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The Hippocratic Paradox: The Role of the Medical Profession in Capital Punishment in the United States

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THE HIPPOCRATIC PARADOX: THE ROLE OF THE MEDICAL PROFESSION IN CAPITAL PUNISHMENT IN THE UNITED STATES

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INTRODUCTION

> Although the outcome may be death, the act of the physician may be solely to provide comfort. In this case, a physician is not acting as a tool of the government; he is acting as a physician whose goals temporarily align with the goals of the government.[1]

The medical profession has been involved in capital punishment for hundreds of years. For the majority of history, this involvement has been limited to the design of execution techniques, with the primary goal of eliminating the risk of unnecessary suffering.[2] This effort on the part of physicians to make executions more humane influenced the development of the guillotine, the electric chair, the gas chamber, and lethal injection. Lethal injection, however, is unique in that it was not only designed by a physician, it was also designed to imitate a medical procedure: the intravenous induction of general anesthesia. Thus lethal injection, unlike other execution methods, not only simulates medical practice, but also uses materials and expertise that are ordinarily used for healing. This has required medical professionals[3] to become active participants in executions.

The introduction of lethal injection in the United States marked the beginning of a rapid rise in the execution rate that has only

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1. David Waisel, *Commentary, Physician Participation in Capital Punishment*, 82 MAYO CLINIC PROC. 1073, 1077 (2007).

2. In the United States beginning in the twentieth century, physicians frequently examined the inmate after execution to pronounce death. *See infra* Part II.D. and note 142 on the ethical implications related to physicians pronouncing death.

3. Although "medical professionals" generally refers to physicians, it is worth noting that nurses and other allied health professionals (emergency medical technicians and phlebotomists, for example) have also been recruited in various states. For a discussion of nursing involvement in lethal injection, see Jonathan I. Groner, *Lethal Injection: The Medical Charade*, 20 ETHICS & MED. 25 (2002) [hereinafter Groner, *Medical Charade*].

recently begun to decline. At the same time, executions by other modern methods have fallen to nearly zero.[4] Thus, lethal injection has become synonymous with capital punishment in the United States, forcing the medical profession to become an integral part of the machinery of death. Part I of this Article provides a brief background of physician involvement in capital punishment prior to the development of lethal injection and discusses the pathophysiology of various execution methods. Part II demonstrates how the introduction of lethal injection fundamentally changed capital punishment in the United States by adding a veneer of medical respectability to judicial executions. Part III concludes that the direct result of this "medicalized" execution technique has been to draw medical professionals into the death chamber in violation of national and international ethical guidelines. Part IV describes how medicalized executions create an ethical conflict—the "Hippocratic paradox."[5] This paradox exists because it is immoral for medical professionals to increase the risk of another human being suffering torture by not participating, but also immoral for medical professionals to perform executions, because such participation risks irreparable harm to the medical profession and to the community as a whole.

I. BACKGROUND: THE PHYSIOLOGY OF KILLING AND THE SEARCH FOR "HUMANE" CAPITAL PUNISHMENT

> "The device strikes like lightning; the head flies, blood spouts, the man has ceased to live."
>
> – Dr. Louis Guillotin, describing a humane execution[6]

The origin of physician involvement in legally sanctioned killing is unknown. The first, and still the most famous, physician to be associated with a specific killing technique was Dr. Louis Guillotin.[7] Torture-executions were common in Guillotin's time, includ-

4. From 1982 through 1986, there were sixty-four executions, of which twenty-four (37.5%) were lethal injections. Two decades later, from 2002 to 2006, there were 308 executions of which 304 (99%) were lethal injections. *See* Death Penalty Information Center, Searchable Database of Executions, http://www.deathpenaltyinfo.org/executions.php (last visited May 7, 2008) [hereinafter DPIC Execution Database].

5. The term "Hippocratic paradox" is a phrase coined by this Author. It first appeared in a major newspaper in 2007. *See* Henry Weinstein, *N.C. is 11th State to Halt Lethal Injections; A Judge Blocks Two Executions Until Procedures are Changed*, L.A. TIMES, Jan. 26, 2007, at A16.

6. Dora B. Weiner, *The Real Doctor Guillotin*, 220 J. AM. MED. ASS'N 85, 88-89 (1972) (quoting Guillotin's Dec. 1, 1789 speech to the French National Assembly).

7. Dr. Guillotin was born in 1738 and died in 1814. *Id.* at 86, 89.

ing execution methods that caused multiple skeletal fractures ("breaking on the wheel"), massive full thickness burns ("burning at the stake"), and asphyxiation by spinal cord transection (hanging).[8] By comparison, beheading with a sword must have seemed quite humane. In fact, in Guillotin's day, this form of punishment was reserved for "convicted aristocrats, and occasionally for royalty."[9] Decapitation by sword, however, was exceedingly operator-dependent, and required both a strong, accurate executioner and a sharp blade for success.[10] Guillotin, in his role as a reformer of capital punishment,[11] sought to end torture-executions and suggested that the same killing technique be used regardless of the social class of the condemned. He endorsed, but did not design, the execution machinery that now so famously bears his name.[12] One can only imagine the macabre scene of pulsatile bleeding from the headless corpse until its circulating blood volume emptied. Aesthetics aside, the guillotine became and remains the "gold standard" for instantaneous death. Ironically, Guillotin became horribly disillusioned when his namesake machine became an instrument of mass political killings instead of criminal justice.[13]

Although the guillotine was never used in the United States, Guillotin's principle, that the goal of an execution should be to render the inmate dead as quickly and as painlessly as possible, motivated the development of new execution techniques in the United States in the nineteenth century. Prior to that time, judicial killings were primarily hangings, staged as performance art in front of thousands of people, with the condemned publicly confessing his sins from high atop the gallows just before dropping to his death. The assembled masses were intended to take home great moral les-

8. *Id.* at 88.

9. *Id.*

10. "Success" in this case is defined as decapitation of the condemned by a single blow of the sword to the neck. Charles Henri Sanson, the public executioner for the city of Paris, also stated that the cooperation of the condemned (by holding still) was important for success. *See id.*

11. Guillotin was a social reformer who sought equal punishments for equal crimes, regardless of the social standing of the perpetrator. His proposal read in part, "[w]henever the death penalty is decreed, its execution shall be identical, whatever the crime. The culprit shall be beheaded by a simple mechanism." *Id.*

12. The surgeon Antoine Louis is credited with perfecting the angled design of the decapitating blade. *Id.* at 85.

13. In just six weeks in 1794, over 1300 guillotine executions were carried out in France. *Id.* at 89.

sons about the power of the state and the church[14] and the evils of crime.[15] At least some in the crowd took home drunkenness or the contents of other people's pockets instead. In fact, the mob scene that became common at public executions—in one case drawing an estimated 30,000 people—became a motivation for moving executions inside prison walls.[16] Even today, executions are carried out deep within prisons in conditions of semi-secrecy.

Executions by hanging were common long before the first gallows were built in the United States.[17] In these ancient hangings, where a noose was placed around the condemned individual's neck and then elevated to lift him off the ground, the cause of death was likely asphyxia from tracheal compression.[18] The "long drop," in which the condemned fell to the end of the rope instead of being pulled up by the rope, became standard in 1784.[19] Further refinements into the twentieth century included placing the hangman's knot beneath the chin[20] or under the left ear.[21] This caused severe hyperextension of the neck with fractures of the second cervical vertebrae, which is said to result in rapid death.[22] It is important to note that transection of the spinal cord at this level produces quadriplegia and paralysis of the diaphragm.[23] Thus, it is likely that some hanging victims—who were often hooded to conceal their faces—actually suffocated to death while appearing entirely motionless. Furthermore, despite centuries of experience, hanging remains an inexact science. In some cases, the spinal cord has

14. A member of the clergy was invariably present at these executions. *See* MARK ESSIG, EDISON AND THE ELECTRIC CHAIR: A STORY OF LIGHT AND DEATH 75-76 (Walker & Co. 2003).

15. *See id.*

16. *See id.* at 77.

17. *See, e.g.*, *Symposium: The Distinction Between Crime and Tort in the Early Common Law*, 76 B.U. L. REV. 59, 61 (stating that "[t]he usual sentence for felons after 1200 was death by hanging").

18. Asphyxia due to tracheal compression does not produce immediate loss of consciousness. It is likely that these individuals suffered.

19. Gerald D. Robin, *The Executioner: His Place in English Society*, 15 BRIT. J. SOC. 234, 234 n.77 (1964).

20. *See* J. William Fielding et al., *Traumatic Spondylolisthesis of the Axis*, 63 J. BONE & JOINT SURGERY 313 (1981), *available at* http://www.jbjs.org.uk/cgi/reprint/63-B/3/313.pdf.

21. Jacob Weisberg, *This is Your Death,* NEW REPUBLIC, July 1, 1991, at 23.

22. *See id.*

23. Quadriplegia refers to complete loss of muscle function of the upper and lower extremities. The screen and stage actor Christopher Reeve suffered quadriplegia from spinal cord transection following a fall from a horse in 1995. He remained paralyzed and dependent on mechanical ventilation until his death in 2004. Jerome Groopman, *Medicine: One Step Beyond*, OBSERVER, Feb. 15, 2004, at 24.

clearly not been transected, and witnesses have observed inmates writhing in agony as death by slow asphyxiation occurred.[24] Other cases reveal the opposite extreme, as demonstrated in January 2007, when the Iraqi government, operating under U.S. authority, executed Barzan Ibrahim al-Tikriti, the half brother of Sadam Hussein. In a highly publicized execution designed to show the Iraqi government was committed to western standards of criminal justice, Mr. Ibrahim was decapitated by the rope as he dropped from the gallows.[25]

The firing squad—long favored by the military—has been used twice in the United States in the "modern" execution era: Gary Gilmore in 1977 and John Albert Taylor in 1996 were both killed in this way.[26] There is good reason to think that these men experienced nearly instantaneous and painless death. Disruption of blood flow to the brain, which would result from lacerations to the heart by multiple bullets, causes almost immediate loss of consciousness, resulting in rapid death with little or no pain.[27] Like decapitation by sword, the procedure is dependent on the skill and dedication of the executioners. If the riflemen are unable or disinclined to shoot at the inmate's heart,[28] then a slower, more agonizing death from exsanguination or pneumothorax,[29] or both, would follow. Additionally, like other mechanical execution methods such as decapitation and hanging, firing squad executions are not aesthetically pleasing.

The electric chair was conceived based on the observation that humans who inadvertently came into contact with high voltage electric current seemed to fall instantly and painlessly dead.[30]

24. *See* ROBERT M. BOHM, DEATHQUEST: AN INTRODUCTION TO THE THEORY AND PRACTICE OF CAPITAL PUNISHMENT IN THE UNITED STATES 72-73 (1999).

