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# Standing Committee on Public Safety and National Security

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**Monday, April 28, 2008**

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**Chair**

**Mr. Garry Breitkreuz**

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## Standing Committee on Public Safety and National Security

Monday, April 28, 2008

• (1530)

[English]

**The Chair (Mr. Garry Breitkreuz (Yorkton—Melville, CPC)):** Order. This is the Standing Committee on Public Safety and National Security, meeting 26. We are continuing our study of tasers.

We would like to welcome the two witnesses who are with us today: from the Government of Alberta, Mr. Graeme Dowling, chief medical examiner; and from the Government of Ontario, Mr. Andrew McCallum, regional supervising coroner for eastern Ontario.

I know it was a bit of a chore for you gentlemen to be with us here today. We appreciate the extra effort you went to in order to help us in our study of tasers. I think I speak on behalf of the committee when I say thank you for that.

The usual practice at this committee is to allow you time for an opening statement of approximately 10 minutes. Then we will begin our discussion with a round of questions and comments, starting with the Liberal Party. The first round is seven minutes and subsequent rounds are five minutes, after every party has had a chance to comment and question.

We look forward to what you have to share with us.

Mr. Dowling, would you be prepared to go first? We'll follow up with the PowerPoint presentation afterwards.

Please go ahead.

**Dr. Graeme Dowling (Chief Medical Examiner, Office of the Chief Medical Examiner, Government of Alberta):** Thank you, Mr. Chairman.

Ladies and gentlemen, I'd like to thank you very much for this opportunity to speak to you about investigations into deaths associated with the use of conductive energy weapons, or what I call tasers, that have been conducted by the Office of the Chief Medical Examiner in Alberta. I'd like to thank the Government of Alberta for allowing me to come to speak with you, but would like to emphasize that the opinions and views I will be offering you are my own.

By way of introduction, my name is Graeme Dowling. I am a forensic pathologist by training, have worked with the Alberta medical examiner's office for just about 22 years, and have been the chief medical examiner for the province for just under 15 years. As a medical examiner, I conduct investigations, which can include performing autopsies—so I actually do autopsies—into unexplained

deaths caused by natural disease and into injury- and drug-related deaths.

The purpose of any death investigation is to establish, among other things, the cause of death and what is referred to as the manner of death, which is basically a statistical breakdown of deaths into natural, homicide, suicide, accidental, etc.

Our office conducts about 3,500 death investigations per year. Any death that occurs when an individual was in police custody or when there has been use of force by the police is automatically investigated by us, including all deaths where a taser has been utilized. These deaths are also reviewed at a public fatality inquiry, which is essentially very similar to a coroner's inquest.

There have been four taser-associated deaths in Alberta since 2001. The first of these occurred when police entered the residence of an intoxicated male in order to arrest him. The taser was discharged as soon as the police saw him, because witnesses had indicated that this gentleman was armed with a knife. One of the taser darts did not lodge properly, such that the taser failed. This individual subsequently attacked the police and was shot four times. He had an extremely high blood alcohol level. There was no evidence to indicate that he was in a state of excited delirium.

The other three cases involved individuals in whose cases we have concluded that excited delirium was the cause of death, although one of the three had such an exceptionally high level of cocaine in his blood that arguably the cocaine, in and of itself, could be the cause of death.

I'm aware that the members of this committee have heard quite a bit about excited delirium, so I'll only say that this is a state of extreme agitation associated with bizarre, violent behaviour, so-called super-human strength, and elevated body temperature, thought to be caused in most cases by illicit drug use and/or psychiatric illness. It was actually first described in psychiatric patients in the mid-1800s, but has really only come to renewed attention in the past few decades.

Returning to our Alberta cases, police were called to deal with these three individuals because of their violent behaviour. Restraint methods varied among the three, but included what you might refer to as "piling on"—those are the best words I can use—where there are several police officers trying to restrain the arms, and even lying on the chest; hobbling, which is similar to but not quite the same as hog-tying; and of course, with all three, the use of tasers.

With two of them, there were three applications of five-second discharges, and with the third one there were three five-second discharges at the scene followed by five five-second discharges at hospital, as both police and emergency room personnel attempted to transfer this patient from an ambulance stretcher to a hospital examination table. This same individual then received a single injection of what we would call medically a “chemical restraint”—drugs used to tranquilize the person and bring them down—and this was administered by emergency room personnel.

In these cases, the individuals became unresponsive, usually several minutes after the last discharge of the taser. All attempts at resuscitation were unsuccessful, and in each case an autopsy did not reveal any restraint injury or natural disease that would be a clear-cut cause of death.

● (1535)

Of course, the question of most interest to you is, what role, if any, did the taser actually play in these deaths? That's the issue you're trying to look at. In the first case I gave you, it's arguably the failure of the taser that resulted in a rapid escalation of the police response to the use of deadly force. The other three are more difficult.

Although there are several things you have to look at, one important thing for me when I'm looking at these cases is the timing between the last discharge of the taser and the person becoming unresponsive. Generally when they're unresponsive, it is because the heart has stopped, or they have stopped breathing, or a combination of the two. When you come right down to it, the taser is an electrical device. If a taser is going to kill, it will do it in the same way as any other electrical device, by stopping the heart.

In electrocution deaths, which coroners and medical examiners investigate—we have to investigate all electrocution deaths—any person who receives an electrical current of sufficient strength to stop their heart will be unresponsive in 15 seconds. Some are immediately, but the maximum is about 15 seconds. So when we look at the discharge of taser, if the person becomes unresponsive when the taser is being discharged, or within 15 seconds of the discharge, an argument could be made that the taser might be the cause of death. It's a lot more complex than that—it's very difficult to prove—but that argument would have some merit. If the last discharge of the taser is outside of that 15 second range, then I think the best anyone can say is that the taser may—heavy emphasis on the word “may”—have been a factor in the death in ways that we, quite frankly, don't currently understand.

I believe you've learned just how complex most of these deaths are with an interaction of drugs, psychiatric disease, excited delirium, hog-tying, chokeholds, etc., such that sorting out what the actual cause of death is, versus factors that may or may not have played some role in the death, becomes virtually impossible.

If we look beyond tasers, though—to all deaths that have involved some sort of restraint close to the time of death—there is one relative constant. That is the state of excited delirium. The need for restraint by police, members of the public, or hospital staff in psychiatric facilities is created by the violent behaviour of these individuals. They are a threat to property, to themselves, and to others, such that our uniform community response is to try to get them under control so we can then attend to what we believe is an underlying medical

emergency. Yet no matter what method of restraint has been used over the years—be it a taser, pepper spray, piling on, hog-tying, or chokeholds—within minutes of the subject being brought under control, or perhaps it's just when they've reached a state of complete exhaustion, there are some, not all, who become unresponsive and die. I've often asked myself what would happen if we simply stood back and agreed that we would watch them and allow them to exhaust themselves so that we could then approach them and hopefully assist them.

● (1540)

We investigated a death this year of a male who had been exhibiting increasingly strange behaviour to his family over a period of a couple of weeks. On the day of his death he began shouting paranoid statements, he started breaking things, he broke into a neighbour's home, and then he climbed onto the roof of a house and took off all of his clothes and attempted to jump to the roof of the adjoining house. He missed. He broke his fall by grabbing on to an eavestrough as he fell to the ground, but when he reached the ground he was still conscious. He was still incoherent, he was still behaving abnormally, and one police officer—the only police officer who was there—asked a number of bystanders to simply help him hold on to the legs and on to one arm so that the officer could place handcuffs on him. There was no hog-tying; there was no pressure on the chest; there was no taser; there was no chokehold. And as soon as the handcuffs were on, this individual stopped breathing. All attempts at resuscitation were unsuccessful. At autopsy, there were no injuries of any substance from his fall, no natural disease, nothing to account for his death. This, in our view, was a case of excited delirium.

