can accurately record your answer. We'll be relying, obviously, on what you say orally for the purposes of the case. If for whatever reason you don't understand my question, please feel free to let me know, and I'll either repeat it or rephrase it. If you need to take a break at any time, just let us know. Bathrooms are through that door, and there is tea and coffee outside, as well as water. As you know, your counsel may object to a question, but unless they specifically instruct you not to answer it, please do so. And I will do my best to avoid asking any questions that would call for an instruction not to answer.

A. Sure.

Q. Sound good?

A. Yes, sir.

Q. Okay. And let's get started. Without revealing anything about the contents of conversations you might have had with your lawyers, did you do anything to prepare for today's deposition?

[redacted]

A. No, sir.

Q. No. Okay. Who did you -- well, let me say, are you taking any medications or drugs of any kind which might affect your ability to understand or answer my questions?

A. No, sir.

Q. Okay. Have you had anything alcoholic to drink in the last eight hours?

A. No, sir.

Q. Okay. Are you sick at all today?

A. Nope.

Q. Is there any other reason you can think of that you wouldn't be able to understand and answer my questions?

A. Nope.

Q. Okay. Wonderful. You're here pursuant to a subpoena; is that correct?

A. Yes.

Q. Okay.

MR. BRAZER: May I have a copy of the subpoena, please?

THE REPORTER: Is that his copy?

MR. BRAZER: Yes.

THE REPORTER: Okay.

BY MR. BRAZER:

[redacted]

Q. Dr. [redacted] is this that subpoena?
A. It appears to be.
Q. Okay. And you'll see on the last page, I believe, that there -- it includes a request to bring documents; is that correct?
A. Yes, it does.
Q. Okay. Did you bring any documents with you to today's deposition?
A. No.
Q. Are you withholding any documents that you think are responsive to that subpoena?
A. No.
Q. Okay. You were served by that subpoena by an investigator in our office; is that correct?
MS. KINGSBURY: Do you want me to get one of these to the court reporter?
MR. BRAZER: Yes. Thank you. And my apologies. We'll enter this as Exhibit 1. Thank you.
(Exhibit 1 was marked for identification.)
BY MR. BRAZER:
Q. You were served that subpoena by an investigator in our office, correct?
A. I don't know who he was.
Q. Okay. Was your interaction with him okay?

[redacted]

A. Yeah.

Q. Okay. Great. And I -- as an -- as I understand it, you called Ms. Henry after receiving the subpoena; is that correct?

A. Yes.

Q. Okay. And that conversation was with regard to changing the date of this deposition; is that correct?

A. Yes.

Q. Okay. Did you discuss anything substantive with Ms. Henry about this case during that phone call?

A. No.

Q. Okay. Dr. [redacted] do you know what this case Burns v. Strada is about?

A. Not -- I don't know the legal specifics. I -- I am familiar with Mr. Burns' situation.

Q. Okay. And by that, what do you mean?

A. Well, I read Sonia Sotomayor's dissenting opinion about one of his federal collateral attacks on the state judgment.

Q. Okay. Are you aware that this case concerns a lawsuit challenging Tennessee's 2025 lethal injection protocol?

A. No.

Q. Okay. Have you read any of the filings in

[redacted]

this case?

A. In which case?

Q. In Burns v. Strada?

A. No, sir.

Q. Okay. Have you heard about or read about the case on the news?

A. I read some newspaper accounts. One or two.

Q. Okay. Great. So we found a copy of your CV from prior litigation you were deposed in. That case was Good v. South Haven out of the Northern District of Mississippi.

A. Yes.

Q. Is it okay if I show you a copy of that CV?

A. Sure.

Q. All right. Now, Dr. [redacted] I understand this CV might be out of date. I believe it's from around 2017. Can you verify whether or not this is indeed your CV from that era?

A. Well, I can't pin down the dates.

Q. Sure.

A. But it appears to be my CV.

Q. Okay. Do you have a more up-to-date copy of your CV?

A. I do not.

MR. BRAZER: Okay.

[redacted]

THE REPORTER: Do you want to enter this?

MR. BRAZER: Yes. We're going to introduce this as Exhibit number 2. All right. Here you are.

(Exhibit 2 was marked for identification.)

BY MR. BRAZER:

Q. Now, this says you went to medical school at the University of Tennessee; is that correct?

A. Yes.

Q. Okay. And you graduated in 1999; is that correct?

A. Yes.

Q. Okay. And you did your residency at the UT Department of Family Medicine; is that correct?

A. Yes.

Q. Okay. Did you do any medical fellowships?

A. No.

Q. Okay. It seems to me, based on this resume, that you've been practicing medicine for about 25 years; is that correct?

A. I graduated from residency in 2001.

Q. Okay.

A. So technically, 24 years.

Q. Okay. Where do you currently practice?

A. I have -- I'm a medical supervisor for a number of -- of nurse practitioner clinics in West and

[redacted]

Middle Tennessee.

Q. Okay. But you don't currently -- do you see patients?

A. Yes.

Q. Okay. Are you affiliated with a hospital?

A. No.

Q. Okay. Are you board certified?

A. Yes.

Q. Which board?

A. American Board of Family Physicians.

Q. Okay.

A. It's technically American Board of Family Medicine.

Q. Okay. Do you -- I know you said you're not affiliated with a hospital. Do you have hospital privileges?

A. No.

Q. Okay. Memberships in any medical associations?

A. Tennessee Academy of Family Physicians, American Academy of Family Physicians.

Q. Okay. In addition to your practice as a family medicine doctor, I see that you worked as an emergency room physician --

A. That's correct.

[redacted]

Q. -- for part of your career? Okay. For how long was that?

A. Generally speaking, in one emergency room or another, from January 2001, to April 2013.

Q. And were those full-time positions?

A. Yes.

Q. Okay. I see also here -- on here that you worked at the Obion County Medical Examiner's Office from 2006 to 2009; is that correct?

A. Yes.

Q. Okay. What did you do for the Medical Examiner's Office?

A. The sheriff's department and the police department would call me and I would go out and examine bodies found deceased, and make a decision about whether or not an autopsy was indicated.

Q. Okay. Okay. Finally, I see, as you mentioned earlier, that you hold a number of medical director positions. On here, I see blood banks, medical clinics, a rehab facility, urgent care centers, a chiropractic center, a nursing home, hospice. If I quickly count, it looks like there are 12 different medical director positions on this resume. Are -- do you hold other medical director positions in addition to those listed here?

[redacted]

A. Yes.
Q. Okay. Approximately how many?
A. Let's see. Three or four.
Q. Three or four in addition.
A. Yes.
Q. Okay. So roughly 15 or 16 in total?
A. No.
Q. Sorry, could you clarify, sir?
A. What would you like to know?
Q. How many medical director positions in total you hold?
A. Well, let's see. I'm no longer the medical director for Plasma Biological Services; I'm no longer the medical director for Interstate Blood Banks; I'm no longer the director of Regulatory Affairs for Interstate Blood Banks; I am only a part-time medical director for Advanced Rehab and Medical Clinic in Jackson; I am no longer the medical director in Urgent 45; no longer the medical director in Arlington Family Chiropractic; and no longer the medical director of Gallaway Nursing Home; no longer the medical director of Martin Healthcare; no longer the medical director of Avalon Hospice.

I am the medical director of four clinics in Memphis, which are urgent care clinics; one sleep clinic in Memphis; three weight loss clinics, one in Jackson,

[redacted]

one in Dyersburg, one in Chattanooga; a walk-in clinic in Dyersburg; an aesthetics clinic in Martin, Tennessee; an aesthetics clinic in Union City, Tennessee; The Wound Care Clinic in Union City, Tennessee. And I think that's that -- that's it.

Q. Okay. Thank you.

A. Uh-huh.

Q. And what do you do as a director for all of these facilities?

A. I review medical records. I review the charts of patient visits.

Q. Okay. And are you on call for all of these entities?

A. Yes.

Q. Okay. I assume you're compensated for all of this work?

A. Yes.

Q. Okay. Do you derive the bulk of your income from your medical director positions?

A. Yes.

Q. Okay. Now I asked earlier that you're an employee of TDOC; is that correct?

A. No. As I said previously, I do contract work for them in connection with certifying the death of executed inmates.

[redacted]

Q. Okay. Were you or are you currently a medical director for Northwest Correctional Facility?

A. No.

Q. No. Have you ever been a medical director for Northwest Correctional Facility?

A. Yes.

Q. You have. During what time period?

A. Probably 2020 to 2023, 2022, something like that.

Q. Are you a medical director for other correctional facilities?

A. No.

Q. Have you ever been a medical director for other correctional facilities?

A. No.

Q. Okay. And what did you do as a medical director for Northwest Correctional Facility?

A. Provide patient care to inmates.

Q. Okay. Okay. Dr. [redacted] now I'd like to ask you about your involvement in Tennessee's executions, if that's all right. Are you aware that you've been identified as a physician under the 2025 lethal injection protocol in Tennessee?

A. Yes.

Q. Okay. Do you know who identified you as a

[redacted]

physician?

A. I do not.

Q. Okay. Are you aware that it was the defendants and the Davidson County Medical Examiner's Office that identified you?

MR. WICKENHEISER: Objection.

MR. BRAZER: On what grounds?

MR. WICKENHEISER: I'm objecting to the form.

MR. BRAZER: Form of the question?

MR. WICKENHEISER: Yeah.

MR. BRAZER: Okay. Can I have Mr. Byron Black's autopsy report, as well as Oscar Smith's autopsy report?

THE REPORTER: Do we want to enter these as separate exhibits?

MR. BRAZER: Yes.

THE REPORTER: Okay.

MR. BRAZER: I'll give this copy to you. And this to you as well. Dr. [redacted] I'm providing you a copy. I'm just highlighting the text for you, because otherwise it would be challenging to find. That is a copy of Mr. Smith's autopsy report. We are entering this as Exhibit 3. That is the autopsy report of Mr. Byron Black. We are entering this as Exhibit 4. This is the autopsy report of Mr. Oscar

[redacted]

Smith.

(Exhibit 3 was marked for identification.)

(Exhibit 4 was marked for identification.)

THE REPORTER: Can I have Exhibit 3 back real quick? I think I did not mark the file. Thank you.

MR. BRAZER: Okay.

THE REPORTER: Sir, could you --

MR. WICKENHEISER: I'm sorry, Drew. What did you highlight?

MR. BRAZER: I highlighted on his copy, on Mr. Smith's report, because it's a multi-page document where it lists his name as the physician who declared death.

THE REPORTER: I don't think you have the Smith one.

MR. WICKENHEISER: Yeah. I don't believe I have the Smith one. If I could get them. Okay.

MR. BRAZER: Can I have copy as well, please? And of Mr. Black's as well? All right.

BY MR. BRAZER:

Q. Starting with Mr. Black's autopsy report, Dr. [redacted] in the narrative summary, do you see that section?

A. Yes, I do.

Q. Okay. So we're going to go to the second

[redacted]

sentence. Do you mind if I read it to you?

A. Go ahead.

Q. "This investigator DOI Kelly Nicholson and Middle Tennessee Removal Service personnel responded to RMSI where death was later pronounced at 10:43 hours by Dr. Mark [redacted] Are you that Dr. Mark [redacted]

A. Yes.

Q. Okay. Now we're going to turn to Mr. Smith's autopsy report. Sorry, we are on Page 4. I have marked this for you as it's a bit harder to find. We're looking at the case summary section at the bottom. All right? And do you see the third sentence? "Dr. Mark [redacted] officially pronounced death on May 22, 2025, at 10:47 hours." Are you that Dr. [redacted]

A. Yes.

Q. Okay, great. Okay. To your knowledge, were -- now let me back up. Are you aware of the reporting that was done in the aftermath of Mr. Black's execution?

A. Please explain.

Q. Have you read any news reports about his execution?

A. Which reports are you referring to?

Q. The Nashville Banner, The Tennessean, any of these articles that they might have published?

A. Okay. So would you repeat your question one

[redacted]

more time?

Q. Certainly. Have you read or seen any news reports in the aftermath of Mr. Black's execution?

A. Not that I recall.

Q. Okay.

A. Oh, wait. Not from The Nashville Banner.

Q. Okay. All right. All right. Dr. [redacted] to your knowledge, were Defendants supposed to keep your identity as a physician a secret?

MR. WICKENHEISER: Objection.

MR. BRAZER: On what grounds?

MR. WICKENHEISER: The form of the question.

MR. BRAZER: Can you explain?

MR. WICKENHEISER: I don't have to explain that.

MR. BRAZER: Okay.

MS. HENRY: He can go ahead and answer your objections, but --

MR. WICKENHEISER: Yeah --

MR. BRAZER: Yeah.

MR. WICKENHEISER: Sorry, I --

BY MR. BRAZER:

Q. I'm sorry, Dr. [redacted] let me repeat the early instruction. If David or -- I assume David is doing the objections today. If David objects, unless he instructs

[redacted]

you not to answer, please do answer the question.

A. Would you repeat your question, please?

Q. Certainly. To your knowledge, were Defendants, the defendants in this case, supposed to keep your identity as the physician involved in the 2025 lethal injection protocol a secret?

A. Would you identify the defendants, please?

Q. Certainly. That would be Defendant Commissioner Frank Strada of the Tennessee Department of Corrections, and Warden Nelson. Otherwise, the Tennessee Department of Corrections.

MR. WICKENHEISER: And same objection, but you can answer.

THE WITNESS: Sure. Yes, I -- this -- my identity was supposed to be a secret.

BY MR. BRAZER:

Q. Okay. Did you instruct them that they could disclose your identity?

A. I did not.

Q. Did you instruct anyone that you could -- they could disclose your identity?

A. I did not.

Q. Okay. Now, have you since been -- have you been -- since Mr. Black's execution on August 5th, 2025, have you been harassed by any anti-death penalty

[redacted]

supporters?

A. No, and I certainly hope your office will handle this responsibly --

Q. Of course.

A. -- and that I won't be reading about myself in The Nashville Banner or The Guardian.

Q. Understood, Dr. [redacted] Have you told anyone else that --

A. That was understood, that was not an acknowledgement in the grievance. So you're going to agree to that?

Q. Sir, this is a deposition.

A. I understand what it is.

Q. I'll be asking the questions.

A. Now, you asked me about confidentiality. I've seen some of the things that you all have said. I'm asking you -- of course I know the answer to this, this is supposed to be under seal. I have certainly trust that your staff will not be talking off record to newspapers.

Q. Sir, we have signed -- we are a party to a protective order in this case, which specifies the legal grounds by which we are supposed to keep information secret in this case.

A. Well, that's lawyer talk. Is it yes or no?

[redacted]

Can you say yes or no?

MS. HENRY: Excuse me, can we go off the record for just a moment, so I can consult with my --

THE WITNESS: Yeah.

MS. HENRY: Okay.

THE REPORTER: Okay. We're off the record.

(Off the record.)

BY MR. BRAZER:

Q. Dr. [redacted] you mentioned a moment ago that -- or seemed to indicate that you thought this deposition was under seal. Are you aware that at a hearing on Friday, October 24th, Defendants filed our notice of deposition on the record with the Court?

A. I have no knowledge of who filed what.

Q. Okay. And when Plaintiffs brought that up to the Court, the fact that this deposition was not filed under seal, Defendants' Counsel stated that they were exercising their privilege to redact judiciously.

A. To redact judiciously?

Q. Yes.

A. Is that what you said?

Q. Yes. That's what Defendants' Counsel said.

A. Got it.

Q. Okay. So I -- are you aware that this deposition is not being conducted under seal?

[redacted]

A. I am now.

Q. Okay. All right, Dr. [redacted] I'd like to proceed with the questions if that's okay.

A. Sure.

Q. Okay. I want to circle back to this one: Have you told anyone about your involvement in Tennessee's executions?

A. Yes.

MR. WICKENHEISER: I just want to object to the extent it might discuss attorney-client communication.

MR. BRAZER: Oh, I'm sorry. Yes.

BY MR. BRAZER:

Q. Absent -- you know, with the exception of you attorneys who, I assume, know your role, have you told anyone about your involvement in Tennessee's executions?

A. No.

Q. No. No family members?

A. Did I just say no?

Q. Okay. Understood, sir. Now you were the physician for the Byron Black and Oscar Smith executions, correct?

A. Yes.

Q. Okay. Have you participated in any other executions in Tennessee?

[redacted]

A. Yes.
Q. Okay. Which ones?
A. I don't recall the name.
Q. You don't recall the name of the people being executed?
A. Did I just say that?
Q. Understood, sir. Have you participated in executions in other states?
A. No.
Q. Okay. Do you or have you played any other role in relation to Tennessee's executions -- execution process aside from the physician?
A. No.
Q. How is it that came -- you came to be involved in Tennessee's execution process?
A. I had a physician friend who shall remain -- remain nameless, who asked me to accompany him to an execution so that I might take over when he retired.
Q. Okay. Was that execution in Tennessee?
A. Yes.
Q. Okay. Were you involved in executions under the prior 2018 protocol?
A. I think the execution was in 2018 --
Q. Okay.
A. -- but I cannot answer what protocol.

[redacted]

Q. Okay. Are you compensated for your participation?

A. Yes.

(CERTIFIED QUESTION)

Q. Can I ask how much?

A. No.

MR. BRAZER: On what grounds is he asserting not to answer that question?

THE WITNESS: Generally speaking, this was -- my name was supposed to be kept private, okay? And now we're getting into all manner of compensation, and this, and that, and the other. And frankly, I don't wish to read about myself in the newspaper saying, this blood thirsty coward doctor gets money for doing this. I get paid for the time and effort of going.

MR. WICKENHEISER: The witness has given his answer.

MR. BRAZER: Okay. All right. We'll move forward, Dr. [redacted]

MS. HENRY: Mr. Brazer, would you like to certify that question?

MR. BRAZER: We will certify it for the Court.

BY MR. BRAZER:

Q. Now have you read Tennessee's 2025 lethal

[redacted]

injection protocol?

A. Yes.

Q. Okay. Can you tell me what you believe your role to be under that protocol as the physician?

A. Certify the death of the inmate.

Q. Okay. Anything else?

A. That's it.

MR. BRAZER: Okay. Could I have a copy of the 2025 protocol, please? And we have a copy for the reporter as well, please. Dr. [redacted] I'm directing you to Page 8 of the 2025 Lethal Injection Protocol. And we are marking this as Exhibit 5.

(Exhibit 5 was marked for identification.)

BY MR. BRAZER:

Q. Thank you. All right. Dr. [redacted] would you mind reading the paragraph under the word physician on Page 8?

A. "The physician is responsible for determining that the inmate is deceased using acceptable -- acceptable medical standards and establishing central IV access if necessary."

Q. Okay. Is your understanding from reading that paragraph, in addition to determining death, you would be responsible for establishing a central IV line if the IV team is unable to establish a peripheral IV line?

[redacted]

A. Yes.

Q. Okay. Were you aware of that?

A. Yes.

Q. Okay. Where would you normally establish a central IV line?

A. Subclavian vein.

Q. Subclavian vein. All right. Are there other veins in which you would consider to establish the central IV line?

A. Not myself.

Q. Not yourself. But would other practitioners?

A. Possibly.

Q. Okay. What is the standard practice for establishing a central IV line?

A. Which one are you referring to?

Q. For a subclavian vein.

A. For a subclavian vein you prepare the patient with antiseptic, you open the kit and check the inventory of the kit to make sure everything is there. Once you've established that you have the complete and correct kit and the kit is sterile, you identify the appropriate location under the clavicle. You anesthetize that with lidocaine, you introduce a syringe with a trocar on it.

When you have entered the vein, you draw back

[redacted]

to ensure that you're in the right spot and not through and through. You remove the syringe, you introduce a wire guide. You remove the first needle, you expand the opening, you introduce a triple lumen catheter. You check for its patency and you check that it's working. Then you sew the triple lumen catheter to the patient. At that point, you can access the patient's vasculature.

Q. Okay. You mentioned locating the vein. How is that done?

A. Generally speaking, the anatomy in this area is pretty standard, the subclavian vein is fairly wide. So you use an approach aiming toward the middle of the throat and gradually upward. It's a little bit hard to describe, but that's basically how you do it.

Q. Okay. In a hospital setting, would an ultrasound typically be used to locate the subclavian vein?

A. I never needed an ultrasound, but I suppose some people do that.

Q. Okay. And I imagine that's because other techniques, like I believe you were describing the landmark method?

A. Uh-huh.

Q. Okay. Involve a greater risk of hitting the wrong spot, not necessarily getting on target.

[redacted]

MR. WICKENHEISER: Objection.

THE WITNESS: I don't understand that question.

BY MR. BRAZER:

Q. Sure. I imagine an ultrasound might be used because the landmark method is less precise at locating a vein than using an ultrasound.

MR. WICKENHEISER: Objection.

THE WITNESS: You are -- that's a declaration; it's not a question. Do you want to try again?

BY MR. BRAZER:

Q. I -- sure, sir. In your experience, would an ultrasound be used in lieu of the landmark method because it provides better visualization of the location of the subclavian vein or other veins in which you would attempt to establish central venous access?

MR. WICKENHEISER: Objection.

BY MR. BRAZER:

Q. You can answer.

A. I've never used an ultrasound.

Q. Okay.

A. I've never needed an ultrasound.

Q. Okay.

A. I've never missed the placement of the vein.

Q. Okay. All right. To your knowledge, is there an ultrasound machine in the execution chamber?

[redacted]

A. I have no idea.

Q. All right. Okay. How many times have you placed a central IV line?

A. A dozen or more.

Q. Okay. When was that?

A. When I was in the emergency room, primarily.

Q. Okay. So when was the last time you placed a central IV line?

A. Probably somewhere close to the last aspect of my tenure in the emergency room.

Q. Okay. So if I could have here, let me just refer back to your CV. So that would be around 2013; is that correct?

A. Yes, sir.

Q. Okay. And you stated that you never had any complications establishing a central IV line in those cases?

A. I didn't say that.

Q. Okay. Did you ever have complications in establishing a central IV line in those cases?

A. Just one time.

Q. Could you tell me what happened?

A. The guide wire wound up in the carotid vein, which is an undesirable placement, but you can reverse that fairly quickly.

[redacted]

Q. Okay. Under what circumstances would you perform a cut down procedure to obtain IV access?

A. I would not.

Q. You would not. Okay. You mentioned earlier that you had participated in executions prior to Mr. Oscar Smith's in Tennessee; is that correct?

A. Repeat your question, please?

Q. You mentioned earlier that you had participated in executions in Tennessee prior to Mr. Oscar Smith's in May of 2025?

A. I did not so indicate.

Q. Sir, did you participate in executions in Tennessee aside from Mr. Oscar Smith in --

A. I did not participate in executions.

Q. Okay. I understand. Dr. [redacted] were you the physician in the executions -- in any executions prior to Mr. Oscar Smith?

A. No.

Q. Dr. [redacted] did you participate in any execute -- sorry, my apologies. Dr. [redacted] were you the physician in any executions under the 2018 protocol?

A. No.

Q. Dr. [redacted] did you -- were you the physician in any execution aside from Mr. Oscar Smith's and Mr. Byron Black?

[redacted]

A. I've heard your question three times.
Q. Yes.
A. The answer is no.
Q. Okay. My apologies, sir. I think I misunderstood one of your prior answers. All right. Now let's turn to Page 19 of the protocol. Now if you see under section C, escort team, the paragraph marked 4, there is a redaction. Could you read the rest of the sentence for me, please?
A. "And the physician are stationed in the capital punishment garage."
Q. Okay. Is that an accurate description of where you are located the morning of an execution?
A. No.
Q. Okay. Could you elaborate, please?
A. Yes.
Q. Where are you located?
A. Okay. You asked me, can I elaborate? The answer is yes.
Q. Okay. Sir, could you please elaborate where you are located on the morning of an execution?
A. Yes. We were in a room adjacent to the execution chamber.
Q. Okay. Thank you. Now how long do you wait in that room on the morning of an execution?

[redacted]

A. An hour or more.

Q. Okay. How do you know if you were needed to establish a central IV line?

A. I assume they would come get me. It's never happened.

Q. Okay. How do you know when it's time for you to enter the execution chamber to perform the examination for death?

A. A member of the administration comes and gets me.

Q. Okay. And approximately how long does it take you to walk from where you are waiting to the execution chamber?

A. 15, 30 seconds.

Q. Okay. Do you bring any equipment with you into the execution chamber?

A. Stethoscope.

Q. A stethoscope. Is there any equipment in the chamber already that you use?

A. No.

Q. Okay. Do you have experience determining and declaring death in non-execution settings?

A. Yes.

Q. Okay. I would imagine that would be as an emergency room physician; is that correct?

[redacted]

A. Yes.

Q. Are there other capacities in which you have declared death outside of an ER?

A. Yes.

Q. Could you elaborate on those, please?

A. I had an individual in the parking lot of an urgent care clinic who passed away and I certified that he was dead.

MR. BRAZER: Okay. Counsel, I'd like to show the witness copies of the lethal injection recorder checklist for Mr. Oscar Smith and Mr. Byron Black. Under the protective order agreement I think we'd have to have him sign the agreement form since he was present for some of these events. Do you have any objection to us showing him those documents?

MR. WICKENHEISER: No. But has the court reporter signed the -- court reporter needs to sign, too.

MR. BRAZER: Okay. Miss, do you have any problem with signing an agreement to a protective order, not to disclose certain documents?

THE REPORTER: No, that's fine.

MR. BRAZER: All right. Do you guys mind if we handle that at the end?

MR. WICKENHEISER: Sure.

MR. BRAZER: That's fine. Okay. Can I have a copy of the lethal injection recorder checklist for both Mr. Smith and Mr. Black? All right. And let's mark these separately. Okay. We're going to enter this as Exhibit 6. This is the Lethal Injection Execution Recorder Checklist for Byron Black.

(Exhibit 6 was marked for identification.)

MR. BRAZER: And we'll need to have you sign an agreement to be bound by the protective order at the end of the deposition.

THE REPORTER: Sounds good.

MR. BRAZER: Thank you.

I think we gave the witness one, but I think we still need one. That's fine. I have copies here, too. And we are going to enter this as Exhibit 7. This is the Lethal Injection Execution Recorder Checklist for Mr. Oscar Smith. We'll also need you to sign the protective order at the end. No, I've got one. Thanks.

(Exhibit 7 was marked for identification.)

BY MR. BRAZER:

Q. All right. Dr. [redacted] referring first to the recorder checklist for Mr. Byron Black. I think if you turn to the second page, you will see about halfway down the document. It says, [redacted]

[redacted]
[redacted]
to your knowledge; is that correct?

A. No, sir. [redacted]
So I don't know what you're referring to.

MR. WICKENHEISER: Are you -- are we looking at Oscar Smith or Byron Black?

MR. BRAZER: I'm looking at Byron Black. I'm sorry.

THE WITNESS: Clarify your questions, Counsel. Okay. Repeat your question.

BY MR. BRAZER:

Q. All right. If you turn to the second page of the Lethal Injection Recorder Checklist for Mr. Byron Black and you look about halfway down the page. You will see the words, [redacted] Do you see that?

