

**IN THE MATTER OF THE THOMAS R. BRAIDWOOD, Q.C.,
COMMISSIONS OF INQUIRY UNDER THE *PUBLIC INQUIRY ACT*,
SBC 2007, c. 9**

Federal Courthouse
Room 701
701 West Georgia Street
Vancouver, B.C.

May 21, 2008

PROCEEDINGS AT
FORUM (DAY 12)

ORIGINAL

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Commissioner:	T.R. Braidwood, Q.C.
Commission Counsel:	A. Vertlieb, Q.C.
Associate Commission Counsel:	P. McGowan
Court Recorder:	P. Kealy, C.V.R., C.M.
Transcriber:	P. Neumann

1
Dr. John Butt (Medical experts presenter)
Questions by Mr. Vertlieb

1 Vancouver, B.C.
2 May 21, 2008
3

4 THE COMMISSIONER: Good morning, everyone. Pardon my
5 voice. Yes, counsel, good morning.

6 MR. MCGOWAN: Good morning, sir.

7 MR. VERTLIEB: Thank you, Mr. Commissioner. The first
8 presenter this morning is Dr. John Butt. Dr. Butt
9 is a pathologist, a forensic pathologist.

10
11 DR. JOHN BUTT, Medical experts
12 presenter.
13

14 QUESTIONS BY MR. VERTLIEB:
15

16 Q Dr. Butt, as is our custom here, counsel takes you
17 through your background and then we'll invite you
18 to make your presentation to the Commissioner, and
19 the Commissioner does have a copy of the written
20 presentation that you have provided.

21 In terms of your background, you were born in
22 Calgary and spent your early years in Calgary.
23 You studied med school. In what year did you
24 graduate?

25 A I graduated from the University of Alberta in
26 Medicine in 1960.

27 Q And did a rotating internship at Calgary General
28 Hospital?

29 A Yes.

30 Q You have been, then, in the field of medicine for
31 over 45 years?

32 A Yes, I have.

33 Q Tell us about the work you did to study in the
34 field of pathology in your early phases of your
35 career?

36 A For two or three years I was in family practice
37 and then I decided to do post-graduate studies,
38 which I started at the Vancouver General Hospital
39 in 1963. And then I went from there to the United
40 Kingdom. And my original intention to study in
41 internal medicine and neurology was diverted when
42 I began doing neuropathology studies in the United
43 Kingdom, which led me into forensic pathology. So
44 I did a period basically from 1966 or '67 through
45 until '71 studying pathology. And then I had
46 significant practical experience in the coroner
47 system in London doing medical-legal autopsies for

Dr. John Butt (Medical experts presenter)
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1 two-and-a-half years before I decided to return to
2 Canada in 1974, early 1974.

3 That's my training background.

4 Q When you first came back to Canada you were the
5 Chief Coroner for the Province of Alberta?

6 A Yes. When I first came back to Canada actually I
7 had an academic post at the University of Calgary.
8 And then they decided to change the coroner system
9 and I became significantly involved in the
10 introduction of a new type of death investigative
11 system called the Medical Examiners System. And
12 that all took place in the second half of the '70s
13 and I became the Chief Medical Examiner for the
14 Province of Alberta, and I stayed in that position
15 until the middle of 1993.

16 I had a consulting business and I did that
17 for three years, and I had a client in the
18 Government of Nova Scotia and in the Prosecutor
19 Service of the Government of Nova Scotia, and I
20 was asked to consider moving to Nova Scotia, which
21 I did in January of 1996. And I remained as the
22 Chief Medical Examiner in Nova Scotia until near
23 the end of 1999.

24 Q How many years were you the Chief Medical Examiner
25 for the Province of Alberta?

26 A From June of 1977 until June or July of 1993, so
27 16 years.

28 Q Three years Chief Medical Examiner for the
29 Province of Nova Scotia?

30 A Yes, a little more.

31 Q You mentioned your teaching duties at the
32 university. You were a full-time associate
33 professor at the University of Calgary?

34 A Yes. I was at the University of Calgary and then
35 laterally I was what is known as a clinical
36 professor of pathology at Dalhousie University in
37 the medical school there.

38 Q Your experience has also brought you into contact
39 with pathologists in the United States, you served
40 as the president of the National Association of
41 Medical Examiners?

42 A I did, yes, in 1990.

43 MR. VERTLIEB: Well, with that background, Dr. Butt,
44 perhaps you could take the Commissioner through
45 the presentation that you have prepared, for which
46 we thank you.
47

3
Dr. John Butt (Medical experts presenter)
Presentation

1 PRESENTATION BY DR. JOHN BUTT:
2

3 A Thank you for being invited here, sir, to give you
4 hopefully some help with your --

5 THE COMMISSIONER: Well, you're most welcome. I'm
6 looking forward to this.

7 A Thank you. My present role as an independent
8 pathologist, I am not doing many autopsies, but I
9 have done my share over the course of the years.
10 So some of that experience relates to what I have
11 to say here today.

12 The greater experience that I have developed
13 in connection with custodial deaths, in-custody
14 deaths, really is in the realm of a consultant in
15 which I have examined a number of these cases on
16 paper for various jurisdictions, significantly in
17 the United States in both the plaintiff and
18 defendant modes, so to speak.

