



UNITED STATES

So Long as They Die

Lethal Injections in the United States

HUMAN
RIGHTS
WATCH



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Summary

We didn't discuss pain and suffering.

—William Henry Lloyd, Tennessee Department of Corrections lethal injection protocol committee member¹

Compared to electrocution, lethal gas, or hanging, death by lethal injection appears painless and humane, perhaps because it mimics a medical procedure. More palatable to the general public, lethal injection has become the most prevalent form of execution in the United States. Thirty-seven of the thirty-eight death penalty states and the federal government have adopted it; for nineteen states, it is the only legal method of execution.

In the standard method of lethal injection used in the United States, the prisoner lies strapped to a gurney, a catheter with an intravenous line attached is inserted into his vein, and three drugs are injected into the line by executioners hidden behind a wall. The first drug is an anesthetic (sodium thiopental), followed by a paralytic agent (pancuronium bromide), and, finally, a drug that causes the heart to stop beating (potassium chloride).

Although supporters of lethal injection believe the prisoner dies painlessly, there is mounting evidence that prisoners may have experienced excruciating pain during their executions. This should not be surprising given that corrections agencies have not taken the steps necessary to ensure a painless execution. They use a sequence of drugs and a method of administration that were created with minimal expertise and little deliberation three decades ago, and that were then adopted unquestioningly by state officials with no medical or scientific background. Little has changed since then. As a result, prisoners in the United States are executed by means that the American Veterinary Medical Association regards as too cruel to use on dogs and cats.

Human Rights Watch opposes capital punishment in all circumstances. But until the thirty-eight death penalty states and the federal government abolish the death penalty, international human rights law requires them to use execution methods that will produce the least possible physical and mental suffering. It is not enough for public officials to believe that lethal injection is inherently more humane than the electric chair. States must choose carefully among possible drugs and administration procedures to be sure they

¹ Deposition, *Abdur'Rahman v. Sundquist*, et al., Case. No. 02-2236-III, April 4, 2003, p. 28.

have developed the specific protocol that will reduce, to the greatest extent possible, the prisoner's risk of mental or physical agony.

The history of lethal injection executions in the United States reveals no such care on the part of state legislators and corrections officials. The three-drug sequence was developed in 1977 by an Oklahoma medical examiner who had no expertise in pharmacology or anesthesia and who did no research to develop any expertise. Oklahoma's three-drug protocol was copied by Texas, which in 1982 was the first state to execute a man by lethal injection. Texas's sequence was subsequently copied by almost all other states that allow lethal injection executions. Drawing on its own research and that of others, Human Rights Watch has found no evidence that any state seriously investigated whether other drugs or administration methods would be "more humane" than the protocol it adopted.

Corrections agencies continue to display a remarkable lack of due diligence with regard to ascertaining the most "humane" way to kill their prisoners. Even when permitted by statute to consider other drug options, they have not revised their choice of lethal drugs, despite new developments in and knowledge about anesthesia and lethal chemical agents. They continue to use medically unsound procedures to administer the drugs. They have not adopted procedures to make sure the prisoner is in fact deeply unconscious from the anesthesia before the paralyzing second and painful third drugs are administered.

Each of the three drugs, in the massive dosages called for in the protocols, is sufficient by itself to cause the death of the prisoner. Within a minute after it enters the prisoner's veins, potassium chloride will cause cardiac arrest. Without proper anesthesia, however, the drug acts as a fire moving through the veins. Potassium chloride is so painful that the American Veterinary Medical Association prohibits its use for euthanasia unless a veterinarian establishes that the animal being killed has been placed by an anesthetic agent at a deep level of unconsciousness (a "surgical plane of anesthesia" marked by non-responsiveness to noxious stimuli).

Pancuronium bromide is a neuromuscular blocking agent that paralyzes voluntary muscles, including the lungs and diaphragm. It would eventually cause asphyxiation of the prisoner. The drug, however, does not affect consciousness or the experience of pain. If the prisoner is not sufficiently anesthetized before being injected with pancuronium bromide, he will feel himself suffocating but be unable to draw a breath—a torturous experience, as anyone knows who has been trapped underwater for even a few seconds. The pancuronium bromide will conceal any agony an insufficiently

anesthetized prisoner experiences because of the potassium chloride. Indeed, the only apparent purpose of the pancuronium bromide is to keep the prisoner still, saving the witnesses and execution team from observing convulsions or other body movements that might occur from the potassium chloride, and saving corrections officials from having to deal with the public relations and legal consequences of a visibly inhumane execution. At least thirty states have banned the use of neuromuscular blocking agents like pancuronium bromide in animal euthanasia because of the danger of undetected, and hence unrelieved, suffering.

Sodium thiopental is the only drug with anesthetic properties used in lethal injections. State protocols specify a dosage of sodium thiopental five to twenty times greater than what would be used in surgery. If this amount of sodium thiopental is administered properly, the prisoner will go limp, stop breathing, and lose consciousness within a minute. The prisoner will not feel the suffocating effects of pancuronium bromide or the agony of potassium chloride. If someone trained to establish and maintain intravenous lines, induce anesthesia, and monitor consciousness were present and involved in the lethal injection execution, the pain the prisoner would feel is the insertion of catheters into his veins. But lethal injection protocols do not include measures to ensure the anesthesia is quickly and effectively administered.

Administering drugs intravenously requires extensive training to ensure that the proper intravenous access is secured with minimal pain, and that it is then maintained. Inserting an intravenous catheter can be particularly difficult when the recipient has veins compromised by drug use—not uncommon among prisoners—and constricted by anxiety. Witnesses have described execution personnel poking repeatedly at prisoners trying to find a good vein.

Standard medical procedures for intravenous administration of anesthesia during surgery require that the equipment and the patient be monitored continuously by someone at the patient's side. Yet during lethal injection executions, the execution personnel are behind a wall and window, separated by many feet from the prisoner. Most significantly, standard medical procedures require a determination of the level of anesthesia before surgery begins and throughout the procedure. During lethal injection executions, the drugs are administered one after the other as quickly as the executioners can push the syringe plungers into the intravenous equipment. There is no person trained in the administration of anesthetics and the assessment of anesthetic depth present to ensure the prisoner is appropriately and continuously anesthetized before the second and third drugs are administered and throughout the execution; nor do execution team members use equipment that could determine the condemned inmate's level of consciousness.

Lawyers for condemned prisoners, medical and veterinary anesthesiologists, and others have suggested modifications to current lethal injection protocols that would minimize the risk of pain and suffering currently posed. They advise, for example, having a trained technician give the prisoner a single lethal injection of the painless barbiturate pentobarbital, a method that would eliminate the risks from using paralyzing or painful chemical agents. It is noteworthy that in Oregon, the only state that has legalized physician-assisted suicide, doctors prescribe an overdose of pentobarbital or a similar barbiturate for their terminally ill patients. When veterinarians euthanize animals, they also use a single massive dose of a barbiturate. Another alternative proposed by prisoners' lawyers and anesthesiologists is that officials who insist on using the three-drug sequence take steps to ensure the effectiveness of the anesthesia, e.g., by having present at the execution someone who is trained in anesthesiology and can assess the prisoner's level of consciousness before other drugs are injected and until the prisoner has died.

Because of our opposition to the death penalty, Human Rights Watch does not endorse any methods of lethal injection—either the current or proposed alternatives. We do insist, however, that states make a concerted effort to ensure they have chosen the method of executing their prisoners that meets the international human rights standard of risking the least possible pain and suffering of the inmate.

It is difficult to understand why corrections officials keep following protocols which were not sound when originally developed, and which advances in pharmacology and anesthesia administration have rendered archaic at best, torturous at worst. The only advantage of current protocols is that they yield executions that are relatively quick and appear painless—whatever the reality. As such, the current method is easier for witnesses to the execution as well as for the executioners. It also spares someone from having to be at the prisoner's side while he is being killed. An anesthesiologist who has served as an expert witness in litigation for corrections agencies has observed, "The people who are thinking about these things are not thinking about the inmate."

The risks of pain and suffering faced by prisoners from the current lethal injection protocol are not just hypothetical. There is mounting evidence, including execution records and eyewitness testimony, of botched executions. At least some prisoners may have been insufficiently anesthetized during their executions, experiencing pain but unable to signal their distress, because they were paralyzed. There have been executions where:

- For over an hour, medical technicians and then a physician tried to find a suitable vein for intravenous access. The condemned inmate ended up with one needle in his hand, one in his neck, and a catheter inserted into the vein near his collarbone. One hour and nine minutes after he was strapped to the gurney, the prisoner was pronounced dead.
- A kink in the intravenous tubing stopped some of the drugs from reaching an inmate. In the same execution, the intravenous needle was inserted pointing the wrong way—towards the inmate’s fingers instead of his heart, which slowed the effect of the drugs.
- A prisoner who initially lost consciousness during his lethal injection execution began convulsing, opened his eyes, and appeared to be trying to catch his breath while his chest heaved up and down repeatedly. This lasted for approximately ten minutes before his body stopped twitching and thrashing on the gurney.

In six lethal injection executions in California, the condemned inmates’ chests were moving up and down several minutes after the administration of the anesthetic, indicating that the inmates may not have been anesthetized deeply enough to avoid experiencing the painful effects of the potassium chloride and that the paralyzing effects of the pancuronium bromide might have prevented them from showing pain.

There have been at least forty-one cases before state and federal courts challenging the constitutionality of lethal injection protocols. No court has ever ruled lethal injection executions unconstitutional; many of the cases have been dismissed on procedural grounds without a full evidentiary hearing.

In two recent cases in California and North Carolina, federal courts have been sufficiently troubled by new evidence of possible problems with lethal injection executions that they ordered corrections officials to change their lethal injection procedures in particular ways, or the executions would be stayed. In both cases, the courts proposed the presence throughout the execution of someone trained in anesthesia. In the California case, the court also suggested the option of injecting the condemned prisoner, Michael Morales, with a single massive dose of a barbiturate. The California Department of Corrections rejected the use of a single barbiturate and was not able to find anesthesiologists willing to monitor the prisoner’s level of anesthesia and to make adjustments as necessary for the three-drug protocol execution. The court stayed the prisoner’s execution and scheduled an evidentiary hearing on California’s

lethal injection protocols for May 2 to 3, 2006. As of April 10, 2006, North Carolina has not responded to the court order in its case. On April 26, the U.S. Supreme Court will hear oral arguments about the procedures a prisoner must use to challenge the constitutionality of a lethal injection protocol.

California's inability to find anesthesiologists to participate in the execution of Morales highlights the limits medical ethics place on the participation of medical professionals in executions. Indeed, it was the growing practice of lethal injection executions that prompted the medical community to clarify and solidify its position that physician participation in executions violates the ethical precepts of the profession. The American Medical Association (AMA) defines the prohibited participation to include monitoring vital signs; attending or observing as a physician; rendering technical advice regarding executions, selecting injection sites; starting intravenous lines; prescribing, preparing, administering, or supervising the injection of drugs; inspecting or testing lethal injection devices; and consulting with or supervising lethal injection personnel. Heeding these guidelines, even doctors who work for corrections agencies have refused to participate in the development of lethal injection protocols or their use. Nevertheless, despite the AMA's clear stance, some physicians ignore the ethical guidelines and offer their help during lethal injection executions.

Human Rights Watch recognizes that medical ethics restricts the way states can conduct lethal injection executions. This is a dilemma of the states' making—by their refusal to abolish capital punishment—and it is a dilemma states must resolve while heeding their human rights responsibilities, if they continue to use lethal injection executions.

Until recently, the United States was the only country in the world that used lethal injection as an execution method. Several other countries that have not yet abolished the death penalty have followed: China started using lethal injection in 1997; Guatemala executed its first prisoner by lethal injection in 1998; and the Philippines and Thailand have had lethal injection execution laws in place since 2001 (although to date, they have not executed anyone by this method).

Recommendations

Human rights law is predicated on recognition of the inherent dignity and the equal and inalienable rights of all people, including even those who have committed terrible crimes. It prohibits torture and other cruel, inhuman or degrading punishment. Human Rights Watch believes these rights cannot be reconciled with the death penalty, a form of punishment unique in its cruelty and finality, and a punishment inevitably and universally plagued with arbitrariness, prejudice, and error. Thus our first recommendation is that states and the federal government abolish the death penalty. If governments do not choose to abolish capital punishment, they must still heed human rights principles by ensuring their execution methods are chosen and administered to minimize the risk a condemned prisoner will experience pain and suffering. As state lethal injection protocols have never been subjected to serious medical and scientific scrutiny, Human Rights Watch recommends that each state suspends its lethal injection executions until it has convened a panel of anesthesiologists, pharmacologists, doctors, corrections officials, prosecutors, defense attorneys, and judges to determine whether or not its lethal injection executions as currently practiced are indeed the most humane form of execution.

To State and Federal Corrections Agencies

- Review lethal injection protocols by soliciting input from medical and scientific experts, and by holding public hearings and seeking public comment.
- Stop using drugs that do not minimize the pain and suffering of the condemned inmate. Ensuring the comfort of witnesses and the executioners should not be a determining factor in which drugs are chosen for lethal injections. More specifically, discontinue the use of pancuronium bromide or any other neuromuscular blocking agent, because it masks any pain and suffering endured by the inmate. Replace potassium chloride with drugs that do not cause excruciating pain.
- Anesthesia must be used in all lethal injections that involve painful or paralyzing drugs. If anesthesia is used, ensure that trained personnel are present and able to monitor the prisoner's consciousness to ensure he is deeply and fully anesthetized before any subsequent painful drugs are administered. Such personnel would stand beside the prisoner throughout the execution.
- Keep, retain, and make publicly available execution records, including execution logs, autopsy reports, and toxicology reports.
- Conduct periodic reviews of lethal injection protocols to ensure they reflect medical and pharmacological developments.

To State Legislators and the U.S. Congress

- Abolish the death penalty.
- If the death penalty is not abolished, suspend all lethal injection executions until each state convenes a blue ribbon panel of medical, scientific, legal, judicial, and correctional experts authorized to review and recommend changes to lethal injection execution protocols as necessary to ensure the protocol adopted causes the inmate the least possible pain and suffering.
- Require corrections departments to adopt the method of execution, including the specific method of lethal injection, that causes the inmate the least possible pain and suffering.

I. Development of Lethal Injection Protocols

It wasn't a medical decision. It was based on the other states that had all used a similar dose.

—Donald Courts, pharmacy director at Louisiana State Penitentiary, explaining how Louisiana chose the specific chemicals and dosage amounts for its lethal injection protocol²

The only thing that mattered was that the guy ended up dead. . . . [The warden] wasn't worried too much about the amount of medicine. He had certainly used the same types of medicine, but . . . he wasn't totally concerned about the amounts of what it may or may not do. They ended up dead, and that's all he was worried about.

—Annette Viator, former chief legal counsel for Louisiana State Penitentiary, explaining her discussion with a Texas warden regarding the drugs used during Texas's lethal injection executions³

Different methods of execution have succeeded one another throughout the twentieth century in the United States, as changing public opinion and sensitivities has led public officials to reject older methods in favor of newer ones. At the time of their introduction, the electric chair and lethal gas were both touted as more humane forms of execution compared to earlier methods.⁴ Each, however, proved cruel. Electrocution, in particular, shocked witnesses when, for example, prisoners erupted in flames.⁵

² Special Hearing, *Code v. Cain*, Case No. 138,860-A, February 11, 2003, Vol. II, p. 33.

³ Special Hearing, *Louisiana v. Code*, Case No. 138,860, March 18, 2003, Vol. II, p. 58-59.

⁴ Concerns over the barbarity of hanging led states to change their method of execution from hanging to electrocution. Even though the first electrocution executions were terribly botched, by 1913, thirteen states had changed to electrocution because of "a well-grounded belief that electrocution is less painful and more humane than hanging." *Malloy v. South Carolina*, 237 U.S. 180, 185 (1915) (noting the adoption of electrocution by eleven states following the decision by a New York commission that it was more humane). See generally Craig Brandon, *The Electric Chair: An Unnatural American History* (New York: McFarland & Company, 1999), p. 67-88. By 1949, twenty-six states had changed to electrocution. After numerous electrocution botches, states began rejecting electrocution execution methods in favor of lethal gas. Nevada was the first state to adopt lethal gas executions, in 1921. In an attempt to make lethal gas executions more humane, the Nevada legislature passed a law providing that lethal gas would be administered "without warning and while [the inmate was] asleep in his cell." See William J. Bowers, Glenn L. Pierce, and John F. McDevitt, *Legal Homicide: Death as Punishment in America, 1864-1982* (Boston: Northeastern University Press, 1984), p. 12. In *State v. Gee Jon*, the Nevada Supreme Court emphasized that the legislature "sought to provide a method of inflicting the death penalty in the most humane manner known to modern science." 211 P. 676, 682 (Nevada 1923).

⁵ On August 10, 1982, Virginia executed Frank J. Coppola by electrocution. An attorney who was present stated that it took two fifty-five-second jolts to kill Coppola. During the second jolt, Coppola's head and leg caught on fire, and the room smelled like smoke and burning flesh. Deborah W. Denno, "Is Electrocution an Unconstitutional Method of Execution? The Engineering of Death over the Century," *William and Mary Law Review*, 1994, p. 551, 664-665. On July 8, 1999, Florida executed Allen Lee Davis by electrocution. Davis's

In the late 1970s, states turned to lethal injection, believing this was both a less expensive as well as a more humane way to kill condemned inmates.⁶ In 1977, Oklahoma legislators passed the first lethal injection statute.⁷ Texas passed a lethal injection statute the next day.⁸ By 1981, five states had adopted lethal injection statutes.⁹ Today, thirty-seven of the thirty-eight death penalty states have lethal injection statutes.¹⁰ In nineteen states, lethal injection is the only method of execution allowed.¹¹

States in the United States rely almost solely on lethal injections to execute condemned inmates. All twelve executions to date (as of April 1, 2006) have been by lethal injection, as were all sixty in 2005.¹² Of the 1,016 executions in the United States since the death

body was lit on fire during the electrocution. His face, body, and head were deeply burned. During the execution, Davis's face became red, and he tried to get the guard's attention by making noises that witnesses described as "screams," "yells," "moans," "high-pitched murmurs," "squeals," or "groans." Brief for Petitioner, *Bryan v. Moore*, 528 U.S. 960 (1999), p. 3 (citations omitted). "Before he was pronounced dead ... the blood from his mouth had poured onto the collar of his white shirt, and the blood on his chest had spread to about the size of a dinner plate, even oozing through the buckle holes on the leather chest strap holding him to the chair." "Davis Execution Gruesome," *Gainesville Sun*, July 8, 1999, p. A1. Davis's execution was the first in Florida's new execution chair, built especially to accommodate his 350-pound frame. Later, Florida Supreme Court Justice Leander Shaw said, "The color photos of Davis depict a man who—for all appearances—was brutally tortured to death by the citizens of Florida." *Provenzo v. State*, 744 So.2d 413, 440 (Florida 1999).

