

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA
NORTHERN DIVISION

THOMAS D. ARTHUR,)	
)	
Plaintiff,)	
)	
v.)	CASE NO. 2:11-CV-438-WKW
)	[WO]
JEFFERSON S. DUNN, <i>et al.</i> ,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER:
FINDINGS OF FACT AND CONCLUSIONS OF LAW

Plaintiff Thomas D. Arthur (“Arthur”) is an Alabama death-row inmate. On June 8, 2011, Arthur filed this action under 42 U.S.C. § 1983 challenging the constitutionality of Alabama’s method-of-execution under the Eighth and Fourteenth Amendments to the United States Constitution. Arthur’s initial complaint challenged the new three-drug cocktail used by Alabama at the time, namely, pentobarbital, pancuronium bromide, and potassium chloride. Alabama again changed its three-drug cocktail, this time to midazolam hydrochloride, rocuronium bromide, and potassium chloride, and Arthur amended his complaint to challenge that lethal injection protocol as well.

After the Supreme Court’s ruling in *Glossip v. Gross*, 135 S. Ct. 2726 (2015), this court ordered a final trial on limited issues, *viz.*, the availability of an alternative method of execution to the current protocol, as required by the Eighth Amendment,

and Arthur's Fourteenth Amendment equal protection claim involving the consciousness assessment. That trial commenced January 12, 2016, and this memorandum opinion and order resolves those dispositive issues in favor of Defendants. Upon entry of this Memorandum Opinion and Order, the only issue left to resolve is the idiosyncratic health concerns alleged by Arthur.

I. FACTUAL BACKGROUND AND PROCEDURAL HISTORY

The factual background and procedural history of this nearly five-year-old case have been thoroughly recounted in the prior opinions of this court and the Eleventh Circuit Court of Appeals, *Arthur v. Thomas*, 674 F.3d 1257 (11th Cir. 2012). They need not be repeated in detail here; however, a brief summary of relevant factual and legal developments that have occurred since the 2012 remand from the Eleventh Circuit is necessary. The Eleventh Circuit's 2012 mandate, which predated *Glossip* by several years, contemplated an evidentiary hearing on the statute of limitations issue: whether the new protocol, at that point the change from sodium thiopental to pentobarbital, constituted a "substantial change" in the protocol, thereby resetting the statute of limitations clock. But since then the landscape has changed materially.

On September 30, 2013, following an evidentiary hearing held in accordance with the Circuit's mandate, the court denied summary judgment to Defendants on the statute of limitations issue, on Arthur's Eighth Amendment cruel and unusual

punishment claim (based on the substitution of pentobarbital for sodium thiopental), and on his Fourteenth Amendment equal protection claim (related to the pinch test), thus readying those claims for a trial on the merits. (Doc. # 159.) However, before the case was tried, the State's supply of pentobarbital expired, and in September of 2014, the State announced yet another modified lethal injection protocol, consisting of midazolam hydrochloride, rocuronium bromide, and potassium chloride. (Doc. # 174.) This development changed the focus of the case to midazolam.

Irrespective of Arthur's pending § 1983 case in federal court, on September 11, 2014, the day after the State adopted the modified lethal injection protocol, the State moved the Alabama Supreme Court to set an execution date for Arthur. (Doc. # 190-7.) On December 23, 2014, the Alabama Supreme Court set Arthur's execution date for February 19, 2015. (Doc. # 193-1.)

On January 5, 2015, Arthur was given leave to amend his Complaint. (Doc. # 195.) Arthur filed his Second Amended Complaint on January 7, 2015, restating his Eighth and Fourteenth Amendment claims under Alabama's modified protocol. (Doc. # 197.) Additionally, a final hearing was scheduled for May 5–6, 2015. (Doc. # 202.)

On February 13, 2015, six days prior to his then-scheduled execution, Arthur sought a stay of his execution. (Doc. # 216.) On February 17, 2015, this court granted Arthur's Emergency Motion to Stay Execution. (Doc. # 219.) Defendants

appealed, but the Eleventh Circuit dismissed the appeal, finding that there was no abuse of discretion in staying the execution. *Warden v. Arthur*, No. 15-10653 (11th Cir. Feb. 18, 2015) (unpublished).

On February 24, 2015, Defendants moved to amend the Scheduling Order for a host of reasons, including the fact that the United States Supreme Court had recently granted certiorari in *Glossip v. Gross*, No. 14-7955, a case burdened with many of the questions presented in Arthur's case. Because the questions in *Glossip* signaled the potential for a different or more refined Eighth Amendment standard than articulated in *Baze v. Rees*, 553 U. S. 35 (2008), and because Defendants did not object, the court found that it was in the interests of justice to continue the final hearing until after the Supreme Court decided *Glossip*.¹ (Doc. # 241.)

On June 29, 2015 the Supreme Court decided *Glossip v. Gross*, 135 S. Ct. 2726 (2015). The *Glossip* Court revisited the rule established in *Baze* and solidified the *Baze* standards. It recited and reaffirmed the *Baze* test, and the burden a prisoner must meet to prevail on an Eighth Amendment method-of-execution claim, as seen from the following excerpt:

The controlling opinion in *Baze* first concluded that prisoners cannot successfully challenge a method of execution unless they establish that the method presents a risk that is ““sure or very likely to

¹ The court noted that *Glossip* was scheduled for oral argument on April 29, 2015, with a decision expected by the end of June 2015. It found that Arthur would not be prejudiced by a delay, given that his execution had been stayed until the court could hold a final hearing and enter a decision on his claims. (Doc. # 241.)

cause serious illness and needless suffering,’ and give rise to ‘sufficiently imminent dangers.’” *Id.*, at 50, 128 S. Ct. 1520 (quoting *Helling v. McKinney*, 509 U. S. 25, 33, 34–35, 113 S. Ct. 2475, 125 L. Ed. 2d 22 (1993)). To prevail on such a claim, “there must be a ‘substantial risk of serious harm,’ an ‘objectively intolerable risk of harm’ that prevents prison officials from pleading that they were ‘subjectively blameless for purposes of the Eighth Amendment.’” 553 U. S., at 50, 128 S. Ct. 1520 (quoting *Farmer v. Brennan*, 511 U. S. 825, 846, and n. 9, 114 S. Ct. 1970, 128 L. Ed. 2d 811 (1994)). The controlling opinion also stated that prisoners “cannot successfully challenge a State’s method of execution merely by showing a slightly or marginally safer alternative.” 553 U. S., at 51, 128 S. Ct. 1520. Instead, prisoners must identify an alternative that is “feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain.” *Id.*, at 52, 128 S. Ct. 1520.

Glossip, 135 S. Ct. at 2737; see also *id.* at 2739 (“*Baze* . . . made clear that the Eighth Amendment requires a prisoner to plead and prove a known and available alternative.”).

Arthur was given leave to amend his complaint for the purpose of meeting *Glossip*’s pleading requirements. (Doc. # 263.) After *Glossip*, another dispositive question in this case muscled its way to the front of the queue: the *Baze/Glossip* availability of viable alternative test. To conserve limited judicial resources, the court ordered a bifurcated trial with the issues in the first trial phase limited to (1) the availability of a feasible, readily implemented alternative method of execution to the State’s current execution protocol, and (2) Arthur’s equal protection claim (Count

2). Because the alternative method element was potentially dispositive, the statute of limitations issue was deferred. The first phase was tried January 12–13, 2016.²

Defendants’ Motion to Dismiss or, alternatively, Motion for Summary Judgment (Doc. # 268), and Defendants’ Motion for Summary Judgment on Arthur’s Eighth Amendment Claim set forth in his Third Amended Complaint (Doc. # 299) were pending at the time of trial.³ These motions were carried into the trial, remain before the court, and will be resolved as moot by entry of Findings of Fact and Conclusions of Law on the bifurcated issues.

² To be clear, questions not being resolved are (1) statute of limitations; (2) whether midazolam is “sure or very likely to cause” unconstitutional suffering, *Glossip*, 135 S. Ct. at 2737; and (3) whether Arthur’s proffered alternative drugs “significantly reduce a risk of substantial pain,” *id.*

³ In support of their summary judgment motion (Doc. # 299), Defendants cited deposition testimony from Dr. Alan Kaye (Doc. #299-7), Dr. Gaylen Zentner (Doc. 299-16), and Dr. Russell Strader (Doc. # 299-10). Defendants’ Fed. R. Civ. P. 26(a)(3) deposition designations include the same testimony from these three witnesses referenced in their summary judgment motion. (*See* Doc. # 303-1 at 4.) Prior to trial, Arthur objected to these deposition designations on the grounds that (i) these expert witnesses were available and were expected to testify live at trial; and (ii) Defendants did not properly designate such testimony in accordance with the Final Scheduling Order. (Doc. # 333-8.) Drs. Kaye and Zentner testified at trial. In considering the proof in this case, the court has reviewed *all* testimony of Dr. Kaye and Dr. Zentner, both trial and deposition testimony, which necessarily includes Defendants’ designated testimony to which Arthur objects. The deposition testimony of Drs. Kaye and Zentner was consistent with their testimony at trial. Arthur’s objections as to the designated testimony of Drs. Kaye and Zentner are overruled. Arthur’s objection to Defendants’ designated testimony of Dr. Russell Strader is well-taken. The court did not consider Defendants’ designated testimony of Dr. Strader because, among other reasons, his testimony concerned the administration of a lethal injection drug taking into account Arthur’s idiosyncratic medical condition, an issue that was not tried in this bifurcated proceeding.