25. John F. Burns, *Second Hanging Also Went Awry, Iraq Tape Shows*, N.Y. TIMES, Jan. 16, 2007, at A1.

26. Both executions occurred in Utah. *See* DPIC Execution Database, *supra* note 4.

27. *See* BOHM, *supra* note 24, at 74. Furthermore, in the author's experience of caring for adult cardiac surgery patients, even the onset of ventricular fibrillation (an irregular and ineffective heartbeat) can cause nearly immediate unconsciousness.

28. A target is usually pinned to the condemned's shirt after auscultation of the heart by a physician. *See* Weisberg, *supra* note 21, at 24.

29. Exsanguination refers to death by hemorrhage. Pneumothorax refers to the condition in which the lung collapses due to air filling the chest cavity, usually due to a rent in the lung itself. If the air pressure in the chest cavity becomes excessive, death will result.

30. James F. Penrose, *Inventing Electrocution*, INVENTION & TECH., Spring 1994, *available at* http://www.americanheritage.com/articles/magazine/it/1994/4/1994_4_34.shtml.

Speaking at a legal hearing to determine the constitutionality of electrocution, Thomas Edison, the father of modern electricity, stated that electricity could be applied to the human body in such a manner as to cause instant, painless death in every case.[31] Nevertheless, the first "electrocution"[32] in the electric chair was horribly botched. According to one newspaper, it was "far worse than hanging."[33] Further horrors from the electric chair occurred well into the modern era of capital punishment. Some inmates have required multiple cycles of electricity to die, while others have smoldered, developed bleeding from the nose and mouth, and have emitted such horrific odors that witnesses became sickened.[34] Yet, the electric chair is the only form of capital punishment other than lethal injection currently in widespread use in the United States.[35] Unlike lethal injection, however, the pathophysiology of electrocution remains unknown. For example, it is unclear if the high voltage electrical current, which passes through the chest, causes fatal cardiac arrhythmias. Reports by execution witnesses,[36] as well as clinical observation of electrical burn victims provide anecdotal evidence that this is not the case.[37] It is also unclear whether the electric current causes contraction and paralysis of the respiratory muscles, which, if the inmate were still conscious, would amount to suffocation. There is also no evidence to support the notion that the inmate is rendered instantly senseless by the current flow

31. ESSIG, *supra* note 14, at 2.

32. "Electrocution" is a contraction of "electric" and "execution." *See id.* at 161-62.

33. *Id.* at 254; *see also* Deborah W. Denno, *The Lethal Injection Quandary: How Medicine Dismantled the Death Penalty*, 76 FORDHAM. L. REV. 49, 62 (2007) (citing *Far Worse Than Hanging*, N.Y. TIMES, Aug. 7, 1890, at 1) [hereinafter Denno, *Lethal Injection Quandary*].

34. Michael L. Radelet, *Some Examples of Post-Furman Botched Executions*, DEATH PENALTY INFO. CENTER, May 24, 2007, http://www.deathpenaltyinfo.org/article.php?did=478.

35. Several states do allow alternatives to these two methods. *See* N.H. REV. STAT. ANN. § 630:5 (allowing death by hanging); WASH. REV. CODE ANN. § 10.95.180 (allowing death by hanging); CAL. PENAL CODE § 3604 (allowing death by lethal gas); MO. ANN. STAT. § 546.720 (allowing lethal gas); IDAHO CODE ANN. § 19-2716 (allowing death by firing squad).

36. *See* Radelet, *supra* note 34.

37. This Author has cared for two patients with massive electrical injuries to both the upper and lower extremities, indicating that electrical current passed through the chest, a pattern not unlike what one would suffer in an electric chair, where the current travels from the head to the right leg. Although both patients required multiple amputations for severe burn injuries, neither patient experienced cardiac arrhythmia, arrest, or showed evidence of major cardiac damage. This is anecdotal evidence that cardiac arrest is not the primary cause of death in electrocution and death is not instantaneous.

through the scalp electrode. There is, however, substantial evidence that the inmate heats up significantly during the electrocution: a "burn ring on [the] head" and a burn on the right leg, up to eight by ten inches, are routinely described in autopsy findings,[38] and flames leaping from inmates' heads have been reported.[39]

The original idea for execution by asphyxiation was not a gas chamber but a cell with poison gas pipes so that the inmate could be painlessly dispatched while he slept.[40] This proved to be impractical, as the gas would also endanger prison guards or other inmates who were not scheduled to die. The gas chamber, therefore, evolved into the sealed octagonal room that can still be seen at many prisons, including San Quentin.[41] Underneath the chamber's metal chair is a bowl of sulfuric acid into which a pound of sodium cyanide tablets spill when a lever is tripped. Poisonous hydrogen cyanide gas rises up from the bowl and enters the inmate's respiratory system, where it deprives him of oxygen, but does not cause him to lose consciousness immediately.[42] "There is evidence of extreme horror, pain, and strangling" during an execution by asphyxiation, according to one warden.[43] Other eyewitness accounts have supported this observation.[44]

II. THE MEDICAL MODEL FOR A "HUMANE" EXECUTION

A. The Development of Lethal Injection

> "It is a method where you can literally put the prisoners to sleep . . . in five to ten seconds"
>
> – Dr. Richard J. Traystman describing lethal injection[45]

All of the previously mentioned execution methods, except the guillotine, were in use in the United States at the time that the Supreme Court placed a moratorium on capital punishment in

38. Melissa Li & William Hamilton, *Review of Autopsy Findings in Judicial Executions*, 26 AM. J. FORENSIC MED. & PATHOLOGY 261, 262-65 (2005).

39. *See* Radelet, *supra* note 34.

40. *See* Weisberg, *supra* note 21, at 26.

41. *See id.* This chamber is also where lethal injections later took place.

42. *Id.*

43. *Id.* The warden also stated that the inmate's eyes "pop" and his skin turns purple. *Id.*

44. *See* Radelet, *supra* note 34.

45. Gregg Zoroya, *Suit Says Death by Gas is Slow, Painful, Hardly Humane*, ORANGE COUNTY REG., Apr. 20, 1992, at A1. Dr. Traystman is listed in the article as Director of Anesthesiology and Critical Care Medicine Research Laboratories, Johns Hopkins University School of Medicine.

1972.[46] Although intravenous and intracardiac injections had been used for executions before, for example, in Nazi Germany's death camps,[47] lethal injection was not seriously considered as an execution technique in the United States prior to 1976.[48] In fact, the intravenous injection of lethal substances was considered—and rejected—by the Royal Commission on Capital Punishment in England in the 1950s.[49]

During the 1972 to 1976 execution moratorium, Oklahoma's electric chair was damaged, and it was determined that $50,000 in repairs would be required to make it functional again.[50] Not wanting to expend this amount on criminals, Oklahoma legislators sought alternatives.[51] A. Jay Chapman, the Chief Medical Examiner of Oklahoma, was apparently the first to suggest that intravenous drugs, consisting of an anesthetic followed by a chemical paralytic, could be used for executions.[52] With no knowledge of Chapman's cocktail, Stanley Deutch, M.D., a professor of anesthesiology at the University of Oklahoma College of Medicine, advised Oklahoma State Senator Bill Dawson that a modification of the technique for inducing general anesthesia could be used for killing.[53] Deutch assured the senator, based on his own experiences as a surgical patient, that intravenous anesthetic agents could be used to create an "extremely humane" execution method as compared to electrocution or the gas chamber.[54]

The concept of an execution based on a medical procedure gained political support almost immediately. Oklahoma created

46. *See* Furman v. Georgia, 408 U.S. 238 (1972).

47. *See* ROBERT JAY LIFTON, THE NAZI DOCTORS: MEDICAL KILLING AND THE PSYCHOLOGY OF GENOCIDE 189, 350-51 (Basic Books 1986) [hereinafter LIFTON, THE NAZI DOCTORS].

48. Lethal injection was considered—and rejected—by the New York Commission on Capital Punishment in 1888 because the commission felt that lethal injection would link the practice of medicine with death. Ultimately, electrocution was recommended instead. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 64.

49. *See* HER MAJESTY'S STATIONERY OFFICE, ROYAL COMMISSION ON CAPITAL PUNISHMENT 1949-1953 REPORT 257-61 (1953).

50. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 71. Senator Dawson informed his colleagues that repairing the electric chair would cost $50,000, building a gas chamber would cost $250,000, and the equipment for lethal injection would cost $10.

51. *Id.*

52. *See id.* at 65-70. This is the most detailed account available of the development of lethal injection in Oklahoma. There was a shocking lack of research into the development of lethal injection, and Dr. Chapman was "upfront [sic] about his glaring lack of expertise." *Id.* at 66.

53. *See id.* at 65-66.

54. D. Colburn, *Oklahoma Was the First*, WASH. POST, Dec. 11, 1990, at 214.

the first formal lethal injection law in 1977,[55] followed the next day by Texas.[56] Executions, however, were rare affairs in those years,[57] and a lethal injection execution was not attempted until 1982.[58] The first inmate to die by lethal injection was a forty year old African-American male named Charlie Brooks. Two physicians were present as observers. The lethal drugs were injected into the inmate's veins, causing death within minutes. The procedure was declared a success. An observer commented, "[w]ith the medical paraphernalia—intravenous tubes, a cot on wheels and a curtain for privacy—the well lighted cubicle might have been a hospital room."[59]

After this initial success, lethal injection's popularity spread quickly and was adopted in many states. Echoing Edison's comments about death by electricity a century before, a researcher at Johns Hopkins asserted that lethal injection "is a method where you can literally put the prisoners to sleep . . . in five to ten seconds,"[60] while a warden described it as "closing your eyes and going to sleep."[61] A Texas prison chaplain, after witnessing dozens of lethal injection executions, observed that "it's as humane as any form of death you can find."[62]

By the 1990s, a rise in executions was fueled by the increasing popularity of lethal injection.[63] In 1984 there were twenty-one executions of which five were lethal injections, but in 1992, a decade after the first lethal injection, there were thirty-one executions, of which twenty-one were lethal injections.[64] Also in 1992, Arkansas governor and presidential candidate Bill Clinton, working to create a "tough on crime" image, left the campaign trail to oversee the lethal injection of Ricky Ray Rector, an inmate who was so men-

55. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 65.

56. *Id.* at 78.

57. From 1977 to 1981 there were only four executions: one firing squad, two electrocution, and one gas chamber. *See* DPIC Execution Database, *supra* note 4.

58. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 79.

