THE TRI-CHEMICAL COCKTAIL: SERENE BRUTALITY

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4 Id. at 1526.
5 99 U.S. 130 (1878).
constitutionality of the firing squad, noting that the Eighth Amendment prohibits “punishments of torture.”6 Since Wilkerson, while not directly addressing the appropriate legal standard for determining whether a method of execution is unconstitutional, the Court, mostly in dicta, has made reference to varying standards ranging in terms of the amount and risk of pain permitted.7 This left lower courts with little guidance as to which standard should be applied to the many lethal injection challenges filed since the Court’s rulings in Nelson v. Campbell8 and Hill v. McDonough,9 which “cleared the path for legal challenges to the chemicals and procedures used in lethal injections.”10 As a result, the standards adopted by these lower courts often varied significantly from one another, making the ultimate determination of “cruel and unusual” one largely dependant on jurisdiction. As would be expected, this situation created growing uncertainty as to what the controlling law actually was.

The decision in Baze was expected to quell this confusion with a singular legal standard. But although the Baze Court was forced to finally articulate such a standard, the standard that it did articulate in its sharply fractionated plurality opinion will likely do little to end the debate and cure the uncertainty surrounding modern, three-drug lethal injection.

This Comment will argue that although lethal injection in the abstract may have the potential to be the most humane method of execution, the specific chemicals and procedures currently used in its implementation are inconsistent with the foundational principles

6 Id. at 134–37. In its discussion, the Court gave several examples of torture, including “embowel[ing] alive,” “public dissection,” and “burning alive.” Id. at 135.
7 In Farmer v. Brennan, a deliberate indifference case for placing an inmate in general population, the Court ruled that the cruel and unusual punishment test is whether the state officials disregard an “objectively intolerable risk of harm.” 511 U.S. 825, 828–30, 846 (1994). In Gregg v. Georgia, a case involving both facial and as-applied challenges to the death penalty, the Court noted that the Eighth Amendment prohibits the “unnecessary and wanton infliction of pain.” 428 U.S. 153, 162, 173 (1976) (citing Furman v. Georgia, 408 U.S. 238, 392–93 (1972) (Burger, C.J., dissenting)). In Louisiana ex rel. Francis v. Resweber, a case involving a double jeopardy challenge arising out of a second attempt at execution, the Court stated that a punishment rises to the level of “cruel and unusual” where it causes the “infliction of unnecessary pain.” 329 U.S. 459, 460–61, 463 (1947). In In re Kemmler, a case involving the Privileges and Immunities Clause of the Fourteenth Amendment, the Court stated that the Eighth Amendment prohibits “something more than the mere extinguishment of life,” such as “torture or a lingering death.” 136 U.S. 436, 437, 447 (1890).
underlying the Eighth Amendment’s proscription of “cruel and unusual” punishment. Part I will briefly describe the origins of capital punishment, generally and in the United States, and explain how the passage of the Eighth Amendment marked the first official step in the nation’s history away from the brutal and toward the humane.

Part II will then demonstrate that this movement away from the barbaric has continued. It will trace the history of the major methods of execution used in the United States, showing that, historically, the nation’s decisions to adopt certain methods while abandoning others were, and continue to be, rooted in the search for the most humane method available. Ultimately, it will show that although the Supreme Court has yet to hold any of these methods unconstitutional, the effective abandonment of the more brutal methods evinces the nation’s growing intolerance of needless pain and suffering.

Part III will briefly describe the basic lethal injection procedure, explain the chemical combination currently used by the majority of death penalty states, and address the main risk associated with the tri-chemical combination. Part IV will then examine certain aspects inherent in the current implementation of three-drug lethal injection that greatly enhance this risk. Next, Part V will address the standard set forth in the Baze decision. It will briefly describe the standard, explain why it will likely do little in the way of remedying the uncertainty surrounding modern lethal injection, relate how the standard is substantively flawed, and discuss the benefits of an alternate, more appropriate standard.

Part VI, the final part, will examine modern lethal injection through the lens of this standard, demonstrating that the risks presented by the chemicals and procedures currently used cannot square with Eighth Amendment principles. It will show that in light of less risky alternatives, use of the three-drug protocol and the risk it poses are unnecessary, and then explain that despite this nation’s widespread adoption of the protocol, and despite its survival since, its continued use does not comport with evolving standards of decency.

I. HISTORY

A. History of Death as Punishment

The use of death as punishment has a long and brutal history.
The death penalty was first codified in the eighteenth century BC in the Code of Hammurabi of Babylon, and as centuries passed, it became an increasingly prevalent form of punishment for a variety of offenses.\(^{11}\) The fourteenth century BC’s Hittite Code, as well as the seventh century BC Draconian Code of Athens and the fifth century BC Roman Law of the Twelve Tablets, all codified the death penalty for crimes ranging from the “publication of libels and insulting songs” to “willful murder.”\(^{12}\) The variety of crimes punishable by death was matched only by the array of cruelly creative methods of causing the death.\(^{13}\) The condemned could be stoned, beaten to death, buried alive, drowned at sea, crucified, or, most curiously in Rome, those found guilty of parricide\(^ {14}\) could be “submersed in water in a sack, which also contained a dog, a rooster, a viper and an ape.”\(^ {15}\)

Britain had a similar history of capital punishment for both major and minor crimes.\(^ {16}\) While hanging from the gallows was the most common method of execution throughout that history, other more brutal methods were also used.\(^ {17}\) In the sixteenth century, under the reign of Henry VIII, common methods included drowning in drowning pits, burning at the stake, pressing, and even boiling, a process that would sometimes take up to two hours to cause death.\(^ {18}\) Beheading and drawing and quartering, which often included public castration and disemboweling, were also used.\(^ {19}\) The use of the majority of these methods continued in Britain well into the nineteenth century.\(^ {20}\) Burning at the stake was not repealed until 1790; disemboweling, as part of drawing and quartering, was


\(^{12}\) Id.

\(^{13}\) Id. at 1–2.

\(^{14}\) Id. Parricide is the murder of one’s parent. Id. at 2.

\(^{15}\) Id.

\(^{16}\) Id. at 2 (discussing the brutality of punishment for even the most minor of offenses). For example, “[u]nder Edward I, two gatekeepers were killed because the city gate had not been closed in time to prevent the escape of an accused murderer.” Other capital crimes included marrying a Jew, not confessing to a crime, and treason. Id.

\(^{17}\) Id.


\(^{20}\) Granucci, supra note 19, at 855–56.
The use of death as punishment in the English American Colonies was similarly prevalent. As would be expected, “Britain influenced America’s use of the death penalty more than any other country.” Many brutal methods of execution were available, and, as was the procedure in Britain, the method chosen was a matter of judicial discretion. Despite their availability, however, the more brutal, horrific methods were less commonly used and hanging represented the primary mode of execution. Leading up to independence, the trend away from the brutal persisted, and ultimately, this preference for the humane was codified as the Eighth Amendment to the United States Constitution.

B. The Eighth Amendment Origins: A Step Toward the Humane

In early May of 1776, the Virginia Convention, which consisted of George Mason and other Virginia delegates, assembled to discuss declaring its independence from Britain. A little over a week later, the group passed two resolutions. The first required that the Virginia delegates propose a declaration of independence to the Continental Congress, and the second, “that a committee be appointed to prepare a Declaration of Rights” for the State of Virginia.

As part of that committee, George Mason created and proposed a bill of rights that was ultimately adopted as part of Virginia’s constitution. Concerned with avoiding the type of barbarity that typified British punishment, Mason included within these rights a portion of the English Bill of Rights of 1689 which stated that “excessive bail ought not to be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.” Following this
adoption, eight other states followed suit by adding the same language to their constitutions, and the federal government similarly inserted it into the Northwest Ordinance of 1787. Finally, in 1791, with the same aversion to the brutality of British punishment as Mason, the Framers adopted the identical language outlawing “cruel and unusual punishments” as the Eighth Amendment to the United States Constitution. In so doing, the nation took its first step in its march away from the barbaric and toward the humane.

II. MARCHING ON: THE HISTORY OF METHODS OF EXECUTION IN THE UNITED STATES

The search for the “more humane” has since persisted. Although much debate and controversy has surrounded the appropriateness of the use of death as punishment in the United States, one point of agreement has endured: that where the death penalty is permitted, only the most humane method of execution should be used to implement it. This principle has guided the nation’s search for the “ideal” means of causing death.

A. Hanging

Up until the nineteenth century, hanging was the primary
method of execution in the American states. The technique was preferred because, if carried out properly, it would violently snap the condemned’s neck, killing him or her instantly. However, because this method required a certain level of skill and experience that the hangman often did not have, executions were frequently botched. If the knot of the noose was not positioned properly, the neck of the condemned would not snap and he would be left to slowly strangle for up to a half an hour. Similarly, if the counterbalance used to jerk the prisoner into the air was too heavy, the resulting force from the rope would tear the prisoner’s head right from his body. Because of such gruesome results, by the early-to-mid-nineteenth century, the public’s growing distaste for this method fueled the search for a more humane method, leading scientists to focus on the use of electricity as a replacement.