A. Yes.

Q. All right. And do you see to the left of it, [redacted]

A. That's what it says.

Q. Okay. Great. To your knowledge, is that the time you entered the execution chamber?

A. I do not know.

Q. All right. Were you wearing a watch that day?

A. Yes, but neither my watch nor my phone were calibrated to a clock in the execution chamber.

Q. Okay. Did you see a clock in the execution chamber that day?

A. After the procedure.

Q. After the procedure. All right. It then says right below that, [redacted] Do you see that?

A. Yes.

Q. Okay. [redacted]. Do you see that?

A. Yes.

Q. Okay. Is that the time that you pronounced death in Mr. Black's case?

A. I do not have an immediate recollection of the exact time.

Q. Okay. So you pronounced death and somebody marked the time, presumably?

A. Yes.

MR. BRAZER: Okay. All right. Could I have a copy of the Byron Black photo at 10:45 a.m.? Okay. We're going to mark this. Okay. I am going to enter this as Exhibit 8. I apologize. Miss, this is a photo of a deceased inmate.

(Exhibit 8 was marked for identification.)

[redacted]

BY MR. BRAZER:

Q. Okay. Dr. [redacted] do you see that this photo is stamped with a date?

A. Yes.

Q. Okay. And is that date August 5th, 2025?

A. That's what it says.

Q. At time 10:45?

A. That's what it says.

Q. Okay. Is this what Mr. Black looked like when you entered the execution chamber?

A. Yes.

Q. Do you notice any differences in the photograph from what he looked like when you entered the execution chamber?

A. No.

Q. Okay. When you entered to examine Mr. Black, did you notice any blood around his IV sites?

A. No.

MR. BRAZER: Okay. Could you bring those up please? Byron Black IV sites, one and two. Thank you.

THE REPORTER: Do you want to mark these?

MR. BRAZER: Yeah.

You can mark them together.

THE REPORTER: Okay.

[redacted]

MR. WICKENHEISER: Those are both two photos?

MR. BRAZER: Yeah. We'll mark this as Exhibit 9. It is a photograph taken --

MS. KINGSBURY: Two photographs.

MR. BRAZER: Two photographs. Thank you, Sarah. Taken by the medical examiner's investigator of Mr. Byron Black's left and right arms and shows the IV sites. Yep.

(Exhibit 9 was marked for identification.)

BY MR. BRAZER:

Q. Now, Dr. [redacted] have you had an opportunity to examine the photographs?

A. Yes.

Q. Do you see blood at his I -- on his IV sites?

A. No.

Q. Okay. Could you tell me what that red substance is?

A. No, I cannot.

Q. Okay. Okay. Now, Dr. [redacted] can you walk me through step by step what you did to determine whether or not Mr. Black was dead after you entered the execution chamber?

A. Yes, I can.

Q. Okay. Thank you. Could you please do so?

A. Yes. I enter the room and I make a general

observation of the body. Specifically, I look for chest movement, which would indicate respiration.

Q. Okay.

A. Second, I look at the eyes to determine if they're fixed and in the neutral position. Third, I look at the character of the eyes. Fourth, I look at the skin. Fifth, I listen with a stethoscope for heart sounds. Sixth, I listen for lung sounds. Seventh, I palpate the carotid artery. Eighth, I palpate the skin to determine if blanching and reperfusion occurs. I sometimes go back and listen again with the stethoscope for heart sounds. Finally, I stroke the eyelids with the tip of a glove or a tongue blade or whatever I have to determine if there is a corneal reflex.

Q. Okay. Did you check Mr. Black's pupillary response?

A. Didn't have a flashlight, but I did look at the eyes.

Q. Okay. And you mentioned that you checked the character of the eyes. Could you tell me what that means?

A. In death, the pupils are fixed and dilated in the neutral position, and they were, and they attend to acquire a slightly glassy look. It is very subtle and nuanced, but there's a glassy look to deceased bodies --

to the eyes of deceased bodies.

Q. Okay. You mentioned you listened to it -- for a heartbeat easing a stethoscope; is that correct?

A. Yes.

Q. Did you have to lift the sheet on Mr. Black to do so? Was it already pulled down?

A. I -- I don't recall.

Q. Okay. Did you have to reposition or remove any of the straps over his chest?

A. No.

Q. No. Okay. All righty. Let's turn to the Lethal Injection Recorder Checklist for Mr. Oscar's.

A. Okay.

Q. All right. Now if you look on the second page, you will see about halfway down it says, [redacted] And next to that, it says, [redacted] Do you know if that's the time you entered the execution chamber?

A. I do not.

Q. Okay. Were you wearing a watch that day?

A. Yes.

Q. Okay. And there was still the clock on the wall?

A. Yes.

Q. Okay. And it says below that, [redacted]

[redacted] And next to that, it says, [redacted] Is that correct?

A. Yes.

Q. Okay. To your knowledge --

A. Well, let me -- let me refine my answer. That is what it says.

Q. Okay. Do you know if that was the time you pronounced death?

A. I do not. I don't have a present recollection of that.

MR. BRAZER: Okay. All right. Could I have the photo of Mr. Oscar Smith at 10:50? Yes. Okay. Okay. This is Exhibit 10. It's a photo of Mr. Oscar Smith, who is deceased.

(Exhibit 10 was marked for identification.)

BY MR. BRAZER:

Q. All righty. Dr. [redacted] have you had an opportunity to examine the photograph?

A. Yes.

Q. Is this what Mr. Smith looked like when you entered the execution chamber?

A. Yes.

Q. Do you notice any differences in between this photograph and what you observed on that day?

A. No.

[redacted]

Q. Okay. Same question. Did you notice any blood around Mr. Smith's IV sites when you examined him that day?

A. No.

Q. All right.

THE REPORTER: Go ahead with that one.

MR. BRAZER: Can I have Oscar's IV sites, please?

THE REPORTER: Yes.

MR. BRAZER: Okay. Can enter this.

THE REPORTER: You want to enter them both together?

MR. BRAZER: Yeah, let's just do that.

THE REPORTER: Thank you.

MR. BRAZER: All right. We'll mark this as Exhibit 11. It is two photographs of Mr. Oscar Smith's IV sites.

(Exhibit 11 was marked for identification.)

BY MR. BRAZER:

Q. All right. Dr. [redacted] have you had an opportunity to examine these photographs?

A. Yes.

Q. Okay. Do you notice any blood around Mr. Smith's IV sites?

A. There -- refine your question, Counsel.

[redacted]

Q. Dr. [redacted] do you notice any substance around Mr. Smith's IV sites that appears to be blood in your opinion?

A. Around the IV sites?

Q. Yes.

A. Refine your question, Counselor.

Q. Around -- pardon me. I am not a doctor, and so my medical terminology might be lacking. Around where the intravenous catheter is inserted into the person's skin.

A. Around specifically?

Q. Okay. Within a couple inches in diameter around that site?

A. There is a red substance --

Q. Okay.

A. -- in the IV line. I cannot ascertain whether or not it's blood. Even if it were, it is of no clinical medical pathophysiological significance. And the same can be said for the IV lines of Mr. Black that you showed me a few minutes ago.

Q. Okay.

A. I cannot ascertain one way or the other if it's blood. Even if it is, it is of no significance. It is not "around the IV site." What -- the best I see appears to be potentially within the IV lines, assuming

[redacted]

that it's blood.

Q. Understood. Thank you. Did you follow the same procedure for determining death in Mr. Smith's case as you did for Mr. Black?

A. Yes.

Q. Okay. Any differences whatsoever?

A. Not of significance, no.

Q. Okay. Is this the same procedure you always follow when determining whether a patient has died?

A. Yes.

Q. Okay. Dr. [redacted] as a physician, have you had much experience with EKGs?

A. Yes.

Q. Okay. How many do you think you've read over the course of your career?

A. Hundreds.

Q. Hundreds. As I understand it, EKGs typically display a patient's cardiac electrical activity live on a monitor or -- and/or print the EKG recording out on a strip of paper; is that correct?

A. Yes.

Q. Okay. Older EKGs might only print the recording on a piece of paper and might not have a monitor; is that correct?

A. Yes.

[redacted]

MR. WICKENHEISER: Objection --
MR. BRAZER: To the form?
MR. WICKENHEISER: You can answer.
MR. BRAZER: To the form of the question? Okay.
THE WITNESS: Yes.
BY MR. BRAZER:
Q. Okay. Now, when you're taking an EKG recording, once you have the leads all set up, I assume you just press a button and start recording?
A. Yes.
Q. Okay. Assuming the person operating the device is paying attention, how soon after they started the recording would they notice whether or not the EKG strip is printing out of the machine?
MR. WICKENHEISER: Objection.
MR. BRAZER: You can answer.
THE WITNESS: However long it takes the printer to function.
MR. BRAZER: Okay.
THE WITNESS: Seconds.
MR. BRAZER: Seconds. Okay. Okay. I'd like to show you a partial EKG strip now. Can I please have the EKG strip? Right. And let's give -- and let's mark it, please. We are going to mark this as

[redacted]

Exhibit 12.

(Exhibit 12 was marked for identification.)

BY MR. BRAZER:

Q. Dr. [redacted] have you had an opportunity to examine this photograph?

A. Yes.

Q. Okay. Could you tell me what type of rhythm -- cardiac rhythm is shown here on this EKG strip?

MR. WICKENHEISER: Objection. He's not an expert and he's not been tendered as an expert. He's a factual witness. He can answer.

MR. BRAZER: Yeah.

MR. WICKENHEISER: But I want that on the record.

MR. BRAZER: That's fine.

MR. WICKENHEISER: He's not been tendered as an expert.

MR. BRAZER: That's fine.

I'll just also note for the record that, you know, we are eliciting opinion testimony -- I mean, eliciting testimony as a fact witness. There was an EKG machine involved with the protocol, and my understanding of Tennessee Code Annotated 24-7-115 is that as a -- the treating physician he's entitled to render opinion testimony relevant to his

[redacted]

treatment as the fact witness in this case.

MR. WICKENHEISER: I -- I'm going to maintain the objection.

MR. BRAZER: That's totally fine.

MR. WICKENHEISER: There's no evidence he saw this exact portion of the EKG results. And so I'm --

MR. BRAZER: Understood.

MR. WICKENHEISER: -- going to maintain the objection.

MR. BRAZER: Understood. Dr. [redacted] could you answer the question?

THE WITNESS: No.

MR. BRAZER: You --

THE WITNESS: Your question is premised on whether or not I'm a treating physician. I'm not a treating physician in this case.

BY MR. BRAZER:

Q. All right. Dr. [redacted] notwithstanding that, could you please tell me what rhythm you think that is shown on that EKG strip?

A. This appears to be a sinus rhythm with an intraventricular block.

Q. Okay. Could you explain to me what that means, please?

[redacted]

A. A sinus rhythm means that there's a P wave preceding the QRS wave, but the QRS wave is abnormal. It is significantly broadened, which indicates impaired conduction through the intraventricular bundle.

Q. Okay. And what exactly does that last part mean about obstruction in the intraventricular bundle? Apologies. I'm not super read up on all the medical terminology.

A. Is there a question there?

Q. Yes. Could you please explain further what you meant by that last bit about the blockage?

A. The widened QRS signifies impaired electric transmission through the intraventricular bundle.

Q. Okay. But you would otherwise describe this as a sinus rhythm; is that correct?

A. Yes.

Q. Okay. Is the term often used normal sinus rhythm or is that different from sinus rhythm?

MR. WICKENHEISER: Object to the form. You can answer.

THE WITNESS: I'm not sure I understand the question. Please repeat your question.

BY MR. BRAZER:

Q. Is there a difference between the terms normal sinus rhythm and sinus rhythm?

[redacted]

A. Yes.
Q. Can you explain to me what that difference is?
A. A sinus rhythm indicates that the sinoatrial node, indicated by an elevation of a P wave anterior to the QRS wave, meaning that the electric signal originates in the sinoatrial node. Normal sinus rhythm implies certain mathematical relationships between the P -- P wave, QRS wave, and the subsequent ST wave.
Q. Okay. Is a normal sinus rhythm compatible with life?
MR. WICKENHEISER: Objection. Again, he's not an expert in this.
MR. BRAZER: Understood. Please answer the question.
THE WITNESS: Will you repeat your question, please?
BY MR. BRAZER:
Q. Sure. Is normal sinus rhythm compatible with life?
MR. WICKENHEISER: Same objection.
MR. BRAZER: You can answer.
THE WITNESS: I have no idea what that means. Normal, healthy people have a normal sinus rhythm.
BY MR. BRAZER:
Q. Thank you. Do normal healthy people have

[redacted]

sinus rhythm generally?

A. Yes.

Q. Thank you. If you saw this rhythm on an EKG strip --

MR. WICKENHEISER: Just -- sorry. Just --

MR. BRAZER: Yeah.

MR. WICKENHEISER: Can we agree that my objection is going to be over all this, the objection about him not being a expert witness.

MR. BRAZER: That's totally fine.

MR. WICKENHEISER: Perfect. Thank you.

BY MR. BRAZER:

Q. If you saw this rhythm on an EKG for a patient, would you think that patient's cardiac function had ceased irreversibly?

MR. WICKENHEISER: I'm also going to object to the form.

MR. BRAZER: Understood.

THE WITNESS: You do not determine perfusion based on the rhythm.

BY MR. BRAZER:

Q. Okay. Is it correct to say that an EKG rhythm is one of the clinical indicators that you might use to determine whether or not their circulatory function has ceased irreversibly?

[redacted]

A. It is a piece of the puzzle.

Q. Okay. Was there an EKG machine in the execution chamber when you determined death for Mr. Black?

A. I don't recall seeing it.

Q. Was there an EKG machine in the execution chamber when you determined death for Mr. Oscar Smith?

A. I don't recall seeing it.

Q. Okay. Were you aware that Mr. Black was being monitored by an EKG machine?

A. Yes.

Q. Were you aware that Mr. Smith was being monitored by an EKG machine?

A. No.

Q. No. Did you not see leads on Mr. Smith's chest when you examined him?

A. Not that I recall.

MR. BRAZER: Okay. Could I please have the Oscar Smith exhibit, the EKG leads?

THE REPORTER: Do you need Black?

MR. BRAZER: No, just Smith.

THE REPORTER: Okay.

MR. BRAZER: I am going to mark this as Exhibit 13. Shows the deceased body of Mr. Oscar Smith.

[redacted]

(Exhibit 13 was marked for identification.)

BY MR. BRAZER:

Q. Dr. [redacted] have you had an opportunity to examine the photograph?

A. Yes.

Q. Okay. Does this appear to be the body of Mr. Oscar Smith?

A. I can't tell you that.

Q. Okay. Dr. [redacted] do you see the date on the photograph?

A. Yes.

Q. What is that date?

A. 5/22/25.

Q. Okay. Was that the day Mr. Oscar Smith was executed?

A. The records will say -- will say what the records say.

Q. Okay. The -- well, the records will reflect that was the day Mr. Smith was executed.

MR. WICKENHEISER: Objection.

BY MR. BRAZER:

Q. Dr. [redacted] do you see anything on the body of the person in this photograph that resembles an EKG lead?

A. Yes.

[redacted]

MR. BRAZER: Okay. Thank you. All right. I'd like to show you another photograph. Could I please have Byron's EKG?

MR. WICKENHEISER: Drew, are you going to be like -- I don't want to interrupt in the middle.

MR. BRAZER: Sure.

MR. WICKENHEISER: But I would like a break in --

MR. BRAZER: Yeah.

MR. WICKENHEISER: -- a little bit, if you all will be -- we --

MR. BRAZER: Yeah. Dr. [redacted] would you like to take a break?

THE WITNESS: I'm fine.

MR. BRAZER: Okay.

MR. WICKENHEISER: I just would like to use the restroom --

MR. BRAZER: Absolutely.

MR. WICKENHEISER: -- in a little bit. If -- we can finish this section. Whenever you're done.

MR. BRAZER: Let's -- I have a few more questions.

MR. WICKENHEISER: Yeah. Perfect.

MR. BRAZER: And then we can take a break.

MR. WICKENHEISER: Thank you.

[redacted]

MR. BRAZER: Appreciate that. Can I have the EKG strip?

THE REPORTER: Talking about this one?

MR. BRAZER: Yes.

THE REPORTER: Okay.

MR. BRAZER: Okay. Thanks. All right. Let's mark this. All right. We're going to mark this as Exhibit 14. It is the EKG strip of Mr. Byron Black.

(Exhibit 14 was marked for identification.)

BY MR. BRAZER:

Q. All right. Okay. Dr. [redacted] could you please compare the EKG recording you see in this photograph with the recording of the photo I previously showed you? If you need it, there you go. And please let me know when you've had an opportunity to do so.

A. Sure. Go ahead.

Q. Okay. Does the EKG recording in the photo I just provided to you look the same as the EKG recording in the previous photo that we showed you?

MR. WICKENHEISER: Object to the form and object to the expert testimony there.

THE WITNESS: The scale of the two EKGs are different.

BY MR. BRAZER:

Q. Okay. The scale of the photograph is

[redacted]

different?

A. Yes. You're referring --

Q. Is that your watch?

A. I don't think so.

Q. I think it might be.

A. It might be. I don't know. Yeah, it is. Yeah. Repeat your question.

Q. Do these two EKG recordings appear to be the same?

A. One -- the scale is wrong on one of them.

Q. Okay. The scale of the photograph, you mean?

A. Yes.

Q. Okay. All right. I will note for the record that the first EKG recording photograph is simply cropped from this latter one, but I can handle that at a later time. Dr. [redacted] are you able to determine from the label at the end of the EKG strip who this EKG strip belongs to?

A. The name is Byron Black.

Q. Okay. And are you able to determine from that label what day this EKG was recorded?

A. Let's see. The label says or appears to say 8/5/2025.

Q. And can you determine, I believe it's in the same section, what time this EKG strip was printed?

A. The print time and date appear to be 10:44:54, 8/5/25.

Q. Okay. And August 5, 2025 was the day of Mr. Byron Black's execution; is that correct?

A. The record will show what it shows.

Q. Okay. Okay. If you'll refer back to the lethal injection recorder checklist for Mr. Byron Black that I gave you a few minutes ago. All right. It is again on the second page. This says here that [redacted] I believe you answered earlier that you did not recall what time exactly you pronounced death in Mr. Byron Black's case; is that correct?

A. Yes.

Q. Okay. It seems to me that [redacted] is about [redacted] after 10:43. Is that your understanding as well?

A. Mathematically, that is correct, sir. However, in reality, there is no way to correlate what appears on this sheet with various photographs taken by someone else's camera. It is also impossible to correlate what it says on this sheet with the EKG recording, unless all of these cameras and timing devices and clocks were set together. Now, I know what's going on and you're -- the implication is I

[redacted]

declared somebody dead when he was still alive, and that's impossible.

Q. Could you tell me why it's impossible?

A. Yes. Because I'm familiar with how to determine whether or not a patient is deceased. The steps that I've outlined indicate -- indicate the permanent and irreversible cessation of physiologic activity. If there had been a pulse, I'd have found it.

Q. Okay.

A. If the heart was beating, I'd have heard it.

Q. Okay.

A. If the lungs were working, I'd have heard that.

Q. Okay. You mentioned that it's impossible to correlate all of the various time codes between the camera and the EKG strip and even the clock on the wall; is that a fair description?

A. No, I did not say that.

Q. Okay. What it -- can you tell me what you meant then?

A. What I mean is, if you're going to attach specificity to these different times, you have to set all of the times together even within seconds, because if one is slow and the other is fast, you have a significant gap of time that is inconsistent with the

actual event. There are no seconds recorded on this sheet; okay? I do not know who took these photographs, but there's no seconds recorded on them. And then finally, I don't know how or when the EKG machine was calibrated to the exact time. So unless all of these things are together, you cannot pinpoint with any specificity at all what took place when, other than within a few minutes time.

Q. In an execution where the relative timing of events is specifically in dispute, it would be important to calibrate all of the timing instruments, would it not?

MR. WICKENHEISER: Object to the form and object to him giving expert testimony about how execution should be. You can answer.

THE WITNESS: Repeat that question again.

BY MR. BRAZER:

Q. In an execution where the relative timing of all of the events is in dispute, it might be important to make sure that all of the timing instruments are synced together properly.

MR. WICKENHEISER: Same objection.

MR. BRAZER: Would you agree?

THE WITNESS: It might be.

BY MR. BRAZER:

[redacted]

Q. Okay. Dr. [redacted] at the top of the EKG strip with the printed label, do you see the words continual real time?

A. Yes.

Q. Okay. Correct me if I'm wrong. That means that the EKG strip is being printed contemporaneously with the recording of Mr. Black's electrical activity or thereabouts?

MR. WICKENHEISER: I'm going to object --

MR. BRAZER: Sorry.

MR. WICKENHEISER: -- object to the form.

MR. BRAZER: You can answer.

THE WITNESS: I have no idea how the EKG prints in relation to the recording signal.

BY MR. BRAZER:

Q. Okay. Normally, if you had an EKGs that was printing out a strip and you saw the words continual real time, what would that mean to you?

A. Nothing.

MR. WICKENHEISER: Object to the form.

THE WITNESS: Sorry.

MR. BRAZER: You can answer.

THE WITNESS: Nothing.

BY MR. BRAZER:

Q. It would mean nothing to you?

[redacted]

A. First of all, I'm not familiar with this particular EKG machine. Second, I did not read the instructor's or operator's manual with respect to significance of those -- of that phrase. So I don't have any idea what it means.

Q. Okay. Have you seen this EKG strip before today, Dr. [redacted]

A. I can't testify one way or the other that I have.

Q. Can you elaborate on that, please?

MR. WICKENHEISER: I -- I'm going to object to the extent that it --

MR. BRAZER: Sure. To the extent that it involves any conversations with your attorneys.

THE WITNESS: You have printed out an EKG document. Whether or not I've seen the original, which is the question that you're trying to ask, I can't assert that the original or that this is a true and fair representation of the original. I didn't take this picture.

BY MR. BRAZER:

Q. Okay. And just to clarify an earlier answer, did you refer to an EKG when declaring death for Mr. Byron Black?

A. No.

[redacted]

Q. Okay. Did you refer to an EKG when declaring death for Mr. Oscar Smith?

A. No.

Q. Okay. Have you ever seen an EKG strip for Mr. Oscar Smith?

MR. WICKENHEISER: Objection to extent that --

MR. BRAZER: To the extent that it implicates conversations with --

THE WITNESS: Ever seen, I cannot answer that question. I have no idea whether or not I saw Oscar Smith in a medical clinic or an emergency room elsewhere.

BY MR. BRAZER:

Q. Have you ever seen an EKG strip for Mr. Oscar Smith after or on May 22nd, 2025?

MR. WICKENHEISER: Same objection as before.

MR. BRAZER: Understood. You can answer.

THE WITNESS: Oscar Smith died in May 22, 2025. How would there be an EKG of him after that point?

BY MR. BRAZER:

Q. There would've been an -- I asked whether or not -- I apologize for not being clear in my question. Whether or not you would have seen an EKG strip of Mr. Oscar Smith taken on May 22, 2025 --

A. I can't answer that question.

[redacted]

Q. -- on or after?

A. Okay. You can't take an EKG after a person is dead.

Q. Sir, I know that. I'm trying to ask whether or not --

A. Okay. Then ask any questions appropriately. I'll be glad to answer them. Just ask a decent question. Go ahead.

MR. WICKENHEISER: Can I use the restroom? Maybe now would be a great time to take a break?

MR. BRAZER: Let's take a break. Let's take a break.

MR. WICKENHEISER: Yeah. All right.

MR. BRAZER: All right.

MR. WICKENHEISER: Thanks.

THE REPORTER: We are off the record.

(Off the record.)

THE REPORTER: Okay. We're back on the record.

MR. BRAZER: Okay.

BY MR. BRAZER:

Q. Dr. [redacted] I think earlier you mentioned that a kit is used to establish a central line. Could you explain to me what that means?

A. A kit comes in a sealed sterile package. On the exterior of that package are printed a list of the

[redacted]

inventory of the kit.

Q. Okay. And what is typically in one of those kits?

A. Well, let's see. There'll be a drape. There'll be prep brushes. There'll be iodine solution. There'll be lidocaine. There'll be probably two syringes. There'll be one needle for lidocaine, one needle for introducing the guide wire. There'll be a three-lumen catheter. There'll be suture. There may be some four-by-four gauze, and that's -- that's the essence of it.

Q. Okay. Did you see a central line kit at the prison when you were there for Mr. Byron Black's execution?

A. To the best of my memory, in both cases, they put the kit in my hands while I was waiting.

Q. Okay. You were holding it in the waiting area?

A. Yes.

Q. Okay. You mentioned earlier that you have a contract with TDOC to serve as a physician in these executions; is that correct?

A. No, sir.

Q. No?

A. I said I was a contracted employee.

[redacted]

Q. You were a contracted employee?
A. Yes.
Q. Okay. Is there a physical contract?
A. No.
Q. No? Okay. Just want to clarify something you said earlier. Were you ever an employee with Centurion?
A. We've covered that.
Q. I'm just clarifying, sir.
A. Yes, I was.
Q. You were? Okay. And you no longer are, correct?
A. That's correct.
Q. Okay. Can you tell me why? Or please tell me why.
A. Well, it's a long, convoluted, stupid story, but I'll tell you. We had an individual at Turney Center who was transgender, and he came to me and said, when do I get my surgery? And I said, let me look into this. And so while I was signing charts at the records room, I was engaged in a casual conversation with the clerks, and we were talking about the problem of transgender inmates and what to do with them and so forth and so on.

And I am told, and on information and belief, the prison psychiatrist walked through the room and

[redacted]

overheard part of this conversation, during which I mentioned that a transgender woman, being a biological male, had impregnated two women in the women's prisons in Connecticut, and we were talking about the ramifications of that.

And I'm told, on information and belief, that this psychiatrist, whose name I do not know, has a child who's either transgender or homosexual or something, and she got offended, and she filed a complaint. And when they called me, we discussed it, and I said, basically, I said what I said. I stand by what I said. And that's the end of that. And we decided to part company at that time.

Q. Okay. And by part company, you mean you resigned?

A. I resigned or they let me go. That's -- we parted company.

Q. Okay.

A. I don't recall specifically.

Q. Okay. Circling back to IV lines, do you have privileges to set a central IV line in a hospital setting?

A. We've talked about hospital privileges.

Q. I'm just -- and your answer was no, correct?

A. That's correct.

[redacted]

Q. Okay. All right. As an attorney, were you ever subject to discipline either by an employer, the bar, or a court, for any reason?

A. No, sir.

Q. Okay. As a medical practitioner, have you ever been subject to discipline?

A. No, sir.

Q. Okay. And that includes by an employer, licensing authority, professional authority?

A. Well, you'd have to define discipline. As I indicated to you --

Q. Uh-huh.

A. -- Centurion and I parted company.

Q. I see. Okay. Have you ever been named as a defendant in a lawsuit?

A. Yes.

Q. Okay. Could you tell me what case that was?

A. I could not. But I can get you that information.

Q. Okay.

A. Wait a minute. Wait a minute. It's filed in Dyer County. It's Sherrod v. Achieve Medical.

Q. Okay. Are you aware of any other cases in which you were a named defendant in a lawsuit?

A. Well, there's a technical answer to that, and

[redacted]

the answer is yes and no.

