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Execution Methods in a Nutshell

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EXECUTION METHODS IN A NUTSHELL

Deborah W. Denno¹

Introduction

As the current prevailing method of execution, lethal injection is being subjected to an unprecedented degree of scrutiny. At no other time in this country's history have doctors or medical organizations been so committed to evaluating a method of execution. Such examination has illuminated the ongoing finger-pointing between law and medicine concerning responsibility for lethal injection's flaws. Medical societies may have shunned involvement with lethal injection, perhaps at times inappropriately, but physicians contributed to the method's creation and continue to take part in its application. Both law and medicine turned a blind eye to a procedure about which warnings were blared repeatedly. The problem rests not only with "American society," but also with the legal and medical communities that are part of it (Denno, 2007, 2014a, b, 2016, 2017).

The Search for a Medically Humane Execution

This country's centuries-long search for a medically humane method of execution landed at the doorstep of lethal injection (see Table 24.1). Of the 32 existing death penalty states, lethal injection is the sole method of execution in 24 states and it is one of two methods of execution in 11 states (three states fall into both categories) (see Table 24.2) (Denno, 2017; Death Penalty Information Center, 2017).

Statistics demonstrating lethal injection's dominance, however, belie the rapidly changing impact of recent lethal injection challenges and other influences on the death penalty. Indeed, by the end of 2016—even after two United States Supreme Court cases had upheld separate lethal injection protocols—states had carried out the fewest number of executions the country had recorded in 25 years, and juries put forth the lowest number of death sentences in 45 years. Likewise, about 40% of the American public was against the death penalty, the largest such percentage in over four decades. Of course, there have been backlashes. But undeniable evidence shows the death penalty's slide, and lethal injection litigation is a crucial domino in the deck (Denno, 2017; Death Penalty Information Center, 2017).

Before Lethal Injection

This country's turn to lethal injection reflects states' growing reliance on medicine as a response to philosophical, financial, and political pressures to eliminate the death penalty. For example, New York State's increasing opposition to capital punishment in the early 1800s—a move prompted by a series

of disastrous public hangings attended by crowds of thousands—led the state's governor to ask the legislature in 1885 “whether the science of the present day” could not find a less barbaric means to execute. The governor's appointed commission of three “well known citizens” ultimately selected the electric chair, following the commission's impressively detailed two-year study of every execution method ever used throughout history (Denno, 1994, 2007).

In 1890, the murderer William Kemmler became the first person in the country to be electrocuted. New York's decision to enact electrocution spurred intense legal and scientific battles, resolved only when the U.S. Supreme Court decided that the Eighth Amendment would not apply to the states. Kemmler was executed in a day of confusion and horror, suffering a slow demise of burning flesh and ashes. Such catastrophe did not dissuade states from adopting this new method of purported scientific advancement. Electrocution still was deemed superior to hanging or, at the very least, was far less visible (Denno, 1994, 2007).

The problems with electrocution only worsened with the passing decades, despite (or perhaps because of) the enhanced scrutiny of the method's application (Denno, 1997, 1998, 2003, 2009c). By the time Allen Lee Davis was executed in Florida in 1999, over a century after Kemmler, the tragedies of the method appeared insurmountable: Davis suffered deep burns and bleeding on his face and body, as well as partial asphyxiation from the mouth strap that belted him to the chair's headrest. Millions of people around the world viewed virtually the results of Davis' execution through the Florida Supreme Court's web site postings of Davis' postexecution color photographs—ultimately crashing and disabling the Florida court's computer system for months. While the botched Davis execution did not halt electrocutions, it did prompt the Florida Legislature to enable inmates to choose between electrocution and lethal injection (Denno, 2002, 2007).

In light of this troubling execution method's history, lethal injection's popularity is understandable. Modern hangings risked being too long and cruel, like their predecessors. Lethal gas was judged the worst of all. In 1992, for example, Donald Harding's 11-minute execution and suffocating pain were so disturbing for witnesses that one reporter cried continuously, “two other reporters ‘were rendered walking “vegetables” for days,” the attorney general ended up vomiting, and the prison warden claimed he would resign if forced to conduct another lethal gas execution. While the firing squad has not been systematically evaluated, and may even be the most humane of all methods, it always has carried with it the baggage of its brutal image and roots. The law turned to medicine to rescue the death penalty (Denno, 1994, 1997, 2007, 2016).

My publications provide a thorough account of this law-medicine partnership based on historical research as well as extensive interviews with the major parties involved in lethal injection's origin. The legal system relied on anesthesiology just enough to understand the concept of lethal injection but not to account sufficiently for its barbarity when misapplied on human beings (Denno, 1994, 1997, 2002, 2007, 2014a, b, 2016).

The Advent of Lethal Injection

Lethal injection was considered a potential execution method in the United States as early as 1888. The New York governor's appointed commission rejected it, in part because of the medical profession's belief that, with injection, the public would begin to link the practice of medicine with death (Denno, 1994, 2007, 2014a, b).

Six decades later, Great Britain's Royal Commission on Capital Punishment also dismissed lethal injection, concluding after a five-year study of Great Britain's entire death penalty process that injection was no better than hanging, the country's long-standing method. Critical to the Royal Commission's investigation of lethal injection, however, was the substantial weight the commission gave to medical opinions and expertise. The commission solicited input from members of two of the country's most established medical organizations—the British Medical Association and the Association of Anaesthetists—as well as prison medical officers (Denno, 1997, 2007).

The host of problems these medical experts detected with lethal injection still ring true today. For example, based on such medical contributions, the Royal Commission determined that a standard lethal injection could not be administered to individuals with certain “physical abnormalities” that make their veins impossible to locate; rather, it was likely that executioners would have to implement intramuscular (as opposed to intravenous) injection, even though the intramuscular method would be slower and more painful. Significantly, the commission emphasized that lethal injection requires medical skill. While the British medical societies made clear their opposition to participating in the process, the Royal Commission still believed that acceptable executioners could be located, even in the medical profession. Nonetheless, other obstacles to lethal injection proved determinative. In particular, the commission found a lack of “reasonable certainty” that lethal injections could be performed “quickly, painlessly and decently,” at least at that time. Ultimately, in 1965, the British abandoned the death penalty, with only a few exceptions (Denno, 1997, 2007).

In the United States, the 1960s saw a number of American legal organizations and advocates express concern about the degree of discretion that existed in the application of the death penalty, particularly among sentencing juries, and the resulting risk of arbitrariness, such as race discrimination. Such groups made a strategic decision to halt all executions by way of strong and concerted legal challenges in all cases in which an execution seemed likely. The groups believed that a country that was execution free could finally start to understand why the death penalty was no longer necessary (Denno, 2016, 2017). As Michael Meltsner explains, “[i]t is not easy to trace the evolution of this change in policy, for it came about only after a number of complex, interrelated, tactical and moral considerations coalesced, but of its importance there can be no doubt” (Denno, 2016, p. 756).