II. BURDEN OF PROOF

The burden of proof in civil cases is the same regardless of whether the finder of fact is a judge in a bench trial or a jury. *Cabrera v. Jakobovitz*, 24 F.3d 372, 380 (2d Cir. 1994); *Jackson v. James*, 952 F. Supp. 737 (M.D. Ala. 1996). The plaintiff bears the burden of satisfying the finder of fact that he has proven each element of his claim by a preponderance of the evidence. A preponderance of the evidence means evidence that, when considered with that opposed to it, is more persuasive, and demonstrates that what is sought to be proved “is more likely true than not.” *See* Pattern Jury Instructions (Civil Cases) of the District Judges Assoc. of the Eleventh Circuit, General Preliminary Instruction No. 1-1 (2013).

In bench trials, the judge serves as the sole fact-finder. The judge’s function includes weighing the evidence, evaluating the credibility of witnesses, and deciding questions of fact, as well as issues of law. *Childrey v. Bennett*, 997 F.2d 830, 834 (11th Cir. 1993). These rules color the proceedings here where Arthur in effect must advocate for a means of his own death. That he is not enthusiastic about this task is as obvious as it is understandable. In the end, Arthur fails to meet his evidentiary burden on both his Eighth Amendment and Fourteenth Amendment claims.

III. DISCUSSION

A. Eighth Amendment Claim

Arthur claims that the ADOC’s planned use of a three-drug protocol in which

midazolam is the first lethal injection drug creates a substantial risk of serious harm to him because, among other reasons, there is a high likelihood that midazolam will fail to render him insensate from the painful effects of the second and third drugs in the State's current protocol. Arthur alleges that Defendants are acting under color of Alabama law in undertaking to execute him by lethal injection through (i) the use of an insufficient, improperly designed, and improperly administered procedure for inducing and maintaining loss of consciousness and loss of sensation prior to execution, and (ii) the use of chemicals that cause severe pain in the process of causing death, in conjunction with chemicals used specifically and for no other purpose than to mask that severe pain, such that there is a substantial risk that he will suffer serious harm in violation of his right to be free from cruel and unusual punishment under the Eighth Amendment to the U.S. Constitution.

Arthur alleges, as he must, that "there are known and available alternative methods of execution that present a substantially less severe risk of pain than the State's current three-drug lethal injection protocol." (Doc. # 267, ¶ 154.) First, Arthur claims that "compounded pentobarbital" is a known and available alternative on the basis that "Texas, Colorado, Ohio, Georgia, Missouri, Mississippi, Oklahoma, South Dakota, Pennsylvania, and Tennessee have used or intend to use compounded pentobarbital for executions." (*Id.* ¶ 120.) Second, Arthur alleges another "known and available alternative is a single-drug protocol consisting of sodium thiopental."

(*Id.* ¶ 128.) Arthur posits that either of these drugs administered as a one-drug protocol would be a safer alternative to midazolam as the first drug in a three-drug protocol.

During the first phase of this bifurcated trial, the court considered only evidence of the availability of a suitable alternative as required by the *Baze/Glossip* test. To meet his burden of proof on this limited but indispensable element, Arthur must prove by a preponderance of the evidence an alternative method of execution that is “feasible [and] readily implemented . . .” *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U. S. at 52), or, in other words, is “known and available,” *id.* at 2739. Arthur says his preferred alternatives are available to the ADOC; Defendants say they are not.

1. Trial Testimony

a. Gaylen M. Zentner, Ph.D.

Arthur’s proof of available alternatives included evidence from his expert, Dr. Gaylen M. Zentner, Ph.D. Dr. Zentner has a bachelor of science degree in pharmacy and a Ph.D. in pharmaceuticals from the University of Utah. He has been a licensed pharmacist in the State of Utah for about forty years. Also, he has many years of experience at the college level, teaching pharmacy and the compounding lab. (*Id.*) He has worked for several pharmaceutical companies, including Merck & Company in its advanced drug delivery dosage form design unit, and Myriad Pharmaceuticals,

where he was in charge of all formulation and dosage form design. (*Id.*) His work includes drugs designed for sterile injection. (Trial Tr. vol. 1, 203.) Since 2012, he has been an independent consultant to the pharmaceutical industry. (*Id.*) Dr. Zentner qualified as an expert in pharmaceutical chemistry, manufacturing, and compounding. (Trial Tr. vol. 1, 205.)

Zentner's testimony concerned primarily pentobarbital sodium and compounded pentobarbital.⁴ He testified that:

A. Pentobarbital sodium is a drug. In the case of a pharmaceutical preparation, it would be the active pharmaceutical ingredient. In its pure form, prior to compounding, it would exist as a white powder.

Q. And is there a formulation for compounding an injectable solution of pentobarbital?

⁴ Arthur's proposed alternative method of execution with pentobarbital is focused on compounded pentobarbital, rather than the commercially manufactured injectable pentobarbital solution, Nembutal®. *See* Doc. # 267 at 37. The manufacturer of Nembutal® has restricted its sale for use in human executions, making it unavailable to departments of corrections, as noted in *Schad v. Brewer*, 13-cv-2001, 2013 WL 5551668 (D. Ariz. Oct. 7, 2013). The *Schad* court explained that prior to July of 2011, Nembutal® was only available from a pharmaceutical company named Lundbeck, but that "[i]n July of 2011, Lundbeck instituted distribution controls to prevent the legitimate sale of Nembutal® to departments of corrections in states that use lethal injection for capital punishment. In December 2011, Lundbeck sold its interest in Nembutal® to Akorn, which retained Lundbeck's distribution controls." 2013 WL 5551668 at *2.

For background purposes, Arthur's proof included testimony from his expert explaining commercially manufactured injectable pentobarbital solution, pentobarbital sodium, and compounded pentobarbital. The unavailability of the commercial injectable solution was not seriously contested and is the reason for ADOC's adoption of a new drug protocol after its supply of pentobarbital expired in 2013. The unavailability of the commercial pentobarbital solution is further evidenced by the fact that the 24 executions in 2015 using only pentobarbital were performed with compounded pentobarbital. (Trial Tr. vol.1, 99, 145.) Arthur alleged as much in his Third Amended Complaint. (Doc. # 267, ¶ 120.) In any event, Arthur failed to prove any availability, much less ready availability to the ADOC, of the commercial product.

A. Yes, there is. Pentobarbital sodium for injection is a long-known and well-established drug product. It's been available to the medical sciences for decades

(Trial Tr. vol. 1, 206.)

Zentner testified that pentobarbital sodium for injection is listed in the FDA Orange Book, a publication containing all approved drugs in the United States. (Trial Tr. vol. 1, 207.) Per the FDA Orange Book, he stated that no active patents cover this product, meaning that anyone who has the ingredients can make pentobarbital sodium. (Trial Tr. vol. 1, 208.) Zentner also testified that other states have been able to locate sources for compounded pentobarbital (Zentner Dep. 45:4-7), but he identified no such sources,⁵ and the evidence indicates that, of the four states that used it in 2015, one had to “borrow” it from another.

Zentner then explained in detail the procedures a pharmacist would follow to create compounded pentobarbital. He described creating compounded pentobarbital as “a straightforward process” and explained that “[a]ny pharmacy in any state that desires to make this formulation would follow the procedure that I just described.” (Trial Tr. vol. 1, 209.) Zentner supported this testimony with reference to a 2015 article from the *Journal of Pharmacological and Toxicological Methods*, (Plaintiff's

⁵ “I have no knowledge of where any state has secured pentobarbital sodium.” (Zentner Dep. 46:21-22.)

Exhibit⁶ 29), which describes a method for the preparation of an injectable pentobarbital sodium solution. Zentner opined that this article was significant because it illustrated that laboratory scientists, “untrained in compounding or formulation were able to execute on a known recipe in what appears . . . to form a product that was visually indistinguishable from the commercial product and had excellent stability from their analysis through one year.” (Trial Tr. vol. 1, 211.)

Zentner further testified that he did an internet search for pentobarbital sodium and learned that a company in the United States identifies “Pentobarbital Sodium” in its listing of products that can be purchased in the United States. (Trial Tr. vol. 1, 212-13.) This company’s product list – identified as its Portfolio Drug Substance – that was printed from its website was admitted pursuant to Fed. R. Civ. P. 803(17), over Defendants’ objection, as PX 52. (Trial Tr. vol. 1, 214-15.) Also, Dr. Zentner noted that there are overseas suppliers of pentobarbital sodium and that pentobarbital sodium could be produced by drug synthesis labs in the United States. (Trial Tr. vol. 1, 216-17.)

As to compounding pharmacies in Alabama, Zentner testified that he searched the website of the Accreditation Commission for Health Care (ACHC) for accredited compounding pharmacies in Alabama, identifying nineteen such pharmacies. (Trial

⁶ Plaintiff’s Exhibits will be referred to as “PX,” and Defendants’ Exhibits will be referred to as “DX.”

