UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION

EDWARD JEROME HARBISON,	)	
	)	
Plaintiff,	)	**Case No. 3:06-01206**
	)	**Judge Trauger**
v.	)	
	)	
GEORGE LITTLE, in his official capacity as Tennessee's Commissioner of Correction, et al.	)	
	)	
Defendant.	)	

MEMORANDUM

This bench trial was on claims brought by the plaintiff under 42 U.S.C. § 1983, alleging that the defendants' newly adopted lethal injection protocol violates his Eighth Amendment right to be free from cruel and unusual punishments. In accordance with Rule 52 of the Federal Rules of Civil Procedure, the court enters judgment for the plaintiff and sets forth herein its findings of fact and conclusions of law.

Procedural Background

The plaintiff, Edward Jerome Harbison, was convicted of first degree murder for beating Edith Russell to death during the commission of a burglary in 1983. Mr. Harbison was sentenced to death, and his conviction and sentence have withstood direct appeal, *see State v. Harbison*, 704 S.W.2d 314, 320 (Tenn. 1986), *cert. denied*, 476 U.S. 1153 (1986), a petition for post-conviction relief, *see Harbison v. State*, No. 03C01-9204-CR-00125, 1996 WL 266114 (Tenn. Crim. App. May 20, 1996), and a *habeas corpus* proceeding, *see Harbison v. Bell*, 408 F.3d 823 (6th Cir. 2005), *cert. denied*, 547 U.S. 1101 (2006), *reh'g denied*, 126 S.Ct. 2886 (2006). On June 15, 2007, Mr. Harbison filed an Amended Complaint challenging his

impending execution under the new Tennessee lethal injection protocol as violative of his Eighth and Fourteenth Amendment rights. (Docket No. 63) An evidentiary hearing was held from September 4 through September 7, 2007, to determine the merits of Mr. Harbison's claims.[1] All prospective participants in Harbison's execution testified, as well as most members of the committee appointed by Corrections Commissioner Little pursuant to Governor Bredesen's Executive Order directing the review and adoption of new execution protocols. In addition, numerous expert witnesses testified for both sides, as well as Dr. Michael Higgins, Chief of Anesthesiology at Vanderbilt University Medical Center, appointed by the court as an impartial expert under Rule 706, FEDERAL RULES OF EVIDENCE.

Mr. Harbison's execution is scheduled to take place on September 26, 2007. As in all situations involving capital punishment, the condemned has committed a heinous crime. The Tennessee Legislature and many other state legislatures have passed laws requiring that, when crimes are determined to be sufficiently horrific, the ultimate penalty–death–will be the punishment. A federal court may only interfere with that process when the process runs afoul of the United States Constitution. The present case does not present the issue of whether lethal injection, in any form, violates the United States Constitution. Rather, the narrow issue before the court is whether the specific lethal injection protocol adopted by the Tennessee Department of Corrections on April 30, 2007, which will be used in the execution of Edward Harbison on September 26, violates the Eighth Amendment's prohibition against cruel and

[1]All hearing testimony references are to the official transcript page number ("TR __"). The transcript was filed as Docket Nos. 138, 139, 142 and 143, with continuous paging from volume to volume.

unusual punishments. Simply stated, this court must decide whether the new protocol involves the unnecessary and wanton infliction of pain.

The Protocol Committee

On February 1, 2007, Tennessee's Governor, Phillip N. Bredesen, signed Executive Order Number 43, which revoked the current protocols for executions by lethal injection and by electrocution and granted reprieves to four death-sentenced inmates, including the plaintiff herein, so that Tennessee's Commissioner of Corrections could complete the following activities no later than May 2, 2007:

> . . .initiate immediately a comprehensive review of the manner in which death sentences are administered in Tennessee. . . . In completing this review, the Commissioner is directed to utilize all relevant and appropriate resources, including but not limited to scientific and medical experts, legal experts, and Correction professionals, both from within and outside of Tennessee. As a component of this review, the Commissioner is further directed to research and perform an analysis of best practices used by other states in administering the death penalty. . . .[T]he Commissioner of Corrections is directed to establish and provide to me new protocols and related written procedures for administering death sentences in Tennessee both by lethal injection and electrocution. In addition, the Commissioner is directed to provide me with a report outlining the results of the review. . . .

(Plaintiff's Exhibit 1) Pursuant to this Executive Order, Commissioner of Corrections George Little appointed his executive assistant, Julian Davis, to head a Protocol Committee (TR 402), the members of which would be Deputy Commissioner Gayle Ray, Assistant Commissioner of Corrections Roland Colson, Ricky Bell, Warden of Riverbend Maximum Security Institution ("Riverbend") (where death row is housed and where executions are administered), and General Counsel for the Department of Corrections, Debbie Inglis. (TR 402) Commissioner Little instructed Davis that the committee was to follow the Governor's Executive Order (TR 403); he

gave the committee no other instruction. (TR 166)

The committee reviewed materials concerning problems with the three-drug protocol being used in Tennessee, including a recent article where the medical examiner who devised the three-drug protocol in 1977 stated, "It never occurred to me when we set this up that we'd have complete idiots administering the drugs."[2] (Plaintiff's Ex. 15 at 3-4) (TR 404-406) Another article, furnished to the committee by Counsel Inglis (Plaintiff's Ex. 16) discusses, among other things, the risk under the three-drug protocol if the inmate is not totally unconscious when the second drug is administered:

> . . .when potassium chloride is used as an additional third chemical, pancuronium bromide serves no real purpose other than to keep the inmate still while potassium chloride kills. Therefore, pancuronium bromide creates the serene appearance that witnesses often describe of a lethal injection execution, because the inmate is totally paralyzed. The calm scene that this paralysis ensures, despite the fact that the inmate may be conscious and suffering, is only one of the many controversial aspects of this drug combination.

(Plaintiff's Ex. 16, at 13-14) (TR 408) The committee also reviewed Oregon's Death With Dignity Act, which provides for euthanasia by a single dose of oral barbituate. (Plaintiff's Ex. 17)

Mr. Davis testified that, during its meeting of March 16, 2007, the committee consulted with an anesthesiologist named Dr. Derek Payne. (TR 413) The minutes of that meeting (Plaintiff's Ex. 20) reflect that Dr. Payne informed the committee that the second drug "prevents the ability to tell if a person is waking up" and that, if the dose of the first drug is not sufficient,

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[2]The court does not join in this overblown, defensive rhetoric expressed by the promulgator of the three-drug protocol. The court's impression of all of the participants who carry out lethal injection executions in Tennessee is that they are performing their assigned tasks in a somewhat stressful environment in good faith, to the best of their ability, given the limited training they have received and the experience they possess.

"a person could wake and not be able to breathe." (Plaintiff's Ex. at 2) Further, Dr. Payne advised the committee, with regard to mixing the sodium thiopental (the first drug),"You need someone who knows how to show them how to mix–a pharmacist, a nurse, or an anaesthesiologist." (*Id.* at 3) He also recommended a physical examination before the execution, which would give "the person who will insert the IV an opportunity to determine which veins are good before the execution." (*Id.* at 4)

Mr. Davis further testified that, at its meeting on April 9, 2007, the committee conferred with another anaesthesiologist, Dr. Mark Dershwitz, by telephone. (TR 419) The committee discussed with Dr. Dershwitz a one-drug protocol, using only sodium thiopental (TR 428), and the next day Mr. Davis sent an e-mail to Dr. Payne asking his opinion of this one-drug protocol (TR 428). (Plaintiff's Ex. 21) Mr. Davis testified that the minutes of the April 12, 2007 committee meeting (Plaintiff's Ex. 4) accurately reflect that Deputy Commissioner Ray stated that, "Dr. Dershwitz suggests the one-drug protocol"and that, at this meeting, the committee was consulting with the physician who functions as Physician A under Tennessee's protocol (the one who pronounces death). (Docket Nos. 428-29) That physician concurred in the use of one drug, sodium thiopental, with a wait of five minutes between each dose of the drug. (TR 429) Mr. Davis stated that the minutes of this meeting accurately reflect that Dr. Dershwitz "recommended that the committee adopt a one-drug protocol which provided for the administration of 5 grams of sodium thiopental, . . . and a waiting period of five minutes before the physician came in and confirmed death." Then, "if the inmate were still alive, a second 5 gram dose of sodium thiopental could be administered." (Docket Nos. 430-31)

Following this meeting, Mr. Davis drafted, from the committee's discussions, a document

that summarized the "pros" and "cons" of a one-drug protocol, a two-drug protocol and a three-drug protocol. (TR 449) The one-drug protocol calls for a 5 gram dose of sodium thiopental to be followed by a second such dose of the same drug, "if needed." The advantages and disadvantages of that protocol were listed as follows:

Pros
- Easier to defend by AG Office
- Simplicity
- Peaceful to witnesses
- Similar to animal euthanasia
- All physicians have agreed
- Less chance of error
- Eliminates Pavulon & Potassium Chloride
- No other state does it
- Changes procedures
- Drug procurement tracking
- No downside to vein issue if needed to switch sites

Cons
- No other state does it
- Changes procedures
- States that use an EKG/ECG might not want to do this because of potential longer time to pronounce death. No issue with stethoscope.

(Plaintiff's Ex. 7 at 1) The pros and cons of the three-drug protocol, using the same three drugs as the old protocol, separated by injections of saline, were as follows:

Pros
- We have the experience and know it works
- No change from the current protocol
- Peaceful to witnesses
- Other states do it
- Successfully defended in state court

Cons
- Most subject to legal challenge
- Most complicated
- Would likely need to add a method of ascertaining consciousness after Sodium Pentothal
- Courts have required additional checks in some states

- Most difficult to account for drugs
- Must refrigerate Pavulon

(*Id*. at 2)

Mr. Davis also testified about language in a document admitted as Plaintiff's Exhibit 26 that provided for the sodium thiopental to be inspected every 15 to 20 minutes "to ensure that the first syringe, Pentothal, does not become cloudy, form any particles and remains completely clear." (Plaintiff's Ex. 26 at 1) He testified that both doctors stated that this could happen to the sodium thiopental (TR 447) and that, if it became cloudy, "it could possibly clog up the line." (TR 448) He did not remember why this language was taken out of this document, thought it was important, but believes they "worded it a different way." (TR 448)

Gayle Ray, the Deputy Commissioner of Corrections, also a member of the Protocol Committee, confirmed much of Mr. Davis' testimony. She testified that one of the goals of the committee was to come up with a protocol that would assure that "the inmate does not wake up prior to the administration of the potassium chloride." (TR 519) She testified that Dr. Dershwitz told the committee that the one-drug protocol was the way animals are euthanized (TR 529), and Deputy Commissioner Ray was aware that the use of pancuronium was not permitted in Tennessee for animal euthanasia. (TR 530) Dr. Dershwitz also informed the committee that "there was no possibility that 5 grams of sodium pentothal would not cause death." (TR 532) He also told them that if one dose did not work, another dose of sodium thiopental could be given as "a very plausible back-up." (TR 533) She testified that Physician A preferred one dose of sodium thiopental, a wait of five minutes, and then a second dose of sodium thiopental and then check for death. (TR 541) She testified that Dr. Dershwitz "encouraged the committee to write a protocol that states if 5 grams are used, then wait five minutes, then check for circulation, heart

beat. If death does not occur, wait another five minutes and check again. If death does not occur, administer 5 more grams." (TR 544) She further testified that the last "con" listed on Mr. Davis' summary for the one-drug protocol did not really apply as a con because Tennessee uses the stethoscope to confirm death and that, therefore "the length of time isn't an issue with the one-drug protocol when a stethoscope is used to declare death." (TR 546-47)

