

The Arlin M. Adams Center
FOR LAW AND SOCIETY
Susquehanna University

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ARLIN M. ADAMS CENTER FOR LAW AND SOCIETY
SHOULD THE DEATH PENALTY BE ABOLISHED?
A TWO-DAY SYMPOSIUM

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LETHAL INJECTION IN AMERICA

PARTICIPANTS:

Joel John Berberich, M.D., Ph.D.
Allan Sobel

Before:

Sarah C. Thomas, RMR
Reporter-Notary Public this is

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MR. SOBEL: Good morning. I am Al Sobel, the Director of the Adams Center for Law and Society at Susquehanna University and I welcome you to the second day of our symposium on the death penalty.

You know, once you have a death penalty, you have to decide how you are going to put the condemned people to death. And there are really a couple of interests that need to be thought about when you think about how you are going to bring about the death of a condemned person. One, of course, is doing it in a way that's not cruel and unusual punishment, because there is a constitutional ban on the use of cruel and unusual punishment.

And the other has to do with the deterrence that we hope any form of punishment will have on others who might commit similar crimes. If we are going to have a death penalty in part because we hope to deter people from committing the kinds of crimes that lead to the death penalty, should that impact the way in which we put people to death, either the manner or whether it's a public event?

Over the course of history many different means have been used to bring about the death of condemned persons, some more public than others. We, of course, have had hangings, firing squads, the gas chamber, electrocutions, and now the method of execution that is favored in the states that have the death penalty is a lethal injection made of a three-drug cocktail.

It's interesting how this lethal injection method of execution came about. In the State of Oklahoma, where Bud Welch is from, the man who spoke last night, a legislator called Dr. Chapman, then the state's chief medical examiner, into his office and said, "You know, we are more humane when it comes to putting animals to sleep than we are when we put condemned people to death. Isn't there some form of -- some method of execution you can come up with that's more humane?"

Dr. Chapman left and thought about it over a weekend, and came back and suggested the three-drug cocktail that's now in use in the various states with the death penalty, not knowing that this legislator would introduce into the legislature in Oklahoma a bill that would make that the required method of execution. The bill passed and was signed into law by the governor and, like a rash, it swept across the country and was adopted in various states; again, today, it is the prevailing method of execution.

The only state that used a different method until recently was Nebraska. Nebraska used electrocution as the form or method of execution, until the Nebraska Supreme Court within the last couple of months ruled that electrocutions constitute cruel and unusual punishment and are banned by the constitution.

I am very pleased that we have with us this morning Dr. Joel Berberich. Dr. Berberich is the chairman of the division of anesthesiology and the medical director of anesthesiology service at Geisinger Medical Center.

For those of you who are not from this area, you should know that we are blessed to have a medical center of the stature of Geisinger in this basically rural area. It's considered by many to be the Mayo Clinic of rural medicine. It's just a fabulous facility in Danville, which is about 20 minutes from here.

Dr. Berberich received his medical training and received his medical degree at the University of Miami. And what makes him such a wonderful speaker on the subject he is going to address this morning is not only his background in medicine, but his interest in ethics. Dr. Berberich is co-chair of the Geisinger Medical Center bioethics review and advisory committee.

Without further ado, I ask that you help me welcome Dr. Joel Berberich.

DR. BERBERICH: Thank you, Dr. Sobel. It's a privilege to be one of the faculty members to participate in this exciting discussion on the death penalty in America. I will be talking about lethal injection in America.

This is the death chamber at Sam Quentin, California, one of the places where electrocution is used.

I want to personalize this, however, to start. I originally was assistant professor of anesthesiology at the Junior Commonwealth University in Richmond. One day I would come to work -- Susy Hellams was the chief resident for neurosurgery. She didn't show up for her case in the OR that day. Surprising. She was found at home in her bedroom in her closet naked, raped, and strangled with a belt around her neck.

Susan Hellams was a tall, fiery redhead, a very talented woman. She was a musician. She was an active member of her community. She was a native Richmonder. She started as a biomedical researcher and worked her way from medical school into being a chief resident in neurosurgery. If nothing else, it tells you how talented she was in the early 1980s for a woman to be a chief resident in neurosurgery.