We've also investigated rare cases where you have a secure apartment or house that has been completely destroyed on the inside. All the mirrors are smashed, the furniture is broken, the drywall is punched out, and in the middle of all this mess is a dead young adult male. There are no significant findings at autopsy. There may be a psychiatric history; there may be a small amount of cocaine. Once again, all indications are that these people were in a state of excited delirium. There were no police, there was no restraint, and there were definitely no tasers, yet they still died.

It's my belief that individuals in a state of excited delirium can experience a fairly wide variety of outcomes. In your work you have become most familiar with those who are restrained and die, but there are also those who go through the full gamut of restraint—including taser—and survive. And as I have presented to you, there are a group of people who undergo no restraint and still die.

The challenge for all of us is to try to understand how many people fall into each group—because we don't know—and what the differences are between them. Why does this one die? Why does that one survive?

I'm worried. As a Canadian, I want to make sure tasers are deployed by the right people for the right reasons. But laying the blame for these deaths solely at the feet or hands of the taser is far too easy and far too simplistic, and I think we need to do better than that.

Thank you very much, Mr. Chairman.

•(1545)

**The Chair:** Thank you very much, Mr. Dowling. I appreciated that.

Mr. McCallum, are you ready to begin your presentation?

**Dr. Andrew McCallum (Regional Supervising Coroner for Eastern Ontario, Ministry of Community Safety and Correctional Services, Government of Ontario):** I am, and I apologize to the committee that the screen is behind you.

Again, like Dr. Dowling, I'd like to thank you for the opportunity to address the committee, Mr. Chairman, and advise that Ontario has a medical coroner system very similar in many ways to Alberta's, in that a physician investigates all deaths. We work closely with the forensic pathologists in our system. We investigate approximately 20,000 deaths per annum, and we investigate very much the same gamut of deaths that would be investigated in Alberta. It's very much a similar system.

I'm going to echo much of what Dr. Dowling has told you already, but I want to give you a bit of background.

As Dr. Dowling ably stated it, the taser, if it kills, ought to kill electrically. The risk is, of course, to the heart. The heart is an organ that has a conducting system that is primarily electrical. I have projected here, just to assist you, the normal electrocardiogram complex. That's a normal QRS complex you see there.

The risky time is here. If an electrical shock is delivered either from an abnormal beat in a heart—which can cause a natural sudden cardiac death—or from an external electric source that reaches the heart at that time in the cardiac cycle, it can induce a phenomenon that is illustrated here. On the left of this, you see what look like fairly normal QRS complexes—you've all seen this on television—but here an abnormal early impulse generates a condition known as ventricular fibrillation, which is an ineffective cardiac rhythm for pumping blood. That's the concern with the taser: could it do this? That's perhaps where we ought to focus our scientific interest in this device.

As Dr. Dowling said, the excited delirium is a conundrum for us. It is a medical emergency. I agree with what Dr. Dowling said; I think it can be fatal in and of itself. Therefore, it requires treatment—life-saving treatment. Unfortunately, to approach these individuals it is necessary for them to be restrained, because they are violent and agitated and may injure the personnel who are trying to help them in their confused state. We know that appropriate restraint properly applied may be associated with death, so the individual and the responding emergency personnel have a conundrum.

We also know—and again I'm echoing what Dr. Dowling says—that subjects of excited delirium do die without the application of taser. We know that subjects of excited delirium die without restraint. It is possible, and even likely, that taser and restraint deaths are simply associated and not causal; however, again, we don't know.

It's useful to look at research in two areas.

The Canadian Police Research Centre has looked at the use of tasers. In their conclusions they made a number of main points. The first is that definitive research or evidence that implicates a causal relationship between the use of conductive electrical devices—

tasers—and death does not exist, but they did warn of the adverse events of multiple consecutive CED cycles—in other words, continuous or repeated application of the taser. Existing studies indicate that in humans, at least, the risk of cardiac harm to subjects from a conductive electrical device is very low. In a moment I'm going to give you some information that may assist you about that.

Excited delirium, though not a universally recognized medical condition—it's really a forensic condition—is gaining increasing acceptance as a main contributor to deaths proximate to CED use. Again, Dr. Dowling and I agree on that.

In 2005, the British Columbia PCC released its final report on the medical safety of tasers, and it made several recommendations. The first is that tasers should only be used against a subject who is actively resisting arrest or posing a risk to others, not someone who is passively resistant.

Further, officers should avoid shocking a subject multiple times, because that is linked to perhaps decreased safety with this device.

Following a taser shock, a subject should be restrained in a way that allows him or her to breathe easily. I will say, again echoing Dr. Dowling, that in the vast majority of the cases I've seen, this is a male condition. I'm trying hard to think of a female case, but I can't think of one.

Finally, tasers should be subject to mandatory reporting. Police should be required to file a report every time they're used. Again, I don't think anybody would argue with that.

The second area of research that I want to acquaint you with, if you're not already acquainted with it, is a synopsis of some of the recent academic research on conductive electrical devices.

•(1550)

Ho et al., in 2007, found that applying a taser to a normal resting human subject did not affect cardiac activity. That doesn't help us a great deal, because the people it's applied to, in practice, are not normal resting subjects. They are agitated, excited, often intoxicated individuals.

Levine et al., in 2007, found that taser caused an increased heart rate and EKG changes of uncertain significance in normal subjects. This is fairly typical of medical research conducted by multiple researchers, in that there may be contradictory findings. And when there's a contradictory finding, what's necessary is further research to resolve a conflict.

Lakkireddy conducted a very interesting study using a pig model, and a pig is not a bad animal model for the application of taser. Dr. Lakkireddy found that cocaine, as you'll see—as you've heard from Dr. Dowling, and in Ontario we found the same thing—is overrepresented in these deaths. Cocaine does not increase the risk of cardiac arrest due to ventricular fibrillation in tasered pigs. That's counterintuitive to me, but that is what was found.

McDaniel found that taser had a low probability of inducing ventricular fibrillation in pigs when applied at normal application energies.

But Walter et al. found, in 2008, that at eight times the usual dose applied in a transcardiac fashion—in other words, where the two electrodes of the taser were situated so that the current between them would pass through the heart—it would occasionally cause ventricular fibrillation and cardiac effects.

Similar results were found by Dennis et al. in 2007.

This is the same group. This is also fairly common in the medical literature: it looks like different authors publishing, but in fact it's the same group. They found that in two of the six pigs they applied taser to, ventricular fibrillation and death developed as a consequence—temporally related. Nanthakumar, in 2006, had a similar result. This is a Canadian study, and this is the one Dr. Dowling and I are familiar with, but they did find that at one to three times the normal dose—that is, the usual applied dose per kilogram in the field—ventricular fibrillation could result.

So in theory, at least, based on these pig studies, the taser could cause capture of the heart, electrical capture, and if at a vulnerable period in the cardiac cycle, could cause ventricular fibrillation. The question is whether it does in humans. The fact is that we have not seen it. In all the cases we've had in Ontario, similar to the Alberta experience, we have not found somebody who had a taser discharged at them and who then, within that 15-second interval, became suddenly unresponsive. That's not what we found, and I'll tell you what we found in a moment.

Why is there no definitive research? It's been alluded to frequently, but the fact is that it's unethical to place human subjects into an excited delirium state and then taser them. It couldn't be done, and so we don't have that information. Animal studies are also constrained because there are ethical constraints, obviously, on the suffering that can be induced in animals. Further, we don't know that the pig is an exact analogue to the human physiology, and therefore there's that problem as well. What we can conclude from animal studies is always below the ideal level of evidence that one would want.