B. Electrocution & Lethal Gas

At the time of its adoption, the use of electricity was regarded as an ideal new way to cause death instantly, and therefore, the preferable replacement for what one editorial of the period characterized as the “hideous violence of hanging.” New York was the first state to adopt the electric chair and convicted murderer William Kemmler became the first man to be put to death by the device. It was during this execution that problems with the method first became apparent—problems with grotesque consequences.

Once underway, the process was noticeably rife with macabre complications. Kemmler was not killed by the first round of electricity, and after begging the warden to turn the flow of electricity back on, a second round of current with a much higher voltage was shot through his body. This time, before eventually

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38 See id.
39 Id.
40 Id.
41 Id.
42 Id. at 1163; see also In re Kemmler, 136 U.S. 436, 443 (1890) (discussing the use of electrocution as likely to cause instant death).
43 Richard Moran, Executioner’s Current: Thomas Edison, George Westinghouse, and the Invention of the Electric Chair 8–9 (2002); Ewart, supra note 37, at 1163.
44 Ewart, supra note 37, at 1163–64.
45 Moran, supra note 43, at 15–16.
killing him, the electricity caused the blood vessels underneath his skin to rupture and blood ran down his face and arms. His body smoldered, eventually catching fire, “[f]roth oozed out of [his] strapped mouth,”46 and the death chamber reeked of burnt flesh. Largely due to faulty equipment, similar complications arose in future electrocutions, and although prisons made efforts to avoid such gruesome results, use of the electric chair continued to cause similarly serious problems, leaving an unsettled and dissatisfied public.47

Spurred in large part by this dissatisfaction, the search for a more humane method was once again underway. In 1921, Nevada was the first state to adopt the gas chamber, and by 1955, eleven states had followed suit.48 Despite the developers’ attempt to avoid the brutality of previous methods, however, it soon became apparent that causing death by the inhalation of lethal cyanide gas caused horrific results. As eyewitness accounts have confirmed, once the gas strikes the condemned’s face, he or she is seen violently “straining [and] thrashing,” frantically gasping for air.49 This “strained muscular contraction . . . can be so severe as to arch the body backwards like a bridge with sufficient force to compress and fracture vertebrae,” and can last for twelve minutes or more.50 Inhalation of the gas also causes the skin to turn purple and the eyes to roll back and sometimes pop.51 Not surprisingly, this method gradually fell out of public favor and “[s]ince 1973, . . . no state has selected lethal gas as a method of execution.”52

C. Lethal Injection

“Having realized that the electric chair and the gas chamber made executions excessively painful for prisoners and disturbing for witnesses to watch, many death penalty states began switching to

46 Id. at 15.
47 Ewert, supra note 37, at 1163–64 (citing RANDALL COYNE & LYN ENTZEROTH, CAPITAL PUNISHMENT AND THE JUDICIAL PROCESS 84 (2d ed. 2001)). Electrocution has not been chosen as a primary method in any state since 1949. Denno, supra note 33, at 83. It remains the primary method of execution only in Nebraska and Kentucky. Ewert, supra note 37, at 1164 n.46.
48 Denno, supra note 33, at 83.
50 Id. at 20, 25.
51 Ewert, supra note 37, at 1164.
52 Denno, supra note 33, at 83.
the use of lethal injection.”\textsuperscript{53} In 1977, based largely on the recommendation of prominent doctor Stanley Deutsch, then head of Oklahoma Medical School’s Anesthesiology Department,\textsuperscript{54} Oklahoma became the first state to adopt the method.\textsuperscript{55} In correspondence between Dr. Deutsch and Bill Dawson, a state legislator in Oklahoma, Deutsch vouched for the method’s humaneness, noting that it was “without question . . . extremely humane in comparison to electrocution and lethal gas” and that it would be “a ‘rapidly pleasant way of producing unconsciousness’” and ultimately death.\textsuperscript{56}

In addition to these assurances, Deutsch recommended the use of sodium thiopental and pancuronium bromide, and ultimately, these recommendations, with the addition of potassium chloride, were adopted and comprised the chemical makeup of Oklahoma’s lethal injection protocol.\textsuperscript{57} Since then, lethal injection, as adopted in Oklahoma, has become the predominant method of execution in the United States; thirty-seven of the thirty-eight death penalty states currently employ it as their primary method.\textsuperscript{58}

This shift toward lethal injection is not surprising. Unlike its predecessors, lethal injection infuses into the death equation a “medically sterile aura of peace.”\textsuperscript{59} The brutality associated with other methods—i.e., heads being torn off, violent seizures, burning flesh, and slow suffocation—is visibly absent here. It is replaced, instead, with the type of serenity and humanity often associated with “euthanizing a favorite pet”\textsuperscript{60} or preparing a patient for surgery. The condemned is led into the death chamber where he or she is strapped to a gurney, an intravenous line is inserted, the toxic combination of drugs is administered, and quickly, calmly, and without struggle, the condemned appears to gently drift away.\textsuperscript{61}

Although such a scenario seems far from “cruel and unusual,”
mounting evidence suggests otherwise; namely, that the chemical combination and procedures currently used to implement it render its use far riskier and far less humane than appearances would suggest.62

III. THREE-DRUG DEATH

The idea of causing death by quickly releasing lethal chemicals into the condemned’s body, as opposed to inundating the victim’s organs with thousands of volts of electricity, or by filling his or her lungs with lethal, spasm-inducing gas, seems indisputably humane. Despite its comparative humanity in the abstract, however, and although causing death in such a way concededly has the potential to be the most humane method developed thus far, the current implementation of this method, specifically the chemicals used and protocols in place, amounts to a procedure that falls far short of its potential.

A. The Procedure

As outlined in a recent Human Rights Watch report, the basic practice in lethal injection executions is as follows:

The condemned prisoner is brought to the execution chamber and strapped to a gurney. Some states allow the witnesses to watch the executioner(s) insert the catheter into the prisoner’s arm. Other states draw a curtain over the windows behind which the witnesses sit so they do not see the execution team insert the catheter into the condemned inmate. The catheter is hooked up to an intravenous line that extends for at least several feet into the room where the execution team administers the injections. That room or space may or may not have a one-way mirror so that the executioners can look out at the prisoner without being seen. If the curtains were closed, they are opened. Witnesses see the prisoner alone in the chamber, already hooked up to the intravenous (IV) lines. The execution team, which consists of one or more people, will have prepared syringes with the drugs and syringes with saline solution used to flush the lines in between each drug. Upon a signal from the warden,

the team begins injecting the syringes into the IV lines, one after another, in the prescribed sequence, without a break.\textsuperscript{63}

While these state procedures do vary in terms of the systems used to administer the lethal chemicals, all lethal injections typically consist of a three-chemical combination: sodium thiopental or Sodium Pentothal, its trademark name; pancuronium bromide, also known as Pavulon; and finally, potassium chloride.\textsuperscript{64} The chemicals are administered in a specific order and each is intended to serve a unique purpose.

The condemned is first given a nonlethal dose of sodium thiopental, a frequently used anesthetic for surgery.\textsuperscript{65} Once administered, it induces sleep and loss of consciousness in about twenty seconds.\textsuperscript{66} Because it takes effect so quickly, it is referred to generally as an “ultrashort-acting barbiturate” or an “ultrafast-acting barbiturate.”\textsuperscript{67} The purpose of this drug is to anesthetize the inmate so that he or she is unconscious and not subjected to pain or suffering during the execution.\textsuperscript{68}

Next, the condemned is given a dose of pancuronium bromide, a total muscle relaxant.\textsuperscript{69} If given in sufficient doses, this drug functions to paralyze the lungs and diaphragm, and thus, to stop the condemned’s breathing.\textsuperscript{70} If administered to a conscious person, pancuronium bromide eliminates that person’s ability to move and speak, but has no effect on his or her “awareness, cognition, or sensation.”\textsuperscript{71} Thus, if conscious, one would be able to feel and experience pain, yet would be unable to move, speak, or otherwise express that pain or discomfort.

Finally, the condemned is injected with potassium chloride, a drug that physicians frequently use during heart-bypass surgery.\textsuperscript{72} This drug induces cardiac arrest and stops the inmate’s heartbeat permanently. As the medical community agrees, because the “[i]njection of concentrated potassium activates sensory nerve

\textsuperscript{63} Id. at 30–31.
\textsuperscript{64} Denno, supra note 33, at 97–98.
\textsuperscript{65} Id.
\textsuperscript{66} Id. at 98.
\textsuperscript{67} Id.
\textsuperscript{68} See id.
\textsuperscript{69} Id.
\textsuperscript{70} Id.
\textsuperscript{72} Denno, supra note 33, at 98.
fibers... as the drug travels through the venous system,\textsuperscript{73} administering it to a conscious person in quantities sufficient to stop the heart would cause the person to suffer excruciating pain.\textsuperscript{74} Overall, this chemical combination, when administered properly, will cause death within two to ten minutes.\textsuperscript{75}

\textbf{B. The Risk}

Using this standard tri-chemical combination risks exposing the condemned to extreme pain and suffering. The main risk is posed by the use of sodium thiopental, the sedative, in conjunction with pancuronium bromide, the paralytic. Specifically, and as discussed above, if the sodium thiopental does not effectively anesthetize the condemned, he or she will be subject to an extremely painful death.\textsuperscript{76} The risk can materialize in two main situations: where the drug is given in an insufficient dosage, or where it is not administered properly.