A defendant was convicted for that, Timothy Wilson Spencer. He ultimately was convicted and executed in Virginia in 1983. He was infamous for being the first person in this country convicted by DNA evidence of a crime for capital murder.

I also bring this to your attention to illustrate another point on the death penalty. When he confessed to this murder or series of murders, he admitted to another murder back in 1984, for which another individual had been previously convicted and was on death row for that conviction. So I want to personalize this by talking about him and remembering Susan Hellams as part of this presentation.

I want to focus on three aspects of the death penalty, briefly summarized, discussing recent history of capital punishment, discussing lethal injection, and discussing the involvement of medical professionals in that. I realized this is in a broader context of discussion, but I think that's going to be covered more broadly this afternoon. It would be better to discuss it in a context of discussion.

The recent history of the death penalty. There are multiple methods of execution that Dr. Sobel discussed over the years. Looking at it from the point of view of a physician, one can really look at these as blunt trauma, penetrating trauma, asphyxiation, electrocution, burns, which doesn't quite fit in those methods or modalities.

The mechanisms of lethal injection agents can be characterized by kill you by causing hypoxia, by direct depression of the neurons in the brain necessary for life function, or disrupting the brain activity and destroying the neurons required for life.

The death penalty was reinstated in this country on July 2nd, 1976, after a decades-long moratorium in the case of Gregg vs. Georgia. It emphasized to everyone that this moratorium was not influenced by or specially focused on methods of execution. The moratorium really reflected questions about the applicability and selective application or administration of execution; not regarding methods of execution.

The first individual who was injected and executed by lethal injection penetration was Charlie Brooks, a prisoner in the State of Texas, who was executed December 7, 1982.

Other methods of execution have been employed since the 1976 reintroduction of capital punishment in this country: Firing squad, rejected as too bloody, uncontrolled, relied on marksmanship that may or may not be present; hanging of individuals has slow suffocation, also decapitation; gas

chambers can result in slow suffocation, seizures with worsening hypoxia; and electrocution, which has potential uncomfortable circumstances such as smoking flesh, prisoner ignition, delay in examination of the body until the prisoner cools down from the 148 degrees Fahrenheit that might be found after execution. So most of the 1,099 executions administered since 1976, have been by lethal injection.

I am going to talk briefly about methods of execution in terms of dramaturgy of execution. It was focused on by Lofland in his book in 1977. If you want to be deter murder, if you want to be dramatic, you want to be sensational, and you want it to disturb the public, there are nine elements that I think are important: The reliability of the technique, the duration of the lethal application, the amount and kind of noise it makes, the amount of pain it inflicts, the sound it elicits from the condemned person, amount of bodily mutilation that occurs, the amount of movement that the prisoner makes during the procedure, how visible the prisoner is, how much odor does it make.

Burning at the stake was great drama. It emphasized the sensational aspects of capital punishment. But you can see that lethal injection, however, is just the obverse of that; very quick, ten minutes or so, makes no noise, has no pain inflicted, patient makes no sounds whatsoever, there is no bodily mutilation whatever except for sticking an IV in, small puncture wound, patient doesn't tend to move at all, they are not visible -- they are covered by a sheet on the gurney; the only thing visible is their head and maybe their upper torso -- and it makes no odors whatsoever. So that lethal injection is, by selection, the least dramatic, the most sanitized method of execution that I think has been developed.

I want to talk about lethal injection and mention the history. The concept of lethal injection was proposed as far away as 1888 by a New York physician, Julius Mount Bleyer, who suggested administering large doses of morphine to a patient. It was reintroduced following World War II by the Britain Royal Commission on Capital Punishment.

I should note in both of those circumstances lethal injection was rejected because of ethical conflicts with the practice of medicine. So as a result of that, New York introduced electrocution in the electric chair as a method of execution rather than introducing lethal injection over 100 years ago as a method of execution.

Jay Chapman, a good friend and pathologist in the State of Oklahoma, was looking at potentially improved ways of administering lethal injection in the United States, but also was aware that their electric chair was broken in Oklahoma. They were going to have to get it fixed and that would cost money. So he was looking at why should we bother to do that when we might be able to have an alternative technique of execution.