Ms. Ray testified that she and some of the other committee members traveled to Virginia in March as part of their efforts to review "best practices of the other states." (TR 549) They learned that Virginia had revised its three-drug protocol in the following ways: (1) it eliminated the cut-down provision because it was not done anymore; (2) they quit using 5 grams of sodium thiopental because "it slows the ability of the other drugs"; (3) they instituted a medical examination five days before the execution and review the inmate's medical records before the execution; and (4) they assess the inmate's veins a few hours before the execution. (TR 550-51) None of these "best practices" instituted in Virginia under the three-drug protocol were included in Tennessee's revised three-drug protocol, Ray testified. (TR 553-54) Deputy Commissioner Ray further testified that it was the goal of the committee "to find the most humane and professional protocol" (TR 560) and that their recommendation to Commissioner Little was the one-drug protocol. (TR 559)[3] Ray testified that, although the elements that were used in the new three-drug protocol were discussed with the physicians, ". . . none of the physicians were

[3]Ray disagreed with the testimony of Julian Davis about the danger of sodium thiopental getting cloudy while sitting in the syringes for up to three hours. Whereas Mr. Davis had testified that two physicians had told them of this danger, Ms. Ray testified that this provision of inspecting the syringes every 15 to 20 minutes for cloudiness was removed from what originally had been practiced because either Dr. Payne or Dr. Dershwitz told them that this was unnecessary because "once pentothal is mixed appropriately, that is dissolved, suspended. Everything is good to go for several days." (TR 563)

ever presented with the new protocol [for review]." (TR 566)

Although Julian Davis had testified that Deborah Inglis, as General Counsel to the Department of Corrections, was an "adviser" to the committee, she testified that she was a "part" of the committee. (TR 570) She drafted several versions of the report that was to be delivered to Commissioner Little by the committee. (TR 576) The last draft prepared by her states the committee's thinking that the one-drug protocol "has the advantage of eliminating both of the drugs which if injected into a conscious person would cause pain. It is similar to the humane process used in animal euthanasia." (TR 577) This draft contains the further statement, with regard to the three-drug protocol, that, "Incorporating a method for monitoring anesthetic depth would address allegations that condemned inmates may be conscious and experience pain from the affects of pancuronium bromide and potassium chloride prior to death, but would not be practicable or feasible." (Plaintiff's Ex. 40 at 7) (TR 584) After some confusion, Ms. Inglis ultimately testified that the continuous monitoring of anesthetic depth through the use of equipment was what she meant by not being "practicable or feasible." (TR 582) She did confirm that a physician had told the committee practical ways for confirming whether or not the inmate was unconscious during the administering of the drugs (TR 581, 582) and that all of the medical experts had told the committee that it was important for the first drug to render the inmate unconscious before the administration of the second and third drugs. (TR 583) Ms. Inglis testified that "our ultimate recommendation was for the one-chemical protocol." (TR 595)

George Little, the Tennessee Commissioner of Corrections, testified to the appointment of the committee and that he gave them no instructions other than to carry out Executive Order 43. (TR 10-11) He made the "conscious decision not to involve [himself] with the committee's

direct deliberations,". . .but he was "updated periodically and kept in the loop as they made progress." (TR 29)

After the April 12 committee meeting, Commissioner Little met with the Protocol Committee's Chairman, Julian Davis, and Deputy Commissioner Gayle Ray and discussed the pros and cons as set out in the summary prepared by Mr. Davis (Plaintiff's Ex. 7). (TR 35-36) He was "intrigued" by the one-drug protocol and asked them to find out whether anyone else was using it and what was the "legal landscape" concerning it. (TR 36) The ultimate decision on which protocol would be adopted was his. (TR 39) Commissioner Little testified that he was aware that the pancuronium bromide, the second drug in the three-drug protocol, paralyzes and makes the inmate unable to breathe and that "if felt," the third drug, potassium chloride, would burn as it passed through the veins of the body. (TR 50-51)

Commissioner Little read the report of the Florida Governor's Commission on Administration of Lethal Injection, which was attached in the Appendix of the Final Report on Administration of Death Sentences in Tennessee issued by his department in April of 2007 (Plaintiff's Ex. 41). (TR 51) He was aware that that report recommended the development and implementation of procedures to ensure that the condemned inmate is unconscious after administration of the first drug, before initiating the second and third drugs in the three-drug protocol. (TR 51-52) He "felt that the direct observation by the warden and the execution team was sufficient to provide for that." (TR 52) He was aware that Dr. Dershwitz, an anaesthesiologist who made recommendations to the committee, had told them that the people who administer and monitor the administration of the drugs and the IV site "should be people who do this as part of their daily job and that they should be able to troubleshoot and that only

comes with experience," but conceded that no one who performs these tasks under the new protocol has this experience or these qualifications. (TR 52-54) He was aware that the Florida Commission recommended that, a week prior to the execution, the inmate be "individually assessed by appropriately trained and qualified persons to determine the most suitable method of venous access concerning the individual circumstances of the condemned inmate," but the new protocol makes no allowance for that assessment. (TR 57-58) He is aware that Dr. Dershwitz has said that the sodium thiopental is a "very pleasant way to go to sleep" and that, properly administered, it causes no pain (TR 64), but he rejected the one-drug protocol, in part, because "there might be more suffering" if it took the person longer to die. (TR 63)[4]

Commissioner Little at first denied that the Protocol Committee recommended to him the one-drug protocol (TR 17-18). He testified that he was "not aware" that any of the physicians consulted had recommended any one protocol over the other. (TR 32) He testified that he did not receive any information that indicated that the experts believed that one protocol would pose less of a risk of pain than another protocol, "if properly administered." (TR 39) He ultimately admitted that the committee recommended the one-drug protocol. (TR 43) In discussing this recommendation with Steve Elkins, the Governor's Legal Counsel, he told him that he did not want "Tennessee to be at the forefront of making the change from the three-drug protocol to the one drug protocol," that he thought adoption of the one-drug protocol could lead to "political ramifications" and that, if the three-drug protocol were held unconstitutional, Tennessee "could always fall back on the one-drug protocol." (TR 25-26)

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[4]No medical testimony supports the proposition that the one-drug protocol causes *any* suffering or that it prolongs the pronouncement of death.

Steve Elkins, the Governor's Legal Counsel, confirmed Commissioner Little's testimony about conversations with Elkins from his own notes. He added that Commissioner Little told him that he had asked the committee "to add a step to the protocol to explicitly go over and check the level of sedation after the first drug," but he is aware that that did not end up in the final protocol. (TR 89-90)

Julian Davis had kept Commissioner Little somewhat informed of the committee's proceedings but, when he presented to Commissioner Little the committee's recommendation of a one-drug protocol, Mr. Davis described the Commissioner's reaction as "a little surprised." (TR 452) The Commissioner stated that the one-drug protocol was "unproven," that more research needed to be done on it, and he rejected the committee's recommendation within a day or two. (TR 453) Davis testified that Commissioner Little had not been present for any of the input from the three physicians that the committee consulted and had not participated in any of the committee's discussions. (TR 454)

Legal Standard

The Eighth Amendment, which applies to the states through the Fourteenth Amendment, *Wilson v. Seiter*, 501 U.S. 294, 296-97 (1991), "forbids the infliction of unnecessary pain in the execution of the death sentence." *Louisiana ex rel. Francis. v. Resweber*, 329 U.S. 459, 463 (1947). This is a narrow range of protection. *See In re Kemmler*, 136 U.S. 436, 447 (1890) (holding that violation of the Eighth Amendment requires "something more than the mere extinguishment of life"); *Wilkerson v. Utah*, 99 U.S. 130, 134-35 (1875) (holding that death by firing squad did not violate the Eighth Amendment).

However, a narrow range of protection should not be mistaken for no protection, and if

the Eighth Amendment has not been interpreted to bar different methods of execution in the past (methods that most state legislatures have nevertheless discarded), that fact does not eliminate the narrow protection it presently offers to Mr. Harbison. *See Hudson v. McMillian*, 503 U.S. 1, 8 (1992) ("What is necessary to show sufficient harm for purposes of the Cruel and Unusual Punishments Clause depends upon the claim at issue . . . ."); *Whitley v. Albers*, 475 U.S. 312, 320 (1986) ("The general requirement that an Eighth Amendment claimant allege and prove the unnecessary and wanton infliction of pain should also be applied with due regard for differences in the kind of conduct against which an Eighth Amendment objection is lodged.")

The Supreme Court has established two independent bases for a plaintiff to challenge a method of execution under the Eighth Amendment. First, a plaintiff can establish that the punishment is "so disproportionate" as to offend the "evolving standards of decency that mark the progress of a maturing society." *Roper v. Simmons*, 543 U.S. 551, 561 (2005). Second, a plaintiff can obtain relief by establishing that the punishment involves the "unnecessary and wanton" infliction of pain. *Parrish v. Johnson*, 800 F.2d 600, 604 (6th Cir. 1986) (citing *Estelle v. Gamble*, 429 U.S. 97, 103 (1976)). The plaintiff relies on the second basis for relief. Accordingly, the court must determine whether the new protocol involves the "unnecessary and wanton" infliction of pain. *Id.*; *see also Nelson v. Campbell*, 541 U.S. 637, 645 (2004).

In *Talley-Bey v. Knebl*, 168 F.3d 884, 886 (6th Cir. 1999), the Sixth Circuit adopted the Supreme Court's test in *Estelle*, 429 U.S. at 103, for "unnecessary and wanton infliction of pain." Under that test, the plaintiff must demonstrate "both an objective and subjective component." *Talley-Bey*, 168 F.3d at 886. The objective component "requires that the pain be serious." *Id*. The subjective component requires that the conduct on the part of the prison

official be "wanton," which, in turn requires a showing of "deliberate indifference" to the prisoner's pain. *Id*.

I. Unnecessary Infliction of Pain

To satisfy the objective component, the pain associated with Tennessee's new protocol must be "serious." *Kemmler*, 136 U.S. at 447 ("Punishments are cruel when they involve torture or a lingering death. . . .") The prohibition against "serious" pain includes punishment methods that cause "a foreseeable risk of . . . gratuitous and unnecessary pain." *Hill v. McDonough*, --- U.S. ---, 126 S.Ct. 2096, 2102 (2006); *see also Cooper v. Rimmer*, 379 F.3d 1029, 1033 (9th Cir. 2004) (holding that the plaintiff had failed to meet his burden of "showing that he is subject to an unnecessary risk of unconstitutional pain and suffering"); *Taylor v. Crawford*, 487 F.3d 1072, 1080 (8th Cir. 2007) ("[W]e nevertheless see no logical reason to disregard a substantial *risk* that may exist in the procedure necessary to carry out a sentence of death.") (emphasis in original). However, the mere "risk of *negligence* in implementing a death-penalty procedure . . . does not establish a cognizable Eighth Amendment claim." *Workman v. Bredesen*, 486 F.3d 896, 907-08 (6th Cir. 2007) (emphasis added) (citing *Campbell v. Wood*, 18 F.3d 662, 687 (9th Cir. 1994) (en banc) ("[T]he risk of accident cannot and need not be eliminated from the execution process in order to survive constitutional review.")).