This U.S. execution ban, which started in 1967, thereby prompted an unofficial “de facto” moratorium on the application of the death penalty. Such a hiatus would be perpetuated some years further by the court’s 1972 decision in *Furman v. Georgia*. In *Furman* and related cases, the court held 5–4 that the imposition of the death penalty in the cases before it violated the Eighth and Fourteenth Amendments. Because *Furman* comprised a per curiam decision of just one paragraph along with nine separate opinions, however, the case had no singular message. That said, the opinions indicated that most of the justices were troubled by the degree of discretion given to sentencing juries along with the resulting arbitrariness in death-sentencing decisions. While *Furman* was aimed toward striking down the procedures in Georgia and Texas, it ended up having a broad effect, essentially invalidating nearly every death sentencing system of every jurisdiction in the country (Denno, 2016, 2017).

The Impact of *Gregg v. Georgia*

This stalemate, however, would quickly change four years later. In 1976, the court decided *Gregg v. Georgia*, holding that the death penalty is not per se a cruel and unusual punishment and that the guided discretion approach that many states had since adopted satisfied Eighth Amendment requirements. Within seven months of the court’s decision, Utah executed Gary Gilmore by firing squad, thereby revitalizing this country’s death penalty and ending a moratorium that had lasted nearly ten years (Denno, 2016, 2017).

With *Gregg* the United States immediately had to grapple with the problem of how states were going to execute their death row inmates. Such a quandary appeared to spur an interest in a new execution technique for three primary reasons. First, states had encountered highly publicized problems and botched executions with the prior procedures, most particularly electrocution and lethal gas, and there were concerns about going back to them. Second, a public interest developed in the potential for having executions televised, in which case states would need a method that could appear humane and palatable to a viewing audience. Third, legislatures were troubled by the cost of refurbishing the electric chair and gas chamber and searched for the possibility of a cheaper method. Thus, lethal injection

seemed to be the solution to all three issues: the method was billed as humane and botch-free, and the drugs recommended for an injection were far cheaper than electrocution or lethal gas. As earlier noted, some form of injecting a deadly toxin into inmates had been considered as early as 1888 in this country and then decades later in Great Britain, but *Gregg* fueled a rising interest in finally applying such an injection method. Remarkably, this reexamination of the lethal injection issue did not include any acknowledgment by legislators of the medical opinion evidence gathered by the New York or the British Commissions. Seemingly oblivious to prior concerns, American lawmakers emphasized that lethal injection appeared more humane and visually palatable relative to other methods. It was also cheaper (Denno, 1997, 2002, 2007, 2016).

Oklahoma Roots

In May 1977, one year after *Gregg*, Oklahoma became the first state to adopt lethal injection. Contrary to the thorough and deliberative approaches taken by the New York and British commissions, however, accounts suggest that two doctors (at most) were the sole medical contributors to the method's creation. At each step in the political process, concerns about cost, speed, aesthetics, and legislative marketability trumped any medical interest that the procedure would ensure a humane execution (Denno, 2002, 2007).

The two key legal players in the development of Oklahoma's lethal injection statute were then-Oklahoma State Senator Bill Dawson and then-Oklahoma House Representative Bill Wiseman. Dawson claimed that he first thought of using drugs for human execution when he was a college student. Wiseman said he acquired the idea in 1976, when he visited his personal physician, the president of the Oklahoma Medical Association (OMA), and inquired about a more humane way to execute death row inmates. Strikingly, that physician later informed Wiseman that the OMA board did not want to become entrenched in the venture because licensed physicians could not participate in executions. In subsequent years, American medical societies continuously would echo the OMA's stance, balking at any official involvement in lethal injection. Yet lawmakers would proceed with their decision making, regardless (Denno, 2007).

With medical societies out of the picture, both Dawson and Wiseman turned elsewhere. Eventually, they consulted with A. Jay Chapman, then chief medical examiner for Oklahoma. From the start, Chapman was upfront about his glaring lack of expertise. Indeed, when I initially contacted him for an interview, his "first response was that [he] was an expert in dead bodies but not an expert in getting them that way" (Denno, 2007, p. 66). Wiseman also warned Chapman about OMA's position and the effect such views could have on Chapman's medical career. Chapman was not worried: "To hell with them: let's do this" (Denno, 2007, p. 66).

The two men pulled out a pad and quickly drafted a statute based on Chapman's dictation: "An intravenous saline drip shall be started in the prisoner's arm, into which shall be introduced a lethal injection consisting of an ultra-short-acting barbiturate in combination with a chemical paralytic" (Denno, 2007, pp. 66–67). Chapman assumed that the chemicals used would be sodium thiopental (what has in fact been used) and the paralytic would be chloral hydrate; yet both Wiseman and Chapman believed the statute should be vague. Neither of them was certain if or when lethal injection would be implemented or what drugs might then be available. Unfortunately, such stunning unknowns had no impact on Wiseman's confidence in the procedure's potential success. As Wiseman recounted, lethal injection (a name he said he created) had the following benefits in his mind: "No pain, no spasms, no smells or sounds—just sleep, then death" (Denno, 2007, p. 67). Such optimism is disturbing given Wiseman's complete lack of medical background and other circumstances—most particularly, the problems with injection that the Royal Commission had detected, critical commentary about the drugs Chapman and Wiseman were considering, and the in-hindsight difficulties that recent litigation has revealed (Denno, 2007).

Completely independent of Wiseman's or Chapman's input or knowledge, Dawson also sought the advice of Stanley Deutsch, who then was head of Oklahoma Medical School's anesthesiology department. Deutsch and Dawson never met, but simply talked once on the phone when Dawson called to ask Deutsch to recommend a method for executing prisoners through the intravenous administration of drugs. Deutsch responded with a two-page letter that recommended two types of drugs: "an ultra short acting barbiturate" (for example, sodium thiopental) in combination with a "neuromuscular [sic] blocking drug" (for example, pancuronium bromide) to create a "long duration of paralysis" (Denno, 2007, p. 68). But Deutsch's February 28, 1977, correspondence was probably sent too late to contribute to the Oklahoma State Senate's March 2, 1977, passage of the initial version of the statute, which contained language identical to the final statute (Denno, 2007).

By all accounts, then, Chapman was the major, if not the primary, creator of lethal injection. At the same time, he remains shocked by reports that lethal injection generally is not performed by doctors but rather by individuals with little to no familiarity with the procedure. From the start, Chapman stated that he thought there were "no ethical constraints to a doctor administering the drug to the condemned person" (Denno, 2007, p. 69). He also noted that he personally "would have no hesitation to participate in a judicial execution" because such an act "cannot reasonably be construed to be the practice of medicine" (Denno, 2007, p. 69). Rather, he expressed the belief that, during a lethal injection, "the sensations would be similar to being placed under anesthetic" and "[t]here would be nothing unpleasant" (Denno, 2007, pp. 69–70).

In theory, lethal injection might have held much appeal. Yet the lawyers and doctors so fervently advocating its use had a distorted concept of how the procedure would operate in reality. Two professions (law and medicine), blinded by resolve, plunged together into a dark legal and medical hole from which they have yet to emerge (Denno, 2007, 2014a, b, 2016, 2017).