⁶ Deborah Denno, "Lethally Humane?" *America's Experiment with Capital Punishment: Reflections on the Past, Present, and Future of the Ultimate Penal Sanction*, James R. Acker, Robert M. Bohm, and Charles S. Lanier, eds. (Durham: Carolina Academic Press, 2003), p. 711. E.g., in 1981, several years after Oklahoma became the first state to adopt lethal injection, a spokesperson for the Oklahoma Corrections Department confirmed that the state changed from the electric chair to lethal injection for "humane" reasons: "People don't realize it, but the electric chair can take 11 minutes to kill people. The first shock knocks you unconscious, but then it would just cook you. You would literally fry." Mary Thornton, "Death By Injection," *Washington Post*, October 6, 1981, p. A1. "Being a former farmer and horse trainer, I know what its like to try to eliminate an injured horse by shooting him . . . Now you call the veterinarian and the vet gives it a shot and the horse goes to sleep—that's it. I myself have wondered if maybe this isn't part of our problem [with capital punishment], if maybe we should review and see if there aren't even more humane methods now—the simple shot or tranquilizer." Henry Scharzschild, "Homicide by Injection," *New York Times*, December 23, 1982, p. A15 (quoting Ronald Reagan). On National Public Radio's *Talk of the Nation*, aired February 23, 2006, State Senator David Ralston, a Republican from Georgia, stated: "I know other states debated the propriety of using electrocution and our Supreme Court here in 2001 decided that that was a cruel and inhumane form of punishment. The legislature in response to that adopted what was becoming more accepted, and that was the lethal injection." See *Talk of the Nation* Transcript, <http://www.npr.org/templates/story/story.php?storyId=5230227> (retrieved April 13, 2006) (copy on file at Human Rights Watch).

⁷ Human Rights Watch telephone interview with Dr. Jay Chapman, former Oklahoma chief medical examiner, Santa Rosa, California, March 23, 2006.

⁸ See Vince Beiser, "A Guilty Man," *Mother Jones*, September/October 2005, <http://www.motherjones.com/news/feature/2005/09/guiltyman.html> (retrieved March 30, 2006). See also Death Penalty Information Center (DPIC), "Execution Database," <http://www.deathpenaltyinfo.org/getexecdata.php> (retrieved March 31, 2006).

⁹ DPIC, "Execution Database."

¹⁰ Nebraska is the only state that requires execution by electrocution. DPIC, "Methods of Execution," <http://www.deathpenaltyinfo.org/article.php?scid=8&did=245> (retrieved March 31, 2006).

¹¹ See Appendix A for a list of states, which allow the death penalty, and the methods of execution allowed.

¹² DPIC, "Methods of Execution."

penalty was reinstated in 1976, 848 were by lethal injection—three by the federal government and the rest by states.¹³ At the start of 2006, there were 3,373 prisoners on death row—3,363 of whom face the possibility of a lethal injection execution.¹⁴

The statutes of fifteen states use language similar to Oklahoma’s, requiring the use of a “lethal quantity of an ultra-short acting barbiturate or other similar drug in combination with a chemical paralytic to cause death.”¹⁵ It is not clear if the legislators intended the prisoner to die from the anesthetic or from the asphyxiation caused by the paralytic agent, or both. According to Dr. Jay Chapman, the architect of Oklahoma’s two-drug statute, he “didn’t care which drug killed the prisoner, as long as one of them did.”¹⁶ Thirteen states refer to an injection of a “substance or substances in a quantity to cause death” or language very close to that wording.¹⁷ Seven states provide simply for the use of “lethal injection” executions.¹⁸ Two state statutes use slightly different language from all the rest.¹⁹ Only one state statute mandates corrections officials to choose among lethal injection options to find the most humane procedure possible.²⁰ Despite the variations in state statutory language authorizing lethal injections, thirty-six state corrections agencies today use the same three-drug sequence of sodium thiopental, pancuronium bromide and potassium chloride in their lethal injection drug protocols.²¹

No state statute prescribes drug dosages and the specific methods of administration; legislators have left these decisions to corrections officials. Nor does any state statute prescribe the manner of intravenous line access, the certification or training required for those who participate in executions, or other details concerning the administration of the

¹³ Ibid.

¹⁴ Criminal Justice Project, NAACP Legal Defense Fund, *Death Row USA*, January 1, 2006, http://www.naacpldf.org/content/pdf/pubs/drusa/DRUSA_Winter_2006.pdf (retrieved April 13, 2006).

¹⁵ These fifteen states with two-drug statutes are: Arkansas, Idaho, Illinois, Maryland, Mississippi, Montana, New Hampshire, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Pennsylvania, South Dakota, Wyoming.

¹⁶ Interview with Chapman.

¹⁷ These thirteen states with statutes that refer generally to “substances” or “drugs” sufficient to cause death are: Arizona, California, Connecticut, Delaware, Georgia, Indiana, Kansas, Kentucky, Louisiana, New York, Ohio, Texas, and Washington.

¹⁸ These seven states with simple “lethal injection” statutes are: Alabama, Florida, Missouri, South Carolina, Tennessee, Utah, Virginia.

¹⁹ These two states are Colorado and Nevada. See Colorado Review Statute Section 16-11-401 (“sodium thiopental or other equally or more effective substance sufficient to cause death”); Nevada Review Statute Annotated Section 176.355(1) (“a lethal drug”).

²⁰ In Kansas, the statute reads: “The mode of carrying out a sentence of death in this state shall be by *intravenous injection of a substance or substances in a quantity sufficient to cause death in a swift and humane manner.*” Kansas Criminal Procedure Code Section 22-4001.

²¹ The “two drug” statutes do not expressly prohibit the use of additional drugs, so the correction agencies were able to adopt three-drug protocols.

drugs or monitoring of the procedures.²² Legislators have given correctional agencies the authority “to promulgate necessary rules and regulations to facilitate the implementation of execution by lethal injection.”²³ For example, in Florida the legislature did not specify how death by lethal injection would be accomplished, but left this decision up to the Department of Corrections, “because it has personnel better qualified to make such determinations.”²⁴

The public record offers scant insight into the basis on which state legislatures that chose specific lethal injection drugs did so. An analysis of state statutes and legislative histories provides no evidence that legislatures—other than possibly Oklahoma—relied on, or even sought input from, medical and scientific experts.²⁵ Rather, they simply copied the protocols developed by their colleagues from other states. For example:

- A Circuit Court Judge in Kentucky noted:

In developing a lethal injection protocol, the Commonwealth of Kentucky, Department of Corrections, did not conduct any independent scientific or medical studies or consult any medical professionals concerning the drugs and dosage amounts to be injected into the condemned. Kentucky appears to be no different from any other state or the Government of the United States.²⁶
- When asked how the lethal injection protocol committee put together Tennessee’s procedures, a committee member responded: “There wasn’t a lot of discussion on it once the team had access to the information that was provided from other states. Indianapolis, Indiana, Florida, Texas, they all used the same chemicals.”²⁷ The Tennessee Supreme Court found that Tennessee’s protocol

²² Deborah Denno, “When Legislatures Delegate Death: The Troubling Paradox Behind State Uses of Electrocutation and Lethal Injection and What it Says About Us,” *Ohio State Law Journal*, Vol. 63, 2002, p. 207-260 (includes redacted versions of state lethal injection protocols).

²³ Tennessee Code Annotated 40-23-114(c).

²⁴ *Sims v. State*, 754 So. 2d 657, 670 (Florida 2000).

²⁵ Human Rights Watch telephone interview with Deborah Denno, professor of law at Fordham University Law School, New York, New York, March 16, 2006. Denno has conducted the only existing comprehensive study of lethal injection state protocols. In addition to her academic work, she serves as an expert witness on behalf of prisoners challenging state lethal injection procedures.

²⁶ *Baze, et al. v. Rees, et al.*, Case No. 04-CI-1094, July 8, 2005, p. 6.

²⁷ Testimony of Warden Richard Peabody, Special Hearing, *Abdr’Rahman v Sundquist et al.*, Case No. 02-2236-III, Vol. II, September 16, 2003, p. 63.

“was developed simply by copying the state method currently in use by some thirty other states.”²⁸

- According to a memorandum from the Washington State Department of Corrections: “All of our policies and procedures have been designed utilizing the State of Texas as a model ... [T]he states of Texas and Missouri have conducted numerous executions and remain the best and tested source of information.”²⁹
- A Wyoming warden noted “that Wyoming’s injection procedure is cloned from the Texas injection procedure. Visited Warden Jack Pursley at Huntsville, Texas and participated in an execution seminar [*sic*]. So I am confident that Wyoming’s policy based upon proven Texas procedures will be reliable.”³⁰
- According to a former warden of the Colorado State Penitentiary, Colorado corrections officials went to Texas and Oklahoma to examine how they conducted lethal injection executions and then copied them, because their lethal injection protocols “seemed time-honored, tested, well-designed, and effective.”³¹
- The Secretary of Pennsylvania’s Department of Corrections noted that they “adopted almost to a T” the Texas lethal injection protocol.³²

Oklahoma

In 1977, Oklahoma enacted the first lethal injection statute. Its history illustrates the minimal inquiry legislators conducted before selecting a specific method of lethal injection. Facing the expensive prospect of fixing the state’s broken electric chair, the Oklahoma legislature was looking for a cheaper and more humane way to execute its

²⁸ *Abdur’Rahman v. Bredesen, et al.*, Tennessee Supreme Court, October 17, 2005, No. M2003-01767-COA-R3-CV, p. 77a.

²⁹ Unsigned memorandum from the State of Washington, Department of Corrections, to Louisiana State Penitentiary Warden Richard L. Peabody, dated October 10, 1990, read into evidence by Warden Peabody, *Louisiana v. Code*, p. 108.

³⁰ Letter from Wyoming Warden Duane Shillinger to Louisiana Warden Richard Peabody, dated October 2, 1990, read into evidence by Warden Peabody, *Louisiana v. Code*, p. 108-109.

³¹ Human Rights Watch telephone interview with Gene Atherton, former warden of the Colorado State Penitentiary (where death row is located in Colorado), March 30, 2006.

³² Human Rights Watch telephone interview with Jeffrey A. Beard, secretary, Pennsylvania Department of Corrections, March 28, 2006.

condemned inmates.³³ State Assembly member Bill Wiseman wanted to introduce a bill in the Oklahoma House of Representatives allowing for lethal injection executions in Oklahoma.³⁴ In 1976, he approached the Oklahoma Medical Association for help developing a drug protocol, but it refused to get involved based on ethical concerns about the cooperation of medical professionals in the development of execution methods.³⁵ Wiseman approached Dr. Jay Chapman, the state's medical examiner, and asked for his help in drafting a lethal injection statute.³⁶ Despite having "no experience with this sort of thing," Chapman agreed to help Wiseman.³⁷ Sitting in Wiseman's office in the Capitol, Chapman dictated the following lines, which Wiseman jotted down on a yellow legal pad: "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."³⁸ Meanwhile, State Senator Bill Dawson, concerned about the cost of replacing Oklahoma's broken electric chair, was also interested in introducing a lethal injection bill in the Oklahoma Senate. Senator Dawson consulted with his friend, Dr. Stanley Deutsch, then head of the Oklahoma Medical School's Anesthesiology Department.³⁹ After reviewing the language Chapman had composed for Assembly member Wiseman, Deutsch noted, in a letter to Senator Dawson, that anesthetizing condemned inmates would be a "rapidly pleasant way of producing unconsciousness" leading to death.⁴⁰

Oklahoma's state statute copies nearly word-for-word the methods proposed by Chapman and approved in Deutsch's brief letter, stating that "the punishment of death must be inflicted by continuous, intravenous administration of a lethal quantity of an ultra-short-acting barbiturate" in "combination with a chemical paralytic agent until death is pronounced by a licensed physician according to accepted standards of medical practice."⁴¹ There is no evidence that Oklahoma state legislators consulted any other

³³ Denno, "When Legislatures Delegate Death," p. 96.

³⁴ Beiser, "A Guilty Man."

³⁵ Ibid.

³⁶ Interview with Chapman.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Denno, "When Legislatures Delegate Death," p. 95.

⁴⁰ Letter from Stanley Deutsch, Ph.D., M.D., professor of anesthesiology, University of Oklahoma Health Sciences Center, to the Honorable Bill Dawson, Oklahoma state senator, February 28, 1977 (copy on file with Human Rights Watch) (Deutsch Letter).

⁴¹ Oklahoma Statute Annotated Title 22, Section 1014(A). Also, see Deutsch Letter (Deutsch writes that unconsciousness and then death would be produced by "the administration ... intravenously ... in [specified] quantities of ... an ultra short acting barbiturate" in "combination" with a "nueormuscular [sic] blocking agent" to create a "long duration of paralysis"). See also Oklahoma Engrossed Senate Bill No. 10, March 2, 1977 (copy on file with Human Rights Watch). Some senators disagreed with the state's adoption of lethal injection executions. One senator's proposed amendment, which failed, called for "inserting the following after the word 'by' on line four, adopting the Biblical procedure of 'Eye for Eye', i.e.,

medical experts before adopting their lethal injection statute.⁴² Human Rights Watch asked Chapman why he chose the two drugs (an ultra-short-acting barbiturate and a paralytic agent) for lethal injection executions. He stated: “I didn’t do any research. I just knew from having been placed under anesthesia myself, what we needed. I wanted to have at least two drugs in doses that would each kill the prisoner, to make sure if one didn’t kill him, the other would.”⁴³ The Oklahoma state legislature has not significantly amended the statute regarding the drugs to be used during lethal injections since its original enactment.⁴⁴

In addition to his work on the statute, Chapman developed the original three-drug protocol used by the Oklahoma Department of Corrections.⁴⁵ Although Oklahoma’s statute specifies two drugs, Chapman included a third drug, potassium chloride.⁴⁶ When Human Rights Watch asked Chapman why he added a third drug to the two drugs specified in the statute, he replied, “Why not?” He went on to explain that, even though the other chemicals, in the dosages called for, would kill the prisoner, “You just wanted to make sure the prisoner was dead at the end, so why not just add a third lethal drug?” He is not sure why he picked potassium chloride. “I didn’t do any research ... it’s just common knowledge. Doctors know potassium chloride is lethal. Why does it matter why I chose it?”⁴⁷

Texas

Almost immediately after Oklahoma passed its lethal injection statute, the Texas legislature passed a law authorizing executions by lethal injection.⁴⁸ Within ten years of the law’s enactment, Texas had executed fifty-three prisoners by lethal injection.⁴⁹ The law delegates responsibility for developing protocols regarding the lethal substances to be used to the state corrections agency.⁵⁰ Because Texas was the first state to actually execute anyone by lethal injection, and immediately established itself as the state with the

each person convicted shall be executed in the same manner as the death of the victim for which the conviction occurred, and striking all remaining language through line eight on p. 2.” Amendment Motion, April 20, 1977 (copy on file with Human Rights Watch).

⁴² Denno, “When Legislatures Delegate Death,” p. 96.

⁴³ Interview with Chapman.

⁴⁴ Oklahoma Statute Annotated, Title 22, Section 1014(A).

⁴⁵ Interview with Chapman.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

⁴⁸ Denno, “When Legislatures Delegate Death,” p. 96.

⁴⁹ DPIC, “Execution Database.”

⁵⁰ Texas Criminal Procedure Code Annotated Article 43.14.

most lethal injection executions,⁵¹ its protocols have had enormous influence on other states. Many state corrections officials consulted with Texas officials when developing their own protocols.⁵²

Like its Oklahoma predecessor, the Texas protocol involves the use of three drugs.⁵³ But the state has refused to provide additional information on its procedures for lethal injections, citing security concerns.⁵⁴ The observations of Louisiana corrections officials who visited Texas shed light on the ad hoc and unscientific manner in which Texas has conducted its lethal injection executions.

In 1990, the Louisiana Department of Corrections formed a committee to create a lethal injection protocol. As a member of the committee, the Department's chief legal counsel consulted with the warden responsible for executions in the Texas Department of Corrections. She found the experience "surprising."⁵⁵ The warden refused to speak with the attorney over the phone about his protocols, explaining "he didn't say these things on the phone that he would rather say in person."⁵⁶

When the attorney arrived in Texas with other members of the committee, the warden "asked us if any of us had tape recorders, if any of us were wired."⁵⁷ The warden then proceeded to speak about Texas's lethal injection protocols. According to the attorney, "He didn't really have so much of a policy about it, as he did just sort of—they did whatever worked at the time. He pretty much told us he didn't have a strict policy."⁵⁸

⁵¹ Texas has executed 362 condemned inmates by lethal injection. DPIC, "Execution Database."

⁵² E.g., Colorado, Florida, Indiana, Kentucky, Missouri, Tennessee, Washington, and Wyoming (as described at the beginning of the section of this report on "Development of Lethal Injection Protocols").

⁵³ Texas Department of Criminal Justice, "Death Row Facts," <http://www.tdcj.state.tx.us/stat/drowfacts.htm> (retrieved March 21, 2006).

⁵⁴ Letter to Alberta Phillips, Editorial Department of the *Austin-American Statesman*, from James L. Hall, assistant general counsel, Office of the General Counsel, Texas Department of Criminal Justice, dated January 2, 2004. Hall explains:

Information about execution procedures is held in the strictest of confidence, is generally not reduced to writing, and is known only to a few people within the Department. That confidentiality is maintained to ensure that security procedures established for executions are not compromised. Thus, to the extent we have written policies and procedures responsive to your request, that information has been found to be confidential and not available to the public.

(copy of letter on file with Human Rights Watch).

⁵⁵ See Testimony of Annette Viator, Special Hearing, *Cain v. Code*, Case No. 138,860-A, March 18, 2003, Vol. II, p. 32.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*, p. 33.

When the attorney inquired about the “medical portion” of Texas’s lethal injection protocol, the warden told her:

[T]hat the only thing that mattered was that the guy ended up dead and that he wasn’t worried too much about the amount of medicine. He had certainly used the same types of medicine, but that he wasn’t totally concerned about the amounts or what it may or may not do. They ended up dead, and that’s all he was worried about. The rest of our conversation with him tracked that same thing. He was not terribly concerned about policy, procedure, or who did what, when, where. Just so the right result happened.⁵⁹

The Louisiana State Penitentiary pharmacy director has recounted a conversation he had in 1990 with the Texas Department of Corrections pharmacy director about the drugs Texas used in its lethal injections:

We were getting ready to hang up the phone, and I said, ‘I have but just one question I need to ask you. Every other state I have spoken to is using 2 grams of sodium pentothal. Why are y’all using five?’ And he started laughing and said, ‘Well, you see, when we did our very first execution, the only thing I had on hand was a 5-gram vial. And rather than do the paperwork on wasting 3 grams, we just gave all five.’⁶⁰

Another member of the Louisiana committee observed a Texas lethal injection and noted that the administration of the drugs was on a “time frame that was fairly tight.”⁶¹ It seemed to him the execution team simply administered the drugs one after the other, without pausing to ascertain whether the drugs were having their intended effect.⁶²

Tennessee

In 1998, in response to the passage of a lethal injection statute, the Commissioner of Tennessee’s Department of Corrections set up an “ad hoc” committee to develop an

⁵⁹ Ibid.

⁶⁰ Testimony of Donald Courts, Special Hearing, *Louisiana v. Code*, Case No. 138,860, March 18, 2003, Vol. II, p. 58-59.

⁶¹ Testimony of Deputy Warden Richard Peabody, Special Hearing, *Louisiana v. Code*, Case No. 138,860A, September 16, 2003, p. 48.

