United States Court of Appeals
FOR THE EIGHTH CIRCUIT

No. 06-3651

Michael Anthony Taylor,	*	
Appellee,	*	Appeal from the United States District Court for the
v.	*	Western District of Missouri.
Larry Crawford, Director, Missouri Department of Corrections; James D. Purkett, Superintendent, Eastern Reception Diagnostic & Correctional Center,	*	[PUBLISHED]
Appellants.	*	

Submitted: January 10, 2007
Filed: June 4, 2007

Before RILEY, BEAM, and HANSEN, Circuit Judges.

HANSEN, Circuit Judge.

The State of Missouri, through its officers Larry Crawford and James D. Purkett (collectively "the State"), appeals the district court's judgment, which concludes that

Missouri's lethal injection protocol is unconstitutional. Finding no wanton infliction of cruel and unusual punishment in violation of the Eighth Amendment, we reverse.

I.

Michael Anthony Taylor pleaded guilty and was sentenced to death in Missouri state court for the abduction, abuse, and brutal murder of 15-year-old Ann Harrison.[1] His convictions and sentence have withstood judicial scrutiny on direct appeal, see State v. Taylor, 929 S.W.2d 209 (Mo. 1996) (en banc), cert. denied, 519 U.S. 1152 (1997), and in federal habeas corpus proceedings, see Taylor v. Bowersox, 329 F.3d 963 (8th Cir. 2003), cert. denied, 541 U.S. 947 (2004). Mr. Taylor filed this 42 U.S.C. § 1983 action in the federal district court, the timeliness of which was not contested, challenging the State's three-chemical procedure used in carrying out a sentence of death by lethal injection. See Mo. Rev. Stat. § 546.720 (describing the manner of execution as either the administration of lethal gas or lethal injection, and authorizing the department director to make sufficient provisions for carrying out either method).

At the time Mr. Taylor brought suit, the State intended to use its unwritten procedure of administering a lethal combination of three chemicals through an intravenous line (IV) placed in the femoral vein. In prior executions, a physician placed the IV and prepared the chemicals, and nonmedical prison personnel administered the injections in a three-step process. First, a 5-gram dose of sodium pentothal (also known as thiopental) was injected to render the inmate unconscious. Second, a 60-milligram dose of pancuronium bromide was administered to paralyze the inmate's muscles, and third, a 240-milliequivalent injection of potassium chloride was injected to stop the heart. A saline flush followed each injection. Mr. Taylor now asserts that Missouri's procedure creates a significant risk that he might suffer the

[1]We will not here recount the facts of his crime as they are not relevant to this appeal.

wanton infliction of pain because if the first chemical, thiopental, does not sufficiently anesthetize him, he will feel the pain of the third chemical, potassium chloride, which indisputably will cause an excruciating burning sensation as it travels through his veins to induce a heart attack, and yet he would be unable to indicate that he is experiencing pain due to the paralyzing effects of the second chemical, pancuronium bromide.

The district court failed to set a hearing on the merits of Taylor's complaint in a timely fashion, and this court ultimately ordered the chief district judge to reassign the case to a different judge who would hold an immediate hearing and make a ruling.[2] In an order dated January 31, 2006, the district court initially concluded that the three-chemical sequence was not unconstitutional, and Mr. Taylor appealed. Concluding that justice was not served by the expedited nature of that hearing, though the district court had fully complied with our prior order requiring it, we remanded for additional discovery and a continuation of the evidentiary hearing to provide Mr. Taylor an adequate opportunity to fully present the merits of his claim.

On remand, the district court permitted the parties to engage in a period of additional discovery and reconvened the evidentiary hearing on June 12-13, 2006. The additional discovery permitted access to the Department of Correction's documents and logs pertaining to the last six executions and a limited anonymous deposition of John Doe I ("Dr. Doe I"), the physician in charge of mixing the chemicals and inserting the IVs for the past six executions. The execution logs reveal

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[2]The procedural particularities of this case are recounted fully in our prior decisions, Taylor v. Crawford, 445 F.3d 1095, 1096-98 (8th Cir. 2006) (retaining jurisdiction but remanding for additional discovery and a continued evidentiary hearing), and Taylor v. Crawford, 457 F.3d 902, 904 (8th Cir. 2006) (remanding for the district court to consider the State's proposed written protocol in the first instance). We will not repeat that procedural history here, except as necessary for a clear understanding of the current appeal.

