Lethal Injection: A Deadly Paradox

By: Jayden Cowan

Physician involvement in organized death has been, and continues to be, an issue of great debate within the medical community. Euthanasia, physician-assisted suicide, and capital punishment represent dilemmas that push against the pillars of medical ethics and call upon professional scrutiny for resolution. Discussion on organized death often includes the principle of *primum non nocere* —'above all, do no harm'— with its implications extending to the physician, patient, and society at large. In general practice, this precept offers limited clinical guidance as myriad interventions are beneficial despite harmful risks and side effects; however, in the context of organized death, nonmaleficence fuels debate on physician desensitization, death as a positive outcome, and the slippery slope phenomenon.[17] In terms of capital punishment, a historical synopsis of lethal injection reveals that although the medical community is generally opposed to its participation in the procedure, competing ethical perspectives struggle to find excellence in this dimension of patient-centered care.

For example, a turning point on February 20, 2006, exposed a gulf between law and medicine when two American anesthesiologists resigned from the Michael Morales execution, citing ethical responsibilities as a barrier to their involvement.[18,23] Six days prior, a federal ruling stated that Morales' execution required either anesthesiologist participation or an updated single-drug regimen that reduced the risk of undue suffering.[7,8] The Morales case uncovered a controversial paradox: anesthesiologists, while most educated in the drug delivery of the lethal injection process, are commonly reluctant to participate in the act.[7] This dilemma initiated an ongoing suspension of Morales' execution, a continued moratorium on capital punishment in California, and an in-depth analysis of lethal injection protocol and efficacy. [7,23]

The first interaction between medicine and capital punishment occurred years earlier in 1789, when Dr. Guillotine suggested a device to painlessly behead criminals.[7,23] However, the advent of lethal injection was not until the 19th century – nearly 100 years after it was initially contemplated as a means of execution.[7,23] In 1888, lethal injection was considered in the United States but was rejected because physicians believed associating with organized death would precipitate the mistrust of society.[7] Lethal injection was researched six decades later by Great Britain; counsel from the British Medical Association and the Association of Anaesthetists determined the procedure would require medical skill and, to account for vascular variation, should be standardized as an intramuscular injection.[7] This protocol would deliver an inappropriately painful and prolonged death, thus, lethal injection remained theoretical.[7]

The United States re-evaluated lethal injection in 1976 and, despite previous concerns, approved the procedure on the basis of cost-effectiveness and appearing more humane than other methods of capital punishment.[7,23] One year later, Oklahoma became the first state to adopt lethal injection.[13,18] Execution protocol was largely developed by legislators, with medical counsel limited to two physicians: the Chief Medical Examiner of Oklahoma and the Anesthesiology Department Head of Oklahoma Medical School.[7,8] Their statute described the intravenous administration of an ultrashort-acting barbiturate to induce general anesthesia (sodium thiopental), followed by a neuromuscular blocker to induce painless death (pancuronium bromide).[7,24] This statute passed without any medical or scientific evidence, and it was not endorsed by the Oklahoma Medical Association.[16,23] Dr Chapman, one of the two medical contributors to the statute, maintained that physician involvement in execution was ethical; he envisioned lethal injection would be performed by a person skilled in drug injection, predicting that improper administration would result in severe muscle pain rather than death.[7,13] The surfacing of such cases led him to update the statute in 1981 with the addition of a third drug to induce cardiac asystole (potassium chloride), thus finalizing the conventional three-drug regimen of lethal injection.[4,7] However, a succeeding history of multiple procedural errors and debate over physician participation in execution has held lethal injection under increasing scrutiny.[20,22] The following discussion focuses on the ethical perspectives of anesthesiologist involvement in lethal injection.

Multiple ethical boards ban anesthesiologist involvement in lethal injection, save certifying death: American Society of Anesthesiologists, American Public Health Association, American College of Physicians, American Medical Association, Standing Committee of European Doctors, and the World Medical Association.[1] This prohibition is founded upon preserving the ethical and moral integrity of medicine, with frequent reference to the Hippocratic Oath – "I will prescribe regimens for the good of my patients according to my ability and my judgment and never harm anyone. To please no one will I prescribe a deadly drug, nor give advice which may cause his death."[9,23] While one may empathize with those maintaining that participation in lethal injection is justified by minimizing inmate suffering, committing what is perceived to be an immoral act to 'do no harm' remains impermissible; thus, herein lies the void between law and medicine.[4,5,19]

Anesthesiology was exploited by the legal system to the extent of understanding lethal injection, but suffering due to poor execution protocol cannot supersede potential ethical constraints regarding physician participation.[3,22] Generally, lethal injection is not considered to be a medical procedure because it lacks beneficence and does not promote health; consequently, no physician-patient relationship exists, thus, anesthesiologists hold no moral obligation to relieve inmate

continued on page 9

continued from page 8

suffering.[11,13,14] Further argument suggests anesthesiologist participation is justified by ameliorating the torment of co-victims[1], however, this notion may be proved invalid in that committing what is perceived to be an immoral act to 'do no harm' is impermissible, and co-victims receive equal closure from execution with or without anesthesiologist participation.[3,5,15,19] Finally, anesthesiologist participation in lethal injection may have compounding consequences, including the emotional desensitization of physicians, the erosion of public trust and a slippery slope towards further organized death (e.g., assisted suicide).[4,22]