Tr. vol. 1, 217-18.) From his contact with two of these pharmacies, Zentner learned that they had the facilities necessary to do sterile compounding; however, he did not ask either pharmacy whether it was willing to compound pentobarbital, nor did he give any identifying information regarding the pharmacies. (Trial Tr. vol. 1, 229.) Neither did he contact the other seventeen pharmacies, nor give any identifying information relating to them.⁷

Zentner further opined that because other states have obtained compounded pentobarbital, it should also be available from those pharmacies in the other states and that any pharmacy that is qualified to do sterile compounding and has the necessary equipment could be a source of supply, as the compounding exercise is “very easy and straightforward.” (Trial Tr. vol. 1, 218.)

Zentner’s carefully qualified answer to the last question put to him on direct examination reveals the tepid and inexact nature of his opinion concerning whether pentobarbital is available to the ADOC:

A. My opinion is that the *active pharmaceutical ingredient*, which is pentobarbital sodium, *is available for purchase* in the United States and

⁷ From Zentner’s deposition: “Q. Okay. And what did you ask them [two compounding pharmacies]? A. I asked them if they did sterile compounding. Q. And what did they say in response to your question? A. Both said they did sterile compounding. Q. Okay. Did you ask them if they did sterile compounding of pentobarbital sodium? A. I did not specifically mention pentobarbital sodium.” (Zentner Dep. 21:19 – 22:3.) He admitted he had no personal knowledge of the other seventeen pharmacies actually compounding pentobarbital sodium, *id.* at 27:11-19, nor whether any would be willing to provide compounded pentobarbital to the ADOC. *Id.*, at 28:1-3. “I have no knowledge about the willingness of any pharmacy to provide pentobarbital sodium sterile injectable to ADOC.” *Id.*, at 30:5-7.

that there are compounding pharmacies that have the skills and licenses to perform sterile compounding of pentobarbital sodium. Therefore, the feasibility for producing a sterile preparation of pentobarbital sodium does exist.

Trial Tr. vol. 1 at 219 (emphasis added).

Turning to sodium thiopental, Zentner testified that to his knowledge, it is no longer listed in the FDA Orange Book, meaning that it is not available legally in the United States.⁸ He did not know whether there are stores of sodium thiopental available somewhere in the United States. (Trial Tr. vol. 1, 227.) Dr. Zentner stated that it was his general understanding that sodium thiopental is available offshore and conceivably could be imported. (Trial Tr. vol. 1, 228.)

Zentner's testimony is credible.

b. Anne Adams Hill

In rebuttal, Defendants offered the testimony of Anne Adams Hill, who has been general counsel for the ADOC since March of 2011. Ms. Hill testified as the ADOC's party representative. She was aware that in 2015, Georgia, Missouri, Texas, and Virginia performed executions using compounded pentobarbital. (Trial Tr. vol. 1, 98.) Ms. Hill testified that, in her recent efforts to obtain compounded pentobarbital for the ADOC's use in executions, she had contacted the departments

⁸ Consistent with Zentner's testimony, Dr. Alan David Kaye, Arthur's other expert, testified that sodium thiopental is no longer manufactured and that he stopped using it because it became unavailable a few years ago, "somewhere in that five, six, seven-year range. I just don't know what year." (Kaye Dep. 290:14 – 291:8.)

of corrections in at least those four states: Georgia, Missouri, Texas, and Virginia. (Trial Tr. vol. 1, 106.)

Elaborating, Hill testified that, as part of her job duties, she is routinely in contact with other departments of corrections on a variety of issues, including the subject of lethal injection generally, the availability of compounded pentobarbital, and in those states that have been able to obtain compounded pentobarbital, their willingness either to provide it to the ADOC or to provide their source to the ADOC. (Trial Tr. vol. 1, 107.) She reiterated that she has had these similar, ongoing, conversations not just recently, but “for some time.” (Trial Tr. vol. 1, 109.) Ms. Hill did not do any research, *per se*, on the internet as to the availability of compounded pentobarbital. (Trial Tr. vol. 1, 111.)

In her quest to find a source for compounded pentobarbital, Hill has also contacted all eighteen accredited compounding pharmacies in Alabama, but her efforts were to no avail. “[N]one of the 18 were able to provide the Department of Corrections with compounded pentobarbital.” (Trial Tr. vol. 1, 149.) In all, she has contacted at least twenty-nine potential sources to inquire about obtaining compounded pentobarbital, and all of those efforts have been unsuccessful. (Trial Tr. vol. 1, 158.)

Given that the ADOC’s current drug protocol calls for midazolam instead of pentobarbital, Hill testified that, if the ADOC found a source for compounded

pentobarbital, then the ADOC would consider whether to amend the protocol to include that as an alternative. (Trial Tr. vol. 1, 114.) As to the development of the ADOC's protocol, Ms. Hill testified that she is responsible for preparing and maintaining the protocol, but "at the end of the day, the Commissioner, of course would be the ultimate authority on all policies and procedures of the Department of Corrections." (Trial Tr. vol. 1, 117.)

With respect to sodium thiopental, Hill testified that, after the ADOC adopted a drug protocol that included midazolam, she made no effort to obtain sodium thiopental and no effort to determine if it could be legally imported for the ADOC's use in executions. (Trial Tr. vol. 1, 151-52.) Further, to her knowledge, sodium thiopental is not available in the United States, and she is unaware of any state that has imported sodium thiopental for use in executions. (Trial Tr. vol. 1, 160).⁹

Hill's testimony is credible.

2. Findings of Fact

Based on the testimony and other evidence introduced at trial and of record, the court makes the following findings of fact as to the availability of pentobarbital/compounded pentobarbital and sodium thiopental to the ADOC.

⁹ Arthur also proffered designated testimony from Hill's deposition taken on November 18, 2015 (Doc. # 325-1), which concerned primarily his Eighth Amendment claim. Even though Hill testified at trial and was questioned extensively about this claim, the parties agreed not to dispute the admissibility of the designated testimony of the ADOC personnel, which would include Hill. (Trial Tr. vol. 2, 3.) The court has considered Hill's designated testimony from her November 18, 2015 deposition.

a. Pentobarbital/Compounded Pentobarbital

1. The ADOC's supply of commercially manufactured pentobarbital, Nembutal®, expired around November 2013. (Doc. # 267, ¶ 67.)

2. The supplier of Nembutal® is prohibited from providing it for use in human executions. *See Schad v. Brewer*, 13-cv-2001, 2013 WL 5551668 (D. Ariz. Oct. 7, 2013). Nembutal® is no longer available to the ADOC.

3. When a drug is no longer available from a commercial pharmaceutical manufacturer, but remains listed in the FDA Orange Book, the publication by the U.S. Food and Drug Administration of all approved legal drugs in the United States, a licensed pharmacist may legally create that drug by compounding or combining the ingredients comprising that drug. (Doc. # 299-14, ¶ 12.)

4. Pentobarbital sodium is the active pharmaceutical ingredient in compounded pentobarbital. There is a formulation, a recipe, for compounding an injectable solution of pentobarbital, using pentobarbital sodium and other ingredients, including water. "Pentobarbital sodium for injection," a long-known and well-established drug product, is listed in the FDA Orange Book.

5. After manufactured pentobarbital, Nembutal®, became unavailable for use in lethal injection executions in the United States, some states, including Georgia, Missouri, Texas, and Virginia, have turned to compounded pentobarbital for use in executions. (Doc. # 267, ¶ 120.)

6. In 2015, four states, Georgia, Missouri, Texas, and Virginia, performed executions using compounded pentobarbital. (See PX 50 (Death Penalty Information Center, Execution List 2015).) Virginia was unable to obtain compounded pentobarbital from its traditional suppliers, but it was able to obtain compounded pentobarbital for use in a 2015 execution from the Texas Department of Criminal Justice. See *Prieto v. Clarke*, No. 3:15-cv-587-HEH (E.D. Va. Oct. 1, 2015) (Doc. # 19 therein, Memorandum Opinion at 3).

7. Anne Adams Hill, the ADOC's general counsel, is responsible for developing, proposing, and maintaining the ADOC's execution protocol. However, Hill is not the final decision and policymaker concerning the ADOC's execution protocol. The final decision maker is the ADOC's Commissioner.

8. The ADOC has attempted to obtain compounded pentobarbital for use in executions from departments of corrections in at least four states, Georgia, Missouri, Texas, and Virginia, but those efforts were unsuccessful.

9. The ADOC has contacted all of the accredited compounding pharmacies in Alabama to ascertain whether any of these pharmacies would be willing and able to provide compounded pentobarbital to the ADOC, but those efforts have been unsuccessful.

10. Pentobarbital is not feasible and readily implemented as an execution drug in Alabama, nor is it readily available to the ADOC, either compounded or commercially.

b. Sodium Thiopental

11. Per the FDA Orange Book, sodium thiopental is no longer legally available in the United States.

12. While sodium thiopental may be available from an overseas supplier and could conceivably be imported into the United States, such importation requires the approval of the FDA. There was no evidence at trial that any state’s department of corrections had obtained the FDA’s approval to import sodium thiopental for use in performing its executions.

13. Sodium thiopental is unavailable to the ADOC for use in lethal injections.

3. Conclusions of Law

1. After *Glossip*, it is clear that the burden rests with the condemned inmate “to plead and prove a known and available alternative” method of execution. *Glossip*, 135 S. Ct. at 2739.

2. It is Arthur’s burden to “identify an alternative [method of execution] that is ‘feasible [and] readily implemented.’” *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U. S. at 52). “[I]t is not the state’s burden to plead and prove that it cannot acquire the drug.” *Brooks v. Warden*, 810 F.3d 812, 820 (11th Cir. 2016).