Q. Okay. You are aware, but you don't know the names; is that correct?

A. No, I am aware, and I know the names.

Q. Okay. Could you please tell me the names --

A. Sure.

Q. -- of the lawsuits?

A. Blackwell v. UT. Now, here's the mystery. The mystery was that I was named in the litigation but never served.

Q. Okay.

A. So I was not a party. So if the question is, have you ever been a party, the answer in that litigation is no. Have I ever been named is a different question.

Q. Okay. Are you familiar with the case of Dowell v. Kent out of the Western District of Tennessee?

A. No, sir.

Q. Okay. Would it help if I clarify that this is a Section 1983 suit wherein a prisoner at Northwest Correctional Facility accused medical staff of medical negligence? Does that ring a bell at all?

A. [redacted]?

Q. I believe that's his name, yes.

A. I think that's a civil rights suit.

[redacted]

Q. Yes. That's a Section 1983 suit. Are you aware if you were named as a defendant in that case?

A. I think that is correct, yes.

Q. Okay. Have you ever been terminated from a provider network?

A. Provider network?

Q. Yes.

A. Meaning an insurance plan or HMO?

Q. That's correct.

A. The answer is no.

Q. Okay. You mentioned earlier the case -- a case called Blackwell?

A. Blackwell.

Q. Could you tell me what court that was in, please?

A. The -- probably the Circuit Court of Tipton County.

Q. Okay. Thank you.

MR. BRAZER: All right. I think that's just about it. Could we take a short break?

MR. WICKENHEISER: Yeah, sure. Of course.

MR. BRAZER: Thank you. Thank you, Dr. [redacted]

THE WITNESS: Uh-huh.

(Off the record.)

THE REPORTER: We're back on the record.

[redacted]

BY MR. BRAZER:

Q. Dr. [redacted] I believe you said earlier that you have a contract with TDOC, but you don't have a physical contract; is that correct?

A. That's correct.

Q. Okay. Could you describe the terms of your contract?

A. They contact me when they have an execution scheduled. I meet with the appropriate TDOC administrators. I declare the inmate dead, and then I go home.

Q. Okay. And I believe you answered earlier that you are compensated for your services?

A. Yes.

Q. Okay. Are you paid $3,000 per execution?

MR. WICKENHEISER: Objection.

MR. BRAZER: Are you instructing him not to answer?

MR. WICKENHEISER: No.

MR. BRAZER: Okay.

THE WITNESS: Yes.

BY MR. BRAZER:

Q. Yes? Okay. Do you receive a W-4 from TDOC?

A. I -- I receive some sort of IRS document. I don't know if it's W-4 or 1099 or W-2.

[redacted]

Q. Okay. But you report your compensation on your --

A. Yes.

Q. -- taxes? Okay. We were looking at exhibits that show photographs that showed Mr. Byron Black and Mr. Oscar Smith's IV sites. These photographs.

A. Thank you.

Q. Okay. I believe you answered earlier that, just from the basis of this photograph, you can see that there's a red substance there, but you can't identify whether or not that's blood --

A. That is correct.

Q. -- is that correct?

A. Uh-huh.

Q. Okay. What, other than blood, could that substance be?

A. Could be prep fluid. But again, when you -- when you use the phrase, do you see blood, there is an insignificant amount of red, whatever this is. And it may be -- well be blood, but there's no blood dripping from the arm, and there's no --

Q. Okay.

A. -- catastrophic injury there.

Q. Okay. And there are four photographs. Is that your opinion relative to each of these photographs?

[redacted]

A. Well, to repeat --

Q. Sure.

A. -- there is an insignificant amount of a red-colored substance. I will assume for the sake of argument that it's blood.

Q. Uh-huh.

A. But it's insignificant.

Q. Okay. We were looking at your resume earlier and discussing your -- the medical director positions you hold for various entities.

A. Yes.

Q. Are all these entities in Tennessee?

A. Yes.

Q. Okay.

A. Now, I beg your pardon.

Q. Sure.

A. A minute ago there you asked me about litigation. There is another piece of litigation, Leslie Johnson [sic] v. Centurion, et al. It's also a Section 1983 case, and I didn't recall that when you asked me earlier.

Q. Okay. Well, thank you for sharing it now. Is that ongoing litigation?

A. Yes.

Q. Okay. Okay. While we're clarifying things, I

[redacted]

believe I asked earlier whether or not you had ever been terminated from a provider network. I believe you asked whether or not I meant an insurance network by that question.

A. Uh-huh.

Q. Have you ever been terminated from Medicaid?

A. No.

Q. Okay. Medicare?

A. No.

Q. Okay. All right. Circling back, then, to the medical director positions on your CV. You'll have to bear with me for a moment. I believe you listed earlier which positions you no longer hold. For any of those positions, were you let go or terminated?

A. Let's see. Avalon Hospice.

Q. Okay.

A. Which was Gentiva at the time. That was this year.

Q. Okay.

A. And Gallaway Nursing Home.

Q. Okay. And can you describe the event -- or the reasons for you being terminated from those positions?

A. I don't know why Gallaway did.

Q. Okay.

A. Pardon me. I don't know why Avalon, also known as Gentiva, did.

Q. Okay.

A. They didn't tell me.

Q. All right.

A. And for Gallaway, there was an interviewee who came, and she was talking to me about applying for the position, and I dissuaded her because the nursing home was not up to appropriate standards. That got back to the nursing home director, and she wasn't happy, so we parted company.

Q. Okay.

MR. BRAZER: All right. I think those are all of our questions. Oh, sorry.

BY MR. BRAZER:

Q. What court is Johnson v. Centurion? Do you know?

A. I do not know.

Q. Okay.

A. I'm represented by Megan Culver.

Q. Okay.

A. And I don't know what firm she's with, you know. So I can't -- I couldn't tell you. She could tell you.

MR. BRAZER: Okay. All right. I think that

[redacted]

concludes today's deposition.

MR. WICKENHEISER: We have some questions.

MR. BRAZER: Of course. Yes.

MR. WICKENHEISER: Do you think you could hand me the EKG? Or could you grab the EKG?

MR. BRAZER: Sure.

CROSS-EXAMINATION

BY MR. WICKENHEISER:

Q. Dr. [redacted] you've -- we've discussed a lot about EKG data during this deposition, and now that you've -- I believe you testified that you have -- well, I guess I should say, you've now seen this EKG data from Byron Black. Could you explain whether or not this would impact your decision on whether or not to declare death?

A. You're asking me about the significance of an EKG in the process of declaring death?

Q. Yes, sir.

A. Okay. The EKG is a small piece of the puzzle. It is not the definitive piece of the puzzle.

Q. Okay. What else do you look at?

A. Well, again, I look at -- when you -- when you assess an individual who is presumably dead, you watch for respiration, because you can only go so long without respiration. You -- you check for a pulse, and a pulse

[redacted]

is different from EKG. And people watch television and they think that asystole means death. It does not, necessarily. Your machine can be malfunctioning. The leads can be off. Asystole means the absence of detectable electro cardiac activity.

But a rhythm such as this, a sinus rhythm with a bundle branch block, simply indicates that an electrical signal is being propagated from the SA to the AV nodes. It does not indicate the one thing you need to know about the heart, which is whether or not it's pumping blood. And so you can have a signal, which shows up on the EKG, but if the heart is not pumping, you're dead.

Q. So how would you test whether the heart is pumping blood?

A. I can listen. You can hear the valves snapping. You can hear the opening and the closing of the atrioventricular valves, and you can hear the mitral valve as well.

So you -- you can hear all these different valves opening and closing and snapping. You can sometimes hear the flow of blood through the heart. If that's not happening, you check for a pulse. If you have neither audible heart sounds nor a pulse, you don't have a perfusing rhythm.

[redacted]

Q. Did you do that -- did you perform those tests for Byron Black?

A. Yes. Multiple times.

Q. Did you perform those tests for Oscar Smith?

A. Yes.

Q. Is there any chance that those gentlemen were still alive after you declared death?

A. None. Zero.

MR. WICKENHEISER: Thank you.

MR. BRAZER: Brief follow up.

THE WITNESS: Sure.

REDIRECT EXAMINATION

BY MR. BRAZER:

Q. Dr. [redacted] you mentioned that one of the reasons you could see electrical activity on an EKG strip even after a person has died is that the leads were off; am I understanding you correctly?

A. Repeat your question, please.

Q. I believe you testified just now that one of the reasons you might see electrical activity on an EKG strip, even after somebody might have died, is the leads, EKG leads, were off the body --

A. No, I didn't say that.

Q. Okay. Could you clarify what you meant?

A. When you are involved in making a

[redacted]

determination of what's going on with a heart, there are multiple steps that you have to take. One, you have to check that your machine is giving you accurate information. If, in the midst of vigorous CPR, the leads come off and you show asystole, that's not a heart problem. That's a machine problem.

Q. Okay.

A. Okay? And then in the midst of ACLS, if you see electro cardiac activity, you don't stop and say, we got her back. You check for pulse. If you don't have pulse, if you don't have heart sounds, you don't have her back.

Q. Okay. When you examined Mr. Smith and Mr. Black, did you have -- see anything that would cause you to believe that the EKG leads were not properly placed or in contact with their skin?

A. No. The leads had to be -- in order to get a signal like this, the leads have to be in place.

Q. Okay. And, Dr. [redacted] is it typical in a medical setting to also use an echocardiogram to determine whether or not the heart is pumping?

MR. WICKENHEISER: Objection. He's not an expert in the case.

MR. BRAZER: Understood. Understood.

MR. WICKENHEISER: He can answer.

[redacted]

THE WITNESS: No, it's not typical.

BY MR. BRAZER:

Q. It's not typical?

A. Well, I mean, I don't know what -- what it's typical in, in a hospital in Memphis, Tennessee, or New York City, but there are practical limitations about getting an echocardiogram to see if you have perfusion activity in the context of the emergency room. So when I practiced, we didn't need an echocardiogram to determine if the heart was pumping.

Q. Okay.

MR. WICKENHEISER: I have one more follow up, if you --

MR. BRAZER: Sure.

RECROSS-EXAMINATION

BY MR. WICKENHEISER:

Q. Mr. Brazer was just asking you about whether or not you could be seeing false readings in an EKG machine from leads not being properly placed. Is that the only reason why you might be getting readings on an EKG when someone has already died?

A. Well, to get the signal that you see on these EKG strips, the leads have to be connected.

Q. Is there any -- can you think of a reason why you would be getting this signal if this patient had

[redacted]

already passed?

A. Yeah. That's called pulseless electrical activity. And again, one of the important points of advanced cardiac life support is, you don't stop when you see a rhythm. You stop when you get a pulse back, a perfusing pulse. It's manifested by heart sounds, palpable pulses, capillary reflex, and so forth and so on.

Now, you may have to have a cardiologist to determine what kind of ejection fraction you have. But in terms of determining if there is a pulse, that's the determinative question. Whether or not they have pulseless electrical activity has very little bearing on their death. They could have pulseless electrical activity for some time.

MR. WICKENHEISER: Thank you.

FURTHER DIRECT EXAMINATION

BY MR. BRAZER:

Q. So just to clarify, the main distinction vis-a-vis whether or not somebody is dead is whether or not their heart is contracting and thereby perfusing?

A. No.

Q. Okay --

A. Contracting is different from perfusing. You can have ventricular fibrillation, in which the heart

[redacted]

muscle contracts, but it's not contracting effectively. The key concept is perfusion. You have to have perfusion, and you have to have coordinated activity of some type between the atria -- yeah, the -- the atria and the ventricles.

Q. Are there circumstances in which you could not hear a patient's pulse and still have perfusion?

A. Would be extraordinarily rare. Almost rare to the point of impossibility. I've never come across that. I've never heard of that. You would have -- well, again, the heart sounds are so distinct and so essential to recording perfusion that if you didn't have heart sounds, then you're not likely to have effective perfusion.

And then you check for pulse, and even a weak pulse is palpable to most people. And then you check for cap refill, which is the blanching and refilling of the tissues when you mash on it. You don't have those three things, you're not perfusing.

MR. BRAZER: Okay. I think that's it. Thank you, Dr. [redacted] for your time.

THE WITNESS: Yes, sir.

MR. BRAZER: We greatly appreciate it.

MR. WICKENHEISER: Thank you. We'll need you all to fill out the --

[redacted]

MR. BRAZER: Yeah.

MR. WICKENHEISER: -- addendums or whatever they're called.

THE WITNESS: Is there a form I need to sign?

MR. WICKENHEISER: Yes, sir.

THE WITNESS: Okay.

THE REPORTER: This is all we have on protective orders --

(Deposition concluded at 2:52 p.m.)

[redacted]

CERTIFICATION

I, CHLOE FRY, a Certified Shorthand Reporter, within and for the STATE OF TENNESSEE, do hereby certify:

That DR. [redacted] the witness whose examination is hereinbefore set forth, was first duly sworn in and that this transcript of said testimony is a true record of the testimony given by said witness.

I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 6TH day of NOVEMBER 2025.

Chloe Fry

CHLOE FRY

FILED
2026 OCT 22 AM 10:44
CLERK & MASTER
DAVIDSON CO. CHANCERY CT
D.C.

EXHIBIT 10

Nichols Post-Execution Press Conference
Video Manually Filed

EXHIBIT 11

FORENSIC MEDICAL

Digitally signed by Shelia Patterson
Reason: Certified Copy
Date: 2026.03.26 11:17:34 -05'00'

FILED
2026 OCT 22 AM 10:
CLERK & MASTER
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OFFICE OF THE MEDICAL EXAMINER
Center for Forensic Medicine
Nashville, Tennessee

REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER

Prison (ST) County Medical Examiner:

Judicial District Number:

District Attorney:

State Number: 25-05-0120 4180 D.C.&M.

Case Number: MEC25-4203

Name of Decedent	Age	Race	Date of Birth	Sex
Harold Wayne Nichols	64 Years	White	12/31/1960	Male

Address
Riverbend Maximum Security Institution-TDOC, 7475 Cockrill Bend Blvd., Nashville, TN 37209

Date of Death	Investigating Agency/Complaint #:
12/11/2025 10:39 AM	TN Department of Corrections

Place of Death
Riverbend Maximum Security Institution, Nashville, TN

Narrative Summary

The decedent was reported to be a 64-year-old male who was an inmate at Riverbend Maximum Security Institution. On 12/11/2025, his scheduled execution was carried out through the means of lethal injection. A physician pronounced death at 1039 hours. Given the circumstances, Medical Examiner's jurisdiction was accepted. This investigator and Director of Investigations Kelly Nicholson responded to the scene. A brief body examination and scene investigation were performed and documented through photography. The decedent was then transported to the Center for Forensic Medicine via Middle Tennessee Removal Service for further examination and to determine his cause and manner of death.

Investigator Audrey Britt
12/11/2025 0738 hours

Jurisdiction Accepted	Autopsy Ordered	Toxicology Ordered
Yes	Yes	Yes

Physician Responsible for Death Certificate
Christopher P Geffre, M.D.

Funeral Home
The Cremation Company

Cause of Death
Pentobarbital toxicity

Contributory Cause of Death

Manner of Death
Homicide

OFFICE OF THE MEDICAL EXAMINER
Center for Forensic Medicine
850 R.S. Gass Blvd.
Nashville, Tennessee 37216-2640

CASE: MEC25-4203
County: PRISON

AUTOPSY REPORT

NAME OF DECEDENT: NICHOLS, HAROLD **SEX**: M **AGE**: 64

DATE AND TIME OF AUTOPSY: December 12, 2025 at 9:35 a.m.

FORENSIC PATHOLOGIST: Christopher P. Geffre, M.D., Ph.D.

PATHOLOGIC DIAGNOSES

I. Pentobarbital toxicity, see toxicology report.
II. Hypertensive and atherosclerotic cardiovascular disease:
  A. Atherosclerosis of the coronary arteries, moderate.
  B. Atherosclerosis of the aorta, marked.
III. Diabetes.
IV. Simple benign renal cyst of the left kidney.
V. Benign prostatic hypertrophy.

CAUSE OF DEATH: Pentobarbital toxicity

MANNER OF DEATH: Homicide

CIRCUMSTANCES OF DEATH: Judicial execution by lethal injection

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The autopsy was performed at the Center for Forensic Medicine. The purpose of this report is to provide a certified opinion to the County Medical Examiner and District Attorney General. The facts and findings to support these conclusions are filed with the Tennessee Department of Health. The autopsy is performed in the presence of Emily Dennison, M.D.

EVIDENCE OF INJURY

There is no evidence of recent significant injury on external or internal examination.

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished, adult, light-skinned male who weighs 196.5 pounds, is 72 inches in length, and appears compatible with the reported age. The body is cold. Rigor mortis is fully fixed in the muscles of the jaw and extremities. Fixed pink livor mortis extends over the posterior surfaces of the body, except in areas exposed to pressure.

The face and upper torso are congested. The head is normocephalic. The scalp hair is gray - blonde. The irides appear blue. The corneas are translucent. The sclerae and the conjunctivae are slightly congested bilaterally. No petechial hemorrhages are identified on the sclerae or conjunctivae. The nose is normally formed and the septum is in the midline. The upper and lower jaws are with natural teeth in poor condition. The ears are unremarkable. The decedent wears a gray-white mustache and beard. The neck organs are in the normal midline position and appear unremarkable.

The thorax is well-developed. The abdomen is slightly rounded. The external genitalia are those of an adult male.

The upper extremities are well-developed, symmetrical and without absence of digits. The hands have moderately long, trimmed, intact fingernails. The lower extremities are well-developed, symmetrical and without absence of digits. The spine is in the midline. The anus is unremarkable.

No identifying marks, scars or tattoos are readily apparent.

EVIDENCE OF MEDICAL INTERVENTION

1. Catheters in the right and left cubital fossae.

INTERNAL EXAMINATION

SEROSAL CAVITIES: No adhesions or abnormal collections of fluid are in the pleural spaces or peritoneal cavity. All body organs are in a normal and anatomic position. The serous surfaces and pericardium are smooth and glistening.

CENTRAL NERVOUS SYSTEM: Reflection of the scalp reveals no abnormalities. The skull is of normal thickness and without fracture. The brain weighs 1420 grams. The dura mater and falx cerebri are intact, and not adherent to the brain. The leptomeninges are thin and transparent. There is no epidural, subdural or subarachnoid hemorrhage. The cerebral hemispheres are symmetrical with slightly widened gyri and narrowed sulci consistent with mild cerebral edema. The structures at the base of the brain, including cranial nerves and blood vessels, are free of abnormality. Sections through the brain reveal no contusions, hemorrhage or mass lesions within the cerebral hemispheres, brainstem or cerebellum.

ORGANS OF THE NECK: Examination of the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities. The hyoid bone and thyroid cartilage are intact. The laryngeal mucosa is unremarkable. The tongue is normal.

CARDIOVASCULAR SYSTEM: The heart weighs 410 grams. The coronary arteries arise normally and follow the distribution of a right dominant pattern with moderate atherosclerosis of the left anterior descending and right coronary arteries (30-40% stenosis). No thrombosis, plaque hemorrhage, or dissection is within the atherosclerotic segments. The chambers are not dilated. The chambers and valves are proportionate. The valves are normally formed, thin and pliable and free of vegetations and degenerative changes.

The myocardium is dark red-brown, firm, and free of fibrosis, erythema, pallor and softening. The atrial and ventricular septa are intact and the septum and free walls are free of muscular bulges. The left ventricle measures 1.1 cm and the right ventricle measures 0.4 cm in thickness as measured 1 centimeter below the respective atrioventricular valve annulus. The interventricular septum measures 1.1 cm in thickness.

The aorta and its major branches arise normally and follow the usual course with marked aortic atherosclerosis. The orifices of the major aortic vascular branches are patent. The vena cava and its major tributaries are patent and return to the heart in the usual distribution and are unremarkable.

RESPIRATORY SYSTEM: The left and right lungs weigh 610 and 740 grams, respectively. The upper and lower airways are unobstructed and the mucosal surfaces are smooth and yellow-tan. The pleural surfaces are smooth, glistening, and unremarkable. The pulmonary parenchyma is red-purple and free of consolidation and masses. The cut surfaces of the lungs exude marked amounts of blood and frothy fluid.

The pulmonary arteries are normally developed and unremarkable. There is no saddle embolus on *in situ* examination of the pulmonary trunk.

HEPATOBILIARY SYSTEM: The liver weighs 2040 grams. The hepatic capsule is smooth, glistening, and intact, covering a red-brown parenchyma. A thin-walled gallbladder contains watery bile without stones.

LYMPHORETICULAR SYSTEM: The spleen weighs 320 grams and has a smooth intact capsule covering a red-purple, moderately firm parenchyma. Regional lymph nodes are grossly unremarkable. The thymus is involuted.

ENDOCRINE SYSTEM: The thyroid gland is of normal position, size and texture. The adrenal glands have normal cut surfaces with yellow cortices and brown medullae. The pituitary gland is grossly unremarkable.

GASTROINTESTINAL SYSTEM: The esophagus is lined by a gray-white smooth mucosa. The gastroesophageal junction is unremarkable. The gastric mucosa is flattened and the lumen contains approximately 170 milliliters of partially digested food fragments.

The small bowel has a uniform dimension and appears unremarkable. The vermiform appendix is present. The colon has a uniform dimension and appears unremarkable. The pancreas has a normal pink-tan lobulated appearance.

GENITOURINARY SYSTEM: The left and right kidneys weigh 190 and 160 grams, respectively. The renal capsules are smooth, thin, semitransparent, and strip with ease from the underlying pitted, red-brown, firm, cortical surfaces. Cut sections of the left kidney demonstrate a thin walled, clear fluid filled cyst consistent with a simple benign renal cyst. The calyces, pelves, and ureters are non-dilated and free of stones.

The urinary bladder is dilated and contains greater than 60 milliliters of clear yellow urine. The bladder mucosa is gray-tan and trabeculated.

REPRODUCTIVE SYSTEM: The prostate has a tan cut surface and is moderately enlarged on cut section with periurethral nodules consistent with benign prostatic hypertrophy. The testicles are of normal size, shape and position with tan homogenous cut surfaces.

MUSCULOSKELETAL SYSTEM: The bony framework, supporting musculature, and soft tissues are unremarkable. The cervical spinal column is stable on internal palpation.

HEMATOPOIETIC SYSTEM: The bone marrow of the ribs is grossly normal for age and development.

ANCILLARY STUDIES

POSTMORTEM RADIOGRAPHS: None performed.

TOXICOLOGY: See toxicology report.

SUMMARY OF CASE

This 64-year-old man was reportedly executed via lethal injection of pentobarbital. Past medical history is significant for hypertension and diabetes.

Autopsy findings include evidence of atherosclerotic cardiovascular disease.

In consideration of the known circumstances surrounding this death, review of the available medical history, and the examination of the remains, the cause of death is ascribed to pentobarbital toxicity. The manner of death is homicide.

Electronically signed by Christopher P. Geffre, M.D. on Monday, February 23, 2026*

Christopher P. Geffre, M.D. Ph.D.
Assistant Medical Examiner
CPG/clc
T: 12/14/2025

NMS Labs
200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com
Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

CONFIDENTIAL

Toxicology Report

Report Issued 12/29/2025 07:00

To: **10341**
Forensic Medical Management Services - Nashville
850 R.S. Gass Blvd.
Nashville, TN 37216

Patient Name	NICHOLS, HAROLD
Patient ID	25-4203
Chain	NMSCP502015
DOB	Not Given
Sex	Male
Workorder	25540214

Positive Findings:

Analyte	Result	Units	Matrix Source
Caffeine	**Presump Pos**	**mcg/mL**	**001 - Femoral Blood**
Pentobarbital	**34**	**mcg/mL**	**001 - Femoral Blood**

See Detailed Findings section for additional information

Testing Requested:

Test	Test Name
8042B	Postmortem, Expanded w/Vitreous Alcohol Confirmation, Blood (Forensic)

Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Labeled As
001	Gray Stopper Plastic Tube	6.5 mL	12/12/2025 10:49	Femoral Blood	25-4203
002	Red Stopper Glass Tube	6 mL	12/12/2025 10:49	Vitreous Fluid	25-4203
003	White Cap Plastic Container	60 mL	12/12/2025 10:49	Urine	25-4203

All sample volumes/weights are approximations.
Specimens received on 12/16/2025.

Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Caffeine	Presump Pos	mcg/mL	0.20	001 - Femoral Blood	LC/TOF-MS
This test is an unconfirmed screen. Confirmation by a more definitive technique is recommended.					
Pentobarbital	34	mcg/mL	2.0	001 - Femoral Blood	GC/MS

Examination of the specimen(s) submitted did not reveal any reportable findings by procedure(s) outlined in the accompanying Analysis Summary, other than those listed above. Interpretation of reported findings should be based on the totality of available case information. Reference information is not case-specific but is provided as a general guide.

Reference Comments:

1. Pentobarbital - Femoral Blood:

   Pentobarbital is a barbiturate sedative hypnotic agent with a short duration of action. It has been used to treat insomnia, for pre-surgical anxiety, and in the control of seizures. It is subject to abuse. Reported plasma concentrations ranging from 1-5 mcg/mL are reported for the sedation-producing effects of pentobarbital whereas concentrations of 5-15 mcg/mL generally produce sleep. Plasma concentrations greater than 10 mcg/mL may produce deep coma. Major adverse effects associated with pentobarbital derive from its CNS-depressant properties including sedation, drowsiness, lethargy, respiratory depression, and coma.

   Reported postmortem concentrations of pentobarbital in fatalities from the substance range from 5-112 mcg/mL.

Sample Comments:

001 Physician/Pathologist Name: Dr. Geffre

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded one (1) year from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Workorder 25540214 was electronically signed on 12/28/2025 21:51 by:

Stephanie M. Marco

Stephanie M. Marco, Ph.D., F-ABFT
Forensic Toxicologist

Analysis Summary and Reporting Limits:

The following test(s) were performed for this case; the scope of each test includes the analyte(s) listed along with the associated reporting limit(s). The reporting limit is the lowest concentration of the analyte that will be reported as positive. Only results that meet reporting criteria at or above the reporting limit appear in the Positive Findings section of the report.

Test 50011B - Barbiturates Confirmation, Blood: 001 - Femoral Blood

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Butalbital	0.20 mcg/mL	Phenobarbital	0.50 mcg/mL

Analysis Summary and Reporting Limits:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Pentobarbital	2.0 mcg/mL	Secobarbital	0.20 mcg/mL

Test 8042B - Postmortem, Expanded w/Vitreous Alcohol Confirmation, Blood (Forensic) 001 - Femoral Blood

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Barbiturates	0.040 mcg/mL	Salicylates	120 mcg/mL
Cannabinoids	10 ng/mL		

-Analysis by Headspace Gas Chromatography (GC) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Acetone	5.0 mg/dL	Isopropanol	5.0 mg/dL
Ethanol	10 mg/dL	Methanol	10 mg/dL

-Analysis by High Performance Liquid Chromatography/Time of Flight-Mass Spectrometry (LC/TOF-MS) for: The following is a general list of analyte classes included in this screen. The detection of any specific analyte is concentration-dependent. Note, not all known analytes in each specified analyte class are included. Some specific analytes outside of these classes are also included. For a detailed list of all analytes and reporting limits, please contact NMS Labs. Amphetamines, Anticonvulsants, Antidepressants, Antihistamines, Antipsychotics, Benzodiazepines, CNS Stimulants, Cocaine and Metabolites, Hallucinogens, Hypnosedatives, Muscle Relaxants, Non-Steroidal Anti-Inflammatory Agents, Opiates and Opioids.