The Eighth Circuit has recently explained this distinction in the following way:

> We emphasize, as did the district court, that we are not concerned with a risk of accident. The focus of our inquiry is whether the written protocol inherently imposes a constitutionally significant risk of pain. . . . If Missouri's protocol as written involves no inherent substantial risk of the wanton infliction of pain, any risk that the procedure will not work as designated in the protocol is merely a risk of accident, which is insignificant in our constitutional analysis.

Taylor, 487 F.3d at 1080; *see also Gregg v. Georgia*, 428 U.S. 153, 178 (1976) ("The cruelty against which the Constitution protects a convicted man is cruelty inherent in the method of punishment, not the necessary suffering involved in any method employed to extinguish life humanely.") (internal citations omitted); *Campbell*, 18 F.3d at 687.

The objective component is satisfied when (1) the risk is great enough, and (2) the risk is inherent in the protocol itself, and not a mere extrapolation on the part of the plaintiff. This stands to reason. Whenever courts are faced with challenges to prospective events, they deal, by necessity, with probabilities. It is difficult enough for juries to quantify pain in fashioning remedies for injuries that have already occurred and for which substantial evidence has been gathered. It is impossible for a court to make an exact determination before an execution has even taken place. In addition to the great disparities in response to pain that exist among individuals, there are no first person accounts of the pain felt by the condemned upon execution. Perhaps for this reason, as the Court of Appeals for the Eighth Circuit pointed out in *Taylor*, the Supreme Court has long "recognized that 'conditions posing a substantial risk of serious harm' may rise to the level of an Eighth Amendment violation'" in conditions-of-confinement claims, which also deal with future harms. 487 F.3d at 1079 (quoting *Farmer v. Brennan*, 511 U.S. 825, 834 (1994)); *see also Spencer v. Bouchard*, 449 F.3d 721, 728-29 (6th Cir. 2006).

However, a condemned inmate cannot prevail on an Eighth Amendment challenge merely by alleging that his executioners *might* be negligent. *Campbell*, 18 F.3d at 687. Any method of execution can be carried out negligently and thereby cause pain. Unless a plaintiff can demonstrate that the method itself imposes the risk of pain, there is no possibility of relief in

litigating against that method. Accordingly, Mr. Harbison satisfies the objective component of his Eighth Amendment claim only if he shows that the new Tennessee protocol—and not the free-floating specter of negligence—"presents a substantial risk of inflicting unnecessary pain." *Taylor*, 487 F.3d at 1080.

A. Tennessee's New Lethal Injection Protocol

Tennessee's new protocol requires the administration of three drugs—sodium thiopental, pancuronium bromide, and potassium chloride—through an intravenous catheter, in a rapid-fire series of eleven large ("bolus") injections. (Defendant's Ex. 8 at 44; TR 958)

A single executioner injects all three drugs (along with invervening saline flushes), which are dispersed in eleven different syringes, into an IV line. (Defendant's Ex. 8 at 44) Each syringe contains 50 cc's of liquid, and the injections into the line must be performed slowly, with even pressure to prevent a number of possible complications. (*Id.*; TR 213, 644) This action is performed by the executioner in a tiny room ("the Executioner's Room), which is lit by a small lamp, a television monitor, and some light that is emitted through a heavily-tinted, one-way window from the execution chamber, where the inmate is strapped to a gurney. (Defendant's Ex. 8 at 9; TR 196, 312, 313, 314) A second executioner hands the first executioner each syringe in order, taking from him at the same time the previous syringe, which has been emptied into the IV line. (TR 199, 311) This second executioner is also charged with observing the injection site where the catheter is inserted in the inmate by watching the television monitor and by

periodically looking through the one-way glass. (TR 198-99) A third executioner stands in the tiny room, apparently observing the other two. (TR 198)

Before the injection process begins, catheters are inserted in both of the inmate's arms by two paramedic technicians.[5] (Defendant's Ex. 8 at 41; TR 348, 374) A third "IV team member," who is neither a paramedic nor an emergency medical technician (TR 303, 315), assembles the IV lines, which run from the catheters inserted into the inmate into the separate Executioner's Room. (TR 161) Once the lines have been established, the paramedics leave the execution chamber and remain in an area where they cannot see the inmate. (TR 358) The only person with the inmate in the execution chamber at the time the drugs are administered is the warden of Riverbend Maximum Security Institution ("Riverbend"), Ricky Bell. (TR 53, 119)

The executioner first injects five grams of sodium thiopental, which the protocol states should be dispersed into four syringes at a concentration of 2.5 percent, with 1.25 grams of the drug in each syringe. (Defendant's Ex. 8 at 44) Sodium thiopental is a rapid-acting barbiturate commonly used in anaesthesia. (*Id.* at 35) The drug suppresses the central nervous system and slows circulation. (*Id.*) In medicine, sodium thiopental is most often administered in smaller amounts to induce unconsciousness rapidly, while other measures are then used to deepen the level of unconsciousness. (TR 668) Under Tennessee's new protocol, the primary purpose of the sodium thiopental dosage is to render the inmate unconscious before he is injected with the second two drugs. (TR 583)

Following a saline flush, the executioner injects 100 mg of pancuronium bromide into the IV lines. (Defendant's Ex. 8 at 44) Pancuronium bromide is a muscle paralytic. (*Id.* at 35) The drug completely paralyzes the diaphragm such that the inmate cannot breathe. (TR 50) By

[5]The second line is a back-up, in case the first fails for some reason.

itself, 100 mg of pancuronium bromide would be sufficient to kill a person by suffocation. (TR 953) Its stated purpose in the protocol is to "assist in the suppression of breathing and ensure death." (Def. Ex. 8 at 35) An additional purpose extensively discussed at the hearing is that pancuronium bromide eliminates the involuntary muscle movements that could be caused by the operation of the third drug, potassium chloride, in the inmate's body. (TR 760-61) Due to the risk that pancuronium bromide could cause an animal to suffocate to death while paralyzed but fully awake, the use of the drug on animals for purposes of euthanasia is prohibited in Tennessee by the Nonlivestock Humane Death Act. Tenn. Code Ann. § 44-17-301, *et seq*.

Following a second saline flush, the executioner injects the third and final drug, potassium chloride, in the amount of 200 mEq. (Defendant's Ex. 8 at 44) The purpose of this drug is to cause cardiac arrest. (*Id.*) This is achieved by altering the ph consistency of the inmate's myocardial cells, rendering them incapable of carrying the electric charge that causes the heart to beat. (TR 69-71) One of the plaintiff's expert witnesses testified that 200 mEq might not be sufficient to cause the desired effect, considering that (1) dosages of potassium chloride are most often injected directly into the heart during bypass surgery, and (2) decreased circulation caused by the first drug would reduce the effectiveness of intravenous administration. However, the other expert witnesses who were posed this question testified that 200 mEq should be sufficient to stop the heart. (TR 248-49, 786) All of the expert witnesses agreed that, if conscious, the inmate would suffer a burning pain throughout his body when the potassium chloride is injected, followed by a cardiac arrest. (*See* TR 249)

After all of the syringes have been injected into the IV line, the executioner injects a final saline flush. (Defendant's Ex. 8 at 44) Then the executioner closes the IV line, opens the drip

chamber, and signals to Warden Bell that all eleven syringes have been emptied into the lines. (*Id.*) Physician A, who has been waiting in a garage, emerges to declare the inmate dead by the use of a stethoscope. (TR 472, 478)

B. The Risk of Pain if the Plaintiff is not Properly Anaesthetized

It is undisputed that, without proper anaesthesia, the administration of pancuronium bromide and potassium chloride, either separately or in combination, would result in a terrifying, excruciating death. The basic mechanics are that the inmate would first be paralyzed and suffocated (because the paralysis would make him unable to draw breath), then feel a burning pain throughout his body, and then suffer a heart attack while remaining unable to breathe. Dr. David A. Lubarsky, an expert for the plaintiff, testified that an insufficiently anaesthetized inmate would suffer unnecessary pain and suffering under the new protocol. Dr. Lubarsky stated that, apart from the effects of the pancuronium bromide, being injected with potassium chloride "is a grotesquely painful experience." Dr. Michael S. Higgins, an impartial expert appointed by the court, testified that administering pancuronium bromide to an individual with consciousness "would be nothing short of terror, as I think most of us can easily imagine with suffocation" and also that "[t]he administration of potassium [chloride] in that large a dose, large concentration through a peripheral IV would be painful." (TR 718) Dr. Bruce Levy, the Medical Examiner for the State of Tennessee and a defense witness, testified that, without sufficient anaesthesia, pancuronium bromide would cause pain because "a conscious person who is paralyzed would be unable to breathe. And suffocating to death would be a most violent form of death." (TR 718) No witness contradicted this testimony.

How great or small a risk of a "grotesquely painful experience" Mr. Harbison faces is

determined by how likely it is that he actually will be under-dosed with anaesthesia and, therefore, conscious at the time the second and third drugs are administered. If the new protocol adequately ensured that Mr. Harbison would become and would stay unconscious from the first drug, then he would suffer no pain during his execution. However, the evidence presented at the hearing establishes that the new protocol does not employ measures to ensure that Mr. Harbison will be unconscious when the second and third drugs are administered, although these measures could very easily have been incorporated into the new protocol and are employed in most of the other jurisdictions that use the three drug protocol to execute the condemned.

C. The Risk Inherent in the Protocol that the Sodium Thiopental will not be Properly Administered

The new protocol poses a substantial risk that Mr. Harbison will not be unconscious when the second and third drugs are administered. Under the new protocol, due to lack of training and other issues described below, there is a significant risk that he will not receive the intended five grams of sodium thiopental before the injection of pancuronium bromide. Further, and perhaps most importantly, because there is no check for consciousness, such a mistake may never be discovered.

1. The Failure to Check for Consciousness

Perhaps the most glaring omission in the new protocol is the failure to check for consciousness before the pancuronium bromide is administered. The testimony of expert witnesses at the hearing established that the failure to check for consciousness greatly increased the risk of pain because the pancuronium bromide would make it impossible for Warden Bell to determine if Mr. Harbison is suffering. Further, although other jurisdictions employ such measures, and Tennessee officials were aware of this, the new protocol does not contain

procedures to check for consciousness.

Dr. Higgins testified that the failure to include a check for consciousness posed a substantial risk of serious or unnecessary harm to the inmate "because the next drug to be administered is a rapidly acting paralytic agent." (TR 953) Dr. Lubarsky testified that checking for consciousness was "probably . . . the most critical step." (TR 658) It is for these reasons that other states who recently have reexamined their three-drug lethal injection protocols have adopted specific measures for checking consciousness. For instance, the Florida Department of Corrections, which adopted new lethal injection procedures effective for executions after May 9, 2007,[6] included the following procedure to immediately follow the sodium thiopental injections:

> At this point, a member of the execution team will assess whether the inmate is unconscious. The warden must determine, after consultation, that the inmate is indeed unconscious. Until the inmate is unconscious and the Warden has ordered the executioners to continue, the executioners shall not proceed to step (5).