And he based it on ad hoc personal experience and said that's probably a reasonable way to do this. It was an ad hoc recommendation -- no commission, no study group, no advisory -- one person recommending how he thought might be a reasonable way to do things. He did consult Stanley Deutsch, who was the chair of anesthesiology at Oklahoma Medical School at that time, who commented in a brief note that this method of execution works in a "rapidly pleasant way of introducing unconsciousness." The Reverend Bill Wiseman introduced the bill into the legislature that passed.

I would call to your attention that the language is still in place, that "the punishment of death must be inflicted by continuous, intravenous administration of an ultra-short acting barbiturate in combination with a chemical paralytic agent." It does not specify that, in fact, the actual technique that was employed was a bolus administration of three drugs. I don't think that language is going to change.

But that practice, the bolus administration of three drugs, was employed in Oklahoma and adopted subsequently in Texas and by other states, which I will go over a little bit later.

Revisiting physician involvement in capital punishment medical and nonmedical aspects of lethal injection, Heath from Columbia wrote in a letter to the editor this year the primary goals of lethal injection are death, non-cruelty, but there are some secondary goals as to why this technique should be selected or utilized. It avoids unpleasant visual experiences for observers and staff. It's quick. It preserves the staff anonymity and minimizes psychological stress on prisoner staff.

What are the steps of lethal injection? The first step is of venous access. The second step is induced general anesthesia with thiopental, a short-acting barbiturate. Third, obtain cosmetic paralysis achieved by muscle relaxers, pancuronium. Finally, achieve the execution by administering the potassium.

These are syringes of thiopental. Clinically we usually give them in doses of 25 milligrams per milliliter. Each one of these syringes has 500 milligrams of thiopental in them. If I were doing an anesthetic this morning, I would probably give each of you one of these syringes to induce the anesthetic and subsequently induce other anesthetic medicines to maintain the anesthesia.

How much thiopental is used in different states? Not all the protocols are published, but in Virginia they would use four syringes, two grams. In California and Texas they would use all ten syringes, five grams.

Pancuronium bromide is the muscle relaxer that is commonly used. It's a long-acting neuromuscular blocking agent. These are ten milligrams, each one of these vials. You can't see them here.

Ten milligrams of pancuronium administered to any one of you in the audience right now, you wouldn't breathe for at least an hour and a half. An hypoxic state of at least an hour and a half, I assure you, is lethal. Most states administer at least 30 or 40 milligrams. In the State of California they administer 100 milligrams of pancuronium bromide.

The third drug that is commonly used is potassium chloride. Potassium chloride is really not used clinically in bolus doses to any significant degree. It is employed in infusions of IV medicines to correct imbalances passing into people's blood.

The closest analogy for using potassium clinically is in patients during heart surgery. The potassium is administered directly into the coronary arteries, or very close to that, to cause the heart to arrest and polarize when people go on cardiopulmonary bypass. The doses it takes to do that administered directly to the heart are usually less than about ten milliequivalents, so 100 milliequivalents is a large dose.

What are the problems associated with it potentially? The person who has highlighted the problems as much as anyone is a group in Miami headed by Dr. Koniaris. Dr. Koniaris is the chair of surgical oncology at the University of Miami. He tried to obtain evidence of quality assurance, reviews, and protocols for administering lethal injections for different states.

Most of the states either didn't have any information or they wouldn't give it to him due to security reasons or. However, he was able to obtain some information from some states. He particularly was able to obtain toxicology reports of the blood concentration of thiopental in prisoners who were executed in four states: Arizona, South Carolina, North Carolina, and Georgia.

Now, each of these dots represents the blood concentration of thiopental in individual patients in all those states with the exception of

Georgia. Georgia put all their data, including some duplicate samples of some individuals there.

What he attempted to do was to correlate what those -- these are a little different in order in your presentation, in your handout I have there. He tried to correlate what these blood concentrations of thiopental would be in terms of the responsiveness or potential responsiveness of prisoners. He correlated that with, you can see, five to ten thiopental blood concentration in milligrams per liter.