In the first situation, where an insufficient dose is given, once the drug wears off and leaves the inmate conscious and sensitive to pain, the pancuronium bromide completely paralyzes him or her, and thus, acts as a sort of chemical straight jacket, restraining all movement and expression. And while this feeling of helplessness alone has been described as “torturous,”\textsuperscript{77} “worse than death,”\textsuperscript{78} and “terrifying,”\textsuperscript{79} the horror experienced by the inmate would not end

\textsuperscript{73} Brief for Darick Demorris Walker as Amicus Curiae Supporting Petitioner, \textit{supra} note 71, at 8.
\textsuperscript{74} See Kreitzberg & Richter, \textit{supra} note 60, at 446–47.
\textsuperscript{76} See James R. Wong, \textit{Lethal Injection Protocols: The Failure of Litigation to Stop Suffering and the Case for Legislative Reform}, 25 TEMP. J. SCI. TECH. & ENVTL. L. 263, 269 (2006); \textit{see also} Morales v. Tilton, 465 F. Supp. 2d 972, 978 (N.D. Cal. 2006) (quoting Dr. Robert C. Singler, an expert in clinical anesthesia, who “testified that it would be ‘terrifying’ to be awake and injected with the contemplated dosage of pancuronium bromide and that it would be ‘unconscionable’ to inject a conscious person with the contemplated amount of potassium chloride”).
\textsuperscript{78} \textit{Id.}
\textsuperscript{79} Morales, 465 F. Supp. 2d at 978 (“[I]t would be ‘terrifying’ to be awake and injected with the contemplated dosage of pancuronium bromide.”). In fact, the idea of “anesthetic awareness” is so unsettling that it was recently used as a major plot point in the film \textit{Awake}, to evoke in audiences feelings of panic and terror. \textit{See} The Internet Movie Database, Plot Summary for \textit{Awake} (2007), http://www.imdb.com/title/tt0211933/plotsummary (last visited Mar. 8, 2009) (“The story focuses on a man who suffers ‘a[esthetic] a[wareness]’ . . . and finds himself awake and aware, but paralyzed, during heart surgery. His young wife must wrestle
there. Amidst crippling paralysis, he or she "would experience asphyxiation, a severe burning sensation,\textsuperscript{80} massive muscle cramping, and finally cardiac arrest."	extsuperscript{81} In essence, without proper anesthesia, despite the appearance of peaceful unconsciousness, a paralyzed inmate would be left to a slow and torturous suffocation, relieved only by the crushing pain of his or her heart being stopped.

In the second situation, the anesthetic is ineffective as a result of its maladministration. This occurs most commonly when "a catheter is not inserted completely into a vein, or goes through the vein," or when the IV fails after the injection has started "by pushing or injecting too vigorously or too hard."\textsuperscript{82} In either case, death is caused in a similarly brutal, but slightly different way than described above. The pancuronium bromide, which is effective "even when delivered subcutaneously or intramuscularly," would paralyze a fully-aware inmate, shut down his or her lungs and diaphragm, ultimately leaving him or her to slowly suffocate amidst the "potassium-induced sensation of burning."\textsuperscript{83} So instead of dying of cardiac arrest amidst paralysis like above, an inmate in this situation would, while paralyzed, slowly and agonizingly suffocate.

\textbf{IV. ENHANCING THE RISKS: INADEQUATE PROTOCOLS, UNQUALIFIED EXECUTIONERS, AND DEATH CHAMBER SETUP}

Because dying in either of the ways described above would be excruciating, and because proper anesthetization is critical in avoiding such results, the importance of ensuring that condemned inmates are sufficiently anesthetized cannot be overstated. Despite this importance, however, the majority of death penalty states have not only failed to make any substantial effort to eliminate the risk of insufficient anesthetization, they currently implement lethal injection in ways that serve to enhance the risk. This is evident in with her own demons as a drama unfolds around them.").

\textsuperscript{80} Medical experts say that potassium chloride, when given to a conscious individual, will make that individual “feel as if his veins are on fire.” Nina Totenberg, \textit{Supreme Court Takes Up Lethal Injection}, NPR, Jan. 7, 2008, http://www.npr.org/templates/story/story.php?storyId=17894650.

\textsuperscript{81} Wong, supra note 76, at 269 (quoting Leonidas G. Koniaris et al., \textit{Inadequate Anesthesia in Lethal Injection for Execution}, 365 LANCET 1412, 1412 (2005).


three key aspects of the procedure: the executioners’ level of qualification, the states’ failure to provide sufficient guidance to the execution teams, and the physical set up of the death chamber.

A. Flying Blind: Unqualified Executioners

The states first enhance the risk by entrusting the complicated lethal injection procedures to unqualified and inexperienced individuals. With both physicians and anesthesiologists prohibited from taking part in executions, and because most state statutes and protocols are silent as to the training or experience required to be an executioner, paramedics, prison technicians, or other prison employees, “who do not have special training in anesthesia” are generally the ones entrusted to carry out the complicated lethal injection procedures. They are responsible for preparing the lethal chemicals, inserting the IV line, and ultimately for administering the lethal dose.

Without proper training, however, the chance of executioner error in fulfilling these crucial duties is greatly enhanced. This is especially problematic in terms of the preparation and administration of sodium thiopental, the anesthetic. Like the other chemicals used in lethal injection, sodium thiopental is stored in

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84 Press Release, William G. Plested, III, M.D., President, American Medical Association, AMA: Physician Participation in Lethal Injection Violates Medical Ethics (July 17, 2006) (on file with author) (“A physician is a member of a profession dedicated to preserving life when there is hope of doing so. The use of a physician’s clinical skill and judgment for purposes other than promoting an individual’s health and welfare undermines a basic ethical foundation of medicine—first, do no harm.

The guidelines in the AMA Code of Medical Ethics address physician participation in executions involving lethal injection. The ethical opinion explicitly prohibits selecting injection sites for executions by lethal injection, starting intravenous lines, prescribing, administering, or supervising the use of lethal drugs, monitoring vital signs, on site or remotely, and declaring death.

As the voice of American medicine, the AMA urges all physicians to remain dedicated to our ethical obligations that prohibit involvement in capital punishment.”).


86 See Denno, supra note 33, at 121–23.

87 Wong, supra note 76, at 271.

88 See discussion supra Part III.A–B. While some state protocols refer to the qualifications of the executioners in general terms of “competency,” “preparation,” or speak of the individuals as “appropriately trained,” they fail to elaborate further as to what, specifically, these terms are intended to mean. HUMAN RIGHTS WATCH, supra note 62, at 32–33.

89 Totenberg, supra note 80.
powder form and must be mixed in a precise manner to form a specific concentration if it is to function as intended.\footnote{Denno, supra note 33, at 118–19; Wong, supra note 76, at 271.} Because this mixing process is relatively complex, requiring the technician to delicately balance the weight of the chemical with the volume of the dilutent,\footnote{Denno, supra note 33, at 119; Totenberg, supra note 80 (“Joseph Meltzer, a professor of anesthesiology and critical care medicine at Columbia University, echoes other experts when he says that the three-drug cocktail is sufficiently complicated in the mixing and administration of the drugs that it has inherent risks.”).} allowing an untrained person to carry it out greatly increases the likelihood that the drug will be improperly mixed, and ultimately, that an insufficient dose of anesthetic will be delivered to the vein.

Moreover, if mixing errors \emph{are} made, which under the circumstances seems especially likely, relying on untrained personnel also greatly lessens the chances that these errors will be recognized and remedied. As noted above, when pancuronium bromide is given after an insufficient dose of sodium thiopental, the paralyzed condemned would appear serenely unconscious.\footnote{See supra Part III.B.} To a lay executioner, untrained in gauging anesthetic depth, appearances would deceivingly suggest that the drug functioned properly and that the prisoner was dying peacefully. In reality, however, the condemned would be suffering silently, and with no one trained to recognize the mistake.

As explained by Dr. Peter Sebel, an expert on measuring anesthetic depth, “‘whether the [condemned] appears to be asleep’ [is] ‘not [an] adequate measure[] of anesthetic depth.’”\footnote{HUMAN RIGHTS WATCH, supra note 62, at 38.} Instead, this depth is properly assessed through, among other things, an individual’s “motor functions, responses to noxious stimuli, and reflexive responses.”\footnote{Id. at 36.} However, because the three-drug combination masks responses to stimuli, determining an inmate’s anesthetic depth under these circumstances presents a significant challenge even for those highly trained in anesthesia.\footnote{Id. at 36–37.} For untrained executioners, then, gauging this depth effectively is practically impossible. As a Kentucky prison warden testified in \emph{Baze v. Rees}, “[we] don’t know what to look for . . . .”\footnote{Transcript of Oral Argument at 16, Baze v. Rees, 128 S. Ct. 1520 (2008) (No. 07-5439), available at http://www.supremecourtus.gov/oral_arguments/argument_transcripts/07-5439.pdf.}
The use of unqualified executioners also makes it more likely that the drugs will be maladministered.\textsuperscript{97} Even with formal training and experience, inserting an IV line can be a challenging task.\textsuperscript{98} Recent botched executions evince the difficulties involved with IV insertion. In May 2006, it took the State of Ohio nearly ninety minutes to execute Joseph Clark.\textsuperscript{99} After spending twenty-two minutes trying to locate a vein, technicians administered the drugs, but because Clark failed to lose consciousness, a second dose had to be given.\textsuperscript{100} This time, technicians spent thirty minutes trying to locate a second injection site.\textsuperscript{101} In the end, just over an hour after the first dose of chemicals, Clark was finally pronounced dead.\textsuperscript{102}