So a randomized double-blind placebo-controlled trial, which is the gold standard in health research, is not possible with tasers, and we're not going to get that kind of evidence. Unfortunately, you won't be assisted by that in your work on this committee.

When is the taser, then, appropriately used? I would agree completely with Dr. Dowling that one of the real challenges is to ensure that tasers are used on the right subjects at the right time. Again, this is my view, not the view of the Office of the Chief Coroner in Ontario, but it should be used as a penultimate or second-to-last choice, when the only other option would be lethal force.

These states are often associated with what are known as toxidromes, particularly cocaine and acute psychosis, and that is the excited delirium state you've heard about. This is not only a mentally but a physiologically risky state due to the fact that the person is experiencing a very high metabolic rate—they're exercising at a furious pace. In very many cases, they're not conditioned athletes; they're not able to exercise this way safely. They're overheated—you've heard about the high temperature. They have a very high oxygen demand, and in particular, the heart is one of the highest-oxygen-demand organs in the body. They're acidotic

because, as they exercise, they build up a substance called lactic acid, and that in itself is a risk for abnormal heart rhythms as well.

● (1555)

And then to add to this witches brew you've heard about, you have the effect of cocaine. In my view—I'm not sure what Dr. Dowling would say about this—there isn't a safe level for cocaine in the body. There is no such thing. You certainly hear recreational levels of cocaine being described by toxicologists, but in my view, in a person who is vulnerable, cocaine is always a risk and death is frequent when these individuals are restrained.

So the question then is whether it is the taser. In our experience—and I apologize, I've updated this information, because this was a fairly short turnaround time for us—we actually have had seven deaths in Ontario since 2004 associated with taser application. Four of those deaths were associated with cocaine toxicity. Two of them, like the case in Alberta that was described where the taser was discharged but failed, were associated with gunshot fatalities by law enforcement officials. One of them was associated with a psychotic state.

We have not seen a case, however, where the taser was discharged and the person became unresponsive within the 15-second interval that one would expect if it were the taser causing a cardiac dysrhythmia.

We have had several inquests where there have been taser recommendations as a consequence of the inquest by the inquest jury. In 2005, the Lamonday inquest jury made 17 recommendations. Lamonday was a 33-year-old male who was in an excited delirium state where tasers were applied to him and he was ultimately restrained and then subsequently died. The jury found that the medical cause of death was not the taser but a cocaine-induced excited delirium. They made a number of recommendations, one of which was that the Ministry of Community Safety and Correctional Services in Ontario should authorize all front-line officers to carry the taser, so convinced was the jury of the worth of the device.

In another inquest of death due to excited delirium where was taser was not used, that jury also recommended that the taser ought to be available for front-line use in Ontario.

The bottom line is that we don't know whether or not taser can cause death. I think it is fair to say that it's very likely and possible that the taser is not associated with these deaths; however, one cannot say that the taser is without risk. It's clearly an instrument that applies electrical shock. If applied in the anatomically vulnerable location across the heart with sufficient energy to a person who is vulnerable, it's quite possible that we could see a death. We don't have enough numbers now to know whether we can exclude that possibility.

**The Chair:** Thank you very much, sir. We appreciate the information both of you have given us.

Ms. Barnes.

**Hon. Sue Barnes (London West, Lib.):** Thank you very much, gentlemen, for coming here on short notice to help us out.

With respect to the presentation just given, you talked about the 2005 study by the Canadian Police Research Centre. My understanding was, when they testified before us, that was a literature review study. That was not an independent study where they did their own work; it was just a review of current data available. Is that correct?

**Dr. Andrew McCallum:** I don't know the methodology they used, so I can't comment.

**Hon. Sue Barnes:** But you cited it here.

**Dr. Andrew McCallum:** Yes, I did.

**Hon. Sue Barnes:** Well, I'm telling you that's what it is.

**Dr. Andrew McCallum:** Thank you. I appreciate that.

**Hon. Sue Barnes:** All right.

The other thing you talked about is second last use, basically, penultimate use. Are you aware that the RCMP uses it as an intermediate device at the present time?

**Dr. Andrew McCallum:** I'm not an expert on the application of it in the use of force continuum, so I couldn't really comment. I wouldn't be prepared to talk.

**Hon. Sue Barnes:** Okay, well, I'll give you that fact also, then. This is of concern to us.

The other thing both of you have mentioned is repeated application of this causing some concern. I'd like to hear more about this, because again, this is allowed right now, and we are aware that there are different evolutions of this device that will come that will have even higher applications in a timeline.

Could you, first of all, talk about why you have the concern about more than one application, even though it is allowed?

**Dr. Graeme Dowling:** I think that with anything, be it chokeholds, which I'm not really a proponent of either, or anything you're doing to restrain, there comes a point where you have to back off and say this isn't helping.

I think I should make you aware that I'm not an expert at all with electricity; watts and all of that type of stuff confuse the heck out of me, and I don't fully understand it. But as I understand it, repeated applications don't add up.

But if it's not assisting, if you're not getting control of the person, it seems to me it's not the right thing to use. Is there something else we can be moving to?

Unfortunately, I think the discussion is that the taser should be penultimate. If it doesn't work, unfortunately, it doesn't leave a lot.

I don't really know what the multiple use of it is. There was one case I've seen in the literature that really bothered me. I think that individual had something like six to eight tasers from different sites, all with the darts in him and all being discharged. That, to me—not as a forensic pathologist—because I don't know what effect it has, just sounds really weird. It was an American case, thank goodness.

The one case I have heard of that really did cause me concern about the taser being a cause of death was presented at the American Academy of Forensic Sciences meeting in Seattle two years ago. It was a case where the taser was literally used continuously for over

three minutes. At that point, common sense would say you're going to have some effect on the ability to breathe. Let's leave the heart out of it; with all the muscular contraction for five seconds, yes, it does hamper breathing. But for over three minutes? That's just inappropriate use. That was shocking to me. Again, it was an American case.

• (1600)

**Hon. Sue Barnes:** Dr. McCallum, would you like to comment?

**Dr. Andrew McCallum:** The only thing I can add to what Dr. Dowling has said is about the pig experiments, where 40-second applications used in pigs were associated with a higher rate of ventricular fibrillation. The only inference I would draw from that is that prolonged application is going to make it more likely that you'll have a discharge during that vulnerable period of the heart cycle, and the potential would exist then, perhaps more than in the briefer applications, for cardiac rhythm abnormalities. That, I think, physiologically would be the central concern.

**Hon. Sue Barnes:** Thank you.

**The Chair:** Is there anybody else on that?

Ms. Brown.

**Ms. Bonnie Brown (Oakville, Lib.):** Thank you, gentlemen.

How many seconds apart in the heart cycle does that risk peak turn up?

**Dr. Andrew McCallum:** It depends on the heart rate, but it would be fair to say that you could expect that an individual in this state would have a heart rate between 120 to 150 typically, because they're exercising, they're agitated, they have a tremendous outpouring of adrenalin from the internal sources that adrenalin comes from. That would mean they would have a vulnerable period in their cycle every half second or so, or less.

**Ms. Bonnie Brown:** So even in a five-second discharge...

**Dr. Andrew McCallum:** That would be fair to say; I think you'd have to acknowledge that this is the possibility, but we've not seen it. It's something we've not seen in our province, and it sounds as though Alberta hasn't either.

**Ms. Bonnie Brown:** So in the heart cycle, it would be pretty difficult, in an excited person—it doesn't even have to be in excited delirium, but it could be that you're just excited because the police have been chasing you down the street, or something—there's a very high likelihood that the taser would actually be hitting the person during at least one of those high-risk peaks.