⁶² Regardless of any misgivings they had, the Louisiana execution protocol team chose a lethal injection protocol for Louisiana that “paralleled the procedure in Texas fairly closely.” Ibid., p. 46.

execution protocol. The committee was composed solely of department personnel, none of whom had any medical or scientific background.⁶³ The group met four times over five months; none of the meetings were public nor did the group seek public input.⁶⁴ The committee did not consult with physicians or pharmacologists, or with any other person who had medical or scientific training.⁶⁵ The committee gave Warden Ricky Bell, who had no college degree, the task of putting together the execution protocol.⁶⁶ An internal memorandum, written by a committee member, warned the committee about other states' problems with executions by lethal injection.⁶⁷ Nonetheless, Bell modeled Tennessee's present lethal injection execution protocols entirely on information he received from two other states' corrections departments—Indiana and Texas.⁶⁸

Lethal Injection Machines

The lack of care with which states developed their lethal injection protocols is well exemplified by their willingness to buy lethal injection machines from Fred Leuchter. From 1979 to 1990, Leuchter, a layperson with no engineering, medical or pharmacological training, was the only supplier of execution equipment in the United States. He built, installed, and repaired many different types of machinery for executions, including gas chambers, electrocution chairs, and the now-defunct lethal injection machine.⁶⁹ He tested his theories about what types and dosages of chemicals to use in the lethal injection machine by experimenting on pigs.⁷⁰ In his promotional material, Leuchter promised that his lethal injection machine would “insure a problem-free

⁶³ See Memorandum from Jim Rose, assistant commissioner of operations, to Donal Campbell, commissioner for the Tennessee Department of Corrections, June 22, 1998 (copy on file with Human Rights Watch). For a description of the committee members qualifications (or lack thereof), see Deposition of Debra K. Inglis, general counsel for the Tennessee Department of Corrections, *Rahman v. Sundquist, et al.*, Case No. 02-2236-III, March 25, 2003, p. 15-16, 38 (copy on file with Human Rights Watch) (Deposition of Inglis).

⁶⁴ Memorandums from the four meetings are on file with Human Rights Watch. See also Testimony of Ricky Bell, Transcript of Proceedings, *Abu-Ali Abdur'Rahman v. Sundquist*, Case No. 02-2236-III, May 29, 2003, p.204 (copy on file with Human Rights Watch) (Testimony of Bell).

⁶⁵ Inglis Deposition, p. 15-16; Testimony of Bell, p. 200-209.

⁶⁶ Testimony of Bell, p. 200.

⁶⁷ Memorandum from Virginia Lewis to the Committee Members (copy on file with Human Rights Watch). Quoting from a 1997 National Legal Aid and Defender Association study, the memo states: “Lethal injections are also the most frequently botched means of execution—defined to include unanticipated problems or delays that caused, or could have caused, unnecessary agony for the prisoner and/or witnesses.” Lewis continues in her own words, “Unfortunately the critics consider length of time and difficulty in finding suitable veins to be ‘botched’ cases and the criticism is worse when veins collapse and the IV has to be restarted.” *Ibid.* (It is not clear from the committee’s notes or committee member trial testimony what Lewis’s title was within the Department of Corrections.)

⁶⁸ Petitioner’s Brief, *Abdur'Rahman v. Bredesen, et al.*, February 15, 2006, p. 4.

⁶⁹ Beiser, “A Guilty Man.” See also James Bandler, “Fred Leuchter: Killing Time with Death’s Efficiency Expert,” *In These Times*, June 20-July 3, 1990, p. 22.

⁷⁰ Stephen Trombley, *The Execution Protocol: Inside America’s Capital Punishment Industry* (New York: Crown Publishers, 1992), p. 76-78.

execution.”⁷¹ Seventeen states purchased the machine.⁷² When he had an order to fill, Leuchter manufactured the machine in the basement of his house.⁷³

The lethal injection machine had two parts—a “control module” and a “delivery module”—which allowed the executioners to start the lethal injection from a room separate from the inmate. The control module essentially consisted of two on/off switches, only one of which actually triggered the chemicals to flow from the delivery module. In this way, the two people assigned to push the two buttons would not know which one of them actually started the administration of the lethal injection drugs. The delivery module contained two syringes filled with saline, two syringes filled with sodium thiopental, two syringes filled with pancuronium bromide, and two syringes filled with potassium chloride. Once the machine was activated, it delivered the drugs, with saline flushes in between, for ten seconds each, one minute apart from one another, to an intravenous line running from the delivery module to the prisoner’s vein. With the use of this machine, an execution should take “four minutes.”⁷⁴

Leuchter’s execution equipment business stopped abruptly in 1990. It did not stop because correction agencies realized that Leuchter was totally unqualified to construct such equipment, but because he testified as an expert witness on behalf of a Holocaust denier.⁷⁵ In the course of discrediting Leuchter as an expert witness, the prosecutor established that Leuchter in fact had no engineering credentials, and held only a Bachelor of Arts degree in history.⁷⁶

⁷¹ Fred A. Leuchter Associates, Inc., “Execution by Lethal Injection Missouri: Lethal Injection Machine Manual State of Missouri,” October 15, 1988 (copy on file with Human Rights Watch).

⁷² According to Leuchter, during his time in business, he consulted with or provided equipment to twenty-seven states. Seventeen states and the United States Army purchased lethal injection machines from Leuchter. Those states included: Arizona, California, Colorado, Delaware, Illinois, Mississippi, Missouri, Montana, Nevada, New Jersey, New Mexico, North Carolina, Oregon, Texas, Utah, Washington, and Wyoming. Denno, “Is Electrocutation an Unconstitutional Method of Execution?” p. 627, footnote 496.

⁷³ Trombley, *The Execution Protocol*, p. vii.

⁷⁴ *Ibid.*, p. 78.

⁷⁵ Leuchter himself denied that the Nazis could have killed six million Jews in gas chambers. His anti-Holocaust conclusions were printed in a book, *The Leuchter Report*. Fred Leuchter, *The Leuchter Report: The End of Myth: An Engineering Report on the Alleged Execution Gas Chambers of Auschwitz, Birkenau and Madjanek*, (Poland: Samisdat Publishers, Ltd., 1988), <http://www.ihr.org/books/leuchter/leuchter.toc.html> (retrieved April 1, 2006).

⁷⁶ Bandler, “Fred Leuchter,” p. 22-23. Despite the fact that Leuchter admitted misrepresenting himself as an engineer to various states when he provided equipment or advice for their death penalty practice, Leuchter never faced criminal charges. Consent Agreement, *Commonwealth v. Leuchter*, No. EN 90-102, Massachusetts District Court, signed June 11, 1991, p. 1.

It is not clear how many states actually used Leuchter's lethal injection machine or how many prisoners were unwitting guinea pigs for his deadly invention. What is remarkable, however, is that states ever bought Leuchter's lethal injection machines in the first place. One can only speculate as to how much—if any—research the states did into Leuchter and his lethal injection machine before they signed purchase agreements.

Public Access to Lethal Injection Protocols

Human Rights Watch is aware of only one state, New Jersey, which has ever opened its lethal injection protocol to public input and comment.⁷⁷ While thirty-six lethal injection states make public the names of the drugs used during their lethal injection executions and the basic method of administration, corrections officials claim that reasons of security prevent them from making the entire protocol available to the public. Human Rights Watch does not know if the parts of the protocols that remain secret provide fuller details of what the execution team is supposed to do before, during, and after the execution.

Some states do not even have written protocols. Louisiana did not have a written protocol until 2002, nine years after the legislature authorized lethal injection executions. During that period, seven prisoners were executed by lethal injection, with the protocol passed down by “word of mouth” between members of various execution teams.⁷⁸ The Florida Department of Corrections has not promulgated an administrative regulation nor published any guidance prescribing the lethal injection procedures it uses to execute condemned prisoners. The Florida Supreme Court agreed with the corrections department that a published protocol is not needed because the department has the authority to change its rules any time for any reason.⁷⁹

⁷⁷ In 2001, the New Jersey Department of Corrections (NJDOC) proposed to re-adopt and amend the regulations setting forth New Jersey's lethal injection protocol. The amendment also included the removal of the emergency crash cart from the execution chamber. New Jerseyans Against the Death Penalty (NJDAP) brought an action challenging the regulations. The court held that the proposed changes in the regulations lacked an adequate administrative record demonstrating that they were based upon “reasoned medical opinion.” In *Re Readoption*, 367 New Jersey Superior, p. 69. Without such a record, the court found, NJDOC was unable to demonstrate that the regulations at issue comport with contemporary standards of decency and morality. *Ibid.* NJDOC subsequently held a public hearing on February 4, 2005 but has yet to promulgate final regulations. The process was halted when then Governor Richard Codey signed into law a death penalty moratorium for New Jersey at the beginning of 2006. See “New Jersey's execution protocol up for comment,” <http://www.democracyinaction.org/dia/organizations/ncadp/news.jsp?key=1223&t> (retrieved March 22, 2006).

⁷⁸ Testimony of Dora Rabalais, director of legal programs at Louisiana State Penitentiary, Angola, Special Hearing, *Code v. Cain*, Vol. 1, No. 138,860-A, February 10, 2003, p. 25. “Word of mouth” from Testimony of David Meredith, former member of Louisiana State Penitentiary Execution Team, Special Hearing, *Code v. Cain*, Vol. 1, No. 138,860-A, February 10, 2003, p. 19.

⁷⁹ *Sims v. State*, 754 So. 2d 657, 670 (Florida 2000).

II. Lethal Injection Drugs

I don't know the medical rationale, no. . . . Regarding the specific amounts of individual drugs, I have no knowledge as to what drug quantities were used, or why they may have differed from other states, no, I do not . . . that was beyond me.

—Richard Peabody, Louisiana State Penitentiary deputy warden, responding to a question about the drugs used in Louisiana's lethal injection protocol, which he helped to develop⁸⁰

It's not about the prisoner. It's about public policy. It's about the audience and prison personnel who have to carry out the execution.

—Dr. Mark Dershwitz, anesthesiologist and expert witness for state corrections departments on lethal injection drug protocols⁸¹

Thirty-six states use the same three-drug sequence for lethal injections: sodium thiopental to render the condemned inmate unconscious; pancuronium bromide to paralyze the condemned inmate's voluntary muscles; and potassium chloride to rapidly induce cardiac arrest and cause death.⁸²

This three-drug sequence puts the prisoner at risk of high levels of pain and suffering. If he is not appropriately anesthetized, he will be awake when he is paralyzed by the pancuronium bromide and will experience suffocation when he is not able to breathe.⁸³ If the anesthesia remains insufficient, he will experience excruciating pain from the potassium chloride. Nevertheless, according to Human Rights Watch's research, no state which has used these three drugs for lethal injections has ever changed to different drugs.⁸⁴

⁸⁰ *Louisiana v. Code*, p. 74, 86.

⁸¹ Human Rights Watch telephone interview with Dr. Mark Dershwitz, professor of anesthesiology at the University of Massachusetts, Boston, Massachusetts, March 1, 2006.

⁸² Of the states using lethal injections for executions, Nevada is the only state which will not publicly reveal its drug protocol. Human Rights Watch telephone interview with Fritz Schlommater, Nevada Department of Corrections, March 31, 2006.

⁸³ Testimony of Dr. Mark Dershwitz, *Reid v. Johnson*, No. Civ. A. 3:03CV1039, August 30, 2004, p. 26 ("And I freely admit that a person who's rendered paralyzed with a drug like pancuronium who also happens to be awake, that would be considered horrible. And those of us who routinely use pancuronium in our practice, take great pains to make sure that none of our patients are awake and paralyzed at the same time.") (Dershwitz Testimony).

⁸⁴ For example, in 1999, New Jersey was facing its first lethal injection execution. The NJDOC was aware of potential problems with the drugs called for in the state statute. In 1983, when New Jersey's lethal injection statute was passed, a doctor at the NJDOC warned the NJDOC assistant commissioner that he had "concerns in regard to the chemical substance classes from which the lethal substances may be selected." The

Potassium Chloride

Potassium chloride is the drug that causes death in an execution under current lethal injection protocols. Although the other two drugs are administered in lethal dosages and would, in time, produce the prisoner's death, potassium chloride should cause cardiac arrest and death within a minute of injection.⁸⁵ While potassium chloride acts quickly, it is excruciatingly painful if administered without proper anesthesia.⁸⁶ When injected into a vein, it inflames the potassium ions in the sensory nerve fibers, literally burning up the veins as it travels to the heart.⁸⁷ Potassium chloride is so painful that the American Veterinary Medical Association (AVMA) prohibits its use as the sole agent of euthanasia—it may only be used after the animal has been properly anesthetized.⁸⁸

There are less painful drugs that will cause death. For example, experts have suggested pentobarbital, which can be administered in a single injection. Indeed, this is the most common method of euthanizing domesticated animals.⁸⁹ In Oregon, which has legalized physician-assisted suicide for the terminally ill, state doctors prescribe an overdose of barbiturates like pentobarbital for their dying patients. The state's medical ethics board determined that an overdose from a long-acting barbiturate was the most humane way to help someone die—it is painless, effective, and does not require the presence of a doctor

commissioner at the time, Jack Terhune, sought an amendment to New Jersey's lethal injection statute to allow the commissioner to choose better drugs if they came along. "[We wanted] a generic statement, like 'drugs to be determined and identified by the commissioner, or the attorney general, or the Department of Health'. Who knew what the future was going to bring?" The proposed amendment did not pass, and the statute remains the same as it was when passed in 1983. "New Jersey's Waltz with Death," *New Jersey Law Journal*, November 25, 2002, <http://venus.soci.niu.edu/~archives/ABOLISH/rick-halperin/feb03/0677.html> (retrieved April 4, 2006).

⁸⁵ Dershwitz Testimony, p. 19.

⁸⁶ See Carol Benfell, "Routine but deadly drug: Potassium Chloride has Jekyll and Hyde personality," *Santa Rosa Press Democrat*, March 23, 1997, <http://www.iatrogenic.org/potchlor.html> (retrieved March 13, 2006); "America's Riskiest Drugs: Potassium Chloride," February, 24, 2003, http://www.forbes.com/2003/02/24/cx_mh_0224potassium.html (retrieved March 13, 2006). Diana Wiley, "Mistakes that Kill," *Maclean's*, August 31, 2001 (including a case where a woman witnessed her son's death when he accidentally received a dose of potassium chloride. She recounts his reactions to the drug: "Please stop," he cried out. "You're hurting me, it's burning, it's making me dizzy.").

⁸⁷ Dershwitz Testimony, p. 39-40 ("If potassium chloride is given to an awake individual, in other words, before thiopental, before the heart stops, it would be quite painful because it's very irritating for blood vessels.").

⁸⁸ *2000 Report of the AVMA Panel on Euthanasia*, 218 J. A.V.M.A., 680-681 (2001), http://www.avma.org/issues/animal_welfare/euthanasia.pdf (retrieved April 2, 2006) (*2000 Report of the AVMA Panel on Euthanasia*) ("Administration of potassium chloride intravenously requires animals to be in a surgical plane of anesthesia characterized by loss of consciousness, loss of reflex muscle response, and loss of response to noxious stimuli."). See also Affidavit of Dr. Kevin Concannon, D.V.M., D.A.C.V.A., *Page, et al. v. Beck, et al.*, Case No. 5:04-CT-04-BO, August 31, 2005, p. 4 ("Potassium chloride is unacceptable in euthanasia protocols that fail to provide for the presence of properly trained veterinary personnel to induce proper anesthesia, assess the physical signs indicating the veterinary patient's state of consciousness, and maintain an unconscious state throughout the euthanasia process.").

⁸⁹ Dr. T.J. Dunn, Jr., "Euthanasia: What to Expect," <http://www.thepetcenter.com/imtop/euthanasia.htm> (retrieved April 14, 2006).

at the time of ingestion in pill form.⁹⁰ According to a physician who consulted with Oregon legislators before the passage of the physician-assisted suicide bill in 1994, an overdose from a drug like pentobarbital is “the best death one could give someone who is suffering.”⁹¹

Medical experts have also recommended one lethal dosage of sodium thiopental without following it with other drugs. A single injection of this drug “has all the advantages and none of the disadvantages that other drugs manifest [which are] difficult, cumbersome, [and] amateurish to utilize.”⁹²

Dr. Mark Dershwitz is a professor of anesthesiology who has been an expert witness on behalf of several states, defending their lethal injection protocols against constitutional challenges.⁹³ Dershwitz told Human Rights Watch that state officials have asked him about drugs other than potassium chloride that they could use to induce cardiac arrest in a condemned inmate. He said they have asked specifically about “the vet option,” meaning the use of pentobarbital. Dershwitz recounted for Human Rights Watch how he explained to the officials the difference between the pharmacological effects of pentobarbital and potassium chloride:

The pharmacological effect of potassium chloride kills an inmate, and it happens quickly. If one uses just a large dose of barbiturate, circulation will stop, the inmate will die, but it won't happen in two minutes. Electrical activity in the heart may persist for a very long time, in healthy people almost certainly for more than a half an hour. Everyone involved will have to wait a very long time for the heart to stop.⁹⁴

According to Dershwitz, no state corrections official whom he has told about the increased length of time pentobarbital may take to kill a condemned inmate has pursued

⁹⁰ See Oregon Department of Human Services, “Physician Assisted Suicide,” <http://www.oregon.gov/DHS/ph/pas/ors.shtml> (retrieved March 1, 2006). Also, Human Rights Watch telephone interview with a physician who consulted with the state legislator and served on the state medical ethics board (and asked to remain anonymous due to the sensitivity of the issue in Oregon), Portland, Oregon, March 6, 2006.

⁹¹ Interview with an Oregon physician.

⁹² From an advisory paper submitted to the NJDOC from a group of New York nurses in 1983, cited in “New Jersey’s Waltz with Death.” The NJDOC did not follow the nurses’ advice. “New Jersey’s Waltz with Death.” The DOC received a document from a New York nurses in 1983.

⁹³ The states for which Dershwitz has testified include Kentucky, Maryland, Missouri, and Virginia. E-mail correspondence to Human Rights Watch from Dershwitz, March 22, 2006.

⁹⁴ Interview with Dershwitz.

using it instead of potassium chloride, even though pentobarbital is less painful. Human Rights Watch asked Dershwitz to explain why he thought corrections officials would risk using a painful drug like potassium chloride rather than a safer drug like pentobarbital; he said:

It's not about the prisoner. It's about public policy. It's about the audience and prison personnel who have to carry out the execution. It would be hard for everybody to have to sit and wait for the EKG activity to cease so they can declare the prisoner dead.⁹⁵

Pancuronium Bromide

Pancuronium bromide, commonly known by its brand name Pavulon, is a neuromuscular blocking agent that paralyzes all of a body's voluntary muscles, including the lungs and diaphragm.⁹⁶ Given enough time to act, Pavulon will cause death by asphyxiation. It does not affect consciousness, however. Nor does it affect experience of pain. Without proper anesthesia, anyone given Pavulon will feel himself suffocating, but, because the pancuronium bromide prevents any movement, speech, or facial expression, he will be unable to reveal that he is suffering.⁹⁷ If the prisoner is still conscious when the potassium chloride is injected, the Pavulon will also prevent him from conveying to the executioners or the witnesses that he is experiencing pain.⁹⁸

When a patient is awake during surgery and able to recall the experience afterward, the condition is called "intraoperative awareness."⁹⁹ The problem is so serious that in 2005 the American Society of Anesthesiologists issued a "Practice Advisory." The advisory notes that certain conditions may increase the risk of someone experiencing

⁹⁵ Ibid.

⁹⁶ Randall C. Baselt, Ph.D., *Disposition of Toxic Drugs and Chemicals in Man*, Seventh Ed., (Foster City, CA: Biomedical Publications, 2004).