59. Kurt Anderson, *A "More Palatable" Way of Killing; Texas Carries Out First Execution by Lethal Injection*, TIME, Dec. 20, 1982, at 28.

60. Zoroya, *supra* note 45.

61. STEPHEN TROMBLEY, THE EXECUTION PROTOCOL: INSIDE AMERICA'S CAPITAL PUNISHMENT INDUSTRY 115 (Crown 1992).

62. Kevin Simpson, *Debate Flares Over Injections; Critics Say Lethal Shots Not Humane*, DENVER POST, Sept. 15, 1997, at A1.

63. Without lethal injection executions, the number of judicial killings in the United States would have been relatively stable over the past two decades. *See* DPIC Execution Database, *supra* note 4.

64. Calculations were made based on data in the Death Penalty Information Center's execution database. *See id.*

tally disabled that he left behind his dessert (for later consumption) as he was led to the death chamber.[65]

The execution rate continued to climb until it peaked in 1999 with ninety-eight executions of which ninety-four were lethal injections.[66] The height of lethal injection appears to have been 1997 to 2001 with 368 people put to death, including a triple execution at a single institution on a single night.[67] Executions became so commonplace that they faded from newspaper headlines.[68] But this efficiency—three executions in three hours (including a brief delay for a U.S. Supreme Court hearing)—was itself indicative of a problem. A prison's ability to kill so efficiently was reminiscent of the killings at the "treatment centers" of the Nazi euthanasia program.[69]

B. Pharmacology and Vascular Access in Lethal Injection

> An IV Administration Set . . . shall be inserted into the outlet of the bag of normal saline . . . . The tubing shall be cleared of air and made ready for use . . . . Angiocath/cathlon devices shall be initiated through standard procedure for such devices.[70]

Although the drug dosages vary from state to state, the three-drug sequence of the lethal injection cocktail is standard across the United States and has been used in more than 900 executions. The first drug, sodium thiopental, is an ultrashort-acting anesthetic agent. It does not have analgesic properties.[71] In the hospital setting, the purpose of this drug is to put a patient in a deep state of unconsciousness for a short period of time (minutes) so that the patient's airway can be controlled[72] and longer acting agents, such

65. *See* Philip Gailey, *Politicians Step Aside on Death Penalty*, ST. PETERSBURG TIMES, June 25, 2000, at 3D.

66. Calculations were made based on data from the Death Penalty Information Center's execution database. *See* DPIC Execution Database, *supra* note 4.

67. *Id.*

68. Eric Pooley, *Death or Life?*, TIME, June 16, 1997, at 31.

69. *See* Jonathan I. Groner, *Lethal Injection and the Medicalization of Capital Punishment in the United States*, 6 HEALTH & HUM. RTS. 65-79 (2002).

70. Ark. Dep't Corr., Admin. Directive 96-06: Procedure for Execution (1996) (on file with author).

71. *See* J.G. Reves et al., *Intravenous Nonopioid Anesthetics, in* MILLER'S ANESTHESIA 317, 332 (Ronald D. Miller ed., 2005). "Analgesic," as used above, means "pain relieving."

72. "Airway control" generally refers to the insertion of a plastic tube into the trachea ("endotracheal tube") to provide mechanical ventilation during general anesthesia. *See Endotracheal Intubation, Airway Establishment and Control, in* MERCK MANUALS ONLINE MEDICAL LIBRARY, http://www.merck.com/mmpe/sec06/ch064/ch064c.html#sec06-ch064-ch064b-179 (last visited May 7, 2008).

as narcotics or inhalational agents which have a slower onset, can be allowed to build up to a therapeutic level in the patient. Thiopental comes as a powder and must be mixed with sterile water prior to infusion, and it can precipitate if it is infused with certain other drugs, which can clog IV tubing.[73]

The second drug administered in lethal injection is pancuronium bromide, a muscle relaxant.[74] This drug paralyzes all skeletal muscles in the body, including muscles that control facial expression as well as reflexive functions such as breathing, gagging, and coughing. Pancuronium also has no analgesic properties, and is poisonous in that if it is administered in the absence of mechanical ventilatory assistance, the recipient will die of asphyxiation while appearing completely serene due to paralysis.[75] In the operating room, muscle relaxing drugs often serve the surgeon, not the anesthesiologist nor the patient. For example, muscle relaxation is required to allow a surgeon to gain access to deep spaces within the abdominal cavity.

Potassium chloride, the third drug, is a salt commonly found within the tissues of the human body. However, when potassium chloride is concentrated in the bloodstream, it causes cardiac arrest by interfering with the electrical conduction system of the heart. The clinical use of highly concentrated potassium chloride is to arrest the heart during certain open-heart operations.[76] In these cases, however, the patient is not only under general anesthesia but also supported by a heart-lung bypass machine, so the drug is not lethal but instead allows life-saving procedures to be performed. Low dose potassium infusions are used outside the operating room

73. *See* Denis Chambi & Seta Omoigui, *Precipitation of Thiopental by Some Muscle Relaxants*, 81 ANESTHESIA & ANALGESIA 1112, 1112 (1995).

74. Pancuronium Bromide is an intermediate to long-acting muscle relaxant. A typical dose for anesthesia will last over one hour. *See* Richard E. Haas & Ronda L. Erway, *Neuromuscular Blocking Agents, Reversal Agents, and Their Monitoring, in* NURSE ANESTHESIA 453, 459-60 (John L. Nagelhout & Karen L. Zaglaniczny eds., 1997).

75. Even in the presence of mechanical ventilation, the effect of pancuronium without adequate anesthesia is terrifying because the recipient is unable to move and unable to communicate distress. This is an extremely rare event in clinical practice and is called "anesthesia awareness." *See generally* American Society of Anesthesiologists, *Patient Awareness Under General Anesthesia*, http://www.asahq.org/patientEducation/Awarenessbrochure.pdf (last visited May 7, 2008).

76. "Cardioplegia" is the term for a potassium-containing solution that is infused into the heart to arrest it prior to initiation of cardiac surgical procedures on bypass. *See* M. Saljoughian, *Cardioplegic Solution*, U.S. PHARMACIST, http://www.uspharmacist.com/oldformat.asp?url=newlook/files/Feat/Cardioplegic.htm&pub_id=8&article_id=873 (last visited May 7, 2008).

to replace potassium losses due to certain drugs such as diuretics. Intravenous potassium chloride, even when given in therapeutic doses in the clinical setting, can be quite painful and can cause a burning sensation in the arm in which the drug is infused.[77] The concentration of potassium chloride used for lethal injection is many times higher than the concentration that has been known to cause pain in the hospital setting.

In order for these drugs to be infused, an IV must be established.[78] The typical peripheral intravenous catheter is a one to two inch thin plastic catheter with a hollow metal needle with a sharp beveled tip inside. When the device is inserted into the vein, which is confirmed by the presence of blood flowing through the needle, the plastic catheter is advanced into the vein and the needle is removed.[79] An infusion device, such as IV tubing or a syringe, is then attached to the catheter. The proper position of the catheter can be confirmed by free flow of fluid into the vein, a lack of resistance when fluids are infused by a syringe, and direct observation of the insertion site (looking for swelling or fluid leakage) during an infusion.

Mishaps involving intravenous fluid administration are everyday occurrences in hospitals. The most common complication is IV infiltration,[80] meaning that the plastic catheter can work its way out of the vein due to mechanical forces or fluid pressure damaging the walls of the vein. The result of this is that medications are inadvertently administered under the skin, where they can be quite painful and—depending on the drug—quite ineffective. In addition, IV tubing can leak, become disconnected, clog, or even fill with air, all in a setting where trained health care professionals are monitoring the infusions.

When peripheral IV access cannot be obtained due to scarring of the veins (for example, in a patient with a history of prolonged IV drug abuse), very fragile veins (for example, a patient with chronic disease, such as cirrhosis) or inaccessibility (morbid obesity), an-

77. *See* E. T. Lim et al., *Efficacy of Lignocaine in Alleviating Potassium Chloride Infusion Pain*, 20 ANAESTHESIA & INTENSIVE CARE 196, 196-97 (1992). In this study, eleven of fourteen patients reported moderate to severe pain upon initiation of intravenous therapy with potassium chloride.

78. The term "IV" is an abbreviation for "intravenous," but in medical practice usually denotes the actual plastic catheter that is inserted into the vein, even though the fluid bag and plastic tubing are also part of the intravenous infusion apparatus.

79. *See* Philip R. Spandorfer, *Peripheral Intravenous Access*, *in* COMPREHENSIVE PEDIATRIC HOSPITAL MEDICINE 1249, 1249-51 (Lisa B. Zaoutis & Vincent W. Chiang eds., 2007).

80. *Id.* at 1249.

other option is called a "central line."[81] This is a longer and generally larger bore IV that is inserted into one of the accessible "central" veins of the body: the femoral vein (groin), the subclavian vein (just below the clavicle), or the internal jugular vein (in the neck). A central line insertion is a technically demanding procedure, and generally requires the skills of a physician with specific training in this technique, such as a surgeon, critical care medicine physician, or anesthesiologist. Central line insertion is associated with a mechanical complication rate of nearly twenty percent.[82] Major complications include cardiac tamponade, cardiac perforation, major hemorrhage, and even death.[83]

In summary, the "ideal" execution would proceed as follows: technicians would insert two IVs, one in each arm. One is the primary IV, and the other is a backup. Both IVs are then hooked up to tubing leading to a saline bag that drips fluid continuously into the vein. On a signal from the warden, the series of three drugs would be infused into the primary line, with an infusion rate fast enough to allow rapid delivery of the drugs but not so fast that the IV would infiltrate. A dose of saline would be given between each drug to prevent precipitation. The thiopental would take effect in seconds, causing the inmate to lapse into a coma. The pancuronium would follow, knocking out the breathing in an already deeply comatose person. Then, potassium chloride would painlessly—and imperceptibly—arrest the heart, and the inmate would be pronounced dead. It would be so smooth, fast, and painless that even Dr. Guillotin would be impressed.

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81. A central line is also referred to as a "central venous line" ("CVL") or "central venous catheter" ("CVC").

82. *See* Jacques Merrer et al., *Complications of Femoral and Subclavian Venous Catheterization in Critically Ill Patients: A Randomized Controlled Trial*, 286 J. AM. MED. ASS'N 700, 700 (2001). In this study, there was a 17.3% mechanical complication rate for catheter insertions in the femoral vein (the method used for multiple executions in Missouri) and an 18.8% mechanical complication rate for catheter insertions in the subclavian vein (used once in Georgia). Mechanical complications included: unsuccessful insertion, inadvertent arterial puncture, bleeding at the insertion site, hematoma, and pneumothorax for the subclavian insertions.