This test is pending New York State approval.

End of Report

Digital data review may have taken place remotely by qualified NMS staff utilizing a secure VPN connection for some or all of the reported results. This is in accordance with and follows CLIA regulations.

EXHIBIT 12

DECLARATION OF MARIA DeLIBERATO

I, Maria DeLiberato, hereby DECLARE:

1. I am Senior Counsel for the Capital Punishment Project of the American Civil Liberties Union.
2. I represent Tony Von Carruthers.
3. On May 21, 2026, I was present at Riverbend Maximum Security Institution (RMSI) as Mr. Carruthers' attorney witness for his scheduled execution.
4. I arrived at RMSI at 7:30 AM and placed my cell phone in a locker. I visited with Tony until approximately 9 AM. After our visit, I was escorted back to the front building.
5. At approximately 9:50 AM, I was escorted to RMSI's Death Watch Area alongside a lawyer with the state Attorney General's office.
6. I asked the lawyer and Warden Kenneth Nelson whether there had been any word from the courts regarding Mr. Carruthers' three outstanding claims. Both indicated they did not know the answer.
7. The Warden informed me, however, that he had been instructed to proceed with the execution.
8. I told the Warden that if there were any claims still pending, I would need access to a phone.
9. When we arrived at the Death Watch Area, Tony was in his cell, wearing a prayer shawl.
10. The execution gurney was rolled into the hallway in front of his cell. The Warden informed Tony that officers wearing tactical gear were going to enter his cell to strap him to the execution gurney.
11. As soon as the officers were about to enter Tony's cell, I heard a frantic knock at the door, and a female opened the door and shook her head and told them not to proceed. They wheeled the gurney back out of that same door.
12. The Warden then said that they were going to wait for the court to resolve Mr. Carruthers' outstanding claims before proceeding with the extraction.
13. I was escorted back to the front building. They allowed me to access my phone as long as I promised to not call the media.
14. Shortly thereafter, before I was able to get any signal to call co-counsel, the Warden's secretary informed me that they were going to proceed.

15. At 10:15 AM, as we were walking back to the Death Watch Area, I again asked the Warden whether the court had denied Tony's outstanding claims. The Warden just reiterated that they had permission to proceed.
16. At 10:17 AM, the corrections officers entered Tony's cell, told him to put his knees on his bunk and his forehead against the wall, whereupon they cuffed him. They walked him out of his cell and then lifted Tony and put him on the gurney.
17. As the officers began to strap Tony to the gurney, Tony held his hands in prayer.
18. At approximately 10:22 AM, the corrections officers wheeled Tony to the Execution Chamber, where they secured the gurney to the floor.
19. At approximately 10:24 AM, three members of TDOC's IV Team began their attempts to place a peripheral IV line in Tony's right arm.
20. During this process, I observed from about six feet away.
21. From the outset, I could tell that the IV Team members were struggling. One of them commented that Tony's veins were "rolling."
22. At approximately 10:31 AM, the IV Team managed to establish peripheral IV access in Tony's right arm.
23. They then attempted to place a second peripheral IV line in Tony's left arm.
24. Throughout this process, a TDOC corrections officer was handing needles back and forth with the IV Team member who was attempting to place the line. I saw the officer dispose of the used needles in a receptacle and heard the needles "clink" as they were thrown away.
25. From approximately 10:32 AM to 10:44 AM, the IV Team attempted to place the second IV line in Tony's left arm. They stuck him approximately 6 to 7 times.
26. At one point, the IV Team member who was attempting to place the line thought she had gotten it in and announced that she "saw a flash," but that it wouldn't flow.
27. At 10:44 AM, the IV Team member said that the line was not infiltrating but was also not flowing.
28. The IV Team member repeatedly shook her head and she wore an expression of visible effort as she tried to gain access.
29. Tony was wincing through most of the needle sticks.
30. At 10:48 AM, the IV Team member seemed to have established a peripheral line in Tony's left hand. But she quickly began shaking her head and said that it was not flowing.

31. At 10:54 AM, "Physician A" entered the Execution Chamber and identified himself by name.
32. Physician A instructed the IV Team members to take off Tony's socks to look for veins in his feet.
33. At 10:56 AM, they took out an infrared vein finder and dimmed the lights.
34. At 10:57 AM, Physician A said that they "got a flash, but it won't run." I could not see whether they had managed to set a line in Tony's foot.
35. At this point, I asked the Warden whether he was going to stop this. He said that he would not intervene until instructed to do so.
36. I then asked for a phone. The Warden and the lawyer with the Attorney General's office both had cell phones on them. But they did not offer to let me use their cell phones. Likewise, TDOC refused to let me use the wall phone in the Execution Chamber or the one in the adjoining Official Witness Room.
37. The Warden's secretary began looking for a phone that I could use and eventually escorted me back to the Death Watch Area.
38. The phones in the Death Watch Area were not plugged in. The Warden's secretary proceeded to plug in a phone, while I stood there and waited for it to dial up.
39. During this time, I could not hear or see Tony.
40. Once the phone was working, I called counsel at the Capital Habeas Unit of the Federal Public Defenders for the Middle District of Tennessee, and briefly explained the situation. I asked them whether TDOC was permitted to place a central line under its execution protocol. They informed me that TDOC was allowed to place a central line.
41. I then returned to the Execution Chamber at 11:06 AM, where I observed that Physician A and the IV Team were still trying to obtain peripheral IV access in Tony's left foot.
42. Tony was wincing during these efforts and seemed to be in pain.
43. Physician A then announced that he was going to place a central line.
44. At 11:09 AM, Physician A asked the members of the IV Team if any of them had experience with jugular access. One of the members said that they did.
45. They proceeded to undo Tony's chest straps and turned his head to the side. They then felt around Tony's neck.
46. At 11:10 AM they turned down the lights and brought out the infrared vein finder—which they used to assess Tony's neck. At this point, the IV Team member who volunteered to assist in finding jugular access said that he didn't "feel like he could do this."

47. Physician A then placed a drape over Tony's face and body—which they repositioned after realizing they had placed it on backwards.
48. Physician A got out the central line kit and asked whether someone could confirm that the kit was not expired. Someone said that it was not expired.
49. At 11:14 AM, Physician A asked whether "the patient" was allergic to lidocaine. The prison staff did not know.
50. At 11:15 AM, Physician A stuck Tony with a needle and administered the lidocaine below his right clavicle.
51. Physician A asked for a razor, but the prison staff did not have one.
52. Physician A then said that they were going to wait 5 minutes for the lidocaine to take effect.
53. At this point, I asked to access the phone. I was again taken out of the Execution Chamber and was out of sight of Tony.
54. Once again, I called counsel at the Capital Habeas Unit. I informed them that Physician A was attempting to place a central line. They explained that the physician had previously been deposed as part of their state court litigation and that he was not qualified to place a central line.
55. I immediately returned to the Execution Chamber, where I saw Physician A standing over Tony. I objected that Physician A was not qualified to place a central line. Physician A snapped back to me, "yes, I am qualified." The Warden then said "Doctor, do your job."
56. At 11:20 AM, Physician A began poking Tony with a needle in the area where he had administered the lidocaine (below the right clavicle). He asked Tony if it hurt. Tony said "yes," he could feel it. Physician A responded, "well, it may just be some pressure."
57. Physician A then proceeded to insert a needle under Tony's right clavicle.
58. Tony began gutturally groaning and said, "it hurts, it hurts." I would later learn this groaning was audible to media witnesses.
59. There was about a half-dollar size amount of blood in the area where Physician A stuck the needle.
60. Physician A wiped the blood away and attempted a second time to insert the needle. I could observe at least two puncture wounds.
61. Physician A then attempted to thread something into one of the spots where he had inserted the needle.
62. Tony was moaning and groaning in pain. He looked at me and I assured him that I had called the rest of his legal team and that they knew what was happening.

63. At 11:22 AM, Physician A said that they would not be able to set a central line.
64. Physician A then attempted to obtain peripheral IV access in Tony's right shoulder.
65. At 11:28 AM, Physician appeared to set a line in Tony's right shoulder. I observed blood in the line.
66. At approximately 11:30 AM, someone announced that they "had flow."
67. Tony now had a line sticking out of his right arm and right shoulder, and there was blood visibly backfilling the right shoulder line.
68. At approximately 11:34 AM, the Warden left the room and came back shortly thereafter.
69. At 11:40 AM, one of the phones on the wall of the Execution Chamber rang and the Warden answered. After a brief conversation, the Warden hung up and said that they would not be moving forward with the execution "now."
70. I asked him to clarify and the Warden said that all he knew was that they would not be moving forward "now."
71. The IV Team then began removing the IVs from Tony's right arm and right shoulder. Blood continued to fill the lines, and Tony was clearly in pain.
72. Over the course of this entire process, I observed the IV Team and Physician A stick Tony over a dozen times.
73. I asked the prison staff if they would have Tony evaluated by medical and they assured me that they would.
74. They then took Tony back to his cell.
75. I was escorted out of the Execution Chamber and back to the front building, where I was able to access my phone.
76. Eventually, I was escorted out to a tent near the press conference tent, where I sat in a chair. An employee of TDOC told me that I could not go over to the press conference tent, but that I could listen from where I was sitting.
77. There, I listened to the media witnesses describe what they could hear from the Official Witness Room.
78. At this point, I texted reporter Steven Hale to let him know where I was sitting, because TDOC would not let me go over to the press conference tent.
79. Mr. Hale and other reporters came over to ask me questions. They informed me that the Governor had granted Tony a one-year reprieve.
80. I then went back into the prison to see Tony, where he was being held in Unit 2.

81. Tony was sweaty, pale, tearful, and he seemed to be in shock and pain.
82. The Warden informed me that Tony had been evaluated by medical, who said that Tony was "okay" and had given him ibuprofen.
83. I asked Tony what he needed, and he informed me that he was having trouble balancing and did not have any strength in his legs. I observed this to be true, as he could barely stand or walk.
84. Tony said that Physician A "was hurting me and knew he was hurting me."
85. I asked Tony if he would allow an independent doctor to come evaluate him, and he said that he would. I told him that we would try to get a doctor out to see him in the next couple days. To date, the prison has declined to allow an independent doctor to evaluate Tony.
86. When I was leaving the prison for the second time, I spoke briefly to the Warden. I observed him carrying a stack of papers, and the top paper was a document titled "syringe log."

I declare under penalty of perjury and the laws of the United States and the State of Tennessee that the foregoing is true and correct to the best of my knowledge.

Date this 20th day of July, 2026.

Maria DeLiberato

EXHIBIT 13

FILED
2025 OCT 22 AM 10:55
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DECLARATION OF DR. GAIL A. VAN NORMAN

I, Gail A. Van Norman, M.D., being of lawful age, declare as follows:

Qualifications

1. I attended the University of Washington School of Medicine in Seattle, Washington from 1977 to 1981, graduating with an M.D. with honors. During medical school training, I received the following honors: Medical-Scientist Traineeship Grant 1978, invitation to Alpha Omega Alpha, the medical school honor society in 1980, the Merck Manual Medicine Award in 1981, and the John J. Bonica Anesthesiology Award in 1981.
2. My postgraduate medical training consisted first of internal medicine residency training at Virginia Mason Medical Center in Seattle, Washington, and board certification from the American Board of Internal Medicine (ABIM) in 1984.
3. I practiced internal medicine from 1984 to late 1986, including experience in intensive care medicine.
4. I underwent residency training in anesthesiology from 1986 to 1988 at the University of Washington, obtaining board certification in 1990.
5. I completed cardiothoracic anesthesia fellowship training in 1989.
6. After 5 years in private practice, I returned to the University of Washington as faculty, where I served as the acting Chief of Cardiothoracic Anesthesiology and as Medical Director of the PreAnesthesia Clinic.
7. I became certified in clinical ethics, and also served as the co-chair of the University of Washington Medical Center Committee on Ethics.
8. I was recruited in 1992 to serve on the Committee on Ethics for the American Society of Anesthesiology, the national professional organization for the specialty of Anesthesiology. I served for 22 years on the committee, and served as the Chair of the ASA Committee on Ethics for three years. I attended the Bracher Foundation in Geneva, Switzerland, as an ethics scholar-in-residence in 2011.
9. In 2000, I was recruited to join a private practice anesthesia group, Pacific Anesthesia, in Tacoma, Washington, where I served as the Clinical Director, Director of Perioperative Echocardiography, and as Vice-President of Pacific Anesthesia, but I returned to the University Washington Medical Center to serve as Director of the PreAnesthesia Clinic and the Compliance Officer for the Department of Anesthesiology and Pain Medicine.

10. I currently hold positions as Professor Emeritus of Anesthesiology and Pain Medicine and past Adjunct Professor of Bioethics at the University of Washington.
11. Until March 2026, I maintained an active clinical practice.
12. I have over 168 publications in peer-reviewed journals, textbooks, and other venues that include topics of cardiac anesthesia research, ethics, geriatric medicine, perioperative medicine and intensive care. I have also served as a journal reviewer for journals such as Anesthesia and Analgesia, Anesthesiology, Journal of Obstetrics and Gynecology, Mayo Clinic Proceedings, Journal of Philosophy, Ethics and Humanities, and European Journal of Anaesthesiology. I was Consulting Editor for the ASA Syllabus on Ethics from 1997 to 2003, and an Associate Editor for the Journal of Bioethical Inquiry, an international journal, from 2012 to 2017. I published a textbook entitled "The Cambridge Textbook of Clinical Ethics for Anesthesiologists," with Cambridge University Press in 2011, and I have expertise and publications in end-of-life issues, including physician assisted suicide, euthanasia, and lethal injection executions.
13. As an expert in cardiovascular and perioperative issues, I have served nationally and internationally as an invited speaker at such venues as the American Society of Anesthesiologists, American Society of Interventional Pain Physicians, Harvard Medical School, American Society of Bioethics and Humanities, World Congress of Anesthesiologists, the Royal College of Anaesthetists and many others.
14. As an expert in ethical issues in anesthesia care, I have been an invited speaker in Canada, Great Britain, Ireland, Italy, Austria, the Czech Republic, Hong Kong, Chile, Switzerland, Spain, Denmark, Northern Ireland and throughout the United States.
15. Full details of my qualifications, awards, publications, and invitational lectures can be found in the attached curriculum vitae (C.V.).

Licensure, Certification, and Privileges - Generally

16. In the United States, there is no single, unitary system to define what procedures an individual healthcare provider may perform. Rather, there are several related, but distinct systems for assessing qualifications and authorizing practice for particular purposes.
17. Generally speaking, "licensure" refers to a government-issued authorization to practice as a particular form of healthcare provider in a jurisdiction. For example, someone can be "licensed" to practice medicine.

18. There are numerous classes of healthcare licensure under state law, many of which would not be suggestive of competence or skill in the placement of an intravenous catheter. For example, a healthcare provider may be a licensed acupuncturist without any qualifications to place an IV.
19. "Certification" typically refers to a status conferred to demonstrate that an individual has met certain conditions recognized by a certifying body. Although some certifications are government-issued, certifications are also widely issued by private bodies, such as the American Board of Medical Specialties.
20. The fact that an individual possesses some form of healthcare certification is not sufficient to establish that he or she possesses the skill or experience sufficient to participate in intravenous catheterization. The significance of any certification must be assessed in the context of the certification itself and its issuing body.
21. "Privileges" typically refer to the specific permission and rights granted to a healthcare provider by a hospital to practice medicine at that hospital generally, and to perform certain medical procedures within that facility.
22. In general, competence and qualifications to perform specific medical procedures is typically assessed in the context of (1) whether it is consistent with the standard of care for the individual at issue to perform the procedure, and (2) whether that individual possesses—or, if assessed, would be granted—privileges to perform that procedure at a facility.

Privileges to Place Central Intravenous Lines

23. I have extensive experience in the placement of peripheral intravenous lines and central intravenous lines.
24. For over 35 years, I have clinical privileges at the University of Washington Medical Center to do so.
25. I estimate that I have placed well over 5000 central intravenous lines and thousands of peripheral IV lines over the course of my career.
26. At the University of Washington Medical Center, I was in charge of central line placement credentialing for approximately 10 years. In this role, I oversaw the granting of hospital privileges to perform central line placements, including training, testing and certifying practitioners in the departments of anesthesiology and cardiology to place central lines.
27. Due to the special skills needed for central line placement, healthcare systems (including the University of Washington Medical Center) now generally require proof that a practitioner has both appropriate training in

central line placement and also recently demonstrated competency in the procedure.[1]

28. Training and a recent demonstration of competency is typically required for each central line insertion site separately (i.e., for the femoral, subclavian, internal jugular veins), since the techniques for each approach differ.
29. Professional guidelines and recommendations, professional publications, and many institutions now require also the use of ultrasound for central line placement,[2] which entails additional specialized training as well.[3]
30. The University of Washing Medical Center requires that physicians re-apply for privileges every two years by demonstrating recent experience in central line placement (and providing an auditable patient list) or by 1) completing an specific teaching experience that demonstrates competency in the procedure and then 2) placing a central line under the direct observation of a practitioner who is privileged to place central lines.
31. By requiring that providers have recent, demonstrated competency in central line placement (in addition to appropriate training), healthcare systems minimize the risk that patients will suffer complications during central line placement due to the provider's lack of continued proficiency.

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[1] Johns Hopkins Hospital. Vascular access device (VAD) policy, adult. Effective date 3/1/2008. Available at: https://www.ahrq.gov/sites/default/files/wysiwyg/hai/clabsi-tools/vascular-access-device-policy.pdf Accessed July 26, 2026; Carilion Clinic Medical Education Policy: Central Venous Catheter (CVC) Placement. Updated 2019. Available at: https://www.carilionclinic.org/gme-cvc-placement Accessed July 26, 2026; UCSF Medical Center. Central line placement and temporary nontunnelled central venous dialysis catheter insertion (Adults, peds). Updated March 2016. Available at: https://medicalaffairs.ucsf.edu/sites/g/files/tkssra856/f/wysiwyg/ahpPrivileges/Central%20lines.pdf Accessed July 26, 2026; Erlanger. Central line management practice management guideline (Tennessee hospitals only). Available at: https://www.erlanger.org/-/media/file/stg/central-line-management-practice-management-guideline.ashx Accessed July 26, 2026; University of Washington Medicine. Vascular Access Management in Adult Patients. Updated 2023. Available at: https://one.uwmedicine.org/sites/Policies/Policies%20Live/uwm-ea-3338.pdf#search=vascular%20access%20management%20adult Accessed July 26, 2026

[2] Johnston AJ, Simpson MJ, McCormack V, et al. Association of Anaesthetists guidelines: safe vascular access 2025. Anaesthesia 2025; 80:1382-96

[3] Vegas A, Wells B, Braum P, et al. Guideline for performing ultrasound-guided vascular cannulation: recommendations fo the American Society of Echocardiography. J Am Soc Echocardiogr 2025; 38:57-91; McGee DCl, Gould MK. Preventing complications of central venous catheterization. New Eng J Med 2003; 348:1123-33

32. Indeed, whether central line placement is successful and relatively pain-free is significantly affected by the number of lines and the frequency with which the physician places them.[4]
33. The incidences of line infiltration and inadvertent placement into an artery instead of a vein are high for physicians without significant, ongoing and routine practice of those lines, even if they have technical knowledge about how they are done.[5]
34. Repeat attempts to establish peripheral or central venous access, line infiltration and/or inadvertent intra- arterial injection of pentobarbital sodium are excruciating events and poor line placement can result in slow suffocation if only partial injection of the execution drug is achieved, and a lingering and extremely painful death and/or failure of the execution altogether.

Physician A's Qualifications to Attempt Central Line Placement

35. In his deposition on Oct. 27, 2025, "Physician A" admitted that he has not placed a central line in over 12 years, has only placed a total of about a dozen central lines in his entire career, has never used ultrasound to place a central line, and only uses the subclavian approach—a method that is associated with significantly higher severe vascular and thoracic complications.
36. Physician A admitted that during one of his previous central line placements, he placed a guidewire into the carotid "vein"— by which he must mean carotid artery, since there is no carotid "vein." Placement of a guidewire into a major artery like the carotid is an injury to a "great vessel," and is a major vascular complication of central line placement that by itself can cause stroke and death.
37. He also stated that he does not perform femoral cut-down IV placements.
38. Based on his admissions, Physician A does not have the current experience or training that would be required to obtain or retain privileges to place central lines at many, if not most, major healthcare institutions today.
39. Physician A's lack of sufficient qualifications to perform central line placement are evidenced by his actions on May 21, 2026, during the attempted execution of Tony Carruthers.

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[4] McGee DCl, Gould MK. Preventing complications of central venous catheterization. New Eng J Med 2003; 348:1123-33

[5] Theodoro D, Krauss M, Kollef M, Evanoff B. Risk factors for acute adverse events during ultrasound-guided central venous cannulation in the emergency department. Acad Emerg Med 2010; 17:1055

40. According to the Declaration of Maria DeLiberato, Physician A tried and failed to establish a central line in Mr. Carruthers' subclavian vein without ultrasound guidance, which is a violation of the current standard of care.
41. It is unclear whether Physician A also attempted to place a central line in Mr. Carruthers' internal jugular vein, or whether he was assessing Mr. Carruthers' external jugular for peripheral IV line placement. If the former, Physician A's inexperience in internal jugular central line placement is demonstrated by his attempt to use an infrared vein finder to locate the internal jugular vein. Infrared vein finders cannot be used for that purpose.
42. It does not appear from Ms. DeLiberato's declaration that Physician A made any effort to place Mr. Hines in Trendelenburg position prior to attempting to place a central in line in Mr. Carruthers' jugular and subclavian veins. Placing a patient in Trendelenburg position prior to attempting subclavian or internal jugular placement is part of the standard of care, not only because it mitigates the risk of the patient suffering from complications due to venous air embolism, but because it fills the target vein (jugular or subclavian) with blood, and distends the vessel, making it easier to find with the needle and easier to place a catheter into with a minimal numbers of tries.
43. Based on Ms. DeLiberato's recitation of Physician A's actions and his ultimate failure to establish central IV access, as well as the representations that Physician A made during his deposition about his lack of recent experience in central line placement, it is my professional and ethical opinion that Physician A lacks the competency to place central lines of any kind, and that he should not have attempted to place a central line in Mr. Carruthers.

Likelihood that Mr. Hines Will Require Central Line Placement

44. As I understand TDOC's execution protocol, the Physician is called on to attempt central line placement if the IV Team is unable to establish the primary and/or secondary peripheral IV lines.
45. In any given execution, it is likely that the execution team will be unable to establish peripheral IV access. Eyewitnesses are not allowed to watch the venous access procedure, but autopsy information can demonstrate signs of problems with venous access, including multiple punctures, multiple bruises, punctures over the typical central vein access sites, and/or the presence of an indwelling central vein catheter.

46. I personally reviewed a random selection of 29 autopsy reports from lethal injection executions in multiple states in the United States between 2001 to 2025 and found that there were difficulties establishing peripheral IV access in over half of the executions, (56%) and placement of a central vein catheter in one-quarter of executions.
47. Mr. Hines, moreover, has certain risk factors that dramatically increase the already significant likelihood that TDOC's IV Team will struggle to obtain peripheral IV access during his upcoming execution.
48. First, according to Mr. Hines' medical records, he is 66 years old.
49. Vascular access is often complicated in patients over the age of 65 due to the physiological effects of aging—including loss of vein elasticity, weakened vein walls, and reduced subcutaneous tissue support, which make veins fragile, prone to "rolling" (which means they slip away when a needle is pressed against them), and highly susceptible to collapsing or bruising during IV catheterization.
50. The rate of difficult IV access is even higher in elderly patients like Mr. Hines who have required hospitalization—almost 60% are classified as having difficult IV access.[6]
51. Second, the Declaration of Aly Finn indicates that Mr. Hines is very thin and has suffered significant muscular atrophy in the aftermath of recent strokes—particularly on his left side.
52. Mr. Hines' medical records reflect severe left-sided weakness, consistent with muscular atrophy.
53. Muscular atrophy often complicates vascular access because the patient's loss of muscle tissue undermines the subcutaneous support structure that helps keep veins in place. This means that the patient's veins in the affected limb might be prone to rolling.
54. Third, according to Ms. Finn, Mr. Hines appears to be suffering from spasticity in his left arm in the wake of his stroke—wherein his left arm remains bent at the elbow and his left hand is involuntarily clenched in a fist.
55. Ms. Finn reports that Mr. Hines is unable to unclench his left hand or extend his left arm by himself. She reports that when she tried to help Mr. Hines extend his left arm and unclench his fist, it was painful for him.
56. Muscle spasticity often complicates vascular access in a stroke-affected limb because contracted muscles compress blood vessels and reduce blood flow.

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[6] Bahl A, et al. An improved definition and SAFE rule for predicting difficult intravascular access (DIVA) in hospitalized adults. J Infusion Nursing 2024; 47:97-107

57. Moreover, the rigidity of the affected arm can make it physically challenging to properly position the stroke-affected arm (e.g., to access the antecubital fossa), insert the needle, and/or secure the cannula.
58. While Mr. Hines' left-sided muscle spasticity might not impair access to veins in Mr. Hines' feet, establishing peripheral IV access in a patient's feet is notoriously difficult because the veins in the feet are smaller, more fragile, and often "hide" behind the bones of the foot.
59. Thus, Mr. Hines' age, muscular atrophy, and left-sided muscle spasticity make it very likely that TDOC's IV Team will struggle to obtain peripheral IV access—in large part because Mr. Hines' left-sided muscular atrophy and spasticity dramatically reduce the number of insertion sites available to the IV Team.
60. The fact that Mr. Hines may have had blood drawn recently does not change the high likelihood that the IV Team will struggle to obtain peripheral IV access in Mr. Hines, in fact, recent venipuncture *increases* the likelihood of clotting and narrowing in the vein that may make it more difficult to pass an IV catheter.
61. Blood is typically drawn using a smaller (higher gauge) needle, and does not have to be inserted as far into the vein as a catheter.
62. While venipuncture (blood draws) can be accomplished even with the needle almost perpendicular to the vein, placing a IV catheter requires that the medical personnel introduce the IV needle at a much more shallow angle in order to allow the catheter (a flexible plastic tube) to slide over the needle and into the vein without piercing and exiting the backside of the vein. Mr. Hines' contracted right arm and hand would be expected to not impact blood draws as dramatically as it does the ability to place a catheter inside a vein in that limb.
63. Thin or rolling veins might allow a quick needle stick for a blood draw, but can collapse when attempting to thread an IV catheter over the introducer needle.
64. Establishing an IV catheter in a patient with thin or rolling veins takes significant skill and experience.
65. According to Ms. DeLiberato's declaration, the IV Team struggled to place a peripheral IV line in Tony Carruthers for approximately 45 minutes, and complained that Mr. Carruthers' veins were "rolling." Several times, the IV Team seem to have inserted the introducer needle into a vein (indicated by a "flash" of blood), but failed to properly place the catheter (no "flow"). This suggests that they were collapsing or infiltrating Mr. Carruthers' veins.