that Missouri does no toxicology reporting following an execution to ascertain the amount of chemicals actually in the body at the time of death. Dr. Doe I indicated that the chemical amounts listed in the execution logs are not always accurate as they represent only "an approximation" of the chemicals used and disposed of; he does not record the amount of the dose actually administered to the inmate as the logs are used only for prison inventory and DEA reporting requirements. (See Appellants' App. at 647-49.) In each of the past six executions, however, death occurred in five minutes or less from the time the first chemical was administered, and there was not a scintilla of evidence that any prisoner ever suffered any pain other than what was necessary to acquire access to the prisoner's circulatory system through the insertion of the needed intravenous lines.

Dr. Doe I revealed that he has dyslexia, which causes him to transpose letters and numbers, but he asserted that his condition is not significant to his work. "I can make these mistakes, but it's not medically crucial in the type of work I do as a surgeon." (Id. at 660.) As he understood Missouri's unwritten procedure, he had the independent authority to alter the chemical doses at will based on his medical judgment, and that in fact, there were occasions when he chose to give a dose of only 2.5 grams of thiopental without notifying the director, but in his opinion, this dose was sufficient. Under the unwritten procedure, Dr. Doe I would monitor the anesthetic depth of the inmate to ensure he was fully unconscious solely by observing the inmate's facial expression through an observation window.

The district court allowed the plaintiff to conduct a Rule 34 inspection and videotaped tour of Missouri's execution chamber. The inspection revealed that the operations room in which the chemicals are mixed and administered is lit when the chemicals are mixed but dark during the execution, though the execution chamber remains lit during the execution. The observation window from which Dr. Doe I observes the procedure is partially obstructed by blinds, and the inmate faces away from the window. During the procedure, the inmate's face is left uncovered, but the

rest of his body, including the femoral vein injection site, is completely covered by a sheet.

At the continued evidentiary hearing, Mr. Taylor presented the testimony of Dr. Mark Heath, an anesthesiologist, and Dr. Thomas Henthorn, an expert in pharmacokinetics. These experts agreed that the third injection (the potassium chloride) would be exceedingly painful if administered without having first achieved adequate anesthetization of the condemned inmate.

Dr. Heath criticized the State's lack of a written protocol, asserting that a clearly written protocol is important so the procedure can be rehearsed and to ensure a humane execution. He noted that significant variations from the articulated procedure had occurred, citing Dr. Doe I's testimony that he had in fact prepared a dose of only 2.5 grams for the previously carried out execution, as well as for Taylor's previously scheduled execution despite the State's representation that it used a 5-gram dose. Dr. Heath noted that Dr. Doe I admitted he did not keep accurate chemical logs, contrary to standard practice. In Dr. Heath's opinion, Dr. Doe I, a board-certified surgeon, is not competent to oversee the induction of general anesthesia and would not be hired at any hospital in the United States as an anesthesiologist.

Dr. Heath opined that a humane execution under this three-chemical protocol requires a state of anesthesia deep enough for surgery. He admitted that a dose of either 2.5 or 5 grams of thiopental would be sufficient to reach this depth and that, in fact, rapid induction of anesthesia for surgery is generally achieved in the average adult with a 0.28-gram dose. He expressed concern, however, that setting a high dosage level alone does not guarantee the successful delivery of that dose into circulation and urged the use of additional independent monitoring to ensure successful delivery of the chemical into the bloodstream.

Dr. Henthorn testified that an anesthetic depth known as "burst suppression," which is deeper than that required for surgery, must be reached for a humane lethal injection protocol because absent this depth, it is possible to be unconscious and still feel pain. He testified that burst suppression will be achieved in one minute and 45 seconds using a 5-gram dose of thiopental and in just under three minutes using a dose of 2.5 grams. He was of the opinion that the State's past practice did not include a long enough wait time to ensure adequate anesthetization before administering the second and third chemicals. He also stated that once burst suppression is achieved with a 5-gram dose of thiopental, it will be maintained for at least 45 minutes with no additional monitoring necessary. He identified several potential problems that can adversely affect the proper delivery of the anesthetic, such as an improperly prepared dose, a leaking tube that could not be detected if the IV site is covered by a sheet, or an IV insertion error that could cause the anesthetic to be administered into tissue rather than the bloodstream.