Later that year, similar difficulties arose in the Florida execution of Angel Diaz.\textsuperscript{103} In that execution, which took two doses of lethal drugs and more than thirty minutes to complete, the needle for the first dose passed straight through Diaz’s vein, dispensing the chemicals directly into the flesh of his arm.\textsuperscript{104} After the second dose, with his jaw clenched, the fifty-five year-old appeared to be in pain, contorting his face and “grimac[ing] on several occasions.”\textsuperscript{105} Nearly half an hour after the procedure began, Diaz died, and upon a subsequent examination of his body, chemical burns were discovered on both of his arms.\textsuperscript{106}

Despite the challenge presented by IV insertion, which is even further heightened if the inmate is a diabetic, a drug user, or has heavily pigmented skin,\textsuperscript{107} and despite the complexity of mixing the lethal chemicals, executioners are essentially left to learn as they go. Under these circumstances, where executioners generally have no training in or experience with these tasks, critical errors in

\textsuperscript{97} A few states have recognized this and use trained EMTs and phlebotomists to insert the IV. \textit{Human Rights Watch}, \textit{supra} note 62, at 33–35. The majority, however, do not use trained personnel. \textit{Id.} at 32.

\textsuperscript{98} Denno, \textit{supra} note 33, at 110 (“\textit{M}edically trained people have enough difficulty finding a vein with certain individuals; for untrained executioners, the problems are compounded substantially.”).


\textsuperscript{100} \textit{Id.}

\textsuperscript{101} \textit{Id.}

\textsuperscript{102} \textit{Id.}


\textsuperscript{104} \textit{Id.}

\textsuperscript{105} \textit{Id.; Kreitzberg & Richter, supra} note 60, at 445–46.

\textsuperscript{106} \textit{Florida Governor Halts Executions, supra} note 103.

The potential for brutal error created by the executioners’ inexperience and general under qualification is further exacerbated by the vagueness and overall inadequacy of state guidance. Most state statutes fail to specify with any detail how the lethal injection procedure should be carried out, leaving to state corrections departments the task of developing lethal injection protocols. The majority of these protocols also fail to give much detail as to how a person should be executed. In fact, only nine states’ protocols specify how much of each drug should be given.108 And even in these states, no information is provided as to who should measure the chemicals or even whether the executioner is required to give the full dosage specified.109

Moreover, as Professor Deborah Denno110 explains, “simply because a state lists the quantities of the chemicals that it uses does not mean that it provides such information properly.”111 As noted above, mixing the lethal chemicals requires precision. To mix the chemicals precisely, “[o]ne needs to know both the weight of [the] chemical and the volume of diluent to [ensure] the chemical’s effectiveness.”112 Despite its importance, however, the majority of states that actually specify the chemicals used do not provide sufficient weight and volume information.113 Most executioners are also left in the dark as to what to do in cases of emergency. “[O]nly eight states give any direction concerning how an executioner should proceed if there are serious, foreseeable, or unexpected problems with the execution procedure or with the inmate . . . .”114

In sum, very few lethal injection protocols provide the direction necessary for implementing a humane and effective procedure. Coupled with the fact that the states rely on medically unqualified executioners who have little or no relevant professional training or

108 Wong, supra note 76, at 271.
109 Denno, supra note 33, at 120–21. “Paradoxically, it is the states that have performed the fewest executions, or none at all, that are the most informative in their protocols . . . .” Wong, supra note 76, at 271–72.
110 Professor Deborah Denno is a professor of law at Fordham University School of Law and is regarded as an “authority on methods of execution.” Liptak, supra note 75, at A1.
111 Denno, supra note 33, at 119.
112 Id.
113 Id. at 118.
114 Id. at 121.
experience to fall back on, this lack of guidance is especially troubling. In effect, executioners are forced to play a very dangerous game of trial and error.

C. Death Chamber Setup

In addition to proper chemical mixing and IV insertion, the effective and humane administration of the tri-chemical cocktail largely hinges on the physical setup of the death chamber. Specifically, it is crucial that spatial layout does not impede the proper functioning of the equipment used to administer the fatal chemicals. After all, since problems with these systems and equipment can result in insufficient anesthetization, a perfectly mixed dose of the anesthetic and a properly inserted intravenous line are of little significance if such problems arise.

Central to avoiding equipment malfunction is the continuous monitoring of the apparatus for the duration of the lethal injection procedure. This means constantly checking to ensure that the intravenous tubing is free from kinks and leaks; that the drugs continue flowing and are actually entering the vein; and that all of the IV access equipment, such as infusion pumps and connections, are working properly. One small glitch in this system could mean the difference between calm death and brutal torture.

The general spatial setup of current death chambers, however, is not conducive to this type of monitoring, and, in fact, actually serves to enhance the risk of malfunction. Executioners administer the lethal drugs “from behind a screen or wall several yards away from the prisoner,” thus making consistent and thorough visual inspection of the equipment extremely difficult, if not impossible. A kink or leak in the yards of tubing, for example, or a leak into the tissue surrounding the prisoner’s IV would not be readily noticeable to the untrained executioners behind their distant wall or screen.

And not only does this layout increase the chance that a malfunction will go unnoticed, it actually enhances the risk that the equipment will malfunction in the first place. One crucial component of the drug-delivery systems used in lethal injection, as with any IV injection, is the IV tubing through which the lethal

115 HUMAN RIGHTS WATCH, supra note 62, at 35.
116 Id. at 35–36.
117 Id. at 35.
118 Id. at 35–36.
119 Id. at 35.
chemicals flow. This tubing runs from the executioner’s station to the inmates’ arm, and because the distance between the two is so substantial, the length of IV tubing needed to span that distance is also substantial. This is problematic because where longer tubing is needed, so too are multiple IV extension sets and connectors to join that tubing. And so, as a result of these extra add-ons, the chance of a kink or leak developing in the tangle of tubing is a much greater one.

Thus, without the ability to adequately ensure that the IV delivery equipment is functioning properly, especially when that equipment is set up in such a way that increases the chances of leaks and other problems developing, the likelihood of insufficient anesthetization is again greatly enhanced.

D. A Lethal Combination

Taken together, the lack of executioner training, the absence of meaningful state guidance, and recklessly-arranged death chambers, transform what is an already risky procedure into a recipe for practically inevitable brutality. In fact, as one recent study indicates, this potential for brutality may be materializing at rates higher than many would expect. The study, which was conducted by three physicians and an attorney, examined the results of toxicology reports of forty-nine executed inmates from Arizona, Georgia, North Carolina, and South Carolina. Recognizing the importance of anesthesia in three-drug lethal injection, the study sought to determine if these individuals received proper amounts of sodium thiopental.

The authors’ findings, which were published in the April 2005

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120 Id. at 35–36.
121 Id.
122 The risks for equipment malfunction are even further enhanced in states that use incredibly complex delivery systems. For example, in Oklahoma, catheters are inserted into both arms. Three executioners plunge eleven syringes in a complicated sequence, alternating the drugs between the left and right arms. It is not known who, if anyone, directs the sequence of drug administration for the executioners. The process is then repeated by injecting a second round of drugs. By the end of the process, the prisoner should have received two doses of sodium thiopental through the left arm, two doses of pancuronium bromide through the right arm, and two doses of potassium chloride (one dose through each arm).

Id. at 31 (footnote omitted).
123 Koniaris et al., supra note 81, at 1412.
124 See id.
issue of the British medical journal *The Lancet*,\footnote{Id. at 1412–14.} showed that nearly ninety percent of the inmates studied had “concentrations of thiopental in the blood . . . lower than that required for surgery,” and that nearly half of the “inmates had concentrations consistent with awareness.”\footnote{Id. at 1412.} Furthermore, despite the fact that the protocols of each state in which the inmate had been executed called for two grams of sodium thiopental, “concentrations of the drug in the blood ranged from only trace amounts to 370 [milligrams per liter].”\footnote{Id. at 1413.} And although the authors did concede that estimating ante mortem levels of thiopental from post mortem toxicology reports was “problematic,” they were still confident in the conclusion that this “large range of blood concentrations [that] resulted from nearly identical protocols across and within individual states” was likely “due to differences in drug administration in individual executions.”\footnote{Id. The authors noted that the large range of blood concentrations could have been due to substantial variations in autopsy methods. They concluded, however, that differences in administration were more likely. They so concluded by “[c]ontrasting the expertise of state medical examiners with the relatively unskilled executioners.” Id.}

And so, while the study could not definitively determine whether the inmates suffered during their executions, its unsettling findings offer insight into the problems lurking below the surface of three-drug death. Even where state protocols were identical in their prescription of anesthesia—the most crucial element in the trichemical procedure—the actual amounts present in the inmates not only varied greatly, but were alarmingly consistent with insufficiency. But while such findings are undoubtedly disturbing, they, unfortunately, should not be surprising. With the inadequate monitoring, unqualified executioners, and insufficient state guidance that typify modern lethal injection—factors cited by the study as likely contributors to the disparity—what else should be expected?