83. Cardiac tamponade refers to compression of the heart from fluid (such as blood) filling the pericardium, which is the sac around the heart. See Deb Yoder, *Cardiac Perforation and Tamponade: The Deadly Duo of Central Venous Catheters*, 7 INT'L J. TRAUMA NURSING 108, 108-12 (2001), for a review of several deaths due to central lines. The author states that "signs and symptoms [of cardiac perforation or tamponade] can occur suddenly, within minutes of CVC insertion." *Id.* at 109.

C. When Lethal Injection Goes Awry: Botched Executions

In 1985, three years after the first lethal injection in Texas, one of the earliest reported botched lethal injection executions occurred in that state. Stephen Peter Morin, a former intravenous drug abuser, endured nearly forty-five minutes of attempted IV insertions before his death because technicians had difficulty finding a suitable vein.[84] Since that episode, over twenty-five botched executions have been reported, mostly based on direct observation by media witnesses.[85] A number of other inmates endured "needle torture" due to collapsed veins or a history of IV drug abuse.[86] Raymond Landry's lethal injection in 1988, however, was not marred by problems with IV insertion, but by IV expulsion: the intravenous catheter was expelled from his arm during the infusion of the lethal drugs, spraying the chemicals around the death chamber.[87] The execution team then re-inserted the IV so that the execution could be completed.[88] In 1990, for Charles Walker's execution in Illinois, the intravenous catheter was inserted into the vein backwards, causing the lethal drugs to build up in his hand instead of flowing into his heart, resulting in a prolonged and painful death.[89]

There have also been several cases where the inmates have appeared to react violently to the drug infusion instead of "just going to sleep" as promised. Robyn Lee Parks had a violent reaction to the drugs used, causing the muscles in his jaw, neck, and abdomen to react spasmodically for about forty-five seconds.[90] Parks "continued to gasp and violently gag until death came, some eleven minutes after the drugs were first administered."[91] Justin Lee May also had an unusually violent reaction to the lethal drugs. According to one reporter who witnessed the execution, May "gasped, coughed and reared against his heavy leather restraints, coughing once again before his body froze."[92] An attorney who witnessed the execution of Bert Leroy Hunter reported that Hunter had "vio-

84. *See* Radelet, *supra* note 34.

85. *See id.*

86. *See* Nathan Crabbe, *Injection Issue Halts Execution*, GAINSVILLE SUN, Nov. 15, 2007, *available at* http://www.gainesville.com/article/20071115/NEWS/711150320.

87. *See* Radelet, *supra* note 34. The mishap may have been due to extremely rapid and high pressure infusion of the drugs by an anxious or overzealous executioner applying too much pressure to the plunger of the syringe.

88. *See id.*

89. *See id.*

90. *See id.*

91. *Id.* Parks was executed in March, 1992, in Oklahoma. *Id.*

92. *Id.* May was executed in May, 1992, in Texas. *Id.*

lent convulsions. His head and chest jerked rapidly upward as far as the gurney restraints would allow, and then he fell quickly down upon the gurney. His body convulsed back and forth like this repeatedly . . . . He suffered a violent and agonizing death."[93]

Two recent executions deservedly received both national and international media attention. On May 2, 2006, the State of Ohio required almost ninety minutes to administer a lethal injection to fifty-seven year old convicted killer Joseph Clark.[94] The procedure should have taken less than fifteen minutes. Although the execution team struggled successfully to place an IV in a vein in Mr. Clark's arm, it soon became apparent that something was terribly wrong. Three to four minutes into his execution, Mr. Clark apparently felt pain in his arm as the lethal drugs collected under his skin instead of flowing into his vein. He raised his head up and said "it don't work" several times.[95] Prison officials then halted the execution and closed the curtains of the death chamber.[96] They examined Mr. Clark and ascertained that the IV was not functioning. The execution team then inserted needles at multiple locations on Mr. Clark's body in an attempt to secure a new IV.[97] During this forty minute interval, witnesses heard "moaning, crying out and guttural noises,"[98] and Mr. Clark even requested an oral dose of poison to end his misery.[99] Finally, a suitable vein was found, a new IV was inserted, and Mr. Clark was again administered the lethal injection, this time successfully.[100]

In Florida, in December of 2006, Puerto Rican native Angel Diaz was brought to the death chamber for a lethal injection.[101] IVs were inserted in each arm, near the inside of the elbow, which

93. *Id.* Hunter was executed in June, 2000, in Missouri. *Id.*

94. *See* Alan Johnson, *"It Don't Work" Inmate Says During Botched Execution*, COLUMBUS DISPATCH, May 3, 2006, *available at* http://www.columbusdispatch.com/live/contentbe/dispatch/2006/05/03/20060503-A1-02.html.

95. *See* Paul E. Kostyu, *Execution Runs into Problems*, CANTON REPOSITORY, May 3, 2006, *available at* http://www.cantonrep.com/index.php?ID=284003. Mr. Kostyu was the sole member of the statehouse press corps who was allowed to witness the execution and reported that Mr. Clark shouted "it don't work" five times. *Id.*

96. See Johnson, *supra* note 94.

97. *Id.*

98. *Id.*

99. *See* Erica Ryan, *State Changing Lethal Injection Process After Execution Problems,* ASSOCIATED PRESS, June 28, 2006.

100. *See* Johnson, *supra* note 94.

101. *See* Ron Word, *Witness: Florida Inmate Seemed Like He 'Would Never Die' During Prolonged Execution*, ASSOCIATED PRESS, Dec. 14, 2006 [hereinafter Word, *Witness: Florida Inmate*].

is standard procedure for Florida executions.[102] When the drugs were administered, they seemed to have little effect. Twenty-four minutes into the execution, Diaz was still moving, grimacing, and blinking his eyes.[103] It took two rounds of drugs (one cocktail through each IV) and thirty-four minutes for him to die.[104] Prison officials initially blamed Mr. Diaz's liver disease for the slow death,[105] even though liver failure would likely make the drugs work faster, not slower. Mr. Diaz's autopsy later revealed that he had a normal liver.[106] He also had eleven- and twelve-inch chemical burns on his arms at the sites of the IVs, which had both infiltrated, causing the lethal drugs to infuse under the skin instead of into the veins.[107] An Associated Press reporter, who had seen twenty prior executions, commented that "[i]t seemed like Angel Nieves Diaz would never die."[108] This execution prompted Governor Jeb Bush to suspend all executions in Florida and convene a state commission to study the issue.[109]

In addition to these and other executions that have horrified witnesses, there have been concerns that at least some inmates may be subjected to undetectable pain and suffering during execution due to the effects of the paralytic drug. A study of lethal injection protocols in several states concluded that the doses of thiopental and potassium may be inadequate, leading to death by conscious asphyxiation.[110] A widely publicized review of post-mortem thiopen-

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102. *Id.*

103. *Id.*

104. *See* Ron Word, *Execution of Inmate That Required 2 Doses, Lasted More Than 30 Minutes Sparks Criticism,* ASSOCIATED PRESS, Dec. 14, 2006 (quoting Florida Department of Corrections spokeswoman Gretl Plessinger stating that Mr. Diaz had liver disease and that the second dose "was not unanticipated" because "the metabolism of the drugs to the liver is slowed").

105. *See id.*

106. *See* Fla. Office of Med. Exam'r, *Postmortem Examination of the Body of Angel Diaz*, Dist. 8 (Dec. 14, 2006) (on file with author).

107. Dr. Hamilton does not actually use the word "burn" in his report. His description reads:

> In both arms, incompletely circumferential zones of partially collapsed, fluid filled bullae are seen . . . . Both zones are characterized by partially collapsed bullae containing watery pink tinged fluid. There is extensive skin slippage and focal gray-black discoloration of the epidermis in the roof of the bullae along with focal erythematous changes in the surrounding skin.

Id. Based on the author's clinical experience, this is a classic description of a deep partial thickness burn.

108. *See* Word, *Witness: Florida Inmate*, *supra* note 101.

109. *See* Radelet, *supra* note 34.

110. *See* Teresa A. Zimmers et al., *Lethal Injection for Execution: Chemical Asphyxiation?,* 4 PUB. LIBR. SCI. MED. 646, 646 (2007).

tal levels, obtained from autopsies of executed inmates in several states, concluded that "post-mortem concentrations of thiopental in the blood were lower than that required for surgery in forty-three of forty-nine executed inmates (eighty-eight percent); twenty-one (forty-three percent) inmates had concentrations consistent with awareness."[111] The methodology of this latter study was criticized by other experts, as there is substantial evidence that post-mortem thiopental levels are unreliable.[112] Nevertheless, the thiopental data, regardless of its accuracy, combined with mounting "clinical" data that inmates were suffering, became important legal weapons in lethal injection litigation.

D. The Impact of Botched Executions on Lethal Injection Litigation

Because lethal injection requires medical technology and relies on procedures used in hospital operating rooms, it is hardly surprising that things can go awry when untrained or poorly trained personnel are assigned to perform the executions. In many states, the execution team uses prison guards and medical technicians to perform the executions.[113] Physicians have frequently been present—often anonymously—but do little, or have no role, except for the pronouncement of death.[114] But as legal challenges to lethal injection focus increasingly on the disastrous executions, administrative, legal, and legislative decisions are now conspiring to bring physicians to the bedside for lethal injection.

In Georgia, physicians have had an active role in executions.[115] When Jose High was brought to Georgia's death chamber in 2001, IV access could not be obtained by the execution team due to severely scarred veins from previous drug abuse.[116] After thirty min-

111. *See* Leonidas G. Koniaris et al., *Inadequate Anaesthesia in Lethal Injection for Execution*, 365 LANCET 1412, 1412-14 (2005).

112. *See* Jonathan I. Groner, *Comment on Inadequate Anaesthesia in Lethal Injection for Execution*, 366 LANCET 1073 (2005); Mark J. Heath et al., *Comment on Inadequate Anaesthesia in Lethal Injection for Execution*, 366 LANCET 1073, 1073-74 (2005).

113. For a detailed analysis of state practices regarding lethal injection team composition, see Deborah W. Denno, *When Legislatures Delegate Death: The Troubling Paradox Behind State Uses of Electrocution and Lethal Injection and What it Says About Us*, 63 OHIO ST. L.J. 63, 156-68 (2002) [hereinafter Denno, *When Legislatures Delegate Death*].

114. *See* Amnesty Int'l USA, U.S. State Lethal Injection Laws and the Role of Physicians or Other Health Professionals (Oct. 2007), http://www.amnestyusa.org/abolish/HealthProStatutes.pdf.