**Dr. Andrew McCallum:** Yes, but I think you need to qualify that concern. If I may, I'll just give you some background.

The actual energy that reaches the heart is below the amount of energy that has been shown experimentally to induce ventricular fibrillation, in the main. Again, there's a possibility that if the darts happen to be in a location where the current traverses the heart, the energy would be higher.

That's something that's very important to understand. I know that these have been the findings experimentally: the amount of energy that actually gets to the heart is not enough to convert it. But the jury is still out on that one, I would have to say.

**Ms. Bonnie Brown:** All of us, and I suppose you as well, would think that if this is an electric shock, one would expect it would look somewhat like electrocution. You say that in electrocution, the person usually becomes non-responsive within 15 seconds. But isn't that because the source of the electrocution is still operative? In other words, if you stick your fingers in the plug.... Do you know what I mean? The 15 seconds would be 15 steady seconds of electric shock. Is that not so?

•(1605)

**Dr. Graeme Dowling:** No, if you stick your finger in the socket, what typically happens—and most people don't know this—is that the person being electrocuted says, “Ouch, that hurts”, and then they walk around and it's 10 to 15 seconds later that they drop. The reason for that, just so you understand this, is that when they put their finger into the socket, their heart went into that funny rhythm we call ventricular fibrillation; but believe it or not, their brain can function fully for 10 to 15 seconds without their heart beating. So if your heart stops beating for any reason, you will stay conscious for 10 to 15 seconds; then your brain feels it.

That's the reason for the 15-second time delay.

**Ms. Bonnie Brown:** Thank you, Mr. Chair, for now anyway.

**The Chair:** Thank you very much.

We'll go now to the Bloc Québécois and Monsieur Ménard.

[Translation]

**Mr. Serge Ménard (Marc-Aurèle-Fortin, BQ):** Thank you.

You told us that electrocution would cause the heart to stop in less than 15 seconds. That means that death cannot be attributed to electrocution after 15 seconds.

[English]

**Dr. Andrew McCallum:** Correct.

[Translation]

**Mr. Serge Ménard:** In cases where electrocution does not result in death within 15 seconds, are there nevertheless some effects that continue for the next few minutes?

[English]

**Dr. Andrew McCallum:** I'm not sure I understand your question. Are there other effects, besides cardiac effects, that could continue after the application of the electrical activity? Is that the question? Because there are.

[Translation]

**Mr. Serge Ménard:** Let me restate my question. In the ordinary course of things, it is very rare for someone who has been electrocuted but not killed to continue being involved in a very stressful situation after the electrocution—for example continuing to resist police officers or to take part in a battle.

Someone who accidentally electrocutes himself backs away, and nobody jumps on top of him after that. Do you see what I mean? Is it possible that the individual would be more vulnerable after the electrocution than before as far as resisting those who are trying to restrain him?

[English]

**Dr. Andrew McCallum:** My personal view is that we don't know. The most honest answer is that we do not know that.

Is it possible? Yes, it is.

[Translation]

**Mr. Serge Ménard:** I will give you a personal example. I have had an electric shock once or twice in my life. There was enough of an electric charge for one of the elements on the electrical panel that I had accidentally touched to burn. I did not die because of this, but I was very frightened, and I moved away from the panel. I do not think I would have been able to continue fighting with someone who might have been trying to arrest me.

Could the combination of events be an issue here? Would I have died if someone had jumped on top of me rather than coming to help me?

•(1610)

[English]

**Dr. Graeme Dowling:** I understand what you're saying, but I don't think that's what happens. You're almost implying an additive effect. Part of what you're saying is that because you touched that electrical source, your adrenalin levels are high. If someone came into the room and said “boo” or scared you, because of the increased adrenalin levels, could you have an arrhythmia and potentially die? I think, quite frankly, that is a possibility. I think it's a very slim possibility, but it's possible.

The thing we always have to bear in mind with these patients in excited delirium is that their adrenalin levels are absolutely through the roof. I don't think they could possibly go any higher. It doesn't matter what we do to them restraint-wise, it's putting them at greater risk, and yet to get them the medical help they need, we have to restrain them. That's why I kind of like the words “conundrum” or “catch 22” that were used. You're darned if you do and darned if you don't.

[Translation]

**Mr. Serge Ménard:** You have raised an important point, but since we have very little time, I am going to continue my argument to its conclusion.

You said, by way of explanation, that the person had died of *delirium tremens*. As I understand it, *delirium tremens* is a psychological state that seems to have some physical consequences.

Can you tell us what physical phenomenon results in such a psychological state and ultimately causes death? Is it an excess of adrenalin?

[English]

**Dr. Andrew McCallum:** To use the terms exactly, delirium tremens is a specific medical condition associated with alcohol withdrawal. What we're talking about is excited delirium, which is not acknowledged as a medical condition but is known to law enforcement personnel, paramedics, coroners, and forensic pathologists. It is a syndrome caused by a variety of sources, most particularly what are known as sympathomimetic drugs, which include cocaine and the amphetamine drugs, but it is also associated with acute psychoses, such as schizophrenic states and bipolar affective disorder exacerbations.

In my view, the problem with this state is that all of the excitatory functions in the physiology of the person are switched on. There is full discharge of adrenalin, which causes the heart rate to go up. Adrenalin, by and of itself, is a risk for heart rhythm abnormalities, even from an internal source. There's a rise in the body temperature. In that sense, it's somewhat like heat stroke, which we know can be fatal as well. Any time a person has an elevated body temperature there is a risk of damage to the brain and the enzyme systems of the body. As well, the person has maximal production of a substance called lactic acid. That occurs because of the failure to deliver oxygen properly to all the tissues that are exercised, particularly the muscles, which are the major consumer of oxygen in this state, especially when the person is fighting, wrestling, and trying to get away from the threat they perceive.

This witch's brew—and that's the best description I can use for it, and I'm not sure what the translation of that would be—causes great risk to the person. I think Dr. Dowling and I would both agree that the person may well die just from the state itself. I personally have seen that in my emergency medicine practice, which is what I did before I was a coroner.

•(1615)

[Translation]

**Mr. Serge Ménard:** That is exactly what I would like to understand. Does a discharge from a taser not result in an increased level of all the substances that the body produces when someone is very frightened? That is why I started at the beginning. When I received an electric shock but did not die of it, I was not in my normal state in the moments following the incident. I was very afraid, for one thing. Anyone can barely escape a serious accident and feel a great fear of dying at that time and actually have their heart stop beating. That is often what happens to people who are fighting with the police. If we add to all of that a discharge from a taser gun, would these phenomena be amplified to such an extent that they could result in the person's death? You can see why it is difficult to explain all of that in so little time, especially through translation.

[English]

**The Chair:** Yes, let's give some time for the answers here.

**Dr. Graeme Dowling:** The one thing to realize with excited delirium, and I mentioned this before, is that the adrenalin level is so high already that I'm not really sure that anything else we do can elevate it even more. I can't prove that; it's just a sense I have, but maybe I can add something.... Monsieur Ménard would like to get a better understanding of why, what's going on here. There is a

theory—and I do wish to emphasize it's a theory—that in addition to the adrenalin levels being really high, there is a salt in the blood that we call potassium—if you've ever taken a salt substitute, that's potassium—and that level is really high. High adrenalin and high potassium can both cause the heart to beat abnormally, an arrhythmia, but when both of them are high, they protect against each other.

When you bring the person under control, when the person in excited delirium finally reaches that state of coming down, the person is exhausted and can do no more, the adrenalin stays high and the potassium suddenly drops. Now you have the two working together against the heart. That's why the most dangerous period with excited delirium, whether you've done chokeholds or taser or anything else, is within about three to five minutes of when the person has quieted down. That's when the heart stops.