No Medical or Scientific Study

A detailed investigation of lethal injection's creation and history shows that at no point was the procedure medically or scientifically studied on human beings. That the Oklahoma statute (and later, the more specifically designated protocol) did not have medical justification became clear during the legislative debate. At one point, the lethal injection bill stalled, in large part because of concern that lethal injection had not been tested sufficiently. Indeed, William Hughes, a physician and chairman of the OMA's legislative committee, who might have offered an informed perspective, had not even read the bill before it was submitted to the legislature. Nor did he want to. Once again, the OMA turned its back on the lethal injection process (Denno, 2007).

Nevertheless, on March 2, 1977, the Oklahoma State Senate voted 26–20 to change the state's execution method from electrocution to lethal injection. This vote followed a two-hour debate that focused on a range of issues—deterrence (with some senators saying that the electric chair was the better deterrent to murder), humaneness (with some senators saying that lethal injection was more humane), and retribution (with some senators arguing that lethal injection was "an easy way out") (Denno, 2007, p. 70). One particularly critical point discussed served as an eerie harbinger of events to come—the problems that lethal injection could potentially cause. Yet this subject was narrow and limited. For example, one senator warned that some drug-using inmates might be less affected by the injection and survive, rendering the inmate a "vegetable to take care of" (Denno, 2007, p. 71). Remarkably, however, such a comment laments the economic repercussions of the problem—the state's need to provide care for an inmate after a botched execution—not the Eighth Amendment issue of cruelty or the sheer inhumanity of causing such a horrifying and preventable mistake (Denno, 2007).

In fact, questions of cost caught the attention of legislators. Dawson had informed the state senate that, according to the Oklahoma Department of Corrections, \$50,000 would be needed to renovate the electric chair because it had been damaged. Building a gas chamber would require \$250,000. By

contrast, “[w]hen he [Dawson] pointed out that the cost of execution by injection would be only about \$10, the argument ‘did seem to carry some weight’ in the discussion” (Denno, 2007).

On April 20, 1977, the Oklahoma House of Representatives passed the bill with a 74–18 vote. Critically, however, that version of the bill dropped a key amendment requiring the state to continue using the electric chair until death by drugs had been ruled legal by the U.S. Supreme Court. The amendment’s disappearance presents a disturbing irony: The method of execution that so dominates this country’s death penalty system might never have been implemented in its state of origin without Supreme Court approval (Denno, 2007).

Immediately after the bill’s passage Chapman expressed alarm about how lethal injection would be practiced. His statements in *The Daily Oklahoman* foreshadowed the problems to come, problems that have remained unresolved for 40 years (Denno, 2007):

Dr. A. Jay Chapman, state medical examiner, said [in May 1977] that if the death-dealing drug is not administered properly, the convict may not die and could be subjected to severe muscle pain.

The major hazard of using lethal drugs in the execution of criminals is missing the vein in establishing an intravenous “pathway” for the drugs, he warned.

Dr. Chapman, an early proponent of the execution method, said it is not necessary that a physician administer the drug, but it should be someone knowledgeable in drug injection.

...

In describing what he perceives as the ideal process for administering the drug, Dr. Chapman said a “drip” should be started intravenously in the prisoner’s arm. Direct shots into the vein would not be used.

When the intravenous pathway was secured, “one big push of drugs” would be made.

Dr. Chapman said the drug injection could take only several seconds and would feel like the sudden “loss of consciousness” felt by surgery patients who have anesthesia induced.

...

The barbiturate drug which could be used, Dr. Chapman said, is a hypnotic sedative named “thiopental.” It simply would put the prisoner to sleep.

The paralytic agent, which would cause respiratory muscles to cease functioning, may be a curare-type compound, he said.

State Corrections Director Ned Benton said . . . his office will work throughout the summer with the medical examiner’s office to find the best method of drug injection “which could be defended in court.”

Benton said it was his understanding that state laws do not restrict who gives shots.

(Denno, 2007, p. 72)

Chapman’s initial concerns all have played out continuously in executions across the country for the last quarter-century. For example, occurrences of “severe muscle pain” and “missing the vein,” as well as fears that “the convict may not die,” have been real and repeated problems. Likewise, the need to have available “someone knowledgeable in drug injection” raises one of the most significant issues of all. But such comments also prompt a key question: How could Chapman support a bill—indeed create a procedure—knowing all too well the dangerous complications associated with it? While Chapman offered blunt statements in 2006 that he “‘never knew we would have complete idiots injecting these drugs . . . [w]hich we seem to have,’” from the beginning, he explicitly warned of that possibility (Denno, 2007, pp. 72–73).

News articles from the late 1970s make clear the tentative status of Oklahoma's protocol. A 1979 *Daily Oklahoman* article, for example, emphasized that "[o]fficials with the State Department of Corrections say it may be years—if ever—before they are required to carry out mandates of the 1977 Legislature, which approved the drug injection law." The article also noted that "[o]fficials feel that if and when they have to use the injection law, new and better drugs may be available" (Denno, 2007, p. 73). Such statements suggest officials had limited confidence in the effectiveness of the chemicals that Chapman introduced and even anticipated they might never be used. Likewise, while Oklahoma Department of Corrections officials adopted a protocol in 1978 outlining how an injection would occur, the department noted that the protocol might need "a few modifications or refinements" (Denno, 2007, p. 74).

Chapman provided those modifications in 1981 as one of his last responsibilities as state medical examiner. Perhaps Chapman's most crucial change was adding a third drug, potassium chloride, to the prior two-drug lethal injection mix. In doing so, Chapman effectively set the final drug framework for all future lethal injection executions. It is now this combination of all three chemicals that continues to make lethal injection so controversial (Denno, 2007), in addition to further and more recent developments that this chapter will discuss.

Overall, lethal injection's history shows how such a medically complex process became ensconced in both law and politics. This powerful dynamic surfaced in *The Daily Oklahoman's* comment about viewing the injected inmate: "Officials do not plan to monitor the prisoner's life signs during the execution [in order to] avoid moral judgments about the procedure because of immense controversy over capital punishment" (Denno, 2007, p. 75). That very issue remains a source of contention today. From the beginning, then, the social and legislative push in favor of the death penalty permeated the lethal injection procedure—a troubling mix that continues full throttle (Denno, 2007).

Human Execution and Animal Euthanasia

The drive for the return of capital punishment also led other states to look at execution methods. Several states initially considered the use of lethal injection because of comparisons between human execution and animal euthanasia. In 1973, then-Governor Ronald Reagan of California recommended lethal injection when he analogized it to putting injured horses to sleep. Similarly, in 1977, Texas State Representative Ben Grant, who created the Texas lethal injection bill, stated that his experiences presiding over a hearing on the humane treatment of animals persuaded him of the method's benefits (Denno, 2007).

At the same time, the absence of deliberation about the best way to lethally inject a human resulted in a shocking inconsistency: the methods for euthanizing animals require substantially more medical consultation and concern for humaneness than the techniques used to execute human beings. According to the American Veterinary Medical Association (AVMA), it is not acceptable for veterinarians to administer potassium chloride—lethal injection's third drug—to an animal that is not anesthetized. The AVMA manual for the euthanasia of animals also specifies the association's rigorous training requirements, which exhibit far more thought than the procedures set forth in most lethal injection protocols. The contrasting procedures for humans and animals underscore the sheer disregard for injection's medical justification (Denno, 2007).