⁹⁷ Ibid.

⁹⁸ Dershwitz Testimony, p. 75 ("Counsel: Would the injection of Pavulon impede the Warden's ability to be able to say whether he sees any reaction or not on the inmate's part to the drugs? Dr. Dershwitz: Well yes. For instance, if the pancuronium was the first drug given and the person were conscious when experiencing paralysis, they would have no motor or mechanical way of communicating their displeasure.").

⁹⁹ According to the Joint Commission International Center for Patient Safety, "Anesthesia awareness, also called unintended intraoperative awareness, occurs under general anesthesia when a patient becomes cognizant of some or all events during surgery or a procedure and has direct recall of those events. Because of the routine use of neuromuscular blocking agents (also called paralytics) during general anesthesia, the patient is often unable to communicate with the surgical team if this occurs." American Society of Anesthesiologists, "Practice Advisory for Intraoperative Awareness and Brain Monitoring: A Report by the American Society of Anesthesiologist Task Force on Intraoperative Awareness," Case 5:06-cv-00219-JF, February 14, 2005 (copy on file with Human Rights Watch), p. 3 (ASA Advisory).

intraoperative awareness, including when the anesthesia is administered intravenously (as it is in lethal injection executions) or when the person receiving anesthesia has a history of substance abuse—often frequent with prisoners.¹⁰⁰ Surgery patients who have been administered Pavulon or other neuromuscular blocking agents with inadequate anesthesia have reported terrifying and torturous experiences where they were alert, experiencing pain, and yet utterly unable to signal their suffering.¹⁰¹ A woman who was awake but paralyzed by a neuromuscular agent during her eye surgery explained her efforts to make the surgeon aware she was conscious: “I was fighting to move with every ounce of energy I had . . . and there was no acknowledgment from the anesthesiologist.”¹⁰² Once she realized that she could not convey to the doctors that she was awake, she felt: “I would rather die than stay like this . . . I just don’t want to be alive. I can’t—I can’t stay alive through this. I—I just can’t do it.”¹⁰³

The danger of masked suffering because of neuromuscular blocking agents like pancuronium bromide is so great that at least thirty states have banned by statute the use of such drugs in the euthanasia of animals.¹⁰⁴ It is noteworthy that the AVMA has said that, “[a] combination of pentobarbital with a neuromuscular blocking agent is not an acceptable euthanasia agent” for animals, because of the concern about controlling the proper onset and timing of anesthetic agents and paralytic agents.¹⁰⁵ In other words, state corrections officials have settled on a protocol and procedure to kill their

¹⁰⁰ ASA Advisory, p. 8.

¹⁰¹ For instance, Jeanette Liska, author of *Silenced Screams*, describes her 1990 experience of lying paralyzed and awake on the operating table with no way of communicating her awareness to the doctors and nurses in the room: “Drowning in an ocean of searing agony, I sensed the skein of my entire life unraveling, thread by thread. But I was the only one who heard my tortured screams—silent screams that reverberated again and again off the cold walls of my skull.” Jeanette Liska, *Silenced Screams; Surviving Anesthetic Awareness During Surgery: a True-Life Account* (Council for Public Interest in Anesthesia and American Association of Nurse Anesthetists, September 2002).

¹⁰² Testimony of Carol Wehrer, Special Hearing, *Code v. Cain*, Case No. 138,860-A, February 13, 2003, p. 16-17 (Wehrer Testimony). Wehrer is the founder and president of Anesthesia Awareness, <http://www.anesthesiaawareness.com/> (retrieved March 25, 2006).

¹⁰³ Wehrer Testimony, p. 18.

¹⁰⁴ See Alabama Code 34-29-131; Alaska Statute 08.02.050; Arizona Revised Statute Annotated 11-1021; California Business and Professional Code 4827; Colorado Review Statute 18-9-201; Connecticut General Statute 22-344a; Delaware Code Annotated Title 3, Section 8001; See Florida Statute 828.065; Georgia Code Annotated 4-11-5.1; 510 Illinois Comp. Statute 70/2.09; Kansas Statute Annotated 47-1718(a); Louisiana Revised Statutes Annotated 3:2465; Massachusetts General Laws Chapter 140 Section 151A; Michigan Comp. Laws 333.7333; Missouri Revised Statute 578.005(7); Nebraska Revised Statutes 54-2503; Nevada Revised Statutes Annotated 638.005; New Jersey Statute Annotated 4:22-19.3; New York. Agriculture and Markets Law 374; Ohio Revised Code Annotated 4729.532; Oklahoma Statute Title 4 Section 501; Oregon Revised Statute 686.040(6); Rhode Island General Laws 4-1-34; South Carolina Code Annotated 47-3-420; Tennessee Code Annotated 44-17-303; Texas Health and Safety Code Annotated 821.052(a); West Virginia Code 30-10A-8; Wyoming Statute Annotated 33-30-216.

¹⁰⁵ *2000 Report of the AVMA Panel on Euthanasia*.

condemned inmates that is considered too risky and dangerous for the euthanasia of dogs and cats.

At least some wardens are aware of the danger that an inmate may be conscious during his execution but unable to convey his pain. For example, the North Carolina warden who oversees that state's executions has stated: "I know there were some concerns raised that the way we were using the drugs at that time could possibly cause an inmate to become conscious during an execution."¹⁰⁶

In the three-drug sequence, the neuromuscular blocking agent such as Pavulon is not necessary to ensure the prisoner's death nor does it reduce any suffering he may feel. Confronting a record devoid of justification for the use of Pavulon, the Tennessee Supreme Court concluded its use is "unnecessary and the state has no reason for using such a 'psychologically horrific' drug to execute [a condemned inmate]... If Pavulon were eliminated from the ... lethal injection method, it would not decrease the efficacy or the humaneness of the procedure."¹⁰⁷ Asked why he included a paralytic agent in Oklahoma's statute, Chapman told Human Rights Watch: "What's the problem? We could have a five or six drug protocol, I don't care. I called for the use of a barbiturate and a paralytic agent just because it's better to have two things that could kill a prisoner than one."¹⁰⁸

Pancuronium bromide does serve a purpose, however. It places a "chemical veil" between the condemned prisoner and the execution team and witnesses.¹⁰⁹ According to

¹⁰⁶ Deposition of Deputy Warden Marvin Polk, *Page, et al. v. Beck, et al.*, September 8, 2005, p. 15 (Polk Deposition).

¹⁰⁷ *Abdur'Rahmnan v. Bredesen, et al.*, SC of TN, No. M2003-01767-SC-R11-CV, October 17, 2005, p. 89a. The Court also found that: "The method could be updated with second or third generation drugs to, for example, streamline the number of injections administered. Moreover, the state's use of Pavulon, a drug outlawed in Tennessee for euthanasia of pets, is arbitrary. The State failed to demonstrate any need whatsoever for the injection of Pavulon." *Ibid.*, p. 77a. Nonetheless, the court found against the condemned inmate, citing a lack of any visible evidence that any Tennessee inmates had ever been conscious during their executions. This is exactly the kind of proof that the use of Pavulon would mask. *Ibid.*, p. 89-92.

¹⁰⁸ Interview with Chapman.

¹⁰⁹ The phrase "chemical veil" may have first been used in the lethal injection context by Dr. Mark Heath in 2001, in a series of speeches he gave around the United States. Human Rights Watch telephone interview with Dr. Mark Heath, assistant professor of clinical anesthesiology at Columbia University, New York, New York, April 9, 2006. Heath is a leading researcher on how lethal injections are administered in the United States. Heath also serves as an expert witness on behalf of prisoners challenging state lethal injection protocols in court. See also, *Anderson et al v. Evans et. al.*, (case number was not yet assigned), Petitioner's Complaint, July 13, 2005, p. 9. The American Civil Liberties Union (ACLU) of Northern California has filed a lawsuit on behalf of Pacific News Services seeking a permanent injunction to prevent the California Department of Corrections and San Quentin Prison from using the paralytic drug pancuronium bromide during executions, arguing that it violates the First Amendment rights of execution witnesses. Complaint for Declaratory and Injunctive Relief [42 United States Code Section 1983], (case number not yet assigned), March 8, 2006,

Dershwitz, “The pancuronium will prevent motor manifestations of physiological processes that could be perceived by witnesses as unpleasant or suffering on the part of the inmate.”¹¹⁰ When the potassium chloride induces cardiac arrest, it also deprives a condemned inmate’s brain of oxygen, which may cause an “involuntary jerking of the arm and leg muscles ... a lay witness in the audience may misperceive that ... as something akin to suffering. And so the pancuronium would prevent the motor manifestation of that procedure ... so in my mind, the pancuronium does serve a useful purpose.”¹¹¹

In short, pancuronium bromide contributes to the appearance of a peaceful-looking execution. It reassures onlookers—and the public—that all is well, regardless of what the prisoner is actually experiencing.

Sodium Thiopental

If condemned inmates are to be spared the intense suffering of conscious suffocation from pancuronium bromide, and the excruciating pain of potassium chloride burning through their veins, it is essential that they be properly anesthetized first. Sodium thiopental is the anesthetic administered at the start of the lethal injection execution to render the inmate unconscious before the other two drugs are injected.¹¹² State protocols generally call for between 1200 to 5000 milligrams of sodium thiopental,¹¹³ amounts that far exceed dosages used in surgery.¹¹⁴ If properly administered into the condemned inmate’s bloodstream, the amount of the drug specified in most protocols would be more than sufficient to cause unconsciousness and, eventually, death.¹¹⁵ The prisoner would stop breathing on his own within a minute or two of the chemical

http://www.aclunc.org/privacy/060308-chemical_curtain.pdf (retrieved April 4, 2006). ACLU cooperating attorney John Streater said: “The drug effectively creates a chemical curtain that hides what really goes on in the death chamber. In the name of freedom of the press, we are demanding that the State take that curtain down.” ACLU of Northern California, Press Release, March 8, 2006, http://www.aclunc.org/pressrel/060308-lethal_injection.html (retrieved April 4, 2006).

¹¹⁰ Dershwitz Testimony, p. 27.

¹¹¹ *Ibid.*, p. 27-28.

¹¹² See, e.g., Affidavit of Oklahoma Warden Mike Mullin, July 5, 2005 (copy on file with Human Rights Watch) (describing Oklahoma’s lethal injection procedures).

¹¹³ Florida’s execution protocol calls for “no less than 2000 mg per syringe [of each drug].” Florida Corrections Commission, “Execution Methods Used by States,” <http://www.fcc.state.fl.us/fcc/reports/methods/emcont.html> (retrieved March 31, 2006); North Carolina’s execution protocol calls for “no less than 3000 mg of sodium thiopental.” North Carolina Department of Correction, “Execution Method,” <http://www.doc.state.nc.us/dop/deathpenalty/method.htm> (retrieved at April 4, 2006).

¹¹⁴ Interview with Heath, March 7, 2006.

¹¹⁵ *Ibid.*

entering his veins.¹¹⁶ However, as discussed in Chapter Three below, methods for the administration of anesthesia in lethal injection executions do not guarantee that the condemned inmate will be properly anesthetized.

The Failure to Review Protocols

The three-drug sequence used today in lethal injections was developed almost three decades ago and then, over the following two decades, was adopted by all but one of the death penalty states.¹¹⁷ Despite the passage of time, and medical advances, states have not changed this three-drug sequence. As the Tennessee Supreme Court acknowledged in 2005, while the “state of the art” of pharmacology has changed in the last thirty years, the chemical agents Tennessee uses to execute their prisoners have not.¹¹⁸ Chapman chose the specific drugs to be used in Oklahoma’s prototype lethal injection protocol based on what was widely used in medical surgeries at the time. He explained to Human Rights Watch that “at the time, I could not have seen that chemical agents used to induce anesthesia would change so markedly. . . . Today, I would have just not been so specific in my drug language in the protocols, so that corrections officials could use the best agents of their time.”¹¹⁹

Over the years, states have tinkered with certain relatively insignificant aspects of their death penalty procedures, for example, addressing how an inmate is brought into the execution chamber,¹²⁰ whether to pay their executioners in cash or by check,¹²¹ how to accommodate media access,¹²² what type of catheter to use,¹²³ and what time of day the execution will take place.¹²⁴ But they have left intact the three-drug protocol and the basic process of administration (described in Chapter Three).

There are a few exceptions. In the mid-1990s, New Jersey corrections officials, in anticipation of the state’s first lethal injection execution, reviewed its lethal injection

¹¹⁶ Ibid.

¹¹⁷ E-mail correspondence to Human Rights Watch from Denno, March 29, 2006.

¹¹⁸ Petitioner’s Brief, *Abdur’Rahman v. Bredesen*, February 15, 2006, p. 77a.

¹¹⁹ Interview with Chapman.

¹²⁰ Polk Deposition.

¹²¹ “New Jersey’s Waltz with Death.”

¹²² See “Minutes,” *Robert Glen Coe Execution After Action Assessment*, April 27, 2000 (copy on file with Human Rights Watch).

¹²³ E-mail correspondence to Human Rights Watch from Reginald Wilkinson, secretary, Ohio Department of Corrections, April 2, 2006.

¹²⁴ Human Rights Watch telephone interview with Reverend Carroll Pickett, former death house chaplain in Texas, March 8, 2006 (Pickett notes that executions used to take place at midnight in Texas, but now take place around 6 p.m.).

protocols. “Because the state of the art is changing daily,”¹²⁵ corrections officials unsuccessfully sought an amendment to the state statute to delete reference to specific lethal agents.¹²⁶ In Pennsylvania, taking note of growing concerns about lethal injections, the Department of Corrections recently retained an outside consultant to review the state’s lethal injection procedures. Jeffrey Beard, secretary of the Pennsylvania Department of Corrections, told Human Rights Watch that one of the options under consideration is the use of a brain monitor to assess the effect of the anesthesia before the other two drugs are administered.¹²⁷ Robert Myers, general counsel of the Arizona Department of Corrections, also told Human Rights Watch that the Department has recently decided to undertake a review of its lethal injection procedures.¹²⁸ Human Rights Watch is not aware of other states that have voluntarily, i.e. outside the context of litigation, taken steps to review their lethal injection protocols. Even when prisoners have challenged their states’ lethal injection protocols, public officials have resisted considering whether there are better options. In prior and ongoing litigation, states have not offered to change their drug protocols or methods of administration.

¹²⁵ Statement of Ronald Bollheimer, supervisor of legal and legislative affairs for New Jersey Department of Corrections, NJDOC public hearings transcript, February 4, 2005, p. 33 (copy on file with Human Rights Watch).

¹²⁶ “Memorandum” to Howard L. Beyer, assistant commissioner, Division of Operations, Department of Corrections, from Annie C. Paskow, assistant attorney general, chief, Appellate Bureau, July 28, 1998 (copy on file with Human Rights Watch). The legislature did not pass the amendment.

¹²⁷ Interview with Beard.

¹²⁸ Human Rights Watch telephone interview with Robert Myers, general counsel, Arizona Department of Corrections, March 29, 2006.

III. Lethal Injection Procedures

You guys doing that right?

—Stanley “Tookie” Williams, at his December 14, 2005 execution, to a medical technician who, sweating and pale, spent eleven minutes probing Williams’s arm before she successfully established an intravenous line¹²⁹

The key to any claim that the standard three-drug lethal injection execution is not cruel is that the anesthesia renders the inmate unconscious and unable to feel pain before the other drugs are administered. Yet corrections officials do not ensure the anesthesia is effectively administered. During surgery, a trained anesthesiologist remains at the patient’s side to determine whether the patient has reached the proper level of unconsciousness before the surgery proceeds, and to ensure the patient remains unconscious for the duration of the procedure.¹³⁰ For reasons that remain unclear, however, state corrections agencies have not incorporated into their lethal injection executions the same safeguards that accompany the administration of anesthesia in medical procedures. State lethal injection protocols do not require execution teams to include persons trained in administering anesthesia, do not permit personnel to be close enough to the condemned inmate to monitor the administration of the anesthesia, and do not use trained personnel to determine whether the condemned inmate is properly anesthetized before the other two drugs are injected.

The basic procedure states use in lethal injection executions is as follows:¹³¹ 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.¹³² 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

¹²⁹ Human Rights Watch telephone interview with Kevin Fagan, *San Francisco Chronicle* reporter and media witness to the execution of Stanley Tookie Williams, February 22, 2006. See also, Kevin Fagan, “The Execution of Stanley Tookie Williams Eyewitness: Prisoner Did Not Die Meekly, Quietly,” *San Francisco Chronicle*, <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2005/12/14/MNG05G7QMA1.DTL&hw=Stanley+Tookie+Williams&sn=003&sc=808> (retrieved April 4, 2006).

¹³⁰ See American Society of Anesthesiologists, “Standards for Basic Anesthetic Monitoring,” amended October 25, 2005, <http://www.asaq.org/publicationsAndServices/standards/02.pdf> (retrieved March 22, 2006).

¹³¹ See, .e.g., “San Quentin Operational Procedure No. 770, Lethal Injection Chamber,” redacted, revised March 6, 2006, p. 33-35 (copy on file with Human Rights Watch). Individual state procedures may have minor variations.

¹³² Interview with Fagan. See also Affidavit of Mike Mullin.

condemned inmate.¹³³ 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.

Some states use a more complicated procedure. For example, in Oklahoma, catheters are inserted into both arms.¹³⁴ 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).

Oklahoma's current method of administering the lethal drugs differs from that originally developed by Chapman. The protocol Chapman developed called for a continuous infusion of sodium thiopental and did not split the drugs between the two arms. His protocol also called for observation of the IV site. These protections no longer exist in the current Oklahoma protocol. It is not clear whether Oklahoma ever executed its inmates using Chapman's protocol, or when and why the changes were made.¹³⁵ When Human Rights Watch asked Chapman if he had concerns about the ways states today were administering lethal injection executions, he noted, "The question [of the drugs] being administered properly, that never came up in my mind. I never knew we would have complete idiots injecting these drugs. Which we seem to have."¹³⁶

¹³³ See, "Murderer of Three Women in Texas is Executed in Texas," *New York Times*, March 14, 1985, p. 9. In 2004, the Ohio Department of Corrections changed the location of the insertion of the catheter from the execution chamber to the holding cell. The prisoner enters the execution chamber with the catheter already inserted. Email correspondence from Reginald Wilkinson.

¹³⁴ Affidavit of Mike Mullin.

¹³⁵ E-mail correspondence to Human Rights Watch from Lisa McCalmont, April 10, 2006.

¹³⁶ Interview with Chapman.

Missouri is the only state known to use a femoral venous IV, in which the IV is inserted into the femoral vein in the groin area.¹³⁷ A small needle is used to inject a local anesthetic. A larger needle is inserted into the femoral vein, and, once blood is obtained, a wire is threaded through the needle into the vein, and the needle is withdrawn. Then the IV catheter is threaded over the wire and into the vein. The catheter is then secured by suture. Little is publicly known about the training and expertise of the execution personnel who perform Missouri's complicated femoral IV access executions. While the limited public record indicates that a surgeon creates the IV access, it is unclear what their role is in the conduct of the execution.¹³⁸ The attempts by condemned prisoners to discover the information through litigation have been rebuffed by the state's refusal to answer questions posed in the plaintiff's depositions and interrogatories.¹³⁹

Qualifications of Execution Team

Most lethal injection protocols say little or nothing at all about the training, credentials, or experience required of persons who will be on the execution team, either the person who inserts the catheter or the persons responsible for injecting and monitoring the drugs. No state lethal injection protocol expressly requires the team to include an anesthesiologist or someone with training in anesthesiology.