115. *See* Groner, *Medical Charade*, *supra* note 3, at 26-27.

116. *See* Beth Warren, *Hitches Disclosed in Lethal Injections*, ATLANTA J. CONST., May 1, 2002, at B3.

utes and numerous access attempts by nurses, a physician who had critical care training was summoned into the death chamber.[117] This physician had been hired solely due to his expertise in vascular access.[118] He placed a central venous catheter in Mr. High's right subclavian vein so that the execution could proceed.[119] When a group of doctors sued the state medical board for failing to discipline physicians for their role in executions, the Georgia legislature passed a bill that shielded doctors from disciplinary action.[120]

Missouri has also clandestinely increased the role of physicians in executions. In the mid-1990s, the Missouri Department of Corrections employed a surgeon as an executioner.[121] He supervised fifty-four executions.[122] In some of these executions the surgeon's job was to insert the IV, and this surgeon chose to insert a central venous catheter in the femoral vein (in the groin) of each inmate executed regardless of whether or not a simpler and less painful peripheral IV would suffice.[123] This surgeon was also responsible for the drug doses. His secret identity was eventually revealed after court hearings, as was the long record of disciplinary actions against him by several hospitals.[124]

In North Carolina, concerns that some inmates may have been conscious while being executed prompted a judge to demand that "medical personnel who are qualified to ensure that the plaintiff is unconscious" be present to monitor an inmate during his execution.[125] When this demand could not be met, the state offered, and the judge ultimately accepted, the substitution of a Bispectral In-

117. *See* Jonathan I. Groner, *Lethal Injection: A Stain on the Face of Medicine*, 325 BRIT. MED. J. 1026, 1026-28 (2002) [hereinafter Groner, *Stain on the Face of Medicine*].

118. *See* Groner, *Medical Charade*, *supra* note 3, at 26.

119. *See* Groner, *Stain on the Face of Medicine*, *supra* note 117.

120. *See* Pauline Vu, *Executions Halted as Doctors Balk*, Mar. 21, 2007, http://www.stateline.org/live/printable/story?contentId=190836.

121. *See* Berkeley School of Law Death Penalty Clinic, Univ. of Cal., *Lethal Injection and the Three-Drug Protocol:* Baze v. Rees *Resource Kit*, at 13 (on file with author).

122. *Id.*

123. *See* Affidavit of Larry Crawford, Johnston v. Crawford, No. 4:04CV1075 DJS (E.D. Mo. Aug. 8, 2005). Within the affidavit, Crawford, then Director of Missouri Department of Corrections, states that "[a]n IV catheter is inserted into the femoral vein" for each of the last three executions that Mr. Crawford supervised. *Id.* at 2, ¶ 5F.

124. *See* Jeremy Kohler, *Behind the Mask of the Execution Doctor*, ST. LOUIS POST-DISPATCH, July 30, 2006, at A1.

125. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 103 n.374. "Qualified personnel" in this context would almost certain refer to an anesthesiologist or certified nurse anesthetist.

dex ("BIS") monitor, a computerized device that uses a proprietary algorithm to convert raw EEG[126] data into an index of sedation.[127] The BIS monitor's manufacturer states:

> Clinical judgment should always be used when interpreting the BIS in conjunction with other available clinical signs. *Reliance on the BIS alone for intraoperative anesthetic management is not recommended.* As with any monitored parameter, artifacts and poor signal quality may lead to inappropriate BIS values. Potential artifacts may be caused by poor skin contact (high impedance), muscle activity or rigidity, head and body motion, sustained eye movements, improper sensor placement and unusual or excessive electrical interference.[128]

Nevertheless (and to the manufacturer's dismay), the device was used to monitor a lethal injection execution.[129]

The most spectacular rulings came from California, where Judge Jeremy Fogel, concerned about possible unconstitutional suffering at previous executions, ordered that two anesthesiologists must be present and *ready to intervene* for the February 2006 execution of Michael Morales.[130] Two anesthesiologists initially signed on to become part of the execution team, but backed out just hours before the scheduled execution when they learned that the full extent of their involvement would include monitoring the inmates for depth of anesthesia and intervening should the inmate appear inadequately anesthetized.[131]

126. EEG is the abbreviation for "electroencephalogram," the name giving to recordings of minute electrical impulses that are emitted by the brain. A typical EEG involves placing electrodes in numerous places on the skull. The BIS monitor detects and analyzes EEG signals from a single location. The device costs approximately $5000. *See* Rachel Zimmerman, *How Necessary is Brain Monitor in Anesthesia?*, WALL ST. J., Oct. 25, 2005, at B1 (stating that "the average selling price is $4,000 to $5,000").

127. *See* Robert Steinbrook, *New Technology, Old Dilemma—Monitoring EEG Activity During Executions*, 354 NEW ENG. J. MED. 2525, 2525 (2006).

128. ASPECT MEDICAL SYSTEMS INC., BIS VISTA MONITORING SYSTEM OPERATING MANUAL iii, http://www.aspectmedical.com/assets/Documents/pdf/BISVISTA manual.pdf (last visited Apr. 21, 2008) (emphasis added).

129. *See* Henry Weinstein, *N.C. Judge May Block 3 Executions Over Doctor Participation*, L.A. TIMES, Jan. 24, 2007, at 12.

130. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 52-53.

131. *See id.* at 52.

III. Crossing Moral Boundaries: The Impact of the Physician-Executioner on Society

A. Lethal Injection and Medical Ethics

While a few individual physicians have advocated otherwise,[132] not a single national medical or nursing organization in the United States or English-speaking international medical organization has a public position statement urging its members to assist in lethal injection or any other form of capital punishment for any reason.[133] The ethical principle that proscribes the use of medical knowledge and skill for harm dates from antiquity. The ancient Hippocratic Oath states in part, "I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice. I will neither give a deadly drug to anybody who asked for it, nor will I make a suggestion to this effect."[134] A more modern version of this oath, often administered to medical school students reads, "Most especially must I tread with care in matters of life and death. If it is given me to save a life, all thanks. But it may also be within my power to take a life; this awesome responsibility must be faced with great humbleness and awareness of my own frailty."[135] The most common and most succinct rendition of this oath is simply, "first, do no harm."[136]

The World Medical Association[137] ("WMA"), first adopted a strong resolution against medical participation in executions when the first lethal injection was scheduled in 1981. This resolution was revised, and the organization resolved in 2000 that "it is unethical for physicians to participate in capital punishment, in any way, or

132. There are two physicians who have published essays in peer reviewed medical journals endorsing physician participation in judicial executions. *See* Kenneth Baum, *"To Comfort Always": Physician Participation in Executions,* 5 N.Y.U. J. Legis. & Pub. Pol'y 47, 50 (2002); *see also* Waisel, *supra* note 1, at 1073.

133. For an excellent compendium of the ethical guidelines for the world's major medical professional organizations, see Amnesty Int'l, Execution by Lethal Injection: A Quarter Century of State Poisoning (2007), http://www.amnesty.org/en/library/asset/ACT50/007/2007/en/dom-ACT500072007en.pdf [hereinafter Amnesty Int'l, State Poisoning].

134. Nova Online, Hippocratic Oath, Classical Version, http://www.pbs.org/wgbh/nova/doctors/oath_classical.html (last visited May 7, 2008).

135. Nova Online, *Hippocratic Oath, Modern Version*, http://www.pbs.org/wgbh/nova/doctors/oath_modern.html (last visited Apr. 21, 2008). This oath was written in 1964 by Louis Lasagna, Academic Dean of the School of Medicine at Tufts University, and is used in many medical schools today.

136. *See* Amnesty Int'l, State Poisoning, *supra* note 133.

137. The WMA is an independent confederation of free professional associations including eighty national medical associations. *See* World Medical Association, About the WMA, http://www.wma.net/e/about/index.htm (last visited May 7, 2008).

during any step of the execution process."[138] The World Psychiatric Association ("WPA"), in its Declaration of Madrid of 1996, states that "[u]nder no circumstances should psychiatrists participate in legally authorized executions nor participate in assessments of competency to be executed."[139] Similarly, the International Council of Nurses ("ICN"), has stated: "ICN urges its member national nurses' associations ("NNAs") to lobby for abolition of the death penalty; to actively oppose torture and participation by nurses in executions; and to develop mechanisms to provide nurses with confidential advice and support in caring for prisoners sentenced to death or subjected to torture."[140]

In the United States, the position of the American College of Physicians is that "participation by physicians in the execution of prisoners except to certify death is unethical."[141] The American Medical Association ("AMA"), the largest and best known medical professional organization in the United States, has a carefully crafted statement not only opposing participation in capital punishment, but specifically lethal injection as well. The AMA's code of ethics states that:

> An individual's opinion on capital punishment is the personal moral decision of the individual. 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. Physician participation in execution is defined generally as actions which would fall into one or more of the following categories: (1) an action which would directly cause the death of the condemned; (2) an action which would assist, supervise, or contribute to the ability of another individual to directly cause the death of the condemned; (3) an action which could automatically cause an execution to be carried out on a condemned prisoner.[142]

138. World Medical Association, World Medical Association Resolution on Physician Participation in Capital Punishment, http://www.wma.net/e/policy/c1.htm (last visited May 7, 2008).

139. *See* AMNESTY INT'L, STATE POISONING, *supra* note 133.

140. Int'l Council of Nurses, Position Statement: Torture, Death Penalty and Participation by Nurses in Executions, http://www.icn.ch/pstorture.htm (last visited May 7, 2008).

141. AM. COLLEGE OF PHYSICIANS, ETHICS MANUAL (5th ed. 2005), *available at* http://www.acponline.org/running_practice/ethics/manual/ethicman5th.htm.

142. AM. MED. ASS'N., CODE OF MEDICAL ETHICS, E-2.06: CAPITAL PUNISHMENT, *available at* http://www.ama-assn.org/ama/pub/category/2498.html (follow "Current opinions" hyperlink; then follow "E-2.00 Opinions on Social Policy Issues" hyperlink; then follow E-206 Capital Punishment hyperlink) (last visited May 7, 2008).