Not surprisingly, this issue found its way into lethal injection litigation even before the Supreme Court's initial involvement in 2008. For example, the Ninth Circuit in 2005 considered it "somewhat significant that at least nineteen states have enacted laws that either mandate the exclusive use of a sedative or expressly prohibit the use of a neuromuscular blocking agent in the euthanasia of animals" (*Beardslee v. Woodford*, 2005, p. 1073). The question becomes, then, whether states will continue to hold the standard for executing human beings below that used by veterinarians to euthanize animals. In this country, the euthanasia of animals is a highly regulated and evolving process, based on strict

guidelines periodically revised and modernized by the AVMA. Lethal injection's history shows that the method was never subjected to medical and scientific study, much less held to the standards for animal euthanasia (Denno, 2007).

What Does 'Physician Participation' Mean?

Given the lack of medical justification for lethal injection, a focus on physician participation in the method's implementation is critical. States increasingly have looked to physician involvement in lethal injections in an attempt to prevent problems—ranging from California's option of including anesthesiologists, to Missouri's requirement of a physician's presence, to Georgia's enacted statute forbidding medical boards from reprimanding doctors who participate in executions, to Florida's inclusion of "a physician" among the possible execution team members for each aspect of the execution procedure in one of a number of the state's protocols. Although some physicians have indicated a willingness to engage in executions, a number of medical associations have protested (Denno, 2007, 2014a,b).

Attempting to determine whether medical associations appropriately are shunning involvement is a daunting task. What moral measure should be used? What legal compass? On some level, the process can be compared to a Rorschach inkblot test, which psychologists use to assess individuals' perceptions of a scene. Observers' differing responses reflect their varying values, motivations, and experiences. In this sense, medical associations will view the scene of a lethal injection far differently from a legislature pressing to perpetuate the death penalty. The legal system is concerned with retribution and deterrence; the medical system is centered on health and well-being (Denno, 2007).

When the inkblot's pool of observers includes the whole of society—ranging from the public to the courts to the supervising wardens—the vast array of interpretations of the lethal injection scene becomes increasingly intricate (Denno, 2007). Starting in 2008, the Supreme Court—the ultimate arbiter of such conundrums—also began taking the inkblot test. Regardless, as the following sections show, how the legal system handles lethal injection remains in disarray.

Copying Oklahoma

Concerns over the lack of medical testing initially were considered so pronounced that Oklahoma's lethal injection bill stalled prior to state senate approval. Legislative history indicates that lethal injection was not to be used so quickly and confidently, if at all. Also, at one point, the Oklahoma Legislature considered requiring that injection could not supplant electrocution without "being ruled legal by the U.S. Supreme Court" (Denno, 2007, p. 78).

Until 2009, evidence suggests that the protocols in lethal injection states that revealed their chemical information were modeled after Oklahoma's original three-drug combination: (1) sodium thiopental, a barbiturate anesthetic that brings about deep unconsciousness; (2) pancuronium bromide, a total muscle relaxant that paralyzes all voluntary muscles and causes suffocation; and (3) potassium chloride, a toxin that induces irreversible cardiac arrest (Denno, 2014a). Therefore, most states mirrored the legal and scientific choices that Oklahoma officials made 40 years ago. Lethal injection was not actually used, however, until 1982, when Texas botched the execution of Charles Brooks, Jr. Not even the substantial numbers of comparably botched executions that followed deterred states from switching to the method with relative confidence and speed (Denno, 2007, 2014a,b).

Despite the benefits of hindsight, states did not medically improve upon the method that consistently had resulted in documented debacles. As the trial court in *Baze v. Rees* (2005) concluded, "[T]here is

Table 24.1 States Adopting Lethal Injection by Year: 1977–2017*

1977	Oklahoma • Texas
1978	Idaho
1979	New Mexico
1981	Washington
1982	Massachusetts
1983	Arkansas • Illinois • Montana • Nevada • New Jersey • North Carolina • Utah
1984	Mississippi • Oregon • South Dakota • Wyoming
1986	Delaware • New Hampshire
1988	Colorado • Missouri
1990	Louisiana • Pennsylvania
1992	Arizona • California
1993	Ohio**
1994	Kansas • Maryland • Virginia
1995	Connecticut • Indiana • New York • South Carolina
1998	Kentucky • Tennessee
2000	Florida • Georgia
2002	Alabama
2009	Nebraska

*Information for this chart comes from Denno (2014a, p. 1341) and Death Penalty Information Center (2017).

**In 2001, Ohio changed from a choice state to a single-method state.

scant evidence that ensuing States' adoption of lethal injection was supported by any additional medical or scientific studies. . . . [Rather,] the various States simply fell in line relying solely on Oklahoma's protocol" (*Baze v. Rees*, 2005, p. *2). Indeed, after Oklahoma adopted lethal injection on May 11, 1977, Texas followed suit the next day and Idaho and New Mexico soon after. State after state followed accordingly. As Table 24.1 shows, 39 states joined this movement between 1977 and 2009, switching to lethal injection like falling dominoes until every single death penalty state was included. Many of these states simply copied the language of Oklahoma's lethal injection statute (Denno, 2009b, 2014a, p. 1341; Death Penalty Information Center, 2017).

The 39-state figure alone is remarkable. Even more extraordinary is that six states, including Oklahoma, made the switch by 1982, the year this country's first lethal injection execution took place. Another seven states changed in 1983 alone. Therefore, within a year of the country's first lethal injection execution, 13 states—over one-third of all death-penalty states at that time—had decided to engage in executions with the new method. In addition, 12 states enacted lethal injection in the nine-year stretch from 1994, when Kansas, Maryland, and Virginia adopted the method, to 2002, when Alabama did. Nebraska was a lone wolf, switching to lethal injection in 2009, a year after the Nebraska Supreme Court finally declared electrocution unconstitutional. By 2009, then, all death-penalty states in this country had switched to lethal injection, either entirely or as an option, and nearly all states used a protocol consisting of the same three drugs (Denno, 2014a)

Table 24.2 Execution Methods by State: 2017*

Single-Method States (24)

Arizona • Arkansas • Colorado • Delaware • Georgia • Idaho • Indiana • Kansas • *Kentucky • Louisiana • Mississippi • Montana • Nebraska • Nevada • North Carolina • Ohio • **Oklahoma • Oregon • Pennsylvania • South Dakota • *Tennessee • Texas • *Utah • Wyoming

Choice States (11)

Lethal injection or hanging (2): New Hampshire • Washington

Lethal injection or firing squad (1): *Utah

Lethal injection or electrocution (6): Alabama • Florida • Kentucky • South Carolina • Tennessee • Virginia

Lethal injection or lethal gas (2): California • Missouri

States Without the Death Penalty (18)

Alaska • Connecticut • Hawaii • Illinois • Iowa • Maine • Maryland • Massachusetts • Michigan • Minnesota • New Jersey • New Mexico • New York • North Dakota • Rhode Island • Vermont • West Virginia • Wisconsin (Also—the District of Columbia)

* Information for this chart comes from Denno (2014a, p. 1343) and Death Penalty Information Center (2017). Kentucky, Tennessee, and Utah have provisions that are not retroactive and therefore allow choices for some inmates. These three states are listed in both the Single-Method States and Choice States categories.