Now, these concentrations are actually CP 50s. What does that mean? The concentration in plasma of which 50 percent of people will respond with a steady state infusion in the drug. Not a bolus.

We have anthropologic problems here. What blood concentration would it take to keep people from having certain responses? He would say, for example, 50 of the people would be awake if their blood concentration was between zero and 13 milligrams per liter, which, in fact, the concentration is 21, almost half of the prisoners in that series reported earlier.

And generally for surgery, we like a response to a trapezius muscle squeeze, essentially equivalent to a physician putting a breathing tube in, are much higher than that, or 30 milligrams per liter.

Now, this study was criticized in particular by Don Stanski. Don Stanski is an expert on pharmacogenetics of intravenous drugs. He said there's some problems. Three of the data points are retracted by the people. There was incorrect recognition in terms of timing and blood sampling. They really didn't describe the definition of thiopental blood concentration very well, so there was something methodologically wrong.

However, the individuals did say, nonetheless, there are problems with lethal injections, including unqualified individuals being charged with achieving venous access, poor supervision of drug delivery, poor timing and sequences, and using unnecessarily dangerous drugs by unqualified people.

Koniaris responded to their comments. He said, Wait a minute. Your comments of these blood concentrations are not real. It's probably not accurate. The kinetics of thiopental are not simple. The kinetics of thiopental of a diseased person is not understood or studied very much at all, all this data on ventilation, oxygenated, anesthetized patients.

And the complaint, he said even though the individuals said that blood concentrations of thiopental would be greater with time; therefore, the values are artificially low, is probably not correct. Over time it did not find any linear decay, a significant suggestion that delay in sampling

of these thiopental results meant that the concentration was artificially low.

The most specific case cited was of Oklahoma, 2001 and 2002, where they were to obtain blood samples in a relatively recent proximity to death, zero to 60 minutes, and found that the concentration peaked about 40 minutes, but were not significantly -- there is no significant tempo degradation. Some individuals actually suggested because prisoners are hypo carbon -- the CO₂ is really up in their body -- that they are actually going to have more thiopental in their tissues and the blood values are actually going to increase when they are measured after death.

So Koniaris suggested in this particular situation that there is certainly potential problems with the doses of thiopental in terms of patients being aware. It's the duty of the state to insure that the concentrations are demonstrably adequate.

His wife followed up on this in an electronic journal in the Library of Medicine in April of 2007. His wife, Theresa Zimmers, is a biomedical researcher at the University of Miami. They looked at the best published data of protocols from North Carolina.

There are three protocols employed for administering drugs in North Carolina: Three grams of thiopental followed by pancuronium. They subsequently felt it was more complicated. Three milligrams of thiopental, followed by pancuronium, and potassium. Finally, they gave three of thiopental, four of pancuronium, 100 milligrams of potassium. The times of death are plus around nine minutes from the initial protocol, about 13 minutes for the second protocol, and, again, around nine minutes for the third protocol with these doses per kilogram of body weight administered to the prisoners in North Carolina under these different protocols.

And what she suggested were two things. The hypothesis that she made, all three of these drugs are being administered individually in lethal doses. She would suggest, first, that the methodology of death is not as reliable as one might predict in that the first protocol did not have potassium, the third protocol did, the times of death were indistinguishable.

So she suggests that the predictability and reliability of the administration of a lethal injection is not necessarily clear.

The second point she made is the doses of thiopental are not necessarily in a lethal range. I will show you that in a second.

They subsequently followed that up by comparing -- they also compared data from California, in which they again noted patients required multiple doses of potassium to be effective. Three inmates required second doses of potassium. So it's not reliably lethal in the dose initially used. That there were movements of convulsion, not necessarily demonstrating that the patients were paralyzed at the time of the execution.

They also noted that cessation of respiration tended to be coincident with the administration of the intramuscular block and not administration of thiopental.

They compared doses of thiopental administered in different states per body weight in prisoners in North Carolina, California, Virginia, and then lethal doses for other animal species. They more carefully looked -- this is a very busy slide. I want to point your attention to this column over here. This is a calculated human equivalent lethal dose for thiopental. It's calculated based on body surface area.