3. To meet his burden, Arthur proposes, in lieu of an execution with a three-drug protocol utilizing midazolam, an execution with either compounded pentobarbital in a one-drug protocol or with sodium thiopental in a one-drug protocol, alleging that these alternative methods of execution would meet constitutional standards whereas an execution with midazolam, as the first of three drugs, would not.

4. Zentner's testimony that the "active pharmaceutical ingredient" of pentobarbital sodium is "available for purchase" in the United States and that there are compounding pharmacies that hypothetically can perform compounding – "the feasibility . . . does exist. . . ." – does not meet Arthur's burden to prove that compounded pentobarbital is readily available to the ADOC for use in lethal injections. That it should, could, or may be available falls far short of Arthur's burden.

5. Arthur failed to prove that compounded pentobarbital is readily available to the ADOC. Proof that another state has procured it, that with effort it can be compounded (maybe by a willing Alabama compounding pharmacy but maybe not), and indications on the internet that a supplier offers to sell the active ingredients, do not prove a feasible and readily available product. At best, it proves a "maybe."

6. Compounded pentobarbital has been available to some states other than Alabama for use in executions performed in 2015. However, the fact that

compounded pentobarbital was available in those states at some point over the past year or two does not, without more, establish that it is available to Alabama. At best, Arthur only established that compounded pentobarbital might become available to the ADOC.

7. Contrary to Arthur's contention, the State has no burden to plead and prove that it cannot acquire either of Arthur's proposed alternative drugs for use in his execution. *Brooks*, 810 F.3d at 820. Irrespective of its lack of burden, the State demonstrated that despite its inquiries to departments of corrections in other states and to accredited compounding pharmacies in Alabama, it has been unable to obtain a source of supply for compounded pentobarbital. This is further support for the finding that compounded pentobarbital is not presently available to the ADOC.

8. Arthur also failed to carry his burden to establish that sodium thiopental is an alternative drug that is available to the ADOC for use in his execution. Sodium thiopental is not currently an approved drug that is legally available in the United States. Evidence of its availability from an overseas supplier is insufficient to satisfy *Glossip's* requirements. Additionally, newspaper accounts that sodium thiopental might have been available to other states at some other time from India do not establish that the drug is readily available to the ADOC.

9. Arthur sufficiently pleaded an Eighth Amendment claim, but he failed to meet his burden of proof. Defendants are entitled to judgment in their favor on Arthur's Eighth Amendment claim.

B. Equal Protection Claim

Arthur's Fourteenth Amendment equal protection claim concerns that part of the ADOC's written execution protocol that requires a member of the execution team to conduct a "consciousness assessment" on the inmate after the administration of the first drug. The purpose of the assessment is to determine whether the inmate has been rendered unconscious by the first drug. This consciousness assessment consists of three parts: (a) calling the inmate's name; (b) fluttering the eyelash; and (c) pinching the arm. (Trial Tr. vol. 1, 165-66.) Arthur alleges that the ADOC's written execution protocol regarding the consciousness assessment is constitutionally deficient for two reasons.

First, Arthur claims that, during executions, the ADOC has treated inmates disparately by deviating from the written execution protocol's requirement to conduct a pinch test (which Arthur labels a "core component" of the protocol) and that this disparate treatment is likely to happen to him, thus burdening his "fundamental right under the Fourteenth Amendment to the U.S. Constitution to be free from cruel and unusual punishment," as guaranteed by the Eighth Amendment. (Doc. # 267, at 49 ¶ 160.) He cites the Southern District of Ohio's decision in *Cooey*

v. Kasich, 801 F. Supp. 2d 623, 652–53 (S.D. Ohio 2011), which found that “core deviations” from a state’s written execution protocol could burden the inmate’s “fundamental right” under the Eighth Amendment “to be free from cruel and unusual punishment” for purposes of a Fourteenth Amendment equal protection claim. *See also In re Ohio Execution Protocol Litig.*, 671 F.3d 601, 602 (6th Cir. 2012) (denying the State of Ohio’s emergency motion to vacate the district court’s order staying the execution based in part upon the district court’s reasoning in 801 F. Supp. 2d 623 that “the State should do what it agreed to do: in other words it should adhere to the execution protocol it adopted”).

Secondly, and relatedly, Arthur alleges that the ADOC has failed to train members of the execution team adequately as to the purpose of the consciousness assessment, how to conduct it, and how to communicate the results of the consciousness assessment to the warden during the execution process. Arthur asserts that determining consciousness requires medically trained personnel, or at least personnel trained specifically on determining consciousness, and that the ADOC has not implemented effective training protocols to ensure that its “purported safeguard to assess anesthetic depth” is applied equally across all executions. (Doc. # 267 ¶ 168.) According to Arthur, these training deficiencies selectively introduce a substantial risk into executions that he will not be properly anesthetized when the second and third drugs are administered and burden his fundamental right, in

violation of the Fourteenth Amendment, to be free from cruel and unusual punishment as guaranteed by the Eighth Amendment.

Defendants moved to dismiss Arthur's equal protection claim for failure to state a claim upon which relief can be granted. (Doc. # 268.) In that motion, Defendants acknowledged that the court had previously denied their motion to dismiss for failure to state a claim (Doc. # 219), but pointed out that that denial was prior to *Glossip*. In renewing the motion to dismiss, Defendants requested reconsideration of their motion in light of *Glossip*.

The court's decision to carry this motion into the trial was dictated, in part, by the litigation history of the case, and particularly the Eleventh Circuit's decision in 2012 reversing the dismissal of Arthur's equal protection claim for failure to state a claim. *See Arthur*, 674 F.3d at 1257. The Eleventh Circuit concluded that the dismissal of Arthur's Equal Protection claim was premature because his pleading was sufficient. It held:

To survive a motion to dismiss, Arthur has to plead "only enough facts to state a claim to relief that is plausible on its face." *Bell Atlantic v. Twombly*, 550 U. S. 544, 570, 127 S. Ct. 1955, 167 L. Ed. 2d 929 (2007). Here, Arthur has alleged enough facts to constitute a plausible Equal Protection claim because he alleges that Alabama has substantially deviated from its execution protocol in a manner that significantly reduces inmate safeguards. He alleges that Alabama's lethal injection protocol requires pinching the inmate as the last consciousness check after the initial injection of pentobarbital and prior to injecting the final two lethal drugs. The consciousness check is performed to reduce or eliminate the risk of excruciating pain that would follow the injection of the second and third drugs in the lethal

injection protocol. Arthur alleges that based on eyewitness testimony, the State of Alabama failed to perform the pinch test during the 2011 execution of Eddie Powell, even though Powell's eyes remained open, his head turned from side to side, and he clenched his jaws.

Arthur alleges that Alabama's reduction in safeguards burdens his right to be free from cruel and unusual punishment. "[S]ubjecting individuals to a risk of future harm—not simply actually inflicting pain—can qualify as cruel and unusual punishment." *Baze v. Rees*, 553 U. S. 35, 49, 128 S. Ct. 1520, 170 L. Ed. 2d 420 (2008). Significant deviations from a protocol that protects inmates from cruel and unusual punishment can violate the Eighth Amendment. Indeed, the Sixth Circuit recently affirmed an order to stay an execution because four core deviations from Ohio's lethal injection protocol, including foregoing mandated vein assessments, burdened the Equal Protection rights of inmates in Ohio. See *In re Ohio Execution Protocol Litigation*, No. 12-3035, 2012 WL 118322 (6th Cir. Jan. 13, 2012), affirming, *Cooley v. Kasich*, 801 F. Supp. 2d 623, 643-644 (S. D. Ohio 2011) ("We agree with the district court that the State should do what it agreed to do: in other words it should adhere to the execution protocol it adopted.").

Here, Arthur alleges that Alabama failed to perform a required consciousness check in a recent execution, a significant deviation from its execution protocol. In light of Arthur's other allegations regarding the veil of secrecy that surrounds Alabama's execution protocol, it is certainly not speculative and indeed plausible that Alabama will disparately treat Arthur because the protocol is not certain and could be unexpectedly changed for his execution.

Accordingly, accepting Arthur's allegations as we must at the motion to dismiss stage, we conclude that the district court erred in dismissing Arthur's Equal Protection claim at this stage of the proceedings and remand for further factual development.

Arthur, 674 F.3d at 1263 (footnotes omitted).

In compliance with the Eleventh Circuit's mandate, Arthur's equal protection claim proceeded to discovery and further factual development. Nothing in *Glossip*

cautioned against trying the issue. Given the law of the case and out of an abundance of caution to protect Arthur's rights, this claim was tried, and it will be decided on the merits.

The court heard testimony from various witnesses to prior ADOC executions, including Eddie Powell's execution. The court also admitted testimony from former prison personnel at Holman Correctional Facility (Holman), including former wardens and correctional officers who were part of an execution team and were present in the execution chamber during executions.¹⁰ Additionally, the court had testimony from the chaplain at Holman who has attended more than forty executions, from a volunteer lay minister at Holman who had witnessed executions at Holman after the consciousness assessment was added to the execution protocol, and from the ADOC's general counsel, who has attended nine or ten executions as part of her duties as the ADOC's general counsel. The evidence is starkly contradictory from credible witnesses on both sides.