19 So in connection with the Taser in British
20 Columbia, in 2004 I was asked by the Victoria
21 Police Department together with a number of other
22 physicians and academics, I would say there were
23 probably seven or eight of us, and we were invited
24 to sit in on and to review, particularly the
25 latter, the report that the Victoria Police
26 Department developed for the B.C. Complaint
27 Commissioner, which was developed and delivered in
28 two parts at the end of 2004 and again in spring
29 of 2005. So there was an interim and a final
30 report.

31 Both Dr. Christine Hall, who is an emergency
32 room specialist, and myself wrote commentary. I
33 wouldn't say that we contributed directly to the
34 report, but we wrote comments on the report, and I
35 deemed that responsibility to be significantly
36 towards endorsing the report or denying the
37 contents of the report in terms of its scientific
38 ventures, that is to say how it related to the
39 medical literature at the time. And so I did that
40 and somehow since October of 2007 I have been
41 deemed to have a special interest and knowledge
42 about the Taser.

43 I have not been Tasered. I have only
44 examined one case of pathological interest, an
45 autopsy. But it is a very interesting subject and
46 I have developed a certain amount, I suppose, of
47 at least scientific knowledge by virtue of reading

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1 a lot of the medical literature on this matter.

2 So I start out the presentation with a title,
3 and I think it's properly chosen: A Primer to
4 Understanding the Cause of Death Issues During a
5 Law Enforcement Takedown with Special Reference to
6 the Taser, which as you know is a conducted energy
7 weapon.

8 Let me just say a few things in preparation
9 here about death investigative systems, and
10 particularly about my role versus that of the
11 coroner.

12 The coroner, as you know, sir, in British
13 Columbia is basically a lay official who has a
14 responsibility under the provincial statutes to
15 really answer to five questions, which are: who
16 the deceased was, when, where he died or she died,
17 why the person died and how they died, and the
18 latter two refer "why", meaning the medical cause
19 of death, which is the area of interest that I
20 have in the pathology, and the "how" means whether
21 the person essentially died from natural causes or
22 unnatural causes. And we can flesh that out a
23 bit.

24 The issue of forensic pathology, first of
25 all, pathology is one of the underpinnings of
26 medicine. Pathology is the study of disease or
27 injury. It essentially has nothing to do directly
28 with bedside medicine, but everything to do with
29 bedside medicine in terms of a major support for
30 physicians and surgeons practicing at the bedside.

31 So pathology in the study of injury and
32 disease is basically a laboratory specialty.

33 The issue of forensic pathology, simply put,
34 is the study of sudden death, unexpected death or
35 unexplained death being basically synonymous with
36 sudden death. So all unnatural deaths, suicide,
37 accident and homicide, are all covered by not only
38 the coroner's law, but also by the coroner's
39 jurisdiction in terms of saying we need a forensic
40 pathologist to do an autopsy in this particular
41 case, or we do not, because the cause of death is
42 obvious. So the cause of death is really the
43 issue for the forensic pathologist and the tool is
44 the autopsy.

45 Now, the role of the coroner or the medical
46 examiner. The medical examiner is generally a
47 medically qualified coroner. They don't exist in

1 British Columbia, but they do in several Canadian
2 provinces. The medical examiner system has
3 replaced the coroner system in four Canadian
4 provinces.

5 One or the other officials, a coroner or
6 medical examiner, has a statutory obligation to
7 provide some answers and one of those answers is
8 the medical cause of death. I mentioned the
9 autopsy as that tool. Deriving from the medical
10 cause of death, once, for example, it's
11 established that a person has died, for example,
12 of a broken neck then the how or the manner of
13 death is determined by the coroner, who decides
14 whether that was in some cases a rare natural
15 event. For example, bony spread of cancer to the
16 spine, or in most instances a fracture of the neck
17 would be one of three issues, whether it was a
18 suicide, an accident or a homicide. That's called
19 the manner of death.

20 Overall, what we have spoken about has to do
21 with the circumstances of death. And I wouldn't
22 labour on these matters, but to say that this is
23 going to come up again. And I prompt that by
24 simply saying that in the event that there wasn't
25 a medical cause of death obvious, that is, in
26 looking at the pathology of the body, or the
27 deviation from the natural, if there wasn't
28 pathology present, then relying on the
29 circumstances of death becomes very important,
30 including the description of witnesses, the
31 background history of the individual, et cetera.
32 And I'll go into that in some detail because I
33 think it's particularly important in deaths during
34 police custody, including in Taser deaths.

35 Sometimes these questions, the whole lot of
36 them, who, when, where, why and how, are the
37 features of a public inquiry or an inquest. They
38 come to be answered as a result of a process which
39 may include a jury. And that, I think, ends the
40 formal part of the system that deals with it.

41 Now, what about the issues of pathology?
42 Well, the word "pathology", as I indicated,
43 defines issues of disease or injury that are the
44 very underpinnings of medicine. It has very
45 little to do with treatment, but everything to do
46 with an understanding of the process that went on
47 that puts people in a perilous state because they

1 have one form of tumour or another, or one form of
2 infection or another, or one form of blood disease
3 or another. That is pathology. And it applies to
4 forensic pathology in terms of the forensic
5 pathologist's approach to doing the autopsy and to
6 discover what the underlying disease or injury is.