A more precise definition of "participation" is also included:

> Physician participation in an execution includes, but is not limited to, the following actions: prescribing or administering tranquilizers and other psychotropic agents and medications that are part of the execution procedure; monitoring vital signs on site or remotely (including monitoring electrocardiograms); attending or observing an execution as a physician; and rendering of technical advice regarding execution.[143]

When lethal injection became the preferred execution technique in the United States, the AMA added:

> In the case where the method of execution is lethal injection, the following actions by the physician would also constitute physician participation in execution: selecting injection sites; starting intravenous lines as a port for a lethal injection device; prescribing, preparing, administering, or supervising injection drugs or their doses or types; inspecting, testing, or maintaining lethal injection devices; and consulting with or supervising lethal injection personnel.[144]

The AMA is a voluntary organization. While its position on lethal injection is quite clear, the AMA has no legal enforcement authority. The most drastic action it could take would be to revoke an individual's membership, which would have minimal consequence for the individual physician. The organizations with the power to punish physicians solely for ethical breaches (not criminal in nature) are the state medical boards. The power and authority of the medical boards varies from state to state. In Ohio, for example, state law specifically requires the medical board to use the AMA ethical guidelines, as well as the guidelines of other national professional organizations, as references for ruling on ethical matters.[145]

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143. *Id.* Monitoring vital signs (respiratory rate, heart rate, and blood pressure) would include the act of pronouncing death since the absence of life must be ascertained by examining the inmate for absence of vital signs. AMA Code of Medical Ethics section E-2.06 makes a distinction between *pronouncing* death (as described above) and *certifying* death, which involves signing a death certificate and can be done after the body has been taken to the morgue. The distinction is important because if a physician monitors vital signs after the drugs are given and finds that vital signs are still present, he or she must order more lethal drugs, thus assuming the role of executioner. *Id.*

144. *Id.*

145. Ohio Revised Code § 4731.22 states:

> (B) The board, by an affirmative vote of not fewer than six members, shall, to the extent permitted by law, limit, revoke, or suspend an individual's certificate to practice, refuse to register an individual, refuse to reinstate a cer-

Finally, though not a code, regulation, or rule, the president of the American Society of Anesthesiologists, in response to the litigation in California's Morales case, issued perhaps the most prescient statement about lethal injection and the medical profession:

> Lethal injection was not anesthesiology's idea. American society decided to have capital punishment as part of our legal system and to carry it out with lethal injection. The fact that problems are surfacing is not our dilemma. The legal system has painted itself into this corner and it is not our obligation to get it out.[146]

B. Medical Participation, Medical Professionalism, and Moral Protection

The increasing demand by governmental authorities for physician participation in lethal injection—an activity clearly at odds with the profession's ethical standards—raises fundamental questions: When a physician violates medical ethics, does it impact the individual physician, the medical community, or society as a whole? Can physicians be absolved of their ethical responsibilities if demanded by the government? If so, what are the consequences?

Clearly, the individual physician harms his or her relationships with other patients by participating in an execution. The most obvious example here is when the physician-executioner is also a prison physician. How can inmates, whether on death row or in the general prison population, trust someone who has killed one of their own? This breakdown in the physician-patient relationship could mean that inmates fail to reveal important symptoms (that could be clues to cancer or an impending heart attack, for example) to the prison doctor, and thus fail to receive adequate medical treatment for potentially life threatening conditions. This scenario occurred in Georgia, where a physician from the faculty of the Medical College of Georgia ("MCG") provided health care to in-

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> tificate, or reprimand or place on probation the holder of a certificate for one or more of the following reasons . . . (18) Subject to section 4731.226 of the Revised Code, violation of any provision of a code of ethics of the *American medical association*, the American osteopathic association, the American podiatric medical association, or any other national professional organizations that the board specifies by rule. The state medical board shall obtain and keep on file current copies of the codes of ethics of the various national professional organizations.

OHIO REV. CODE ANN. § 4731.22 (2008) (emphasis added).

146. Orin F. Guidry, *Message From the President: Observations Regarding Lethal Injection*, 70 AM. SOC'Y ANESTHESIOLOGISTS NEWSL., Aug. 2006, *available at* http://www.asahq.org/Newsletters/2006/08-06/guidry08_06.html.

mates, but was also assigned to serve on the execution team. When this information became public, the MCG president demanded his removal from execution duty, stating, "even his presence in the death chamber could compromise his provider relationship with the inmate population."[147]

The broader medical community is also harmed by the ethical breaches demanded by lethal injection because physicians who assist in executions often do so anonymously, meaning that the executioner could be any doctor from inside the prison or out. The doctor who inserted the central venous catheter into Jose High for his 2001 execution in Georgia, who was not on the MCG faculty, also practiced in several area hospitals.[148] His name was initially hidden from the public, leaving Georgians to ponder his identity.[149] The Missouri surgeon who was identified as "John Doe" in several court hearings also practiced in several hospitals.[150] Many patients would not feel comfortable knowing that his or her doctor might be an executioner. Thus, the secrecy of lethal injection means that not only do individual patients mistrust individual doctors, but entire communities distrust the entire medical profession.

Furthermore, lethal injection uses medical technology and medical expertise for the purpose of killing. Even without physician participation, the lethal injection process so closely mimics medical practice that the entire medical community is tied to the death chamber. This Author has previously called lethal injection "a stain on the face of medicine"[151] because with its intravenous lines, electrocardiograph monitors, and anesthetic drugs, it creates an aura of medical respectability that has a "deeply corrupting influence on medicine as a whole."[152] The extensive use of physicians to run Nazi Germany's notorious "T-4 euthanasia program,"—where thousands of mentally and physically disabled Germans were killed by lethal injection and other means at the dawn of

147. Rhonda Cook, *State Executes Columbus Cop Killer; Spivey Apologizes, Blasts Punishment*, ATLANTA J. CONST., Jan. 25, 2002, at 3C. The MCG president later reversed his position, and allowed the physician to rejoin the execution team. *See* Sandy Hodson & Tom Corwin, *MCG Leader Says Doctors' Role in Chamber is OK*, AUGUSTA CHRON., Jan. 26, 2002, *available at* http://chronicle.augusta.com/stories/012602/met_192-6610.000.shtml.

148. See Michael Mears, *Capital Cases: Lethal Injection and the Georgia Supreme Court's New Millenium*, 28 CHAMPION 33, 33 n.7 (2004).

149. *See* Kohler, *supra* note 124; *see also* PBS Now Transcript, July 14, 2006, *available at* http://www.pbs.org/now/transcript/228.html (last visited May, 1 2008).

150. *See* Kohler, *supra* note 124.

151. Groner, *Stain on the Face of Medicine*, *supra* note 117, at 1026.

152. *Id.* at 1028.

World War II—serves as a stark reminder that when physicians forsake their ethical principles, even on behalf of the state, the consequences can be severe.[153]

Medical professionalism is said to be a morally protective force in society.[154] Medical professionals care for the ill, protect the weak and the poor, and support public health interventions. Physicians "occupy an important place in society as privileged and trusted advocates for the well-being" of the populations that they serve.[155] Thus, the corruption of medical professional values can have a profoundly negative impact on society as a whole. Clearly, lethal injection corrupts the medical profession. Not only does lethal injection induce physicians to perform unethical activities, but lethal injection also "medicalizes"[156] executions, meaning that its veneer of medical respectability allows the imagery of healing to be used to justify killing. Clearly, the imagery of healing is everywhere in the modern death chamber: the bags of saline, the intravenous lines, and the heart monitors are all emblematic of the health care setting.

Finally, the medical nature of the execution process leads to an inversion of values, where killing is seen as therapeutic. Although there is no data to suggest that an execution is somehow therapeutic to a community, or even to a victim's family, the "healing" effect of executions is frequently cited in the media. After the execution of a triple murderer in Maryland in 2004, seventeen years after the crime, reporters asked a victim's family if the inmate's death "would bring any healing to his family."[157] Twenty years after she was attacked, a victim told reporters, "[i]t's been very healing for me," after seeing the perpetrator executed by lethal injection for the murder of two other women.[158]

153. For an in-depth look at Nazi Germany's T-4 program, see HUGH GREGORY GALLAGHER, BY TRUST BETRAYED: PATIENTS, PHYSICIANS, AND THE LICENSE TO KILL IN THE THIRD REICH (Vandamere Press 1995).

154. *See* Mathew K. Wynia et al., *Medical Professionalism in Society*, 341 NEW ENG. J. MED. 1612, 1612 (1999).

155. *See* Comm. on Bioethics, Am. Acad. of Pediatrics, *Professionalism in Pediatrics: Statement of Principles*, 120 PEDIATRICS 895, 895 (2007).

156. *See* LIFTON, THE NAZI DOCTORS, *supra* note 47, at 14 (defining the "medicalization of killing" as the use of "the imagery of killing in the name of healing" and noting that at the heart of the Nazi genocide was "the destruction of the boundary between healing and killing").

157. *State Executes Convicted Murderer Steven Oken*, WBALTV.COM, June 18, 2004, http://www.wbaltv.com/news/3432121/detail.html?z=dp&dpswid=2266479&dppid=68758.

158. Sean Murphy, *Welch Executed for Killing Norman Woman*, ASSOCIATED PRESS, Aug. 22, 2007.

A similar perversion of values—the medicalization of killing—was also at the heart of the Nazi T-4 "euthanasia" program. The thousands of mentally and physically disabled adults and children who were killed were considered by the government to be "human ballast"—killing them was seen as a therapeutic imperative. Cases selected for "final medical treatment" (a euphemism for killing) were reviewed by prominent physicians—often university affiliated—before the final decision was made.[159] The actual killing, whether performed by lethal injection, poisoning, or carbon monoxide asphyxiation, was always supervised by a doctor. The T-4 director was fond of saying: "the syringe belongs in the hand of a physician."[160] As this author has stated previously, the Nazis "used the imagery of medicine to justify killing, and they corrupted doctors and, ultimately, an entire nation."[161]

While a comparison between the role of physicians in lethal injection in the United States and their role in the Nazi regime may seem far-fetched, just as university medical faculty supervised the T-4 program, physicians from the state's Medical College help with executions in Georgia. In Missouri, a surgeon has been at the bedside to start IVs for many executions,[162] while in Florida, a physician, dressed in elaborate garb to hide his identity,[163] enters the death chamber to pronounce death after each lethal injection.[164]

IV. THE COURTS ASK: IS THE DOCTOR IN?

A. Defining the Hippocratic Paradox

The rulings by judges in California, Missouri, North Carolina, and other states, which demanded not just physicians but *medical specialists*[165] supervise executions, were clearly at odds with nationally and internationally recognized medical ethics. The execution technique itself—which had been developed to simulate a medical procedure and was thought to be humane—came to be considered inhumane unless carried out by medical professionals, because of the risk that the inmate would suffer torture, in violation of the Eighth Amendment's prohibition against the infliction of "cruel

159. *See* GALLAGHER, *supra* note 153, at 65-66.
160. *Id.* at 67.
161. Groner, *Stain on the Face of Medicine*, *supra* note 117, at 1028.
162. *See* Taylor v. Crawford, 487 F.3d 1072, 1075 (8th Cir. 2007).
163. Ron Word, *Doctors May Take Execution Role*, ASSOCIATED PRESS, Sept. 23 2007.
164. *Id.*
165. *See supra* Part II.D.