66. Based on the IV Team's inability to establish peripheral IV access in Mr. Carruthers—who, according to his attorneys had no foreknown medical conditions that would complicate IV access—it seems even more likely that the IV Team will struggle to obtain peripheral IV access in Mr. Hines.
67. Ms. Finn reports that Mr. Hines' left hand and left arm appear swollen and purple. This is consistent with deoxygenated blood pooling in Mr. Hines' left arm due to impaired venous return—which, in turn, might be caused by spasticity or reduced muscle activity in the affected limb.
68. Venous congestion and swelling reduces the ability to see or palpate (feel) the veins in that arm.
69. One review suggests that the odds of having a difficult IV start or failure of IV start are raised 9-fold if the vein is not palpable, and 7-fold if it is not visible.[7]

Risk Attendant to Stroke-Preventative Blood Thinner Medication

70. Mr. Hines' medical records indicate that he has been taking aspirin (an antiplatelet medication) since January 2026—which he was prescribed in the aftermath of a stroke.
71. A blood thinner like aspirin would likely cause Mr. Hines to bleed into the tissues if his veins are infiltrated during the IV catheterization process, making repeated attempts at IV access less and less likely to be successful.
72. That said, taking Mr. Hines off aspirin early puts him at significant risk of a recurrent stroke, and he would have to be off of aspirin for a significant length of time—approximately 1 week—to decrease venous oozing related to aspirin.

I declare under penalty of perjury and the laws of the United States and the State of Tennessee that the foregoing is true and correct to the best of my knowledge.

Dated this 27th day of July, 2026.

[7] Bahl A, et al. An improved definition and SAFE rule for predicting difficult intravascular access (DIVA) in hospitalized adults. J Infusion Nursing 2024; 47:97-107



Gail A. Van Norman, M.D.

EXHIBIT 14

FILED
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THE STATE OF TENNESSEE
EXECUTIVE CHAMBER

REPRIEVE

Pursuant to the authority vested in me by Article III, Section 6 of the Constitution of the State of Tennessee, I, Bill Lee, Governor of the State of Tennessee, do hereby grant to Tony Von Carruthers a reprieve from execution of the sentence of death imposed upon him by the Criminal Court for Shelby County in 1996 and scheduled to be carried out on May 21, 2026. *State v. Carruthers*, Nos. 94-02797, 94-02798, and 94-02799. This reprieve shall continue in effect until May 21, 2027.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State to be affixed at Nashville, Tennessee on this 21st day of May, 2026.

Bill Lee
GOVERNOR

SECRETARY OF STATE

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Secretary of State
Division of Publications

EXHIBIT 15

Tom Hatcher
State Senator
District 2

Cordell Hull Building
Suite 752
Nashville, TN 37243

State of Tennessee

NASHVILLE

Member of Committees

Governemnt Operations

State and Local

Transportation

June 25, 2026

2026 OCT 22 AM 10:56
CLERK & MASTER
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The Honorable Bill Lee
Governor of Tennessee
State Capitol
600 Dr. Martin Luther King Jr. Blvd.
Nashville, TN 37243

Dear Governor Lee:

We write as members of the Tennessee Senate who support the death penalty, to express our serious concern over the failed execution of Tony Von Carruthers on May 21, 2026, and to call for full transparency and accountability from the Department of Correction.

By the Department's own account, the execution team at Riverbend Maximum Security Institution set a primary intravenous line but could not establish the backup line its protocol requires, could not locate another suitable vein, and failed in an attempt to place a central line. The effort dragged on for well over an hour before the execution was called off. This was a failure of the State of Tennessee to carry out a lawful sentence of its own courts.

A jury condemned Tony Von Carruthers to death for the 1994 kidnapping and murder of three people in Memphis, and that sentence was affirmed through three decades of exhaustive review. The families of his victims have waited thirty years for the judgment of the law to be carried out. They, and the people of this state, are entitled to a Department of Correction capable of executing a lawful sentence competently and according to its own written protocol. On May 21, the Department was not.

This failure was not the first. In 2022, an independent review found the Department had repeatedly failed to follow its own requirements for testing lethal injection chemicals — failures grave enough to halt executions in Tennessee for years. The same question now returns: whether the Department is competently discharging the duties the law has placed in its hands. Repeated failures of this kind do not advance justice; they obstruct it, prolong the suffering of victims' families, and hand the opponents of capital punishment their most effective argument against a penalty Tennesseans have chosen to keep.

Because we support the lawful administration of the death penalty, we cannot accept its incompetent administration. We respectfully but firmly call upon your administration to:

1. Commission an independent review of the failed execution of May 21, 2026, including a full accounting of how the personnel involved were selected, what credentials they held, and whether they were qualified to perform the procedures the protocol requires;
2. Correct every deficiency that review identifies — including independent testing of the execution drugs for potency, sterility, and contamination, written confirmation that the drugs are not expired, and verification that all personnel are properly qualified — before the State attempts another execution; and
3. Make those testing results and personnel qualifications available to this body and to the public, to the fullest extent consistent with law, so that the Department's readiness can be independently verified;

We raise these concerns not in opposition to the death penalty but in defense of it — out of respect for the rule of law, the verdicts of Tennessee juries, and the families still awaiting justice. We stand ready to work with you and Commissioner Strada to see the law carried out as it should be. Thank you for your attention to this matter.

Respectfully,

Senator Tom Hatcher

Senator Becky Massey

Senator Ken Yager

Senator Paul Bailey

Senator Dawn White

Senator Joey Hensley

Senate Majority Leader Jack Johnson

Senator Richard Briggs

Senator Ferrell Haile

EXHIBIT 16

Tennessee Medical Professionals Urge Governor Lee:

Suspend Executions

FILED
2026 OCT 22 AM 10:56
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D.C. & M.

Governor Bill Lee
State Capitol, First Floor
600 Dr. Martin L. King, Jr. Blvd.
Nashville, TN 37243

Dear Governor Lee,

As medical professionals with years of experience serving patients across Tennessee, we urge you to suspend executions in Tennessee until the Department of Correction can demonstrate meaningful improvements in its planning, training, and operations around the entire execution process. The horrifyingly botched attempt to execute Tony Carruthers on May 21 confirmed that TDOC is not presently able to conduct an execution that complies with the law, its own protocol, or basic human decency.

Although as a group we take no position on capital punishment, each of us was horrified by the torturous treatment of Mr. Carruthers. Reports of the prolonged, bungled attempts to establish venous access by a doctor who lacked the training or skill to perform this task confirmed our fears about Tennessee's persistently problematic executions.

In May 2022, you wisely declared a moratorium on executions pending review of Tennessee's lethal injection protocol. That review was prompted by TDOC's repeated errors in connection with executions. While you allowed executions to resume last year, the problems have persisted. What happened to Mr. Carruthers on May 21 was only the most recent—and visibly egregious—example of TDOC's ongoing problems when it comes to executions.

In our view, one reason for these problems flows from Tennessee's requirement that medical professionals participate in executions. As you may be aware, medical ethics prohibit participation in executions, and numerous national and state-level organizations have made clear that health care practitioners cannot facilitate executions consistent with their professional obligations. Despite this, Tennessee's protocol requires pharmacists, physicians, and other unidentified healthcare providers to participate in its executions. This means that the health care professionals who agree to take part in Tennessee's executions are those willing to set aside their professional ethics. The problems that we have seen, such as in Mr. Carruthers's case, are the predictable result of working with such unscrupulous actors.

Tennessee Medical Professionals Urge Governor Lee:

Suspend Executions

Relatedly, there have been numerous reports that Tennessee may be procuring lethal injection drugs from questionable "gray market" suppliers and may not be properly handling or storing those substances. In any medical setting, the integrity of medications depends not only on their source but also on protocols concerning chain of custody, storage, and quality assurance. TDOC's practices add to our concerns that the State lacks the proper training, oversight, and quality controls necessary to ensure executions are carried out humanely and in accordance with the protocol.

As medical professionals, we are also acutely aware of the risk of lasting trauma to all participants in the execution process. Many former correctional professionals have spoken out about the emotional toll of proximity to and participation in executions, including symptoms of post-traumatic stress, anxiety, depression, substance abuse, and suicidality. This risk is greatly exacerbated when executions go visibly awry, as in Mr. Carruthers's case.

If Tennessee is going to continue executing prisoners, it must find a way to do so that does not inflict severe pain and suffering on the person being executed and does not require the involvement of medical professionals contrary to their ethical obligations. We respectfully ask that you put a halt to executions in Tennessee until TDOC demonstrates it has made the significant reforms needed to ensure these problems do not continue.

Sincerely,

John P. Greer, MD

Robert S. Quinn, MD

Laura Andreson, DO

Chanteal Armstrong, CNA

Tufik Assad, MD, MSCI

Jeanne Ballinger, MD (retired)

Douglas C. Heimburger, MD

Tom John, MD

Joyce Evelyn Johnson, MD

Aneesah Petty Jones, MA

Eiman Jahangir, MD

Mohana Karlekar, MD

Mark Phillips, MD

James S. Powers, MD

Pamela A. Reed, RN

Benjamin Tillman, MD

Stacey Tillman, MD

Tennessee Medical Professionals Urge Governor Lee:

Suspend Executions

Siobhan Bissonette, RN

Barrett Brantley, MD (retired)

Brenda Butka, MD (retired)

Kristen Denmon, RN

Cynthia Dixon, RN

E. Wesley Ely, MD, MPH

Tennie Jonelle Summitt, RN

Laporcsha Haggins-Peoples, CNA

Rachel Hayes, RN

Timothy H. Overcast, MA, CCRA

Fred Kirchner, MD (retired)

Mona Lee, RN (retired)

John Leeman Tarpley, MD

John Tures, MD

Deva Sharma, MD

Robert Miller, MD

Nicole Nickle, RN

Stokes Peebles, MD

Katrina Green, MD

Howard H. Rosenblum, MD

Jody Barnwell Smith, DNP, APRN

Kathleen Wolff, NP

Michael Zanolli, MD (retired)

Tina V. Hartert, MD

Robert Seth Cooper, MD

Amy Lentz, RN

Jami Gattuso, RN, MSN

Mark Denison, MD

Beverly Byram, NP

Ellen McPherson, NP (retired)

Lynne McFarland, NP (retired)

EXHIBIT 17

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DECLARATION OF DR. SIDDHARTHA NADKARNI

I, Siddhartha Nadkarni, being of lawful age, hereby DECLARE:

1. I write at your request in the case of Daryll Hines. I am board certified in Neurology, Psychiatry, Clinical Neurophysiology, Epilepsy, and Behavioral Neurology and Neuropsychiatry. I currently run a private practice, The Siddhartha Center for Clinical Neuroscience in Montclair, New Jersey. Prior to owning my private practice I was at NYU for nearly 25 years, 6 years in training in a combined Neurology and Psychiatry Residency, one year in Clinical Neurophysiology (Epilepsy) Fellowship, and subsequently on faculty with many roles in education leadership (Program Director of the Clinical Neurophysiology Fellowship, Program Director of the Combined Residency in Neurology and Psychiatry, Program Director of the Epilepsy Fellowship, Director of the Fellows' Epilepsy Clinic, and Director of the Neuroscience Curriculum for the Psychiatry Residency Training Program), as well as a large panel of outpatients with epileptic and neuropsychiatric conditions. I also remain the Director of the Neuroscience Curriculum for the NYU Psychiatry Residency Training Program.
2. A stroke is a medical emergency that requires urgent treatment.
3. During a stroke, brain tissue starts to die within minutes after the flow of oxygenated blood is disrupted.
4. If a patient is experiencing stroke symptoms, it is imperative that they be taken to an emergency room for immediate evaluation, as intravenous treatment with clot-busting medication can be administered within the first 4.5 hours to reverse the injury, and does not work if administered after that time.
5. An ER physician will first assess the patient for stroke warning signs using a standardized neurological scale.
6. If a stroke is suspected, the patient will receive an immediate non-contrast CT scan to rule out a hemorrhagic stroke (i.e., a stroke caused by a brain bleed, as opposed to a vessel occlusion).
7. A non-contrast CT scan takes less than a minute and the results will typically be interpreted in real time.
8. If no hemorrhagic stroke is detected, the physician will perform a CT Angiography (CTA) to visualize the brain's vasculature and look for vessel occlusions, which cause ischemic stroke.
9. If a large vessel occlusion is detected that requires mechanical removal, the physician will refer the patient for an immediate surgery (a thrombectomy) to remove the blood clot.

10. If a blood clot is detected in the brain that can be removed using clot-dissolving medication (IV thrombolysis), the patient will be administered that medication as soon as possible.
11. If it is unclear when a patient's stroke occurred, a CT perfusion (CTP) scan might be performed to distinguish between irreversibly damaged brain tissue and salvageable brain tissue. Treatment will depend on whether salvageable brain tissue is still at risk from a vessel occlusion.
12. After the vessel occlusion has been dissolved or removed, the patient will be monitored in an ICU, where they will undergo neurological assessments (e.g., using the NIH Stroke Scale) and myriad other testing.
13. A follow-up CT scan or MRI is typically performed within 24 hours to verify successful recanalization (restored blood flow), to assess the size of the stroke, and to rule out any procedure-related complications like bleeding or edema.
14. Extensive testing will be done to determine the exact cause of the vessel occlusion. For example, the patient's heart will typically be monitored by a continuous EKG for atrial fibrillation. An ultrasound of the patient's neck arteries might be performed to check for plaque buildup or blockages. A trans-esophageal echocardiogram might be performed to assess the heart's mechanical function and to look for blood clots or structural problems.
15. If it is determined that the ischemic stroke was cardioembolic—i.e., caused by a blood clot that formed in the heart (e.g., due to atrial fibrillation)—then the patient will be started on anti-coagulant medication (e.g., Eliquis) to prevent the formation of blood clots and thereby protect against future strokes.
16. The optimal time to start anticoagulation therapy after an ischemic stroke depends on the stroke's severity, but any delay in administering this medication should typically not exceed 14 days.
17. If it is determined that the ischemic stroke was not cardioembolic, then the patient will be started on anti-platelet medication (e.g., aspirin) within 24 to 48 hours of the stroke.
18. According to Mr. Hines' medical records, Mr. Hines appears to have suffered a stroke in early December 2025. He exhibited left-sided weakness, sluggish eye movements, inability to follow commands, and slurred speech. At the time, Mr. Hines commented to medical personnel, "my brain isn't working," and complained that his left hand "feels like it's not there." The supervising correctional officer advised that Mr. Hines had been acting "off" and "kinda confused." Attachment A (Hines Medical Records) at 6.

19. A physician with TDOC's contracted medical provider, Centurion, advised that Mr. Hines needed to be transferred to an ER for urgent evaluation. Attachment A (Hines Medical Records) at 1–2, 6.
20. A statewide on-call physician with Centurion, however, countermanded the ER transfer—writing that "urgent imaging is warranted, but not ER transfer." *Id.*
21. As described above, when a stroke is suspected, a patient should be immediately taken to the ER.
22. I understand from Mr. Hines' attorneys that TDOC was capable of performing a CT scan "in house" at the prison's DeBerry Special Needs Facility.
23. Nevertheless, Mr. Hines' records indicate that he did not receive brain imaging until at least two weeks later, on December 22, 2025—at which point a non-contrast CT scan was performed. *Id.* at 7.
24. The radiology report concludes that Mr. Hines suffered an "age-indeterminate" infarction in his right middle cerebral artery, and the physician recommended a follow-up MRI. *Id.*
25. So far as I am able to determine from Mr. Hines' medical records, a follow-up MRI was never performed.
26. Mr. Hines' medical records indicate that he was diagnosed as having suffered an ischemic stroke (or "CVA"). *Id.* at 2, 8.
27. It is unclear how the physician reached this diagnosis without performing additional brain imaging (e.g., an MRI) to determine whether Mr. Hines' infarction was caused by an ischemic or hemorrhagic event.
28. After determining that Mr. Hines had suffered a stroke, TDOC's contracted medical personnel waited another two weeks (until January 6, 2026) to prescribe Mr. Hines an antiplatelet medication, aspirin. *Id.* at 8, 10, 12.
29. On January 6, the physician likewise prescribed Mr. Hines an anti-coagulant medication, Eliquis. *Id.* at 11, 12.
30. However, the same Centurion statewide on-call physician who countermanded Mr. Hines' ER transfer also denied the Eliquis order, writing that "Anticoagulation is NOT typically indicated s/p CVA unless CVA is due to AFib, etc." *Id.* at 13.
31. Of course, Mr. Hines' medical records do not indicate that any testing was performed to determine whether Mr. Hines' stroke was cardioembolic and potentially due to atrial fibrillation.

32. As described above, if it were determined that Mr. Hines' stroke was cardioembolic, he should have started receiving anticoagulation therapy within no more than 14 days of his stroke.
33. Mr. Hines' medical records do not indicate that Mr. Hines ever received Eliquis or any other anticoagulation medication.
34. Mr. Hines was also referred for a neurological consult. *Id.* at 12.
35. However, his medical records do not seem to indicate that a neurological consultation ever occurred. Treatment of strokes and post-stroke treatment recommendation decisions should be made by a neurologist or a cardiologist. In Mr. Hines's case, this is especially the case given the likelihood that he had two independent strokes in a very short time span, making him a more complicated stroke patient.
36. Mr. Hines' medical records indicate that he likely suffered a second stroke on January 13, 2026—suddenly collapsing and hitting his head on the floor, and subsequently developing new and persistent left leg weakness (seen on my examination) and worsening left arm weakness. *Id.* at 9.
37. Nevertheless, Mr. Hines medical records do not indicate that TDOC's contracted medical providers performed any additional brain imaging.
38. Mr. Hines' medical records indicate that he was subsequently transferred to the prison infirmary for close monitoring. *Id.*
39. The fact that Mr. Hines likely suffered a recurrent stroke on January 13 is unsurprising, given Centurion's gross departure from the post-stroke standard of care.
40. With prompt and proper treatment, Mr. Hines would have been significantly less likely to have suffered a recurrent stroke.
41. In my professional opinion, TDOC's contracted medical personnel acted recklessly with respect to Mr. Hines' care in the aftermath of his stroke in December 2025 and violated universally accepted standards for stroke and post-stroke treatment.
42. I had the opportunity to conduct a physical examination of Mr. Hines on February 2, 2026, in the infirmary of Riverbend Maximum Security Institution.
43. Mr. Hines was sitting in a wheelchair and appeared disheveled, as if he had not been properly bathed in a while.
44. I assessed Mr. Hines' bilateral motor abilities and determined that he is suffering from hemiparesis (weakness on one side) on his left side. He was unable to lift his left arm and could not stand unassisted. He had "neglect" of the left side of his body, in that he did not fully recognize or understand

that it was there or that it was part of his body, something that can happen from strokes of this nature. He has no vision in his left hemi-visual field in either eye. He has a "Babinski Sign" on the left side a sign of right frontal central nervous system injury. He cannot walk and falls to the side or forward if he leans too far forward.

45. Mr. Hines' left hand was clenched in a fist, and the skin on his hand and below his left elbow had a purple hue. This is consistent with spasticity of the musculature in that limb. There is also a bruit heard behind the right eye a sign of possible intravascular obstruction in the retinal artery.
46. Mr. Hines reported difficulty eating and drinking—which is consistent with left-sided facial paralysis and an impaired swallow reflex.
47. It is possible that Mr. Hines is or will suffer from additional strokes or "mini-strokes" (TIAs) that impact his awareness, physical capabilities, and overall cognitive functioning. He is not on any anticoagulation treatment currently, and should be given the fact that we do not know the cause of his strokes as he has not had a standard stroke "work-up," including carotid duplices, transesophageal echocardiogram, and vascular imaging of his head and neck. If these strokes are the result of atrial fibrillation, he is not being treated currently for this condition and aspirin will not protect him from further strokes caused by atrial fibrillation.

I declare under penalty of perjury and the laws of the United States and the State of Tennessee that the foregoing is true and correct to the best of my knowledge.



Siddhartha Nadkarni, M.D.

Curriculum Vitae

Siddhartha, Nadkarni, MD

Contact Infromation

Home address:	185 Christopher Street, Montclair, NJ 07042
Work address:	The Siddhartha Center for Clinical Neuroscience 66 Park Street, Suite 101 Montclair, NJ. 07042
Work phone:	646-868-9999
Cell phone:	917-763-1016
Fax number:	909-417-1422
Email:	siddhu@mindspring.com

Place of Birth: Indore, India

Current Employment (March 1, 2022 to present)

1. Sole proprietor and owner of The Siddhartha Center for Clinical Neuroscience, a center dedicated to Clinical Neuroscience, Forensic Neuropsychiatry, and Spiritual Psychiatry.

2. Attending Faculty with the Northeast Regional Epilepsy Group at Hackensack University Medical Center and Hackensack Meridian School of Medicine. Assistant Professor. Started here July 1, 2022.

3. Attending Faculty at Hackensack Meridian Health, Cognitive Neurology Clinic. Started here January 8, 2024. See outpatients one day a month.

Past Appointments and Leadership Positions

Faculty Appointment:
Effective Date: July 19, 2004
End Date: February 28,. 2022
Academic Title: Assistant Professor
Tenure Status: Untenured
Departments: Neurology and Psychiatry
NYU School of Medicine
New York, NY

Hospital Appointment:
Effective Date: July 19, 2004
End Date: February 28, 2022
Title: Assistant Professor
Department: Neurology and Psychiatry

Hospital: NYU Langone Medical Center
New York, NY

Administrative Leadership Positions:

Past:

1.) Program Director, Combined Residency in Neurology and Psychiatry
2011-2022
Mission Area: GME/Education
NYULMC/NYUSOM, New York, NY

2.) Program Director, Clinical Neurophysiology Fellowship
2005-2016
Mission Area: GME/Education
NYULMC/NYUSOM, New York, NY

3.). Program Director, Epilepsy Fellowship
2015-2016
Mission Area: GME/Education
NYULM C/NYUSOM, New York, NY

2.) Program Director, Epilepsy Research Fellowship
2005-2022
Mission Area: GME/Education
NYULMC/NYUSOM, New York, NY

3.) Director, Neuroscience Curriculum, Psychiatry Residency Training Program
2014-Current
Mission Area: Education
NYULMC/NYUSOM, New York, NY

4.) Medical Director, NYU Epilepsy Fellows' Clinic
2005-2020
Mission Area: Clinical/Education
NYULMC/NYUSOM, New York, NY

Education and Training

Education

1993	B.A.	Biology	Brown University	Providence, RI
1993	B.A.	Comparative Literature	Brown University	Providence, RI
1997	M.D.	Medicine	University of Miami	Miami, FL

Postdoctoral Training

1997-1998	Intern	Internal Medicine	NYU	New York, NY
1998-2003	Resident	Neurology & Psychiatry	NYU	New York, NY
2003-2004	Fellow	Clinical Neurophysiology	NYU	New York, NY

Specialty Certification

2004	American Board of Psychiatry and Neurology	**Neurology**
2004	American Board of Psychiatry and Neurology	**Psychiatry**
2005	American Board of Psychiatry and Neurology	**Clinical Neurophysiology**
2010	United Council for Neurologic Subspecialties	**Neuropsychiatry & Behavioral Neurology**
2014	American Board of Psychiatry and Neurology	**Epilepsy**
2015	American Board of Psychiatry and Neurology	**Neurology** (Re-certified)
2015	American Board of Psychiatry and Neurology	**Psychiatry** (Re-certified)
2016	American Board of Psychiatry and Neurology	**Clinical Neurophysiology** (Re-certified)

Licensure

2000-Present	New York State License
2022-Present	New Jersey State License

Awards and Honors

Internal:

2008	The Robert Cancro Award for Excellence in Teaching

External:

2016	The Irma Bland, MD Award for Excellence in Teaching Residents
2017	The Jananian Outstanding Educator Award
2019-2020	Top Neurologist, Castle Connelly

Research Activity

I have been involved with research projects being carried out in the division of Epilepsy, and served the role as the psychiatrist on the protocol. These have been several and ongoing. I often played the role of the psychiatrist on these protocols. These included studies on the naturalistic evolution of epilepsy (HEP-1, HEP-2), suicidality studies, and others. My research interests include neuropsychiatry and psychiatric aspects of epilepsy. I have also been involved in smaller projects like blink rates on EEG and anxiety as well as using QEEG to distinguish delirium from catatonia.

Grants - None

Clinical Activity

Clinical activities included both inpatient and outpatient services. I was on service in the hospital generally 3-4 months in the year on the inpatient EMU or on the consult service. In addition to this there were about 7 calls a year as well. Outpatient time included my own patients in the office, as well as supervising two training clinics: The Epilepsy Fellows' Clinic on Tuesday afternoons and the Neurobehavioral Clinic on Friday Mornings. This last clinic has double board psychiatry/neurology residents, C/L fellows, Child Psychiatry Fellows, and medical students. I had a very large outpatient complement of patients.

Education Activities

I was involved in education at the level of medical students, residents and fellows at NYU. I ran a few courses, gave several lectures and grand rounds, supervised a neuropsychiatry elective for medical

students and one for residents, and was involved in curricular development. Outside of clinical work, most of my time was spent on educational activities and GME program leadership.