V. THE STANDARD: DEFINING “CRUEL AND UNUSUAL”

As a result of the risk presented by the three-drug protocol, especially in light of the circumstances just described, many challenges to the constitutionality of the current implementation of
lethal injection paved the way for Baze v. Rees.\textsuperscript{129} In the absence of Supreme Court guidance since 1878,\textsuperscript{130} however, addressing these challenges proved problematic for lower courts; without a concrete standard for determining whether a method of execution was “cruel and unusual,” the courts were left to piece together their own “appropriate” standard.\textsuperscript{131} Not surprisingly, this resulted in the adoption of varying and oftentimes contradictory legal standards,\textsuperscript{132} creating the potential for vastly different results depending only on jurisdiction. Judge Martin of the Sixth Circuit observed that “condemned inmates [were] bringing nearly identical challenges to the lethal injection procedure. In some instances stays [were] granted, while in others they [were] not and the defendants [were] executed, with no principled distinction to justify such a result.”\textsuperscript{133}

Baze was expected to remedy this uncertainty with a uniform, workable standard. But although the Court in Baze did, indeed, lay down a standard—that a method is unconstitutional if it poses a “substantial risk of serious harm,” or if the state, “without a legitimate penological justification,” fails to adopt an alternative procedure which is “feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain”\textsuperscript{134}—the standard may ultimately prove to be a step in the wrong direction.

\textsuperscript{129} 128 S. Ct. 1520 (2008).
\textsuperscript{130} See supra text accompanying notes 5–6.
\textsuperscript{131} Some courts, for instance, considered a method “cruel and unusual” when it “create[d] a substantial risk of wanton and unnecessary infliction of pain, torture or lingering death.” Baze v. Rees, 217 S.W.3d 207, 209 (Ky. 2006); State v. Webb, 750 A.2d 448, 454 (Conn. 2000). Others proscribed “the unnecessary and wanton infliction of pain.” Hamilton v. Jones, 472 F.3d 814, 816 (10th Cir. 2007); accord Taylor v. Crawford, 487 F.3d 1072, 1080 (8th Cir. 2007). Another has cited the “objectively substantial risk of harm.” Walker v. Johnson, 448 F. Supp. 2d 719, 722 (E.D. Va. 2006). And as the petitioner in Baze v. Rees pointed out, “[t]he United States District Court for the Southern District of Indiana [threw], perhaps, the biggest curveball to anyone trying to make sense of the various doctrines . . . .” Petition for Writ of Certiorari, supra note 10, at 16. By incorporating “the deliberate indifference standard from prison condition cases,” that court created a standard that required a challenger “to establish both an unnecessary risk of pain and that the Department of Corrections is deliberately indifferent to that risk . . . .” Id. (citing Woods v. Buss, No. 1:06-cv-1859-RLY-WTL, 2007 WL 1280664, at *8 (S.D. Ind. May 1, 2007)).
\textsuperscript{132} Petition for Writ of Certiorari, supra note 10, at 1 (describing the varying standards as a “haphazard flux”); see also Roberta M. Harding, The Gallows to the Gurney: Analyzing the (Un)Constitutionality of the Methods of Execution, 6 B.U. PUB. INT. L.J. 153, 153–54 (1996) (“Despite the multitude of cases on this issue, there are no coherent and uniform tenets regarding how to analyze a charge that a particular method of execution violates the Eighth Amendment.”); supra note 131.
\textsuperscript{133} Alley v. Little, 447 F.3d 976, 977 (6th Cir. 2006) (Martin, J., dissenting).
\textsuperscript{134} Baze v. Rees, 128 S. Ct. 1520, 1532 (2008).
A. “Substantial” Risk: A Flawed Framework

Initially, the standard set forth in *Baze* will likely not eliminate the uncertainty created by the variety it replaced. As Justices Thomas and Scalia argued in their concurring opinion, the decision leaves “[s]tates with nothing resembling a bright-line rule,” and “is sure to engender more litigation.”\(^{135}\) Namely, they posited: “At what point does a risk become ‘substantial’? Which alternative procedures are ‘feasible’ and ‘readily implemented’? When is a reduction in risk ‘significant’? What penological justifications are ‘legitimate’? Such are the questions the lower courts will have to grapple with in the wake of [the] decision.”\(^{136}\) Justice Stevens argued similarly in his concurring opinion, noting that the decision far from closes the door on the lethal injection controversy; instead, he observed, “[t]he question whether a similar three-drug protocol may be used in other [s]tates remains open, and may well be answered differently in a future case on the basis of a more complete record.”\(^{137}\) In effect, then, because the seemingly-elastic *Baze* standard leaves considerable room for interpretation (and misinterpretation), and because it appears to simply create more questions, it fails to provide the type of clarification that this area of law so desperately needed, leaving the states much as they were prior to the Court’s ruling—uncertain as to how to proceed in crafting and carrying out their lethal injection protocols.

In addition to this lack of clarity, the *Baze* standard is also flawed in more substantive ways. To understand these flaws, it is necessary to have in mind the core Eighth Amendment values that the “cruel and unusual” standard is intended to protect. As a starting point, and as already mentioned, the central goal of the Eighth Amendment is to protect the dignity of the punished, or, as the Supreme Court more eloquently phrased it in *Trop v. Dulles*, “[t]he basic concept underlying the . . . Amendment is nothing less than the dignity of man.”\(^{138}\) Accordingly, for any punishment to pass constitutional muster, it must comport with that ideal and preserve that dignity. In the context of the death penalty, where this principle applies equally, the Amendment has been construed...

\(^{135}\) *Id.* at 1562 (Thomas, J., concurring).

\(^{136}\) *Id.*

\(^{137}\) *Id.* at 1542 (Stevens, J., concurring) (emphasis added).

\(^{138}\) *Trop v. Dulles*, 356 U.S. 86, 100 (1958); see also discussion supra Part I.B (describing adoption of Eighth Amendment as rooted in search for outlawing brutality, and thus, protecting the dignity of the condemned).
to protect the condemned’s dignity at death, ensuring that his or her life is extinguished in a civilized manner. The appropriate “cruel and unusual” standard must therefore do the same.

To function accordingly, the standard must proscribe the types of unconstitutional pain and suffering that undermine principles of a dignified death. Under the “cruel and unusual punishment” clause, pain and suffering is permissible only to the extent necessary to extinguish life “humanely.” In this regard, the clause has been interpreted not only to always proscribe the type of barbarous torture that typified English punishment (e.g., beheading, drawing and quartering, etc.), but also as hostile toward the infliction of pain and suffering that is “unnecessary” to the “mere extinguishment of life.”

Indeed, as Justice Reed noted in *Louisiana ex rel. Francis v. Resweber*, although not all pain and suffering is unconstitutional, “[t]he traditional humanity of modern Anglo-American law forbids the infliction of unnecessary pain in the execution of the death sentence.”

Most substantially, though, and beyond these general guideposts, this concept of “humaneness” has been treated as fluid and ever-changing, deriving the brunt of its meaning from the nation’s contemporary standards of decency. Specifically, and as was further explained in *Trop*, because the “words of the [Eighth] Amendment are not precise, and . . . their scope . . . not static, [t]he Amendment must draw its meaning from the evolving standards of decency that mark the progress of a maturing society.” Thus, because society’s ultimate punishment must be responsive to society’s evolving ideals, what may have been deemed permissible

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139 See, e.g., *In re Kemmler*, 136 U.S. 436, 447 (1890); Wilkerson v. Utah, 99 U.S. 130, 136 (1878); see also *Baze*, 128 S. Ct. at 1560 (“[A]n unbroken line of interpreters has held that it was the original understanding and intent of the framers of the Eighth Amendment . . . to proscribe as “cruel and unusual” only such modes of execution as compound the simple infliction of death with added cruelties or indignities.” (Thomas, J. concurring) (omission in original) (quoting HUGO ADAM BEDAU, THE COURTS, THE CONSTITUTION, AND CAPITAL PUNISHMENT 35 (1977))).


141 *Resweber*, 329 U.S. at 463. “The cruelty against which the Constitution protects a convicted man is cruelty inherent in the method of punishment, not the necessary suffering involved in any method employed to extinguish life humanely . . . . There is no purpose to inflict unnecessary pain nor any unnecessary pain involved in the proposed execution.” *Id.* at 464.

142 See supra Part V.A.; *Trop*, 356 U.S. at 100.

143 *Trop*, 356 U.S. at 100–01.
pain and suffering a century ago, or even a few decades ago, may not pass constitutional muster today.

Emerging from these principles is the basic idea that at its core, the Eighth Amendment, as adopted and interpreted, provides a shield for the condemned's dignity that must grow and change to match society-defined limits of decency. Judged against this broad framework, both the flaws of the *Baze* standard and the comparative advantages of an “unnecessary risk” standard become more apparent.

As noted above, the *Baze* standard outlaws as unconstitutional a method that poses a “*substantial* risk of severe pain,” or, as the Court explained, a risk that is “*sure or very likely* to cause” unconstitutional pain and suffering.\textsuperscript{144} The first major flaw with this is that it potentially renders permissible exposure to more pain and suffering than the Eighth Amendment has been interpreted to allow. Namely, proscribing only a “*substantial*” risk of unconstitutional pain ignores the large range of risk that would likely fall below the amorphous, yet seemingly stringent, “*substantial*” threshold, regardless of the fact that such risk could still present a very significant likelihood of severe pain.\textsuperscript{145} This is especially significant in light of the Amendment’s hostility toward unnecessary pain and suffering, since even a risk that is easily avoidable would be permissibly taken if it did not rise to the quantum of likelihood (“*substantial*”) prescribed by the *Baze* Court.