Contrary to the aforementioned perspective, recent years have seen an increased movement towards anesthesiologist participation in lethal injection. It is indisputable that execution is a legal process; thus, any immorality must belong exclusively to the judicial system, dissociating physicians from the moral plane.[14,22] This dissociation is cardinal in defining lethal injection as a medical *procedure* albeit its conjunction with a controversial legal *process*.[11,18] Therefore, in light of reported procedural errors, some physicians interpret 'do no harm' as replacing or training the current non-medical workers who lack expertise in medical equipment, procedures, and pharmacodynamics.[13,20,22]

Perhaps the most discussed error in lethal injection is the failure to induce appropriate anesthetic depth (using sodium thiopental) before administering the subsequent drugs; one study, although contentious, used post-mortem toxicology reports to claim 43% of inmates (n=49) had serum sodium thiopental concentrations consistent with consciousness at the time of death.[8,10,16,22] In this situation, pancuronium bromide subjects the inmate to conscious paralysis and asphyxiation, and potassium chloride subjects the inmate to muscle cramping with severe burning pain on infusion.[11,20] Unsuccessful executions have attributed this error to 1) the absence of monitoring anesthetic depth[2], 2) failed intravascular access with subcutaneous injection, 3) simultaneous infusion of the drugs causing precipitation and intravascular catheter blockage, 4) an arm restraint acting as a tourniquet, and 5) improperly connecting the intravenous lines.[8,22] Beyond harm reduction, advocates of anesthesiologist participation posit that fears of compounding consequences are speculative and exaggerated, arguing: physicians are resilient to desensitization because they consider their actions beneficent; public trust is protected against erosion because physicians' long participation in gas chamber execution has not yielded any apparent societal consequences; and the medical profession is protected against sequential perversion because physicians who have participated in capital punishment exhibit no progression towards indiscriminate killing.[20,22]

Since Oklahoma accepted lethal injection in 1977, arguments weighted on the Hippocratic Oath, physician-patient relationship, and definition of *medical procedure* have propelled both perspectives along the debate of physician participation. Although profound, this discussion represents only a fraction of the moral conversation on the death penalty. Currently, movement for an international moratorium on capital punishment is gaining momentum, with organizations such as the United Nations and Amnesty International leading the charge.[2,21] Similar movement has manifested within the drug industry, as indicated by the indefinite suspension on sodium thiopental manufacturing for North America.[12] Therefore, although Canada eradicated capital punishment in 1998, understanding the historical and ethical implications of lethal injection is helpful in addressing its impact on anesthesiology and healthcare.[6] Anesthesiologists are welcome to personal opinions regarding the morality of capital punishment, and structured debate surrounding participating in lethal injection holds the specialty to scrupulous peer review. However, the aforementioned synopsis reveals a challenge to all physicians: protecting professional and ethical values of medicine from external pressures. As an aspiring anesthesiologist, this contextual disconnect between law and medicine exemplifies that physicians' relationships with self, patients, and society are an obligation to moral conduct, and not necessarily civic duty. This awareness will hopefully assist in preserving the integrity of anesthesiology for years to come, and foster growth in the specialty as leaders in healthcare.

1 Keane coined 'co-victims' in reference to family, friends, and partners of murder victims.[15]

2 Anesthetic depth is assumed due to the large dose of sodium thiopental (generally 2g, compared to the typical induction dose of 3-5 mg/kg).16

References

1. Amnesty International (2007, October). Execution by lethal injection – a quarter century of state poisoning. Retrieved from http://www.amnesty.org/es/library/asset/ACT50/007/2007/es/af8e9fba-d3af-11dd-a329-2f46302a8cc6/act500072007en.pdf
2. Amnesty International (2011, March). Death Sentences and Executions 2011. Retrieved from http://www.amnestyusa.org/sites/default/files/ai_global_dp_2011_stats_report-_act500012012en.pdf
3. Black, L, & Fairbrother, H (2008, November). The Ethics of the Elephant: Why Physician Participation in Executions Remains Unethical. *The American Journal of Bioethics*, 8(10), 59-61.
4. Black, L, & Levine, M (2008, January). Ethical Prohibition Against Physician Participation in Capital Punishment. *Mayo Clinic Proceedings*, 83(1), 113-123.
5. Brody, H, & Wardlaw, M (2008, November). Two Gorillas in the Death Penalty Room. *The American Journal of Bioethics*, 8(10), 53-54.
6. CBC News (2010, June). Capital Punishment in Canada. Retrieved from http://www.cbc.ca/news/canada/story/2009/03/16/f-death-penalty.html
7. Denno, D (2007). The Lethal Injection Quandry: How Medicine Has Dismantled the Death Penalty. *Fordham Law Review*, 76(1), 49-128.
8. Gawande, A (2006, March). When Law and Ethics Collide – Why Physicians Participate in Executions. *The New England Journal of Medicine*, 354(12), 1221-1229.
9. Gianola, F (2008, April). Beneficence versus maleficence: Can this PA participate in an execution? *Journal of the American Academy of Physician Assistants*, 21(4), 76-78.
10. Groner, J; Heath, M, Stanski, D, & Pounder, D; Weisman, R, Bernstein, J, & Weisman, R; Zimmers, T, Lubarsky, D, Sheldon, J, & Koniaris, L (2005, September). Inadequate anesthesia in lethal injection for execution/Author's reply. *The Lancet*, 366, 1073-1076.