7 So having said that, what about the Taser?

8 Well, the first piece of information is that there
9 is no specific pathology related to deaths
10 associated with a Taser. No, nothing. That is to
11 say, to be precise about this, is there anything
12 unique in a death associated with the Taser? The
13 answer is no, there is not. There is no fatal
14 feature related to the Taser that one can see with
15 the naked eye, and that is important to describe
16 that.

17 And having said that, were the death to be
18 associated with an arrhythmia of the heart, a
19 disturbance of the normal rhythm of the heart,
20 would one be able to see that under any
21 circumstances? Notwithstanding the Taser, would
22 one be able to see the effects of an arrhythmia of
23 the heart that, for example, had suddenly
24 occurred, and the answer is no, they would not.
25 They might be able to see something in a
26 background of natural disease that had
27 precipitated an arrhythmia of the heart and the
28 commonest of those is the disease associated with
29 atherosclerosis and hardening of the arteries, the
30 coronary arteries, delivering blood to the muscle
31 of the heart.

32 But what is to say that there is something in
33 the muscle of the heart or anywhere in the heart
34 that reflects upon the action of an electrical
35 device delivering current to the outside of the
36 body, or to the inside of the body, for that
37 matter. And unless it was a particularly high
38 voltage device, such as that occurs during
39 electrocution, by power lines, for example, where
40 there are burns involved, there is in electrical
41 death in any event often very, very little to see.
42 And the fact that the heart has been interrupted
43 or its rhythm has been interrupted is not
44 something that one would expect to see, and I have
45 reiterated that now three times.

46 So I think you can understand the conviction
47 that people have about this, that is to say, an

1 elusive matter which starts a problem that takes
2 in the end of this discussion back to the very
3 circumstances of how the incident occurred.

4 So the autopsy cannot determine either a
5 seizure, that is to say, were one to have an
6 epileptiform seizure involving an irregular
7 dysrhythmic discharge of electrical activity in
8 the brain, it is most unlikely that were that to
9 be a primary seizure disorder, such as epilepsy,
10 that anybody is going to see anything.

11 So you're looking at two of the major systems
12 in the body here of three vital systems: the
13 cardiovascular system, the central nervous system
14 and the respiratory system, and in none of those
15 systems is there any pathology that is
16 distinctively related to the Taser.

17 There may be some ancillary issues to see,
18 but none of those is specific to the conducted
19 energy device. For example there may be focal
20 areas, that is, selected areas in voluntary
21 muscle, that is, striated muscle that show areas
22 of the effects of heat. Now, that could be
23 associated with a focal development of heat on
24 account of the Taser, or it could be in the
25 background because many of these persons who were
26 subjected to the Taser -- I'll take that back and
27 say a number of persons who are subjected to the
28 Taser are at risk in the beginning of having
29 hyperthermia or an increased temperature. And one
30 of the features pathologically of hyperthermia is
31 disruption, focal disruption of striated or
32 voluntary muscle called rhabdomyolysis. I'll
33 spell that, r-h-a-b-d-o-m-y-o-l-y-s-i-s,
34 rhabdomyolysis.

35 Now, in terms of the Taser itself there may
36 be some secondary issues, and I am sure that you
37 have heard of these in the deliberations here, and
38 these relate directly or indirectly to the Taser
39 through falling, or in some instances more
40 directly in terms of spinal column, compression
41 fractures of the spinal column. They also include
42 penetration injuries due to the dart or barb.
43 There has been one case reported where the skull
44 of a younger child was penetrated by the dart
45 which entered into the covering of the brain and
46 into the brain substance itself. And there have
47 been several reports, as well, of injuries to the

1 eye from the barbs. And these are more mechanical
2 injuries in the case of the eye injuries than they
3 are electrical injuries.

4 As I suggested, there can be burns and the
5 underlying muscle may undergo some change, and
6 there may be small burns in the skin. And these
7 are more common in the stun-drive mode with the
8 taser than they are in the deployed dart mode of
9 the Taser.

10 Now, having said that, there are some persons
11 who have died associated with the Taser where
12 there is a significant background of cardiac
13 disease. And that can be important. So in the
14 written material that I provided to the
15 Commission, on the third page under caption "D" on
16 the third page, there is a citation and a small
17 abstract of a study that was done, this was well
18 after the fact, in reviewing autopsy reports of
19 Tasered individuals by two persons who reviewed
20 this from the University of Washington. And they
21 reported that 54 percent of the victims in that
22 particular study - and remember, this is very
23 selective study - but 54 percent of the victims
24 showed coronary artery disease. At the same time
25 their study showed that 78 percent of the victims
26 were positive for an illegal substance, and 76
27 percent of the victims, dare I say it, had excited
28 delirium syndrome. And in 27 percent of these
29 cases it was considered that the Taser was a
30 potential or contributory cause to the death. So
31 that was an academic review of autopsy cases.