When you look at the cases, if you have a chance to look at the timing, that's what you'll see. Everyone says it's when the person is brought under control, but I really think the only reason we get a person under control is that now the person has reached the stage of being completely done, with no more left. That seems to be the most dangerous time.

I'm not sure if that helps.

**The Chair:** Thank you.

Mr. McCallum, do you have anything further?

**Dr. Andrew McCallum:** No.

**The Chair:** Thank you.

We'll now go over to Ms. Nash. Do you have any questions at this point?

**Ms. Peggy Nash (Parkdale—High Park, NDP):** Thank you.

Good afternoon to the witnesses.

Not that long ago there were media reports that Taser International had a history of taking legal action against coroners who were listing tasers as contributing to the cause of death. Can either of you comment on this?

**Dr. Graeme Dowling:** I haven't heard of it. I will acknowledge that Taser is very aggressive in defending its reputation. I attended a conference in Seattle—and I mentioned that two years ago—where Taser was presenting. The conference included Taser International, the American Civil Liberties Union, and, I think, Amnesty International. You can imagine having that group of people in the same room. It was an interesting combination—and there was a member of the Ontario coroner's office. It was wonderful because he had no bias.

At the very end, after all the discussion and Taser saying there was no association of deaths with their device, no proof, someone presented the one case I spoke to you about that worries me personally, where a taser was applied for three minutes. I was amazed at how the claws came out from Taser. I really was. I was a bit shocked. They were just all over this person.

I don't know. Not having put taser specifically onto a death certificate myself, I can't say what Taser International's response would be, and I'm not sure.... I haven't heard confirmation of that from the States.

•(1620)

**Dr. Andrew McCallum:** We've had no experience with that in Ontario, but like Dr. Dowling in Alberta, we've not had a case where we've assigned the cause of death to the taser.

**Ms. Peggy Nash:** Thank you.

My understanding is that they are an aggressive company and they have taken legal action against some coroners, but I think they also have carrots as well as sticks. I'm wondering if you're aware that they have offered payment, financial consideration, travel expenses for those who are perhaps sympathetic or who they would like to be sympathetic to the taser. Neither of you has received any inducement from Taser?

**Dr. Graeme Dowling:** No, I have no association at all.

I can tell you I was quite amazed. I spoke about excited delirium and tasers at a conference that our office puts on every two years. It's training for medical investigators and police. I spoke, and I really didn't say anything different from what I've said to you folks today, but there was a member of the press there and they did an article that balanced, to me quite nicely, the issue of tasers and the issue of excited delirium, and they mentioned my name.

That week I had three calls from the States asking if I would appear as an expert witness in defence of excited delirium and taser use, and I said no. I just don't want to get involved in that. I don't feel that I'm truly an expert. I was amazed. It is a huge issue in the United States from a litigation point of view. It's huge.

**Ms. Peggy Nash:** Some people do take those financial inducements, either through travel or benefits of some kind, or they do studies. We didn't see who funded the studies that you had identified, but there are studies that are funded by Taser as well.

Can I ask your opinion of those who do take those financial inducements? Do you have any opinion on that?

**Dr. Graeme Dowling:** As physicians, we are essentially not allowed to do that. If you're writing a research paper for any journal, any grant you receive you must declare up front, and that's to rule out the conflict of interest that you are suggesting: "My project was funded by"—we'll say—"Taser, and I found that tasers are really great devices." In a medical paper you have to declare it right up front.

**Dr. Andrew McCallum:** In many ways, it's the question of the moment in health care research as well, because as you know, drug companies sponsor the vast proportion of drug studies that are done, and often there has been the practice of withholding unfavourable results in the past.

I think it's a very germane question, and I think your questions regarding the papers I showed are quite appropriate. Some of them are Taser-sponsored, and you can probably infer which ones are. Some of them are independent. For example, the Toronto study that was done was an independent study, and that was the one that showed that at one to three times the normal dose application, ventricular fibrillation is possible in pigs.

I think it's very important. Whenever I evaluate the results of any trial, I certainly look at the funding source. I think the acceptance of support automatically does raise the issue of the objectivity of the research, whether or not it's unconscious or conscious.

•(1625)

**Ms. Peggy Nash:** For those who take funds from Taser, whether it's research funding or other kinds of benefits—because there certainly have been publicized cases of that—do you have any thoughts you want to share with us on that? Does it undermine the credibility of those individuals?

**Dr. Graeme Dowling:** Yes. The role of coroners, medical examiners, and forensic pathologists is to be independent, to not take sides. At the end of the day, we'll have an opinion, and when that opinion is challenged—and each one of you, through your questions, are clarifying and challenging views that we've put forward—it's our job to be fair and honest and give you everything.

It's the same in court and it's the same in trial. We can't take sides. That's our job. I can't imagine personally ever accepting that type of offer, because to me it would not, personally, be correct to do.

**Dr. Andrew McCallum:** I can't say it much better than that.

**Ms. Peggy Nash:** Okay. Thank you.

**The Chair:** We'll now go over to the government side. Mr. MacKenzie, please.

**Mr. Dave MacKenzie (Oxford, CPC):** Thank you, Chair.

And thank you to both of you, doctors. I very much appreciate your evidence here today and I know we've spent a great deal of time talking about the independence of other people. I have no question about your independence and your integrity and I think that's what's important to us here today.

Dr. Dowling, you indicated that in the Otto Vass death, I believe, there was no use of the taser.

**Dr. Graeme Dowling:** That's correct. I presented the one case, yes.

**Dr. Andrew McCallum:** No, I'm sorry. That's very—

**Mr. Dave MacKenzie:** Have I got them mixed up?

**Dr. Andrew McCallum:** Yes, you did. That's an Ontario case. The Otto Vass inquest was an inquest into the death of a man who was psychiatrically ill, who presented in an excited delirium state and who required subduing. It was very much the same kind of piling on situation in which a number of officers were involved. He died.

The jury found that it might have been easier to subdue him and hence get him to treatment had a taser been available. They recommended a taser, based on that.

**Mr. Dave MacKenzie:** Okay, I appreciate that.

I apologize, Dr. Dowling, for the confusion.

I think we have heard that in other situations.

I know some of my colleagues are always concerned—and I think rightfully so—about the multiple use of the taser. If I'm right on this one, Dr. Dowling, you talked about multiple uses, that it gave you a great deal of concern. Likewise, I have that same concern. If it isn't working after four or five times, maybe we need to find something else. But what else is there?

**Dr. Graeme Dowling:** That's my other hesitation. The word "penultimate" has been used here. The taser is the choice that a police officer has before pulling his gun. And if the taser is not working, I don't know. If it's a case of excited delirium and you really feel that's what it is, perhaps back off, because you hate to see the gun come out. I don't think Canadians like to see that. I don't.

**Mr. Dave MacKenzie:** That might be part of the danger. If we say that this is the last tool before a firearm, it doesn't leave anything else. I think that's a fair enough assessment. I don't think that's what we want and I don't think that's what my friends want, and I don't think that's what the police community wants.

Dr. McCallum, I read in your background that you spent some time in Sunnybrook Hospital in emergency. I'm sure you've seen what you have described as excited delirium.

**Dr. Andrew McCallum:** I have.

**Mr. Dave MacKenzie:** What would happen if we did nothing? Is there a reasonable length of time in which the person would either exhaust themselves or settle down? I think that's what Dr. Dowling is saying. If we simply back away, will they come back to a normal state?