and unusual punishment."[166] As Tennessee Governor Phil Bredesen commented, "if the Vanderbilt anesthesiology department would come over and perform executions for us, there wouldn't be any issues."[167]

On the other hand, medical professionals are ethically forbidden from participating in lethal injection because their participation risks irreparable harm not only to physician-patient relationships but to the medical profession and even society as a whole.[168] Thus, execution by lethal injection has created a "Hippocratic paradox" where it is unethical for physicians not to participate in lethal injection, but also unethical for physicians to participate. In North Carolina, this dilemma pitted the state's Department of Corrections against the State Medical Board, with the Medical Board threatening to discipline any doctor who participated in lethal injection and the Department of Corrections threatening to sue the Medical Board for blocking executions.[169] Governor Mike Easley referred to the situation as "a Gordian knot."[170]

The North Carolina Medical Board is not the only institution to have formally recognized medical ethics. In fact, although medical professional organizations such as the AMA and WMA are voluntary, their ethical guidelines reach far beyond their membership. State medical boards often recognize the AMA's Code of Ethics as a guide for disciplinary action against physicians.[171] Even the Supreme Court has specifically deferred to medical ethics in several rulings.[172]

B. "Solving" the Hippocratic Paradox

From the state's point of view, the problem with the Hippocratic paradox is that capital punishment and lethal injection are still constitutionally acceptable, yet the Hippocratic paradox prevents executions from occurring. Thus, state lawyers have tried to develop methods to solve this dilemma. The proposed solutions generally

166. U.S. CONST. amend. VIII.

167. Erik Schelzig, *AP Interview: Governor Says Ruling on Execution 'Wrong'*, ASSOCIATED PRESS, Sept. 22, 2007.

168. *See generally* Groner, *Stain on the Face of Medicine*, *supra* note 117.

169. Steve Hartsoe, *Executions on Hold Due to Ethical Conflict*, ASSOCIATED PRESS, Feb. 20, 2007

170. *Id.*

171. *See, e.g.*, OHIO REV. CODE ANN. § 4731.22(18) (2008).

172. *See* Daniel N. Lerman, *Second Opinion: Inconsistent Deference to Medical Ethics in Death Penalty Jurisprudence*, 95 GEO. L.J. 1941, 1972 (2007) (noting "the rich tradition of U.S. Supreme Court deference to medical ethics and the standards of the medical profession," and citing several supporting cases dating back to 1952).

fall into four categories: (1) medical coercion, where doctors are bribed or pressured to participate in executions; (2) technology substitution, meaning that medical technology is substituted for medical professionals; (3) medical professional ambiguity, where an ambiguous role for the doctors is created in the hopes of satisfying a legal requirement for medical supervision at executions without appearing to violate medical ethics; and (4) the invocation of "medical situational morality"—the proposition that physicians can be released from their ethical obligations in certain situations.

1. *Medical Coercion*

The coercion method began in the early days of lethal injection. When three resident physicians (trainees) were asked to attend the first lethal injection in Illinois, they were offered cash payments, and their names were never released.[173] Although information on execution team members is often kept secret, it is likely that doctors participate to some extent in almost every state.[174] They may be offered cash payments and guarantees of anonymity.[175] In some states, attendance at executions may be a requirement of the prison's medical staff,[176] and in South Carolina, a prison employee is currently suing the Department of Corrections for being forced to execute inmates.[177] Despite the obvious ethical implications of their participation, and the possible impact on their practices if

173. In 1991, Illinois passed a law requiring that two physicians be present at every lethal injection. The state "promised to conceal their identity and pay them in cash." ROBERT J. LIFTON & GREG MITCHELL, WHO OWNS DEATH? CAPITAL PUNISHMENT, THE AMERICAN CONSCIENCE, AND THE END OF EXECUTIONS 97 (Morrow 2000) [hereinafter LIFTON & MITCHELL,WHO OWNS DEATH?]. A year later (after protests from doctor's groups), the law was changed so that physicians only had to pronounce death. *Id.*

174. A detailed survey of execution protocols published in 2001 demonstrated that physicians participated at some level in most of the thirty-six states performing lethal injection. *See* Denno, *When Legislatures Delegate Death*, *supra* note 113, at 156-68.

175. *See* LIFTON & MITCHELL, WHO OWNS DEATH, *supra* note 173, at 97; *see also* Nathan Crabbe, *Doctors & Executions: A Complex Dilemma of Medicine, Ethics, and Law*, GAINESVILLE SUN, Jan. 28, 2007, *available at* http://www.gainesville.com/apps/pbcs.dll/article?AID=/20070128/LOCAL/701280304/-1/news.

176. *See id.* In Georgia, "[t]wo staff physicians determine if death has occurred." In Ohio, "[s]uch number of physicians of the institution . . . as the warden or acting warden thinks necessary" will attend the execution and pronounce the prisoner dead. *Id.* at 164. In Virginia, "a physician employed by the department or his assistant shall be present." *Id.* at 167. In Wyoming, "[t]wo physicians are present. One is the prison physician." *Id.* at 168.

177. The employee is a prison guard with no medical qualifications. His complaint states that he has killed eight inmates and participated in the execution of two more, and that he was coerced into doing this in order to maintain his job status. *See* Complaint at 2, Baxley v. Ozmint, No. 07-04067 (S.C. Dec. 18, 2007) (on file with author).

their names were to be revealed by the media, one survey demonstrated that most physicians would, at least theoretically, be willing to join an execution team.[178]

2. *Technology Substitution*

When Judge Fogel in California demanded that two anesthesia providers be present in the death chamber, he did offer an alternative: an execution "accomplished solely by an anesthetic, such as sodium pentobarbital,"[179] instead of the traditional three-drug cocktail where each drug is injected via a syringe.[180] Using sodium pentobarbital for an execution may have required a continuous infusion of the drug, meaning that the state would have had to purchase an intravenous infusion pump (such as those commonly found in intensive care units) and would have to train the prison staff to use it. In other words, Judge Fogel offered the California prison system the option of substituting medical technology for clinical expertise as a way of meeting the Eighth Amendment's requirements. Prison officials instead chose to use medical professional ambiguity.[181] When this failed, the California prison officials resorted again to a technology substitution, writing a protocol that included this instruction:

> Two IV lines will be started, one in each arm;
>
> One line will be attached to bag containing 5 gm solution of sodium thiopental;
>
> When the warden orders the execution to begin, 1.5 gm sodium thiopental will be injected into the second line;
>
> Following delivery of the thiopental the other line will be opened and remain open for continuous infusion of thiopental until death is pronounced.[182]

178. *See* Neil J. Farber et al., *Physicians' Willingness to Participate in the Process of Lethal Injection for Capital Punishment*, 135 ANNALS INTERNAL MED. 884, 884-88 (2001).

179. Memorandum of Intended Decision, Morales v. Tilton, 465 F. Supp. 2d 972, 982 (N.D. Cal. 2006).

180. *See* Denno, *Lethal Injection Quandary, supra* note 33, at 51.

181. *See supra* Part II.D.

182. Defendants' Case Management Conference Statement at 2, Morales v. Woodford, C 06-219 JF (N.D. Cal. Mar. 3, 2006) (on file with author). The defendants describe one of the most sophisticated lethal injection protocols ever proposed involving two intravenous lines for the simultaneous infusion of thiopental in one IV while the pancuronium bromide and potassium chloride are infused through the second IV. Note that the thiopental is to be administered by continuous infusion, implying that an infusion pump would be required. *Id.*

A "continuous infusion of thiopental"[183] would almost certainly require an electronic intravenous infusion pump. This proposal also failed judicial scrutiny and executions remain on hold in California.[184]

The technology substitution method was used successfully in North Carolina after a judge also demanded that someone with anesthesia provider skills be present in the death chamber during executions to ensure that the inmate was adequately anesthetized.[185] Unable to find a volunteer, the North Carolina prison officials purchased a BIS monitor. As noted above, the BIS monitor is a device that computes a numerical value for a patient's level of sedation based on EEG data.[186] Although this device is not designed to serve as a stand-alone monitor of anesthetic depth,[187] and has never been tested in the unusual physiologic conditions created by an execution (massive overdoses of three different drugs in rapid succession), the judge agreed to its use and the execution proceeded.[188]

3. *Medical Professional Ambiguity*

Medical professional ambiguity refers to a situation in which a physician is deliberately placed in an ambiguous role. This allows the state to have a physician present at an execution, but, at the same time, it allows the physician to claim that his presence does not equal participation, and thus no ethical transgressions have occurred. Prior to bringing the BIS monitor into the death chamber, North Carolina had successfully used medical professional ambiguity to carry out two executions in 2006.[189] A federal judge had allowed these executions to proceed on the condition that a physician and a nurse be present to monitor the execution and halt it if a problem arose.[190] In reality (this became apparent several months later), the physician member of the execution team was

183. *Id.*

184. *See* Morales v. Hickman, 415 F. Supp. 2d 1037 (N.D. Cal. 2006); *see also US Executions 'On Hold' During Lethal Injection Hearing*, ABC NEWS, Nov. 2, 2007, http://www.abc.net.au/news/stories/2007/11/02/2080581.htm.

185. *See* Denno, *Lethal Injection Quandary, supra* note 33, at 111.

186. *See supra* notes 128-130 and accompanying text.

187. *See id.*

188. *Id.*

189. *See* Rob Schofield, *The Death Penalty in North Carolina: Where Do Things Stand? What's Next?*, LELAND TRIB., Oct. 8, 2007, *available at* http://www.lelandtribune.com/opinion.asp?dismode=article&artid=223.

190. *Id.*

only there to "be present."[191] The administrative judge in this case commented, "[p]rison officials through their attorneys seemed to be telling a federal judge that . . . a licensed physician would be monitoring vital signs . . . . This persuaded the judge to let them execute Willie Brown. The doctor did not observe the inmate nor did he monitor vital signs."[192]

California attempted to create a medically ambiguous role for its "anesthesiologist-executioners." Originally, these two doctors were told that they would only have to "be present" at the execution of Michael Morales.[193] Within hours of the execution, the anesthesiologists learned that their "presence" included the possibility of directly participating in the execution. Faced with this dilemma, they declined to participate.[194]

4. *Medical Situational Morality*

The Hippocratic oath and the various modern ethical principles that describe a physician's moral duties contain no exemption clauses. For example, physicians have a moral obligation to provide emergency treatment even when "off duty."[195] They also have a moral obligation to treat patients during epidemics.[196] In the examples below, however, participation in state-sponsored killing has been justified by arguing that the activities that take place in the execution chamber are exempt from the ethical obligations of the medical profession. This position, advocating a "medical situational morality" is analyzed below.