In essence, despite both the enormous cost of error—i.e., the infliction of unconstitutional pain or suffering—and the ability to address and avoid the risk that would cause that error, the *Baze* standard sanctions as constitutional a large range of dignity-eroding risks of pain and suffering.

The *Baze* standard’s second major flaw is that it is not responsive to evolving standards of decency. More specifically, the standard’s

\textsuperscript{144} *Baze*, 128 S. Ct. at 1530–31 (“To establish that such exposure violates the Eighth Amendment . . . 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.’ We have explained that 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.’” (citation omitted)).

\textsuperscript{145} It seems clear from the Court’s explanation of “*substantial risk*” as “*sure or very likely*” to occur that only the most overwhelmingly probable risks will be sufficient to constitute an Eighth Amendment violation. *See supra* note 144. “While the 7-to-2 ruling did not shut the door on challenges to the lethal injection protocols in other states, it set a standard that will not be easy to meet.” Linda Greenhouse, *Justices Uphold Lethal Injection in Kentucky Case*, N.Y. TIMES, Apr. 17, 2008, at A1.
liberal allowances of unconstitutional pain are inconsistent with this nation’s trend toward and preference for the more humane. As explained earlier, the evolution from hanging to lethal injection was driven, in large part, by the desire to abandon certain methods when Americans became aware of more seemingly humane methods, thereby evincing the nation’s intolerance of risks of brutality when taking those risks was no longer necessary.  

Under the *Baze* standard, this trend seemingly goes unacknowledged. Despite the fact that a risk of brutality is avoidable, the *Baze* standard will protect against it only if it is nearly certain to materialize. As a result, state corrections departments are free to employ methods of execution in ways that pose the type of severe, yet avoidable risks that society has grown intolerant of—an outcome at odds with the nation’s progression away from needless brutality.

The third main flaw relates to the troubling public policy that the standard implicitly promotes. By severely narrowing the range of pain and suffering that constitutes an Eighth Amendment violation, the *Baze* standard does little to encourage humane executions at the ground level. Specifically, while it is clearly important to proscribe the type of extreme risk seemingly contemplated by the standard, proscribing only this level of risk creates little incentive to minimize the risk of pain beyond the small margin necessary to clear the “substantial risk” hurdle, ultimately opening the door for carelessness in both the creation of execution protocols and in the actual implementation of the chosen method.  

Allowing this carelessness not only erodes the humaneness of the method, it also functions to undermine the public’s voice in deciding which methods of executions should be adopted. Namely, state citizens, through their elected legislatures, adopt certain methods of execution in line with the methods’ perceived level of humaneness. When the standard governing the implementation of that method only narrowly protects its integrity, however, the method is effectively transformed into one with the potential to be far less humane than was initially anticipated. In essence, under a narrower standard like the one laid down in *Baze*, while the electorate chooses a method of execution because it appears most humane, the state, bound only to avoid extremely limited categories

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146 See discussion *supra* Part II.
147 See discussion *supra* Part II.
of risk, is free to be careless.

Simply put, the *Baze* standard falls short on multiple levels. Its imprecise articulation enhances uncertainty; its limited proscription effectively legitimizes an extensive range of risks of intolerable pain and suffering; its disregard for society’s aversion to unnecessary risks demonstrates its incongruence with evolving standards; and finally, it promotes carelessness while effectively muting the public’s voice in the method-of-death discussion.

**B. “Unnecessary Risk”: A Likely Step Forward**

While the *Baze* standard falters in its overly narrow classification of “cruel and unusual,” it does provide an important foundation upon which a more appropriate standard can be constructed. Specifically, the *Baze* Court acknowledged that the mere risk of unconstitutional pain and suffering alone can be enough to violate the Eighth Amendment, and that disregarding such a risk despite alternatives can also render a method “cruel and unusual.” Prior to *Baze*, the Ninth Circuit also recognized these important principles and consistently held that “a challenge to a method of execution must be considered in terms of the risk of pain.” But unlike the *Baze* Court, Ninth Circuit courts did not articulate their standard narrowly to proscribe only those risks that were most likely to materialize. Instead, by their standard, a method of execution was “cruel and unusual . . . when it subject[ed] the inmate to ‘an unnecessary risk of unconstitutional pain or suffering.’”

Articulating the standard in this way—i.e., proscribing “unnecessary” or “avoidable” risks as opposed to only “substantial” risks—would likely function to more effectively preserve Eighth Amendment ideals than will the *Baze* standard. Most broadly, the “unnecessary” articulation is more consistent with the Amendment’s overarching hostility toward the needless infliction of pain and suffering, or, in other words, toward the pain and suffering unnecessary to the “mere extinguishment of life.” Since the Amendment has been interpreted to outlaw this kind of pain, and

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149 Petition for Writ of Certiorari, *supra* note 10, at 15 (quoting Cooper v. Rimmer, 379 F.3d 1029, 1033 (9th Cir. 2004)).

150 *See supra* notes 136–40 and accompanying text.

151 Id.
since “unnecessary” risks by virtue of their inherently “avoidable” character would render any pain resulting from them “unnecessary,” permitting their disregard would be contrary to the Amendment’s protection, and would make little sense. It seems illogical at best to discourage “unnecessary pain and suffering” on the one hand while at the same time ignoring the avoidable risks that give rise to that pain and suffering. Thus, unless “unnecessary” risks are proscribed, unnecessary pain and suffering cannot adequately be avoided, and in turn, the broader protections against the needless resulting pain will be eroded, if not completely destroyed.

From a more practical standpoint, by not ignoring large ranges of significant risk, a standard grounded in avoiding needless risk-taking would function to maximize the humaneness of all adopted methods. It would require states to minimize the risk of unconstitutional pain and suffering that simply need not be risked, and as a result, states would inevitably do more to ensure the humaneness of their chosen method of execution by avoiding the avoidable. Not only would this more thoroughly protect the condemned’s dignity at death, it would also keep the voice of the electorate audible and influential by more accurately reflecting society’s demonstrated desire for maximum humaneness, and by ensuring that chosen methods live up to their contemplated humanity.

Further in line protecting the voice of the populace, this standard would also leave undisturbed the power of individual states to determine whether and how to punish with death. In other words, although the standard does seek to minimize pain and suffering, it does so without crippling the states’ ability to implement the death penalty if they so choose. It is not designed to function as a back-door attempt at invalidating the death penalty generally. It does not seek to proscribe all pain and suffering nor does it require that states create entirely risk-free methods and procedures. Instead, while acknowledging the importance of using only humane methods, it respects the states’ decision to implement them so long as they eliminate the hazards that can be eliminated.

In sum, adopting a standard outlawing the “unnecessary risk of unconstitutional pain and suffering” would likely enhance Eighth

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152 As noted above, as long as human beings play a role in creating and implementing the death penalty, requiring a pain-free method of execution devoid of all risk would, in effect, invalidate the death penalty as a form of punishment.
Amendment protections in ways that the *Baze* standard does not. It promotes humaneness by seeking the minimization of risk of barbaric pain without crippling the state’s ability to implement the death penalty, and it serves to ensure that the public gets what it bargains for when adopting a method of execution. In doing these things, the standard functions as the impetus for state legislatures and corrections departments to take more care in both drafting execution protocols and in their implementation. And ultimately, the standard will serve to protect the dignity of the condemned in line with standards of decency that have continued to evolve away from the needlessly barbaric and toward the more humane. Simply put, a standard that avoids needless exposure to the kind of pain proscribed by the Eighth Amendment and rejected by society more closely aligns with the Eighth Amendment than does a standard that practically ignores it.

VI. THREE-DRUG INJECTION: CRUEL AND UNUSUAL?

It is undisputed that if the risk presented by the three-drug protocol materializes, the inmate will suffer a torturously excruciating death, the type explicitly outlawed by the Eighth Amendment.\(^{153}\) The only real question, then, is whether the constitution should be interpreted to tolerate the type of enhanced, avoidable risk that modern lethal injection poses. This Part will explain why that question must be answered in the negative. Specifically, it will show that because the risk is unnecessary in light of a readily available alternative to the three-drug protocol—one that avoids the risk that that protocol presents without foreclosing use of lethal injection generally—and because the proscription of unnecessary risks more closely aligns with Eighth Amendment protections,\(^{154}\) especially as informed by evolving standards of decency hostile to such risks, neither common sense nor adherence to Eighth Amendment ideals can support tolerating the risks engendered by modern, three-drug death.

\(^{153}\) *See* Wong, *supra* note 76, at 269; *Transcript of Oral Argument, supra* note 96, at 26–27 (the attorney for the respondent conceding to Justice Stevens that insufficient anesthetization would result in excruciating pain); *supra* discussion Part III.B and accompanying notes.