32 Now, in terms of how one derives a medical
33 cause of death in the face of what is called a
34 negative autopsy, there is immediate attention
35 reflected upon the circumstances of death. And
36 clearly they are circumstantial, that is to say,
37 they are lacking in the hard evidence, but they
38 become important to the issue. These particularly
39 involve what we refer to as the proximate events.
40 And sometimes those proximate events have to
41 suffice for the conclusions that are given by a
42 pathologist, and sometimes the wary pathologist
43 will put down, in giving a medical cause of death
44 under those conditions, he will put down in
45 parentheses, "(presumptive)". And that is because
46 of the lack of anatomical evidence, which of
47 course is his, that is, the pathologist's area.

1 So having said that, I am going to take this
2 opportunity to review the circumstances of death
3 that occur in many custodial deaths. And in so
4 doing I am going to use the term "excited
5 delirium", but I do understand that there are
6 objections to the use of this term. It has been
7 called "custodial death syndrome", and I don't
8 think it is unreasonable to refer to this as a
9 syndrome, which in medicine means essentially a
10 collection of signs and symptoms identified by its
11 repetitive recurrence in the community so that it
12 becomes, as a collection of signs and symptoms, a
13 recognizable entity.

14 And there may be debate, but in my opinion,
15 sir, there is no question but that there is a
16 custody death syndrome, call it "XYZ" syndrome or
17 whatever, there is a custodial death syndrome, and
18 so I would tell you as I am sure others would have
19 before me or will do, that deaths similar to that
20 that have been commented upon in British Columbia
21 recently have been occurring for a period of time
22 before the Taser was even used.

23 So these deaths have been noteworthy, in the
24 custodial situation of takedown for at least 25
25 years. One of the most high profile occurred in
26 San Diego County in the 1980s, and we'll leave it
27 at that. That had nothing to do with the Taser.

28 So excited delirium is seen with other forms
29 of takedown and the use of less than lethal force.
30 And in the background of these, there is
31 substantially an issue of the use of excitatory
32 drugs or the psychotic behaviour associated with
33 at least two primary acute psychotic conditions,
34 notably the manic phase of bipolar disorder and
35 acute schizophrenia, two separate entities.

36 So in the latter circumstances one is to
37 understand, and I have reviewed some of these
38 cases in connection with law enforcement issues in
39 the United States particularly, and one is to
40 understand that some of the patients have
41 withdrawn their medication. Despite what has been
42 said in the Canadian Medical Association report,
43 "Tasers in Medicine: an Irreverent Call for
44 Proposals", this syndrome has existed well before
45 the Taser came about.

46 Death investigators, emergency department
47 personnel, nurses, first responders such as

1 paramedics, have seen in this pattern of agitation
2 the following types of behaviour: hyperactivity,
3 notably running around aimlessly, often shouting;
4 secondly, agitation, including from lights and the
5 reflection of lights in glass and mirrors;
6 thirdly, hyperthermia, which in itself is a
7 danger, accompanied by sweating, and finally, one
8 of the problems in terms of responding to the
9 people, feats of strength, a disposition to resist
10 force and numbness to pain. These latter
11 features, of course, create problems for persons
12 who intend to assist to restrain the individual,
13 hopefully to bring upon that individual some form
14 of medical treatment. But having said that,
15 recall that paramedics are unlikely to tackle such
16 persons unless they have been taken down in the
17 first place by police.

18 A parenthetical remark would be that prudent
19 law enforcement agencies now hope to deploy
20 paramedic or basic life support resources at the
21 same time that they answer the 9-1-1 call
22 themselves. This in some instances has been done
23 with primary consideration for treatment of the
24 patient, in others it has been done because of the
25 response of litigants, or potential litigants to
26 the police activity.

27 Looking at these issues that have to do with
28 the proximate event when the person collapses and
29 dies. And having said that there is not
30 distinctive pathology, what is there to learn,
31 that, most importantly, is what is there to
32 observe?

33 A variety of use of force modalities have
34 been used in apprehension before custody, and each
35 in turn has suffered the sudden death problem.
36 Not commonly, but each has done this. The most
37 noteworthy, I think being the hogtie, which is a
38 hands behind the back handcuff with a hobble
39 restraint to the ankles and the two of them tied
40 together with the person placed commonly face
41 down.

42 A variety of that type of physical restraint,
43 including police officers kneeling on the body of
44 the subject, particularly on the trunk, neck
45 restraints, in the beginning led to the conclusion
46 that these were asphyxial deaths. And I am not so
47 sure that to this day some of these custodial

1 deaths are not still of that idiom. The outcome
2 of some of these things during and following the
3 takedown, but surprisingly quickly, has been
4 sudden death.

5 I do not know, it's not possible to know,
6 what the percentages are. Nobody keeps statistics
7 on the number of takedowns related to the number
8 of deaths, in the same way that one has found that
9 the number of taser dart deployments has really
10 never been properly recorded so that a comparison
11 can be made, and I think that's a fair statement.
12 I have approached the company about this last
13 year, and the explosive use of the Taser, the
14 number of the weapons that have gone into an
15 increasing number of jurisdictions has made a
16 universal or even in Canada probably province-by-
17 province, a study of deployments not possible, or
18 at least not at this time.

19 What is this death about? Not particularly
20 the taser. What consummately is happening here in
21 connection with all of these things in which
22 paramedics have been standing there during the
23 takedown and somebody says, as I did one case in
24 Toronto in a parking lot, where a licensed
25 practical nurse said to a security guard, "He's
26 not breathing. He's not breathing." And she
27 didn't know that he was turning blue because he
28 was a Black man. But the escape of respirations,
29 breathing, occurs very suddenly and appears to be
30 one of the first issues. And the death seems
31 precipitous, and when it occurs, and I have no
32 statistics to back up this, it appears that the
33 common avenues to resuscitation don't work.