In 2004, Kentucky Governor Ernie Fletcher, a family practice physician who proudly touted his profession while in office, faced a

191. *Id.*

192. Titan Barksdale, *Doctor Didn't Monitor Injection*, NEWS & OBSERVER, Aug. 10, 2007, *available at* http://www.newsobserver.com/politics/death_penalty/story/666127.html (internal quotations omitted).

193. Judge Fogel's ruling reads: "the presence of such person(s) shall be continuous until Plaintiff is pronounced dead." Morales v. Hickman, 415 F. Supp. 2d 1037, 1047 (N.D. Cal. 2006).

194. *See* Denno, *Lethal Injection Quandary*, *supra* note 33, at 52-53.

195. For example, a physician who is capable of rendering assistance has a moral obligation to help a crash victim or an individual who becomes ill on an airline flight. The American Medical Association has endorsed legislation to protect physicians from litigation when fulfilling this "good samaritan" role. *See* Ronald M. Davis, *Good Samaritan Action and Laws*, AMA, Mar. 5, 2008, http://www.ama-assn.org/ama/pub/category/18209.html (stating that "[t]he AMA supports legislative provisions that grant any physician, other medical professional . . . acting in the role of a Good Samaritan").

196. *See* Samuel J. Huber & Matthew K. Wynia, *When Pestilence Prevails . . . Physician Responsibilities in Epidemics*, 4 AM. J. BIOETHICS W5 (2004).

dilemma: Should he sign a death warrant for death row inmate Thomas Clyde Bowling? Both Kentucky law and medical ethics would prohibit a physician from doing so. Fletcher signed the warrant, stating that in signing the warrant, he was acting as governor, not as a physician.[197] In this particular situation, the governor argued, the ethics of the medical profession did not apply to his actions.[198]

Similarly, in September 2007, the North Carolina medical board was barred from disciplining doctors who participated in lethal injection by Wake County Superior Court Judge Donald Stephens. Even though state medical boards can discipline doctors for a variety of offenses totally unrelated to medical practice, Judge Stephens ruled that the medical board had no authority to discipline doctors for failing to follow ethics standards in one particular situation: participation in judicial executions by lethal injection.[199]

Another supportive theory of medical situational morality has been set forth by David Waisel, associate professor of anesthesiology at Harvard Medical School.[200] He argues that, from a standpoint of beneficence, the skills of an anesthesiologist would provide a condemned individual the path toward a humane death. Waisel supports physician participation in executions, stating that:

> Physicians are responding to the immediate goals of the condemned. To prohibit this aid because the use of the physician as a tool for the individual (good reason) happens to occur in conjunction with the use of the physician as a tool for the government (bad reason) requires a compelling reason to forego our responsibilities to the individual. Indeed, a principled stance of prohibition regressively harms society's most vulnerable individuals.[201]

197. *See* Brett Barrouquere, *Governor Signs Warrant Man Convicted in 1990 Killings*, ASSOCIATED PRESS, Nov. 8, 2004.

198. Governor Fletcher stated that "[t]here is a distinct difference between acting as a physician for a patient and acting as a governor for the people of the [C]ommonwealth of Kentucky." *Kentucky Governor's Execution Order Draws Fire*, FOX NEWS, Dec. 28, 2004, http://www.foxnews.com/story/0,2933,142687,00.html (internal quotations omitted).

199. *See AMA to News & Observer: Rules for Doctors*, Oct. 22, 2007, http://www.ama-assn.org/ama/pub/category/18074.html (describing Judge Stephens' ruling and advocating against it); *see also Death Docs?,* NEWS & OBSERVER, Sept. 25, 2007 (on file with author).

200. *See* Waisel, *supra* note 1.

201. *Id.* at 1077.

Waisel assumes that the "immediate goal" of the condemned is to avoid pain and suffering.[202] However, it is quite possible that living, as opposed to dying, is the most immediate goal of the condemned, and avoiding pain is a secondary motive. Surgeons, particularly in the oncology field, are quite familiar with this motivation hierarchy in their patients. Patients with many types of cancer, including poor prognosis lesions, are often willing to undergo major operations, which may entail pain, loss of function, and even loss of body parts, for the sole reason that they want to live. Similarly, at least some of the condemned would be willing to suffer at the hands of untrained medical personnel given the knowledge that survival due to a technical mishap, such as failure to obtain IV access, was even a remote possibility. For example, had a physician not been part of Georgia's execution team on November 6, 2001, Jose High would not have died that day.[203] Similarly, without a surgeon placing central lines in Missouri, some of those inmates might be alive.[204] Furthermore, because laws in several states require the presence of a physician at an execution,[205] the absence of a physician would prevent the execution.[206] Thus, in a very real sense, physician participation in executions in these states has led to the deaths of several inmates and, even for the condemned, both beneficence and ethics favor boycotting over participation.

CONCLUSION

> Although a physician will be present during an execution, that physician will not supervise or participate in the injection of any drugs or the monitoring of the prisoner's medical condition.
>
> – Judge Donald W. Stephens[207]

202. *See id.*

203. *See* Groner, *Stain on the Face of Medicine, supra* note 117.

204. *See supra* note 123 and accompanying text.

205. *See* Denno, *When Legislatures Delegate Death*, *supra* note 113.

206. For example, when the two anesthesiologists who agreed to help with the Morales execution in California changed their minds, the execution was halted. In response to a Missouri judge's ruling, the state of Missouri sent a mailing to 298 anesthesiologists soliciting assistance with lethal injection. None replied, further delaying executions and sparking another round of litigation. *See* Denno, *Lethal Injection Quandary, supra* note 33, at 52-53, 109-10.

207. Order Allowing Preliminary Injunction, Robinson v. Beck, No. 007CVS 001109 (N.C. Wake County Sup. Ct. Jan. 25, 2007). Note that this statement is a classic example of "medical professional ambiguity." *See supra* Part II.D.

> "A medical presence, as those who favor or carry out executions are well aware, lends credibility and legitimacy to the practice"
>
> – Arthur Caplan M.D.[208]

The Hippocratic paradox pits the medical profession against the state's desire to kill "humanely." This conflict cannot be resolved without corrupting the fundamental ethics of medicine. In addition, the presence of a physician in the death chamber demonstrates that the medical profession endorses capital punishment as humane. This adds a veneer of respectability to state-sponsored killing and obscures the fact that not only is lethal injection inhumane, but also that the application of capital punishment has been shown to be exceptionally arbitrary and unfair.[209] Finally, there is a corollary to the Hippocratic paradox: when an execution technique is perceived as more humane, which occurs when physicians endorse it, then the application of capital punishment becomes less humane. Dr. Louis Guillotin recognized this phenomenon over 200 years ago, when the "humane" execution technique that he endorsed led to mass political killings. The same principle holds true today: the creation of Dr. Deutch's killing "machine," which required little more that two IVs, a handful of syringes, and ordinary anesthesia drugs,[210] was followed by a surge in the execution rate in the United States. Within two decades, the number of death sentences carried out increased thirty-five-fold,[211] and lethal injection was responsible for over ninety-eight percent of executions.[212] During lethal injection's reign, children, the mentally retarded,[213]

208. Arthur Caplan, *Should Physicians Participate in Capital Punishment?*, 82 MAYO CLINIC PROC. 1047, 1047-48 (2007).

209. Only about two percent of known murderers are sentenced to death. An extensive examination of the arbitrariness of the death penalty can be found at Death Penalty Information Center, http://www.deathpenaltyinfo.org/ (follow "Arbitrariness" hyperlink) (last visited May, 1 2008).

210. Oklahoma State Senator Bill Dawson estimated that the cost of the materials for a lethal injection execution would be about $10. See Denno, *Lethal Injection Quandary, supra* note 33, at 71.

211. In 1982, there were two executions. In 2002, there were seventy-one. *See* DPIC Execution Database, *supra* note 4.

212. In 2002, twenty years after the first lethal injection in the United States, there were seventy lethal injections and one electrocution. Thus, lethal injection accounted for over 98% of executions that year. From 2003 until 2007, there have been 279 executions, of which 275 were lethal injection, accounting for 98.5% of all executions. *See id.*

213. *See id.* Nineteen of twenty-two juvenile executions and seventeen of thirty-four executions of mentally retarded inmates have been performed by lethal injection. The numerical values are not additive, however, because three of the individuals in the database were both juveniles and mentally retarded at the time of their crimes.

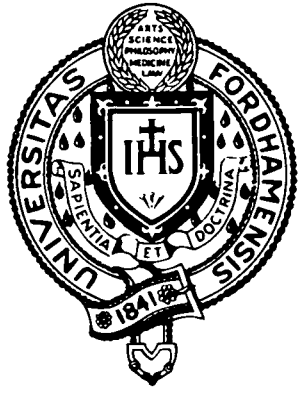
and some individuals that were almost certainly innocent[214] also fell victim to the deadly needle. Children are now spared,[215] but the mentally retarded and the innocent remain at risk, and political pressure for executions remains strong.

The medical profession has a long history of obligations not only to individual patients but to society as well. If physicians are truly dedicated to helping society's most vulnerable individuals, the time to show mercy is not in the death chamber. Rather, they should demonstrate compassion by helping to improve the deplorable medical care that exists in many prisons[216] or the socioeconomic conditions that predispose people to end up in prison in the first place. Nevertheless, even though every prominent medical professional organization forbids participation in lethal injection, physicians make appearances in the death chamber for the vast majority of executions. As this Article goes to press, a *de facto* moratorium is in place in the United States. If the United States Supreme Court ruling in *Baze v. Rees* ends the moratorium, there is no doubt that physicians will be back in the death chamber. The machinery of death requires medical professionals, yet the integrity of the profession depends on physicians making the choice to refuse participation. The legal system cannot resolve the Hippocratic paradox. Thus, in order to preserve its professional ethics, and its position as a morally protective force in society, the medical profession must work to abolish capital punishment.

214. The Death Penalty Information Center lists eight men executed despite compelling evidence of innocence. *See* Death Penalty Information Center, http://www.deathpenaltyinfo.org/ (follow "Innocence" hyperlink) (last visited May, 1, 2008).

215. See Kavan Peterson, *Death Penalty: Lethal Injection on Trial*, STATELINE.ORG, Jan. 17, 2007, http://www.stateline.org/live/details/story?contentId=171776.

216. *See* Caplan, *supra* note 208.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