(Docket No. 63, Ex. 26 at 8) This provision appears to have been inspired by the Florida Commission on Administration of Lethal Injection's Final Report,[7] which recommended that Florida "[d]evelop and implement procedures to ensure that the condemned inmate is unconscious after the administration of the first lethal chemical, sodium thiopental, before initiating administration of the second and third lethal chemicals. Under no circumstances should the execution continue with the second and third lethal chemical without the Warden's authorization." (Docket No. 63, Ex. 18 at 12) Commissioner Little testified that he personally

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[6]The new Florida procedures appear in the record at Docket No. 63, Ex. 26.

[7]The Florida Report is listed in the Appendix to the final Tennessee Report (Plaintiff's Ex. 41), but the actual report is not attached to that exhibit. It appears in the record at Docket No. 63, Ex. 18)

read the Florida Report, which was included in the Appendix to Tennessee's own Report on Administration of Death Sentences in Tennessee.

In California's Lethal Injection Protocol and Review, which was issued on May 15, 2007, the California Department of Corrections' Review Team pointed out that earlier versions of its protocol "made no provisions for any objective assessment of consciousness of the condemned inmate following administration of the sodium thiopental, and prior to the administration of the other chemicals." *State of California Lethal Injection Protocol Review*, p. 20.[8] The California committee noted that "[t]here are reliable, but relatively uncomplicated methods for effectively assessing consciousness that have been incorporated into the [California] Lethal Injection Protocol. Among them are talking to and gently shaking the inmate, as well as lightly brushing the eyelash." *Id*. For that reason, "[c]hanges were made to the [California] protocol to place staff in close proximity to the condemned inmate throughout the execution to assess and confirm the condemned inmate is unconscious prior to and during the administration of the pancuronium bromide and the potassium chloride." *Id*.

In addition, drafts of the Tennessee committee's Report—drafts which ultimately recommended the one-drug protocol—stated that, although it had chosen to reject the three-drug protocol, "certain safeguards" could be incorporated to reduce the three-drug protocol's "slightly greater risk of error." (Plaintiff's Ex. 36 at 7) Those safeguards included "[i]ncorporating a method for monitoring anesthetic depth," which would "address allegations that condemned inmates may be conscious and experience pain from the effects of pancuronium bromide and

[8]The California Report is publicly available at: http://www.cdcr.ca.gov/Communications/docs/ReportToCourt.pdf

potassium chloride prior to death." *Id*. The drafts concluded (in apparent disagreement with the Florida and California reports) that those safeguards "would not be practicable or feasible." *Id*.

Indeed, the Tennessee Protocol Committee appears to have been well aware of the necessity for checking consciousness under the three-drug protocol option. In a document prepared by the chair of the committee, Julian Davis, that listed the "pros" and "cons" of the various options considered by the committee, the following phrase appears as a "con" under the three-drug protocol: "Would likely need to add a method of ascertaining consciousness after Sodium Pentothal." (Plaintiff Ex. 7) The same phrase appears in the minutes of the April 12, 2007 meeting, along with the phrase "courts have required additional checks in some states." (Plaintiff's Exhibit 30).

The April 19, 2007, minutes state that "Deputy Commissioner Ray also mentioned having something that would assure the unconsciousness of an inmate (during the execution procedure)." (Plaintiff's Ex. 29). In addition, those minutes reflect a conversation between Warden Bell and Physician A in which Warden Bell "inquire[d] about what would indicate that an inmate is unconscious after the first drug and a saline flush are given (three-drug protocol) so that he can give the signal to go ahead with the other drugs." *Id*. The physician suggested looking at the inmate's eyes but also "stated that constricted pupils are not a definitive sign of unconsciousness." *Id*. Therefore, he also advised "checking for an eyelash response by brushing a finger across them . . . lifting up the person's arm . . . [and] a pin prick or pinching the nipples."[9] *Id*.

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[9]In addition, Gayle Ray's notes labeled "4-12" (relating to a meeting that occurred on April 12, 2007) includes the sentence "What, if any, safeguards to ensure person is appropriately anesthetized" with an arrow pointing towards "Any monitoring by machine? medical

However, when Commissioner Little chose to reject the Protocol Committee's recommendation of a one-drug protocol and to order the committee to draft a new three-drug protocol instead, he did not add a safeguard for checking consciousness. Instead, Commissioner Little testified that, although the new protocol contained no specific provision for ascertaining the inmate's consciousness before the administration of the second two drugs, continuous visual observation by Warden Bell "was sufficient." Commissioner Little also noted that the executioners would be able to watch the inmate through the one-way glass.

Steve Elkins, legal counsel for Governor Bredesen, testified that he discussed including a provision for checking consciousness in the new protocol with Commissioner Little but that "there was a concern about the types of things they had suggested. . .--like plucking an eyebrow comes to mind. Things that didn't seem to add a lot of medical specificity to the process."[10] (TR 91) Debbie Inglis, General Counsel for the Tennessee Department of Corrections, testified that, although a physician had provided the committee methods through which a layperson could monitor consciousness—"do a pinprick or move something on the inmate's foot, pinch them"—they had been rejected because "we didn't think that that would be appropriate." (TR 581-82)

As Dr. Higgins and Dr. Lubarsky testified, in light of the potential pitfalls in administering sodium thiopental discussed below, the failure to check for consciousness greatly enhances the risk that the inmate will suffer unnecessary pain.

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personnel?" (Plaintiff's Ex. 31 at 30)

[10]In addition, Mr. Elkins verified that he had taken notes concerning a telephone conversation with Commissioner Little on April 20, 2007, in which he had written, "Asked them to introduce a step to explicitly go over and check level of sedation." (Plaintiff's Ex. 5 at 7)

2. The Failure to Select Adequately Trained Executioners

The risk created by Tennessee's decision not to check for consciousness is compounded by Tennessee's choice of individuals to mix and inject the drugs and monitor the IV lines during executions. Under the new protocol, two certified paramedic technicians insert the catheters into each of the inmate's arms, while a third, significantly less trained, "IV Team Member" puts the IV lines together.[11] Then the certified paramedic technicians leave the execution chamber and, from that point forward, are not in a position to observe the inmate or the executioners. The three executioners, all Corrections Department employees selected by Warden Bell (TR 100), are untrained in the duties they are expected to perform and, at hearing, were unable to identify potential pitfalls that the expert witnesses identified to be significant risks.

Executioner A (who also serves as IV Team Member C) attended one thirty-two hour IV therapy course in 1998 at Motlow State Community College, where he was instructed in the insertion of IV catheters, but not in setting up IV lines, administering drugs through IV lines or in monitoring the lines during a series of bolus injections. In 2003, Executioner A attended one four-hour intravenous catheterization refresher course, which also did not instruct him regarding setting up and administering drugs or monitoring IV lines, the actual functions of the executioners under the new protocol. In addition, Executioner A testified that he has gone to Texas to watch executions. (TR 304)

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[11]The paramedics and executioners testified anonymously behind a screen at the hearing and will not be identified by name in this opinion pursuant to provisions in state law that protect their identities. Instead, the paramedics will be identified as IV Team Members A and B. The executioners will be identified as Executioners A, B, and C. In addition, although he is not a trained paramedic or emergency medical technician, under the new protocol, Executioner A also serves as IV Team Member C.

Executioner B attended the same two courses as Executioner A and has, likewise, received no training or instruction in setting up IV lines, administering drugs through IV lines, or in monitoring the lines. Executioner B has also gone to Texas to watch executions but did not receive much training from his Texan counterparts.[12] (TR 203-04)

Unlike his two co-executioners, Executioner C did not attend the thirty-two hour course at Motlow State Community College in 1998. His sole training has been attending the four-hour course in 2003 along with Executioners A and B. Warden Bell, who, under the new protocol, is the only person in the same room as the condemned inmate when the drugs are injected into the IV lines, testified that his only training consisted of viewing executions in Texas, visiting an execution site in Indiana, and talking with "some other states" about the process. (TR 97-98)

In addition to their training, Executioners A, B, and C, as well as Warden Bell, participate in monthly practice sessions wherein they and IV Team Members A and B inject saline solution into volunteers. However, the executioners do not receive any instruction at the training sessions from the paramedics or any other medically qualified individuals.[13] They do not troubleshoot potential problems that might occur, such as catheter infiltration, but simply practice performing their functions with saline solution.

The executioners and paramedics testified that they had not been screened for drug

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[12]Executioner B testified that the Texas officials: "were busy in their own effort. And they were kind enough to allow us access. And I didn't want to interfere, which would cause them problems. So I kept my questions very short, brief—you know, why this? How that? And their response would be just that, very brief, because they were concentrating on the job at hand for them." (TR 184)

[13]In fact, IV Team Member B testified that he did not take part in any portion of the practice sessions except the portion where he inserted the IV catheter into the arm of the volunteer, and that the same was true for IV Team Member A. (TR 379-80)

problems or psychological disorders before being hired and that Commissioner Little does not test any of the participants for drugs prior to the executions themselves. This is a particular issue because one of the paramedics—IV Team Member B—has a history of drug and alcohol addiction and psychological disorders. (TR 384-85) IV Team Member B testified that he did not take part in the Sedley Alley execution because he was hospitalized in an alcoholic treatment program during April, May and June of 2006. Further, IV Team Member B testified that he pled guilty to possession of a controlled substance in 1988 and again in 1998. While hospitalized in the Spring of 2006, IV Team Member B was diagnosed by a psychiatrist as suffering from a "deep-rooted" depression and, as a result, he is currently taking Paxil. (TR 385)

IV Team Member B stated that he never told Warden Bell about any of these issues because "[i]t never came up." (TR 385) This testimony was corroborated by Warden Bell himself, who testified that he did not screen the executioners or paramedics for drug or psychological problems before taking them in as members of his execution team.[14] Warden Bell stated that he did know about IV Team Member B's problems but that he was not concerned about them because he had observed IV Team Member B and had "not seen anything that appeared to be out of the ordinary." (TR 171)

In addition, Warden Bell testified that he did not require his execution team to actually read the new protocol unless they had come on board after its creation. Warden Bell testified that he had "conducted training using the protocol" and those members who "didn't get to sit

[14]Warden Bell affirmed that he did not do any background checks regarding the execution team members and that he "usually" asked for a copy of their credentials, "but not always." (TR 170) When asked whether he checked to see if their certifications had ever been suspended, Warden Bell answered "No." (TR 170)

through that have since read the manual itself." (TR 114)

The expert witnesses testified that employing individuals with the training that Executioners A, B, and C, have undergone to perform the functions that the protocol calls for them to perform is a severe problem. Dr. Dershwitz, an expert witness for the defendant, stated that "[s]ometimes intravenous catheters fail" and that if the only individuals who are trained in monitoring IV lines leave the room following insertion of the catheters—which is what the new protocol dictates—he "think[s] it is logical to assume that there's an increased risk." (TR 889) Dr. Dershwitz also testified that "the person who is primarily responsible for making sure that the IV is working should also have experience doing the same in their usual and customary day job," and further elaborated that "I mean that all the steps involved in putting in and maintaining and checking an IV are best done by somebody who regularly does all of these parts or all of these steps as part of their day job" (TR 890-91), and also that "it would be best if somebody injected medications, again, as part of their day job." (TR 892) In identifying the things that could go wrong during the injection of the drugs, Dr. Dershwitz testified:

> Well, the person could inject the wrong drug. They could pick up the wrong syringe. I guess it's possible that if the system is using stopcocks, they could inject it in the wrong direction; although I don't think that is a very likely scenario. And certainly the IV itself can malfunction.