**Dr. Andrew McCallum:** I would say that in my experience that has not happened. Two things happen. Occasionally even the most psychotic patient, when confronted with a significant show of force, will capitulate. That does happen. So if you walk into the room with a sufficient number of health care personnel—orderlies, nurses and doctors—and say, "We have to give you an injection. Please let us do it", they'll look around the room and then say okay. That does happen.

But with a significant proportion of these individuals it doesn't happen, and they do one of two things. They either begin to harm themselves by striking their head against things or hitting themselves and you end up with a blood bath that's self-induced, or they begin to strike out at the people who are around them and start to threaten them as well. And in those circumstances, in my view, you can't allow the state to continue unrestrained.

That's an emergency medicine point of view as opposed to a coroner's or medical examiner's point of view. That is the circumstance that is far more common. It's very rare that someone can be left to their own devices and will settle. It does happen, though, and it's an option that perhaps could be explored more often in the field than it is.

•(1630)

**Mr. Dave MacKenzie:** It might be difficult to do if other people are around.

**Dr. Andrew McCallum:** Absolutely. You couldn't allow the public to be at risk, for example, with someone rampaging. They'd need to be contained, clearly, but could you establish a secure perimeter? In other words, if the individual is harming himself or herself—mostly himself—if that happens, then you've got to move

in. Could you do that? Yes, I think you could do that in some circumstances, but there are going to be situations where that will not be possible.

**Mr. Dave MacKenzie:** Going back to your previous life in Sunnybrook—and you're a good-sized man—

**Dr. Andrew McCallum:** I look like a police officer too. It doesn't hurt on a Saturday night in the emergency department.

**Mr. Dave MacKenzie:** But having said that, some of these folks are not all that big.

**Dr. Andrew McCallum:** That's true.

**Mr. Dave MacKenzie:** Could you control one of them physically?

**Dr. Andrew McCallum:** Could I control a person in the throes of excited delirium by myself? No, I couldn't, even in my prime. The strength, agitation, and the aggressiveness of some of these individuals is something that can only be believed if one experiences it, as you know, and it's a very frightening and challenging experience to be faced with.

I was approaching it from a therapeutic as opposed to a security standpoint. I was approaching it as a physician. I wasn't thinking of it from the standpoint of enforcing the law, and it was frightening.

**Mr. Dave MacKenzie:** Dr. Dowling.

**Dr. Graeme Dowling:** Just to give an example, we had mentioned earlier that at least with respect to the deaths, we've never seen one in a woman, but I have heard from a police officer of a case of clearly excited delirium in a 16- or 17-year-old girl. It took, I believe he said, three or four police officers to get her under control. I believe she went the whole gamut. I can't recall if he said a taser was deployed. She did survive. But when you think of it taking four police officers to control a 16-year-old girl, it blows your mind.

**Mr. Dave MacKenzie:** I think both of you have indicated it's more often a male than a female with the excited delirium situation.

**Dr. Andrew McCallum:** It's vastly more predominant.

**Mr. Dave MacKenzie:** Might the illicit drugs play into that? Or does it have nothing to do with it?

**Dr. Graeme Dowling:** Women are smarter than men. They just don't do this stuff.

**Mr. Dave MacKenzie:** The drugs, you mean?

**Dr. Graeme Dowling:** They just don't do the dumb things we men do that get themselves into that situation. I don't have an explanation for it. I'm sorry.

**The Chair:** Go ahead if you have a very brief question.

**Mr. Dave MacKenzie:** One of our concerns here in this committee is where we go. Looking at the taser, which seems to be the focus, I think I've heard both of you say that the taser has been involved in some of these situations and obviously not in all of them. There are people who die without the taser. If that's the case, could you confirm that?

**Dr. Andrew McCallum:** That's correct.

**The Chair:** Very good.

Ms. Barnes.

**Hon. Sue Barnes:** Right now RCMP, police forces, apparently transit forces in B.C., and apparently in some provinces or territories penal authorities have tasers. In the States anybody can get one, as you know, and they're used in situations that I don't think this country would even comprehend.

A lot of our discussion today has been your point of view on people with excited delirium, and I think you have the expertise that many of us wouldn't have in that area. But my concern isn't so much in that area as it is with these tasers being used on people who aren't in excited delirium, people who are just not compliant fast enough with instructions, who are resisting apprehension. We don't have all the facts at this committee concerning what happened in those transit situations where people were tasered in B.C. in the last year for skipping out on fares. But I think there's a difference here regarding when this taser is used: if someone is in the state you're talking about versus someone just not reacting and being submissive fast enough to a direction. There doesn't seem to be a policy guideline that says you only use this taser if there's excited delirium. I'd like you to address whether or not you feel a taser is an appropriate vehicle in a situation other than excited delirium.

While you're doing that, I would add that what really troubles me about the taser is that it's something being used in Canada, and I can't think of any other product that we would put on the market for any use when we didn't have any answers about what the risks were. You wouldn't put a new drug on the market when you didn't have the answers out there. I'd like you to tell me what product you can think of that is comparable for which you don't know the risks and that you would authorize the use of in this country.

• (1635)

**Dr. Graeme Dowling:** The reality is that many of us gathered here probably take some medication. I take insulin as a diabetic, I take Aspirin to make sure my heart stays good, and I take a drug to lower cholesterol. Each one of these drugs has killed. We know that, but I still take them, because when you have to balance the risk of that illness or death occurring versus the benefits to me as an individual, they still come out in my favour. So I think there are a lot of products out there about which we don't have all the answers. Drugs would be a big one where we don't have all the answers, yet we still use them.

I share your concern about the deployment of tasers. I have no expertise on when they should be deployed, and it would be improper of me to even go there. But as a Canadian, I would like to be assured that they're being used by the properly trained people in the right circumstances.

If what you're describing in B.C. happened, that's not the way they should be used. Again, I don't know all the circumstances.

**Hon. Sue Barnes:** I just know it from the national news a couple of weeks ago.

**Dr. Graeme Dowling:** As you know, with the media there's always another side that you may not be aware of.

I'm not sure, Dr. McCallum, if you can add to that.

**Dr. Andrew McCallum:** Again, it's beyond my expertise to comment on where the taser ought to be applied in the use of force

continuum, but it would seem to me, just to take something that Dr. Dowling said, that the risk and benefit have to be compared. I don't think it can be said this is a device that has no risk. I think it can be said the device has risk that's unquantified and therefore it ought to be used in circumstances where there really isn't another more palatable alternative. My view is that this would be in circumstances where it's necessary to protect or save life. Used in other circumstances, I can't see how it would be properly applied.

**Hon. Sue Barnes:** Thank you.

**The Chair:** Monsieur Ménard and Ms. Thi Lac, does either of you have any questions?

Ms. Thi Lac.

[*Translation*]

**Mrs. Ève-Mary Thaï Thi Lac (Saint-Hyacinthe—Bagot, BQ):** Welcome, doctors. I am pleased to be able to speak to forensic experts. I will ask you a question that I raised during our visit to Vancouver. It is purely hypothetical. I will ask the first question, and then explain the reason for it.

A little over a month ago, there was a seizure of taser weapons in the riding of Richelieu, which is beside my riding. These were weapons that people had obtained illegally. I imagine that in this case, the weapons would have ended up on the black market.

If a member of the organized crime world or some other shady individual shot repeated taser discharges into someone in an effort to kill him, without launching the probes, would it be possible to say, beyond a reasonable doubt, that the death was attributed to repeated taser discharges?

A few years ago, there was a product available that could not be detected during autopsies. It was a muscle relaxant that people injected into their victims in order to kill them. Could taser discharges used to kill people be detected beyond a reasonable doubt during autopsies?