34 The issue clearly in the Taser is less likely
35 to be asphyxial than something else. And about
36 ten years ago the original work of Dr. Donald
37 Reay, who up until that time was the Chief Medical
38 Examiner of King County, Seattle, that these
39 deaths were primarily related to asphyxia, that
40 means the respiratory system, the excursion of the
41 chest, the obstruction of the throat, that they
42 were of that sort began to be seriously questioned
43 by a group of basically clinicians, emergency room
44 doctor and anaesthetists out of Southern
45 California, a group by the name of Chan, Vilke and
46 Neuman, who opined that these deaths were of a
47 biochemical nature with sudden changes in the

1 acidity of the blood, making the blood
2 significantly more acid and the term "metabolic
3 acidosis" has been prescribed to these deaths by
4 and large, and I choose my words carefully. There
5 is no distinctive pathology in these deaths,
6 whether they are to do with the Taser, whether
7 they are to do with pressure upon the body,
8 sometimes there are indications of pressure on the
9 body including on the neck.

10 I mentioned the possibility of pre-existing
11 disease as being a contributor. Now,
12 notwithstanding -- well, put it this way. If one
13 has the potential of developing a dysrhythmia or
14 arrhythmia of the heart, a new, would never
15 before, or a dysrhythmia of the heart associated
16 with pre-existing cardiac disease such as coronary
17 artery disease, are these events common enough
18 that they require caution? And I suppose that
19 they do but, on the other hand, two authors in the
20 United States, who are emergency room physicians,
21 reporting in the *Internet Journal of Rescue and*
22 *Disaster Medicine* say that no Taser-related
23 dysrhythmias have been documented in tens of
24 thousands of training exposures and real-world
25 deployments. So again it's a question of putting
26 these things in balance.

27 The only thing that one can say in
28 summarizing this particular section of my talk is
29 that when the anatomical cause of death is
30 elusive, by studying the proximate events, one
31 hopes to develop an understanding of a thing
32 called the mechanism of death, which would be such
33 a thing as metabolic acidosis, asphyxia, those
34 things are referred to as mechanisms of death, and
35 in the absence of having any information from the
36 autopsy that would say that this is a dysrhythmia,
37 then you have to go to a very careful analysis of
38 the proximate events. And the phrase "freeze-
39 frame analysis" has been used by Dr. Reay in his
40 suggestion of a careful review of things on a
41 second-to-second basis about what happened.

42 Gathering data about Taser deaths is
43 difficult. There are problems about understanding
44 the extent of Taser deployments, I mentioned.
45 There are problems in understanding various
46 reasons for behaviours. There are problems in
47 understanding the victim's reaction, and there is

1 confusing data coming from the scene via
2 witnesses. There is confusing cause of death data
3 in autopsy reports, and I think understandably so.
4 There are many forensic pathologists who really
5 don't know what to put down on the autopsy report.
6 So they could put down something that was entirely
7 related to the circumstances, such as "sudden
8 death associated with custodial death syndrome"
9 or, in other words, "sudden death associated with
10 excited delirium (custody)", those sorts of
11 things. None of these is anatomically based, but
12 that's the issue.

13 A variety of opinion is found in the medical
14 literature and, Mr. Commissioner, I don't envy you
15 in that respect. For what has been written on one
16 side has been put into balance, if one dare say,
17 put into balance on the other side. I'm not sure
18 that it always has been put in balance.

19 As you are aware, there are some vested
20 interests who report in the medical literature on
21 the Taser and who tend to report more favourably
22 than other medical researchers do, and that is
23 difficult in reviewing the literature.

24 One recent author reporting last year in the
25 *Journal of the American College of Cardiology* has
26 said, and I use this, only this one reference and
27 related to research, is that the variety of
28 opinions in the medical literature, including the
29 validity of the pig model, ought to be taken with
30 caution. That is the pig model. Now, one of the
31 things that you are aware of, sir, and I don't
32 have to say it except for the record, is that
33 human experiments are not possible, given the
34 ethics of at least in our culture.

35 So what are the unanswered questions? The
36 first is what is the mechanism of the fatal
37 collapse in Taser-related deaths? The second
38 question is much a part of that, what are the
39 fatalities, are the fatalities with Taser-
40 associated deaths the same as those with capsicum
41 spray?

42 And there's a typographical error in my
43 report here, it says "CS spray" it should be "OS
44 spray". I give that for the record, please.

45 With capsicum spray, are they different than
46 those takedowns that involve entirely physical
47 force where there is restriction of the chest and

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Questions by the Commissioner

1 trunk or the neck? What studies are ethically
2 possible? And the final question is perhaps a
3 little off base, but under the circumstances
4 knowing what we do, why would one decide to
5 curtail the use of the Taser if it is an option to
6 the use of lethal force, so that it may be an
7 appropriate weapon under some circumstances. And
8 I think maybe I'm going over my mandate here, but
9 I think that that does have to remain.