Concerning Arthur's challenge to the general adequacy of the consciousness assessment, including the pinch test, he offered the expert testimony of a medical doctor, David A. Kaye, M.D., and designated testimony from two of Defendants'

¹⁰ Because of security concerns for the ADOC's prison personnel whose designated deposition testimony is part of the proof at trial and to protect their identity, these individuals were referred to at trial only by their initials. Likewise, in this opinion, they are also referred to only by their initials. There are five such personnel identified as G.C., A.P., W.H., D.C., and C.S. Their designated testimony is summarized, *infra*. They will be identified by name in an appendix accompanying this opinion filed under seal.

experts, Mark Dershwitz, M.D., and Roswell Lee Evans, M.D. Arthur offered only expert medical evidence; he did not offer correctional testimony or opinion, or other non-medical expert opinion on the consciousness assessment. His evidence on both aspects of his Equal Protection claim is summarized below.

1. *Trial Testimony*

a. Matt Schulz

Matt Schulz is employed by the Federal Defender's Office in Montgomery, Alabama; he is an attorney with the capital habeas unit and has worked in that position since August of 2008. Primarily, he represents death-row inmates.

He was appointed counsel for Eddie Powell in late 2008 and was lead counsel through his execution. Schulz thought it would be in Powell's best interests to have someone at the execution who represented him. (Trial Tr. vol. 1, 30.) Powell permitted him to attend. Christine Freeman, Executive Director of the Federal Defender's Office, attended the execution with Schulz. Schulz recalled Powell's execution vividly. (*Id.*) He witnessed it from a viewing room that was designated for the inmate's family and was immediately adjacent to the execution chamber. (Trial Tr. vol. 1, 10-12.) He sat in the middle of the first row of chairs in this room because he "wanted the best view possible." (Trial Tr. vol. 1, 13.) From his seat on the front row, he was close enough to the viewing room that he could have reached forward and touched the window. By his estimate, he was located about seven to

ten feet, at most, from Powell's feet. From this viewing room, Schulz was on the left side of Powell's body, as Powell lay on the gurney. The viewpoint he had of Powell is depicted in PX15-36, a photograph "from right about where I was sitting." (Trial Tr. vol. 1, 15.)

Christine Freeman, Schulz's supervisor, sat next to him on the front row. There were others in this viewing room, people he presumed to be from the media. A correctional officer was present in the room who instructed them to remain seated and silent until after the execution had concluded. (Trial Tr. vol. 1, 15-16.) Schulz had a clear view of the left side of Powell's body, including his face, hands, and left arm, and that his view was unobstructed. (Trial Tr. vol. 1, 18.)

Schulz testified that prior to the execution, the warden entered the execution chamber, read the death warrant, and asked Powell if he had any last words. After these preliminaries, the warden announced that the execution would proceed, and then the warden exited the room. Schulz assumed that the warden went to the control room. He then observed the chaplain approach Powell, say a few words to him, kneel on the left side of the gurney, take Powell's hand and begin to pray. After the chaplain stepped away from Powell and back to the wall, Schulz observed a prison guard walk up to Mr. Powell's head and shoulder area, "not right up next to him, but, you know, pretty – pretty close, you know, a foot or two away from him, almost standing at attention, kind of." (Trial Tr. vol. 1, 23-24.)

Schulz then described what next transpired. When the guard was at Powell's left shoulder and head area¹¹, he called Powell's name three times, and then he ran his finger over Powell's left eyelash or eyelid. Afterward, he returned to his previous position in the execution chamber. Schulz was questioned about the events extensively, repeating that he had a good view of everything and was paying close attention, and that there were no obstructions or distractions. (Trial Tr. vol. 1, 23-27.) He did not see a pinch test.

Schulz's memory was refreshed with his testimony from a previous hearing in this case on October 18, 2012, that at the time of Powell's execution, he was unaware that there was a consciousness test to be performed. (Trial Tr. vol. 1, 33-34; DX-30A, 268:21-269:3.) He testified that if the officer had performed the pinch test, "I'm sure I probably would have [noticed]," (Trial Tr. vol. 1, 21); he "could have witnessed" it. (Trial Tr. vol. 1, 42-44.)

¹¹ There is considerable confusion in the record about where the correctional officer stood during the consciousness assessment. Freeman testified the officer stood on the left side of Powell, not at his head, when he did the consciousness assessment. (Trial Tr. vol. 1, 79, 81.) Hill agreed with Schulz that the guard was at Powell's head, not side. (Trial Tr. vol. 1, 192.) W.H., the captain who actually performed the assessment on Powell, testified that he stood to the prisoner's side and that persons to his rear, including those in the inmate's viewing room, would not be able to see the pinch because his body and the arm of the inmate would be blocking their view. (W.H. 2012 Dep. 47:9 – 48:10.)

b. Stephen Ganter

Stephen Ganter is an attorney currently employed as an assistant federal defender with the Federal Defender's Office for the Middle District of Alabama and has held that position since July of 2008.

Ganter's testimony concerned what he observed when he witnessed the execution of his client, Michael Jeffrey Land, on August 12, 2012. Ganter viewed Land's execution from the inmate family's viewing area. Ganter "sat in the very first chair as you enter that door to the far left." He sat in the front row because he wanted to be close. "I wanted to make sure that I saw everything." (Trial Tr. vol. 1, 53.) His view was unobstructed, and he could see Mr. Land clearly. PX15-28 is a photograph that accurately reflects his view of the execution chamber.

From his perspective, he viewed the left side of Land's body. He had a clear view of Land, and he could see Land's face, hands, and left arm. Ganter described his observations of Land's execution in detail and testified that at no point during the execution did he see the correctional officer pinch Land. He added that if the correctional officer had pinched him, he would have seen it. (Trial Tr. vol. 1, 59-61, 71.) "And I didn't know what to expect. I obviously had never seen one before, and I was not familiar with any sort of protocol. So I was watching everything intently." (Trial Tr. vol. 1, 62, 71.) It was quiet in the viewing room and that there were no distractions that would have affected his ability to pay attention to the

execution at that time. He was not crying and did not look away during the execution. (Trial Tr. vol. 1, 62-63.)

Ganter acknowledged that, when the correctional officer approached Land, he passed in front of the left armrest of the gurney, which would have blocked his view of Land's arm.

THE COURT: 15-28. So when the officer checked his eyelid, he blocked your view of the arm.

THE WITNESS: That is correct. He walked in between Mr. Land's arm and Mr. Land's torso.

Q. (Mr. Houts, continuing:) At the time you were witnessing Mr. Land's execution, did you know anything about the specifics of the Alabama Department of Corrections' consciousness assessment?

A. I did not.

(Trial Tr. vol. 1, 70.)

Regardless of the briefly blocked view of Land's upper arm, Ganter thought that there was insufficient time for the officer to have pinched the arm during that time.

c. Christine Freeman

Christine Freeman is an attorney employed for sixteen years as Executive Director of the Federal Defender's Office for the Middle District of Alabama. Freeman attended the executions of Eddie Powell and Michael Jeffrey Land. In her

capacity as Executive Director, she considered Powell and Land to be clients of her office.

Freeman viewed Powell's execution from the viewing room to the left of the prisoner as he lay on the gurney. It was the viewing room assigned to defense counsel and the inmate's witnesses. She sat in a chair in the front row. PX15-36 is a photograph that accurately reflects her view of the execution chamber. She was slightly closer to the window than the view depicted in PX15-36. She had a clear view of the left side of Powell's body; she was able to see his arms and hands. Her view was unobstructed. (Trial Tr. vol. 1, 77-78.) Freeman recalled that during the execution, a correctional officer said Powell's name and touched his face, but that she did not see him or anyone else pinch Powell's arm. (Trial Tr. vol. 1, 79-80.)

Freeman also attended Michael Jeffrey Land's execution. However, she recalls little about Land's execution: "I think that I heard them call his name, but I really don't recall past that." (Trial Tr. vol. 1, 95.)

Freeman further testified that she had only attended the executions of Eddie Powell and Michael Jeffrey Land and that she "definitely was not familiar with the requirements of the [execution] protocol on either occasion when I was witnessing the executions." (Trial Tr. vol. 1, 86.) She acknowledged that, because she was unaware of the components of the consciousness assessment when viewing Powell's

execution, it is possible that she simply failed to see the officer pinch the arm when performing the consciousness assessment. (Trial Tr. vol. 1, 94.)

d. Anne Adams Hill

Anne Adams Hill, the ADOC's general counsel, testified that the consciousness assessment has been a mandatory part of the ADOC's execution protocol since October of 2007. (Trial Tr. vol. 1, 165.) She described it as follows:

A. The consciousness assessment is an assessment that's done after the administration of the first drug of the execution protocol but prior to administering the second drug. And it involves a test that's given to the condemned beginning with speaking the individual's name and then brushing their eyelashes and then giving them a firm pinch on their arm.
...

A. They're pinched on the back of their arm, on this more sensitive – this meaty part of the back of their arm.

(Trial Tr. vol. 1, 163–64.) Hill's testimony confirms that the consciousness assessment has three components.

Hill explained that the purpose of the consciousness assessment is to provide an additional safeguard to ensure that the condemned is unconscious before proceeding with the administration of the second and third drugs. It is performed by the execution team member who is in the execution chamber. (Trial Tr. vol. 1, 164–65.)