Teaching Activities

Courses

Introduction to Clinical Neuroscience 1 - about 14 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: Bellevue

Introduction to Clinical Neuroscience 2 - about 10 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: Bellevue

Neurology Review Course - 14 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: One Part Avenue

Sleep Course for PGY-3's - 6 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: One Part Avenue

Sleep Course for PGY-4's - 4 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: One Park Avenue

Neurobiology of Psychotrherapy Course - 4 lecture hours
Dates: Started in 2018, and annual
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: One Park Avenue

Examining the Literature - 6 lecture hours

Dates: 2018-2020
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: Bellevue

Psychiatry Master Class - 12 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: Bellevue

Epilepsy Fellows Lectures 2-3 per year
Dates: Annually for many years till 2/22 when I left NYU
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Fellows
Teaching Site: Tisch

Clinical Neuroscience Course for Medical Students - 1-2 lectures
Dates: Annually for many years
Program: UME
Teaching Activity: Medical Student Curriculum
Audience: Medical Students
Teaching Site: Tisch

Lectures in Epilepsy and Neuropsychiatry - 2-3 lecture hours
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: Tisch

Case Conferences inpatient and outpatient - 3-4 per year
Dates: Annually for many years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Residents
Teaching Site: Tisch, Bellevue, One Partk Avenue, VA

Lectures to EEG Techs - 1-2 lecture hours
Dates: Annually for years
Program: Staff Inservice
Teaching activity: Staff
Audience: EEG Techs
Teaching Site: Tisch/Kimmel

Clinical Teaching

Fellows Epilepsy Clinic
Dates: Weekly for 12 years
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Fellows
Teaching Site: Comprehensive Epilepsy Center

Neurobehavioural Clinic - supervise 6-8 residents and fellows and several students, with lecture
Dates: Weekly for 10 years or so
Program: GME
Teaching Activity: Graduate Medical Education Curriculum
Audience: Fellows
Teaching Site: Comprehensive Epilepsy Center

Invited Talks

Internal:

Grand Rounds NYU Department of Neurology
Date: 2017
Program: Faculty Development/Grand Rounds
Teaching Activity: Faculty Development/Grand Rounds
Audience: Faculty/Attendings
Teaching Site: NYU, Tisch

Grand Rounds NYU Department of Psychiatry
Date: 2017
Program: Faculty Development/Grand Rounds
Teaching Activity: Faculty Development/Grand Rounds
Audience: Faculty/Attendings
Teaching Site: NYU, Tisch

External:

Grand Rounds Jananian PPOH - 2 Lecture hours
Dates: Annually for several years
Program: Faculty Development/Grand Rounds
Teaching Activity: Faculty Development/Grand Rounds
Audience: Faculty/Attendings - Annually
Teaching Site: PPOH

Grand Rounds Lincoln Hospital Psychiatry Department
Date: 2018
Program: Faculty Development/Grand Rounds
Teaching Activity: Faculty Development/Grand Rounds
Audience: Faculty/Attendings
Teachiing Site: Lincoln Hospital

American Epilepsy Society Plenary Session Talk

Date: 2009
Program: National Conference
Teaching Activity: National Conference
Audience: Students, Residents, Fellows, Attendings/Faculty

NAACP Legal Defence Fund Annual Airlie Capital Conference - 7/24

Mentoring and Advising

Supervision/Mentoring of Psychiatry Residents annually for years
Mentoring in Neurology Residency
Program Director Role for one fellowship and one residency

Institutional, Local/National Service and Related Activities

Institutional Service

Neurology Residency Program Evaluation Committee (several years)

Psychiatry Residency Program Evaluation Committee (several years)

Neurology Residency Selection Committee (several years)

Psychiatry Residency Selection Committee (several years)

NYU School of Medicine Admissions Committee (several years)

Psychiatry Residency Curriculum Committee (CCC) (several years)

Clinical Neurophysiology Program Evaluaion Committee (several years)

Epilepsy Fellowship Program Evaluation Committee (several years)

Clinical Neurophysiology CCC (several years)

Epilepsy Fellowship CCC (several years)

Forensic Work

I have been offering forensic consultations for the last 14 years at least, with over 50 cases consulted on, both civil and criminal proceedings, ranging from issues of damages, to competency, to guilt/innocence, to mitigation, to name a few categories.

Advisory Board

Esai Advisory Board for Fycompa 2019 x 1 meeting

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8. **Nadkarni** S. Co-wrote appendix on Mental Status Exam in On Call Psychiatry Second Edition. Publisher: WB Saunders 2001

9. **Nadkarni** S. Wrote appendix on Neurological Exam in On Call Psychiatry Second Edition Publisher: WB Saunders 2001

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PMID: 28575766

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Patents - None

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EXHIBIT 18

Hines Post-Execution Press Conference
Video Manually Filed

EXHIBIT 19

EXCLUSIVE

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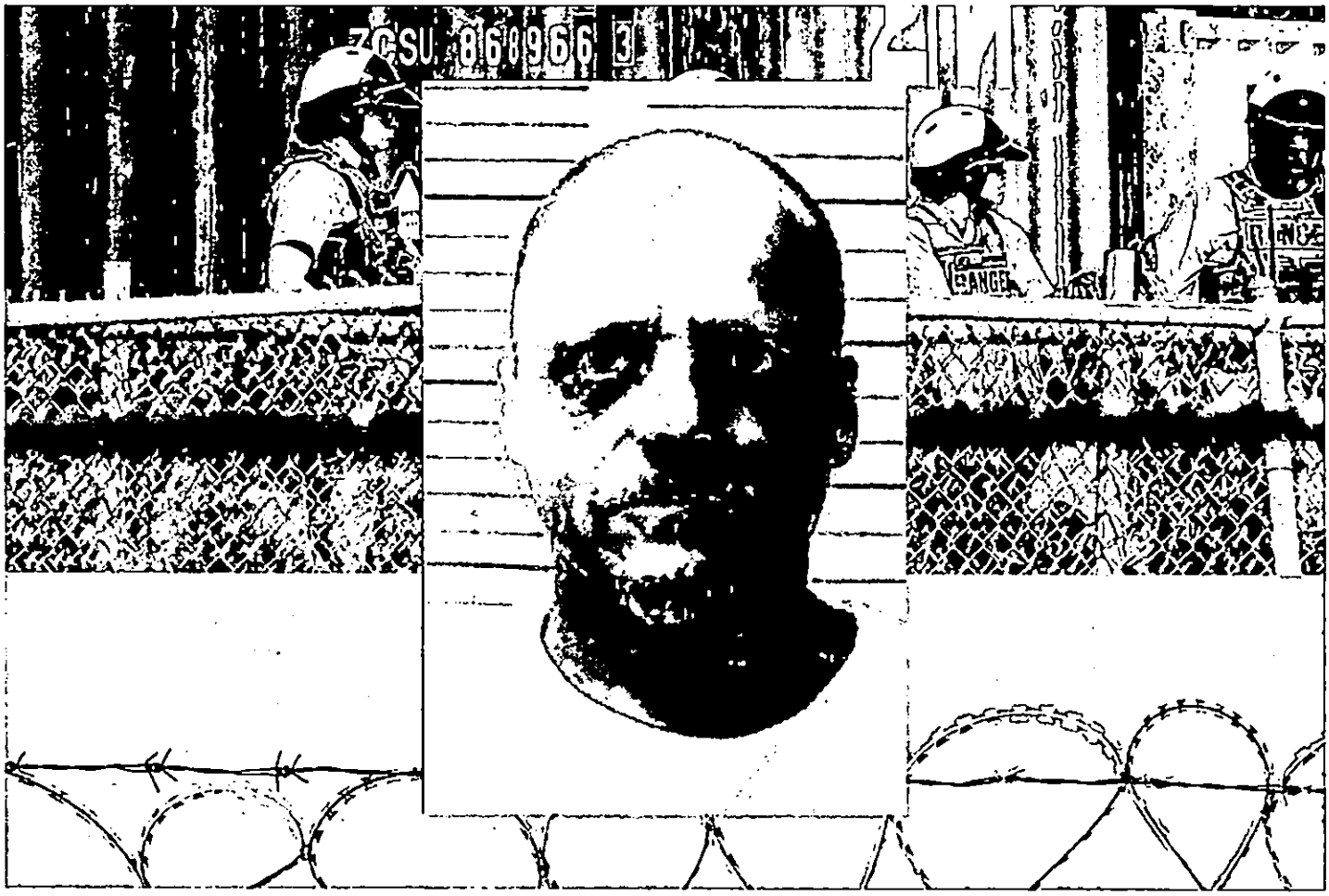
LETHAL INJECTION

Doctor involved in past failed Tennessee execution participates in Anthony 'Darrell' Hines' lethal injection

Dr. [redacted] says he declared Hines' time of death. The execution contrasts with a previous one that had problems with the insertion of IV lines.

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— Anthony 'Darrell' Hines was executed by lethal injection after four decades on death row.

Tenn. Dept. of Corrections; AP

Aug. 13, 2026, 9:04 PM CDT / Updated Aug. 13, 2026, 9:06 PM CDT

By Erik Ortiz and Abigail Brooks

Tennessee carried out its first execution of the year Thursday using the same doctor accused of botching an earlier attempted lethal injection, which witnesses said left a death row prisoner in excruciating pain and spurred calls to investigate what went wrong.

Dr. [redacted] told NBC News that he participated in the execution of Anthony "Darrell" Hines, who was convicted in a 1985 killing of a motel worker, by declaring his time of death. He said an IV line for the lethal drug and a required backup line were successfully established, but he declined to provide additional details about what occurred in the execution chamber at the Riverbend Maximum Security Institution in Nashville.

Hines lost a legal bid last week for the courts to order the Tennessee Department of Correction to tell him whether [redacted] would participate. His lawyers had argued [redacted] involvement could have heightened the possibility of another aborted execution, particularly because Hines, 66, suffered from past strokes, partial paralysis and other health ailments that made access to his veins more difficult.

At his execution, the death chamber's curtain was drawn at 10:30 a.m. for witnesses. A blanket had been pulled over his chest as he lay strapped on the gurney, and a spiritual adviser prayed beside him, according to media witnesses. Hines initially declined to make a last statement before he directed a comment to his son, who was in attendance. Some witnesses said he uttered either "Tell my son I love him" or "Tell my son hello."

Hines could be heard groaning and struggling to breathe before the curtains were closed to witnesses at 10:42 a.m. He was pronounced dead at 10:43 a.m., state Correction Commissioner Frank Strada told reporters.

State correction officials did not immediately respond to a request for comment about [redacted] role.

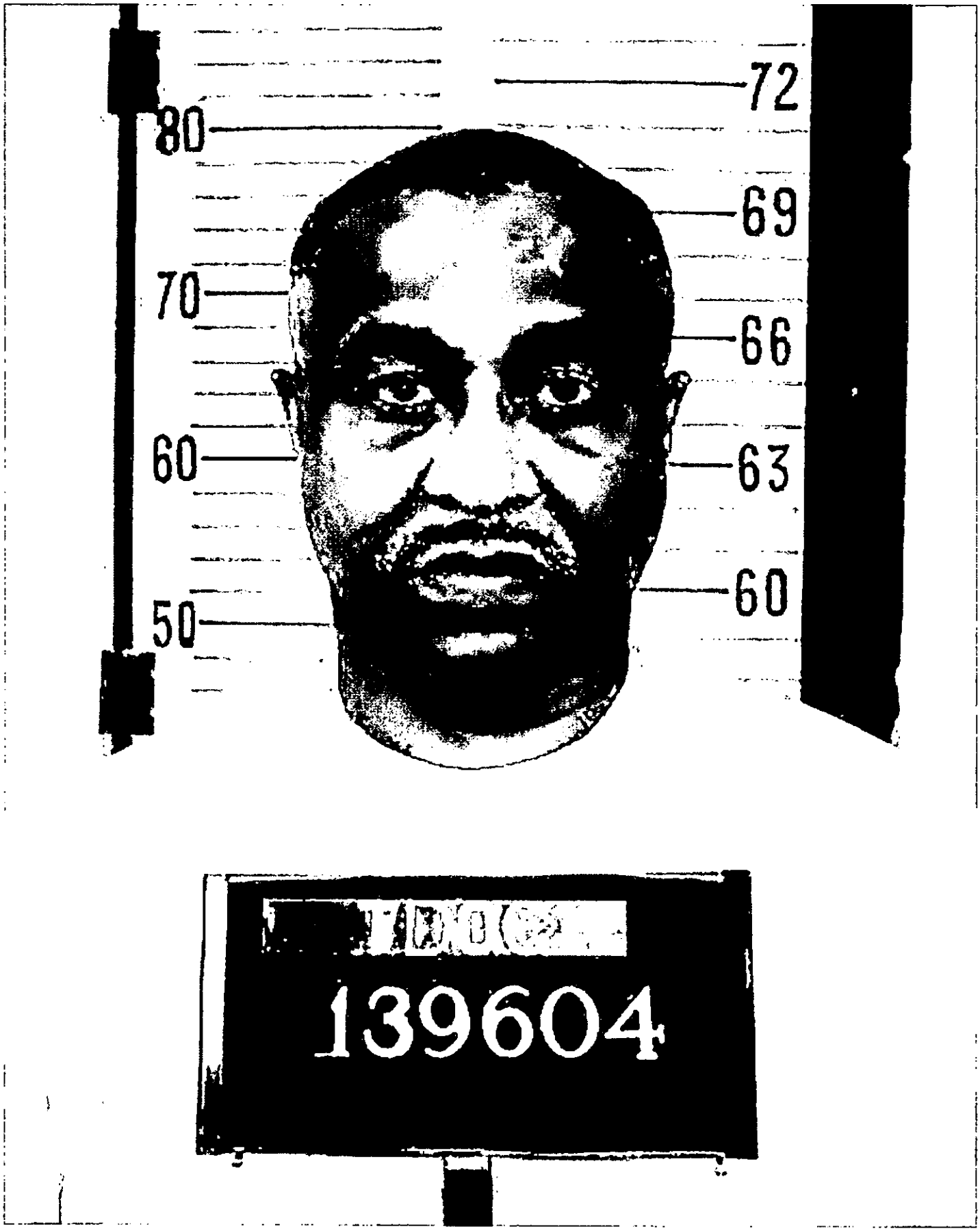
Tennessee requires a physician to attend each execution with the primary responsibility of declaring the prisoner's time of death.

At a news conference after the execution, the family of the victim, Catherine Jean Jackson Jenkins, thanked Gov. Bill Lee for declining to grant Hines clemency and described the "deep void" after her death.

Hines' lawyer, Kit Thomas, said she felt grief for Jenkins' family, as well as those involved in the execution.

"The leaders of this state repeatedly invoke the sanctity of life, but today the State put to death a man who was blind and paralyzed on his left side, could not walk, and was in constant pain," Thomas said in a statement.

Media witnesses said they noticed that Hines had labored breathing and trouble vocalizing after the lethal injection drugs began to flow. But otherwise, the scene inside the death chamber did not drag on as it did in May for Tony Carruthers, whose execution was called off after more than 90 minutes when the IV team had problems inserting a line.


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— Tony Carruthers was given a one-year reprieve before the state can attempt to execute him after a failed execution in May 2026. Tennessee Department of Correction via AP

According to his lawyer, Carruthers was in agony after the team repeatedly jabbed him more than a dozen times across his body in an attempt to install a backup IV line. When the team could not find a suitable vein, [redacted] was tasked with setting up a central venous line, which is placed into a prisoner's chest or neck as an alternative way to deliver the lethal injection drug. After he was unsuccessful, the execution was called off.

Court records from litigation involving other death row prisoners revealed [redacted] said in a deposition in October that he had not performed a central line procedure in roughly 13 years.

Lawyers for and relatives of Carruthers, 58, said the incident left him physically and cognitively harmed.

Lee granted Carruthers a one-year reprieve before the state may try to execute him again. But he did not pause all executions, despite calls from death row prisoner advocates, medical professionals and members of his own Republican Party to do so. He also declined requests for an independent review of the attempt to execute Carruthers.

Lee told reporters last week that he is "committed to making sure" every execution is done "in the way that it should be."

Tennessee law generally protects the identities of anyone who participates in an execution. [redacted] identity became known, Carruthers' lawyers said, after a warden named him in front of media witnesses during an execution last year.

Fowler previously told NBC News that "every attempt was made to minimize" Carruthers' discomfort and that he takes part in executions to lessen the suffering of the condemned.

The Tennessee Supreme Court ruled last week that the state did not have to disclose whether [redacted] would also participate in Hines' execution, suggesting that what happened to Carruthers was an isolated incident and saying Hines' lawyers had not proven [redacted] to be unqualified.

Hines had been on death row for four decades for the killing of Jenkins, a 54-year-old grandmother and mother of four who was working as a motel maid near Nashville.

Prosecutors say Hines, then 27, repeatedly stabbed Jenkins, raped her and fled in her car from the motel with stolen money. He was sentenced to death in 1986, a punishment that was upheld in a sentencing hearing three years later.

Jenkins' daughter, Melissa Jenkins, told reporters Thursday that the family has spent so many years trying to cope with the loss of their family matriarch, a woman who never missed her children's sporting events or church.

"While today does not bring closure, nor does it bring my mother back," she said, surrounded by supporters, "it does finally bring justice."

Hines' execution was one of three across the country Thursday: Oklahoma also executed a prisoner in the morning, and Alabama put a man to death in the evening – making it the first time in more than 15 years that three people were executed on the same day.

Erik Ortiz

Erik Ortiz is a senior reporter for NBC News Digital focusing on racial injustice and social inequality.

Abigail Brooks

Abigail Brooks is a producer for NBC News.

EXHIBIT 20

80° WATCH

2023 OCT 22 AM 10:57

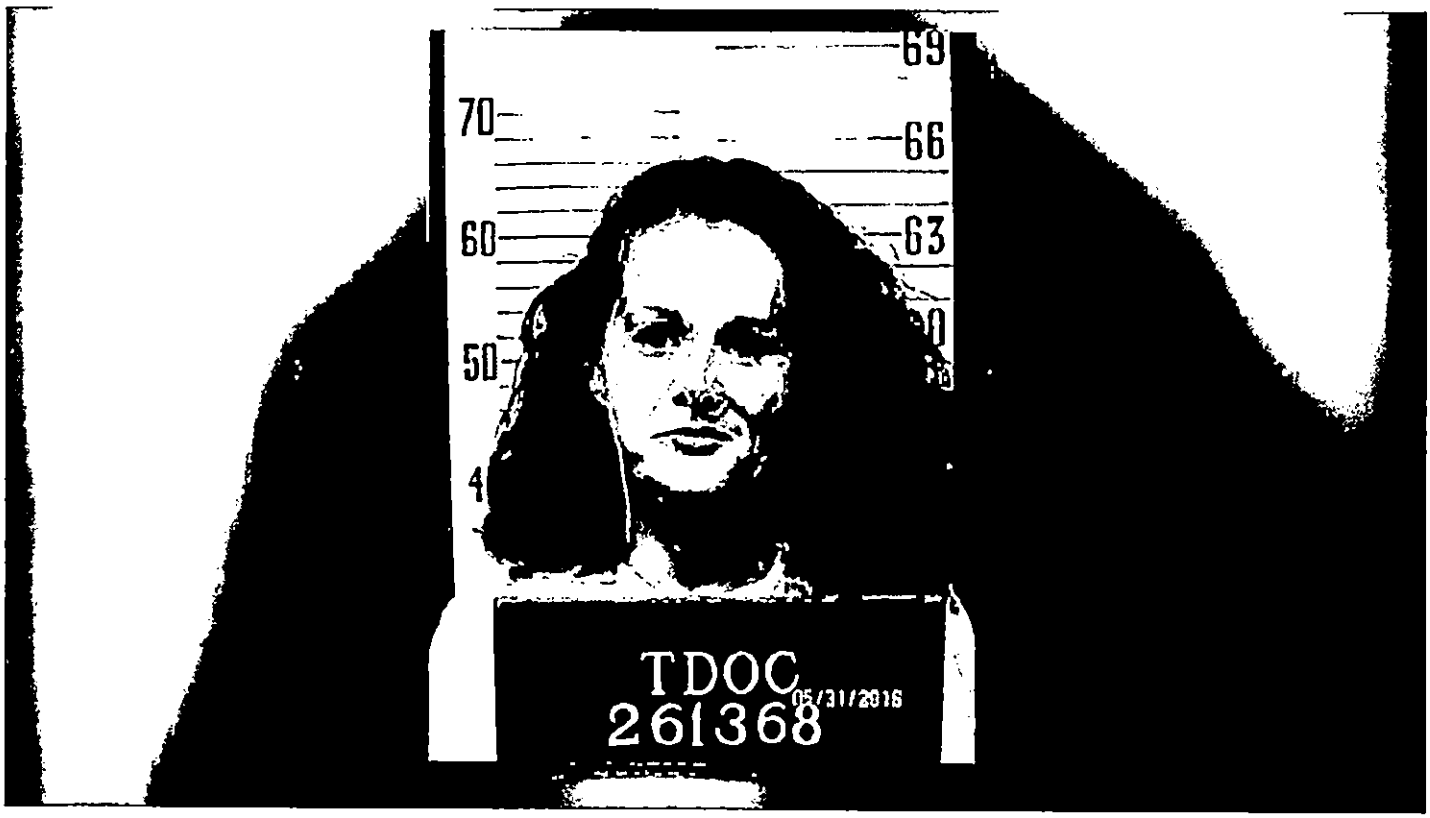
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Doctor who oversaw failed Tennessee procedure to handle Christa Pike's execution

by Sydney Keller, Karen Aguilar, Ashley Griffin
Fri, August 14, 2026 at 11:35 AM
Updated Fri, August 14, 2026 at 11:43 AM



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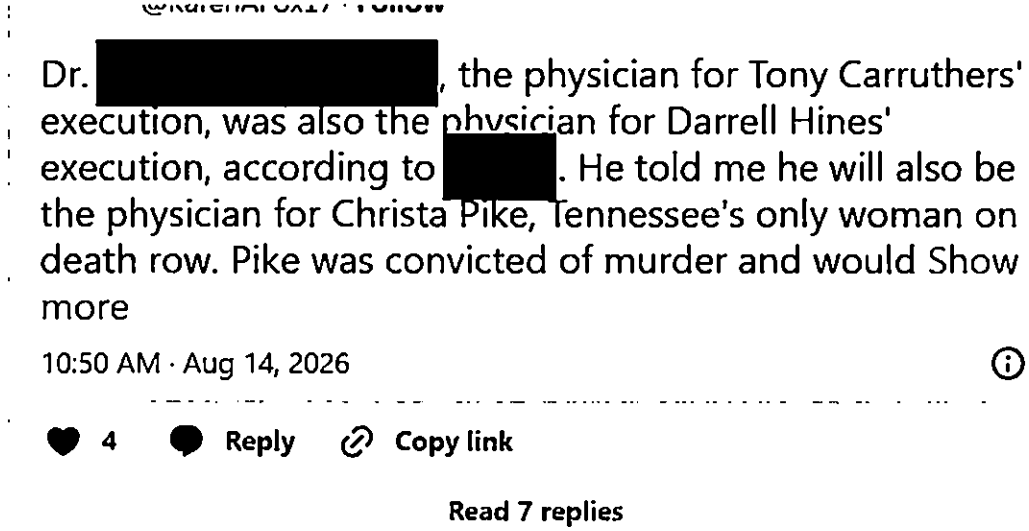
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NASHVILLE, Tenn. (WZTV) — The same doctor who handled a failed execution in Tennessee will also oversee the capital punishment of Christa Pike, the first woman to face execution in the state in more than 200 years.

On Friday, Dr. [redacted] confirmed to FOX 17 News he served as the physician for Tony Carruthers' execution, as well as the Aug. 13 execution of Darrell Hines.

80° WATCH



At or around 10:34 a.m. Thursday, media witnesses said Hines let out a very loud groan as discoloration began to appear on his face. There were no complications during the execution, according to FOX 17 News' Karen Aguilar, who witnessed the death sentence.

ADVERTISEMENT

Hines' time of death was announced at 10:43 a.m.

80° WATCH

On Aug. 14, Dr. [redacted] told FOX 17 News that he would oversee the next scheduled execution of death row inmate Pike.

Pike and her legal team are advocating for a different method of execution, such as a hanging or lethal injection "if and only if a central line can be placed by a qualified medical professional."

MORE | Tennessee court hears testimony ahead of death row inmate Christa Pike's execution

Dr. [redacted] provided the following statement on the executions:

"Inmates condemned to die are treated with utmost courtesy, respect and professionalism by staff."

READ THE COMMENTS (12)

[redacted] involvement comes as Tennessee moves forward with future executions following issues in past lethal injections.

EXHIBIT 21

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DECLARATION OF RANDY SPIVEY

I, Randy Spivey, hereby DECLARE:

1. My name is Randy Spivey. I am one of Christa Pike's attorneys at the Tennessee Office of the Post-Conviction Defender (OPCD).
2. I served as Christa's attorney-witness during the attempted execution on Wednesday, September 30, 2026.
3. That morning, I arrived at the prison at approximately 6:00 AM.
4. I was escorted back to the Death Watch Area, where I met with Christa for approximately 2 hours.
5. At around 8:15 or 8:30 AM, I was escorted out of the Death Watch Area to allow the execution team to prepare. Shortly after that, we learned that Christa had received a stay of execution from the Sixth Circuit Court of Appeals.
6. For the next 9 to 10 hours, we waited in the Death Watch Area. During this time, I saw Christa drink a Powerade, a Mountain Dew, and a Pepsi. She also ate a lunch of potato wedges, pinwheel sandwiches, and a cookie that Warden Nelsen brought to her.
7. Around 12 or 1 PM, Christa returned to her cell in order to rest. Her spiritual advisor and I waited in the Death Watch Area visitation room.
8. Around 4 PM, Christa requested that we come back and sit outside her cell, which we did.
9. Around 6 PM, we learned that the U.S. Supreme Court had vacated the Sixth Circuit's stay of execution and that the execution would go forward.
10. At 6:21 PM, I stood in the back of the Death Watch Area as a squad of TDOC officers lined up to extract Christa.
11. Christa's hands were restrained through the cell door. She was then told to get on her knees on her bunk and place her forehead against the wall. Christa complied quietly.
12. Christa was then removed from the cell and lifted onto the gurney.
13. She was strapped down—starting with the restraints on her upper body.
14. At 6:27 PM, once Christa's upper body was secured to the gurney, the corrections officers wheeled her into the Execution Chamber.
15. Once in the Execution Chamber, the strapping continued.
16. At 6:30 PM, arm extensions were attached to the gurney, and Christa's arms were secured to them.

17. During the strap-down process, Christa maintained eye contact with her spiritual advisor, Rev. Mikey Noechel. Christa was smiling, crying, and singing with Mikey about loving kindness (a Buddhist spiritual practice) and about people being gentle with themselves.
18. At 6:33 PM, a member of execution team checked the restraints. Four individuals entered the Execution Chamber—at least three of whom appeared to be members of TDOC's IV Team.
19. At 6:34 PM, one of the IV Team members (hereinafter "IV Team Member 1") held what appeared to be a vein-finder device over Christa's right arm.
20. IV Team Member 1 shook his[1] head and poked Christa's arm with his finger. He seemed to be struggling to locate a vein.
21. At this point, one of the other IV Team members (hereinafter "IV Team Member 2") whispered something to the fourth individual like "you should help." But I could not clearly hear the exchange. The Warden shook his head at the fourth individual and the fourth individual said something to the IV Team member.
22. At 6:35 PM, Christa began instructing the IV Team members about where they could find a vein. She asked IV Team Member 1 to pull her sleeve up higher to look for a vein in her upper arm.
23. Christa was unfailingly polite and kind during this process.
24. At 6:36 PM, IV Team Member 1 shook his head again at the other IV Team members. He appeared unable to locate a vein.
25. At 6:37 PM, IV Team Member 2 took IV Member 1's place at Christa's side and began trying to place a line.
26. Christa, meanwhile, continued to help the IV Team locate a vein. When IV Team Member 2 began attempting to place a line in her upper right arm she said, "thank you for listening to me."
27. IV Team Member 2 called for a 22-gauge needle.
28. He then began holding a wand-like device, covering Christa's right arm with gel, which was connected to a tablet device.
29. At 6:40 PM, IV Team Member 2 appeared to set a line in Christa's right arm—above the crook of her elbow. Christa asked, "Did you get it?" and IV Team Member 2 responded, "Yes." Christa replied, "I love you."

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[1] The pronouns "he/him" are used for all execution participants in this declaration in recognition of the State's asserted interest in protecting execution participants' identities. The use of these pronouns should not be taken to mean that the execution participants were male, rather than female; nor should it be taken as a concession of the legitimacy of the State's purported interest in shielding all information that could potentially be used to identify the execution participants.