• (1640)

[*English*]

**Dr. Graeme Dowling:** We have to understand that everyone thinks the gold standard of death investigation is the autopsy. It isn't. It's the history, the scene, and the body. With the situation you're speaking of, the multiple applications of tasers, this would be the taser that's held against the skin. Each time it is discharged or moved, etc., it leaves a very distinctive mark on the skin. In the situation you're describing, I would see these pairs of electrode marks all over the individual and would start to ask what's going on. Is there a definitive finding at autopsy that would say the heart stopped because of this, or what have you? No, there wouldn't be, but if you're looking at that type of...it's torture. What you're describing is torture.

You can put enough stress on the heart with prolonged torture that the heart in some cases will stop. You don't see any changes in the heart itself, but you're looking at the injuries on the body. To give you an example, I have seen an individual beaten to death with a coat hanger, believe it or not. All the welts, hundreds of welts on the skin, were from the coat hanger, yet you looked at all the internal organs and there were no injuries. What did they die of? The release and stress of adrenalin—we've talked a lot about adrenalin today—to the point that they died.

I'm not sure if that helps.

[Translation]

**Mrs. Ève-Mary Thaï Thi Lac:** I have no other questions. I will give the rest of my time to my colleague.

**Mr. Serge Ménard:** I think that in my colleague's example, she is thinking of a situation in which a taser would be discharged, the two darts would be deployed, but the current would subsequently pass through these darts continually and so the person would die. So there would be only the two darts.

[English]

**Dr. Graeme Dowling:** That would be a tough one. I don't know if they would die for certain, but if they did, could I prove it? I think "I don't know" is the best answer.

[Translation]

**Mr. Serge Ménard:** You quite rightly raised another issue in your presentation, namely the requirement to include a list in all police reports regarding cases where the taser was used.

As medical examiners, could you tell me whether there is already a compilation or list of the deaths caused by other means of restraint? That would enable us to compare the use of the taser to other methods of restraint that may result in death.

[English]

**Dr. Andrew McCallum:** In the mid-nineties there was a great deal of interest in what was called restraint asphyxia, or positional asphyxia, associated with the hog-tied position or associated with the piling on that Dr. Dowling alluded to earlier. A series of deaths were published in academic journals, journals of forensic science, that I'm sure my colleague remembers. That was very much the fashion of that time, concern being raised by bodies such as yours about that use of restraint. That seems to have become less of an issue now with the arrival of the taser, and the taser is the focus.

My personal view is that the rate of death is about the same. We are seeing roughly the same number of deaths associated with excited delirium followed by restraint and/or tasers as we once did. That would be my view. I don't know if there's a difference. I don't think there is.

•(1645)

[Translation]

**Mr. Serge Ménard:** But we could make some comparisons, and that is the important thing.

[English]

**The Chair:** I would like one clarification. When you're doing the autopsy, you can measure the adrenalin levels and the potassium levels, can you not? You cannot measure that?

**Dr. Graeme Dowling:** After death, those levels are meaningless.

**The Chair:** Okay, that's what I was wondering about. Then you cannot determine if the death was caused by heightened adrenalin and lower potassium.

**Dr. Graeme Dowling:** What you have to understand is that when we talk about adrenalin and potassium, we're talking about what we refer to as a mechanism of death, not the actual cause of death. Just for your information, the cause of death is defined as the disease or injury that initiates a downhill sequence of events ending in death. That's very different from looking at the potassium or the adrenalin levels.

**The Chair:** Okay. Yes, I've been watching *CSI* and I've never seen them analyze the adrenalin either.

**Mr. Rick Norlock (Northumberland—Quinte West, CPC):** Mr. Chair, I think too many people watch too much *CSI*.

**The Chair:** Yes, okay.

Go ahead, Mr. Norlock.

**Mr. Rick Norlock:** I have a couple of quick questions based on some of the questions you've been answering. This has to do with the death certificate and fear of being sued by Taser International.

Dr. Dowling or Dr. McCallum, if you felt the cause of death was the taser, would you be afraid of putting that on a death certificate?

**Dr. Graeme Dowling:** No.

**Dr. Andrew McCallum:** Absolutely not.

**Mr. Rick Norlock:** Is either one of you financially involved with that company?

**Dr. Andrew McCallum:** No.

**Mr. Rick Norlock:** Okay, thank you.

When I was doing some reading on excited delirium, I was surprised that it's a term we're all using, yet I don't believe it's actually a psychological diagnosis. It is becoming—and tell me if this is right—a medical condition, but not a diagnosis. Is that correct?

**Dr. Andrew McCallum:** It's a syndrome as opposed to a disease, which has a well-defined cause. It's a constellation of symptoms, which you've heard described repeatedly, and it's much more referred to in the forensic and law enforcement community than it is in the medical community. There's been lobbying by the American Psychiatric Association to include it in the DSM-IV, which is their diagnostic and statistical manual of psychiatric diseases, but as the cause is not well established, there's been reluctance to do that.

**Dr. Graeme Dowling:** Actually, the condition or syndrome, or whatever you want to call it, was first described by psychiatrists in the 1800s. The terms they used are slightly different—acute exhaustive mania, lethal catatonia, and some other terms—but psychiatrists were the first ones to describe it.

This was before cocaine. This is the mid-1800s. Where did you see these patients? Well, we mentioned that a psychiatric disease can be the underlyer; in the 1800s all those patients were in hospital, so that's where they saw it.

There's a theory—and I would emphasize that it's only a theory—that maybe one of the reasons we're seeing it more in psychiatric patients outside hospitals is that it's now our preference to keep psychiatric patients outside and living as normal human beings whenever possible, but if their disease becomes out of control, excited delirium is a possible—rare, but possible—consequence of that.

**Mr. Rick Norlock:** Thank you very much.

I'd like to switch now to some of your personal comments, but I think anything you say personally is always.... Anything I say is based on my life experience in my job and other areas.

In particular, you said that if tasers are being used, you'd like to see them used by the right people with the right training under the right rules. By that statement, are you saying that in your personal and professional opinion—because the two are intertwined—it would be an appropriate tool if those three conditions are met, and that it would be appropriate for police personnel to use them?

• (1650)

**Dr. Graeme Dowling:** Yes, and the reason is that if I were in a state of excited delirium, I would rather a police officer pulled out a taser than a gun. It's that simple.

**Mr. Rick Norlock:** Thank you.

Dr. McCallum, feel free to jump in at any time you wish.

That's where I'd like to go next. Police officers have these tools around their belts. What I believe to be the most powerful tool is their ability to communicate, but under excited delirium I would suggest that communication is probably not going to work, except in very few circumstances. Would that be correct?

**Dr. Andrew McCallum:** That's fair.

**Mr. Rick Norlock:** So the next choices are pepper spray, the ASP baton—because most police officers carry that, or a big stick, something hard—the taser again, and/or the gun. With the ASP baton the proper usage is to incapacitate the person or to cause so much pain that it's pain compliance, very much like the taser. Basically you beat them until you get the kind of response you want, or you hit them once and hopefully don't have to hit them again.

**Dr. Andrew McCallum:** I'm not an expert on the use of force, so I can't say.

**Mr. Rick Norlock:** Then you pepper-spray them. In the literature I've read with regard to pepper spray—and in the actual use of it—there are examples of some persons on whom pepper spray really doesn't work that well, especially in psychiatric cases.

**Dr. Graeme Dowling:** Excited delirium is one circumstance where the pepper spray can almost make it worse.

**Dr. Andrew McCallum:** Because of the insensitivity to pain of the person in excited delirium, neither the pepper spray nor painful techniques will generally work. I would go so far as to say that if the taser were used to inflict pain, it probably would not be effective.

**Mr. Rick Norlock:** But if its aim is to incapacitate...?

**Dr. Andrew McCallum:** To produce neuromuscular incapacitation. It simply produces a state where briefly the person can't move, and that allows control to be gained.