(TR 891) Dr. Dershwitz testified that IV catheters, though properly inserted initially, did move from veins into outer tissue "once in a while," even in his own practice. (TR 892)

Dr. Higgins, the court-appointed expert, testified that, in his opinion, Tennessee's decision to use executioners with the training such as Executioners A, B, and C have received would generally increase the risk of pain incurred by the plaintiff. (TR 944) He agreed with Dr. Dershwitz that the persons who place the IV catheters, administer the drugs and monitor the

process should be IV therapists, nurses or similar professionals who do these tasks as part of their everyday jobs so that they can troubleshoot problems. (Depos., Court Ex. A, at 29-37) (TR 946-47) Dr. Higgins stated that the decision to remove the paramedics from the execution chamber before the administration of the drugs "would certainly increase the risk" of pain. (*Id.* at 944) Dr. Higgins testified that errors such as catheter slippage occur in hospitals with highly trained professionals "with a fairly high frequency." (TR 945) He further stated that tactile monitoring of the IV site is very important and that visual observation by a minimally trained person is not adequate. (Depos., Court Ex. A, at 29-31, 34) With regard to the task of injecting the drugs into the IV line, Dr. Higgins stated that using individuals with the level of training the executioners have received "would increase the risk of error." Specifically he testified:

> Of course, I've never administered drugs from quite that long of a line, but I know that we have certainly used extensions in many surgical procedures where we're a little more remote from the patient. It does reduce your ability to sense any resistance or obstruction in the line. That alone, coupled with the fact that you are using very large syringes, both make it more challenging and why, or course, I was very concerned about the low level of training for these individuals involved and their low experience in addressing—detecting and addressing problems. Because that, in this setting, would make it especially challenging.

(TR 959)

Dr. Lubarsky testified that he did not "believe that people who do not routinely do these activities and who are not trained to do these activities can accomplish a complex multi-step task that is basically the practice of medicine." (TR 634) Dr. Lubarsky testified that "[t]he point is that it's easy to make mistakes" and that the hands-on knowledge required to identify problems with IV administration "is absolutely lacking in correctional facilities." (TR 634) Dr. Lubarsky further elaborated that "[t]here are tons of different reasons why even after following successful insertion or what appears to be a successful insertion, it can malfunction," and that "whenever

you are doing large amounts of bolus injections, you run the risk of IV disruption much more than otherwise." (TR 641-42) Additional causes for concern were that the drugs are "being injected at a large distance without direct visual contact and without tactile contact," all of which were "set-ups for failure and mistakes." (TR 642)

Dr. Lubarsky was also troubled by the lack of training regarding the stopcock, a device used to set the directional flow of the IV The stopcock apparently can be turned the wrong way, with the result that the drug will flow into the IV bag instead of into the patient. Dr. Lubarsky testified that, reading the protocol, he saw "no guarantees around one-way valves, making sure that the injection stopcocks were turned the right way," and elaborated that "I've seen over and over again by inexperienced residents who are medical professionals and doctors, who do this on a daily basis. And still they turn the stopcock occasionally the wrong way when they're under stress and pressure." (TR 644-45)

At his deposition, taken on August 29, 2007 and admitted into evidence as Court's Exhibit A, Dr. Higgins also noted potential issues that untrained individuals would not notice. (Court's Ex. A at 33-35) Dr. Higgins stated that IV catheters often slip out after they are properly inserted but that, nevertheless, swelling might not occur in surrounding tissue, and other signs of "infiltration" might not be present. (*Id.*) The "stopcock" might be turned the wrong way, and the catheter might slip solely due to the force of pressure from the injections, particularly where the IV tubing is very long (as it is here). (*Id.*) Also, a person inserting an IV might get "false positives" showing that an IV was inserted properly when, in fact, it was not. (*Id.* at 38) Dr. Higgins mentioned a specific issue with regard to injections in the antecubital fossa—the inside of the arm near the elbow—which is where the catheters are inserted under the

new protocol, stating that "we generally discourage the placement of IV catheters in the antecubital fossa" because they have "a higher likelihood of not functioning." (*Id*. at 41) Dr. Higgins stated that the antecubital fossa site was a particular problem because there is actually a gap, or space ("fossa" means space), in that specific area where fluid can infiltrate unnoticed. (*Id*. at 81-82)

In fact, the executioners do appear to be largely ignorant of the potential pitfalls outlined by Dr. Lubarsky and Dr. Higgins. Executioner A testified that he could identify catheter infiltration by checking the flash chamber for blood, and although both Dr. Lubarsky and Dr. Higgins testified that such a test could produce "false positives," Executioner A identified no problem with this mechanism. (TR 323-24) Executioner B appeared to be unaware that the stopcock could be turned in two different directions.[15]

The paramedics were also unaware of certain risks identified by the expert witnesses. For instance, IV Team Member A could not identify any potential pitfalls with regard to the "stopcock," and testified that any swelling in the arm would be immediately apparent, and that "you would probably see" fluid "before you would ever feel it." (TR 372) IV Team Member B was also unable to identify these potential issues, stating that there was little worry of the catheter slipping from the vein so long as the patient was not moving, and that he could always test the IV for "flash back"—a test that Dr. Higgins identified as sometimes providing false

[15]In response to the question, "And have you ever done any practicing with how that stopcock can be used incorrectly so that the drugs go into the bag instead of into the person?" Executioner B responded, "Yes, ma'am. The stopcock—the stopcock is used as an adjust on the IV line. Using that, you can provide anything from a full flow to the drip—which is what we're looking for when the saline is going into the line—to shutting the line off. It's all accomplished with that one valve. So yes, ma'am, it's used regularly." (TR 224)

positives. (TR 397)

To allay similar concerns with its own lethal injection protocol, the Florida lethal injection commission recommended that Florida "[d]evelop and implement a training program for all persons involved in the lethal injection process." (Docket No. 63 at 12) Among other specific recommendations, the Florida commission stated that "[a] procedure should be developed and implemented in which each training exercise is critiqued at all levels to address contingencies and the response to these contingencies," and recommended that Florida "review foreseeable lethal injection contingencies and formulate responses to the contingencies which are rehearsed in the periodic training." (*Id*.) In response, Florida's new lethal injection procedures provide for quarterly simulations which "shall anticipate various contingencies."[16] (Docket No. 63, Ex. 26 at 2)

Similarly, the California protocol review provides, under the heading "Screening of Execution Team Members":

> A panel of staff will be designated to review the qualifications of potential Lethal Injection Team Members. The Warden will chair an interview panel of at least three members, including the Associate Director, Reception Centers, to interview the candidates and make the selection of Lethal Injection Team Members . . . .

State of California Lethal Injection Protocol Review, p. 12. Among other criteria, Team Members must "Have consistently demonstrated professional job performance and demeanor . . . Have no prior stress claims . . . [and] Have no history of Corrective Action within the preceding three years and no sustained disciplinary action during State employment." *Id*.

In addition, under the heading "Meaningful Training, Supervision, and Oversight of the

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[16]In contrast, Warden Bell's monthly "practice sessions" do not address contingencies or troubleshoot in any other way. (TR 113)

Execution Team," the California protocol review provides that "[t]raining is designed to provide each Lethal Injection Team Member with specific knowledge of all aspects of OP 770 [the protocol], duties of their specific assignments, recent executions in other jurisdictions, current litigation, and potential problems with recommendations for avoidance or resolution." *Id*. at 13-14.

The Tennessee Protocol Committee, however, concluded that its selection and training of execution team members was sufficient. Commissioner Little testified, that although he was aware that Dr. Dershwitz told the committee that the person who monitors the administration of the drugs should have daily experience monitoring IV lines and should be able to troubleshoot potential issues, he did not provide for that skill level because "based on the information available, it's my opinion that the procedures we had were adequate for the purposes intended, inasmuch as these are not a medical procedure, per se." (TR 54)

Considering the weight of the expert witness testimony, the testimony from the executioners themselves, and the requirements recently adopted in other states, the court disagrees with Commissioner Little. The executioners have received only very limited instruction, and that instruction relates to the tasks of the IV Team Members, not the actions they are actually charged with performing. The court finds Dr. Higgins' testimony—supported at each side by Dr. Dershwitz's and Dr. Lubarsky's testimony—very compelling on this point. These are known risks—accidents which, given enough of an opportunity, will occur—for which the executioners are completely unprepared. In many cases, the executioners are not even aware that the risks exist. This is not a mere "risk of negligence" but a guarantee of accident, written directly into the protocol itself. Accordingly, the court finds that the failure to utilize adequately

trained executioners increases the plaintiff's risk of unnecessary pain.

3. The Failure to Adequately Monitor Administration of the Drugs

Tied in with the deficiencies of the protocol in training the executioners is a deficiency involving a specific task that one executioner is charged with performing: monitoring the IV lines during the administration of the three drugs. Under the new protocol, the IV lines are monitored only visually, by looking through the one-way window and at a video screen in the separate executioners' room. Neither the executioners nor anyone else palpates the injection site. According to Dr. Higgins and Dr. Lubarsky, this is a significant problem. Dr. Higgins testified that Tennessee's decision to use only visual observation of the IV site to detect errors "would definitely increase the risk of error." (TR 945) At his deposition, Dr. Higgins further elaborated on this risk, stating "visual observation is certainly better than none, but you can't sense some of the more subtle changes that really require tactile monitoring during injection. And again, these are relative levels of veracity or detection, but the highest level would be to actually be able to physically monitor the injection site during the injection processes with your hand on the site, which is what I do every time I induce a patient." (Court's Ex. A at 42-43) Especially in circumstances where the observers have only minimal training—as in the situation at hand—Dr. Higgins testified that visual observation "would not be adequate." (*Id*. at 44)

Similarly, Dr. Lubarsky testified that visual monitoring was "absolutely not" adequate, especially when the injection site is located in the arm, because "the body has various different compartments, especially in the arm," and the compartments are "not fully communicative with each other." (TR 646) Therefore, "[i]f the IV catheter is in one compartment and you're looking at a superficial compartment, that is the subcutaneous area, you might not see anything." (TR

647)

Dr. Dershwitz was somewhat less concerned about the visual monitoring but did testify that, "[i]f an error is going to occur in this whole process, the most likely error would be that the intravenous catheter is not in a vein." (TR 888) Dr. Dershwitz later added that "the visual inspection should be the first step. But if one detected or had a high suspicion that there might be a malfunction, one would also want to touch and palpate the IV site to check for things like a subcutaneous collection of fluid."[17] (TR 894)

Executioner B testified that the television screen used to visually monitor the inmate allows the executioners to "zoom in close enough to where you can count individual human hair[s] around the injection site." (TR 221) Dr. Lubarsky, however, testified that this zoom function "would not solve the problem" because "[t]he human eye is actually better than any camera. Especially in close proximity." (TR 647) Dr. Lubarsky described situations in which "even a trained physician" cannot determine whether an IV is working and must perform "all sorts of manipulations" to determine whether the drugs are actually entering a vein. He expressed concern that the protocol do not allow for this kind of troubleshooting. (*Id*.) Moreover, the executioner with the primary responsibility for monitoring the television screen is also charged with handing, in the proper order and in rapid fashion, eleven numbered syringes to the executioner who injects them into the IV line, and with receiving back from him, in turn, the

[17]Dr. Dershwitz further elaborated that, "if the person were conscious and thiopental was being injected subcutaneously, there's a high likelihood that the person would have significant pain at the injection site because of the high pH of the thiopental solution." (*Id*.)

empty syringes.[18] (TR 198-99) Accordingly, it is difficult to imagine what level of monitoring actually occurs, regardless of the efficacy of the zoom function.