** Oklahoma now allows for the use of nitrogen gas only if the lethal injection is unavailable. Nitrogen gas is not a method that condemned prisoners in Oklahoma may elect (Okla. H.R. 1879, 2015 Leg., Reg. Sess. (Okla. 2015)). As of 2017, nitrogen gas has also been proposed in bills in Alabama and Mississippi, but not signed into law (Death Penalty Information Center, 2017).

Of the 32 death-penalty states that exist in mid-2017, lethal injection is the sole method of execution in 24 states, as shown in Table 24.2. Three states—Kentucky, Tennessee, and Utah—have also adopted lethal injection as their sole execution method but have done so with provisions that are not retroactive. Therefore, Table 24.2 also lists these three states as choice states. Thus, lethal injection is one of two possible methods of execution in 11 states, including Utah (which allows some inmates the choice of firing squad) as well as Kentucky and Tennessee (which allow some inmates the choice of electrocution). A growing number of states, 18 in total, no longer have the death penalty, a figure that includes New Mexico, New Jersey, and Maryland, the most recent state to join this list (Denno, 2014a; Death Penalty Information Center, 2017).

Statistics demonstrating lethal injection's dominance, however, ignore the effect that lethal injection challenges can have on capital punishment. Indeed, it was the dominance of lethal injection that imperiled the death penalty's longevity when lethal injection faced legal challenges. The events leading up to the Supreme Court's first lethal injection decision in *Baze v. Rees* (2008) illustrated this effect. In 2006, for example, executions plunged to about half their 1999 numbers, a trend that continued in 2007 and 2008. Numerous states and the federal government ceased executions entirely, often at least partly due to problems and legal challenges related to lethal injection (Denno, 2014a).

Beginning on September 26, 2007, the day the court granted certiorari in *Baze*, no additional executions were conducted until May 6, 2008. Although the court did not declare a general moratorium on executions during this seven-month period, a *de facto* moratorium evolved when the court granted stays of execution for individual cases that came before it. Historically, such a lengthy hiatus is rare. After *Baze* was decided, those stays ended when the justices denied the underlying appeals. Executions began again, but so did lethal injection litigation, and with a vengeance (Denno, 2014a).

Baze v. Rees

By 2007, the growing number of legal challenges to lethal injection and the variance among state responses resulted in a sufficient number of circuit splits for the Supreme Court to grant certiorari to review the issue. The court chose *Baze v. Rees* (2008), a Kentucky case, to determine the future direction of lethal injection (Denno, 2009b). In *Baze*, a 7–2 decision with a plurality opinion, the court upheld the constitutionality of Kentucky's lethal injection protocol under the Eighth Amendment's Cruel and Unusual Punishment Clause. The court found that the defendants had failed to show that Kentucky's three-drug combination posed a "substantial" or "objectively intolerable" risk of "serious harm" compared to "known and available alternatives" (*Baze v. Rees*, 2008, p. 61). The typical formula, which Kentucky was then using, consisted of a serial sequence of the three previously mentioned drugs: sodium thiopental, pancuronium bromide, and potassium chloride (Denno, 2014a).

A primary concern in *Baze*, and lethal injection challenges generally, rested with the second drug, pancuronium bromide. Without adequate anesthesia, pancuronium can cause an inmate excruciating pain and suffering because the inmate slowly suffocates from the drug's effects while paralyzed and unable to cry out. The inmate's agony increases dramatically when executioners inject the third drug, potassium chloride, which creates an intense and unbearable burning. The *Baze* Court agreed that if the sodium thiopental is ineffective, it would be reprehensible to inject the second and third drugs into a conscious person. A key issue in litigation was whether prison officials and executioners can determine if an inmate is aware and in torment because pancuronium is such a powerful mask of emotions. Starting in 2006, this litigation so successfully prompted death-penalty moratoria and execution stalemates across the country that a Supreme Court case like *Baze* appeared inevitable (Denno, 2014a).

Yet in many ways, *Baze* was a puzzling choice. Kentucky had conducted only one execution by lethal injection and thus offered an extremely limited record on which to base a lethal injection challenge. Other states had far better evidentiary and execution data. Moreover, the suit that petitioners brought had not been scrutinized by the federal hearings being carried out in similar kinds of cases. Rather, Kentucky's hearings took place only in state court and concerned only Kentucky's procedures and short execution history. Some death penalty opponents came to believe that the justices who voted to hear *Baze* did so only because they "regarded the challenge as insubstantial and wanted to dispose of it before many more state and federal courts could be tied up with similar cases" (Denno, 2014a, p. 1334).

However, the *Baze* opinion had quite the opposite effect. Limits to the *Baze* Court's analysis suggest that the decision is by no means a definitive response to the issue of lethal injection's constitutionality. In fact, *Baze* was so splintered that none of its seven opinions garnered more than three votes, and the justices offered a wide range of explanations and qualifications in their reasoning. In addition, the decision was confined to Kentucky and its particular protocol. Voices on both sides of the death-penalty debate have emphasized that *Baze* left doors open for future lethal injection challenges. Even members of the *Baze* Court itself anticipated the repercussions of the opinion's shortcomings: in separate concurrences, Justices Stevens, Thomas, and Alito expressed concern that the *Baze* decision would only lead to additional debate and litigation. Until now, however, criticisms and concerns regarding developments in lethal injection protocols after *Baze* have been largely predictive (Denno, 2014a).

When the Supreme Court affirmed Kentucky's three-drug protocol in *Baze*, some commentators predicted that there would be a surge of executions because the de facto moratorium had created a backlog of death-row inmates. That forecast was never realized; apart from a slight rise in 2009, executions have continued their downward trend (Denno, 2014a). One reason for this decline may be that the death penalty's popularity has weakened in recent years. Whether because of discoveries of innocence among death-row inmates, a reduction in the number of individuals eligible for execution, racial disparities, botched executions, or other reasons, the courts and the public have shown more skepticism of the capital punishment process in the twenty-first century than they have since the early

1970s (Denno, 2017, Death Penalty Information Center, 2017; Denno, 2014b). Yet lethal injection challenges may have contributed to this skepticism. According to one death-penalty commentator, lethal injection challenges “have already held up more executions, and for a longer time than appeals involving such . . . issues as race, innocence, and mental competency” (Denno, 2014a, pp. 1345–1346).

***Baze* as Precedent**

Given the narrowness and ineffectiveness of the *Baze* opinion, the court’s decision has had minimal impact. Rather than offering guidance on the future direction of lethal injection, the legal issues and procedures evaluated by the *Baze* Court have been overshadowed by far more pragmatic threats to the continuation of executions by lethal injection—most particularly the complete unavailability of sodium thiopental that started after *Baze* was decided and rampant shortages of other lethal injection drugs that states had begun to use as substitutes. In addition there began to be a range of botched executions seemingly connected to some states’ uses of some of these substitute drugs (Denno, 2014a, 2014b, 2016, 2017; Death Penalty Information Center, 2017). Considered together with the ongoing mass of lethal injection challenges and protocol changes that have occurred since 2008, it can be argued that *Baze* has rendered itself moot. Strikingly, even Kentucky itself—the “model” state at the heart of *Baze*—has switched to a single-drug protocol, such that it is no longer “substantially similar” to the procedure the *Baze* Court hailed as the standard for other states to follow (Denno 2014a, b).