\(^{154}\) *See supra* discussion Part V.
A. Unnecessary Risk of Unconstitutional Pain & Suffering: The One-Drug Solution

As many critics of the three-drug protocol point out, the cumbersome three-drug protocol could be replaced with a single barbiturate known as sodium pentobarbital. This drug is commonly used by veterinarians in a single large dose to euthanize animals, and if used on a human, it would cause loss of consciousness and “bring on fatal cardiac arrest ‘within a matter of minutes.’” As the petitioner in Baze noted in oral argument, the key difference between use of this drug and the current three-drug combination is that if something goes wrong—i.e., mixing mistakes, maladministration, etc.—no pain will result, thus making the use of a single drug a much more forgiving and humane option. For this reason, many medical experts have shown their support for the one-drug protocol, and multiple state committees and commissions charged with studying the drug have also noted the protocol’s advantages. Both a Tennessee committee and a California commission have reported, for instance, that the single drug “is much simpler to administer” and that it “has the advantage of eliminating both of the drugs which, if injected into a conscious person, would cause pain.”

Despite these apparent advantages, however, critics of the replacement contend that the one-drug replacement is too risky. They mainly argue that because the drug “[is] untested [on humans], [it] could result in distressing and disruptive muscle contractions, and [that it] might take a long time” to work—it could cause a death less dignified than the type experienced under the current protocol. This criticism, however, seems misplaced. The argument that painless muscle contractions and a somewhat prolonged procedure would somehow present an indignity to the unconscious inmate is really one concerned with the potential for discomfort of witnesses, and not the constitutionally protected

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156 Liptak, supra note 75, at A1.
157 Id.
158 Transcript of Oral Argument, supra note 96, at 20.
159 Liptak, supra note 75, at A1.
160 Id.
161 Id.
162 Id.
dignity of the condemned.\textsuperscript{163} First, even if these muscle contractions did occur, the unconscious inmate would be unaware of them, and because the inmate would be strapped down, the visible intensity of the contractions would be minimal. Moreover, any witness discomfort that did arise could be easily addressed by simply communicating to the witnesses that the movements do not indicate pain.\textsuperscript{164}

Similarly, the duration of the procedure would also present no real potential for indignity. Even assuming that the use of the one-drug protocol takes more time to cause death than the few minutes that is estimated, the inmate would be unconscious and unaware of these circumstances. It seems clear, then, that again it would be those viewing the execution that would be most susceptible to any discomfort as associated with an extended procedure. But even in this regard, just as muscle contractions could easily be explained to witnesses, so too could the extended nature of the procedure.

Finally, the fact that the drug has yet to be tested on humans, while relevant, is not especially significant. Unlike the three-drug protocol before its adoption, this drug has had a long and successful history of use as a humane and effective tool for euthanizing animals.\textsuperscript{165} Also unlike the current protocol, the one-drug protocol

\textsuperscript{163} Transcript of Oral Argument, supra note 96, at 10–11.
\textsuperscript{164} Id.; Liptak, supra note 75, at A1. As Justice Stevens explained in his concurring opinion in \textit{Baze}:
Whatever minimal interest there may be in ensuring that a condemned inmate dies a dignified death, and that witnesses to the execution are not made uncomfortable by an incorrect belief (which could easily be corrected) that the inmate is in pain, is vastly outweighed by the risk that the inmate is actually experiencing excruciating pain that no one can detect.

\textit{Baze v. Rees}, 128 S. Ct. 1520, 1544 (2008) (Stevens, J., concurring). And, as he further explained in a footnote:
Indeed, the decision by prison administrators to use the drug on humans for aesthetic reasons is not supported by any consensus of medical professionals. To the contrary, the medical community has considered—and rejected—this aesthetic rationale for administering neuromuscular blocking agents in end-of-life care for terminally ill patients whose families may be disturbed by involuntary movements that are misperceived as signs of pain or discomfort. As explained in an amici curiae brief submitted by critical care providers and clinical ethicists, the medical and medical ethics communities have rejected this rationale because there is a danger that such drugs will mask signs that the patient is actually in pain.

\textit{Id.} at 1544 n.3.
\textsuperscript{165} Additionally, besides the fact that human testing has never been required for any previous method of execution, relying on the fact that the drug has not been tested on humans to preclude its use is illogical and impractical. While such testing may be necessary before introducing a new drug on the market for public consumption, the considerations presented here are vastly different than those that arise in releasing a new type of aspirin or other mainstream pharmaceutical. Mainly, unlike in the consumer setting, the drug here is
The Tri-Chemical Cocktail

consists only of a barbiturate, which by its very nature cannot cause pain, and therefore, presents no risk of causing pain if maladministered. And while some may argue that killing humans with a drug used on animals would offend common decency by “treating people the same way that we’re treating animals,” that argument, while understandable, is flawed.

Mainly, it assumes that animals being euthanized with this drug are treated in a manner worse than are the human inmates being executed. It seems, however, that it is the animals being euthanized who receive the more humane treatment. In fact, the veterinary community, which aims to euthanize animals in the most humane way possible, has actually outlawed the use of the type of chemical combination currently used on humans, “deem[ing] [it] unnecessarily cruel.” Specifically, the American Veterinarian Medical Association, an organization “representing more than 76,000 veterinarians” and “act[ing] as a collective voice for . . . the profession,” has proscribed the use of a sedative, like sodium thiopental, in conjunction with paralytics, such as pancuronium bromide. State legislatures have similarly recognized the importance of avoiding the risks associated with such a combination. Nineteen, in fact, have made it illegal to put animals to death using pancuronium bromide, the paralytic at the root of the combination’s potential for brutality. In essence, then, while the appearance of “treating humans as animals” may initially seem objectionable, when one considers the fact that the veterinary community has done more to ensure the humanity of its euthanization procedures than has been done with regard to lethal injection, treating inmates as animals may, in this case, be an

intended to kill those who take it, a result that pharmaceutical companies generally try to avoid. With this kind of intended result, it is unclear to this author how such a drug could be effectively tested on humans without actually killing the test subject. Requiring human testing, it would seem, would effectively preclude the adoption of any new drugs, regardless of how potentially humane. Specifically, adoption would be conditioned on testing, but because testing outside of the execution arena would likely be impossible, neither testing nor adoption could ever be possible.

See Transcript of Oral Argument, supra note 96, at 8 (“[A] barbiturate . . . by definition will inflict death painlessly.”).

Liptak, supra note 75, at A1.

Wong, supra note 76, at 281.

Totenberg, supra note 80.


Wong, supra note 76, at 281.

Id.
improvement.

B. Evolving Standards of Decency

As discussed earlier, “an assessment of contemporary values concerning the infliction of a challenged sanction is relevant to the application of the Eighth Amendment.” In assessing these standards, the Court examines legislative trends and places great emphasis on how other state legislatures weigh in on the issue. In the case of lethal injection, because thirty-seven of the thirty-eight death penalty states currently use the three-drug protocol, an initial legislative-trend-based analysis would suggest that the protocol comports with contemporary values. A closer examination, however, suggests a contrary conclusion. Specifically, neither the adoption of lethal injection generally nor its persistence since adoption should be interpreted as public acceptance of the specific tri-chemical protocol used to implement it.

1. Widespread Adoption: A Foundation of Misperception

As also discussed above, the adoption of lethal injection was a reaction to the brutality of electrocution and lethal gas—“methods that were initially viewed as humane, but later rendered problematic.” This method, with its credibility bolstered by the trust-evoking appearance of a medical procedure and the seeming “calm of euthanizing a favorite pet,” established in the public consciousness a perception of hyper-humaneness. As one could imagine, this perception of serenity was further enhanced when viewed in comparison to the burning flesh accompanying electrocution or the cyanide-induced vertebrate-snapping spasms of the gas chamber.

The trust in this perceived humaneness led to the practically blind adoption of three-drug lethal injection. The states’ decisions to adopt the method were not products of independent, deliberative processes. Instead, once Oklahoma adopted the protocol in 1977, each state, believing the method to be extremely humane, gradually

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174 Wong, supra note 76, at 281.
175 Id. at 263.
176 See discussion supra Part II.C.
177 Denno, supra note 33, at 90.
178 Kreitzberg & Richter, supra note 60, at 450.
copied it without any further research. In light of this copy-cat adoption, the method’s more-visibly brutal predecessors, and its promise and appearance of humanity, the method’s widespread acceptance was likely not an acceptance of the specific drugs used and their brutal potential, but instead, reflective of the public’s broad desire to ensure humaneness.

Further bolstering this conclusion is the fact that while lethal injection in the abstract may be consistent with this nation’s evolution toward the humane, the use of the three-drug protocol is not. From a broad perspective, this evolution is marked by the abandonment of methods with the potential to cause death in gruesome ways. In the case of the three-drug protocol, that potential not only exists, but, as discussed above, it is greatly enhanced by its sloppy, if not reckless implementation. And more specifically, through its abandonment of hanging, and to some extent electrocution, the nation has demonstrated its disgust with methods whose humanity depended on skillful implementation.

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179 Baze v. Rees, 128 S. Ct. 1520, 1545 (2008) (Stevens, J., concurring) (“[T]he various states simply fell in line’ behind Oklahoma, adopting the protocol without any critical analysis of whether it was the best available alternative.” (quoting Baze, 128 S. Ct. at 1569 (Ginsburg, J., dissenting)); Denno, supra note 33, at 92 (“[L]egislatures embraced the method quickly.”); Liptak, supra note 75, at A1 (“Lethal Injection protocols nationwide were copied from one developed in Oklahoma in 1977 . . . .”).