In light of the lack of training provided to the executioners, the court finds that relying solely on visual monitoring of the IV lines increases the plaintiff's risk of unnecessary pain.

II. Knowing Disregard of an Excessive Risk

In *Estelle*, the Supreme Court fleshed out "wantonness" as requiring a showing of "deliberate indifference" to the prisoner's "serious" medical needs. 429 U.S. at 104 (holding that only the "unnecessary and wanton infliction of pain" implicates the Eighth Amendment). The Supreme Court has since held that "deliberate indifference to a substantial risk of serious harm to a prisoner is the equivalent of recklessly disregarding that risk." *Farmer v. Brennan*, 511 U.S. 825, 836 (1994). More precisely, deliberate indifference exists where "the official knows of and disregards an excessive risk." *Id*. at 837. The official "must both be aware of facts from which the inference could be drawn that a substantial risk of serious harm exists, and he must also draw the inference." *Id*.; *see also Spencer v. Bouchard*, 449 F.3d 721, 729-30 (6th Cir. 2006). In addition, the Supreme Court has acknowledged that "a factfinder may conclude that a prison official knew of a substantial risk from the very fact that the risk was obvious." *Farmer*, 511 U.S. at 842. Therefore, under the framework established in *Estelle*, in order to prevail on the subjective component, plaintiffs typically must show that a state official was aware of a significant risk that a deprivation would result in serious pain, and that the state official

[18]Executioner B testified that, in the Coe execution, Executioner C performed the dual functions of "watches the monitor, passes the syringes," while Executioner A mixed the drugs and observed them both. (TR 198) No testimony at hearing indicated that the division of responsibilities between the three executioners has changed since the Coe execution, although the assignment of an individual executioner to an individual role was subject to change.

disregarded that risk.

A. The Intent Requirement in Punishment Cases

However, there is some Supreme Court authority indicating that, in cases involving methods of punishment—as opposed to conditions-of-confinement claims—this mental state is presumptively met. In *Wilson v. Seiter*, 501 U.S. 294, 300 (1991) (Scalia, J.), a prison conditions case, the Court, analyzing prior cases in which the "deliberate indifference" standard was applied, held that "[t]he source of the intent requirement is not the predilections of this Court, but the Eighth Amendment itself, which bans only cruel and unusual *punishment*." *Id*. (emphasis in the original) (citing *Johnson v. Glick*, 481 F.2d 1028, 1032 (2d Cir. 1973) (Friendly, J.) ("The thread common to all [Eighth Amendment prison cases] is that 'punishment' has been deliberately administered for a penal or disciplinary purpose."), *cert. denied sub nom. John v. Johnson*, 414 U.S. 1033 (1973)); *see also Whitley v. Albers*, 475 U.S. 312, 319 (1986) ("To be cruel and unusual punishment, conduct that does not purport to be punishment at all must involve more than ordinary lack of due care for the prisoner's interests or safety . . . .");

The Court in *Wilson* reasoned that the subjective component applied in that case only because the conduct at issue—relating to conditions and not punishments—did not fall under the literal purview of the Eighth Amendment. *See* 501 U.S. at 294. Justice Scalia, writing for the majority, reasoned that, "[i]f the pain inflicted is not formally meted out *as punishment* by the statute or the sentencing judge, some mental element must be attributed to the inflicting officer before it can qualify." *Id*. at 300 (emphasis in the original). Analyzing *Estelle*, the case in which the Supreme Court first acknowledged that the Eighth Amendment could be applied "to some deprivations that were not specifically part of the sentence but were suffered during

imprisonment," the Court located the source of the "mental element" of deliberate indifference in the extension of the Eighth Amendment's coverage to include such deprivations. *Id*. It follows directly from this analysis that, where the pain inflicted *is* formally meted out as punishment, the subjective component is presumptively met, and no extra "mental element" must be attributed to any state official.

The Supreme Court has required inquiry into the states of mind of state officials in "prison conditions" cases only because the official conduct does not purport to be a part of the official penalty for the crime. *Id*. at 302; *see also Estelle*, 429 U.S. at 104. Therefore, where the conduct at issue—such as a lethal injection protocol—does purport to be an official penalty, there appears to be no rationale for requiring a plaintiff to demonstrate an additional culpable mental state on behalf of any individual state actors. The *Wilson* majority's adoption of Judge Posner's stricture that "[t]he infliction of punishment is a deliberate act intended to chastise or deter," 501 U.S. at 300 (quoting *Duckworth v. Franzen*, 780 F.2d 645, 652 (7th Cir. 1985), *cert. denied*, 479 U.S. 816 (1986)) provides further support for this position.

In its recent *Taylor* decision, the Court of Appeals for the Eighth Circuit applied the Supreme Court's reasoning in *Wilson* to hold that the plaintiff need not "demonstrate deliberate indifference on the part of the prison officials in order to prevail on his § 1983 claim." 487 F.3d at 1080. The court noted that "this claim is not the typical conditions-of-confinement claim challenging prison conditions in general nor does it involve the action of a particular officer that is not part of the designated punishment for the crime." *Id*. at 1080-81 (citing *Nelson*, 541 U.S. at 644). Moreover, the court reasoned that "[t]he potential pain alleged in this case would be inflicted as the state-sanctioned punishment because the proposed protocol is intended to be used

to carry out the lawfully imposed sentence." *Id*. at 1081. Or, more simply, "[t]he infliction of capital punishment is itself a deliberate act, deliberately administered for a penal purpose." *Id*. Accordingly, the requirement of deliberateness which the *Estelle* "deliberate indifference" standard was created to serve, was met by the simple fact that the plaintiff was challenging a method of punishment. *Id*. (citing *Nelson*, 541 U.S. at 644 ("[The] imposition of the death penalty presupposes a means of carrying it out.") Therefore, the Court of Appeals for the Eighth Circuit held that the success of a plaintiff's Eighth Amendment challenge "depends upon whether the protocol as written would inflict unnecessary pain, aside from any consideration of specific intent on the part of a particular state official." *Id*.

The language of the Supreme Court in *Wilson*, 501 U.S. at 300-01, which itself drew from decisions of the Courts of Appeals of the Second and Seventh Circuits, *see Johnson*, 481 F.2d at 1032, *Duckworth*, 780 F.2d at 652, and the recent application of that language by the Eighth Circuit in *Taylor*, 487 F.3d at 1080-81, leads this court to conclude that, in the present case, there is a strong argument that the culpable mental state set forth in *Estelle* is presumptively met. *See Taylor*, 487 F.3d at 1081 ("The infliction of capital punishment is itself a deliberate act, deliberately administered for a penal purpose.") However, because the Sixth Circuit has not addressed this issue—having faced method-of-punishment challenges to the Tennessee lethal injection protocol in only the Temporary Restraining Order context, and not directly on the merits—prudence cautions the court to apply the *Estelle* "deliberate indifference" standard to determine if the named defendants exhibited a culpable mental state. Accordingly, the court will analyze whether the defendants knew about and ignored a substantial risk that the plaintiff would suffer "serious pain" under the new Tennessee protocol.

B. The Recommendations of the Tennessee Protocol Review Committee

The Tennessee Protocol Committee, after considerable research and consultation with medical experts, recommended a one-drug protocol to Commissioner Little. Because the one-drug protocol called only for the injection of sodium thiopental, it would have mitigated the risk of serious pain to the plaintiff outlined above. In addition, the Tennessee Protocol Committee studied the implementation of safeguards in other jurisdictions which serve to mitigate the risk of pain. However, Commissioner Little adopted neither the Committee's recommendation, nor the safeguards it studied. In so doing, Commissioner Little knowingly disregarded an excessive risk of pain to the plaintiff.

1. The One-Drug Protocol

Under the protocol recommended by the Committee, one dose of five grams of sodium thiopental would be administered to the inmate. (TR 595) Subsequently, a physician would assess whether or not the inmate was dead. (*Id*.) If he was not dead, another five grams of the drug would be administered. (*Id*.) In a draft of its recommendation, the Committee discussed the benefits of this method, stating:

> The primary advantage of the one-drug protocol is that it is much simpler to administer and provides an even lower risk of error in its administration. As compared to the two- and three-drug protocols, it has the advantage of eliminating both of the drugs which, if injected into a conscious person, would cause pain. It is similar to the humane process used in animal euthanasia. Using one drug that does not require refrigeration greatly simplifies the process of maintaining and accounting for the lethal injection drugs. Most importantly, all of the medical experts consulted by the State were very supportive of the one-drug protocol, and the 5 gram dose.

(Plaintiff's Ex. 36 at 6) In fact, if the Department of Corrections had adopted the Committee's recommendation, it would have greatly mitigated the plaintiff's risk of pain. As the Committee

stated in its draft, the one-drug protocol would have eliminated the use of the second two drugs—pancuronium bromide and sodium thiopental—which, without proper anesthesia, would cause pain. Even if the sodium thiopental were improperly administered, the only result would be that the plaintiff would be given more sodium thiopental. Committee minutes, notes, and "pro" and "con" lists all, alluding to this intrinsic advantage, were introduced into evidence at the hearing. (*See* Plaintiff's Ex. 7 at 1; Plaintiff's Ex. 26 at 1; Plaintiff's Ex. 31 at 24; TR 541; TR 544; TR 546-47) As Debbie Inglis testified, the Committee found that the only risk to the inmate under the one-drug protocol "is that the person might regain consciousness," after which more anesthesia would be given. (TR 577)

This advantage was highlighted by the medical experts consulted by the Committee. Dr. Payne highlighted the potential dangers of the three-drug protocol when he informed the Committee that the second drug "prevents the ability to tell if a person is waking up" and that, if the first drug is insufficient, "a person could wake and not be able to breathe." (Plaintiff's Ex. 20 at 2) Gayle Ray, the Deputy Commissioner of Corrections, testified that Dr. Dershwitz later "encouraged the Committee to write a protocol that states if five grams are used, then wait five minutes, then check for circulation, heart beat. If death does not occur, wait another five minutes and check again. If death does not occur, administer five more grams." (TR 544) That is the one-drug protocol the Committee ultimately recommended.

Commissioner Little rejected that recommendation. Although he testified that he was aware that pancuronium bromide paralyzes the inmate and that potassium chloride would cause pain when it entered the body, if the inmate is not unconscious, (TR 50-51), Commissioner Little chose not to adopt the protocol that would provide a "lower risk of error" because he did not

want "Tennessee to be at the forefront of making the change from the three-drug protocol to the one drug protocol," was concerned about "political ramifications" and believed that, if the three-drug protocol was struck down in a court of law, Tennessee "could always fall back on the one-drug protocol." (TR 25-26)

2. Other Safeguards

In its draft, the Committee also noted that the risk of error associated with the three-drug protocol "can be minimized by adequate training of personnel and the incorporation of certain safeguards," principal among which was "[i]ncorporating a method for monitoring anesthetic depth." (Plaintiff's Ex. 36 at 5) The Committee explored some of those safeguards with medical experts and even visited other jurisdictions that had implemented them. However, concurrently with its rejection of the one-drug protocol, the Department of Corrections failed to adopt any of the safeguards employed by these other jurisdictions.