Mr. Taylor also presented the testimony of Dr. Stephen Johnson, a radiologist and expert in femoral line placement. Dr. Johnson testified that femoral vein access, which had been used routinely under the unwritten protocol, is unnecessary and produces an unreasonable risk of unnecessary pain. He opined that the risk of pain from the IV procedure can be significantly reduced by using peripheral access–the standard IV placement on the top of the hand.

Testifying for the State, Dr. Mark Dershwitz, an anesthesiologist, stated that rapid sequence inducement of unconsciousness is achieved in approximately 45 seconds with a dose of as little as 0.3 to 0.4 grams of thiopental in a clinical setting, and no pain beyond that point will be perceptible to the inmate. In his opinion, while the high dose of thiopental administered in the lethal injection process will achieve burst suppression, that level of anesthesia is far in excess of the anesthetic depth targeted for surgery, and in his opinion, a depth of unconsciousness sufficient to eliminate pain occurs much earlier than burst suppression. Dr. Dershwitz testified that

he had recently examined the results of a bispectral index monitor ("BIS monitor") that had been used in a North Carolina execution to monitor the level of the inmate's consciousness. Dr. Dershwitz stated that a BIS value of between 60 and 40 is targeted for surgery, with 40 being the deepest level of unconsciousness used in a clinical setting. He stated that a BIS level of 40 is the point at which burst suppression begins, and any level lower than 40 is considered to be unnecessarily deep for surgery. He testified that the North Carolina execution logs indicated that a three-gram dose of thiopental was administered and the protocol required a BIS level of 60 before permitting the administration of the remaining two chemicals. Dr. Dershwitz said that the logs indicated that there had been no pause in the injection of the chemicals in that case because once the thiopental and saline flush had been completely administered, a process that lasted approximately 1-1/2 minutes, the BIS value was already at zero with a flat line electroencephalogram (EEG).

Dr. Dershwitz agreed with Dr. Henthorn that either a 2.5-gram or a 5-gram dose of thiopental, successfully delivered, will produce burst suppression requiring no further need to monitor anesthetic depth. He stated that mixing the thiopental is not a difficult task and that "certainly, most people who are intelligent can be taught to mix up a drug like thiopental properly." (June 13, 2006, Hearing Tr. at 331.) Dr. Dershwitz expressed the opinion that putting a patient to sleep is easy; the skill of the anesthesiologist lies in keeping the surgery patient stable and alive and successfully waking the patient at the end of the procedure. The last two purposes, of course, are not the objects of a lethal injection execution procedure.

Larry Crawford, the Director of the Department of Corrections (the Department) since early 2005, acknowledged that he has the overall responsibility for the execution process, that the process had been put in place before his arrival in the office with heavy reliance on the expertise of Dr. Doe I, but that he had independently considered the procedure when he first arrived. He admitted he had not been notified when Dr. Doe I made the decision to lower the dose of thiopental to 2.5 grams.

Director Crawford indicated that he was planning to issue a new directive with a defined protocol setting forth the procedure and articulating the areas of discretion. Director Crawford indicated that he was confident in Dr. Doe I's competence and expected that he would continue working with the execution process.[3] Director Crawford testified that he did not intend to carry out Mr. Taylor's execution before issuing a new directive, stating, "I want to assure that the process is better." (Id. at 377.)

Following the hearing, the district court entered an order on June 26, 2006, concluding that Missouri's existing three-chemical procedure presents an unnecessary risk that an inmate will suffer unconstitutional pain during the lethal injection process. See Taylor v. Crawford, No. 05-4173-CV-C-FJG, 2006 WL 1779035 (W.D. Mo. June 26, 2006) (unpublished). The district court identified several concerns with Missouri's execution protocol, namely, the lack of a written protocol specifying the chemicals and doses, the lack of consistency in its administration, the total discretion placed in the hands of Dr. Doe I, and the lack of any oversight of his conduct during the process. Additional concerns included Dr. Doe I's dyslexia, his lack of concern over how that might affect his ability to mix the lethal chemicals, and his limited ability to monitor the anesthetic depth of the inmate reliably when his view is partially obstructed by blinds, and the inmate's position in the execution room.