Hill also testified that in her role as the ADOC's general counsel, she attends executions and that she has attended nine or ten executions that have occurred after

the consciousness assessment was implemented in 2007. She testified that she views executions from the commissioner's viewing room, which is directly in front of the gurney at the prisoner's feet, and that from that vantage, she has a clear, unobstructed view of the inmate on the gurney during an execution. She stated that she has seen the performance of all three parts of the consciousness assessment in all executions she has attended after it became part of the execution protocol. (Trial Tr. vol. 1, 166.) She specifically recalled viewing Eddie Powell's execution and reiterated that she observed the performance of the pinch test during Powell's execution.¹² (Trial Tr. vol. 1, 169–70, 176–77.)

In her role as ADOC's general counsel, Hill is familiar with the documentation the prison routinely records and maintains on executions. She was questioned about the purpose of the incident reports/execution logs and the information reflected in these logs. The logs capture the name of the inmate, the details regarding the execution, and a summary of the execution. Specifically, she was questioned about the execution logs for Christopher Johnson (DX 31) and Eddie Powell (DX 33), and the information contained in those logs regarding the consciousness assessment. Hill acknowledged that these two execution logs failed

¹² Though Hill testified that she had attended all executions performed after the consciousness assessment was adopted in 2007, she did not specifically recall Michael Jeffrey Land's execution in 2010.

to reflect that all three parts of the consciousness assessment had been performed. However, she explained that the purpose of the execution log “is to document that a consciousness assessment took place. The protocol does not require that all steps of the consciousness assessment be indicated in the log. And the log really represents the observation of the person making the log, but it’s not intended to be exhaustive of every aspect.” (Trial Tr. vol. 1, 184-85.)¹³

e. Don Blocker

Arthur presented the testimony of Don Blocker via a videotaped deposition taken on March 12, 2013. At that time, Blocker was a volunteer lay minister at Holman. (Blocker Dep. 7:4-8.) He has worked with inmates at Holman since August of 1989, about 24 years. He is involved in executions at Holman to the extent that he will stay with the condemned inmate, at the inmate’s request, on the day of the execution and will stay with the inmate in the execution chamber during the two hours prior to the execution. Blocker is not in the execution chamber during executions.

Blocker has witnessed executions at Holman from the viewing room designated for the inmate’s family and the media. From this viewing room, he is on

¹³ Arthur also proffered designated testimony Hill’s depositions taken on October 10, 2012, and March 14, 2013 (Doc. # 325-1), which concerned primarily his Equal Protection claim. Even though Hill testified at trial and was questioned extensively about this claim, the parties agreed not to dispute the admissibility of the designated testimony of the ADOC personnel, which would include Hill. (Trial Tr. vol. 2, 3.) The court has considered Hill’s designated testimony from her October 10, 2012, and March 14, 2013 depositions.

the left side of the inmate’s body, at an angle, as the inmate is situated on the gurney, and he can “basically view his entire body from that side.” (Blocker Dep. 11:16 – 12:8.) His view of the inmate is not obstructed. Blocker testified that whenever he has viewed any execution, it has been from this same viewing room.

A summary of Blocker’s testimony identifying the seven executions he has viewed and his observations during the course of these executions *vis-à-vis* the consciousness assessment is contained below. His responses appearing as “no*” were either “not to my remembrance,” “not that I’m aware of,” or “not that I remember”:

Inmate	Date (mo/yr)	Name Called	Eyelash Flutter	Arm Pinch
Jimmy Dill	04/09	yes	no*	no*
Willie McNair	05/09	yes	yes	no*
Max Landon Payne	10/09	yes	no	no*
Phillip D. Hallford	11/10	yes	no	no*
Leroy White	01/11	yes	no	no*
William Glen Boyd	03/11	yes	doubtful no*	doubtful no*
Jason Oric Williams	05/11	yes	no	no*

(Blocker Dep. 14:21 - 16:22; 16:25 - 17:15; 18:3 - 21:7.)

On direct examination, he testified that he believes that he would have noticed an eyelash flutter if it had occurred. (*Id.*) While he was not aware of anyone pinching the arm of any of these inmates during their executions, he believes he would have seen a pinch of the arm if it had occurred. (*Id.*) However, Blocker acknowledged three times on cross-examination that it was possible that he did not see parts of the consciousness assessment that were performed. (Blocker Dep. 29:13 – 19; 30:23 – 31:8; 34:19 - 35:11.)¹⁴

The court credits Blocker’s testimony subject to his qualification of it. The testimony of witnesses Shultz, Ganter, Freeman, and Hill, all officers of the court and known to the court to be credible, is also credited as constrained by limitations contained within the testimony.

Pursuant to the parties’ Fed. R. Civ. P. 26(a)(3) deposition designations, the court has also considered the designated testimony from the following witnesses:

f. G.C.

G.C. is employed by the ADOC. He was deposed twice in this case: October

¹⁴ The court rules on Arthur’s objections raised in Blocker’s deposition as follows:
(1) Blocker Dep. 25:18–26:9: sustained: hearsay; lack of foundation; lack of personal knowledge.
(2) Blocker Dep. 28:21–29:19: sustained as to 28:21–29:7: no prior attack on witnesses’ character for truthfulness (Fed. R. Evid. 608(a)); opinion testimony by lay witness (Fed. R. Evid. 701); overruled as to 29:13–29:19.
(3) Blocker Dep. 30:12–31:17: 30:12–30:21: sustained: no prior attack on witnesses’ character for truthfulness (Fed. R. Evid. 608(a)); opinion testimony by lay witness (Fed. R. Evid. 701); overruled as to 30:23–31:8; sustained as to 31:9–31:17, same grounds as above.
(4) Blocker Dep. 34:12–35:11: sustained as to 34:12–18; overruled as to 34:19–35:11.

12, 2012, and March 12, 2013. G.C. was the warden at Holman from 2002 to 2009. Since November 2009, he has held the position of Institutional Coordinator; he supervises wardens for the fifteen state prisons in the northern part of Alabama. While he was the warden at Holman, the pinch test was implemented, but he was unsure what year it began.

G.C. testified that, when he was the warden at Holman, there was another correctional officer in the control room with him during an execution. On the warden's command, that officer "radios to the correctional personnel in the execution chamber that it's time to perform the consciousness test." (2012 G.C. Dep. 20:19 - 21:3.) When he was in the control room, he could hear what happened in the execution chamber itself. (2012 G.C. Dep. 22:7-11.) He also could see almost everything that happened in the execution chamber. (2012 G.C. Dep. 32:13-33:15.)

G.C. also testified that if there was any reaction by the inmate to the consciousness assessment, the procedure he followed was for the officer to radio back to the correctional officer in the control room with him. If the officer stepped away from the inmate, "that was my cue to proceed." (2012 G.C. Dep. 38:21 - 39:13; 40:13-22.) G.C. verified that in all of the executions over which he had presided as warden after the consciousness assessment became a part of the execution protocol, the pinch test was done and that no inmate reacted to the pinch test. (2012 G.C. Dep. 71:10-20.)

As to the training of ADOC personnel when the consciousness assessment was implemented, G.C. testified that other ADOC personnel, Kim Thomas and Hill, explained the consciousness assessment to him and instructed him on when it should be conducted during an execution. (2013 G.C. Dep. 6:15–7:22.) The determination on how to assess consciousness was the result of collaboration among Thomas, Hill, Captain D.C., and himself. (2013 G.C. Dep. 13:3-7.) Thomas, Hill, and the execution team at Holman, collectively, and as a team decided to pinch the inmate on the back of the arm because “[i]t was inconspicuous, it’s a fairly . . . fleshy part of the body, and it’s also fairly sensitive.” (2013 G.C. Dep. 9:18–10:14.) The court credits the testimony of G.C. that, after the consciousness assessment became a part of the execution protocol during his tenure as warden, he observed the execution captain perform the consciousness assessment, including the pinch, in all executions in which he participated.

g. A.P.

A.P. was deposed on October 11, 2012, when he was the warden at Holman, a position he had held since November 2009. He was a deputy warden at Holman prior to becoming its warden.

A.P. testified that during an execution, he observes the performance of the consciousness assessment, and he knows when it has been done. (A.P. Dep. 58:22–59:2.) The signal that he watches for is for the officer doing the consciousness

assessment to step away from the gurney. When that happens, he knows the inmate passed the consciousness assessment and that he can proceed with the execution. (A.P. Dep. 59:3-10.) Although he cannot see the pinch because of the location of the correctional officer and the inmate lying on the gurney, in every execution in which he has been the warden, he saw the correctional officer's hand move toward the pinch site on the inmate's arm. (A.P. Dep. 94:15 – 95:12.) A.P. also testified that in every instance where he has been the warden in the control room, the consciousness assessment has been completed in its entirety. (A.P. Dep. 78:5-9.) The court credits the testimony of A.P. that he observed the execution captain perform the consciousness assessment, including movement indicating the pinch, in all executions that occurred while he was warden.

h. W.H.

W.H. has retired from his employment with the ADOC. He has been deposed twice in this case: October 12, 2012, and March 14, 2013. W.H. began working at Holman in 2007 as a lieutenant; he became captain of the execution team in 2009.

W.H. testified that while he was the execution captain, he was involved in eight or nine executions and that as captain, he performed the consciousness check. In all of those executions, he stood on the left side of the inmate to perform the pinch test. (2012 W.H. Dep. 23:10-15.) He pinched under the inmate's arm several times,

on the inside of the arm, “hard enough to wake him if he’s asleep.” (2012 W.H. Dep. 17:17-25.)