I just want to reflect on particularly two species; swine, because they are relatively similar to humans in their physiology. The lethal dose of thiopental in swine is about 12 to 22 milligrams per kilogram. The lethal dose in primates is about 16 and a half milligrams per kilo. And Zimmers would suggest the doses given to all these prisoners has not always exceeded these lethal doses.

So they concluded that the neuromuscular blocking agent is the only assured lethal drug that the prisoners have received in this protocol.

There are so many cases when the bolus is administered improperly even when the intent is to deliver an effective execution that there have been cases where botched executions have occurred. Well publicized cases include Lee Massie in California. Here a state expert witness admitted that the patient may have been awake during the administration of the potassium chloride.

Clearly the case of Angel Diaz in Florida, where it was subsequently found the intravenous line was infiltrated and the drugs were not administered intravenously.

So in attempt to assure the patients were asleep North Carolina adopted BIS monitor, intended to reflect brain activity. Simple device relatively. Its propriety algorithm converts raw EEG to an index of hypnotic level. The number of 100 means you are awake. The number zero means there is no brain activity. The number 40 to 60 is the target for general anesthesia.

North Carolina has employed this monitor for two prisoners in an attempt to obviate concerns patients were not anesthetized when they were given subsequent administration of drugs.

Scott Kelly, an anesthesiologist who is one of the experts, said, Wait a minute. We don't want to get involved in that. "There is no assurance that BIS monitoring alone would prevent an inmate from suffering during the lethal injection procedure." BIS monitoring is employed by anesthesia providers as a component or a context of assessing death of anesthesia; not as a sole methodology for doing that.

Theresa Zimmers summarized that execution with three drugs "would sort of be the equivalent of slowly suffocating while being burned alive."

This statement has been reported widely in the press and widely in discussion before the Supreme Court with the American Veterinarian Medical Association. "A combination of pentobarbital with a neuromuscular blocking agent is not an acceptable euthanasia agent."

AVMA clarifies that. Wait a minute. Our statements can be misinterpreted. What we really meant to say was you should not administer the drugs simultaneously. You want to insure that during the procedure with an animal that you gave the barbiturate, assure that the animal was anesthetized, and then use a neuromuscular blocking agent. The American Veterinarian Medical Association says we really don't want to get involved. We are making guidelines for euthanizing animals. We do not want or intend any of our discussions for euthanizing animals to be extended to guidelines for euthanizing human beings or for execution of human beings.

So I am going to talk a little bit about the lethal injection method controversy. I want to talk, I think, a little more broadly about what should or should not be the role of health care professionals in administering capital punishment.

The AMA in 1992, codified several unacceptable ethical practices for physicians. They include prescribing or administering medications as part of execution procedure, monitoring vital signs, rendering technical advice, selecting injection sites, starting or supervising placement of intravenous lines, simply being present as a physician, and even pronouncing death. The suggestion is if a physician examines the patient when the patient is alive, should they not be ethically bound to resuscitate the patient?

The AMA suggested there are two circumstances under which it would be appropriate for the physician to be involved in execution; one, give the sedative beforehand and, two, certify death after another individual pronounced.

The American Society of Anesthesiology has similarly said execution by lethal injection has resulted in incorrect association of capital punishment with anesthesia and it mimics the practice of anesthesia, but it is not the practice of anesthesia. It should not necessitate participation by an anesthesiologist or any other physician. The ASA supports the AMA guidelines.

The code of conduct of correctional health physicians is even more broad. They said, "The correctional health professional shall not be involved in any aspect of execution of the death penalty."

Now, I have at this point in time not included statements from the American Medical Association, but the Association of Emergency Medical Technicians, those medical bodies have similarly professed that their members should not be professionally or ethically involved in execution.