180 E.g., lethal gas and electrocution.

181 See Baze, 128 S. Ct. at 1544–45 (Stevens, J., concurring).

182 See discussion supra Part II; see also Baze, 128 S. Ct. at 1569 (“[I]f readily available measures can materially increase the likelihood that the protocol will cause no pain, a [s]tate fails to adhere to contemporary standards of decency if it declines to employ those measures.”).

183 And while previous methods caused death in more visibly gruesome ways, it is unimaginable that the infliction of excruciating pain amidst terrifying, conscious paralysis would be deemed anything but gruesome.
when that skill was lacking. In this regard, three-drug lethal injection is also inconsistent with the nation’s search for the humane. The humane implementation of the complex and cumbersome three-drug protocol is crucially dependant on medical skill, yet, as explained above, that skill is neither used in the procedure nor available for use.

The nation has also demonstrated its discontent with methods that fail to live up to their initially-contemplated level of humanity. All methods adopted prior to lethal injection were adopted with the promise of increased humaneness, and when reality did not match that promise, new methods were sought and the older abandoned. Three-drug lethal injection, although less-visibly incongruent with initial perceptions of humaneness, presents a strong likelihood that the condemned will die a terrifyingly painful death—one much more painful than thoughts of “euthanizing a favorite pet” would evoke. And so, since this image of guaranteed serenity underpinned the method’s adoption, its absence, in light of such probable risk, renders the tri-chemical cocktail inconsistent with the nation’s standards of decency as they have evolved.

2. Absence of Change Since: Mistaken Perceptions Reinforced

Because this protocol has gone unchanged since its adoption thirty years ago, many would likely argue, and understandably so, that if it were truly contrary to evolving standards of decency, it would have been modified or abandoned long ago. But just as the state’s adoption of the protocol should not be treated as determinative, neither should the fact that the states have not abandoned it. While the fact that the protocol has persisted may be relevant to the discussion, the reasons for it likely extend past public acceptance of the specific protocol.

From a political standpoint, as Professor Deborah Denno points out in a recent New York Times article, “[i]f you change . . . you’re admitting there was something wrong with the prior method. All those people you were executing, you could have been doing it in a

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184 As noted earlier, hangmen often lacked the skill necessary to hang the condemned without macabre complications. With regard to electrocution, there were multiple attempts at improving the device, but complications continued to arise. It seems fair to argue, then, that the lack of skill in developing the method, which in turn resulted in horrific, off-putting consequences, played a role in the method’s abandonment.

185 See discussion supra Part IV.A and accompanying notes.
better, more humane way.” And as one could easily imagine, this is an admission that any politician or lawmaker would be loath to give.

Another likely contributor to the protocol’s persistence is the method’s continued perceived level of humaneness. Unlike with previous methods of execution, the most horrifically botched lethal injections are not marked by the smell of burning flesh, partially decapitated bodies, or back-breaking spasms. Instead, they are much less eventful and, in fact, absent post-mortem toxicology testing, the suffering experienced is imperceptible. When the three-drug protocol is at its worst, locking the condemned inside his or her body to experience horrendous pain, it is marked only by the eerily cold silence of paralysis. And even more disturbing, it is at this point that the procedure seems most humane to observers. Only the chemically-entombed, but fully-aware inmate is witness to the combination’s true brutality.

This masked pain is detrimental to public awareness of the protocol’s true problems and falsely reinforces its perceived level of humaneness. While many botched lethal injections are reported and exposed to the public, it is more often those botched in noticeable and more conspicuous ways, such as those involving the improper insertion of an IV or other IV-related complications, that gain widespread exposure. And although these complications are important to be aware of, they would not readily signal the combination’s true brutal potential. As a result, the public’s attention is shifted away from this potential and toward the less disturbing, but more commonplace, pitfalls of the method—the type to be expected by any method implemented by imperfect human beings.

Likely exacerbating this perception problem is the overall lack of

186 Liptak, supra note 75, at A1.
187 Michael L. Radelet, Death Penalty Information Center, Some Examples of Post-Furman Botched Executions, http://www.deathpenaltyinfo.org/some-examples-post-furman-botched-executions (last visited Mar. 8, 2009). Of the twenty-nine “well-known examples” of “botched” lethal injections listed on the Death Penalty Information Center’s website, twenty-seven were deemed botched as a result of a prolonged procedure due to either IV insertion difficulties (i.e., executioner difficulty in finding a vein) or drug-resistant inmates who were unresponsive to the drugs. Id.
188 Cf. Gregg v. Georgia, 428 U.S. 227, 232 (1976) (Marshall, J., dissenting) (“But if the constitutionality of the death penalty turns, as I have urged, on the opinion of an informed citizenry, then even the enactment of new death statutes cannot be viewed as conclusive. In Furman, I observed that the American people are largely unaware of the information critical to a judgment on the morality of the death penalty, and concluded that if they were better informed they would consider it shocking, unjust, and unacceptable.”).
transparency when it comes to execution protocols. First, gaining access to state execution protocols, where they exist, is an incredibly difficult task.\textsuperscript{189} Secondly, even if one does find the protocol they seek, most states fail to list the chemicals they use, and when they are listed, the descriptions in terms of type and amount administered are generally vague and incomplete.\textsuperscript{190} Additionally, these incomplete protocols would also fail to signal the underlying conditions discussed above that enhance the risks imposed by the three-drug combination (i.e. unqualified executioners, insufficient monitoring, etc.). Thus, even if one's suspicions as to the nuts and bolts of his or her state's lethal injection chemical protocol were roused, it would be very difficult to find clear, meaningful answers.

3. Three-Drug Combo & Evolving Standards: Square Peg, Round Hole

In sum, although causing death calmly and humanely with lethal chemicals may, indeed, align with current societal values, the use of the specific three-drug protocol described above, especially in light of its reckless implementation and the availability of at least one less-risky alternative, does not. Neither the widespread adoption of three-drug lethal injection nor its persistent use signals societal acceptance of that specific protocol. Instead, in its search for the most humane means of execution, the nation adopted and has maintained what perceptions misleadingly suggest is a painless and humane way of causing death.

And so, with politicians and legislatures hesitant to spearhead change, and without visibly horrific side-effects or clear, available, and understandable protocols to signal to the public that a problem and a need for change exists, these public perceptions remain firmly rooted in the ideas of tranquil paralysis, calm death, and ultimately hyper humanity. But, as Professor Denno points out, and as becomes evident upon even a cursory examination of the three-drug protocol, “looks can be deceiving.”\textsuperscript{191} And although the protocol was widely adopted and has gone unchanged for three decades, it is more likely the broad perception of humanity and not the narrow

\textsuperscript{189} Denno, supra note 33, at 116 (“One of the most striking aspects of studying lethal injection protocols concerns the sheer difficulty involved in acquiring them.”); see also HUMAN RIGHTS WATCH, supra note 62, at 20 (noting the heightened level of secrecy surrounding state lethal injection procedures).

\textsuperscript{190} See discussion supra Part IV.B.

\textsuperscript{191} Liptak, supra note 75, at A1.
acceptance of the three-drugs used that is responsible for
maintaining such a static landscape.

CONCLUSION

Since the ratification of the Eighth Amendment, the American
people have sought the most dignified and least brutal methods of
implementing the death penalty. As each new method failed to live
up to its promise of humanity, the search for, and development of
new, improved methods continued. The adoption of lethal injection
is simply another step in this evolution. And although this step
may very well be one in the right direction, the procedure’s current
implementation erodes its potential for humanity.

Through its appearance of medical sterility and its masked
potential for brutality, the use of the three-drug protocol functions
to conceal the need to further explore other, more humane
alternatives. Specifically, the advancement of modern medicine has
eliminated the more visibly macabre side effects of state-sanctioned
dead. But while the absence of these side effects may comfort the
weak of stomach and the faint of heart, the problems lurking below
the deceptively calm surface are no less brutal than those signaled
by the gory consequences of methods past.

The combination of drugs used risks locking the condemned into a
torturous scenario. And while some risk of grisly complication
inheres in all human-implemented methods of execution, and must
be tolerated to that extent, this is not that type of tolerable risk.
Not only is it needlessly taken, but it is enhanced to such an extent
that the likelihood of it materializing is more appropriately
characterized in terms of inevitability than of mere remote
possibility. Executioners lacking training and experience are
trusted with tasks crucially dependant on both of those qualities;
the execution facilities used are breeding grounds for error; and
where state guidance could, at least in some way, offset the danger
of these conditions, nearly all states have failed to offer any
safeguards of substance.

Simply put, three-drug lethal injection, as currently implemented,
is an invitation for unconstitutional brutality. Its continued use
de spite that fact undermines the intended function of the Cruel and
Unusual Punishment Clause—to protect of the dignity of the
punished in ways responsive to prevailing standards of decency—
and is thus contrary to “the constitutional commitment to decency
and restraint” that Justice Kennedy spoke of in Kennedy v.
Louisiana,\textsuperscript{192} and that this nation made when it ratified the Eighth Amendment more than 200 years ago.

\textsuperscript{192} Kennedy v. Louisiana 128 S. Ct. 2641, 2650 (2008).