The district court then invoked its equitable powers to fashion a detailed remedy. Specifically, the court ordered the Department of Corrections to prepare a written protocol requiring the participation of a board-certified anesthesiologist, not less than a 5-gram dose of thiopental, certification that the inmate has achieved

[3]In a post-oral argument submission, the State informed our court that it was no longer its intention to utilize the services of Dr. Doe I. Although the State's frequent and solemn prior representations to us and to the district court that it had always used a 5-gram dose of thiopental proved to be erroneous, in this instance we will take the State at its word.

sufficient anesthetic depth before injecting the last two chemicals, and giving discretion to the anesthesiologist to choose the best method and location for the injection site. The order also required the Department to include a procedure for monitoring anesthetic depth, which may require the purchase of additional equipment and the repositioning of the inmate in the execution room; a contingency plan to deal with problems that may arise during the procedure; and an auditing process to ensure that the individuals involved are complying with the protocol. The district court further ordered that once approved, the protocol may not be changed absent prior court approval. Finally, the district court stayed all executions pending approval of a new protocol. In compliance with our prior instructions, see Taylor, 445 F.3d at 1099, the district court certified its order to this court.

On July 14, 2006, the State submitted a written lethal injection protocol to the district court. Taylor objected on grounds that this new protocol was too vague and did not follow the district court's requirement to secure the participation of a board-certified anesthesiologist. The district court correctly noted that it lacked jurisdiction to consider the new protocol because the case was on appeal to this court. On August 9, 2006, we therefore remanded the entire dispute to provide the district court the first opportunity to consider the constitutionality of the newly propounded protocol. Taylor, 457 F.3d at 904.

On September 12, 2006, the district court entered an order concluding that the State's written protocol, while "an improvement over the previous procedures," was still inadequate to provide sufficient constitutional protections. (Appellants' Add. at 27.) The district court ordered that to continue using the three-chemical protocol, the State must modify the proposal to provide that Dr. Doe I shall not participate, to require a physician with training in anesthesia to mix the chemicals, to provide for the possibility of purchasing additional equipment to monitor anesthetic depth, and to alter the record-keeping requirements. Instead of complying with that order, the State sought reconsideration, which the district court denied.

The State appeals, asserting that the district court erred in concluding that its lethal injection protocol violates the Eighth Amendment. We review *de novo* questions of law arising under the Constitution, Hayes v. Faulkner County, Ark., 388 F.3d 669, 673 (8th Cir. 2004), and the district court's findings of fact for clear error, Royal v. Kautzky, 375 F.3d 720, 722 (8th Cir. 2004), cert. denied, 544 U.S. 1061 (2005).

II.

We think it prudent at the outset to set forth clearly what this case is not about. To do so, we borrow the apt words penned recently by Judge Fogel, United States District Judge for the Northern District of California, dealing with the same issue:

> [C]ourts . . . exist not to resolve broad questions of social policy but to decide specific legal and factual disputes . . . . This case is not about whether the death penalty makes sense morally or as a matter of policy: the former inquiry is a matter not of law but of conscience; the latter is a question not for the judiciary but for the legislature and the voters. Nor is it about whether [Missouri's] primary method of execution–lethal injection–is constitutional in the abstract: the arguments and evidence presented by the parties address the specific manner in which [Missouri] has implemented that method and proposes to do so in the future.

Morales v. Tilton, 465 F. Supp. 2d 972, 973 (N.D. Cal. 2006) (internal citations omitted) (finding serious but correctable deficiencies in the implementation of California's lethal injection protocol and urging California's executive branch to address the implementation problems).

The Eighth Amendment's prohibition of cruel and unusual punishments, which applies to the states through the Fourteenth Amendment, Wilson v. Seiter, 501 U.S. 294, 296-97 (1991), requires, in part, an inquiry into whether a punishment is excessive, and that inquiry has two aspects. See Gregg v. Georgia, 428 U.S. 153, 173

(1976) (plurality). "First, the punishment must not involve the unnecessary and wanton infliction of pain. Second, the punishment must not be grossly out of proportion to the severity of the crime." Id. (internal citations omitted). Mr. Taylor presents no argument that the penalty of death by lethal injection is grossly out of proportion to the severity of his crime. Instead, the question in this case is limited to whether the process of carrying out the lethal injection sentence involves "the unnecessary and wanton infliction of pain." Id.

