IN THE CIRCUIT COURT OF THE EIGHTH JUDICIAL CIRCUIT
IN AND FOR BRADFORD COUNTY, FLORIDA
CRIMINAL DIVISION

STATE OF FLORIDA,

Plaintiff,

vs.

ASKARI ABDULLAH MUHAMMAD
f/k/a THOMAS KNIGHT,

Defendant.

CASE NO.: 04-1980-CF-000341-A
FSC Case No.: SC63343

EMERGENCY CAPITAL CASE
DEATH WARRANT SIGNED
EXECUTION STAYED BY THE FLORIDA SUPREME COURT

ORDER ON REMAND ON EFFICACY OF MIDAZOLAM AS AN ANESTHETIC

THIS CAUSE comes before the Court upon the Order of the Florida Supreme Court, dated November 18, 2013, directing this Court hold an evidentiary hearing on Defendant's "claim regarding the efficacy of midazolam hydrochloride as an anesthetic in the amount prescribed by Florida's protocol." On November 21-22, 2013, the evidentiary hearing was held, at which Jonathan Feltgen, Florida Department of Law Enforcement (FDLE) Inspector; Dr. Mark Heath, defense expert; and, Dr. Lee Evans, State expert, testified. Upon consideration of the hearing testimony, the legal arguments of the parties, and the record, this Court finds and concludes as follows:

1. "[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, 1530 (2008). "To establish that such exposure violates the Eighth Amendment, however, the conditions presenting the risk must be '*sure or very likely* to cause serious illness and needless suffering,' and give rise to 'sufficiently *imminent* dangers.'" *Id.* at 50 (quoting *Helling v. McKinney*, 509 U.S. 25, 33, 34–35, 113 S.Ct. 2475, 125 L.Ed.2d 22 (1993)) (emphasis in original);

In order for a defendant "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.'" *Id.* (quoting *Farmer v. Brennan,* 511 U.S. 825, 842, 846, and n. 9, 114 S.Ct. 1970, 128 L.Ed.2d 811 (1994)). "Simply because an execution method may result in pain, either by accident or as an inescapable consequence of death, does not establish the sort of 'objectively intolerable risk of harm' that qualifies as cruel and unusual." *Id.*

I. Testimony of Dr. Mark Heath

2. In support of his claim challenging the efficacy of midazolam hydrochloride as an anesthetic, Defendant presented the testimony of Dr. Mark Heath. Dr. Heath is an anesthesiologist at New York Presbyterian Hospital, which is part of Columbia University. He received his B.A. in Biology from Harvard College; and, an M.D. from the University of North Carolina in Chapel Hill. In addition, Dr. Heath did an internship in Internal Medicine at George Washington University at Washington, D.C.; an anesthesiology residency at Columbia University in New York City; and, a fellowship involving neuroscience research and cardiac anesthesiology. In addition to being licensed as a medical doctor, he is also board certified in anesthesiology and echocardiography for cardiac anesthesia cases. Dr. Heath has previously been qualified in Florida state courts as an expert in the field of anesthesiology.

3. During the evidentiary hearing, Dr. Heath testified that an anesthesiologist is responsible for the care and safety and wellbeing of a patient who is undergoing a surgical procedure. It is his role to ensure that the patient is not only safe, but also comfortable, which

means either they are unconscious or have their nerves blocked, and that their body and their mind are protected from injuries that often accompany surgery. Dr. Heath described consciousness as a state of alertness, where a person is aware of their presence, aware of their location, and oriented to what time it is and the context of their surroundings and able to absorb information from their surroundings and process it and respond to it and understand that they are able do that. This is contrasted with unconsciousness, where none of those events are occurring.

Dr. Heath explained that there are two types of unconsciousness: one is a mild level of unconsciousness, where a person is arousable, such as sleep, where a person has no awareness of their surroundings, but with a mild level of stimulation can be easily brought to full consciousness; and, the other is deep unconscious, where a person is unarousable. In the latter, the person is not aware of their surroundings, and when you try to wake them up, when you shake them or call their name or do things like that, you cannot wake them up.

4. In his role as an anesthesiologist, Dr. Heath has daily experience with the use of midazolam hydrochloride ("midazolam") as a pre-anesthetic and as an anesthetic. Dr. Heath testified that midazolam is administered intravenously for the purpose of causing sedation and depressing consciousness. In small doses, typically around one milligram, it is used to make patients feel more relaxed and peaceful. In very high doses, it will completely ablate consciousness. Dr. Heath indicated that if he is seeking to use midazolam to produce a deeper level of anesthesia, he would give a significantly higher dose "on the order of 10 or maybe 15 milligrams." In his experience, this amount would reliably produce a much deeper level of unconsciousness.