However, the statement or policy of physicians of organizing clinical or specialty bodies is not necessarily the

position of all practitioners. I cite, for example, a statement of Warren Anderson. He sent a letter to the editor of the Chicago Tribune in 2007. He said, Your October 21 heads of lethal injection regarding cruel and unusual punishment is crazy. I have been an anesthesiologist for years. I have administered anesthesia to thousands of patients and I've given thiopental. Within about two minutes after injection of the muscle relaxant, the surgeon can make the incision and begin the operation.

He said, "Except for very rare cases, the patient wakes up with no memory of pain and looks back on the anesthetic experience as being pleasant." The only reason for pain during lethal injection is if they don't get enough Pentothal through a functioning IV site. Therefore, skilled medical personnel should be the ones to do this.

"The American Medical Association disapproves of physicians taking part in executions. I disagree with that position."

Is he an isolated case? Now they sent out questionnaires to thousand of physicians. They have replies in about a third of them. Another third, 19 percent of people said they would be willing to inject the lethal drug themselves. Over 40 percent said they were willing to do at least one of the practices that are ethically disapproved by the AMA.

Waisel is an anesthesiologist at Boston Children's Hospital. He has said there should be an ethical obligation to health care providers to participate in executions. He said, in fact, it is honorable for physicians to minimize the harm to all patients, including condemned individuals, and, therefore, organized medicine should permit physicians to participate.

In response to this discussion, Art Caplan, who is the most visible, well-known bioethicist in this country, said, Wait a minute. There is no duty to assist condemned people to die. There is a very weak general obligation to reduce suffering, but this does not translate to specific duty to prisoners. Moreover, it ignores the moral legitimacy and the cost of maintaining the traditional role of health care providers in society in their responsibility to patients.

I believe there are copies of those articles, if you would like to read them, out there and subsequent editorials.

You get into the issue of slippery slope in terms of a series of unfortunate events. One can overdraw on slippery slope arguments in terms of justifying them for any dilemma.

But I want to call your attention to the fact that -- this is a comment made years ago -- that the euthanasia programs chief administrator often stated that the syringe belongs in the hand of a physician. Who was the chief administrator of execution? The chief administrator of execution was in Nazi Germany. Nazi Germany said the syringe should be in the hands of the physician.

So the dilemma we are faced with, it is ethically wrong to torture inmates to death with unskilled execution personnel. However, it is equally ethically wrong to bring skilled personnel into the execution process. How does one resolve the issue?

Koniaris suggested you can't. He said, Can lethal penalty really be fixed? He said, No. It's a perversion of a tool of healing. Judicial or executive commandeering of medical tools and personnel to kill is wrong. The goal of health care providers in general should be to save and improve human lives, and appropriating the acknowledge necessary to do that to kill an individual is a betrayal of the core value of medicine and medical resources.

Gawande also similarly writes -- he is a well-written physician in internal medicine on many societal topics. He has several books out on different areas of medicine. He interviewed in an article in the New England Journal of Medicine, 2006, four physicians who had been and were involved in the execution process with different states and how they got involved, why

they got involved. Most people it was sort of a creeping process that they became involved helping their friends out a little bit over at the prisons. They gradually did a little bit more because they wanted to be altruistic and save some patients.

But he has concluded that -- he came out with initially like, I thought I supported the death penalty, so I talked with these people. He felt that there should, in fact, be a legal ban on the participation of physicians and nurses in executions because of the ethical dilemma.

He went further on to say, "And if it turns out that executions cannot then be performed without, as the courts put it, 'unconstitutional pain and cruelty,' the death penalty should be abolished."

As everyone knows, there is a review of -- this process of lethal injection has been recently reviewed by the Supreme Court in a case involving a Kentucky inmate. There is a decision expected on that in the very near future.

Independent of that, Curfman in an editorial in the New England Journal in January said, regardless of what the Supreme Court says, "Physicians and other health care providers should not be involved in capital punishment, even in an advisory capacity. A profession dedicated to healing the sick has no place in the process of execution -- the future of capital punishment in the United States will be up to the Justices, but the involvement of physicians in execution will be up to the medical" and health care profession to decide what role they should or should not take in this process in the future.

Well, in summary, this is the present, or the past, administering three doses of medicine to achieve execution of patients; thiopental, pancuronium bromide, potassium chloride. Is it the future? We will look and see in the future. I leave it up to your discussion and further comments.