The State begins by challenging the standard used by the district court. The State first argues that the district court erred in finding a constitutional violation on the basis of its determination that the Missouri lethal injection protocol involves an unnecessary *risk* of causing the wanton infliction of pain. The State asserts that the Supreme Court's articulation of the standard forbids only punishment that actually involves "the unnecessary and wanton *infliction* of pain," id. at 173 (emphasis added), not a mere risk of pain. We respectfully disagree. "An inmate's challenge to the circumstances of his confinement . . . may be brought under § 1983." Hill v. McDonough, 126 S. Ct. 2096, 2101 (2006). In Hill, the Court included within this rule an action challenging a state's lethal injection protocol. The Court quoted the petitioner's statement of his claim, noting, "[t]he specific objection is that the anticipated protocol allegedly causes 'a foreseeable risk of . . . gratuitous and unnecessary' pain." Id. at 2102. While we do not imply that the Court thereby adopted a new constitutional standard, we do observe that the Court expressed no dissatisfaction with that statement of the issue, and further, we find it to be consistent with settled Eighth Amendment jurisprudence.

In general conditions-of-confinement claims involving either a prison condition allowed to exist or the specific conduct of prison officials, neither of which is sanctioned as part of the prisoner's sentence, the Court has recognized that "conditions posing a substantial risk of serious harm" may rise to the level of an Eighth Amendment violation. Farmer v. Brennan, 511 U.S. 825, 834 (1994). "That the

Eighth Amendment protects against future harm to inmates is not a novel proposition." Helling v. McKinney, 509 U.S. 25, 33 (1993); see also id. at 34-35 (rejecting the proposition "that only deliberate indifference to current serious health problems of inmates are actionable under the Eighth Amendment," and permitting the case to proceed). "Court of Appeals cases to the effect that the Eighth Amendment protects against sufficiently imminent dangers as well as current unnecessary and wanton infliction of pain and suffering are legion." Id. at 34; see also Aswegan v. Henry, 49 F.3d 461, 464 (8th Cir. 1995) (noting that deliberate indifference to "conditions posing a substantial risk of serious *future* harm" violates the Eighth Amendment).

Although Mr. Taylor's situation does not fit neatly within the general conditions-of-confinement context because the conduct of which he complains is necessary to carry out his punishment, as opposed to a mere condition of his imprisonment, we nevertheless see no logical reason to disregard a substantial *risk* that may exist in the procedure necessary to carry out a sentence of death. It is our grave responsibility to apply constitutional principles that will guard against the unnecessary and wanton *infliction* of pain in the procedure through which the State proposes to carry out a sentence of death, and to successfully do so in the death penalty context, we must consider whether the procedure to be used presents a substantial risk of inflicting unnecessary pain. We see no error in the district court's consideration of whether there is an unnecessary *risk* that the State's proposed lethal injection protocol will cause the unnecessary and wanton *infliction* of pain. 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 on the claim at issue, for two reasons:" (1) we must apply the wanton infliction of pain standard by giving "due regard for differences in the kind of conduct against which the Eighth Amendment objection is lodged," and (2) the "prohibition of cruel and unusual punishments draw[s] its meaning from the evolving standards of decency that mark the progress of

a maturing society, and so admits of few absolute limitations." (internal quotations and citations omitted) (alteration in original)).

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. "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." Louisiana ex rel. Francis v. Resweber, 329 U.S. 459, 464 (1947) (plurality). A "risk of accident cannot and need not be eliminated from the execution process in order to survive constitutional review." Campbell v. Wood, 18 F.3d 662, 687 (9th Cir.), cert. denied, 511 U.S. 1119 (1994). 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. Resweber, 329 U.S. at 464 (noting that a risk of an "unforeseeable accident" interfering with the designated procedure is not constitutionally significant).

Second, the State asserts that the district court applied the wrong standard by not requiring Mr. Taylor to demonstrate deliberate indifference on the part of the prison officials in order to prevail on his § 1983 claim. As noted above, 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. See Nelson v. Campbell, 541 U.S. 637, 644 (2004) (articulating the difficulty of categorizing this particular type of claim). The Supreme Court requires an inquiry into the state of mind of particular state officials only where the official conduct does not purport to be part of the official penalty for the crime. See Wilson, 501 U.S. at 302.