Yet this is a remarkable conclusion to reach regarding a Supreme Court opinion less than a decade after its issuance, particularly in a case that marks the court’s first foray into the constitutionality of an execution method in over six decades. I base this assertion on two grounds. First, although *Baze* has not been entirely void of precedential force, my analysis of all cases from 2008–2013 that have cited *Baze* indicates that the case’s value as precedent has been limited. Second, citations to *Baze* decreased substantially in the years immediately following the decision. This decline is most likely because the nature of lethal injection challenges now bear on issues that have only remote or nonexistent parallels to those that prompted *Baze* in the first place (Denno, 2014a, 2014b). In addition, recent developments have shown that some of the purposes for which *Baze* may have been used in the past are no longer viable, the reliance on foreign-sourced drugs being a particularly striking example. Indeed, lethal injection litigation after *Baze* is so prolific and variable that it seemingly dwarfs the extent to which *Baze* has been applied to dismiss challenges. In sum, the *Baze* opinion’s already constrained precedential force is barely relevant to recent litigation spurred by this country’s unanticipated drug shortages (Denno, 2014a, 2016).

Glossip v. Gross

Merely seven years after *Baze*, the Supreme Court attempted to review yet another lethal injection protocol, this time involving the drug “midazolam,” which some states had substituted for the missing sodium thiopental. In *Glossip v. Gross* (2015), the court held 5–4 that three death row inmates failed to establish that midazolam created “a substantial risk of severe pain” when used as the first of three drugs in Oklahoma’s lethal injection procedure (*Glossip*, 2015, p. 2731). Writing for the majority, Justice Samuel Alito explained that the evidence presented from both sides supported the district court’s view: “midazolam can render a person insensate to pain” and petitioners had failed to demonstrate midazolam’s inadequacy under the Eighth Amendment’s Cruel and Unusual Punishments Clause (*Glossip*, 2015, p. 2731). In addition, the court provided “two independent reasons” to affirm the district court’s determination: first, petitioners could not “identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eighth Amendment method-of-execution claims,” and second, they were unable to show that the district court committed clear error in rejecting petitioners’ arguments (Denno, 2016, p. 2731).

The court's rationale concerning alternative methods of execution potentially represents *Glossip*'s broadest impact. The case's striking dissents captured much of the legal and media commentary, but this chapter focuses on how *Glossip* may serve as Eighth Amendment precedent. Such an objective is particularly timely given states' ongoing frustrations in finding lethal injection drugs, despite the *Glossip* court's approval of midazolam (Denno, 2016; Death Penalty Information Center, 2017).

Glossip's credibility rests on the belief that *Baze* "cleared any legal obstacle to the use of [this] three-drug protocol" (*Glossip*, 2015, p. 2733). Yet there is no basis for that belief; quite the contrary. The three-drug protocol at issue in *Baze* is no longer viable due to ongoing and unpredictable shortages of lethal injection drugs during the years following the court's decision. Indeed, these shortages have created far more litigation and upheaval than the wide range of lethal injection challenges that preceded *Baze*. The litigation has also targeted two developments: first, the continual efforts by departments of corrections to seek never-tried lethal injection drugs and protocols and, second, a series of widely publicized botched executions, a disproportionate number of which have involved the use of midazolam. Overall, then, states have adopted wholly inappropriate drug substitutes to keep executions going despite risky and chaotic results (Denno, 2016; Death Penalty Information Center, 2017).

Glossip follows *Baze* as the court's most recent decision on execution methods, yet the *Glossip* Court's analysis is extraordinarily scant. Two primary examples of this deficiency are the way the court examines the history of changes in execution methods over time, and the court's explanation of why and how Oklahoma adopted lethal injection. Equally problematic is the court's focus on "anti-death-penalty advocates" as the basis for states' current problems with lethal injection because the argument ignores the reasons behind the extensive litigation that led to *Glossip* (Denno, 2016).

Glossip's Misuse of History

For a topic as vast, historic, and significant as how this country executes its death row inmates, the *Glossip* Court spends remarkably little time explaining the past. In less than two pages, the court reviews changes in the United States' five execution methods over the nineteenth and twentieth centuries, from hanging to electrocution to lethal gas to the firing squad and, finally, to lethal injection. Yet at no time during this brisk review does the court explain why states switched their methods of execution, except to say that each new method was "the most humane" (or words along those lines) relative to the method it replaced. In addition, the court mentions that each state's introduction of a new method rendered that new method constitutional (Denno, 2016).

As this chapter noted at the start, however, the complete history of execution method transitions is far more extensive than the *Glossip* Court suggests. That history is replete with detailed accounts at the legislative, judicial, and correctional levels that explain why each new method failed so profoundly in its goal to be more humane than the method it replaced. Hanging, lethal gas, and electrocution were adopted and initially used with great fanfare only to be criticized and replaced after decades of technical failures and botched executions. As a result, lethal injection, the latest method, is now used almost exclusively. But this record of exclusivity is no victory for lethal injection. Regardless of the outcome in *Glossip*, lethal injection's dominance demonstrates only that other methods have failed. States seem to have exhausted alternative methods of execution, apart from changing the drugs and procedures of lethal injection itself (Denno, 2016).

The court's brevity is not confined to recounting this country's changes in execution methods. For example, the court explains that lethal injection was first enacted following a nine-year hiatus in capital punishment in the United States, spanning from 1967 to 1976; yet the Court neither mentions why the hiatus occurred nor why the United States turned to a new method of execution in 1976 over what had been the most popular method pre-*Gregg*—electrocution. The *Glossip* Court mentions that Oklahoma "eventually settled" on the types of drugs that would be included in the protocol: sodium thiopental, pancuronium bromide, and potassium chloride. But the court does not

explain the process behind the method's adoption, which—as earlier noted—was exceptionally quick and slapdash. The *Glossip* Court wholly ignores this critical backdrop, as it matter-of-factly describes Oklahoma's creation and adoption of lethal injection in just one paragraph (Denno, 2016).

The *Glossip* Court also states that the court “has never invalidated a State's chosen procedure for carrying out a sentence of death as the infliction of cruel and unusual punishment” (Glossip, 2015, p. 2732). That characterization is technically correct. But it is only part of a much longer story that the court does not tell. Until 2008, in *Baze v. Rees* (2008), the court had never reviewed evidence concerning whether any method of execution violates the Eighth Amendment's Cruel and Unusual Punishments Clause. Legislative changes in execution methods during the nineteenth and twentieth centuries, however, demonstrate that states typically change their method of execution when they perceive that their current method is vulnerable to a constitutional challenge. The *Glossip* Court therefore skirts any discussion involving states' efforts to avoid the constitutional scrutiny of their execution methods. The court also mischaracterizes prior cases that appear to constitutionally endorse the firing squad or electrocution under the Eighth Amendment, and wrongfully implies that the court “rejected a challenge to the use of the electric chair” in two cases. Furthermore, the *Glossip* Court never mentions that two states, Nebraska and Georgia, have both held electrocution unconstitutional under their respective state statutes. In addition, the court does not acknowledge that all former electrocution states now use lethal injection as either the sole method or a choice method because of the problems associated with electrocution (Denno, 2016).