Twelve state lethal injection protocols contain no reference at all to the qualifications of the executioners.¹⁴⁰ Eight protocols refer generally to "training," "competency,"

¹³⁷ See Testimony of Dr. Mark Dershwitz, Transcript, *Taylor v. Crawford*, 05-4173-CV-S-FJG, January 30, 2006, [http://www.mhb.com/profiles/ford/cases/PDF%20Docs/Consult-Lethal%20Injection/Taylor%20\(Missouri\)/01302006%201600%20Transcript%20of%20Snap%20Hearing%20w%20Drs%20Dershowitz%20&%20Groner.pdf](http://www.mhb.com/profiles/ford/cases/PDF%20Docs/Consult-Lethal%20Injection/Taylor%20(Missouri)/01302006%201600%20Transcript%20of%20Snap%20Hearing%20w%20Drs%20Dershowitz%20&%20Groner.pdf) (retrieved March 22, 2006). A Kentucky Circuit Court recently found that jugular vein catheterization violates the Eight Amendment, *Baze v. Rees*, No. 04-CI-01094, slip opinion, p. 11-12 (Kentucky Circuit Court, July 8, 2005).

¹³⁸ Brief of Appellant-Plaintiff, *Taylor v. Crawford, et al.*, No. 06-1397, February 24, 2006, p. 33-34. See also Defendant Crawford's Answers to Plaintiff's First Interrogatory, *Taylor v. Crawford*, Case No. 05-4173-CV-C-SOW, September 12, 2005, p. 14-15.

¹³⁹ *Ibid.*

¹⁴⁰ Arizona: "Arizona State Prison Complex—Florence, Execution Information" (copy on file with Human Rights Watch); Arkansas: "Arkansas Department of Corrections Procedure for Execution," (copy on file with Human Rights Watch); Delaware: Department of Corrections Execution Information, e-mail correspondence with Denno, April 5, 2006; Idaho: "Execution Procedures," *Idaho Department of Corrections Policy and Procedures Manual*, Section 135, January 2004, p. 4 (copy on file with Human Rights Watch); Indiana: "Summary of Execution Procedures in the State of Indiana," *Indianapolis Star*, http://www2.indystar.com/library/factfiles/crime/capital_punishment/deathrow.html#history (retrieved April 6 2006); Kansas: Kansas Department of Corrections LCF General Order 10,120, February 5, 2001 (copy on file with Human Rights Watch), confirmed current in Human Rights Watch telephone interview with Francis Breynne, public information officer, Kansas Department of Corrections, March 30, 2006; Maryland: Department of Corrections Execution Information, e-mail correspondence with Denno, April 5, 2006; Mississippi: e-mail correspondence with Denno, April 5, 2006 (confirming they mention only "executioners" in their protocol); New Mexico: Penitentiary of New Mexico Policy #073400, revised May 30, 2001 (copy on file with Human Rights

“preparation,” or “practice,” but they do not elaborate further.¹⁴¹ For example, North Carolina’s protocol states: “Appropriately trained personnel enter behind the curtain.” But it does not explain what would constitute appropriate training.¹⁴² According to Texas’s protocol, “a medically trained individual (not to be identified) shall insert an intravenous catheter into the condemned inmate’s arms.”¹⁴³ The frequent problems Texas executioners have had with the insertion of catheters certainly raises questions about the actual training of the individuals who insert the catheter. (See Chapter Six on “Botched Executions” for descriptions of such problems.) Texas’s protocol does not refer to the qualifications of any other participants in the execution. California’s protocol states: “The angiocath shall be inserted into a usable vein by a person qualified, trained, or otherwise authorized by law to initiate such a procedure.”¹⁴⁴ Again, like Texas, there is no reference to qualifications of other members of the execution team. Similarly, Florida’s protocol does not refer to the qualifications of the execution team members. Florida does require the presence of a doctor and a physician’s assistant in the room, but their role in the execution is not clear.¹⁴⁵ What is known is that Florida pays its executioner, described only as a “private citizen,” \$150 for each execution. Florida recruits its executioners by advertising in local newspapers.¹⁴⁶

Watch); South Carolina: Department of Corrections Lethal Injection Information, e-mail correspondence with Denno, April 5, 2006; Virginia: Brief for Amicus Curiae of Darikk DeMorris Walker in support of Petitioner, *Hill v. McDonough, et al.*, March 6, 2006, <http://www.law.berkeley.edu/clinics/dpclinic/pdf/Hill/2006.03.06%20amicus%20walker.pdf> (retrieved April 5, 2006); Washington: Washington Department of Corrections, “Capital Punishment,” *Department of Corrections Policy*, No. 490.200 and 760.001, April 25, 2001 (copy on file with Human Rights Watch).

¹⁴¹ California: San Quentin Procedure No. 770, revised March 8, 2006 (copy on file with Human Rights Watch); Colorado: Colorado Department of Corrections Administrative Regulation No. 300-14, August 1, 2005, http://www.doc.state.co.us/admin_reg/PDFs/0300_14.pdf (retrieved April 5, 2006) (“thoroughly trained execution team”); Connecticut: State of Connecticut Department of Corrections Directive No. 6.15, October 19, 2004, <http://www.ct.gov/doc/lib/doc/pdf/ad/ad0615.pdf> (retrieved April 5, 2006) (“appropriately trained and qualified”); Illinois: e-mail correspondence to Human Rights Watch from Deborah Denno, April 5, 2006 (“a trained person shall insert the catheter”); Montana: Montana Department of Corrections Policy No. Doc. 3.6.1, <http://cor.mt.gov/resources/POL/3-6-1.pdf> (retrieved April 5, 2006) (“trained execution team”); New York: New York State Department of Corrections, “Procedures for the Operation of the Capital Punishment Unit Green Haven Correctional Facility,” Section V, points. A-C, p. 7, August 3, 2001 (copy on file with Human Rights Watch) (“qualified individuals proficient in starting and administering IV fluids”); North Carolina: North Carolina Department of Correction, “Execution Method,” <http://www.doc.state.nc.us/dop/deathpenalty/method.htm> (retrieved April 5, 2006) (“appropriately trained personnel”); Oklahoma: Affidavit of Mike Mullin (“trained personnel”); Oregon: e-mail correspondence with Denno, April, 5, 2006 (“medically trained individual”).

¹⁴² North Carolina Department of Correction, “Execution Method.”

¹⁴³ Texas Department of Criminal Justice Institutional Division, Public Information Office, “Execution Procedures of Inmates Sentenced to Death,” April 23, 2001, p. 2 (copy on file with Human Rights Watch).

¹⁴⁴ San Quentin Operational Procedure No. 770, p. 39.

¹⁴⁵ *Sims v. State*, 754 So.2d 657, 666 n. 17.

¹⁴⁶ Associated Press, “Sims dies by lethal injection; switching from electrocution,” *Florida Times Union*, February 23, 2000. See also, Florida Corrections Commission, “Execution Methods Used by States.”

Even though not expressly included in their protocols, a number of states have disclosed the qualifications of at least some of their execution personnel. In Pennsylvania, Colorado, and Georgia, for example, the corrections departments use trained Emergency Medical Technicians (EMTs) to insert the catheter.¹⁴⁷ Ohio uses an EMT and a phlebotomist to start the IVs, and an EMT administers the medication.¹⁴⁸ Tennessee uses two paramedics to insert the IVs.¹⁴⁹ Oklahoma uses a phlebotomist to insert the IVs.¹⁵⁰

Emergency Medical Technicians may be trained to insert catheters, but they are not ordinarily trained in the intravenous administration of anesthesia. Indeed, they may not even have a basic knowledge of the nature of the drugs they will administer. For example, Louisiana EMTs who administer the drugs during lethal injection executions have revealed they knew nothing about the drugs used in the procedure, including the anesthetic.¹⁵¹ The warden of Louisiana's State Penitentiary, who is responsible for ensuring that the EMTs involved in Louisiana's execution are qualified to perform lethal injection executions, recently stated that he has "no clue" as to whether the EMTs on his lethal injection execution team have been trained in intravenous administration of anesthesia.¹⁵² North Carolina's Secretary of the Department of Corrections has acknowledged that he is ultimately responsible for his state's lethal injection executions.¹⁵³ Yet when asked about the medical qualifications of the execution team, he stated: "I don't know what—I would assume a nurse at least or someone else who is certified to insert a needle."¹⁵⁴

¹⁴⁷ Interview with Beard. Interview with Atherton. In Colorado, the Emergency Medical Technicians (EMTs) are full-time, non-medical correctional officers at the corrections department who work part-time as EMTs in the community. Georgia's use of EMTs is mentioned in: *Georgia Department of Corrections Report on the History of Georgia's Death Penalty*, <http://www.dcor.stat.ga.us/pdf/TheDeathPenaltyinGeorgia.pdf> (retrieved April 5, 2006).

¹⁴⁸ E-mail correspondence from Reginald Wilkinson.

¹⁴⁹ Petitioner's Brief, *Abdur'Rahman v. Bredesen, et al.*, February 15, 2006, p. 2.

¹⁵⁰ Affidavit of Mike Mullin.

¹⁵¹ The ignorance of the executioners in Louisiana was vividly displayed at a special hearing. Special Hearing, *Code v. Cain*, Case No. 138,860A, September 16, 2003, excerpt testimony from anonymous trial witnesses: excerpt from John Doe #1, leader of the IV team, p. 15-16; excerpt from John Doe #2, assistant on IV team, p. 16; excerpt from John Doe #4, assistant on IV team, p. 17-18. For example, in response to a question about the effect of sodium thiopental, John Doe #1, the leader of the IV execution team responded, "I read the literature that came with the product when we got it for the lethal injections. That's been 12 years ago. I have no idea." The attorney for the defendant asked: "So to summarize, would you say that it's correct that you have not had a lot of training about the pharmacology of barbiturates or sodium pentothal; is that right? A: Read the literature and went over it with the pharmacist and talked to our medical director about it. Q: What do you recall from those conversations? A: Nothing." Ibid.

¹⁵² Testimony of Warden Richard Peabody, *Code v. Cain*, p. 108.

¹⁵³ Testimony of North Carolina Department of Corrections Secretary Theodis Beck, *Page, et al. v. Beck, et al.*, Case No. 5:04-CT-04-BO, August 31, 2005, p. 80.

¹⁵⁴ Ibid., p. 99.

The absence of appropriate medical training extends to something as basic as strapping the prisoner correctly. If the straps used to secure an inmate to the gurney are improperly secured, they can stop the delivery of the drug from the intravenous site in the prisoner's arm to the prisoner's brain.¹⁵⁵ A member of Louisiana's execution strap-down team acknowledged he had never received any training from medical personnel about how to fasten the straps without restricting the prisoner's circulation.¹⁵⁶ One of the botched executions in Chapter Six, below, exemplifies the problem of too-tight straps.

Checking the IV Equipment

Because problems in drug delivery systems and equipment malfunction can lead to the ineffective administration of anesthesia, the American Society of Anesthesiologists (ASA) emphasizes the importance of having medical personnel check the functioning of the anesthesia delivery system every time it is going to be used.¹⁵⁷ The ASA stresses the importance of having a checklist protocol for the anesthesia machines and equipment, to assure that the desired doses of anesthetic drugs will be delivered.¹⁵⁸ We do not know how many states check their intravenous equipment before using it for executions, nor do we know the qualifications of the persons who do the checking. A warden in North Carolina admitted that, while his execution teams do have a checklist protocol, it is "not used or practiced. I don't know the last time [it] was actually used."¹⁵⁹

The nature of the set up in execution chambers also increases the possibility of problems with the equipment. All the lethal injection drugs are administered from behind a screen or wall several yards away from the prisoner. The length of the intravenous tubing itself is thus problematic, because it requires multiple IV extension sets and connectors, increasing the risk of kinks and leaks.¹⁶⁰

The ASA (in its Practice Advisory) underscores the importance of having an anesthesiologist near the patient in order to verify that the intravenous access equipment, including its infusion pumps and connections, are properly functioning and

¹⁵⁵ Interview with Heath, March 6, 2006.

¹⁵⁶ Testimony of Johnny Butler, former member of a Louisiana State Penitentiary Execution Team, Special Hearing, *Code v. Cain*, No. 138,860-A, February 10, 2003, p. 76.

¹⁵⁷ ASA Advisory, p. 9.

¹⁵⁸ *Ibid.*, p. 10.

¹⁵⁹ Testimony of Warden Richard Polk, *Page, et al. v. Beck, et al.*, Case No. 5:04-CT-04-BO, August 31, 2005, p. 114.

¹⁶⁰ Declaration of Dr. Mark Heath, Affidavit, *Morales v. Hickman*, January 12, 2006, p. 11-12.

to visually monitor the flow of the anesthesia into the veins.¹⁶¹ In lethal injection executions, however, such monitoring is not possible because of the distance of the execution team from the equipment. For example, because of the distance, the executioners cannot immediately determine if the anesthesia is leaking into the surrounding muscle tissue because of an improperly inserted or secured needle.¹⁶²

Level of Anesthesia Not Monitored

Finally, and most crucially, corrections agencies do not permit anyone to monitor the prisoner's level of anesthesia before the second and third drugs are administered. Standard medical—and even veterinary—practice requires a hands-on determination of the depth of anesthesia of the patient, or of an animal, before the initiation of any painful procedures.¹⁶³ Yet during lethal injection executions there is no one, much less someone trained in anesthesia, who either ascertains a prisoner's sedation level before the next two painful drugs are administered, or who continuously monitors the inmate's consciousness levels throughout the execution until the prisoner has died. Similarly, there is no one who can make necessary adjustments to dosage amounts, should a problem emerge.¹⁶⁴

Many condemned prisoners fall within a category of persons the American Society of Anesthesiologists has deemed most at risk of experiencing intraoperative awareness because of a history of past intravenous drug use, obesity, and other factors of poor health.¹⁶⁵ When a paralytic agent such as pancuronium bromide is used in surgery on such persons, it is especially important that anesthesiologists carefully monitor the delivery and the patient's reaction to the anesthesia to ensure the patient is unconscious.¹⁶⁶

The patient's depth of anesthesia during surgery is typically assessed by a number of factors, including but not limited to the patient's motor functions, responses to noxious stimuli, and reflexive responses.¹⁶⁷ The ASA warns that when a neuromuscular blocking agent is used in combination with anesthesia, it will mask a patient's response to stimuli,

¹⁶¹ ASA Advisory.

¹⁶² *Ibid.*

¹⁶³ American Society of Anesthesiologists, "ASA Standards for Basic Anesthesia Monitoring," revised October 25, 2005, <http://www.asahq.org/publicationsAndServices/Standards/02.pdf> (retrieved March 31, 2006); *2000 Report of the AVMA Panel on Euthanasia*.

¹⁶⁴ ASA Advisory, p. 15.

¹⁶⁵ *Ibid.*, p. 7-8.

¹⁶⁶ *Ibid.*

¹⁶⁷ *Ibid.*, p. 21-23.

making it harder for a trained anesthesiologist to determine whether he is appropriately anesthetized or just paralyzed and unable to signal consciousness.¹⁶⁸ In such situations, the anesthesiologist monitors anesthetic depth through “a continuous real-time assessment of an array of physical signs and monitor signals, which may include the patient’s heart rate, systolic blood pressure, diastolic blood pressure, EKG waveform, EEG waveform, pupil size, and anesthetic gas concentrations, which then must all be related to the intensity of the ongoing surgical stimulation. Such monitoring is part science and part art, and it takes a considerable amount of hands-on training and experience.”¹⁶⁹ Despite the critical importance of this monitoring to ensuring a pain free execution, Human Rights Watch is not aware of any state that requires it.

In North Carolina, the warden in charge of overseeing lethal injection executions did not doubt that prisoners were sufficiently anesthetized when the other drugs were administered. During a deposition, the warden said he could tell the prisoners were anesthetized because: “At the time we administer Pavulon, the inmate is snoring deeply. It is obvious that he’s asleep and unaware . . . In 24 executions, I have never seen one that did not snore.”¹⁷⁰ The deposition continued:

Q: And the snoring is the key for you?

A: Yes.

Q: Is there anything else done to determine the level of unconsciousness at the time the Pavulon is administered other than to note the snoring?

A: Is there anything else done?

Q: Is there any other procedure used or anything else done to determine the level of consciousness at the time the Pavulon is administered?

A. No.¹⁷¹

The Secretary of the Pennsylvania Department of Corrections told Human Rights Watch that during lethal injection executions, the condemned inmate’s head is near the window through which the executioners can see him. This way, the executioners can see that the inmate looks asleep when they administer the other two drugs following the

¹⁶⁸ *Ibid.*, p. 2.

¹⁶⁹ E-mail correspondence to Human Rights Watch from Heath, March 16, 2006.

¹⁷⁰ Deposition of Marvin Polk, *Page, et al. v. Beck, et al.*, Case No. 5:04-CT-04-BO, August 31, 2006, p. 39-40.

The warden also said that he asked the condemned prisoner to count backwards; when they stopped counting, that was how the warden knew the condemned inmate was anesthetized.

¹⁷¹ *Ibid.*, p. 40.

anesthesia.¹⁷² Yet according to Dr. Peter Sebel, an expert on measuring anesthetic depth in patients during surgery, “snoring” or “whether the patient appears to be asleep” are “not adequate measures of anesthetic depth.”¹⁷³

Corrections officials have not publicly explained why no one with appropriate training remains alongside the prisoner to determine the effectiveness of the anesthesia before the other drugs are administered. Maybe they want to protect the anonymity of members of the execution team. But their identities can be hidden from the public through surgical caps and masks, standard issue uniforms and shoes. Maybe they want to spare someone who is participating in an execution from having to stand in intimate proximity to the person being killed. Human Rights Watch recognizes that standing alongside a person being killed would—indeed should—be emotionally difficult. But corrections agencies should not put prisoners at risk of pain simply to spare the feelings of the executioners.

¹⁷² Interview with Beard.

¹⁷³ E-mail correspondence to Human Rights Watch from Dr. Peter Sebel, professor and vice-chair, Department of Anesthesiology, Emory University School of Medicine, April 4, 2006.

IV. Physician Participation in Executions and Medical Ethics

States present lethal injections as a quasi-medical way of executing the condemned. New Jersey law goes so far as to refer to the lethal chemicals as “execution medications.”¹⁷⁴ But executions are not medical procedures, and professional ethics prohibit doctors from participating in them. Indeed, it was the growing practice of lethal injection executions that prompted the medical community to clarify and solidify its position that physician participation in executions violates the ethical precepts of the profession.

The prohibition against physician participation in executions is rooted in the medical ethics of a profession committed to the principles of non-maleficence (the avoidance of causing harm) and beneficence (the affirmative provision of good).¹⁷⁵ The American Medical Association’s “Code of Ethics” states: “A physician, as a member of a profession dedicated to preserving life when there is hope of doing so, should not be a participant in a legally authorized execution.”¹⁷⁶ The AMA defines the prohibited participation to include monitoring vital signs, attending or observing as a physician, rendering technical advice regarding executions, selecting injection sites, starting intravenous lines; prescribing, preparing, administering or supervising the injection of drugs; inspecting or testing lethal injection devices; and consulting with or supervising lethal injection personnel. Under the AMA Code, the only permissible participation by a physician in an execution would be to provide a sedative to a prisoner upon his request prior to his execution and to certify the prisoner’s death after another person has pronounced it.¹⁷⁷ The code of ethics for the Society of Correctional Physicians states: “The correctional health professional shall not be involved in any aspect of execution of the death penalty.”¹⁷⁸ The American Nurses Association has adopted a similar provision, stating: “When the health care professional serves in an execution under circumstances that mimic care, the healing purposes of health services and technology become distorted.”¹⁷⁹

¹⁷⁴ “Preparation of Execution Substances and Medications,” New Jersey Administrative Code Title 10A, Section 23-2.13.