30. At 6:43 PM, Christa turned to the third IV Team member (hereinafter "IV Team Member 3") who had begun poking Christa's left arm with his finger. Christa encouraged him to look higher up on her arm and down by her wrists.
31. IV Team Member 2 came over to Christa's left side with the wand and tablet device.
32. Christa began telling her spiritual advisor, Mikey, that he is beautiful and that she was so grateful for him.
33. At 6:46 PM, IV Team Member 3 seemed to be unable to find a suitable vein on Christa's left side.
34. IV Team Member 2 came over with the wand and tablet device and asked for a 22-gauge blue needle.
35. At 6:49 PM, IV Member 2 asked for another needle—a 20- or 22-gauge.
36. Christa was wincing and grimacing as IV Team Member 2 moved the needle around in Christa's arm. At this point, IV Team Member 2 said something like "not enough capillary."
37. At 6:50 PM, IV Team Member 2 was still using the wand and tablet device and shaking his head. He asked for another blue needle.
38. By 6:53 PM, IV Team Member 2 had been moving the needle for a long time, but seemed unsure if he got it in. He expressed that he thought that the vein might be blown.
39. At 6:54 PM, IV Team Member 2 asked for a 20-gauge needle, and the fourth individual, who was standing nearby, seemed to whisper instructions. IV Team Member 2 said "it's not long enough, what is the longest you've got." He discarded the 20-gauge needle.
40. At 6:56 PM, IV Team Member 2 inserted another needle, which he seemed to get in. He started taping down the IV line. Christa was visibly relieved.
41. At 6:57 PM, IV Team Member 2 said that it "might be blowing." IV Team Member 2 and IV Team Member 3 inspected the insertion site and poked it. Both said that they "can't tell." One of them said something like "it's either blood or blown, I need to know."
42. They then pulled up Christa's left sleeve. IV Team Member 2 said "well, she's got one [vein] right there." Christa said politely "that's what I have been trying to tell you."
43. IV Team Member 3 then inserted another needle into Christa's upper left arm. Both IV Team Members 1 and 2 seemed to agree that they had established a line.

44. At 6:59 PM, they determined that the line was not, in fact, properly established. IV Team Member 2 said "I need to work again," and he pulled the needle out of Christa's left arm. It appeared to be severely bent.
45. At 7:02 PM, IV Team Member 2 tried inserting another needle higher on Christa's left shoulder. Christa grimaced.
46. At 7:05 PM, IV Team Member 2 asked for a 24-gauge needle and moved that needle around a lot. Christa continued to grimace.
47. The needle appeared to stay in place and IV Team Member 3 raised one finger up to the window to the Lethal Injection Room.
48. At 7:07 PM, as the line on Christa's left side was being taped down, IV Team Member 3 said, "I think it is blown." IV Team Members 2 and 3 then examined the insertion site. One of them held up additional fingers to the window.
49. At 7:08 PM, IV Team Member 2 said "let's regroup." He then washed Christa's left arm with a saline syringe and began scrutinizing it.
50. At 7:09 PM, IV Team Member 1 began checking Christa's right arm again, and poked around the insertion site.
51. At 7:12 PM, IV Team Member 2—who was still on Christa's left side—said, "give me one of my needles from the drawer." A TDOC officer who had been handing needles, gauze, and saline to the IV Team members from a little medical cart, looked in a drawer of the cart and pulled out a needle.
52. At 7:13 PM, one of the IV Team members held up a single finger to the Lethal Injection Room window. IV Team Member 2 told Christa that they "have it."
53. In total, the IV Team appeared to use approximately 10 needles.
54. The used needles were disposed into a plastic bucket that did not "clink" when the needles hit it.
55. At 7:15 PM, the line in Christa's left arm was taped down.
56. The Warden then received a call and pointed to Christa's left arm. IV Team Member 3 proceeded to check Christa's left arm again.
57. At 7:17 PM, the IV Team Members taped Christa's hands down over my objection. The Warden expressed that a particular practice does not need to be in the execution protocol in order for TDOC to do it.
58. The IV Team Members then attached EKG leads to Christa's body.
59. IV Team Member 3 held up one finger to the window and stared at the phone on the wall of the Execution Chamber until it rang once.
60. At 7:18 PM, the Warden asked IV Team Member 3 to check Christa's left arm again after speaking on the phone. IV Team Member 3 said "it's soft."

61. At 7:19 PM, there were more phone calls into the Execution Chamber. It seemed like the people behind the window in the Lethal Injection Room were asking the IV Team for repeated checks of Christa's left arm.
62. IV Team Member 3 maneuvered the left IV-line and the Warden said into the phone, "it's just positional, they taped it too tight." IV Team Member 3 then cleaned Christa's left arm with saline solution again and checked the IV site.
63. At 7:23 PM, one of the IV Team members held up a single finger to the window again. They pushed saline through the line with difficulty. IV Team Member 2 said that the saline syringe "is the last one."
64. At 7:24 PM, the IV Team seemed satisfied that the lines were set and exited the chamber.
65. The TDOC officer who had been handing the IV Team needles from the medical cart covered Christa with a blanket. The blanket covered Christa's hands, but not the IV sites.
66. At 7:25 PM, I was escorted out of the Execution Chamber to the Official Witness Room, where the media was located.
67. At 7:26 PM, the curtain covering the Official Witness Room's window into the Execution Chamber was opened.
68. At 7:27 PM, the Warden asked Christa for a last statement. It was hard to hear, but Christa seemed to say: "I just want to say I'm leaving this world the way I have spent most my life, which is in love. In love with the people who are supporting me, but also with those who hate me. I encourage them to look into the things that brought me out of deep despair and pain. I'm at peace and ready to go."
69. At 7:28 PM, Rev. Mikey Noechel said something to Christa and Christa repeated his words.
70. At 7:29 PM, Christa began sighing a lot.
71. At 7:33 PM, she lifted her head to look at the IV sites.
72. At 7:34 PM, Christa said, "I feel like my arm is about to bust. It burns." She said that the one spot on her arm is "really burning." She said that it hurt.
73. At 7:36 PM, Christa was still talking to Mikey and smiling reassuringly at him. She was breathing deeply.
74. At 7:38 PM, Christa looked at the IV sites again.
75. Christa sang, moved her feet a bit, and laughed at something Mikey said. She then lifted her head and seemed confused as to why the process was taking so long.
76. At 7:40 PM, Christa was still singing with Mikey.

77. At 7:41 PM, someone placed a white rock in the port between the Execution Chamber and Lethal Injection Room. Christa was taking deep breaths.
78. At 7:42 PM, Christa's chest was rising and falling quickly.
79. At 7:43 PM, Christa yawned, but was still talking to Mikey—laughing and smiling.
80. At 7:44 PM, Christa's breathing was obviously labored.
81. At 7:45 PM, Christa yawned again.
82. At 7:46 PM, Christa began making an agitated snoring sound. TDOC closed the curtain and my view of Christa was cut off. But I could still hear her snoring.
83. At 7:50 PM, Mikey was escorted into the Official Witness Room. Shortly thereafter, he was asked to return to the Execution Chamber.
84. I could still hear Christa snoring and struggling to breathe.
85. The curtain reopened, and I saw that the white rock had been taken away.
86. At 7:53 PM, Christa's snoring continued and Mikey resumed singing to her.
87. At 7:54 PM, Christa lifted her head, strained, groaned, snored, and seemed to be struggling. She tried to rise up against the restraints and fell back.
88. At 7:56 PM, Christa's snoring began to sound more like choking—like someone with sleep apnea. Her head was still moving.
89. At 8:00 PM, Christa flinched and continued to make snoring/choking sounds.
90. At 8:01 PM, a white rock appeared again in the port window. The Warden left the Execution Chamber and returned about a minute later.
91. At 8:03 PM, I noticed that Christa's right arm seemed to be purple below the elbow. It's possible that her arm had turned purple before then.
92. At 8:05 PM, Christa's snoring/choking seemed to get louder. She made rhythmic gasping sounds, with her stomach moving up and down. She seemed to be struggling to breathe.
93. At this point, TDOC closed the curtains again. We could still hear Christa snoring/choking. The media room was dark and several media witnesses began complaining about not being able to see what time it was or take notes.
94. A journalist (possibly Stephen Hale) asked TDOC's Communications Director, Dorinda Carter, why TDOC kept closing the curtains when it seemed like Christa was still alive.
95. At 8:06 PM, Mikey was brought back to the Official Witness Room and whispered to me, "she's still alive."
96. At 8:15 PM, Christa was still making snoring/choking sounds. The curtains remained closed, with the lights in the Official Witness Room off. At this point, I told the Warden's secretary, Lindy Garner, that TDOC is not

authorized to do a third push of pentobarbital under the protocol and that they needed to stop the execution. Lindy didn't know what was happening. I asked for a phone.

97. TDOC had informed me that I would not be allowed to use the wall phone in the Official Witness Room, which I had used earlier that day to call my colleagues. A large man (presumably a TDOC employee) was standing in front of that phone while the media witnesses were in the room.

98. Instead, TDOC informed me that I could access a different phone during the execution, near the Death Watch Area.

99. Rather than escort me directly to that phone using the shortest available path—by going out the door between the Official Witness Room and Execution Chamber—I was taken there by a long, circuitous route. My escort and I went out the door connecting the Official Witness Room to the Death Watch Lobby, then to Contact Visitation Room, then to the Death Watch Area, then the Execution Chamber Sallyport, and then, finally, to the room with the phone.

100. The trip took approximately seven minutes.

101. There were approximately five locked doors along the route that had to be opened remotely before we could proceed, and there was a delay in opening some of these doors.

102. The annotated attached diagram of TDOC's execution facility, from the 2018 Lethal Injection Protocol, illustrates the route that I was taken to the phone room (in red).

103. At 8:22 PM, I called my co-counsel, Stephen Ferrell and Kelly Gleason, and told them what was happening. I asked them to stop the execution before TDOC attempted to give Christa a third dose of pentobarbital.

104. At 8:25 PM, I returned to the Official Witness Room. I could hear Christa still snoring/choking. I told the Deputy Attorney General witness, Leslie Price, that the 2025 Protocol does not call for a third push of pentobarbital and TDOC is not authorized to attempt one. I stated that TDOC needed to provide Christa with immediate medical care.

105. For approximately the next 20 minutes, I listened as Christa continued to make snoring/choking sounds. During this time, I did not hear any sounds from the Execution Chamber that would indicate medical care was being rendered.

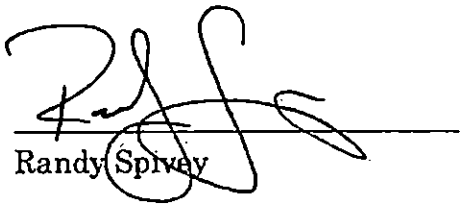
106. At 8:50 PM, I was informed that an ambulance was on its way.

107. At 9:10 PM, I was told that medical staff were performing life-saving measures and that Christa was being given oxygen.

108. After the curtain closed for the second time at 8:05 PM, it never reopened. From 8:06 PM to when Christa was eventually taken out of the facility by ambulance, she did not have any member of her defense team or her spiritual advisor with her.

I declare under penalty of perjury and the laws of the United States and the State of Tennessee that the foregoing is true and correct to the best of my knowledge.

Dated this 15th day of October, 2026.



Randy Spivey

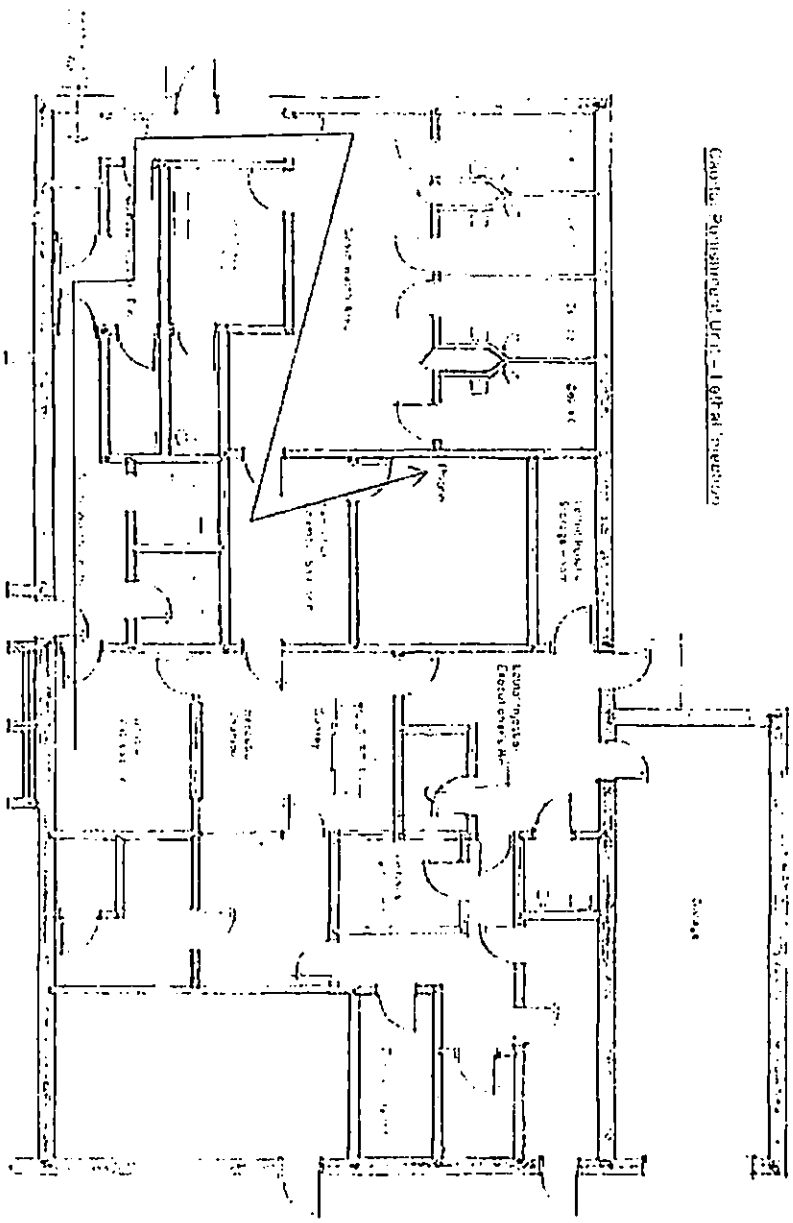


EXHIBIT 22

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2026 OCT 22 AM 10:58
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For immediate release: October 1, 2026
Contact: Hayley Bedard, media@deathpenaltyinfo.org, 202-289-2275

DPI Statement on Tennessee's Failed Execution of Christa Pike

Christa Pike remained alive for more than an hour after the state of Tennessee began its attempt to execute her on September 30, 2026. According to media witnesses and her attorneys' court filing, she received two lethal doses of the drug pentobarbital but continued to breathe and have a heartbeat. She was then taken to a nearby hospital, and her condition remains unknown, including whether she remains alive.

Advocates are characterizing this failed execution attempt another assault on a woman who survived significant gender-based violence and abuse as a child. "The state's deliberate infliction of gratuitous pain as she lay strapped to a gurney should be viewed as an act of gender-based violence," said Cornell Law School Clinical Professor Sandra Babcock.

DPI has documented seven people who have survived failed attempts to execute them when execution staff were unable to establish IV lines. Ms. Pike is the first person to survive after being injected with lethal doses of execution drugs. "This failed attempt is the worst we've ever seen and unlike any other botched execution in the modern era," said Robin M. Maher, DPI Executive Director.

Ms. Pike's legal team earlier raised serious concerns about the failure of Tennessee officials to account for any emergency during the execution. Governor Lee paused executions in 2022 after defense counsel discovered the state was violating its own lethal injection protocol. In May, the execution team failed to set an IV line for Tony Carruthers, causing the execution to be halted. Gov. Lee subsequently issued a one-year reprieve for Mr. Carruthers but refused requests to pause future executions despite concerns about the number of troubled executions in recent years.

"What happened to Christa Pike can be attributed to the extreme secrecy Tennessee officials have maintained about their execution procedures, their refusal to answer reasonable questions, and their unwillingness to accept responsibility for their mistakes," said Ms. Maher. Tennessee largely carries out executions in secret, so the public learns of failures only through witnesses whose observations are limited. Media witnesses are blocked from viewing key portions of the process, including the insertion of IV lines. State officials refuse to disclose the source of the drugs they obtain, or how they are stored and tested.

Gov. Lee has now announced that a third-party, independent investigation will be conducted. Consistent with democratic principles of good governance, it will be critical for officials to cooperate fully with that investigation, be transparent about their mistakes, and for the results of that investigation to be made public.

###

The Death Penalty Information Center (DPI) is a national non-profit organization whose mission is to serve the media, policymakers, and the public with data and analysis on issues concerning capital punishment and the people it affects. DPI is funded entirely by individuals and charitable foundations. DPI does not take a position on the death penalty itself but is critical of problems in its application. Founded in 1990, DPI promotes insightful discourse on the death penalty by curating and presenting expansive, authoritative data from credible sources and offering clear, trustworthy, and timely information and research about the history and current application of the death penalty. DPI produces groundbreaking reports on issues such as arbitrariness, costs, innocence, and racial disparities. Each year, DPI also releases an annual year-end report highlighting significant developments and trends. A wide variety of free online resources are available on DPI's award-winning website, including searchable databases; data visualizations; educational curricula; and podcast series, 12:01 The Death Penalty in Context, which explores diverse viewpoints and experiences related to capital punishment.

EXHIBIT 23

2026 OCT 22 AM 10:58
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It took 35 minutes for first responders to reach Christa Pike after a 911 call; The reason why is a verification code the caller didn't know

The caller, which according to the 911 call transcript, came from a person working inside the prison, did not know the code for dispatchers to verify the call.

An error has occured. Please press the play button or reload the page to try again.

By Steve Mehling

Published: Oct. 13, 2026 at 2:58 PM CDT

What This Story Is About

- A 911 call transcript shows it took 35 minutes for first responders to reach Christa Pike inside Riverbend prison following a failed execution attempt on Sept. 30. Dispatchers delayed sending crews inside because a caller from the prison could not provide a required verification code.

Why It Matters

- Dispatchers require a verification code for calls from Riverbend prison to confirm a call is legitimate before sending emergency crews inside. The absence of the code, combined with conflicting information from the prison, delayed medical crews reaching Pike by 31 minutes after the initial call.

What Happens Next

- The independent investigation into what went wrong in Christa Pike's botched execution continues, while questions surrounding the state's execution protocol linger.

For Context

- The verification code requirement exists because of swatting calls and because of a 1988 prison escape in Tennessee that started with a fake call, in which prisoners escaped in an ambulance with hostages.

NASHVILLE, Tenn. (WSMV) - It took 35 minutes for first responders to reach Christa Pike inside Riverbend prison after a failed execution attempt, according to a 911 call transcript obtained by the station. The delay centered on a verification code dispatchers said they needed before sending crews inside.

The initial call

At 8:40 p.m. on Sept. 30, Metro 911 received a call from inside Riverbend prison requesting medical crews after a failed execution attempt. The dispatcher asked the caller for a code to verify the call was real. The caller did not know it.

At 8:46 p.m., a call from 911 to Nashville Fire showed dispatchers trying to understand why a prison official did not have the code.

"They said they don't have a code, so we're trying to figure out what's going on. How do they not have a code? Right, they should know the code," one dispatcher said.

"Is it at Riverbend? Yes, at Riverbend. Yeah, that's the one place you definitely need codes," another said.

With nothing verified, dispatchers tried calling others, including the Tennessee Highway Patrol. By 8:50 p.m., they decided to send units in case the call was real, while continuing to try to confirm it.

"We are trying to find out if that is an actual thing that is happening, and we need to send an ambulance, and or if you need police assistance, or if this is someone that is just basically prank calling," a dispatcher said.

By 8:56 p.m., units were waiting outside the police checkpoint. "Hang tight. We're not going anywhere until they verify everything," one responder said.

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The Execution of Christa Pike

2:21

911 call confusion over failed execution of Christa Pike delayed medical response

15:59

Emergency calls after botched Christa Pike execution released

1:52

911 call transcription, emergency calls from botched Christa Pike execution released

19:27

Breaking down the 911 call from botched Christa Pike execution

2:53

Law professor says Christa Pike is one of only two people to survive a full execution

0:45

Christa Gail Pike is 'taking limited steps' week after failed TN execution, attorneys say

3:17

Christa Pike's medical aftermath of failed TN execution

6:01

Attorney explains legal avenues for Christa Pike's defense after judge orders preservation of evidence in failed execution

7:05

How did Christa Pike survive a lethal injection? Attorney's say it's unknown

2:51

Davidson County judge grants motion to preserve evidence in Christa Pike's botched execution

3:34

Christa Pike is conscious and able to walk days after botched execution

2:13

'Absolutely unprecedented': Could Tennessee try to execute Christa Pike again?

2:49

Tennessee lawmakers weigh execution options after botched lethal injection of Christa Pike

6:06

Tennessee representative calls for execution staff to be fired following failed lethal injection

0:25

Death row inmate Gary Sutton granted reprieve until next October

7:16

Here's Christa Pike's health status after waking up following failed execution

1:58

Hearing held to determine if TN will have to preserve evidence in Christa Pike's botched execution

8:19

These were TN inmate Christa Pike's first words after execution attempt left her unconscious for days

4:01

Judge orders preservation of execution evidence in Pike case

15:27

Court grants motion to preserve evidence in Christa Pike's botched execution

Conflicting information

Dispatchers called the prison twice to verify the call. On the second call, at 8:59 p.m., they were told, "I'm being told that nobody from our facility called you, so there's not really anything to speak of at the moment."

Four minutes later, dispatchers relayed that information to crews, but correctional officers were telling them something different.

"I've got somebody outside demanding that we come in, but we don't even know, they want to take us in a different way. I need somebody from that prison, inside that prison, to make contact at the gate," a first responder relayed via radio traffic.

Dispatchers then received new details from Pike's defense attorney.

"She has completed the stages of the protocol, and lastly, for the attorney who's present, she is still alive and breathing and needs immediate life-saving care," Kelly Gleason said.



Crews gain access

At 9:07 p.m., 27 minutes after the initial 911 call, dispatchers received the code from the prison. With help from Metro police, crews got inside at 9:15 p.m. and left with Pike at 9:26 p.m.

While en route to the hospital with Pike, crews reported they had been diverted. "We contacted and they have diverted us to (redacted). I just wanted to relay that information to you," a crew member said.

Reason for the code

The verification code requirement exists because of swatting calls and because of a 1988 prison escape in Tennessee that started with a fake call, in which prisoners escaped in an ambulance with hostages.

Dispatchers use the system in order to validate the call prior to tying up emergency crews who could be needed elsewhere.

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EXHIBIT 24

FILED
2026 OCT 22 AM 10:58
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What Christa Pike asked when she woke up from failed execution
(01:51)

U.S.

Christa Pike suffering from pneumonia, unable to move arms after botched execution, lawyers say

By Emily Mae Czachor

Updated on: October 8, 2026 / 6:21 PM EDT / CBS News

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Christa Pike's attorneys said she had pneumonia, a blood clot, couldn't swallow, and was unable to move her arms or hands once she regained consciousness in a Tennessee hospital, days after the death row inmate survived a botched execution by the state.

Pike on Wednesday began "taking limited steps" with help, according to her team. And on Thursday, her attorneys detailed more progress, saying in a statement that she was walking "with some assistance," and her arms were "healing and regaining movement and strength." They also said that her "lungs are clear, and she has started to eat a regular diet."

But they previously cautioned that the lethal drugs she received may have lasting consequences for her mobility.

"Her hands looked like if you were to blow up a surgical glove," one of Pike's attorneys, Randy Spivey, told reporters at a Wednesday news conference. "It was extraordinary."

Spivey said he and Pike's other attorneys were told she was brain-dead on Monday and expected her to be removed from life support. But by the next day, she had woken

up and started talking, he said.

Watch CBS News

The attorney said it was his understanding that Pike's first words were, "Where am I?" and "Who are you?"

"I don't have an explanation for what happened," Spivey told reporters after a hearing at Davidson County Chancery Court. He said that Pike was confused and disoriented at first, but she began to remember details of the execution attempt on Wednesday.

In addition to the lung infection, a blood clot in her arm, and an issue swallowing that had prevented her from eating, Pike's arms and hands are "tremendously swollen," said Spivey, adding that "we don't know what function she will regain."

Another attorney for Pike, Steve Ferrell, described her cognition as "foggy" and told CBS News partner BBC News on Thursday that she could suffer "permanent damage," although he said that he hasn't personally seen her since she was hospitalized.

Her attorneys said in their news release Thursday that she is experiencing "cognitive challenges with concentration and memory."

Watch CBS News

Pike is the only person known to have survived an execution attempt in the U.S., according to the Death Penalty Information Center.

Court grants request for evidence

Before Pike's attorneys shared updates on her health outside of the Davidson County court on Wednesday, they attended an emergency hearing in which they requested Tennessee's correctional department to preserve records and other evidence of her failed lethal injection.

Chancellor I'Ashea Myles granted the order and said the state would be mandated to preserve "relevant evidence" of its failed attempt to put Pike to death on Sept. 30, including "drugs, IV lines, needles, catheters, medical supplies, restraints, gurneys" and anything else in the execution chamber at the time of the procedure.

Myles said waste, such as packing supplies and labels, and all written or digital records, including records of communication through encrypted platforms, witness accounts, and correspondence regarding equipment or drug administration issues, must be preserved, too.

She explicitly directed the state "not to lose, misplace, accidentally delete, any information that may be pertinent to this litigation."

"To any extent that any information or any evidence has already been discarded, deleted, destroyed or no longer exists, I want [the Tennessee Department of Correction] to take an affirmative step to try to claw back that information and put in

Watch CBS News

policies and procedures, while this incident litigation is pending, to ensure that no information is discarded or destroyed," said Myles.

Execution aftermath

Staff had given Pike, 50, two doses of a lethal injection drug, but her legal team confirmed shortly after the failed procedure that, in an unprecedented turn, she was alive and had been hospitalized. Her legal team said on Tuesday that she had regained consciousness and was speaking from her hospital bed.

Pike's attorneys also said Tuesday she was continuing "to receive critical medical care" as hospital workers attempted to clear her system of the lethal drug pentobarbital. Her prognosis remained unclear, they added, but she was expected to face, at minimum, "a long recovery."

The legal team has renewed its calls for Tennessee Gov. Bill Lee to commute Pike's death sentence, pushing him to change the sentence to life in prison without parole so that the state can't attempt to execute Pike a second time, which is the usual course of action after an inmate survives botched execution proceedings. However, while others have survived botched procedures before, Pike is the only known inmate in the United States' modern death penalty era to remain alive after actually receiving lethal chemicals.

"The state has made no promises that Ms. Pike will not be subject to a future execution," Luke Ihnen, one of Pike's attorneys, said in court on Wednesday. Evidence sought by the defense for the correctional department to preserve could help them build future arguments to prevent that from happening, Ihnen added.

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Will Ayers, the assistant attorney general for the state of Tennessee, told the court that there's no pending execution order for Pike, and "there is no allegation that one is coming."

Attorneys for Pike had filed an emergency motion Friday asking that the correctional department be required to "preserve all relevant physical, written and electronic evidence" of the failed execution, which, they said, amounted to "evidence of TDOC [Tennessee Department of Correction] inflicting a cruel and unusual punishment on Ms. Pike through its deliberate indifference to her basic medical needs and reckless disregard of basic medical practices and their own lethal injection protocol."