> The source of the intent requirement is . . . the Eighth Amendment itself, which bans only cruel and unusual *punishment*. If 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. The 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. See Nelson, 541 U.S. at 644 (noting that the "imposition of the death penalty presupposes a means of carrying it out"). The infliction of capital punishment is itself a deliberate act, deliberately administered for a penal purpose. See Wilson, 501 U.S. at 300. The protocol at issue is created by the Department's director, in whose discretion state law places the matter, and it is created for the purpose of carrying out the sentence in a humane manner. See Mo. Rev. Stat. § 546.720 (placing the responsibility for carrying out a lawful sentence of death by lethal injection solely within the hands of the Director of the Department of Corrections). The propriety of this proposed protocol in the first instance (that is, whether it achieves the goal of carrying out the punishment in a humane manner or in fact uses torturous methods), therefore, 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.

The State relies on language in Resweber for its insistence that the plaintiff must demonstrate a purpose to inflict harm, but Resweber presented a different situation. The Court there concluded that a second attempt at electrocution (after the first attempt had failed due to technical problems) was not unconstitutional, finding there was "no *purpose* to inflict unnecessary pain." Resweber, 329 U.S. at 464 (emphasis added). A state of mind inquiry was necessary in that case because the conduct at issue – a second application of electrocution – was not authorized by statute nor was it the regular procedure adopted by state officials for carrying out a sentence of death. The Court found that the state official's decision to apply

electrocution a second time was constitutional because it was the result of an accident and was not done for the purpose of inflicting pain. See id. (emphasizing that the unforeseeable equipment failure during the first electrocution made a second attempt necessary, and "an unforeseeable accident . . . cannot . . . add an element of cruelty"); see also id. at 471 (Frankfurter, J., concurring) (indicating that a different outcome may have resulted had there been a showing of willful multiple applications of electrocution). The conduct challenged in the present case is neither alleged to be accidental nor a deviation from the official procedure, which would require a showing of an intent to harm or deliberate indifference. Instead, the official conduct challenged is the State's designated procedure for deliberately carrying out the prescribed penalty intended to punish the inmate.

We turn then to the task of assessing whether Missouri's lethal injection protocol amounts to cruel and unusual punishment, involving a substantial foreseeable risk of the wanton infliction of pain. The Eighth Amendment prohibits the unnecessary and wanton infliction of pain through torture, barbarous methods, or methods resulting in a lingering death. See Gregg, 428 U.S. at 170. The Eighth Amendment is interpreted in a flexible manner, "'acquir[ing] meaning as public opinion becomes enlightened by a humane justice.'" Id. at 171 (quoting Weems v. United States, 217 U.S. 349, 378 (1910)). "'The Amendment must draw its meaning from the evolving standards of decency that mark the progress of a maturing society'" and "accord with 'the dignity of man.'" Id. at 173 (quoting Trop v. Dulles, 356 U.S. 86, 100-01 (1958) (plurality)).

The evidence reveals that the only inherent risk in Missouri's written procedure arises from the specific chemicals chosen by the State to carry out the sentence of death by lethal injection. Lethal injection itself "is commonly thought to be the most humane form of execution." Abdur'Rahman v. Bredesen, 181 S.W.3d 292, 306 (Tenn. 2005), cert. denied, 126 S. Ct. 2288 (2006); see also Beardslee v. Woodford, 395 F.3d 1064, 1074 (9th Cir.) (specifically noting that humane concerns were a motivation for

adopting lethal injection as the presumptive method of execution in California), cert. denied, 543 U.S. 1096 (2005). There is no dispute, however, that the third and last chemical chosen for use in this protocol *will* cause excruciating pain if the inmate is not adequately anesthetized and that use of the second chemical in the sequence will simultaneously mask any visible sign of that pain. Because of those inherent properties of two of the chemicals chosen to carry out the sentence of death, we must carefully evaluate the designated procedure to determine whether it sufficiently safeguards against the infliction of this excruciating pain such that any lingering risk is not of constitutional magnitude.