Minutes from a March 16, 2007 meeting reflect that Dr. Payne advised the Committee that Tennessee needed a qualified person, "a pharmacist, a nurse, or an anaesthesiologist" to show the executioners how to properly mix sodium thiopental and also recommended a physical examination before the execution to give the paramedics "an opportunity to determine which veins are good before the execution." (Plaintiff's Ex. 20 at 2, 4)

In addition, Gayle Ray testified that she and some of the other Committee members traveled to Virginia where they learned that, although Virginia continued to employ a three-drug protocol, it had implemented certain safeguards. (TR 549) Among those safeguards, Virginia had eliminated the cut-down procedure, instituted a medical examination five days before the execution, and also performed a second examination a few hours before the execution to assess

the inmates' veins. (TR 550-51)

Later, the committee discussed specific methods by which a lay person could assess an inmate's consciousness with Physician A. (Plaintiff's Ex. 29) In response to questioning by Ms. Ray and Warden Bell, the physician advised "checking for an eyelash response by brushing a finger across them . . . lifting up the person's arm . . . a pin prick or pinching the nipples." (*Id*.) In addition, Steve Elkins confirmed that he and Commissioner Little discussed "adding a step to the protocol to explicitly go over and check the level of sedation after the first drug." (TR 89-90)

Finally, the Florida Governor's Commission on Administration of Lethal Injection issued a report, which was attached in the Appendix of the Tennessee Commission's final Report (Plaintiff's Ex. 41), recommending numerous safeguards designed to reduce errors in its three-drug protocol. Commissioner Little confirmed that he had read this report and was aware of the recommendations in it. (TR 57-59) For instance, the Florida report recommended development of a procedure "which requires that the condemned inmate be individually assessed by appropriately trained and qualified persons at a minimum of one week prior to the scheduled execution." (Docket No. 36, Ex. 18 at 11-12) In addition, the Florida report recommended development of procedures "to ensure that unexpected event(s) are identified, including inability to access a venous site, problems with tubing, apparent consciousness of the inmate, etc." (*Id*. at 12)

As discussed above, the Florida report also recommended "procedures to ensure that the condemned inmate is unconscious" after the administration of sodium thiopental and training procedures "which review foreseeable lethal injection contingencies and formulate responses to

the contingencies which are rehearsed in periodic training." (*Id*. at 12-13) The Florida Commission concluded with the following statement:

> [T]he Commission suggests that the Governor have the Florida Department of Corrections on an ongoing basis explore other more recently developed chemicals for use in a lethal injection execution with specific consideration and evaluation of the need of a paralytic drug like pancuronium bromide in an effort to make the lethal injection execution procedure less problematic.

(*Id*. at 13) As an appendix, the Florida report included a "Physician's Statement" signed by three physicians who participated in Florida's revision to its protocol, Steve Morris, M.D., Peter Springer, M.D, F.A.C.E.P., and Dave Varlotta, D.O., concluding that "the inherent risks, and therefore the potential unreliability of lethal injection cannot be fully mitigated." (*Id*. at 16) Commissioner Little testified that he read this specific language. (TR 59)

The Tennessee Department of Corrections did not adopt Dr. Payne's suggestion to employ a "qualified person" to show the executioners how to mix sodium thiopental. Instead, Executioner A—the executioner with the most experience in mixing the drug—learned by watching another executioner in Texas and cannot remember when he first mixed the drug. (TR 304-05) The Tennessee Department of Corrections also did not adopt Dr. Payne's suggestion—implemented in Virginia and recommended by the Florida commission—to assess the inmate's veins a few hours prior to the execution. (TR 568) Neither did the Tennessee Department of Corrections adopt Virginia's other safeguards. (*Id*.) The new Tennessee protocol does not perform a medical examination at any time before the execution, and it continues to provide for the cut-down procedure if the paramedics cannot find a suitable vein. (*Id*.)

The Tennessee Department of Corrections also chose not to adopt any of the mechanisms Physician A suggested to the committee for assessing consciousness or, for that matter, any of

the many lengthy proscriptions made by the Florida commission, outlined above. (TR 52-54) Of particular note are the Florida committee's recommendations for training its execution team about "foreseeable lethal injection contingencies" about which the Tennessee executioners remain ignorant. (TR 113) (Testimony of Warden Bell) ("We role play them, but we do not create problem scenarios.")

In fact, while retaining the three-drug protocol, the Tennessee Department of Corrections did not adopt any new safeguards that meaningfully reduce the plaintiff's risk of suffering pain. The new protocol does provide for greater documentation of the execution[19], and it does specify that the sodium thiopental should be dispersed into four different syringes.[20] However, it also eliminated a safeguard that, according to the testimony of Gayle Ray, existed under the old protocol.[21]

The court finds that Commissioner Little's rejection of the one-drug protocol, and the failure to provide for any of the safeguards considered by the Committee, constitutes deliberate

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[19]Debbie Inglis testified that "I think the primary thing, the importance of what we ended up doing was actually reducing this to writing and providing documentation that could be, you know, reviewed later to insure that things were done appropriately." (TR 599)

[20]There was some testimony that, in the Coe execution, only one syringe was used. (TR 335) (Testimony of Executioner A) ("Yes. Yes. There were 5 grams of sodium pentothal in one 50 cc syringe. Yes.")

[21]Ms. Ray testified that, under the old protocol, the practice had been to inspect the syringes containing sodium thiopental "every 15 to 20 minutes" to insure that the solution "does not become cloudy, form any particles, and remains completely clear" but that this provision had been removed because the Committee "did not regard it as a protection anymore." (TR 563, 567) Julian Davis testified that medical doctors had informed the committee that sodium thiopental solution could become cloudy, and that this presented a problem because this drug can be mixed as much as three hours before the execution (TR 447-8); however, Ms. Ray testified that either Dr. Payne or Dr. Dershwitz had told the committee that this step was unnecessary. (TR 563)

indifference. Commissioner Little was both aware of facts from which the inference could be drawn that a substantial risk of serious harm to the plaintiff existed, and he also drew the inference. Although Commissioner Little was not a member of the Committee, he testified that he "dropped by" Committee meetings (TR 35-36) and also that he was "updated periodically and kept in the loop as they made progress." (TR 29) In addition, Commissioner Little was presented with the Committee's draft report when it made its recommendation of the one-drug protocol, and the court concludes that Commissioner Little was aware of the reasoning for the Committee's recommendation. Although Commissioner Little did not gain the breadth of knowledge that the Committee gained by questioning medical experts and examining other jurisdictions' protocols, that does not work in his favor. In fact, Commissioner Little's rejection of the Committee's recommendation in complete disregard of the expertise the Committee members gained during this process weighs in favor of the court's determination.

Moreover, Commissioner Little testified that he read the Florida Commission's report, including the statement of the physicians who participated in that report. (TR 59) That statement provides, "the inherent risks, and therefore the potential unreliability of lethal injection cannot be fully mitigated." (Docket No. 63, Ex. 18 at 11-12) In addition, the Commissioner testified that he was aware of the procedures recommended in the Florida report. (TR 58-59) Accordingly, Commissioner Little cannot at this time deny that he was aware of the risks posed by the three-drug protocol.

According to information the Commissioner possessed when he made his decision, the three-drug protocol as implemented in Tennessee poses an unnecessary risk of pain. That risk could have been mitigated by either (1) switching to a one-drug protocol or (2) employing

additional safeguards. The Committee recommended the first option. Commissioner Little, however, neither accepted their recommendation nor instructed them to incorporate the additional safeguards in their re-formulation of the three-drug protocol. Accordingly, the court finds that Commissioner Little was deliberately indifferent to the plaintiff's excessive risk of pain.

III. Precedent Involving Lethal Injection Challenges

Although the Sixth Circuit has not addressed the constitutionality of Tennessee's new lethal injection protocol on the merits, it has discussed both the new protocol and the old protocol in dicta pursuant to vacating stays and injunctions. Those cases rested on assumptions that have proven to be false. In addition, recent litigation in other jurisdiction provides support for the court's present holding.

A. The Workman and Alley Decisions

In the two cases wherein the Sixth Circuit has thus far opined, in *dicta*, on the constitutionality of Tennessee's lethal injection protocol, no evidentiary hearing had been held at the trial court level. In both cases, *Workman* and *Alley v. Little*, 181 Fed. Appx. 509 (6th Cir. 2006), the Sixth Circuit was vacating stays and injunctions issued so that an evidentiary hearing on the merits might be held prior to executions. In both cases, the Sixth Circuit reversed, finding that the likelihood of success on the merits did not support the granting of the stay or injunction.

In *Alley*, the court relied primarily on the fact that "No federal court has found the lethal injection protocol as such to be unconstitutional." *Alley*, 181 Fed. Appx. at 512. The *Workman* panel similarly stated, "No court to our knowledge has issued a final decision declaring a State's lethal-injection protocol unconstitutional." *Workman*, 486 F.2d at 906. To the extent that this

pronouncement was important to the Sixth Circuit's decisions, it is important to note that the United States District Court for the Western District of Missouri found the three-drug protocol unconstitutionally violative of the Eighth Amendment after holding an evidentiary hearing that was preceded by discovery in *Taylor v. Crawford*, No. 05-4173-CV-C-FJG, 2006 U.S. Dist. LEXIS 42949 (W.D. Mo. June 26, 2006), *rev'd*, 487 F.3D 1072 (8th Cir. 2007). And, in a case not yet reversed on appeal, the United States District Court for the Northern District of California found the three-drug protocol unconstitutional after a five-day evidentiary hearing in *Morales v. Tilton*, 465 F. Supp. 2d 972 (N.D. Cal. 2006) This is the decision that caused the Governor of California to stay executions and order a revision of the execution protocols in that state. Both of these decisions find defects in the three-drug protocol similar those found herein.

The Court in *Workman* gave several other reasons for ruling that Workman had little likelihood of succeeding on the merits of his claim, which are similar to the claims made in this case, because, by the time he filed his case, Tennessee had issued its new three-drug protocol. *Workman* relied heavily upon the April 30, 2007 Report on Administration of Death Sentences in Tennessee, which the Court attached as an appendix to its decision. The flaw in this reliance, however, as was amply proven at the four-day evidentiary hearing held before this court (which had the opportunity to observe and gauge the credibility of all the witnesses who testified) was that, despite the hard work of the Protocol Committee, none of the recommendations that were the fruit of its hard work were accepted by Corrections Commissioner Little nor integrated into the new protocol.

The *Workman* panel, in praising the work of the Protocol Committee, bought the rationale that the one-drug protocol was rejected "because 'the effect of the required dosage of sodium

thiopental would be less predictable and more variable when it [was] used as the sole mechanism for producing death.'" *Workman*, 486 F.3d at 903. This, when in fact, the Committee had recommended a one-drug protocol and none of the three physicians whom the committee consulted, nor any of the experts who testified at trial, supported this conclusion contained within the Report. Further, the panel accepted the rationale for re-adoption of a three-drug protocol that "dozens of States had used it and thus could provide information, data and expertise about their experiences with it and refinements to it." *Id*. In fact, the Protocol Committee had consulted with other states, considered their experiences and refinements to their three-drug protocols and then incorporated not one of these refinements into the new protocol.