Glossip as Precedent

This backdrop is critical for examining the *Glossip* Court's viability as precedent for two reasons. First, the court mischaracterizes the history of the constitutionality of execution methods, implying through omission or indirect assertion that the history is unproblematic, when it has long been plagued by botched executions and gross ineptitude on the part of legislatures, courts, and departments of corrections. As a result of these problems, starting in the nineteenth century, states continuously switched from one method of execution to the next to search for the “more” or “most” humane method of execution as well as to avoid potential constitutional challenges to the method they sought to replace. Second, the court's veneer of acceptance of midazolam provides fuel for the court's requirement that petitioners demonstrate “a known and available alternative method of execution” as a possible replacement to lethal injection. After all, if the court has “never invalidated” any of the prior execution methods, including the three-drug procedure in *Baze*, such a track record spotlights the status quo's success. Any effort to change an accepted execution method should require petitioners to overcome steep obstacles. Yet the brief and one-sided story that the *Glossip* Court tells defies the long-documented case law and scholarship that offer a substantially different perspective. This contrast, among others, puts *Glossip* on shaky ground as precedent (Denno, 2016).

Glossip's Focus on “Anti-Death-Penalty Advocates”

The *Glossip* Court's distorted history raises another concern. If this country's experiences with execution methods have been primarily inconsequential, and the problems with lethal injection's three-drug protocol seemingly quelled by *Baze*, it is unclear how the issues in *Glossip* evolved. The court's answer, in a nutshell, is “anti-death-penalty advocates” (Denno, 2016). After *Baze* had presumably fostered states' abilities to successfully carry out executions quickly and humanely—a fictional representation in and of itself—“anti-death-penalty advocates” introduced yet another vehicle of obstruction by “pressur[ing] pharmaceutical companies to refuse to supply the drugs used to carry out death sentences” (Denno, 2016, p. 764).

The court never identifies, however, who these “anti-death-penalty advocates” are. Nor does the court explicate how these anti-death penalty advocates possessed such extraordinary power to create

the drug shortages that dismantled the original three-drug protocol validated in *Baze*. The court also fails to explain how or why such shortages forced states like Oklahoma to acquire inappropriate drugs, such as midazolam, when these states could have chosen other types of drugs for their protocol. While the court focuses on the “anti-death-penalty advocate” explanation as it recounts all the factors driving lethal injection’s troubles, the court never mentions that three of the most highly influential factors had nothing to do with anti-death penalty advocacy (Denno, 2016).

The first factor, for example, reveals that post-*Baze* efforts to reignite the execution process were problematic from the start, even before the issues with drug shortages came about. Rather than eliminating obstacles, the same sorts of impediments that have always accompanied lethal injection executions followed *Baze*—namely, inexperienced or incompetent prison personnel, and vague protocols and constraints on execution witnesses. A continuing wave of troubles also followed the *Baze* decision concerning the selection, training, preparation, and qualifications of the lethal injection team. The types and sources of drugs used in lethal injection executions are just a small part of the problem, since the entire process can be riddled with disorganization and preparatory mayhem irrespective of whatever is injected into the inmate. Lethal injection botches and ineptitude on all levels post-*Baze* have far exceeded the difficulties that existed pre-*Baze* (Denno, 2016).

A second influential factor was that, at least initially, the depletion of sodium thiopental had nothing to do with the death penalty. In 2014, a report published by the Government Accountability Office documented a variety of drug shortages occurring throughout the country from January 2007, a year-and-a-half before *Baze* was decided, to June 2013. The report included a review of the shortages associated with the chemicals used to create sodium thiopental. Thus, the start of the scarcity of sodium thiopental in the United States was wholly divorced from the so-called anti-death penalty “movement.” Rather, the lethal injection process was affected by a pharmaceutical fact of life: drugs can often become unavailable, at times unpredictably. These shortages can impact citizens’ health and, in the case of lethal injection, their death (Denno, 2016).

The third, and perhaps most significant, factor concerns the District of Columbia Circuit Court’s decision in *Cook v. FDA* (2013). In 2013, *Cook* held that the Food and Drug Administration (“FDA”) must approve all drugs imported into the country, including the drugs used in lethal injection protocols. This decision extinguished efforts by departments of corrections to purchase lethal injection drugs outside of the country because those drugs did not meet FDA standards, a matter that is still the subject of dispute. For example, in 2015, the FDA informed Nebraska that it could not import sodium thiopental from India to use in the state’s lethal injection executions even though the Nebraska Department of Corrections had paid \$54,400 for the drug. Also in 2015, the FDA stopped Texas and Arizona from importing sodium thiopental from India, and investigative reporters revealed that Harris Pharma had sold to all three states. Investigators discovered that Chris Harris, the head of Harris Pharma, had no pharmaceutical training whatsoever, as well as a flawed record he could better hide in India, away from FDA scrutiny. Once again, departments of corrections in key death penalty states were willing to buy and illegally use a death penalty drug from a grossly disreputable source, all the while knowing that faulty drugs heighten the likelihood of a botched execution. Yet Nebraska, Texas, and Arizona are still trying to get around the FDA ruling so that they can continue their executions using Harris Pharma’s drugs, despite their very low likelihood of success (Denno, 2016).

Who Are the “Anti-Death-Penalty Advocates”?

Overall, then, departments of corrections were not impacted directly by anti-death penalty advocates when they purchased substitute drugs for lethal injection purposes. This circumstance prompts two questions: who are the anti-death penalty advocates that the court references, and what exactly did they do to the lethal injection process? One of the great frustrations of *Glossip* is that the court never fully addresses nor answers these questions. Instead, the court explains the troubles that these

“anti-death-penalty advocates” created, even though scholars and the news media documented both the continued quest by departments of corrections to seek drugs and the resulting protocol changes (Denno, 2016).

One reason why the court may have evaded answering these questions is because providing an explanation would require a detailed account of all the problems facing legislatures, courts, and departments of corrections during the time between *Baze* and the grant of certiorari to *Glossip*. These troubles include a host of terribly botched lethal injection executions documented by petitioners’ briefs, academics, and the media, and the highly problematic efforts by departments of corrections to acquire the drugs necessary for execution. Instead, the court resolves this dilemma—in just a few pages—by scapegoating the “anti-death-penalty advocates” who supposedly created the shortages and, therefore, all of the problems with lethal injection that *Baze* had presumably cleared (Denno, 2016).