We welcome questions in the time that's available prior to the next speaker. Comments or questions?

QUESTION: How was the dose of five grams chosen?

DR. BERBERICH: The thiopental delivered to the state correctional institute came in a five-gram bottle. We don't want to waste the three grams. So in the first execution we got five grams. Let's just use all of it. That's really how that dose was selected. It was truly the amount that was delivered in the ampule and they continue to use that dose.

The states that have been at least transparent in terms of volunteering their protocols, their reviews have been Texas, Virginia, and Florida, the states most heavily involved in lethal injection. As you can see there, Oklahoma, North Carolina have actually -- and California have actually been fairly forthcoming in terms of some of their making public their protocols and reviews of protocols, which I think those states should be commended on.

QUESTION: Do you know what protocol is used for executions in Pennsylvania?

DR. BERBERICH: I do not know. I think there has only been two or three executions in Pennsylvania. I thought it was three. I assume it adopted the Texas protocol.

QUESTION: Pennsylvania has a three-drug protocol, but the regulations and procedures, defense attorneys have not been able to obtain any information.

DR. BERBERICH: Most of the states are secret. I would comment in North Carolina -- I have a medical license in North Carolina, as well. In North Carolina the State Board of Medicine threatened that any physician involved

in lethal execution, they were going to pull their license or discipline them in some fashion.

This was brought to the justice system and one of the justices in North Carolina, in support of the Department of Corrections, said that lethal execution is not a medical procedure at all. Therefore, the State Board of Medicine has no standing in commenting on this. So physicians, if they are involved, are involved as individual citizens; not as medical practitioners and, therefore, the State Board of Medicine has no control or ability to regulate that process.

QUESTION: Don't you think it becomes an ethical issue?

DR. BERBERICH: That's definitely correct. There are a lot of ethical issues. I think there is some issues -- the issue there becomes as much voluntariness in terms of prisoners don't ask to be executed. Patients who request assisted suicide --

QUESTION: It's not clarified.

DR. BERBERICH: I have an interest in physician-assisted suicide death and potential risk from that -- especially in The Netherlands, clearly, there have been cases of involuntary euthanasia -- that once you start perverting the role of medicine, where do you draw the line? There are clearly cases of individuals who are mentally dysfunctional, who are unconscious who are euthanized definitely without their request. I think that's the case in The Netherlands or where people have requested suicide as a voluntary attempt.

I may mention in regard to that, years ago physician-assisted suicide was legal in one of the states in Australia. A physician developed protocol for doing that eventually -- not analogous to this -- but he had a laptop computer hooked up to a syringe pump. The patient was asked, "Do you want to do this?" "Yes." Hit the enter key. "Are you really sure you want to do this?" "Yes." Hit the enter key. "Are you really, really sure?" Hit the enter key. That would activate the syringe.

MR. SOBEL: Doctor, as far as you know, is there any ethical prohibition against physicians training non-medical personnel in how you would administer lethal injection?

DR. BERBERICH: I think that's part of that whole thing. Rendering no advice would be -- that's why, would you do things differently, I would say, Yes. If you ask me what, I would say, I am not going to tell you. I don't think it's incumbent upon me or any other physician to comment. I think ethically that's a perversion of the practice of medicine.

QUESTION: In Missouri one of the nurses who was being used for the anesthetic purposes had criminal charges against her for stalking and similar abuses where people are volunteering to participate in executions in California. My question is, do you have any information from the other states as to when the voluntary participation -- is there any method being employed to insure that people who are doing it are qualified and are not doing it out of an internal act of vengeance?

DR. BERBERICH: I think most the people who spend a lot of their careers, health care providers, in prisons, it's a difficult job. One of the -- when I was in Richmond one of my chief residents, who is now vice-chair at the University of Virginia, spent two years -- two or three years in the Health

Service working in the federal prisons in Virginia. He was very effective in doing that.

But in general, the quality of medical providers in the state prisons is not as strong as other places because the compensation is usually not commensurate with the private market. So you get -- not to say everyone -- but you tend to get people who can't find -- really less competitive physicians doing that.