5. Dr. Heath testified that the speed at which it takes midazolam to work depends on several variables, most importantly how quickly it is given and the amount. Another factor which

contributes to the effect of the drug is the patient's circulation rate. According to Dr. Heath, as a benzodiazepine, midazolam is considerably slower than pentothal, which is a barbiturate, in its effect; and, shorter acting than pentobarbital in the patient's system. However, Dr. Heath noted that if you give any of these drugs in a very large dose, such as the doses that are used in lethal injections, they would all last for many hours.

6. Dr. Heath noted that the only time that midazolam has been administered in the dose level used in Florida's death protocol (500 mg), or anything near this dose level, has been in the two Florida executions in which it was used. There is no clinical application for this quantity of midazolam, and therefore no reason for anybody to research its use in this amount.

7. In reaching his opinion regarding the efficacy of midazolam as an anesthetic in Florida's death protocol, Dr. Heath reviewed news articles and the testimony of Jonathan Feltgen which indicated that William Happ, the first inmate on whom midazolam was used as anesthetic, took longer to reach unconsciousness than other inmates who were anesthetized using the prior drug, pentobarbital. According to Dr. Heath, an effective dose of midazolam would completely stop movement, especially many minutes after it was given. However, in the Happ execution there were allegations that Happ had head movement after the consciousness check. Though Dr. Heath acknowledged not having enough information to draw a conclusion from that fact, he speculated that it could mean that Happ was not fully anesthetized when the second phase of the protocol was administered. However, Dr. Heath's opinion on the matter was not that midazolam was ineffective as an anesthetic, but that it should be the only drug used during the execution.

8. On cross-examination by the State, Dr. Heath acknowledged that in the previous cases in which he has testified as an expert, he has always done so for the defense, and always during a challenge to the State's drug protocol.

9. In addition, Dr. Heath testified on cross-examination that he uses midazolam in his practice to induce unconsciousness. And, he uses a significantly smaller dose (5mg-15 mg) to do so than the dose used in Florida's protocol, which is 500 mg. Dr. Heath further testified that respiratory failure, and ultimately death, would result from the dosage used in the Florida protocol because it takes away the desire or the drive to breathe as part of making a person unconscious. It makes the part of the brain that drives breathing stop working.

10. Dr. Heath further acknowledged that movement does not equate to consciousness. And, to the extent that William Happ had some movement during his execution after the midazolam was administered, Dr. Heath does not infer that to mean that he was harmed.

II. Testimony of Dr. Lee Evans

11. In response to the testimony of Dr. Heath, the State presented the testimony of Dr. Lee Evans. Dr. Evans holds a B.S. in Pharmacy from the University of Georgia and a Doctor of Pharmacy degree from the University of Tennessee. In addition, he has received postgraduate training, with a residency, and has spent 40 years in practice. Dr. Evans has served on the faculty of the University of Tennessee, in the Health Sciences Department; the University of Missouri, Kansas City, in the School of Pharmacy and the Department of Psychiatry; and, for the last 19 years, he has been at Auburn University with the School of Pharmacy as a professor and dean. Dr. Evans is a psychiatric pharmacy specialist with a focus on drugs that impact the central nervous system. He is

a board certified psychiatric pharmacist. In addition, Dr. Evans has been qualified as an expert in pharmacology in four states, including Florida. Pharmacology is the study of medications and the effects of medications on systems; and, in his case it is human systems.

12. On the issue of midazolam, Dr. Evans testified that it is a benzodiazepine drug that is short-acting and used as both a pre-anesthetic and an anesthetic. He further testified that it is approved by the Federal Drug Administration (FDA) as an anesthetic; and, the amounts needed to use it for that purpose in an adult are known and quantifiable. To render an adult unconscious, anywhere from 2 ½ to 5 mg would be used intravenously for pre-anesthesia and up to 35 to 40 mg for induction of anesthesia. According to Dr. Evans, midazolam is quickly absorbed into the blood stream intravenously. If a person were given were given a substantial dose of 250 mg of midazolam, it would be expected that the person would lose consciousness within 1 ½ to 2 minutes. Furthermore, the higher the dose, the more of an anesthetic impact the midazolam would have. Were a person to be given 500 mg of midazolam, which is an amount that far exceeds what has been known to be lethal by itself, it would cause respiratory arrest, as well as cardiac arrest if left untreated. It would also render the person insensate and comatose.

13. Dr. Evans noted during his testimony that movement during unconsciousness does not equate to a conscious response to stimuli. And, that a paralytic is used during surgery to inhibit movement while the person is unconscious. Though a person could be suboptimally anesthetized and, as a result, feel pain while in a state of anesthesia, movement is also consistent with the body's compensation for the respiratory depression caused by the drug. A conscious person would be expected to have full range of body movement, not just head movement or respiratory movement.

14. Dr. Evans testified that midazolam is faster acting than pentobarbital in inducing unconsciousness.

15. Dr. Evans additionally noted that there are no studies regarding the use of midazolam in death protocols. However, he was familiar with studies of its use in minor medical procedures.