¹⁷⁵ See, generally, American College of Physicians and Human Rights Watch, “Chapter 5: Medical Ethics and Physician Involvement,” *Breach of Trust* (New York: Human Rights Watch 1994).

¹⁷⁶ American Medical Association, “Code of Ethics,” Article 2.06, 1992 (copy on file with Human Rights Watch).

¹⁷⁷ *Ibid.*

¹⁷⁸ Society of Correctional Physicians, “Position Statement on Licensed Health-Care Providers in Correctional Institutions,” <http://www.corrdocs.org/resources/position.html#resolutions> (retrieved April 2, 2006).

¹⁷⁹ American Nurses Association, “Ethics and Human Rights Position Statement: Nurse’s Participation in Capital Punishment,” December 8, 1994, <http://nursingworld.org/readroom/position/ethics/prtetcptl.htm> (retrieved April 5, 2006).

Despite medical ethics, twenty-eight states require a physician to determine or pronounce death during an execution.¹⁸⁰ Nine states require the presence of a physician without indicating the purpose of the physician's presence.¹⁸¹ "One can only surmise that medical expertise is desired by those states to ensure that the execution runs smoothly, i.e., to respond in case something goes awry, or to pronounce death."¹⁸² Some state rules call specifically for a more direct role for physicians. For example, in Oregon, departmental procedures specify that the physician "will be responsible for observing the execution process and examining the condemned after the lethal substance(s) has been administered to ensure that death is induced."¹⁸³ California regulations require physicians to fit the heart monitor to the condemned inmate and to monitor the inmate's heart. In Oklahoma, the original protocol devised by Chapman required a physician to inspect the catheter and monitoring equipment and to make certain the fluid would flow into the inmate's vein. That provision is not present, however, in the current Oklahoma protocol.¹⁸⁴

Physicians have, in fact, participated directly in the execution process itself. In 1990, three physicians administered the first lethal injection execution in Illinois.¹⁸⁵ For a number of years, anesthesiologists injected the drugs in Arizona's lethal injection executions, although that function is no longer undertaken by a doctor.¹⁸⁶ During Texas's first lethal injection execution, Dr. Ralph Gray, the state prison medical director, was present, along with Dr. Bascom Bentley, a physician in private practice, to pronounce the prisoner's death. They watched as execution team members struggled to

¹⁸⁰ American College of Physicians and Human Rights Watch, *Breach of Trust*, p. 32. The AMA distinguishes between "pronouncing" death, which they consider unethical, and "certifying" death, which is acceptable. The difference is that the former involves monitoring the condition of the prisoner during the execution to determine at which point the individual has died; whereas certifying is confirming the individual is dead after another has pronounced it. Council on Ethical And Judicial Affairs, "Physician Participation in Capital Punishment," *Journal of the American Medical Association*, 1993, p. 270, 365-368.

¹⁸¹ American College of Physicians and Human Rights Watch, *Breach of Trust*, p. 32.

¹⁸² *Ibid.*

¹⁸³ Oregon Department of Corrections, "Capital Punishment Death by Lethal Injection," Rule No. 24 (Tab 66), OAR 291-24-045, quoted in American College of Physicians and Human Rights Watch, *Breach of Trust*, p.18-19.

¹⁸⁴ *Ibid.* See also: Affidavit of Mike Mullin; e-mail from Lisa McCalmont.

¹⁸⁵ American College of Physicians and Human Rights Watch, *Breach of Trust*, p. 10

¹⁸⁶ Interview with Myers.

find intravenous access.¹⁸⁷ Eventually, the team convinced Gray to examine the prisoner and point out the best injection site.¹⁸⁸ Gray had also watched the warden mix the chemical agents. When the warden tried to push them through the syringe, he saw that because the warden had accidentally mixed all the chemical agents together, they had “precipitated into a clot of white sludge.”¹⁸⁹ When Gray went to pronounce the prisoner dead, he found the prisoner was still alive. Gray and Bentley suggested allowing more time for the drugs to circulate.¹⁹⁰

More recently, a physician, who requested that his name and state remain anonymous, described three lethal injection executions where the execution technicians were having a hard time finding a vein to establish an intravenous line, because the prisoners were obese or had a past history of intravenous drug use, or both.¹⁹¹ Although present to monitor the EKG machine and pronounce death, the physician was called upon to help establish an intravenous line after the technicians had tried to do so for thirty minutes without success.¹⁹² During another execution in which the technicians could not find a vein, the physician also could not, and, in the end, he needed to place a central line—a complex and highly technical procedure which involves inserting the catheter in one of the deep large veins in the groin, chest, or neck.¹⁹³

As the above examples suggest, executions can and do go awry, and it is not clear what would happen sometimes if physicians were not present. As one doctor who has certified the deaths of executed inmates noted, “If the doctors and nurses are removed, I don’t think [lethal injection] could be competently or predictably done.”¹⁹⁴

Although there are exceptions, there is strong resistance in the medical profession to directly contributing to the “success” of an execution. Even doctors who work for

¹⁸⁷ Atul Gawande, “When Law and Ethics Collide—Why Physicians Participate in Executions,” *New England Journal of Medicine*, Vol. 354, No. 12, March 23, 2006, p. 1221-1229, http://content.nejm.org/cgi/content/full/354/12/1221?hits=20&where=fulltext&andorexactfulltext=and&searchterm=%22Lethal+injection%22&sortspec=Score%2Bdesc%2BPUBDATE_SORTDATE%2Bdesc&excludeflag=TWEEK_element&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT (retrieved April 5, 2006). The involvement of physicians in lethal injection executions is discussed more fully in American College of Physicians and Human Rights Watch, *Breach of Trust*.

¹⁸⁸ Gawande, “When Law and Ethics Collide.”

¹⁸⁹ *Ibid.* The article does not explain whether new syringes were then prepared.

¹⁹⁰ *Ibid.*

¹⁹¹ *Ibid.*

¹⁹² *Ibid.*

¹⁹³ Gawande, “When Law and Ethics Collide.” For information about central line access: e-mail correspondence to Human Rights Watch from Heath, April 5, 2006.

¹⁹⁴ Gawande, “When Law and Ethics Collide.”

correctional agencies have refused to participate in executions, sometimes at considerable professional cost.¹⁹⁵ In Colorado, for example, the medical staff at the Department of Corrections refused “to have anything to do with the executions,” which is why the state uses EMTs to insert the catheter and inject the drugs.¹⁹⁶

Human Rights Watch recognizes that the ethical prohibition on physician participation in executions limits the way states can conduct lethal injection executions. This is a dilemma of the states’ making—by their refusal to abolish capital punishment—and it is a dilemma states must resolve if they continue to use lethal injection executions. For example, alternative methods of lethal injection have been suggested that would negate the need for anesthesiologists to monitor levels of unconsciousness. Some states are considering legislation to prevent physician liability for participating in executions in breach of medical ethics, in the hopes this will facilitate their participation in executions.¹⁹⁷ It is up to state legislators and corrections agencies to determine how to proceed, but they must do so respecting the human rights injunction to use the execution methods that will cause the least possible pain and suffering.

¹⁹⁵ For examples of corrections medical staff refusing to participate, see: American College of Physicians and Human Rights Watch, *Breach of Trust*, p.26-29.

¹⁹⁶ Interview with Atherton. EMTs apparently are not subject to the same ethical restrictions as physicians.

¹⁹⁷ Georgia House Bill 57 (2006) proposes: “Participation in any execution of any convicted person carried out under this article shall not be the subject of any licensure challenge, suspension, or revocation for any physician or medical professional licensed in the State of Georgia.” (copy on file with Human Rights Watch). Oklahoma House Bill 2660 proposes: “No licensing entity, board, commission, association, or agency shall file, attempt to file, initiate a proceeding, or take any action to revoke, suspend, or deny a license to any person authorized to operate as a professional in the State of Oklahoma, for the reason that the person participated in any manner in the execution process as required or authorized by law or the Director of the Department of Corrections” (copy on file with Human Rights Watch).

V. Case Study: *Morales v. Hickman*

In *Morales v. Hickman*, California prisoner Michael Angelos Morales sought a stay of execution so the court could conduct a full evidentiary hearing on his Eighth Amendment challenge to the state's lethal injection procedures.¹⁹⁸ Morales was able to present to the court far more compelling and extensive evidence regarding possible problems in prior California executions by lethal injection than any other court in California or elsewhere had previously received, including six California execution logs, which suggested the prisoners were still breathing, and conscious, while the other drugs were administered.¹⁹⁹

Troubled by the evidence, the court took the unusual step of telling the corrections department it could go ahead with the execution only if it changed its protocol for executing Morales in one of two ways: either administer a single massive dose of a barbiturate, or have “a ‘qualified individual’ with formal training and experience in the field of general anesthesia” ensure that Morales was in fact unconscious before any other drugs were injected.²⁰⁰ The court in *Morales* also urged the state to “conduct a thorough review of its lethal injection protocol, regardless of whether Morales is executed according to one of the court’s suggested methods.”²⁰¹ The court pointed out that, given the questions raised by Morales and others before him, a “proactive approach by Defendants would go a long way toward maintaining judicial and public confidence in the integrity and effectiveness of the protocol.”²⁰²

The Department of Corrections chose the option of executing Morales using the three-drug protocol subject to the condition of having a qualified person monitor Morales to determine his anesthetic depth before the other drugs were initiated. The Department initially proposed the warden of San Quentin as the person to determine whether Morales was sufficiently unconscious, even though the warden had no medical or

¹⁹⁸ See Plaintiff's Motion for Temporary Restraining Order, *Morales v. Hickman*, Case No. C062, January 26, 2006.

¹⁹⁹ Due to ongoing litigation, some of the Plaintiff's Exhibits are under court seal. Those Plaintiff's Exhibits that are public record are available online at:
<http://www.ca9.uscourts.gov/ca9/Documents.nsf/54DBE3FB372DCB6C88256CE50065FCB8/E0489B00C2CB5906882571190006A91E?OpenDocument#06-70884> and
<http://www.ca9.uscourts.gov/ca9/Documents.nsf/54DBE3FB372DCB6C88256CE50065FCB8/E0489B00C2CB5906882571190006A91E?OpenDocument#06-99002> (retrieved March 24, 2006).

²⁰⁰ U.S. District Court for the Northern District of California, Order Denying Conditionally Plaintiff's Motion for Preliminary Injunction, *Morales v. Hickman*, Case No. C062, February 14, 2006.

²⁰¹ *Ibid.*, p.13.

²⁰² *Ibid.*

otherwise relevant background.²⁰³ When the public spokesperson for the California Attorney General, responding to press inquiries about the *Morales* case, was asked if the Department of Corrections felt the warden was qualified to monitor the anesthetic depth of Morales during his execution, he replied, “Well, not to a medically-trained standard, but yes to a lay-person standard.”²⁰⁴

The proposal to have the warden monitor Morales was quickly rejected by the judge. The Department then found two anesthesiologists willing to be present at the execution.²⁰⁵ The two withdrew after the Court of Appeals for the Ninth Circuit added a stipulation requiring the anesthesiologists personally administer additional medication if the prisoner remained conscious or was in pain.²⁰⁶ In the end, no trained personnel could be found to undertake the role envisioned by the courts, and the execution was stayed when California refused to execute Morales with a massive dose of sodium thiopental.²⁰⁷ When Human Rights Watch asked the California Attorney General’s public spokesperson why the corrections department did not choose the sodium thiopental option, he responded, “[The execution] would take too long.”²⁰⁸

The judge has ordered a full evidentiary hearing on California’s lethal injection procedures for May 2 through 3, 2006.²⁰⁹

In the meantime, California corrections officials continue to tinker with their execution protocols. In March, the Department of Corrections abruptly announced changes to its protocol: the sodium thiopental will be administered in a continuous drip, rather than a

²⁰³ Human Rights Watch telephone interview with Nathan Barankin, spokesperson for the California Attorney General Bill Lockyer, March 30, 2006.

²⁰⁴ *Ibid.*

²⁰⁵ Defendant’s Response to Court’s Conditional Denial of Preliminary Injunction, *Morales v. Hickman*, Case No. C062, February 15, 2006.

²⁰⁶ *Morales v. Hickman*, No. CV 06 00926 JF (Ninth Circuit February 20, 2006); John Broder and Carolyn Marshall, “Questions Over Method Lead to Delay of Execution,” *New York Times*, February 2, 2006, p. A11.

²⁰⁷ “Statement of California Department of Corrections and Rehabilitation Warden Steven Ornoski,” issued February 21, 2006, <http://www.cya.ca.gov/communications/moralesexecutiondelay.html> (retrieved April 4, 2006) (the warden explains that the state cannot comply with the judge’s orders and thus has called off the execution of Morales). The judge’s order said the state could proceed with the execution on February 21 under the two conditions mentioned above, or—if the state did not execute Morales on February 21—a stay would be issued by order of the court for purposes of holding an evidentiary hearing on the constitutionality of lethal injection. *Morales v. Hickman*, U.S. District Court for the Northern District of California, Order Denying Conditionally Plaintiff’s Motion for Preliminary Injunction, Case No. C062, February 14, 2006.

²⁰⁸ Interview with Barankin.

²⁰⁹ Order Denying Conditionally Plaintiff’s Motion for Preliminary Injunction, U.S. District Court for the Northern District of California, *Morales v. Hickman*, Case No. C062, February 14, 2006.

single dose of anesthesia, and the dosage of each of the three drugs has been reduced.²¹⁰ The rationale for the lowered doses is not clear. The changes were a result of consultations with corrections department staff and did not involve outside medical experts.²¹¹ California officials claim the litigation and discussions about prior executions provided an impetus to revisit the protocol and make changes that will render the method of execution “equally safe but more effective.”²¹² At the same time, California officials contend that they need not choose the “best” method of lethal injection or prove their lethal injection executions are humane—that burden of proof is on California’s condemned inmates.²¹³ The state may be correct as a matter of current constitutional jurisprudence. But the state’s position displays a stunning callousness for prisoners facing execution as well as utter disregard for its human rights responsibilities.

On April 7, 2006, citing the example of *Morales*, a federal judge in North Carolina ordered that an execution there could only take place as scheduled:

[O]n the condition that there are present and accessible to Plaintiff throughout the execution personnel with sufficient medical training to ensure that Plaintiff is in all respects unconscious prior to and at the time of the administration of any pancuronium bromide or potassium chloride.²¹⁴

The court also ordered the “execution personnel with sufficient medical training” present to provide “appropriate medical care” if the prisoner “exhibits effects of consciousness.”²¹⁵ The court was disturbed by eyewitness accounts of prisoners’ violent physical movements after the administration of the lethal injection drugs began, and by recent toxicology reports that suggest prisoners may not have been sufficiently anesthetized during their lethal injection executions.²¹⁶

²¹⁰ *Ibid.*

²¹¹ *Ibid.*

²¹² *Ibid.*

²¹³ *Ibid.*

²¹⁴ Order, *Brown v. Beck*, No. 5:06-CT-3018-H, April 7, 2006, p. 14 (copy on file with Human Rights Watch).

²¹⁵ *Ibid.*

²¹⁶ *Ibid.*, p. 8-10.

VI. Botched Executions

A number of lethal injection executions have gone terribly, visibly wrong. Michael Radelet, a professor of sociology and law, has compiled a list of thirty-six “botched executions,” which he defines as executions where there is the appearance of “prolonged suffering” on the part of the condemned inmate “for twenty minutes or more.”²¹⁷ Because states do not make public, maintain, or even keep records of their executions (see the “U.S. Constitutional Law” section of Chapter Seven), this list was developed from media reports. There may be other botched executions that were never reported. In addition, there is no way to know how many prisoners killed by lethal injections suffered needlessly, but invisibly, because of inadequate anesthesia masked by a neuromuscular blocking agent.

Lethal injection executions where the condemned inmate’s suffering was visible to the witnesses include:

- **Stephen Peter Morin**, executed in Texas on March 13, 1982. Execution technicians probed Morin’s veins over and over again for forty-five minutes before they found a suitable vein to establish an intravenous line. Like many death row inmates, Morin had a history of injection drug abuse that had left his veins compromised, making them difficult to penetrate with a needle.²¹⁸
- **Raymond Landry**, executed in Texas on December 13, 1988. Two minutes after the injection of the drugs into Landry began, the catheter dislodged out of his vein and flew through the air. Officials pulled the curtain separating the witnesses from the inmate. Operating from behind the curtain, it took the execution team fourteen minutes to reinsert the catheter into the vein. Witnesses reported hearing at least one “groan” from Landry from behind the curtain. Twenty-four minutes after the intravenous drugs were injected, and forty minutes after being strapped to the execution gurney, Landry was pronounced dead. A spokesperson for the Texas Department of Criminal Justice explained afterwards, “There was something of a delay in the execution because of what

²¹⁷ See Michael Radelet, “Post-Furman Botched Executions,” <http://deathpenaltyinfo.org/article.php?scid=8&did=478> (retrieved April 5, 2006). Also: Human Rights Watch telephone interview with Michael Radelet, professor of sociology, University of Colorado at Boulder, Boulder, Colorado, March 1, 2006.

²¹⁸ “Murderer of Three Women is Executed in Texas,” p. 9.

officials called a 'blowout.' The syringe came out of the vein, and the warden ordered the team to reinsert the catheter into the vein."²¹⁹

- **Stephen McCoy**, executed in Texas on May 24, 1989. McCoy had a violent physical reaction to the lethal injection drugs. During the execution, his chest heaved up and down as he gasped for breath, choked, and arched his back up and off the gurney. The Texas Attorney General admitted that the inmate "seemed to have a somewhat stronger reaction," than other executed prisoners, adding "The drugs might have been administered in a heavier dose and more rapidly."²²⁰
- **Charles Walker**, executed in Illinois on September 12, 1990. According to Gary Sutterfield, an engineer from Missouri State Prison retained by the State of Illinois to assist in Walker's execution, a kink in the plastic tubing going into the inmate's arm stopped the chemicals from reaching Walker. In addition, the intravenous needle was incorrectly inserted pointing at Walker's fingers instead of his heart. The incorrect insertion delayed the flow of drugs to Walker's heart, prolonging the execution.²²¹
- **Ricky Ray Rector**, executed in Arkansas on January 24, 1992. It took medical staff, with Rector's help, more than fifty minutes to find a suitable vein in Rector's arm. The curtain remained closed between Rector and the witnesses, but some reported they could hear Rector moaning. The administrator of the State Department of Corrections Medical Program said "the moans did come as a team of two medical people that had grown to five worked on both sides of his body to find a vein. That may have contributed to his occasional outbursts." The state later attributed the difficulty in finding a suitable vein to Rector's heavy weight and to his use of an antipsychotic medication.²²²
- **John Wayne Gacy**, executed in Illinois on May 10, 1994. After the execution began, the chemicals unexpectedly solidified in the IV tube leading to Gacy's arm, clogging it, and stopping the chemicals from flowing to his vein. Officials

²¹⁹ "Landry Executed for '82 Robbery-Slaying," *Dallas Morning News*, December 13, 1988, p. 29A.