10 THE COMMISSIONER: All comments are welcome, sir.

11 A And that, sir, is my information. Thank you again
12 for the opportunity.

13
14 QUESTIONS BY THE COMMISSIONER:

15
16 Q And, Doctor, pardon my voice. Something seems to
17 have happened to it. Let us assume for a moment
18 that some members of the police force in the
19 course of their duty see what you've described as
20 "excited delirium", that being exhibited, the
21 group of symptoms you have described. Now, I take
22 it - or maybe I shouldn't put it that way - if a
23 Taser is used, apart from the, I'll call it
24 mechanical - for want of a better phrase at the
25 moment - impact on the individual, you do have the
26 circumstance of a threatening scenario caused by
27 the use of it, and you do have certainly the
28 ordinary effect that we all know of collapsing,
29 the individual and the impact, if any, on the
30 psyche. Would you think that maybe those could be
31 a contributing cause to later death in custody?

32 A First of all, to answer your question in a general
33 way, it has been said that any feature adding to
34 the physical activity of the individual would make
35 the condition worse. That is to say, if this is,
36 for example, a metabolic acidosis problem, then
37 intense muscle activity generates lactic acid
38 under what's call anaerobic circumstances and the
39 condition is worse. So that would apply to a
40 convulsive movement of the muscles due to the
41 electric discharge, as well, although I can't say
42 with any degree of certainty what measure that
43 would add to it. But any form of struggle is
44 going to create a similar sort of situation.

45 Q That's what I had in mind.

46 A Yes.

47 Q Yes. Now, let's assume that these circumstances

Dr. John Butt (Medical experts presenter)

Questions by the Commissioner

Questions by Mr. Vertlieb (cont'd)

1 don't require an immediate takedown. There's no
2 immediate danger to life and limb. I take it
3 delay would be important, and if there was delay
4 would it help if the defibrillator came?

5 A Well, I think that the response of paramedics
6 under the circumstances is a primary issue. And,
7 I mean, some commentary has been made, including
8 in the recent comment of the *Medical Association*
9 *Journal*, you know, that this is a poor excuse for
10 medical treatment. But under some circumstances
11 the conditions are such that medical treatment
12 can't be given until there is some form of
13 takedown. But having said that, I think that the
14 deployment of people and the professionals to the
15 scene, and my understanding that now there is an
16 experimental group responding to some of these
17 cases in Toronto, that that is with the
18 Metropolitan Toronto Police, that involves not
19 only paramedics but also mental health workers to
20 address some of these issues, and to go back to
21 your point, the question of delay, I think is
22 important. For one reason, it provides a better
23 time for assessment, and that assessment can
24 include when there are professional people there
25 and one doesn't expect the police to have this
26 knowledge, nor should they, that a period of
27 observation, for example, may or may not be
28 showing a cooling off. And under those
29 circumstances where the person being,
30 quote/unquote cooled off by the delay, then
31 clearly this puts the situation into a much safer
32 mode for everybody.

33 THE COMMISSIONER: All right, thank you very much.

34 Counsel, do you have any questions?

35 MR. VERTLIEB: Just one question, Mr. Commissioner.

36
37 QUESTIONS BY MR. VERTLIEB, continuing:
38

39 Q Dr. Butt, we have heard reference to Taser as some
40 people say it's non-lethal, some say less lethal,
41 you have heard that discussion around --

42 A Yes.

43 Q -- the words. What's your view of this?

44 A Well, I think that there are deaths that are due
45 to the Taser. I don't know how many there are,
46 but I think that there are deaths that are due to
47 the Taser. And what it comes down to is basically

1 how quickly the death occurs. Now, that may sound
2 simplistic, but the thing is that if you develop a
3 sudden dysrhythmia - a sudden dysrhythmia, and I'm
4 not talking about 90 seconds or four minutes later
5 - if you develop a sudden dysrhythmia which seems
6 to be the issue in some Taser deaths, then it's
7 reasonable to say that in the proximate events
8 there is nothing else of influence. On the other
9 hand, if you turn around and you say that the
10 person did develop a sudden dysrhythmia as a part
11 of the discharge of the Taser but they do have a
12 background of cardiac disease, then I still think
13 that you have to put down the Taser as a
14 contributory issue under the circumstances. But
15 it would appear that there are some deaths that
16 are related to the Taser.

17 The issue, of course, of trying to experiment
18 with these we've talked about. But there have
19 been some sudden deaths with pigs, albeit, to be
20 fair, sometimes the period in which the energy has
21 been delivered to the pig has been protracted.
22 Like in one study, and I don't remember, it was
23 somewhere in the last year, that it was 45
24 seconds, which of course is nine times what the
25 anticipated discharge is going to be.

26 Q So you've mentioned in your report and your
27 presentation, you call it a weapon. If you were
28 going to label it, in your knowledge of this how
29 would you label it?

30 A Well, that's a tough question. I think that it's
31 when there are deaths, of course, it's hard to say
32 that it's a less than lethal weapon, but it has
33 been marketed that way. But when there are deaths
34 associated with it, I'm not sure that that handle
35 doesn't need some adjustment. But I think what
36 has happened recently is that Taser has come out
37 with a very extensive, like four- or five-page
38 description of the device "Warning", that's the
39 caption of the first page, in which they cover
40 most of these things. But that still doesn't say
41 that it's not a lethal device.