**Dr. Graeme Dowling:** You should also realize that police do report cases of excited delirium where the taser itself does not have that much effect—that they can discern.

**Dr. Andrew McCallum:** Like in two of the cases in Ontario that were described earlier. In both cases the taser failed to incapacitate the individual, and they were ultimately shot.

**Mr. Rick Norlock:** How do you educate a law enforcement officer to recognize all of those instances in a very few seconds where they have to make decisions? We all sit back in our comfortable chairs and try to find the right answer. Would you say that it is appropriate only under the best circumstances? Even in an emergency room, where you have the best medical training, you have to think fast in order to make the right decision at the right time.

I'm going to ask each of you this simple question. If you could wave your magic wand today, would you want police officers to have that tool, the taser, in their possession, provided you had the right people, the right training, and the right rules?

Dr. Dowling and Dr. McCallum.

**Dr. Andrew McCallum:** I would say yes, and again, with all the provisos that you put forward—recognizing the risks and requiring careful accounting of the use of the taser in the right circumstances. And as I say, it's very far down that use of force continuum. In my view, it should never be used in a circumstance where somebody is fleeing. It should be used to protect life, with the goal of getting the person in excited delirium to treatment.

**Dr. Graeme Dowling:** I would agree.

**The Chair:** There's nobody on the Liberal side.

To the Bloc, Monsieur Ménard, do you have any more questions?

Ms. Nash, you indicated you have a brief question.

Oh, Mr. Ménard has changed his mind.

[*Translation*]

**Mr. Serge Ménard:** I would like to ask a question out of curiosity. You gave us two examples earlier. In the first, the taser was applied for three minutes. In the second, seven or eight tasers were applied simultaneously. I do not think you told us whether these people died. My impression is that they lived through that. Can you tell us that please?

•(1655)

[English]

**Dr. Graeme Dowling:** In one of the Alberta cases in which a taser was used, which we believe was a death due to excited delirium, he received three five-second shocks at the scene and was then transported in an ambulance to an emergency room. They then had to transfer him from the ambulance stretcher to a hospital examination table, and doing that required five additional five-second shocks. I don't know the timing of them or whether there were several seconds between each. I honestly don't know that.

However, the other case I mentioned to you, the one from the United States, I believe took place in a prison. My understanding of that case, as it was presented to me at the conference, was that someone was basically hanging on to the trigger or the discharge button of the taser continuously. It goes for five seconds, and then it goes off, and then it can go right away again. It is my understanding that the person was literally hanging on to that for three minutes or so. It was almost as close as you can get to continuous discharge, which I can't think anyone would think appropriate.

[Translation]

**Mr. Serge Ménard:** Yes, but the question is, did the people die?

[English]

**Dr. Graeme Dowling:** Yes, both of them did. That person in prison died, and the person in the Alberta case accounted for one of the deaths that we have had. But interestingly enough, the person in the Alberta case died after the administration of a chemical restraint—drugs given by doctors—so you had a whole constellation of things. This patient was also hobbled, so you had hobbling, taser, chemical restraints, and then his death.

**The Chair:** Everybody on this side is done? Thank you.

Ms. Nash, you are batting cleanup.

**Ms. Peggy Nash:** Thank you.

Dr. Dowling, you confirmed earlier that Taser International can be quite aggressive in challenging those who point fingers at the taser. You confirm that you've never felt the need to identify the taser as a cause of death. But do you think that because Taser International takes such aggressive legal action against coroners—and I'm reflecting on what has been reported in the media—this could create some reluctance among some coroners to identify the taser as a cause of death if they felt so inclined to do that?

**Dr. Graeme Dowling:** I can't speak for all coroners and medical examiners, but it is our job, as far as I'm concerned. I'm sure Andrew would agree that if we think this is the cause of death, it is our job to put it there.

I'm fortunate enough to work in Alberta justice, which is full of lawyers who are there to defend me if in giving that opinion I undergo civil litigation. Honesty and truthfulness have to be the bottom line with us. If I feel there's enough evidence to say that this is the cause of death, I have to put it there. That's my job.

**Ms. Peggy Nash:** Why do you think Taser is doing this? If the media reports are true, why do you think they are taking legal action against coroners?

**Dr. Graeme Dowling:** I honestly don't know.

**Dr. Andrew McCallum:** Can I add something? I think in Canada we are fortunate in that we enjoy a coroner or medical examiner system. As you know, there is a variety of systems across the country, but all of them have one thing in common, and that is that they are governmental; they are at either the territorial or the provincial government level. The importance of that is that it is in contrast to the United States, where coroners are often lay coroners who may or may not have any training, and who—

**Dr. Graeme Dowling:** Or they're elected.

**Dr. Andrew McCallum:** And they are elected. I was just going to say that. They often are part-time, and they are in an elected position, so they may be more vulnerable to that sort of litigation.

I think in Canada there would be much more resiliency about dealing with that, because I couldn't agree more that our job is to fearlessly assign the cause and manner of death as whatever we determine it to be, objectively.

**Ms. Peggy Nash:** You've never heard of anyone here being pressured or threatened by Taser?

**Dr. Andrew McCallum:** I'm unaware of any.

**Ms. Peggy Nash:** Thank you.

Dr. Dowling, it's my understanding that the City of Edmonton has a policy of calling EMS before a taser is deployed. You're familiar with that. I have two questions on that. Can you tell us if that policy is effective in saving lives or preventing injury? I understand that Calgary does not have the same policy. Is there a difference between the two with respect to taser use?

•(1700)

**Dr. Graeme Dowling:** I hadn't realized that wasn't true in Calgary, and if it's happening in Edmonton, a proud side of me might like to claim a wee bit of credit for that because I've spoken to them continuously saying that this is a medical emergency. At the end of the day, what I've basically taught them is that it doesn't matter what we do, this patient may die. Even if they stand back and do nothing, this patient may die. Therefore, if you're thinking that you have to get in there and restrain them or taser them or do whatever, get the paramedics there, because at least when you get them down, you can get them the medical attention they need right away. I think when the taser first came out that wasn't happening, so I was very pleased when they let me know that they always get the paramedics there.

**Ms. Peggy Nash:** Is there any difference between the experience now with EMS in Edmonton versus what happens in Calgary?

**Dr. Graeme Dowling:** I don't think so, although it's interesting that when you look at our four deaths, one was in Red Deer, the other three were in Edmonton, and they haven't had one in Calgary. Whether that has any bearing on it I honestly don't know.

**Ms. Peggy Nash:** Thank you.

Dr. McCallum, does the Ontario Ministry of Community Safety and Correctional Services collect data on taser use in the province?

**Dr. Andrew McCallum:** I don't know. This is a non-death situation?

**Ms. Peggy Nash:** Yes.

**Dr. Andrew McCallum:** I can't tell you that. I don't know. But I know that in every case, in every police force I am aware of, including the Ontario Provincial Police, the use of a taser is treated like the use of a firearm would be. In other words, a report must be filed, so I think there would be data on that, but I can't say for certain how it's aggregated.

**Ms. Peggy Nash:** If there are data, would it be possible to share that with this committee?

**Dr. Andrew McCallum:** I can ask that it be shared. It wouldn't come from our office, but I can certainly undertake to see if there's information that could be shared with the committee.

**Ms. Peggy Nash:** Great.

**The Chair:** Your five minutes is up.

**Ms. Peggy Nash:** All right. Thank you very much.

**The Chair:** I'd like to thank our witnesses very much for coming before this committee. I think you've added a lot to our study here, and I want to express my appreciation on behalf of the committee.

This meeting stands adjourned.

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