²²⁰ "Witness to an Execution," *Houston Chronicle*, May 27, 1989, p. 11.

²²¹ "Niles Group Questions Execution Procedure," *United Press International*, November 8, 1992.

²²² "Joe Farmer, Rector, 40, Executed for Officer's Slaying," *Arkansas Democrat-Gazette*, January 25, 1992, p. 1B; Sonja Clinesmith, "Moans Pierced Silence During Wait," *Arkansas Democrat Gazette*, January 26, 1992, p. 1B; Marshall Frady, "Death in Arkansas," *The New Yorker*, February 22, 1993, p. 105.

drew the blinds covering the window through which the witnesses were observing the execution, while the execution team replaced the clogged tube with a new one. Ten minutes later, the blinds were reopened, and the execution process began again. It took eighteen minutes to complete. In news reports, anesthesiologists blamed the problem on the inexperience of prison officials who were conducting the execution, noting that even simple procedures taught in an “IV 101” class would have prevented the error.²²³

- **Emmit Foster**, executed in Missouri on May 3, 1995. Seven minutes after the lethal chemicals began to flow into Foster’s arm, the chemicals stopped flowing through the tube. With Foster gasping and convulsing, the execution was halted, and the blinds covering the window between the witnesses and Foster were drawn. The execution proceeded behind the blinds. Thirty minutes later, Foster was pronounced dead. Three minutes later the curtains were opened so the witnesses could view the corpse. The coroner who pronounced Foster dead explained that Foster had been too tightly strapped to the gurney, restricting the flow of the chemicals into his veins. A corrections staff member, upon the coroner’s recommendation, finally loosened the straps, and Foster died several minutes after that.²²⁴
- **Tommie J. Smith**, executed in Indiana on July 18, 1996. Smith’s small veins made it difficult for the execution technicians to find a suitable vein, and a physician was called in. Smith was given a local anesthetic, and the physician twice attempted to insert a catheter into Smith’s neck. When that failed, the angio-catheter was inserted in Smith’s foot. Only then were witnesses allowed to observe the process. The lethal drugs were finally injected into Smith forty-nine minutes after the first attempts, and it took another twenty minutes before his death was pronounced.²²⁵
- **Michael Eugene Elkins**, executed in South Carolina on June 13, 1997. Because Elkin’s body was swollen from liver and spleen problems, it was difficult for the executioners to locate a suitable vein for the catheter insertion. The executioners ultimately probed for a vein in his neck. Elkins tried to assist

²²³ Rob Karwath and Susan Kuczka, “Gacy Execution Delay Blamed on Clogged IV Tube,” *Chicago Tribune*, May 11, 1994, p. 1 (Metro Lake Section).

²²⁴ Tim O’Neil, “Too-Tight Strap Hampered Execution,” *St. Louis Post-Dispatch*, May 8, 1995, p. 6B.

²²⁵ Sheri Edwards and Suzanne McBride, “Doctor’s Aid in Injection Violated Ethics Rule: Physician Helped Insert the Lethal Tube in a Breach of AMA’s Policy Forbidding Active Role in Execution,” *Indianapolis Star*, July 19, 1996, p. A1.

the executioners, asking, "Should I lean my head down a little bit?" as they probed for a vein. After numerous failures, a usable vein was found.²²⁶

- **Joseph Cannon**, executed in Texas on April 23, 1998. After Cannon made his final statement, the execution process began. A vein in Cannon's arm collapsed and the needle popped out. Seeing this, Cannon lay back, closed his eyes, and exclaimed to the witnesses: "It's come undone." Officials then pulled a curtain back to block the view of the witnesses, reopening it fifteen minutes later, when a weeping Cannon made a second final statement and the execution resumed.²²⁷
- **Claude Jones**, executed in Texas on December 7, 2000. It took the execution team thirty minutes to find a suitable vein, in part because of Jones's history of drug abuse. Warden Jim Willet, the man in charge of the execution, stated:

The medical team could not find a suitable vein. Now I was really beginning to worry. If you can't stick a vein then a cut-down [where a cut is made into the vein to insert the chemicals] has to be performed. I have never seen one and would just as soon go through the rest of my career the same way. Just when I was really getting worried, one of the medical people hit the vein in the left leg.²²⁸
- **Jose High**, executed in Georgia on November 7, 2001. High was pronounced dead some one hour and nine minutes after the execution began. After attempting to find a useable vein for thirty-nine minutes, the emergency medical technicians under contract to do the execution abandoned their efforts. Eventually, one needle was stuck in High's hand, and a physician was called in to insert a second needle between his shoulder and neck.²²⁹

²²⁶ "Killer Helps Officials Find A Vein At His Execution," *Chattanooga Free Press*, June 13, 1997, p. A7.

²²⁷ "1st Try Fails to Execute Texas Death Row Inmate," *Orlando Sentinel*, April 23, 1998, p. A16; Michael Graczyk, "Texas Executes Man Who Killed San Antonio Attorney at Age 17," *Austin American-Statesman*, April 23, 1998, p. B5.

²²⁸ Sarah Rimer, "Working Death Row," *New York Times*, December 17, 2000, p. 1.

²²⁹ Rhonda Cook, "Gang leader executed by injection Death comes 25 years after boy, 11, slain" *Atlanta Journal Constitution*, November 7, 2001, p. B1.

Because of recent litigation in North Carolina challenging that state's lethal injection protocol, evidence of a number of botched executions in that state have recently become public:

- **Willie Fisher**, executed in North Carolina on March 9, 2001. After appearing to lose consciousness, Fisher began convulsing, and his eyes opened. A witness described Fisher as trying to catch his breath, with his chest heaving repeatedly.²³⁰
- **Eddie Ernest Hartman**, executed in North Carolina on October 3, 2003. As the drugs were being administered, Hartman's throat began alternately thrusting outward and collapsing inward. His neck pulsed, bulged, and shook repeatedly. Hartman's eyes were open, and his body convulsed and contorted throughout the execution until he died.²³¹
- **John Daniels**, executed in North Carolina on November 14, 2003. Daniels lay still as the warden announced that the execution would proceed. Then suddenly, he started to convulse. He sat up, and witnesses could hear him gagging through the glass that separated him from them. After laying down again for a brief time, he sat up, gagged, and choked, while his arms appeared to be struggling underneath the sheet covering him.²³²

Even when lethal injections have appeared to proceed smoothly, however, they may nonetheless have involved considerable pain and suffering. The inability to ascertain whether or not more prisoners have suffered during their executions stems from the use of pancuronium bromide, which prevents the prisoners from communicating verbally or physically what they are experiencing. Witnesses to the execution see a person lying quietly; they have no way of knowing whether he is in fact properly anesthetized or whether he is experiencing excruciating pain behind his paralyzed face.

Execution records—e.g., execution logs, autopsies, and toxicology reports—are necessary to conduct accurate post-mortem reviews of how the execution proceeded, including whether the prisoner reached an appropriate level of anesthesia.²³³ But

²³⁰ Order. *Brown v. Beck*, No. 5:06-CT-3018-H, April 7, 2006, p. 9.

²³¹ *Ibid.*, p. 10.

²³² *Ibid.*

²³³ In April of 2005, a team of medical doctors reported in the British medical journal *The Lancet* that toxicology reports on forty-three of forty-nine executed inmates revealed the anesthetic administered during lethal

corrections agencies have refused to create or keep such records, and agencies have refused to make them publicly available when they have been created or kept.²³⁴ For example, Texas, which has conducted 362 lethal injection executions, the most in the United States,²³⁵ stopped conducting autopsies of its executed prisoners in 1989.²³⁶

Execution logs from California—the only state in which such records have been made publicly available, and only because of litigation—strongly suggest that lethal injection executions in that state are not going according to plan. When a barbiturate like sodium thiopental is used during surgery, the patient goes limp within seconds after the drug begins flowing into his veins.²³⁷ He may take a few breaths, cough, hiccup, or have some erratic breathing, but there would be no regular and ongoing up and down chest movements.²³⁸ The anesthesia removes the patient's ability to breathe on his own, which is why a doctor will intubate him so that a machine can do his breathing for him during surgery.²³⁹ Yet in California, six recent lethal injection execution logs indicate that prisoners were breathing more than a minute after they should have received a dose of sodium thiopental ten times that used in surgery.²⁴⁰ According to the execution logs:²⁴¹

injections was lower than that required for surgery. Indeed, in twenty-one of the inmates, the concentrations of thiopental in the blood were consistent with awareness. The report concludes, "Failures in protocol design, implementation, monitoring and review might have led to the unnecessary suffering of at least some of those executed. Because participation of doctors in protocol design or execution is ethically prohibited, adequate anesthesia cannot be certain. Therefore, to prevent unnecessary cruelty and suffering, cessation and public review of lethal injection is warranted." G. K. Leonidas, et al., "Inadequate Anesthesia in Lethal Injection for Execution," *The Lancet*, Vol.365 (9468), April 16, 2005, p.1412. Medical experts have subsequently discredited the Lancet report because the blood used in the toxicology analysis was drawn many hours after the execution. To be most accurate, blood used for a toxicology analysis would have to be drawn soon after the prisoner's death. See, e.g., "Study: Lethal Injection Not Painless," *Chicago Tribune*, April 15, 2005, http://www.med.miami.edu/communications/som_news/index.asp?id=470 (retrieved April 2, 2006).

²³⁴ See, for instance, policies in Missouri, Louisiana, and North Carolina: Missouri does not keep any records from its executions (Defendant Crawford's Answers to Plaintiff's First Interrogatory, *Taylor v. Crawford*, Case No. 05-4173-CV-C-SOW, September 12, 2005, p. 24); Louisiana does not keep its execution records for more than five years (Inglis Deposition, p. 57); North Carolina does not keep any execution records either (Testimony of Polk, p.114).

²³⁵ DPIC, "Execution Database."

²³⁶ *Harris v. Johnson, et al.*, April 15, 2004, p. 5.

²³⁷ Interview with Heath, March 6, 2006; Interview with Dershwitz, March 1, 2006.

²³⁸ E-mail correspondence to Human Rights Watch from Dershwitz, March 9, 2006.

²³⁹ *Ibid.*

²⁴⁰ Doses of sodium thiopental used in surgery are typically one-tenth the five grams called for in California's lethal injection executions at the time of these six executions. San Quentin Procedure No. 770, p. 32. California has since changed its dosage of sodium thiopental, from five grams to 1.5 grams. See Chapter Five on the *Morales v. Hickman* case.

²⁴¹ It is unclear who was responsible for keeping the execution log and what the protocol was for determining when respirations ceased. E-mail correspondence to Human Rights Watch from John Grele, attorney for Morales, April 1, 2006. (Copies of the six execution logs are on file with Human Rights Watch.)

- **Jaturun Siripongs** was executed on February 9, 1999. The administration of sodium thiopental began at 12:04 a.m., and the administration of pancuronium bromide began at 12:08 a.m., *yet breathing did not cease until 12:09 a.m., four minutes after the administration of sodium thiopental began and one minute after the administration of pancuronium bromide began.*
- **Maunuel Babbitt** was executed on May 4, 1999. The administration of sodium thiopental began at 12:28 a.m., and the administration of pancuronium bromide began at 12:31 a.m., *yet respirations did not cease until 12:33 a.m., five minutes after the administration of sodium thiopental began and two minutes after the administration of pancuronium bromide began.*
- **Darrell Keith Rich** was executed on March 15, 2000. The administration of sodium thiopental began at 12:06 a.m., and the administration of pancuronium bromide began at 12:08 a.m., *yet respirations did not cease until 12:08 a.m., when pancuronium bromide was injected, two minutes after the administration of sodium thiopental began.*²⁴²
- **Stephen Wayne Anderson** was executed on January 29, 2002. The administration of sodium thiopental began at 12:17 a.m., and the administration of pancuronium bromide began at 12:19 a.m., *yet respirations did not cease until 12:22 a.m., five minutes after the administration of sodium thiopental began and three minutes after the administration of pancuronium bromide began.*
- **Stanley Tookie Williams** was executed on December 13, 2005. The administration of sodium thiopental began at 12:22 a.m.; the administration of pancuronium bromide began at 12:28 a.m.; and the administration of potassium chloride began at 12:32 or 12:34 a.m. (there is some discrepancy in the execution log as to when the potassium chloride was administered); *yet respirations did not cease until either 12:28 a.m. or 12:34 a.m. (again there is an inconsistency in the records), either six or twelve minutes after the administration of the sodium thiopental began, either at the same time as or six minutes after the administration of pancuronium bromide began, and*

²⁴² The execution log states that Rich's respirations ceased at 12:08 a.m., but notes that Rich had "chest movements" lasting from 12:09 to 12:10 a.m. These chest movements began after Rich had supposedly stopped breathing and three minutes after the administration of the thiopental. The chest movements are "consistent with an attempt to fight off the accruing paralytic effect of the pancuronium." Third Declaration of Dr. Mark Heath, *Morales v. Hickman*, February 9, 2006, p. 6.

*either four minutes before or at the same time as the administration of potassium chloride began.*²⁴³

- **Clarence Ray Allen** was executed on January 17, 2006. The administration of sodium thiopental began at 12:18 a.m., *yet respirations did not cease until 12:27 a.m., when pancuronium bromide was injected, nine minutes after the administration of sodium thiopental began.*

The logs do not prove that these six men were conscious when the pancuronium bromide and potassium chloride were injected. But the fact that their breathing did not stop when expected suggests adequate doses of sodium thiopental may not have been administered. At the very least, the logs point to the importance in three-drug lethal injection executions of having someone present to establish the level of anesthesia before the second and third drugs are administered.

Eyewitness testimony about lethal injection executions in Texas also raises concerns some prisoners in Texas were breathing after the administration of the sodium thiopental should have paralyzed their lung muscles. Reverend Carroll Pickett witnessed ninety-five lethal injection executions in Texas from 1982 through 1995.²⁴⁴ As the condemned inmate's spiritual advisor on the day of his execution, Pickett stayed with the inmate throughout the execution until the inmate died. Once the inmate was on the gurney, Pickett stood next to him, his right hand touching the inmate's right knee. During some of the executions, he "saw some of the boys with their eyes open and looking at me after the thiopental came, I felt like I let [the prisoner] down, because the execution was not proceeding exactly as I told [the prisoner]."²⁴⁵ Human Rights Watch asked Pickett if he signaled anything to the warden when he noticed a prisoner's eyes open. He said no, that it had not been clear to him that something was wrong.²⁴⁶ When asked if he remembered any of the inmates breathing after the administration of the sodium thiopental, Pickett said that he "did not see any of them stop breathing after that. That just put them to sleep. But they kept breathing. All of them."²⁴⁷

²⁴³ The records are inconsistent. The formal execution log suggests that Williams stopped breathing at 12:28 a.m. and indicates that potassium chloride was injected at 12:32 a.m., whereas the execution team's log states that Williams stopped breathing at 12:34 a.m., when the potassium chloride was injected. It appears that the formal log was altered without any indication as to who made the alteration.

²⁴⁴ Interview with Pickett.

²⁴⁵ *Ibid.*

²⁴⁶ *Ibid.*

²⁴⁷ *Ibid.*

Pickett did not have any medical training; he had not been asked to monitor the condemned inmates breathing; and the executions were many years ago. Nevertheless, his memory of open eyes and breathing prisoners suggests there in fact may have been serious problems with the way Texas executed its prisoners.

VII. International Human Rights and U.S. Constitutional Law

International Human Rights Law

The cornerstone of human rights is respect for the inherent dignity of all human beings and the inviolability of the human person. The Universal Declaration of Human Rights, the foundation for human rights law, is premised upon the recognition of “the inherent dignity and . . . the equal and inalienable rights of all members of the human family.”²⁴⁸ Human Rights Watch believes the inherent dignity of the person cannot be squared with the death penalty, a form of punishment unique in its cruelty and finality, and a punishment inevitably and universally plagued with arbitrariness, prejudice, and error. While international law does not prohibit capital punishment, the trend in law and practice is for its abolition.

States that do not abolish capital punishment must still abide by human rights standards in their choice of execution methods. The United States is a party to the International Covenant on Civil and Political Rights (ICCPR), and the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.²⁴⁹ While neither treaty prohibits capital punishment, the prohibitions in both against torture and cruel, inhuman, or degrading punishment apply to the manner in which executions are carried out.²⁵⁰

Human rights law imposes an obligation on states that impose capital punishment to use methods of execution that minimize pain and suffering. The U.N. Safeguards Guaranteeing Protection of the Rights of Those Facing the Death Penalty, approved by the Economic and Social Council in 1984, provides that where capital punishment occurs, it shall be “carried out so as to inflict the minimum possible suffering.”²⁵¹

²⁴⁸ “Preamble,” Universal Declaration of Human Rights, G.A. res. 217A (III), U.N. Doc A/810 at 71 (1948).

²⁴⁹ Article 6 of the ICCPR on the right to life discusses the death penalty in countries that have not abolished it. Section 6 states that “[n]othing in this article shall be invoked to delay or to prevent the abolition of capital punishment by any State Party to the present Covenant.” ICCPR, G.A. res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, entered into force Mar. 23, 1976.

²⁵⁰ The U.N. Human Rights Committee (HRC) has noted that because the ICCPR does not prohibit the imposition of the death penalty in certain limited circumstances, capital punishment is not *per se* a violation of the prohibition on torture and other cruel punishment. Instead it is necessary to consider the facts and the circumstances of each case, including personal factors regarding the condemned person, conditions on death row, and “whether the proposed method of execution is particularly abhorrent.” *Kindler v. Canada*, HRC, communication no. 470/1991, U.N. Doc. CCPR/C/48/D/470/1991 (1993) (citing *Soering v. United Kingdom*, European Court of Human Rights).

²⁵¹ Safeguards Guaranteeing Protection of the Rights of Those Facing the Death Penalty, E.S.C. res. 1984/50, annex, 1984 U.N. ESCOR Supp. (No. 1) at 33, U.N. Doc. E/1984/84 (1984), safeguard 9, <http://www1.umn.edu/humanrts/instree/i8sgpr.htm> (retrieved on April 11, 2006).

The Human Rights Committee (HRC), the body of experts that monitors state compliance with the ICCPR, has stated that when the death penalty is applied, “it must be carried out in such a way as to cause the least possible physical and mental suffering.”²⁵² The HRC applied this standard in the case of Charles Chitat Ng, who fought extradition from Canada to the United States because he might face execution by lethal gas.²⁵³ After reviewing evidence concerning the manner by which lethal gas kills and the length of consciousness after asphyxiation begins, the committee concluded that execution by means of lethal gas “would not meet the test of ‘least possible physical and mental suffering,’” and it thus was cruel and inhuman.²⁵⁴

Similar standards have been adopted elsewhere. The European Union in 2001 adopted guidelines for combating torture that urge countries with the death penalty to ensure that the execution methods used cause the “least possible physical and mental suffering.”²⁵⁵

International human rights law thus requires public officials to forego an execution method in favor of alternatives that cause less or no suffering. Human Rights Watch also believes the law requires officials to choose the execution method that carries the least “risk” of suffering. If one method inherently has a risk—even a small one—of suffering, it should be eschewed in favor of a method that has no risk, or a smaller risk. In assessing the possibility of pain and suffering, public officials should consider not only risks inherent in a particular procedure, but the likelihood of mistakes or accidents.