III. Testimony of Jonathan Feltgen

16. The State also presented the testimony of FDLE Inspector Jonathan Feltgen, who witnessed the execution of William Happ, as well as two executions with the prior protocol that used pentobarbital as an anesthetic. Though Mr. Feltgen has been with FDLE for 3 years, he has only been an inspector since July 2013 and only observed executions in that capacity since September 2013. Inspector Feltgen was present as a witness during the execution of William Happ on October 15, 2013.

17. During the execution of William Happ, Inspector Feltgen was positioned in the chemical room, in front of a two-way mirror where he could observe the entire execution chamber. Happ was approximately 3-4 feet from him on a gurney. Inspector Feltgen's location had him looking down on to the gurney. He also was able to observe Happ's face and arms on monitors which were situated in the chemical room. On the other side of the execution chamber, behind a glass barrier, was where the victim's family, media, and other public witnesses were sitting. Inspector Feltgen estimated that these witnesses were approximately 10-15 feet from Happ during the execution.

18. Inspector Feltgen testified that while the execution was taking place, he was standing next to the person who was administering the drugs indicated in the protocol. The drugs were

administered in 3 phases, with each phase consisting of the use of 3 syringes. After the first syringe was administered to Happ, Inspector Feltgen noticed that Happ breathed heavily. According to Inspector Feltgen, Happs's chest rose off the table a couple of times, and then he laid back down. After the first phase was complete, which is the use of the midazolam, Inspector Feltgen did not see Happ breathing heavily again. Subsequent to the first phase being completely administered, Inspector Feltgen observed Deputy Secretary Tim Cannon perform the consciousness check. Happ did not respond when Deputy Secretary Cannon flicked his eyelid and shook his left arm. Subsequently, Inspector Feltgen observed Deputy Secretary Cannon indicate that Happ was unconscious.

19. Inspector Feltgen indicated that with the exception of the heavy breathing during the first syringe, Happs' execution looked the same as the first two he had witnessed using the old protocol. And, based on his observations, Happ was unconscious after the midazolam was administered.

IV. Findings and Conclusions of Law

20. Based on the testimony of both Dr. Heath and Dr. Evans, it has been established that midazolam is a FDA approved drug routinely used as a pre-anesthetic sedative and as an anesthetic in minor surgical procedures. There is no dispute that the dosage amount used in Florida's protocol is such that it would induce not only unconsciousness when properly administered, but also respiratory arrest and ultimately death. Furthermore, a properly administered dosage of 500 mg of midazolam would render a person insensate, and thus, not in any pain, during the period when the part of the brain that drives breathing stops working.

21. Additionally, even if Happ did move after the midazolam was administered during his execution, there is no evidence before this Court that his movement equated to actual pain or suffering. Even Dr. Heath acknowledged the movement during Happ's execution did not mean that he was actually harmed.

22. This Court notes that the majority of Defendant's argument is against the entire protocol used in Florida, not midazolam. The issue before this Court on remand is not the protocol in its entirety. It is the efficacy of midazolam as an anesthetic in the amount prescribed by Florida's protocol.

23. No credible evidence has been presented to this Court that shows midazolam as an anesthetic in the amount prescribed by Florida's protocol is "*sure or very likely* to cause serious illness and needless suffering," and give rise to "sufficiently *imminent* dangers." *Baze*, 553 U.S. at 50; *see also Valle v. State*, 70 So. 3d 530, 546 (Fla. 2011) *cert. denied*, 132 S. Ct. 1 (U.S. 2011) ("[T]he *Baze* standard requires proof that Florida's lethal injection procedures are sure or very likely to cause serious illness and needless suffering or will result in a substantial risk of serious harm.... After reviewing the evidence and testimony presented below, we conclude that Valle has failed to satisfy the 'heavy burden' that Florida's current lethal injection procedures, as implemented by the DOC, are constitutionally defective in violation of the Eighth Amendment of the United States Constitution.") (citation omitted). For this reason, this Court finds that Defendant has failed to show that midazolam as an anesthetic in the amount prescribed by Florida's protocol will result in a substantial risk of serious harm to him.

Based on the foregoing, it is **ORDERED AND ADJUDGED** that:

I. Defendant's claim is hereby **DENIED**.

II. Per the Florida Supreme Court's Order of November, 2013, the Clerk of Court shall immediately transmit a copy of this Order to the Florida Supreme Court and shall file a record of the entire relinquishment proceeding, including transcripts, with the Florida Supreme Court no later than 2:00 p.m., Wednesday, December 3, 2013.

DONE AND ORDERED in Chambers in Starke, Bradford County, Florida, on this 25 day of November 2013.

PHYLLIS M. ROSIER,
CIRCUIT JUDGE

CERTIFICATE OF SERVICE

I CERTIFY that a true copy of the foregoing was furnished on this 25 day of November 2013 to:

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