So I'm sure you are talking about people reviewed by Gawande in his article in the New England Journal, one of them -- as I recall, one of them was a physician employed in Texas or at least advised one of the physicians employed by the State Department -- by the Department of Corrections. However, the other two individuals, one publicly identified name was Georgia, who is an emergency room physician who was doing it as a contract basis, not as an employee of the prison system. Another person from another state did it as part and admitted to some elements as part of this process.

As you are aware, I'm sure, the case of Morales in California, that the Supreme Court there required anesthesiologists to be involved to assure safety of the procedure. Two anesthesiologists said they would do it. The next day, well, if it doesn't work right we have a curtain. Come up behind a curtain. Once that became clear, they said, Sorry. We're not interested anymore.

So I think the qualifications of the individual, whether they are state employees or not, I think is not necessarily coherent. You could have someone who is well qualified employed by the state and someone who is not. I don't think that's necessarily an issue. I think they are protected by the state -- by the state's omnibus role in terms of regulating the process in general.

QUESTION: In the Kentucky case currently in litigation the attorneys for the inmates conceded that if the three-drug protocol was properly administered it would not be cruel and unusual. You think that was a wise litigation strategy?

DR. BERBERICH: No. I think -- my son's an attorney. I think -- I do realize the data that Koniaris and Zimmers is talking about is not all fake. I think they are viable. There are potential problems. It's not the burden of the inmate to obviate those problems. It's the burden of the state to show the patients condemned are being treated humanely.

But I think I would say that doses of drugs are being administered over a ten-minute time period are administered likely in more circumstances than not. I'm not sure those doses were administered effectively. The timing of the drug doses is not clear.

In Pennsylvania everything is done behind a curtain. The drugs are being administered feet away from the patient. When you are doing a surgery, when you are administering the drug right next to the patient, you are sitting next to the person. You are monitoring. You do not have that. They are given drugs. They are not assessing to see if the thiopental is effective before they give the other drugs.

I think that's part of the problem. I think that's a component, that when they are administered, they are also administered to assure that they are achieving their desired response.

QUESTION: Would the legislation of the states have anyplace in deciding the ethics?

DR. BERBERICH: I think clearly that's what Koniaris suggested, that the states should make this ethically or legally prohibited by health care

providers. I don't expect that will fly very well in many states, but I think the states clearly have -- most states, they have -- they have left the procedures and protocol to the discretion of the Department of Corrections and their delegates within the prison system to actually carry out the execution. I think they have not been proscriptive.

QUESTION: There is a lot of talk about one of the drugs, barbiturates, one of the first drugs. Do you think that cannot be done without pain or can it be done without doctors and do you think that's the future?

DR. BERBERICH: Two things. One, veterinary medicine is employed. The tradeoff, I think, it's not quick. It would take hours potentially, maybe longer. It takes time.

Two, there are IV medicines, intramuscular medicines. I think we are the ones to establish the review process. I think the protocol is mimicked by Chapman, is mimicked by anesthesia. I hope that I've been paid big money for doing something that somebody off the street couldn't do. That's why, unfortunately, I think the modality is one that has reached the simplest technical model to do it.

Again, I've always said in terms of anesthesia, I don't get paid for quickness. I get paid for the patient waking up. That's why I get paid.

QUESTION: Can the doctor -- should the doctor be involved in -- what happens if they are involved in the lethal injection? Do they have any liability?

DR. BERBERICH: The question was if doctors are involved, in health care profession, do they have any legal liability or ethical liability. I mentioned the clearest case I know is North Carolina, where the state has ruled that this is not a medical procedure. Therefore, it could not incur sanctions from the Medical Board.

That's one of the reasons -- one of the reasons why states have maintained the secrecy in terms of these protocols, is, in part, because there is a fear that more individuals who are participating in this process could be identified publicly that would expose those people to potential risk, as well. That's why the states maintain the secrecy, to protect the anonymity of the individuals involved in the execution process, because there are potential risks for them.

MR. SOBEL: Thank you, Dr. Berberich.

(Whereupon, the remarks concluded at 9:55 a.m.)

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