42 So I think there is a chance that the Taser
43 is going to be responsible for causing death, and
44 under those circumstances it's difficult to say
45 that it is a non-lethal device.

46 Less than lethal, I'm not sure exactly what
47 it means. But to be fair there are a huge number

17

Dr. John Butt (Medical experts presenter)

Questions by Mr. Vertlieb (cont'd)

Dr. Maelor Vallance (Medical experts presenter)

Questions by Mr. Vertlieb

1 of deployments, and I suppose that is what they
2 based the term "less than lethal" upon, the fact
3 that there are thousands and thousands of
4 deployments to the extent that my understanding is
5 that there may be more than 600 deployments a day,
6 and that's in North America.

7 MR. VERTLIEB: Thank you, Dr. Butt.

8 THE COMMISSIONER: Dr. Butt, I might say that your
9 discussion was very clear.

10 A Thank you.

11 THE COMMISSIONER: And the problem is very difficult
12 and I am very appreciative of your attendance.

13 A Thank you.

14 THE COMMISSIONER: Thank you so much.

15 A Thank you.

16

17 (PRESENTER EXCUSED)

18

19 THE COMMISSIONER: I think we are going to have to
20 adjourn till about 11:30, I believe.

21 MR. VERTLIEB: Yes.

22 THE COMMISSIONER: I think that Dr. Vallance is a bit
23 late.

24 MR. VERTLIEB: Thank you, Mr. Commissioner.

25 THE COMMISSIONER: All right. We'll await his arrival.

26 MR. VERTLIEB: Thank you.

27

28 (PROCEEDINGS ADJOURNED)

29 (PROCEEDINGS RECONVENED)

30

31 DR. MAELOR VALLANCE, Medical
32 experts presenter.

33

34 THE COMMISSIONER: Yes, welcome, Doctor. We didn't
35 mean the setting to be so formal, but this is the
36 best we can find.

37 A I'll live with it.

38 THE COMMISSIONER: All right. Yes, counsel.

39 MR. VERTLIEB: Thank you.

40

41 QUESTIONS BY MR. VERTLIEB:

42

43 Q Dr. Vallance, we'd like to just have you take us
44 through your medical background, starting with
45 your first medical training and bring us up to
46 your --

47 A Present retired status, is that the...?

Dr. Maelor Vallance (Medical experts presenter)
Questions by Mr. Vertlieb
Presentation

1 Q Yes, thank you.

2 A I am a physician and I took my medical
3 qualification in Glasgow, Scotland, and trained in
4 psychiatry in Glasgow and London. And came out to
5 Canada in 1965, and I have been practising the
6 specialty of psychiatry ever since then.

7 And I've had various positions, ranging
8 administratively from Chairman of the Forensic
9 Commission, and clinically to the Director of the
10 Emergency Psychiatric Services at Vancouver
11 General Hospital, I was there for a good number of
12 years, where we dealt with the acute psychiatric
13 presentations as they would be brought to the
14 emergency department very frequently by the
15 police. And it was coupled with an assessment
16 unit where we had short stay and where we could
17 manage these patients over a period of three or
18 four days before we passed them on to other
19 services or discharged them. In addition to that,
20 I've had other clinical appointments at UBC and
21 St. Paul's Hospital, where I currently teach and
22 where I see some medical-legal assessments.

23 Q Your status with the University of British
24 Columbia, just give us a bit of background about
25 what you do in the teaching part of your work.

26 A Well, through the years many, many roles, rising
27 from clinical instructor in the early days to
28 currently Clinical Emeritus Professor of
29 Psychiatry, which is essentially retired, but I
30 still work with the university. They don't pay
31 me, but I do some teaching, particularly in the
32 area of medical-legal psychiatry.

33 MR. VERTLIEB: So with that background, Dr. Vallance,
34 would you give the Commissioner the benefit of
35 your thoughts on this subject.

36

37 PRESENTATION BY DR. MAELOR VALLANCE:

38

39 A Thank you. Thank you, Mr. Commissioner.

40 THE COMMISSIONER: Yes.

41 A I believe that you have my written submission.

42 THE COMMISSIONER: I do.

43 A And perhaps a copy of these slides, there's some
44 note that you may make. My written submission
45 deals particularly with delirium, and I don't wish
46 to labour the clinical aspects of that
47 particularly, since you already have that

1 information, both from myself and I think from
2 some of my colleagues. But I would like to make
3 one or two points concerning delirium.

4 It is a medical term, and it's a medical term
5 that has many underlying causes, but generally
6 presents in the same way. It is not to be
7 confused with a rather populous term called
8 "excited delirium". That is not to say that
9 delirium is not frequently coupled with
10 considerable agitation, it frequently is. And of
11 course excited delirium refers to the individual
12 being excited or agitated, I take these as being
13 synonymous in that particular context, but it is
14 not necessarily a true delirium.

15 Delirium has specific features when it's used
16 in a medical context, and the principal features
17 are a reduced clarity of awareness of the
18 environment. Essentially there's a clouding of
19 consciousness. As a consequence of that clouding
20 of consciousness, there can be considerable
21 impairment of attention, to the extent that
22 anything that comes from the outside, including
23 instructions from the police, may not get through.
24 Even when they do get through, they may not be
25 held in consciousness for long enough for the
26 individual to take any action on them.