Two other important assumptions made in *Workman* were shown to be erroneous by the proof introduced before this court. The *Workman* decision states:

> Although the protocol does not contain an explicit instruction to monitor Workman's consciousness, it does require the participation of a certified IV team and the presence of a doctor. This combination of factors suggests that there is ample recourse if the 5-gram dosage of sodium thiopental–14 times the dosage used the anesthetize hospital patients–somehow fails to render Workman unconscious.

Id. at 910. As discussed herein, the *certified* IV team members leave the execution room and the presence of the inmate after the insertion of the catheters in his arms. The physician never even enters the executioner's room or the execution chamber until he is called upon to pronounce death at the end of the administration of all the drugs.[22] At any rate, it is a misperception about this protocol that, without some kind of monitoring for unconsciousness, which is not built into the

[22]The procedure does provide that he can be summoned to perform a cut-down procedure, should the IV technicians not succeed in finding an appropriate vein; however, this has never happened thus far.

protocol, the failure to be unconscious will be noticed by anyone, let alone IV technicians and a physician who are not even witnessing the process but are in separate rooms.

What happens under this protocol is the sodium thiopental is administered and then rapidly followed by the pancurium bromide, which paralyzes the inmate, prevents movement and prevents those watching him from knowing whether or not he is still conscious. Thus the risk that he will be conscious when he is suffocating from the paralytic effect of pancurium bromide and when the potassium chloride, which will burn throughout his body, is injected. The conclusion that somehow the "participation of the certified IV team" in inserting the catheters and the "presence of a doctor," who is standing in a garage, somehow makes up for the failure to monitor the inmate for consciousness before the injection of the two drugs likely to cause pain is entirely unwarranted by the evidence introduced before this court.

The second assumption made in *Workman* that was disproved by the proof was the following:

> "The most significant issue" the committee faced was "the selection of the chemicals and dosage to be used in lethal injection executions in Tennessee." . . . "after considerable research and consultation with medical experts, *it* "retained a three-chemical protocol."

Id. at 908. (emphasis added) The Court assumes here that, after considerable research and consultation with medical experts, *the committee* retained the three-drug protocol. In fact, after considerable research and consultation with medical experts, the committee unanimously recommended to Commissioner Little the one-drug protocol. Commissioner Little, having not attended the committee meetings nor consulted with any of the medical experts whose recommendations the committee sought, unilaterally rejected the committee's recommendations

and ordered them to prepare a new three-drug protocol that ended up including none of the "best practices" of the other states of which the committee had become aware.

B. Litigation In Other Jurisdictions

As noted above, two federal district courts have recently reached the merits of challenges to lethal injection protocols involving the same three drugs utilized in the new protocol. Both of those cases—as well as prior cases upholding lethal injection protocols based on safeguards that the Tennessee Department of Corrections has chosen not to employ—provide further support for the court's holding.

In *Morales v. Tilton*, 465 F. Supp. 2d 972, 978 (N.D. Cal. 2006) the federal district court for the Northern District of California considered an inmate's challenge to California's lethal injection protocol. As in the present case, the parties in *Morales* "agreed that it would be unconstitutional to inject a conscious person with pancuronium bromide and potassium chloride in the amounts contemplated by [the California Protocol]." *Id*. at 978. Therefore *Morales* turned, as does the present case, upon whether the protocol as implemented "provide[d] constitutionally adequate assurance that condemned inmates will be unconscious when they are injected with pancuronium bromide and potassium chloride." *Id*.

The court found several "critical deficiencies," in California's implementation of the protocol, indicating that the protocol did not function as intended. *Id*. at 979. First, the court found inconsistent and unreliable screening of execution team members, evidenced by the fact that one team member responsible for the custody of sodium thiopental "which in smaller doses is a pleasurable and addictive controlled substance," was disciplined for smuggling illegal drugs into [the prison] . . . and another prison guard, who was part of the execution team, had been

"diagnosed with and disabled by post-traumatic stress disorder." *Id.* Second, the *Morales* court found a "lack of meaningful training, supervision, and oversight of the execution team" as witnessed by the fact that "team members almost uniformly have no knowledge of the nature or properties of the drugs that are used or the risks or potential problems associated with the procedure," despite numerous "walk-throughs" of aspects of the protocol before each execution. *Id.*

Third, the *Morales* court found that there was "[i]mproper mixing, preparation and administration of sodium thiopental," which "further complicates the inquiry as to whether inmates being executed have been sufficiently anesthetized," as well as "inadequate lighting, overcrowded conditions and poorly designed facilities in which the execution team must work." *Id*. at 980. The court explained that the "lighting is too dim, and execution team members are too far away, to permit effective observation of any unusual or unexpected movements by the condemned inmate, much less to determine whether the inmate is conscious; . . . ." *Id*. On these grounds, the *Morales* court concluded that "the systemic flaws in the implementation of the protocol make it impossible to determine with any degree of certainty whether one or more inmates may have been conscious during previous executions or whether there is any reasonable assurance going forward that a given inmate will be adequately anesthetized." *Id*.

Finally, in urging the Governor's Office to address these problems, the court observed that, "because of the paralytic effect of pancuronium bromide, a determination of an inmate's anesthetic depth after being injected with that drug is extremely difficult for anyone without substantial training and experience in anesthesia, the protocol must ensure that a sufficient dose of sodium thiopental or other anesthetic actually reaches the condemned inmate and that there are

reliable means of monitoring and recording the inmates vital signs throughout the execution process." *Id.* Moreover, stating that the constitutional issues spring from the use of the second two drugs, the court observed that the "removal of these drugs from the lethal-injection protocol, with the execution accomplished solely by an anesthetic, such as sodium pentobarbital, would eliminate any constitutional concerns, subject only to the implementation of adequate, verifiable procedures to ensure that the inmate actually receives a fatal dose." *Id.* Since that ruling, the State of California has convened a Lethal Injection Protocol Review (whose report the court cited earlier in this opinion) and revised its protocol, addressing many of the issues identified in the *Morales* opinion.[23]

In *Taylor v. Crawford*, No. 05-4173-CV-C-FJG, 2006 U.S. Dist. LEXIS 42949, at *18-19 (W.D. Mo. June 26, 2006), the federal district court for the Western District of Missouri found Missouri's lethal injection procedure unconstitutional. Specifically, the court was concerned that the state did not have a written protocol governing the amounts and method of administering the drugs used in executions, that the physician responsible for mixing the drugs had complete discretion over the protocol with no "checks and balances or oversight," that the physician was not qualified and was afflicted with a condition—dyslexia—that causes confusion with regard to

[23]Similarly, in *Brown v. Beck*, No 5:06-CT-3018-H, 2006 U.S. Dist. LEXIS 60084 at *23 (E.D.N.C. Apr. 7, 2006), *aff'd*, 445 F.3d 752 (4th Cir. 2006), the court found that North Carolina's lethal injection protocol would result in a strong likelihood of irreparable harm, but conditionally denied the plaintiff's motion for a preliminary injunction provided that the state of North Carolina would certify that appropriate medical personnel would be present during the execution to ensure that the inmate was unconscious when the second and third drugs were administered. The court held that "[s]erious questions have been raised by the evidence concerning the effect of the current execution protocol," and noted that "[i]f the alleged deficiencies do, in fact, result in inadequate anesthesia prior to execution, there is no dispute that [the plaintiff] will suffer excruciating pain as a result of the administration of pancuronium bromide and potassium chloride." *Id*. at *22.

numbers, and that the physician did not adequately monitor inmates during executions to ensure that each inmate was properly sedated. *Id.* at *19-*22.

The court ordered the state to submit a written protocol with specific provisions intended to remedy these problems. *Id.* at *23. Thereafter, the state filed a revised protocol, to which the plaintiff objected. Although the district court noted that the revised protocol was an improvement over the original unwritten protocol, it found that the revised protocol nevertheless was unconstitutional under the Eighth Amendment. *See Taylor v. Crawford*, 487 F.3d 1072, 1078 (8th Cir. 2007) (describing district court's ruling).

The Court of Appeals for the Eighth Circuit reversed this decision in *Taylor v. Crawford*, 487 F.3d at 1084-85. In so holding, the Eighth Circuit relied on the following provisions included in the Missouri protocol:

> The protocol requires medical personnel to confirm that the IV lines are working properly both before and during the procedure and to attach and monitor an electrocardiograph during the execution procedure. Medical personnel must supervise the injection of the contents of the syringes by department employees. Before the second and third chemicals are injected, medical personnel must examine the prisoner physically to confirm that he is unconscious using standard clinical techniques and must inspect the catheter site again.

Id. at 1083. Further, the Eighth Circuit found that, under the Missouri protocol "[t]he second and third chemicals are injected only after confirmation that the prisoner is unconscious." *Id*.

The Eighth Circuit did note that, "[b]ecause of the pain that would be inflicted by the third chemical if administered without adequate anesthetization, it is imperative for the State to employ personnel who are properly trained to competently carry out each medical step of the procedure." *Id*. at 1084. However, the court found that the plaintiff had not demonstrated a constitutional violation because the dose of thiopental "combined with built-in checks to ensure that the IV is

properly placed by medical personnel trained for the procedure and that the IV is working and not obstructed" rendered the plaintiff's risk of pain remote. *Id*. at 1085.

The *Taylor* opinion was based on the existence of safeguards that the Tennessee Department of Corrections chose not to adopt. *Id*.; s*ee also Walker v. Johnson*, 448 F. Supp. 2d 719 (E.D. Va. 2006) (granting summary judgment on a challenge to Virginia's lethal injection protocol in part because Virginia protocol includes "many safeguards"); *Timberlake v. Buss*, No 1:06-cv-1859-RLY-WTL, 2007 U.S. Dist. LEXIS 58074 (S.D. Ind. 2007) (denying motion for preliminary injunction because, *inter alia*, protocol is sufficiently detailed, provides sufficient training for individuals responsible for implementing protocol, and provides for assurance that inmate is unconscious before administering second and third drugs in protocol).

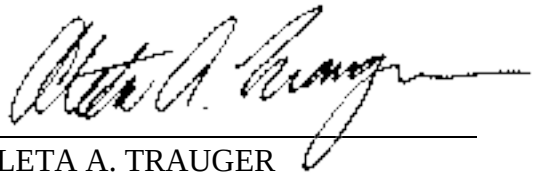
These cases demonstrate that, although lethal injection is the most prevalent form of execution, it is not sacrosanct, and that the constitutionality of a three-drug protocol is dependant on the merits of that protocol. Where protocols provide for safeguards to ensure that the inmate is unconscious before the admission of potentially painful drugs, courts have held that they do not violate the Eighth Amendment. *See, e.g., Taylor*, 487 F.3d at 1084-85. However, where the protocols do not provide for such safeguards and, instead, contain "critical deficiencies," an Eighth Amendment claim is proven. *See, e.g., Morales*, 465 F. Supp. 2d at 979. The court is confident that the case at hand fits well within that framework.

Conclusion

For the reasons stated herein, the court finds that the plaintiff's pending execution under Tennessee's new lethal injection protocol violates the Eighth Amendment to the United States

Constitution. The new protocol presents a substantial risk of unnecessary pain; that risk was know to Commissioner Little, and yet disregarded. Accordingly, the court will enter judgment in favor of the plaintiff and enter injunctive relief against the defendants, barring them from executing the plaintiff under the new protocol.

An appropriate order will enter.



ALETA A. TRAUGER
U. S. District Judge