Death penalty states do not satisfy their human rights responsibilities simply by choosing lethal injection over, for example, lethal gas. Rather, they must determine whether their particular lethal injection drug protocols and methods of administration cause the “least possible physical and mental suffering” compared to other possible drugs and methods of administration. Exercising human rights responsibilities requires a careful initial assessment, and then continual reassessment of the state of the art regarding anesthesia, analgesic, and death-inducing drugs, and incorporating the best available scientific and medical expertise into drug and administration protocols.

²⁵² ICCPR, General Comment 20, U.N. HRC, 44th Session, U.N. Doc ccpr/c/21/Add.3 (1992), p. 6.

²⁵³ See *Chitat Ng v. Canada*, Communication No. 469/1991, U.N. Doc. CCPR/C/49/469/1991 (1994), <http://www1.umn.edu/humanrts/undocs/html/dec469.htm> (retrieved March 24, 2006).

²⁵⁴ U.N. HRC, 49th Session, UN doc, CCPR/49/D/469 (1991), decision issued January 4, 1994.

²⁵⁵ European Union, “Guidelines to EU policy towards third countries on torture and other cruel, inhuman or degrading treatment or punishment,” adopted by the EU General Affairs Council, Luxembourg, April 9, 2001, <http://ue.eu.int/uedocs/cmsUpload/TortureGuidelines.pdf> (retrieved March 14, 2006).

Human Rights Watch is not aware of any U.S. death-penalty state that has either met its international human rights obligations with regard to its choice of method of lethal injection or their ongoing use of that method. There is a growing body of evidence, as discussed above, suggesting that the three-drug protocol and methods of administration used by most states carry a foreseeable, albeit unquantifiable, risk of physical and mental suffering beyond that inherent in knowing one is being executed. The risk is not simply that which is inherent in any human endeavor, i.e., inevitable risks of accidents and errors. Rather, the risk exists because of deliberate choices made by public officials, including the specific drugs they have chosen, their failure to require that executioners possess appropriate training and experience, and their choice of haphazard and medically unsound procedures for the administration of the drugs.

Our research indicates that problems with lethal injection executions in the United States reflect the failure of public officials to take the steps necessary to meet international human rights standards:

- State legislators and corrections officials did not develop their lethal injection procedures with the advice and guidance of medical experts and through a process of reasoned scientific inquiry. While the historical record is not complete, it suggests the decision-making processes on the part of corrections officials were informal or hurried, made by persons who themselves had no relevant expertise and who did not consult with persons who did. Copying the procedures of another state—usually Texas—was the prevalent method public officials used in deciding how to execute their prisoners.
- There has been no process of constant and informed revision of lethal injection protocols in light of experience and developments in the fields of anesthetics, analgesics, and lethal drugs. The New Jersey Department of Corrections correctly acknowledged in 2005 that the “state of the art” with regard to the most humane method of lethal injection executions is “continually changing.”²⁵⁶ Yet most states cling to their protocols, fighting judicial challenges and refusing to change.
- Anesthesiologists, other medical experts, lawyers and others have suggested alternative methods of lethal injection that would carry less risk of the condemned inmate experiencing pain and suffering. They have suggested, for

²⁵⁶ Transcript, New Jersey Department of Corrections Public Hearings on Amendments to New Jersey’s Lethal Injection Protocols, February 4, 2005, p. 33 (copy on file with Human Rights Watch).

example: a single massive injection of a powerful barbiturate rather than the complex three-drug cocktail; placing a person trained in anesthetics in the execution chamber with the prisoner to determine whether he or she is deeply anesthetized before the pancuronium bromide and potassium chloride are administered; removing paralytic agents from the drug protocol completely, and replacing potassium chloride with a painless lethal agent to induce cardiac arrest.

Departments of corrections officials have rejected these suggestions. The only explanation we have uncovered for their insistence on using existing drug protocols may be that the current methods better serve the interests of the onlookers—the witnesses and executioners. If nothing goes wrong, the existing drug protocols kill the prisoner in a few minutes. By contrast, death from a single injection of a massive amount of a powerful barbiturate may take half an hour to forty-five minutes. The use of a paralytic agent ensures the prisoner will be perfectly still and apparently peaceful—regardless of whether he is in fact conscious and experiencing pain. When the potassium chloride is administered, his body will not twitch or writhe on the table, as bodies may do when their hearts suddenly stop. Witnesses and those participating in the execution might be troubled by the sight of a prisoner convulsing during his execution. They might think those movements are a sign that the prisoner is experiencing distress—or witnesses may simply find any movement by a prisoner being executed inherently disturbing.

Human Rights Watch understands public officials would like to protect the feelings and sensitivities of the executioners and witnesses. But human rights law requires them to place a higher priority on minimizing the pain and suffering of the condemned prisoners than on the comfort levels of those who do the killing and those who watch.

U.S. Constitutional Law

Under U.S. law, executions are unconstitutional if they “involve the unnecessary and wanton infliction of pain”²⁵⁷ or “involve torture or lingering death.”²⁵⁸ What constitutes “unnecessary” pain is informed by standards of decency as they evolve “in light of contemporary human knowledge.”²⁵⁹ Where the pain inflicted in an execution results from “something more than the mere extinguishment of life,” the Eighth Amendment’s prohibition against cruel and unusual punishment is implicated.²⁶⁰

²⁵⁷ *Gregg v. Georgia*, 428 U.S. 153, 173 (1976) (citing *Furman v. Georgia*, 408 U.S. 238, 392 (1972)).

²⁵⁸ *In Re Kemmler*, 136 U.S. 436, 447 (1890).

²⁵⁹ *Robinson v. California*, 370 U.S. 660, 666 (1962). See also *Estelle v. Gamble*, 429 U.S. 97, 102 (1976).

²⁶⁰ *Furman*, 408 U.S. at 265 (quoting *Kemmler*, 136 U.S. at 447). The Eighth Amendment to the U.S. Constitution states: “Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.”

Methods of execution once viewed as acceptable can, over time, come to offend Eighth Amendment standards, as scientific knowledge and society's norms evolve.²⁶¹ As Judge Harry Blackmun explained, "the emphasis [of the Eighth Amendment] is on man's basic dignity, on civilized precepts, and on the flexibility and improvement in standards of decency as society progresses and matures."²⁶²

Execution methods can violate the Eighth Amendment even though they are held out as humane alternatives, if they subject the condemned prisoner to the foreseeable likelihood of unnecessary pain or suffering. An isolated "*unforeseeable* accident ... [does not] add an element of cruelty" to an execution.²⁶³ But a foreseeable (or substantial) likelihood of unnecessary pain or suffering does violate the Constitution—even if the suffering is not certain, or even likely, to occur in every instance.²⁶⁴

The Supreme Court has never directly addressed the constitutionality of any lethal injection protocol, although it has acknowledged that lethal injection is subject to Eighth Amendment requirements.²⁶⁵ Lower federal courts and state courts have continually rejected prisoners' claims that their state's particular lethal injection methods were cruel and unusual. Some courts concluded there was insufficient evidence of pain and suffering, or that a particular procedure's risks were too slight to strike down lethal injection choices made by state legislatures and their correctional agencies.²⁶⁶ They reached those decisions without having permitted the prisoners to undertake extensive discovery and without conducting full evidentiary hearings.²⁶⁷ Other courts avoided ruling on the merits, holding instead that the prisoner did not raise his claims in a timely or proper manner.²⁶⁸ Courts have rarely examined the development or justification for

²⁶¹ E.g., *Fierro v. Gamble*, 77 F.3d 301, 303 n.1 (Ninth Circuit 1996), vacated on other grounds, 519 U.S. 918 (1996) (noting in challenge to the constitutionality of execution by lethal gas, that California Supreme Court had last considered such a challenge in 1953, and that the court's consideration had been limited by then-existing scientific knowledge).

²⁶² *Jackson v. Bishop*, 404 F.2d 571,579 (Eighth Circuit 1968).

²⁶³ *Resweber*, 329 U.S. at 464 (emphasis added).

²⁶⁴ *Campbell v. Wood*, 18 F.3d 662, 687 (Ninth Circuit 1994) (*en banc*) (risk associated with challenged method of execution must be more than slight).

²⁶⁵ *Nelson v. Campbell*, 541 U.S. 637 (2004).

²⁶⁶ *Hill v. Florida*, No. SC06-2, 2006, Florida Lexis 8 (Florida, January 17, 2006).

²⁶⁷ Brief of Appellant-Plaintiff, *Taylor v. Crawford, et al.*, No. 06-1397, February 24, 2006, p. 33-34. See also Defendant Crawford's Answers to Plaintiff's First Interrogatory, *Taylor v. Crawford*, Case No. 05-4173-CV-C-SOW, September 12, 2005, p. 14-15.

²⁶⁸ E.g., *Gomez v. U.S. District Court for Northern District Of California*, 503 U.S. 653, 654 (1992) (holding that particularly where an inmate has engaged in "abusive delay," the court may consider the state's interest in moving forward with the execution in balancing the inequities); *LaGrand v. Stewart*, 170 F.3d 1158, 1159 (Ninth Circuit 1999) (stating that petitioner's challenge to execution method had previously been dismissed as premature because the method of execution had not yet been chosen); *Beardslee*, 395 F.3d at 1066-67 (stating

the challenged protocols, nor have they explored whether a different lethal injection protocol might carry less risk than the ones currently maintained by the states.

We know of only one case in which a court rejected a Department of Corrections method for changing its protocols. A judge, on administrative grounds, struck down New Jersey's Department of Corrections' proposed amendments to its lethal injection regulations, including the removal of an emergency cart from the execution setting.²⁶⁹ Under administrative law, a challenged regulation will stand if the state agency can show it meets a relatively low standard of rationality. Yet the court held that the new regulation about the emergency cart, which the New Jersey Department of Corrections justified as unnecessary because the irreversible nature of lethal injections made it impossible to revive a condemned inmate, lacked "an expressed reasoned medical opinion."²⁷⁰ That is, the Department of Corrections had not come up with evidence that showed a sound basis for its decision. The court remanded the issue to the Department of Corrections to give it an opportunity to articulate "a supporting basis for [its regulations]."²⁷¹

Under U.S. constitutional jurisprudence, the burden is on the prisoner to prove a method of lethal injection is cruel and unusual; public officials do not have to prove they have chosen the best possible method. Prisoners have been hampered in their efforts to challenge their state's lethal injection execution protocols by the difficulty of obtaining documentation on how corrections officials developed their protocols and what happened during earlier executions. As noted above, some courts did not permit the prisoners to undertake much discovery. But in addition, states typically do not document their executions, e.g., keep records of the qualifications of the executioners or logs indicating the time at which the drugs were administered, whether there were any problems with the IV insertion or administration of the drugs, the monitoring of prisoners' vital signs, etc. In other cases, even if prison officials did create such records, they were not retained over the years. Some states have simply refused to provide records that go back in time. They have even made it difficult for prisoners to simply obtain complete copies of the protocols themselves.²⁷²

that the fact that Beardslee waited until his execution was imminent, filing suit one month before his execution date, after it was already scheduled, weighed against him).

²⁶⁹ *In re Readoption with Amendments of Death Penalty Regulations by the New Jersey Department of Corrections*, 367 New Jersey Sup. 61 (2004).

²⁷⁰ *Ibid.*, p. 69.

²⁷¹ *Ibid.*, p. 71.

²⁷² *Ibid.*

Nevertheless, over the years, persistent lawyers have succeeded in obtaining an increasingly powerful set of evidence about problems with state lethal injection procedures. The impact of that evidence is apparent in the February 2006 decision by a federal district court regarding California's lethal injection protocol (See Chapter Five).

For more than two decades, U.S. courts have been notably and increasingly hostile to challenges to the fairness of capital trials and sentences brought by prisoners sentenced to death. When prisoners began bringing cases challenging methods of execution, including the most recent challenges to lethal injection, the courts responded with what may best be characterized as judicial impatience and irritation. In the absence of guidance from the U.S. Supreme Court, lower courts saw the cases as simply another stalling tactic by death row prisoners and failed to give serious consideration to their claims.

The Supreme Court has now agreed to decide the case of *Hill v. McDonough*. The precise question the court will address in *Hill* is whether a prisoner may bring an Eighth Amendment challenge to Florida's lethal injection protocols by seeking declaratory and injunctive relief under 42 United States Code, Section 1983, the civil rights statute that enables plaintiffs to challenge the constitutionality of state actions in federal court.²⁷³ The lower courts held that a challenge to the lethal injection protocol was a challenge to the sentence—which is a habeas case. They therefore concluded condemned prisoner Clarence Hill was not entitled to an evidentiary hearing or injunction, because the case he brought as a Section 1983 case should have been brought as a habeas petition. Moreover, even if it had been brought as a habeas case, it would nonetheless still have been barred under habeas rules unique to the post-conviction review of sentences.²⁷⁴ Petitioner Hill claims that he is challenging whether a specific lethal injection protocol is cruel and unusual, and he is not challenging the legality or constitutionality of his death sentence as such. Numerous amicus briefs have been filed in the case, urging the Court to recognize the importance of the underlying substantive claim by Hill and to ensure he is given a full opportunity to develop the evidentiary basis for it. Human Rights Watch has joined in an amicus brief bringing to the Court's attention the international human rights requirement that states must choose a method of execution that inflicts the "least possible pain and suffering."²⁷⁵

²⁷³ Petitioner's Brief, *Hill v. McDonough, et al.*, March 6, 2006, p. 2-3.

²⁷⁴ *Ibid.*, p. 4-11.

²⁷⁵ Brief amici curiae of Human Rights Advocates, Human Rights Watch, and Minnesota Advocates for Human Rights in Support of Petitioner, *Hill v. McDonough*, No. 05-8794, March 3, 2006, <http://hrw.org/us/us030706.pdf> (retrieved April 16, 2006).

Although the Hill case is ostensibly about the correct procedure by which a prisoner may challenge his method of execution, its significance may be far greater. The fact that the Supreme Court took the case signals the impact of the growing number of cases pressing federal and state courts to address challenges to lethal injection protocols.²⁷⁶ As evidence of problems mount, and as the background and development of lethal injection protocols is subjected to greater scrutiny, we hope that courts will be increasingly responsive to prisoners' constitutional challenges.

²⁷⁶ As of April 1, 2006, there were eight death row inmates (including Morales and Hill) who had been granted stays of execution pending resolution of their challenges to lethal injection protocols. These stays included: Clarence Hill, Florida, by the U.S. Supreme Court; Arthur Rutherford, Florida, by the U.S. Supreme Court; Michael Taylor, Missouri, by the U.S. Supreme Court; Vernon Evans, Maryland, by the Maryland Court of Appeals; Michael Morales, California, by the State of California; Richard Tipton, Cory Johnson, and James Roane, Federal, District Court for District of Columbia. DPIC, "Lethal Injections: Some Cases Stayed, Other Executions Proceed," <http://www.deathpenaltyinfo.org/article.php?did=1686&scid=64> (retrieved on April 16, 2006). Ten other inmates did not receive stays and were executed by lethal injection. These were: Marion Dudley, executed in Texas on January 25, 2006; Marvin Bieglher, executed in Indiana on January 27, 2006; Jamie Elizalde, executed in Texas on January 31, 2006; Glenn Benner, executed in Ohio on February 7, 2006 (Benner did not raise a lethal injection claim); Robert Nelville, executed in Texas on February 8, 2006; Clyde Smith, executed in Texas on February 15, 2006; Tommie Hughes, executed in Texas on March 15, 2006; Patrick Moody, executed in North Carolina on March 17, 2006; Robert Salazar, executed in Texas on March 22, 2006; Kevin Kincy, executed in Texas on March 29, 2006. *Ibid.*

Appendix A: State Execution Methods

State	Lethal Injection	Electro-cution	Gas Chamber	Hanging	Firing Squad
Alabama	✓	✓			
Arizona	✓		✓		
Arkansas	✓	✓			
California	✓		✓		
Colorado	✓				
Connecticut	✓				
Delaware	✓				
Florida	✓	✓			
Georgia	✓				
Idaho	✓				✓
Illinois‡	✓	✓			
Indiana	✓				
Kansas*	✓				
Kentucky	✓	✓			
Louisiana	✓				
Maryland	✓		✓		
Mississippi	✓				
Missouri	✓		✓		
Montana	✓				
Nebraska		✓			
Nevada	✓				
New Hampshire	✓			✓	

State	Lethal Injection	Electro-cution	Gas Chamber	Hanging	Firing Squad
New Jersey‡	✓				
New Mexico	✓				
New York*	✓				
North Carolina	✓				
Ohio	✓				
Oklahoma	✓	✓			✓
Oregon	✓				
Pennsylvania	✓				
South Carolina	✓	✓			
South Dakota	✓	✓			
Tennessee	✓	✓			
Texas	✓				
Utah	✓				✓
Virginia	✓	✓			
Washington	✓			✓	
Wyoming	✓		✓		

Note: The federal government uses the execution method approved in the state in which the prisoner is being executed.

‡ Both Illinois and New Jersey have declared moratoriums on executions in their states.

* New York's death penalty was declared unconstitutional on June 24, 2004, but the legislature has yet to take action on this. Kansas's death penalty was declared unconstitutional on December 17, 2004; the U.S. Supreme Court has scheduled oral arguments for April 25, 2006 to determine the constitutionality of the Kansas statute.

Source: Death Penalty Information Center, "Methods of Execution," <http://www.deathpenaltyinfo.org/article.php?scid=8&did=245> (retrieved April 13, 2006).

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So Long as They Die

Lethal Injections in the United States

Compared to the terrible specter of execution by hanging, firing squad, lethal gas, or electrocution, lethal injection appears to be the most humane way to execute a prisoner. Thirty-seven of the thirty-eight states that retain the death penalty use lethal injection for executions. Of the 1,016 executions in the United States since the death penalty was reinstated in 1976, 848 were by lethal injection. All the executions in 2005 were by lethal injection.

Appearances can be deceiving. The three drugs used in almost all lethal injection executions are supposed to first anesthetize, then paralyze, and then kill the prisoner. If the anesthesia does not work—and mounting evidence suggests it is far from foolproof—a fully conscious but immobilized prisoner experiences suffocation and excruciating pain.

In this comprehensive and extensively researched analysis of lethal injections in the United States, Human Rights Watch reveals that states have been astonishingly careless in the development of their lethal injections procedures. *So Long as They Die* describes how the three-drug sequence was concocted in the late 1970s by a doctor with no expertise in pharmacology. Other states simply copied his formula. Expert medical or scientific reviews never occurred. The drugs are usually administered by executioners without medical skills. No one uses medically approved procedures to determine if the prisoner being executed is in fact sufficiently anesthetized before the second and third drugs are administered.

There are alternatives to current lethal injection protocols that would put prisoners at less risk of pain and suffering, but states have not chosen to adopt them. Courts put the burden on prisoners to prove lethal injections are cruel—rather than insisting public officials demonstrate they have developed methods that are as pain-free as humanly possible.

Human Rights Watch opposes the death penalty under all circumstances. But until such time as the death penalty is abolished, states with capital punishment should not simply reassure themselves that lethal injections are humane because they are less barbaric than executions by the electric chair. States have a human rights responsibility to review and continually revise their lethal injection protocols and procedures to ensure that executions are undertaken in a manner that inflicts the least possible physical and mental pain and suffering.

The Texas death chamber in Huntsville, Texas.

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