When deposed again on March 14, 2013, W.H. testified that he received oral, written, and physical training on how to conduct the consciousness assessment. (2013 W.H. Dep. 5:6–8.) He received oral training from Warden A.P., Captain D.C. and Captain G. S. (2013 W.H. Dep. 5:17-21.) When A.P. was the warden, he instructed W.H. to stand in place in his position at the gurney if the inmate reacted to any part of the consciousness assessment. (2013 W.H. Dep. 9:18 - 10:8.) The court credits the testimony of W.H. that he conducted the consciousness assessment, including the pinch test, in all the executions in which the consciousness assessment was required.

i. D.C.

D.C. was formerly employed by the ADOC and worked at Holman. He retired in July 2009. D.C. has been deposed twice in this case: October 11, 2012, and March 12, 2013. He held the position of captain, and he was the team leader at executions. He was the first team leader to conduct the consciousness assessment after it was adopted as part of the protocol, and it was his practice to conduct all three components of the consciousness assessment almost simultaneously. (2012 D.C. Dep. 38:13-23.) D.C. testified that, he and the warden had the understanding that if any part of the consciousness assessment revealed a concern about the

inmate's consciousness, he would turn to face the warden. (2012 D.C. Dep. 84:4-15.)

In performing the pinch test, D.C. pinched hard enough to get a reaction from a conscious person. (2012 D.C. Dep. 79:16-20.) He participated in nine or ten executions while he was team leader and in all of those executions, when he conducted the consciousness assessment, he pinched the inmate and he never received any kind of reaction from the inmate. (2012 D.C. Dep. 130:21 - 131:8.) The court credits D.C.'s testimony that he conducted the consciousness assessment, including the pinch test, in all the executions in which the consciousness assessment was required.

j. C.S.

C.S. is employed by the ADOC as the chaplain at Holman. He has witnessed approximately forty executions. (C.S. Dep. 8:18-21.) He did not recall all of those executions, but he did recall witnessing Eddie Powell's execution. (C.S. Dep. 15:18-20.) C.S. described his observations of what the captain does in checking to see whether an inmate is unconscious: "He speaks out his name. He brushes his eyebrow and pinches him on the arm or grabs ahold of him under the arm." (C.S. Dep. 46: 8-10.)

C.S. specifically recalled that the consciousness assessment was conducted in Eddie Powell's execution. (C.S. Dep. 48: 21-24.) Further, C.S. stated that Powell's

body did not move when the consciousness assessment was performed (C.S. Dep. 54:3-7). The court credits the testimony of C.S. regarding the Powell consciousness assessment.

k. Mark Dershwitz, M.D.

Mark Dershwitz, M.D., is an expert for Defendants. Arthur deposed Dershwitz in a videotaped deposition on March 28, 2013. Arthur designated portions of his testimony concerning the efficacy of pentobarbital and the consciousness assessment, including the pinch test. Dershwitz was not offered as a witness by Defendants.

Defendants object to Arthur's deposition designations, contending that Dershwitz's testimony is irrelevant to the current proceedings because it concerns the ADOC's prior execution protocol employing pentobarbital as the first drug to be injected. Defendants cite Fed. R. Evid. 401, 402, and 802 as the bases for their objections.

Defendants' objections have merit, in part, and are sustained in respect to Dershwitz's testimony concerning pentobarbital (Dershwitz Dep. 75:25-77:24; 112:15-17; 112:20-113:2; 113:5-115:2; 123:21-124:5; 185:13-15; 185:18-186:2; 209:2-210:18) because that drug is no longer a part of the ADOC's three-drug cocktail. Fed. R. Evid. 401, 402. Dershwitz's medical opinions concerning the consciousness assessment and the pinch test (Dershwitz Dep. 79:11-80:22; 80:24-

81:3; 118:14-19; 118:23–119:10; 189:19-23; 190:3-22), even if arguably relevant and not hearsay, do not change the outcome in this penological setting.

I. Roswell Lee Evans, M.D.

Roswell Lee Evans, M.D., is an expert for Defendants. Arthur deposed Evans in a videotaped deposition on December 8, 2015. Arthur’s designated portions of his testimony concern primarily the purpose of the consciousness assessment and the parts of it that have become known in the medical community by formal or technical terms, such as the “Ramsay scale” and the “glabellar tap.” (Evans Dep. 95:23-25; 127:13–128:11; 128:13; 128:16–129:2, 106:7-15; 129:3-5, 172:4-11; 172:14–173:6.) Evans was also questioned about the use of midazolam in Florida executions. (Evans Dep. 173:16–174:15.)

Defendants object to Arthur’s deposition designations, contending that since Evans would not be testifying at the bifurcated trial, his testimony is inadmissible hearsay. Defendants cite Federal Rules of Evidence 401, 402, 802, and 803 as the bases for their objections.

Defendants’ objections to Evans’s testimony concerning the use of midazolam in Florida executions (Evans Dep. 173:16–174:15) are sustained. This testimony is irrelevant to this portion of the bifurcated trial. Fed. R. Evid. 401, 402. Assuming without deciding that Evans’s testimony concerning the consciousness assessment

is relevant and not hearsay, as argued by Arthur, his medical opinions on the consciousness assessment do not change the outcome in this penological setting.

m. Alan David Kaye, M.D., Ph.D.

Alan David Kaye, M.D., Ph.D., obtained his medical degree from the University of Arizona in 1989 and his Ph.D. in pharmacology from the Tulane School of Medicine in New Orleans, Louisiana, in 1997. Kaye completed his residency in part at Harvard Medical School at Massachusetts General Hospital and in part at Tulane School of Medicine, where he was the chief resident in anesthesia. Kaye has also completed a two-year fellowship in advanced pain management or interventional pain management at Texas Tech Health Science Center in Lubbock, Texas. Currently, he is Chair of the Anesthesia Department at Louisiana State University, and he is the Residency Director in the Department of Anesthesia. He has been the Chair of that department for eleven years. (Trial Tr. vol. 2, 10.)

Kaye has taught medical pharmacology at both Tulane School of Medicine and Louisiana State University, and he is a professor of anesthesiology. He also works at LSU Medical Center, the flagship hospital in New Orleans, where he is the Director of Anesthesia. (Trial Tr. vol. 2, 10-11.) Kaye has written numerous peer-reviewed articles, and he has written chapters for *Miller's Anesthesia*, a medical treatise. Further, Kaye has an active clinical practice, seeing about forty patients per

week. (Trial Tr. vol. 2, 11.) Kaye qualified as an expert in the field of anesthesiology. (Trial Tr. vol. 2, 12.)

Kaye appeared as an expert witness on behalf of Arthur. He has reviewed the ADOC's consciousness assessment. He testified that, although it was designed to be "a hard red light to not proceed with the second and third drugs," it is medically inadequate to measure the depth of anesthesia. (Trial Tr. vol. 2, 17-18.) Kaye testified that if the pinch test is not performed, there is no safeguard. (Trial Tr. vol. 2, 20.) Based on his review of the testimony of the ADOC personnel who have performed the consciousness assessment, Kaye opined that the ADOC's training of these personnel is medically inadequate and that they are not equipped to detect indications of consciousness.

In Kaye's opinion, there are numerous flaws with the consciousness assessment. He faults the simultaneous performance of all three steps of the consciousness assessment as being medically improper, (Trial Tr. vol. 2, 22), and he opines that the members of the execution team do not pinch with sufficient force. (Trial Tr. vol. 2, 24.) Kaye testified that the pinch should be the hardest one can pinch; hard enough to bruise. (*Id.*) In arriving at his conclusion regarding the pinch test, he also reviewed the testimony of Mark Dershwitz, M.D. He concurs with Dershwitz that the pinch should be as hard as one can pinch. (Trial Tr. vol. 2, 25-26.)

In short, Kaye concluded for several reasons that, in his professional medical opinion, the ADOC's consciousness assessment and the manner in which it is performed are inadequate. (Trial Tr. vol. 2, 37.) Kaye's medical testimony is credible.

2. Findings of Fact

Based on the testimony and other evidence introduced at trial and of record, the court makes the following findings of fact on Arthur's equal protection claim challenging the ADOC's consciousness assessment practices.

1. In October of 2007, the ADOC adopted a consciousness assessment in its execution protocol. The purpose of the consciousness assessment is to provide an additional safeguard to lethal injection executions to ensure that an inmate is unconscious before the second and third lethal drugs are administered.

2. The consciousness assessment has three components, which are increasingly graded stimuli designed to determine if an inmate has been rendered unconscious after the injection of the first drug. The consciousness assessment is performed in the execution chamber by the captain of the execution team. First, the officer calls the inmate's name; second, he flutters the inmate's eyelash with his finger or hand; and third, he pinches the back side of the inmate's upper arm. If the inmate does not react to any part of the consciousness assessment, the warden proceeds with the execution.