The *Glossip* Court first points to the “activists” who “pressured” not only the company that made sodium thiopental (Hospira) in both the United States and Italy, but also the Italian government, in order to get both sources to stop selling sodium thiopental in the United States. Later, activists also extended such pressure to Lundbeck, the Danish manufacturer of pentobarbital, the drug prisons used when sodium thiopental was no longer available. These drug-blocking efforts came as no surprise to those who know that almost all European countries prohibit the death penalty and that the European Union encourages banning the death penalty in all countries. Anti-death penalty advocacy groups in Europe, such as Reprieve, are particularly focused on eliminating the death penalty by way of stopping lethal injection. Yet these groups, as effective as they are, could not possibly have the degree of impact that the court presumably attributed to them. There are additional forces at play (Denno, 2016).

It appears the *Glossip* Court would include European countries and the European Union under its “anti-death-penalty advocates” umbrella, given the extent of the court’s discussion of European blocks on lethal injection drugs. But targeting European countries as disrupting the U.S. death penalty ignores the reality that each country has a right to refuse to sell drugs created for health to the United States, where they will be injected to cause death. Even if part of the pressure stems from a particularly influential anti-death penalty advocacy group, such as Reprieve, these groups are often simply informational messengers to European drug companies and pharmacies. Frequently, drug companies are unaware of how their drugs are being used and are disturbed and concerned when anti-death penalty advocacy groups inform them. In this sense, the court’s use of the term “pressure” is misleading: providing information is not pressure (Denno, 2016).

Of course a company’s association with the death penalty also can have financially detrimental effects that can deter its willingness to sell lethal injection drugs to departments of corrections. Consumers may not want to purchase drugs that are linked to executions. Regardless, even if the court believed that European countries constituted some of the “anti-death-penalty advocates” the court derides, *Cook v. FDA* (2013) would still require the FDA to ban importation of these drugs from all countries, not just Europe (Denno, 2016).

Apart from Italy, England, Denmark, and other countries, what other sources might be included among the “anti-death-penalty advocates” the court mentions? Ironically, the FDA has most likely contributed the most to the lethal injection drug shortages by way of *Cook*; yet, the court would hardly include the FDA as an “anti-death-penalty advocacy” group nor as an institution that has been pressured by such groups. The FDA operates by its own standards, irrespective of what is happening to the death penalty (Denno, 2016).

The Role of Medical Professionals

The same reasoning that applies to the FDA could also apply to other groups that may not be traditionally considered anti-death penalty advocates nor as organizations necessarily influenced by them. There is a broad net of potential sources. That net could encompass a range of medical professionals

such as physicians, nurses, and pharmacists, because all three groups have been involved in lethal injection executions, either directly or indirectly. Doctors and other medical professionals have long participated in carrying out all execution methods, most particularly lethal injection. Doctors not only created the original three-drug protocol but also advised legislatures, courts, and prisons about the types and amounts of lethal injection drugs that should be used. In a number of executions, doctors have directly engaged in the actual implementation of the injection procedure. During Oklahoma's horribly botched lethal injection of Clayton Lockett in 2014, for example—the execution that prompted *Glossip* and now a blistering grand jury report—records show that both a doctor and an emergency medical technician tried to inject Lockett with drugs under circumstances involving gross incompetence (Denno, 2016).

The role of such medical professionals has long been controversial, however, and medical organizations and drug manufacturers have increasingly discouraged such participation on the basis that doctors and drugs should promote health rather than death. The International Academy of Compounding Pharmacists has similarly discouraged its members from providing lethal injection drugs, the group's first official stance on the issue. The most sweeping demonstration of this posture, however, is Pfizer Inc.'s 2016 announcement that it had enforced restrictions on where its drugs are distributed so that they could not be used in lethal injection executions. Thus, the decision by Pfizer—one of the largest pharmaceutical manufacturers in the world—along with similar types of controls adopted by over 20 other drug companies, substantially hinders departments of corrections' efforts to get drugs. While such companies provide “either moral or business reasons” for their decisions, it would be a gross mischaracterization to say that they were buckling to pressure only by anti-death-penalty advocacy groups (Denno, 2016). According to Pfizer, for example, “medical principles and business concerns have guided their policies,” not anti-death penalty campaigns or Europe's block on exporting drugs (Denno, 2016, p. 771). Likewise, pressure from shareholders concerned about harm to the company's reputation for health has shown far more influence. In essence, then, medical professionals and pharmaceutical companies do not need anti-death penalty advocacy groups to tell them to avoid involvement in the death penalty process—they already know (Denno, 2016).

“Anti-death-penalty advocates” could also include the public itself. After all, drug companies seem to fear negative public perception above all else. If the public links a company and its drugs to the death penalty process, the financial repercussions could be severe for the company even in the United States, where a majority of individuals still support the death penalty. Because a company's association with the death penalty may not be a good business model, a substantial number of states have enacted secrecy provisions that shield the identity of medical professionals, pharmaceutical companies, and pharmacies involved with the execution process. Yet Pfizer's decision may make it so that all these entities, especially compounding pharmacies, want to buck contributing to the process altogether, irrespective of the guarantee of secrecy. Regardless, states continue to have problems finding drug sources, a circumstance suggesting that anonymity is not enough to keep these groups involved in the lethal injection process (Denno, 2016).

Conclusion

Midazolam, the drug at issue in *Glossip*, was developed in the 1970s by the Swiss pharmaceutical company Hoffmann-La Roche. The drug's recent significance in lethal injection debates has come as an unwelcome surprise to the company, which insists “that it ‘did not supply midazolam for death penalty use and would not knowingly provide any of [its] medicines for this purpose’” (Blinder, 2017). Dr. Armin Walser, a retired chemist and one of the drug's inventors, has expressed similar dismay at the drug's appropriation for lethal injections. “I didn't make it for the purpose . . . I am not a friend of the death penalty or execution” (Blinder, 2017). Indeed, midazolam's journey from pharmaceutical lab to state execution chambers has been “filled with secrecy [and] political pressure,” and

Walser only learned of the connection between his work and lethal injection in 2015 (Blinder, 2017). His amazement and discomfort indirectly parallel that of lethal injection's creator, A. J. Chapman, upon learning of the procedure's haphazard administration. Both scenarios about these medical professionals—Walser and Chapman—strikingly illustrate the divide between the personal and professional expectations of the scientific and medical communities that develop these drugs and procedures and the reality of how and why they are used by the criminal justice system.

If members of the public and selected medical and pharmacy groups can be considered anti-death penalty advocates, at some point the court may have to face a growing reality: “anti-death-penalty advocates” may simply represent the general American public. With such a development, the Supreme Court may, yet again, be accused of being out of touch with mainstream America. Because departments of corrections could be boxed into an execution methods corner if lethal injection becomes unworkable, they may ultimately need a drug-free alternative method of execution to help them escape. Finding a method that is also “a known and available alternative” may simply be a matter of states reverting to their more simplistic execution pasts (Denno, 2016). Regardless, the crystal ball is always murky when it comes to predicting the future of execution methods (Denno, 2009a): neither time nor the Supreme Court's involvement makes such predictions any clearer.

Note

- 1 I am most grateful to Marianna Gebhardt for her contributions to this chapter and to Fordham Law School for research funding.

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- Chart 1.
Chart 2.
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