The written protocol is a four-page document divided into six sections–(A) describing the execution team; (B) describing the preparation of the chemicals; (C) describing the process for inserting the intravenous lines; (D) setting rules for monitoring the prisoner; (E) setting rules for administering the chemicals; and (F) documenting the chemicals. The protocol requires a more than adequate 5-gram dose of thiopental, and the quantities of chemicals prescribed in the sequence may not be changed without prior approval of the department director.[4] The execution team consists of contracted medical personnel and department employees. As noted earlier, the State has indicated that Dr. Doe I will not be participating in the procedure. A physician, nurse, or pharmacist prepares the chemicals, which are injected by nonmedical department employees. A physician, nurse, or emergency medical technician holding either an "EMT-intermediate or EMT-paramedic" certification inserts the intravenous lines, establishing both a primary and a secondary IV (which

[4]Specifically, the procedure requires 15 syringes – the first 4 syringes contain a total quantity of 5 grams of thiopental, the next syringe contains only saline solution, then 60 milligrams of pancuronium bromide, then saline solution, then two syringes containing a total of 240 milliequivalents of potassium chloride, and the tenth syringe contains saline solution. Four additional syringes, each containing an extra 1.25 gram dose of thiopental, are prepared in case additional anesthetic is required, and one additional syringe of extra saline solution is prepared.

must be a peripheral line) unless the prisoner's physical condition prevents the use of two lines. (Appellants' Add. at 32.) The protocol provides the medical personnel with discretion to determine the best place to insert the IV lines, and it requires that the medical personnel be qualified with the appropriate training, education, and experience to perform the IV placement procedure determined to be most appropriate.

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. The second and third chemicals are injected only after confirmation that the prisoner is unconscious and after a period of at least three minutes has elapsed from the first injection of thiopental. The protocol also requires accurate documentation of the chemicals given, the order in which they were given, and the quantities of chemicals used and discarded. Any deviations from the written protocol must be promptly reported to the department director.

The district court concluded that the State's written protocol, while an improvement over the unwritten procedure, was still constitutionally deficient. The court ordered the State to modify its proposal as follows: (1) the written protocol must require the participation of a physician with training in the administration of anesthesia and must prohibit Dr. Doe I from participating in the lethal injection process, (2) the written protocol must provide for the purchase of additional equipment to adequately monitor anesthetic depth, (3) the written protocol's record-keeping procedures must comply with specific requirements set forth by the court, (4) the protocol must provide for court review of any deviation from it, and (5) the written protocol may not be implemented by medical personnel such as paramedics or EMTs unless they are employed by the supervising physician.

Our independent review of the State's written protocol and the record in this case leads us to the conclusion that the written protocol does not violate the Eighth Amendment, and thus, the district court had no basis on which to impose an equitable remedy requiring further modification of the protocol. The concerns that the district court noted and required to be modified do not rise to the level of creating a constitutionally significant risk of pain.

The experts agree that if a 5-gram dose of thiopental is successfully delivered, there is virtually no risk that an inmate will suffer pain through Missouri's three-chemical sequence. The experts also agree that a properly functioning IV, even peripherally placed, will adequately deliver the dose and that the inmate will then be sufficiently unconscious in less than two minutes, without the need of any further monitoring. The written protocol requires a 5-gram dose of thiopental and a three-minute wait before injecting the final two chemicals. The written protocol sufficiently provides for proper delivery of that dose by requiring the IV insertions to be accomplished by medical personnel (a physician, nurse, or EMT) who is qualified to perform the task, who must confirm before the procedure begins that the IV is functioning properly and not obstructed, and who must inspect the site again before the final two chemicals are injected. The physician, nurse, or EMT is given discretion only with regard to determining the proper placement of the IV and the appropriate procedure for insertion of the IV. The physician, nurse, or EMT is required to examine the prisoner physically using standard clinical techniques to determine that he is unconscious before the second and third chemicals are administered.