3. The ADOC requires an incident report for executions. The incident report contains the inmate's name and a narrative summary of what occurred. It also includes a log documenting the time the execution began, the performance of the consciousness assessment, and when the inmate was pronounced dead. However, these execution logs do not contain information uniformly documenting that all three parts of the consciousness assessment were conducted. The execution protocol requires only that the prison record when the consciousness assessment occurred; it does not require the prison to record in the execution log that all three components of the consciousness assessment were conducted. For this reason, the incident reports contain inconsistent information, some more detailed than others, depending on the prison official who prepared the incident report. The court finds the execution incident report procedure lax, with unreliable results involving important details of the execution.¹⁵ However, the court does not find that an incident report's failure to document the completion of each of the three parts of the consciousness assessment

¹⁵ There are many things a state is constitutionally powerless to do: wage war, U.S. Const. art. 1, § 10, cl. 3; coin money, U.S. Const. art. 1, § 10, cl. 1; make treaties, U.S. Const. art. 1, § 10, cl. 1; secede from the Union (*see* Civil War 1861–65). But the Constitution permits a state to put its citizens to death. There can be no power more consequential, no decision more freighted with moral overtones, no higher calling to diligence in practice and procedure, than putting a living human being to death in the name of fellow citizens. Indeed, were a correctional officer to shoot dead a heinous villain committing a murder on a public street, the incident reports would run into the thousands of pages. It strains belief that a simple incident report of a very few pages recording the highest exercise of power by a sovereign state cannot be accurately completed.

means that the consciousness assessment did not occur in full for each execution at issue.

4. There is some conflicting testimony as to whether the ADOC has consistently performed all three components of the consciousness assessment in all executions after it was implemented. For instance, Matt Schulz, Stephen Ganter, Christine Freeman, and Don Blocker testified that they did not observe the pinch test, the third component, being performed in the executions they have attended. On the other hand, Hill, G.C., A.P., W.H., D.C. and C.S. testified that the ADOC has performed all three components of the consciousness assessment, including the pinch test, in all executions they have witnessed or participated in after the consciousness assessment was adopted.

The court credits the testimony of Hill, G.C., A.P., W.H., D.C., and C.S. over the testimony of those eyewitnesses who testified that they did not see a pinch test performed at the executions they have attended. The basis for this finding is twofold.

First, Hill, G.C., A.P., W.H., D.C., and C.S. are either present or former ADOC employees who are knowledgeable about the components of the consciousness assessment and, with the exception of C.S., have been trained as to its significance and how it is performed. C.S. is a participant in the execution chamber. Hill, in her role as the ADOC's general counsel, assisted in the development of the consciousness assessment and in providing training to prison

personnel in how the consciousness assessment should be conducted. These individuals are aware of the consciousness assessment and are trained to understand how, why, and when it is performed. However, they are not trained by medical professionals or as medical professionals.

Second, the testimony of those eyewitnesses who stated that they did not see the pinch test performed during the executions they attended is less probative for a number of reasons. For one, “didn’t see” testimony is fundamentally less direct and less probative than “didn’t happen” testimony. With the exception of Blocker, their testimony was that they “didn’t see” the pinch, or words to that effect, not that it categorically did not happen. Blocker admitted that he might have missed the pinch altogether. Ganter admitted the correctional officer blocked his view of Powell’s arm. Moreover, at the time Matt Schulz and Christine Freeman attended Eddie Powell’s execution, and at the time Stephen Ganter and Christine Freeman attended Michael Jeffrey Land’s execution, they did not know that there was a consciousness assessment that would be conducted during those executions. Thus, they also had no knowledge of the three components of the consciousness assessment, and they did not know the specifics of the consciousness assessment as to when or how it would be conducted. Because they neither knew that a consciousness assessment would be taking place nor what it was supposed to consist of, they did not know to be on the lookout for the performance of the pinch test. The court finds their

testimony, albeit truthful from their perspective and to the best of their recollection and knowledge, less direct and less probative on the specific factual question.¹⁶

As to Don Blocker, for similar reasons the court also assigns less weight to his testimony than to that of the present and former ADOC employees. Blocker was a volunteer lay minister at Holman who had not been trained in the nuances of the consciousness assessment. He also qualified his answers and admitted that he could have missed components of the consciousness assessment.

5. Based on the court's findings that the testimony of Hill, G.C., A.P., W.H., D.C., and C.S. is more probative and deserves more weight than the testimony of Matt Schulz, Stephen Ganter, Christine Freeman, and Don Blocker, the court further finds that the evidence establishes that the pinch test was performed in all executions that the ADOC has conducted after the ADOC adopted the consciousness assessment and incorporated it as a mandatory part of the written execution protocol. In particular, based upon the testimony of the captains who have personally conducted the consciousness assessment and whose credibility was not seriously

¹⁶ An imperfect analogy helps the court resolve conflicted testimony. It involves the distinction between participants and witnesses: A professional baseball pitcher knows when he throws a spitball. He did it. He may lie about it, but he knows. Observers, on the other hand, will be decidedly mixed on the question, even as to the facts they witnessed closely and clearly, because they did not do the pitch. They only witnessed it, and thus may equivocate in their description of it. So it is with the distinction between "didn't see" testimony and "didn't happen" testimony. Because testimony came from participants and witnesses who were all credible, the conflict is resolved in favor of the credible testimony of those who purport to know, that is, the ones who did it.

challenged, Arthur has not established by a preponderance of the evidence that all components of the consciousness assessment were not performed in every execution after the consciousness assessment was added to the protocol. The contradictory evidence does not overcome the direct testimony of the participants who say without equivocation that they performed the assessment.

6. Because the court finds that the consciousness assessment has been adequately performed in every instance in which it was required, no deficiency in training, practice, or procedure is found.

3. Conclusions of Law

The court reaches the following conclusions of law challenging the ADOC's consciousness assessment practices.

1. In its 2012 decision, the Eleventh Circuit held that “Arthur ha[d] alleged enough facts to constitute a plausible Equal Protection claim because he alleges that Alabama has substantially deviated from its execution protocol” by failing to perform the pinch test in Powell’s execution and that this “reduction in safeguards burdens his right to be free from cruel and unusual punishment.” *Arthur*, 674 F.3d at 1263.

2. The evidence presented on Arthur’s claim was insufficient to prove that that the ADOC has inconsistently applied the protocol’s mandatory consciousness assessment by failing to perform the pinch test during some executions, or has

otherwise deviated substantially from its execution protocol. The credible testimony of Hill, G.C., A.P., W.H., D.C., and C.S. establishes that the pinch test has been applied uniformly during executions; simply put, Arthur has not established past disparate treatment or the likelihood of disparate treatment in his own execution. Defendants are entitled to judgment on the pinch test claim.

3. Arthur's Equal Protection challenge to the general adequacy of the ADOC's consciousness assessment, claiming that it should meet certain training and medical standards but does not, also fails. The Eighth Amendment does not require that such medical training and standards or procedures be employed in a consciousness assessment during an execution, nor is there a constitutional requirement that a state's execution protocol include a consciousness assessment at all. *See Baze*, 553 U.S. at 58–61. The consciousness assessment is simply an additional safeguard that is not required by the Constitution. In *Baze*, the Court rejected the condemned inmates' arguments that Kentucky's execution protocol for checking consciousness, which was much less substantial than the ADOC's, could not pass Eighth Amendment scrutiny and that more sophisticated procedures involving medical procedures, medical equipment, and/or medical personnel, such as anesthesiologists, were required by the Eighth Amendment. The *Baze* Court held that such "sophisticated procedures" are not required to monitor anesthetic depth and that the administration of a consciousness assessment much simpler than the one

implemented by the ADOC is not required by the Eighth Amendment. *Baze*, 553 U.S. at 59–60.¹⁷

Glossip reinforced this tenet, holding, “We recognized this point in *Baze*, where we concluded that although the medical standard of care might require the use of a blood pressure cuff and an electrocardiogram during surgeries, this does not mean those procedures are required for an execution to pass Eighth Amendment scrutiny.” 135 S. Ct. at 2742. Arthur’s attempt to apply a medical standard of care to execution procedures and training for them, in this case, procedures that are not required by the Eighth Amendment, does not state a plausible equal protection claim. This principle is applicable to Arthur’s Equal Protection claim challenging the “adequacy” of the consciousness assessment and the training therefor, including the force used in the pinch test.

4. For these reasons, Arthur has failed to meet his burden of proof on his Equal Protection claim that the consciousness assessment is constitutionally inadequate. Defendants are entitled to judgment on this claim.

¹⁷ The *Baze* Court was comforted by other aspects of Kentucky’s procedure, in particular the holding that the condemned inmates had not met their burden of demonstrating that “the risk of an inadequate dose of the first drug [sodium thiopental] is substantial.” *Baze*, 553 U.S. at 54. While that finding has not been made here with respect to midazolam, Alabama’s more sophisticated consciousness assessment procedure, albeit perhaps inadequate in a medical sense, exceeds the *Baze* standard in a penological sense.

V. CONCLUSION

It is ORDERED that:

1. Judgment is entered in Defendants' favor on Arthur's Eighth Amendment claim, as Arthur failed in his burden of proof at trial.
2. Defendants' motion for summary judgment on Arthur's Eighth Amendment claim (Doc. # 299) is DENIED AS MOOT.
3. Judgment is entered in Defendants' favor on Arthur's Equal Protection claim, as Arthur failed in his burden of proof at trial.
4. Defendants' motion to dismiss and, alternatively, for summary judgment on Arthur's Equal Protection claim (Doc. # 268) is DENIED AS MOOT.
5. The Appendix accompanying this opinion shall be filed UNDER SEAL.
6. The only issue remaining concerns the interplay of the current protocol with Arthur's idiosyncratic health issues and medical condition, which will be addressed later.

DONE this 15th day of April, 2016.

/s/ W. Keith Watkins
CHIEF UNITED STATES DISTRICT JUDGE