They accused correctional staff tasked with handling Pike's execution of failing to properly establish an IV line through which to administer lethal drugs, and then failing to realize she had a "blown vein," allegedly allowing pentobarbital to spread through her body and causing a painful, botched procedure. In court, Ihnen also referenced the secrecy that shrouds execution protocols and proceedings in Tennessee and elsewhere across the U.S., which makes arguing death penalty cases particularly challenging.

"We don't know what they have, because they won't tell us," Ihnen said in court. "And so the preservation order seeks the broadest possible preservation of evidence."

Case history

Lee had denied Pike's request for a commuted sentence before her execution date last week, rejecting her clemency petition in the days leading up to it. In its aftermath, he canceled the one remaining execution scheduled to take place in Tennessee by the end of the year and said an investigation would be conducted to determine what went wrong. The now-former Tennessee correctional commissioner stepped down from his post, although an official statement from the agency claimed it had followed protocols.

Pike was convicted in 1995 of the brutal murder of her classmate, 19-year-old Colleen Slemmer. Court filings show that Pike, then 18, tortured and killed Slemmer, slashing her with a meat cleaver and box cutter for up to an hour in a wooded part of the University of Tennessee campus, with help from her boyfriend and a friend.

When Slemmer's body was found, she had pentagrams carved into her forehead and chest, and a piece of her skull was missing. Other students later told investigators that Pike had bragged about removing the piece of skull and revealed to at least one person that she'd kept it as a "souvenir."

Pike spent more than three decades on Tennessee's death row. As the only woman awaiting execution in the state for a vast majority of that time, she was alone for almost the entirety of her incarceration. She was the first woman Tennessee attempted to execute in more than 200 years and the first person the state attempted to execute in modern times for a crime they committed at age 18, 19 or 20.

Prior to Pike's botched injection, her case had garnered public interest as human rights leaders and advocacy groups rallied against her death sentence, raising issues with her age at the time of her conviction and long history of mental illness and childhood abuse. But those who strongly support her execution, including prosecutors and jurors in Pike's original trial as well as judges who presided over that case and many of her appeals, have countered that capital punishment is warranted given the horrific nature of her crime. Among them is Slemmer's mother, May Martinez.

More from CBS News

CBS U.S.
Alabama governor commutes death sentence of man convicted of 1995 murder



EXHIBIT 25

IN THE CHANCERY COURT FOR THE STATE OF TENNESSEE
TWENTIETH JUDICIAL DISTRICT, DAVIDSON COUNTY

2025 OCT 22 AM 10:58
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DAVIDSON COUNTY CHANCERY CT

KEVIN BURNS, et al.,	)	
	)	
Plaintiffs,	)	
	)	
vs.	)	Case No. 25-0414-IV
	)	
FRANK STRADA, et al.,	)	
	)	
Defendants.	)	

DEPOSITION OF

FRANK STRADA

Tuesday, November 18, 2025

Reported by:
Sarah M. Motley, LCR

BY MS. HENRY:

Q. The prior lethal injection protocol has specific provisions for what to do during emergencies and contingencies, for example, during death watch.

Why does the new protocol not have provisions for emergencies and contingencies during an execution?

MR. BRANDON: Again, Commissioner, you're not required to provide any information that is a product of privileged conversations between you and your counsel. But if you're able to answer the question beyond that confidential information, you may.

THE WITNESS: I choose not to answer that question.

MS. HENRY: Certify the question.

BY MS. HENRY:

Q. Commissioner, once you became the Commissioner of Correction and were charged with the obligation to develop a protocol to comply with the Stanton recommendations and the United States Constitution, did you establish a team to assist you with that process?

A. Yes.

Q. And who -- how many people were on that team?

A. It varied. It varied.

Q. Did the team meet periodically?

ATTACHMENT 2

E-FILED
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IN THE CHANCERY COURT FOR THE STATE OF TENNESSEE
TWENTIETH JUDICIAL DISTRICT, DAVIDSON COUNTY, PART IV

FILED
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DAVIDSON CO. CHANCERY CT

KEVIN BURNS, *et al.*,	)	
Plaintiffs,	)	
v.	)	**CASE NO. 25-0414-IV**
FRANK STRADA, *et al.*,	)	
Defendants.	)	

REVISED SCHEDULING ORDER

The Court, on its own initiative, hereby sets the following revised schedule for this case:

1. The deadline for the completion of all discovery is September 18, 2026. This means that the parties are required to initiate discovery efforts or to send written discovery requests in time for discovery to be completed in all respects on or before September 18, 2026.
2. The deadline for filing motions to amend or to supplement the pleadings has elapsed.
3. The deadline for filing summary judgment motions is November 20, 2026. There is no need for additional motions to dismiss. The deadline for hearing summary judgment motions is January 8, 2027.
4. This case is set for a two-week bench trial beginning on February 22, 2027, at 8:30 a.m. The Court plans to rule on all outstanding discovery motions on or before March 31, 2026.

If the parties propose additional deadlines related to expert witness disclosures or other issues, the Court requests that the parties submit an Agreed Order setting out any such additional deadlines.

This Revised Scheduling Order is designed to reflect the Court's current, general view on a workable schedule for this case. If any party, at any point, believes that this Revised Scheduling Order is not workable, that party should contact Deputy Clerk and Master Sharifa Lewis-Allen at (615) 862-5713. Based on this, the Court will convene a telephonic status conference call with counsel for the parties to consider making reasonable adjustments to the schedule for this case. The Court is not requiring any party to file a motion to bring concerns about the workability of this Revised Scheduling Order to the attention of the Court.

IT IS SO ORDERED.

s/Russell T. Perkins
RUSSELL T. PERKINS, CHANCELLOR

cc: Jonathan Skrmetti, Esq.
Matthew W. Kubicek, Esq.
Cody N. Brandon, Esq.
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Federal Public Defender
Middle District of Tennessee
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Nashville, TN 37203

ATTACHMENT 3

COPY

IN THE CHANCERY COURT OF DAVIDSON COUNTY, TENNESSEE

KEVIN BURNS, BYRON BLACK, JON HALL, KENNATH HENDERSON, ANTHONY DARRELL HINES, HENRY HODGES, FARRIS MORRIS WILLIAM GLENN ROGERS, and OSCAR SMITH,	)	
Plaintiffs,	)	
vs.	)	No. 25-0414-IV
FRANK STRADA, in his official capacity as Tennessee's Commissioner of Correction, and	)	
KENNETH NELSEN, in his official Capacity as Warden of Riverbend Maximum Security Institution,	)	
Defendants.	)	

2025 OCT 22 AM 10:59

COMPLAINT

Kevin Burns, Byron Black, Jon Hall, Kennath Henderson, Anthony Darrell Hines, Henry Hodges, Farris Morris, William Glenn Rogers, and Oscar Smith hereby bring this civil action seeking a declaration of certain rights in connection with the State of Tennessee's plans for carrying out their executions.

10. Each of the Plaintiffs faces the prospect of being among the first individuals killed under the 2025 Protocol before it, like its predecessors, becomes too obviously untenable to stand. They have brought this lawsuit not to dispute their convictions or sentences, but to vindicate their rights not to be punished in a manner inconsistent with the laws and Constitution of the United States and State of Tennessee.

11. TDOC's mismanagement of its responsibilities has put the Plaintiffs' rights in peril in at least six ways:

a. First, TDOC has selected a poison that has been shown through recent evidence to pose a high risk of a tortuous death, particularly if obtained, stored, handled, and/or administered incorrectly.

b. Second, TDOC has developed an internal culture of recklessness and noncompliance, such that no person could reasonably expect TDOC to comply with even the bare-bones protections against maladministration that it is willing to adopt. This culture of noncompliance, when combined with the risk-prone nature of pentobarbital poisoning as a method of execution, creates a high risk that a person receiving a lethal injection administered by TDOC will be tortured to death.

c. Third, TDOC has failed to consider whether its process of performing executions comports with the most fundamental moral and legal commitments made by the Framers of the U.S. Constitution and Tennessee Constitution, as those commitments must be honored under

the "pain associated with the injection of a highly alkaline solution into the bloodstream"; and (3) the "lack of clarity as to whether pentobarbital causes individuals to become unconscious, and therefore incapable of feeling pain, or simply unresponsive." *Id.* at 11.

262. The OLP emphasized that its concerns were not based simply on the historical information cited in earlier discussions or litigation regarding pentobarbital, but on, among other things, "recent medical research evaluating autopsy data from executions that used pentobarbital, information collected from autopsies conducted on two individuals recently executed by the federal government, [and] recent witness accounts from federal and state executions." *Id.*

263. The OLP noted that the injection of such a highly alkaline solution can, even if performed correctly, lead to vascular damage including the rupturing of veins and the spreading of the solution into other tissues. *See id.* at 14.

264. That risk of extreme pain is significantly worsened if an error is made during the insertion of the IV catheter. A catheter may be inserted improperly into the vein, causing the solution to leak into surrounding tissues, or it may be inserted, incorrectly, into an artery instead—in what is known as an "intra-arterial" injection, as opposed to "intravenous" injection—resulting in significant injury. *Id.*

265. In light of the aforementioned risks, it is highly likely that, if a person executed by pentobarbital remains sensate until after the physical damage to his body has begun, then he will experience extreme suffering.

275. Specifically, the OLP wrote that "experts have debated whether 5 grams of pentobarbital leaves a person in a state of disconnected consciousness," but that eyewitness accounts of pentobarbital executions have frequently noted actions—such as grimacing, furrowing of eyebrows, wincing, yawning, and quivering—that are highly suggestive of the experience of suffering. *Id.* at 15.

276. An underdose of pentobarbital that is sufficient to cause death but insufficient to render the recipient unconscious and insensate before experiencing the symptoms of poisoning is almost certain to result in a tortuous death.

K. The risks of a tortuous death by a person intravenously poisoned with pentobarbital are increased if the individuals tasked with obtaining, preparing, and/or administering the drug are not competent and dedicated to compliance.

1. The risk of tortuous death in an execution by pentobarbital is increased if the drug is not procured properly by an individual with adequate knowledge of drug procurement practices.

277. The effects of the injection of a lethal dose of pentobarbital depend, in part, on both the physical integrity of the pentobarbital itself and whether it is administered properly.

278. For example, in the case of compounded pentobarbital, improper compounding and/or improper handling of the compounded drug can result in the drug falling out of solution, causing the recipient to receive a lower dose of the drug that is less likely to render him fully or promptly unconscious or insensate.

310. For example, in Chancery Court litigation over the First and Second 2018 Protocols, the TDOC Commissioner, RMSI Warden, and "John/Jane Doe Pharmacists," who were to supply Tennessee with lethal injection chemicals, admitted the following facts:

a. "The Pharmacy under contract with the Defendants to provide drugs for purposes of lethal injection relinquished its license to conduct high-risk sterile compounding for a short time to make facility upgrades in accordance with the findings and recommendations derived from a private review of the facility. . . ." Defendant's Response to Order at 5 (July 3, 2018) (Ex. 30).

b. The State's Pharmacy entered into an agreed settlement with the state Board of Pharmacy, as a result of the Pharmacy's omission of required information from a 2013 Application for Pharmacy License. *See id.*

c. The State's Chief Pharmacist had been disciplined for failure to supervise pharmacy personnel. *See id.* at 6.

311. The combination of TDOC's practice of extreme secrecy, the agency's culture of results-oriented tunnelvision, and the 2025 Protocol's lack of controls creates a high likelihood that TDOC will, again, rely on a supplier that is unable or unwilling to comply with the requirements necessary to ensure a high-quality, reliable product.

312. An individual who is executed pursuant to the 2025 Protocol, but who receives a lower-than-intended or otherwise insufficient dosage of pentobarbital, is

likely to remain conscious and sensate as he experiences the physical effects of the drug, including, in most cases, pulmonary edema.

313. Based on the foregoing issues, pentobarbital that has been improperly procured, manufactured, transported, handled, and/or stored poses a greater risk of severe suffering than licit, properly processed pentobarbital.

314. That risk is intolerable.

2. The risk of tortuous death in an execution by pentobarbital is increased if the individuals preparing the syringes, setting the IV line, and administering the drug are not competent, sufficiently trained, and qualified.

315. The risk of a tortuous death by pentobarbital poisoning is also increased if the individuals charged with preparing the pentobarbital, setting the intravenous ("IV") line, and administering the pentobarbital are incompetent, insufficiently trained, insufficiently dedicated to doing their jobs properly, and/or insufficiently attentive.

316. An error in the preparation or administration of the syringes of pentobarbital increases the likelihood that the individual to be executed will receive a dosage that causes extreme suffering but is insufficient to render him unconscious or insensate.

317. The 2025 Protocol entrusts the preparation of the syringes to be used in the execution to an individual identified as the "Special Operations Team Leader." 2025 Protocol at 18.

318. The 2025 Protocol entrusts the administration of the syringes through the affixed IV line—that is, the killing act—to the Special Operations Team Leader, as well. *See id.* at 21.

319. The 2025 Protocol does not require that the Special Operations Team Leader, an RMSI employee, have any particularized training.

320. The 2025 Protocol does not require that the Special Operations Team Leader have any form of healthcare licensure whatsoever. *See id.* at 9.

321. The 2025 Protocol does not require that the Special Operations Team Leader have any form of healthcare certification whatsoever. *See id.*

322. The 2025 Protocol does not require that the Special Operations Team Leader have any form of healthcare experience whatsoever. *See id.*

323. As a result, the 2025 Protocol calls for the person to be executed to be killed by a pharmaceutical agent that has been prepared and administered by a layperson, giving rise to an increased risk of errors resulting in severe suffering.

324. In addition to the risks associated with the preparation and administration of the syringes, an improperly set IV line can cause less than the intended dosage of pentobarbital to enter the executed person's bloodstream, increasing the likelihood that he will remain conscious and sensate as he experiences the poisonous effects of the drug, including pulmonary edema.

325. An IV line that is not fully and squarely inserted into the vein at a proper angle, without piercing through to the other side of the vein, is likely to leak some of the drug into the surrounding tissue.

326. If pentobarbital leaks into the surrounding tissue, that leakage is likely to cause excruciating pain.

327. If pentobarbital leaks into the surrounding tissue, the leaked portion will not contribute to the immediate sedation of the individual, causing the equivalent of an underdose.

328. An IV line that is set in a manner that does too much damage to the targeted vein can cause the vein to rupture, leading to some of the drug escaping from the circulatory system.

329. Medications that are administered via syringe too forcefully might cause the vein to rupture, leading to some of the drug escaping from the circulatory system.

330. The rupturing of the vein and the consequent dumping of pentobarbital into the surrounding tissue is likely to cause excruciating pain.

331. If the vein ruptures and pentobarbital escapes from the circulatory system, the escaped portion will not contribute to the immediate sedation of the individual, causing the equivalent of an underdose.

332. An IV line that is not sufficiently firmly affixed can come loose during the administration of the drug, leading to an underdose. This is especially likely if the IV solutions are pushed too forcefully—as is possible if the LIC is being manually administered by the Special Operations Team leader.

333. If the IV line comes loose before the full dose is administered, a lower dose of pentobarbital will enter the bloodstream.

334. An individual who is executed pursuant to the 2025 Protocol but receives a lower-than-intended dosage of pentobarbital, is more likely to remain conscious and sensate as he experiences the physical effects of the drug, including, in most cases, pulmonary edema.

335. The 2025 Protocol calls for an IV line to be set by a TDOC-selected "IV Team," defined as follows:

> IV Team: consists of at least two members who are either physicians, physician assistants, nurses, emergency medical technicians ("EMTs"), paramedics, military corpsman with relevant medical training, or other certified or licensed personnel including those trained in the United States Military. All team members are currently certified, licensed and/or qualified within the United States to place IV lines. IV Team members are selected by the Commissioner.

2025 Protocol at 11.

336. The 2025 Protocol does not require that members of the IV team have any kind of professional licensure, as long as they are "certified" or "qualified."

337. The 2025 Protocol does not identify any particular entity from which a certification must be obtained.

338. The 2025 Protocol does not define "qualified."

339. The State of Tennessee has recently asserted authority, by its executive branch, to declare a person "qualified" for a position based on a unilateral assessment of the person's general fitness—in direct contravention of the usual requirements for that type of "qualification". *See* Tenn. Att'y Gen. Op. No. 24-007 (Apr. 23, 2024) (asserting that the statutory requirement that the Commissioner of Education be

"qualified to teach in the school of the highest standing over which the commissioner has authority," Tenn. Code Ann. § 4-3-802(b)–(c), is merely a "general standard to be administered principally by the Governor through the appointment and removal process" and permits the Governor to select a Commissioner who is not, as a matter of law, qualified to teach in any Tennessee public school).

340. That understanding of the term "qualified," as applied to the IV Team, would result in the equivalent absolute, unreviewable discretion by TDOC to select team members, untethered to any actual, formal licensing or training regime.

341. Not all physician assistants are capable of effectively setting an IV line.

342. Not all physicians are capable of effectively setting an IV line.

343. Not all military corpsmen with medical training are capable of effectively setting an IV line.

344. Not all nurses are capable of effectively setting an IV line.

345. The 2025 Protocol does not bar the participation of individuals with a history of reported medical errors.

346. The 2025 Protocol does not bar the participation of individuals with a history of malpractice claims.

347. The 2025 Protocol does not prescribe a particular training regimen for members of the IV team.

348. The 2025 Protocol does not set a minimum number of times in which a member of the IV Team must have previously set an IV line in a professional setting.

349. The 2025 Protocol does not require that a member of the IV Team ever have set an IV line in a professional setting.

350. The 2025 Protocol calls for "Monthly Practice Sessions," but it specifically provides that "[n]o IV is inserted into the person playing the role of the inmate" during those sessions, meaning that the individuals on the IV Team do not receive monthly practice in actually setting an IV line in a human being. 2025 Protocol at 12.

351. The Second 2018 Protocol also called for monthly practice sessions, but did not exempt the setting of the IV from those sessions. *See* Second 2018 Protocol at 32. The 2025 Protocol, accordingly, reflects an affirmative change to require less practice in setting an IV.

352. The Second 2018 Protocol also included lengthy instructions for assessing both the adequacy of the IV line and whether drugs were being administered properly. For example, it specifically required the individual pushing the drugs through a syringe to pull back if he experienced pressure. *See* Second 2018 Protocol at 46. This instruction is important because continuing to push medication despite experiencing pressure could cause the prisoner's vein to rupture or the IV line to become dislodged.

353. The 2025 Protocol, however, has removed essentially all of those detailed instructions.

354. The difficulty of properly setting IVs has led to errors and complications in numerous American executions.

Foster did not die until several minutes after a prison worker finally loosened the straps. *See id.*

361. When the State of Florida executed Angel Diaz, Mr. Diaz continued to move after the first dose of poison was administered and was squinting and grimacing as he apparently tried to mouth words. A second dose was then administered, and 34 minutes passed before Mr. Diaz was declared dead. At first, a spokesperson for the Florida Department of Corrections claimed that this was because Mr. Diaz had some sort of liver disease. In other words, the State of Florida claimed—perhaps plausibly—that the execution went badly awry because of a medical condition for which the executioners had failed to account. *See id.*

362. Mr. Diaz's autopsy, however, showed that his liver was undamaged. What had happened, rather, was that the IV catheters, which had been inserted in both arms, had gone fully through Mr. Diaz's veins and out the other side, so the deadly chemicals were injected into soft tissue. Two days after the execution, Governor Jeb Bush temporarily suspended all executions in the state and appointed a commission "to consider the humanity and constitutionality of lethal injections." *See id.*

363. Later-published photographs of Mr. Diaz's execution revealed large chemical burns, including a blister-covered area 12 inches by 5 inches in size, in which his skin appeared to be coming loose from his body. Terry Aguayo, Ben Crair, *Photos from a Botched Lethal Injection*, The New Republic, May 29, 2014, available in incomplete form at http://www.newrepublic.com/article/117898/lethal-injection-

photos-angel-diazs-botched-execution-florida (Ex. 32) (photos no longer available in archived article but available upon request).

364. When the State of Oklahoma executed Clayton D. Lockett, the State's governor was informed, an hour before the execution began, that the executioner was having problems finding a usable vein, but the governor did not intervene. After an hour, a vein was finally found in Mr. Lockett's "groin area," and the execution went forward. Ten minutes after the administration of the first drug, a sedative, the physician supervising the process announced that the inmate was unconscious, and therefore ready to receive the other two drugs that would actually kill him and which, if administered to a conscious and sensate person, would likely cause extreme suffering. However, Mr. Lockett was not unconscious. Three minutes after the latter two drugs were injected, "he began breathing heavily, writhing on the gurney, clenching his teeth and straining to lift his head off the pillow." Officials then lowered the blinds to prohibit witnesses from seeing what was going on, and 15 minutes later the witnesses were ordered to leave the room. Mr. Lockett died 43 minutes after the execution began, of a heart attack, while still in the execution chamber. *See* Bailey Elise McBride & Sean Murphy, *Oklahoma Inmate Dies after Execution is Botched*, Associated Press, Apr. 29, 2014, available at https://apnews.com/article/executions-oklahoma-00a761ac0ea241a4b89f386bfa841d38 (Ex. 33); Eric Eckholm, *One Execution Botched, Oklahoma Delays the Next*, N.Y. Times, Apr. 29, 2014 (Ex. 34); Cary Aspinwall & Ziva Branstetter, *Secrets Still Shroud Clayton Lockett's Execution*, Tulsa World, May 11, 2014 (Ex. 35).

365. The 2025 Protocol acknowledges that the work of the IV Team must be assessed for sufficiency before the execution can proceed and requires that an individual check to "ensure[] that the catheters are properly secured, properly connected to the IV lines, and out of reach of the inmate's hands." 2025 Protocol at 20.

366. The individual charged with performing that assessment, however, is the Special Operations Team Leader—an individual who is not required to have any medical qualifications whatsoever. *See id.* at 20.

367. The lax, vague requirements for the IV Team, the improper reliance on the Special Operations Team Leader, and the lack of adequate mandatory training create a significant, unnecessary, and avoidable risk that errors will occur in an execution performed pursuant to that protocol. As a result, pentobarbital that is administered pursuant to the 2025 Protocol presents a higher risk of a tortuous death than pentobarbital administered by a competent, appropriately trained and licensed team of capable professionals.

368. That risk is intolerable.

L. TDOC has come to suffer from a culture of noncompliance and disregard for professional standards that is incompatible with execution by intravenous pentobarbital poisoning.

369. Every failed Tennessee lethal injection protocol is tied together by a single thread: TDOC, in its form as an actually existing entity with an established culture and workforce.

implementing decisions in the face of events that were not contemplated by the protocol.

377. For example, the 2025 Protocol calls for an IV catheter to be inserted by the IV Team. The effectiveness of that step is inherently inseparable from the ability of the IV Team to carry it out. The Protocol requires competent, good faith execution.

378. The importance of interstitial decision making, in turn, is demonstrated by the numerous errors made in handling the relationship between TDOC and its pharmacy under the Second 2018 Protocol. The Second 2018 Protocol gave TDOC no guidance regarding how to communicate with or assess the performance of its supplier, which led to both breakdowns of communication regarding testing and a decision to stay with a questionable pharmacy after numerous red flags had arisen.

379. Implementation of the 2025 Protocol will undoubtedly present its own set of unforeseen situations and factors that the Protocol's written instructions do not address.

380. The 2025 Protocol, on its face, entrusts its execution and implementation to TDOC. Accordingly, the adequacy of the 2025 Protocol depends, in no small part, on the ability of the actually existing TDOC to carry it out.

381. TDOC has developed an internal culture of noncompliance with the law.

382. TDOC has developed an internal culture of noncompliance with its own policies.

383. TDOC has developed an internal culture of opacity and, in some instances, outright dishonesty regarding its failures of compliance.

384. TDOC's ineffective leadership and broken internal culture create an intolerable risk that errors or wrongdoing in the procurement, transportation, handling, storage, and/or administration of pentobarbital will result in a tortuous death by Plaintiffs.

1. TDOC's procurement processes have been plagued by legal noncompliance, shortcuts, and corruption.

385. TDOC has a well-established history of untrained, sloppy, and/or legally noncompliant behavior in its procurement decisions and oversight of vendors.

386. TDOC's failure to impose sufficient oversight or accountability on the compounding pharmacy it used in connection with the Second 2018 Protocol is one example of those problems.

387. However, TDOC's procurement-related failures were not limited to the Drug Procurer or to the purchase of drugs for executions.

388. From 2012 through 2020—that is, for most of the years leading up to the current protocol—TDOC's finances were overseen by Deputy Commissioner and Chief Financial Officer Wesley Olan Landers.

389. Deputy Commissioner Landers was responsible for, among other things, ensuring that the State paid for the services necessary for its prisons to be humane places in which prisoners could be constitutionally housed.

390. According to the U.S. Department of Justice, Deputy Commissioner Landers used his personal email account to leak confidential information to the ultimately successful corporate bidder for a $123 million TDOC behavioral health contract, after which he left for an executive position created for him at that very

684. Execution by pentobarbital poses a high risk that the executed person will experience severe pain and suffering due to pulmonary edema and/or the drug escaping the circulatory system.

685. Insofar as the risk of a tortuous death is not already a near certainty based on the issues related to pentobarbital itself, that risk is substantially increased if the pentobarbital was obtained from an unreliable source.

686. Insofar as the risk of a tortuous death is not already a near certainty based on the issues related to pentobarbital itself, that risk is substantially increased if the pentobarbital was stored, transported, and/or handled incorrectly.

687. Insofar as the risk of a tortuous death is not already a near certainty based on the issues related to pentobarbital itself, that risk is substantially increased if the individuals involved in setting the IV line, preparing the syringes, or administering the chemicals are not sufficiently trained.

688. Insofar as the risk of a tortuous death is not already a near certainty based on the issues related to pentobarbital itself, that risk is substantially increased if the individuals involved in the execution process do not have a consistent, universally shared commitment to complying with all applicable laws and policies.

689. TDOC has developed a culture of noncompliance, recklessness, and secrecy that is particularly pronounced with regard to (1) issues of procurement and (2) issues related to executions.

690. That culture of noncompliance, recklessness, and secrecy has resulted in an intolerable risk that an individual executed by TDOC with pentobarbital will experience severe pain and suffering.

691. Insofar as the Court concludes that execution by pentobarbital is not *per se* unconstitutional, a readily available, feasible alternative method of execution for the purposes of this theory of liability would be execution by pentobarbital, but only as performed by TDOC *after* having taken adequate remedial steps to ensure competence, compliance with the law, and adherence to appropriate procedures.

692. Insofar as the Court concludes that execution by pentobarbital is *per se* unconstitutional, execution by firearm would be a feasible, readily available alternative.

693. Because execution by the currently existing version of TDOC with pentobarbital poses an intolerable risk of severe pain and suffering that could be avoided by adopting a feasible and constitutionally permissible method of execution, the 2025 Protocol is inconsistent with the prohibition on cruel and unusual punishment under the Eighth Amendment and the Tennessee Constitution.

694. Each Plaintiff therefore has a right to declaratory judgment.

CLAIM 1.3

Execution by injected poison violates traditional standards of decency under the Eighth Amendment and Article I, §§ 16 and 32 of the Tennessee Constitution.
(on behalf of all Plaintiffs)

695. At the time of the adoption of the Eighth Amendment, lawful American executions were performed either by hanging or by firearm.