Because of the pain that undoubtedly 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. The protocol adequately requires trained medical personnel to carry out these steps and to verify that the IV is working properly. The protocol provides

no opportunity for personal judgment regarding the proper dose, because the protocol mandates a dose large enough to render anyone deeply unconscious, as long as it is delivered properly. The protocol is designed to ensure a quick, indeed a painless, death, and thus there is no need for the continuing careful, watchful eye of an anesthesiologist or one trained in anesthesiology, whose responsibility in a hospital's surgery suite (as opposed to an execution chamber) is to ensure that the patient will wake up at the end of the procedure. "For exceedingly practical reasons, no State can carry out an execution in the same manner that a hospital monitors an operation." Workman v. Bredesen, No. 07-5562, 2007 WL 1311330, at *12 (6th Cir. May 7, 2007), cert. denied, 127 S. Ct. 2160 (May 8, 2007). Absent some specific disqualifying characteristic of the chosen medical personnel, we would be hard pressed to say that a physician, a trained nurse, or a licensed pharmacist is not qualified to mix the chemicals. We know of no decision holding that the Constitution requires a physician to become the executioner. See generally id. at *12 (stating that the Constitution does not require the State to hire an anesthesiologist for each execution); McKenzie v. Day, 57 F.3d 1461, 1469 (9th Cir.), cert. denied, 514 U.S. 1104 (1995) (stating, "we are aware of no authority for the proposition that the prisoner is entitled, for example, to have a lethal injection administered by a physician").

Neither does the record justify requiring the continuous monitoring of the anesthetic depth of the inmate by one trained in anesthesia or by additional equipment. The written protocol requires a 5-gram dose of thiopental to be delivered through a properly placed and working IV, combined with a three-minute wait and a physical confirmation of unconsciousness before the last two chemicals are administered. The experts agree that this dose, successfully delivered, will cause burst suppression in less than three minutes and last at least 45 minutes, which eliminates any need for further monitoring. Given the dose of thiopental provided in the protocol, the precautions taken to ensure it is successfully delivered, the three-minute wait built into the protocol before administration of the second and third chemicals, the ready

availability of syringes containing an additional five grams of thiopental, and the physical examination of the prisoner and the IV site prior to administering the second and third chemicals, there simply is no realistic need for further monitoring of anesthetic depth by a physician or sophisticated equipment to prevent a constitutionally significant risk of pain.

The Constitution does not require the use of execution procedures that may be medically optimal in clinical contexts. See Hamilton v. Jones, 472 F.3d 814, 816 (10th Cir.), cert. denied, 127 S. Ct. 1054 (2007). "The state has broad discretion to determine the procedures for conducting an execution . . . ." McKenzie, 57 F.3d at 1469. "[W]e recognize that what could be done to update or even improve the protocol is not the appropriate legal inquiry to be undertaken by this or any other reviewing court." Abdur'rahman, 181 S.W.3d at 309. Where the "procedures are reasonably calculated to ensure a swift, painless death," they are "immune from constitutional attack," McKenzie, 57 F.3d at 1469, as the Constitution protects only against the wanton and unnecessary infliction of pain. What the Sixth Circuit said about the Tennessee protocol is equally true about Missouri's: "The whole point of the [Missouri] lethal-injection protocol is to avoid the needless infliction of pain, not to cause it." Workman, 2007 WL 1311330, at *9. The State's written protocol does not present any substantial foreseeable risk that the inmate will suffer the unnecessary or wanton infliction of pain. The abundant dose of thiopental, lethal in itself and over 17 times that given for surgeries, 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, renders any risk of pain far too remote to be constitutionally significant. See id. at *12 (noting that the risks of pain in a similar protocol "remain remote []and do not occur when the procedure is properly implemented"); Hamilton, 472 F.3d at 816-17 (noting that the risk involved must be of constitutional magnitude; and denying an injunction upon concluding that the district court correctly determined, in light of the precautions built into Oklahoma's

protocol, that the risk of failure to monitor resulting in the alleged pain is far too remote to rise to a constitutional level).

We emphasize that Mr. Taylor has not adduced evidence at any stage of this litigation that carries his burden of proving a constitutional violation. We have very carefully examined the entire record, and we find no evidence to indicate that any of the last six inmates executed suffered any unnecessary pain that would rise to an Eighth Amendment violation or that any state actor was deliberately indifferent to the Constitution's requirement that no unnecessary pain be wantonly inflicted during the execution process.

III.

We conclude that Missouri's written lethal injection protocol does not violate the Eighth Amendment. The judgment of the district court is reversed, and the injunction the district court issued is vacated.