27 Very often patients with delirium are
28 disoriented, usually for time, often they don't
29 know what time of day it is. They have
30 impairments of memory. As I said, they don't
31 retain anything and warnings may be quite useless.
32 And they often have problems of language, both in
33 understanding what is said and being able to
34 express themselves.

35 By perceptual disturbances, I'm referring
36 particularly to illusions and hallucinations.
37 Often on the wards we will see patients with a
38 delirium, picking bugs off the bedclothes because
39 the shadows look like bugs, and they misinterpret
40 them. We see that in DTs, delirium tremens,
41 frequently in alcoholics. They may be frankly
42 hallucinated, where they actually hear voices
43 coming from the outside but not coming from
44 anybody there. And as a consequence of their
45 delusions and hallucinations they will frequently
46 have misinterpretations of what is going on around
47 them, so that for example patients with DTs may

1 misinterpret what they hear, the mistaken, the
2 illusions and the hallucinations, given their mood
3 they may misinterpret it as people being after
4 them. They've been known to jump out of windows
5 to escape, paying no attention at all to the fact
6 that they may be ten floors up.

7 The delirium may fluctuate, usually does,
8 usually worse at night, and it's usually worse at
9 night because there's less orienting stimulation
10 to keep them on track. It also varies with the
11 level of excitement -- the greater the excitement,
12 usually the greater the derangement.

13 Delirium has many possible underlying causes.
14 General medical conditions, there are many general
15 medical conditions - I won't go into them because
16 there are so many - that can produce delirium.
17 Anything ranging from liver disease, to AIDS, to
18 being grossly dehydrated, having disturbances or
19 electrolyte imbalance, having acidosis, sometimes
20 we see with acidosis, for example, not just in
21 struggling patients, but we see sometimes in
22 diabetes. So there are many general medical
23 conditions that will produce it.

24 One of the commonest problems, though,
25 particularly in our community, is substance
26 intoxication that can produce delirium, and
27 particularly with such substances as cocaine,
28 especially cocaine, and other substances, too,
29 like crystal meth, can produce a delirious state.
30 We see it in substance withdrawal, withdrawing
31 from alcohol, delirium tremens is essentially a
32 delirium. And most often we see it as a
33 combination of various factors such as substance
34 intoxication in somebody who is already depleted
35 by AIDS, or somebody who has a pneumonia and high
36 fever, and who may have an aberrant reaction to a
37 medication. There are various combinations that
38 can occur, and usually there are combinations.
39 The bottom line, however, is delirium.

40 It is not always easy to differentiate
41 delirium from other conditions, particularly in
42 the community and particularly when the individual
43 may be severely agitated. You cannot
44 differentiate it in the community from acute
45 schizophrenic episodes, particularly excited
46 catatonic schizophrenia. From time to time we
47 will see severe cases of mania who are grossly

1 excited and quite deranged, and we see cases of
2 agitated dementia that can also resemble delirium.
3 So that differentiation may not be possible in an
4 acute situation in the community.

5 The police, for example, in intervening, may
6 have and usually do have no idea what they are
7 dealing with, other than the level of agitation of
8 the individual and the fact that the individual
9 appears to be in some way deranged. But the
10 specific condition they would have no way of
11 knowing. They won't have the information because
12 generally you cannot interact with the individual
13 sufficiently to obtain the information that would
14 give you a diagnosis, and usually collateral
15 information is not available. So observation
16 alone is insufficient for diagnosis. You need
17 some interaction with the individual and you need
18 collateral data to be sure what you're dealing
19 with.

20 A brief comment again about excited delirium.
21 I have been talking so far about medical delirium,
22 a disorder of the brain. There is a rather
23 populous term described as "excited delirium", not
24 by physicians, mostly in the lay community, but by
25 some forensic examiners particularly. It's not a
26 medical term. You won't see it described in the
27 medical literature as a separate entity. In fact,
28 there is no real clinical evidence of a separate
29 entity. The symptoms and the behaviours that you
30 see in what is called "excited delirium" is
31 essentially indistinguishable from a deranged,
32 agitated individual in the community, irrespective
33 of the underlying cause. And there is no known
34 specific pathology. In short, there's nothing to
35 identify it.

36 The features as they are described of excited
37 delirium, and there's a whole list of them, I
38 don't intend to go through them, are essentially
39 the features that you would find in any severely
40 agitated, deranged individual, whether they are
41 suffering from a true delirium with all of its
42 underlying medical causes, a severely agitated
43 schizophrenic, or a severely agitated manic
44 patient, there's nothing to differentiate it from
45 these conditions.

46 However, in some circles excited delirium has
47 been talked of as a specific syndrome that may

1 cause death. Well, in the first place I don't
2 believe that it is a clinical entity. There's
3 nothing to support it as a separate condition.
4 And there's no specific pathology post-mortem. So
5 given that it's a ghostlike entity, it is very
6 difficult to attribute anything to it,
7 particularly death. Most of the time, in fact all
8 of the time that the police intervene in cases who
9 exhibit these behaviours in the community, they
10 are dealing with delirium, true delirium with all
11 its medical causes, or they're dealing with
12 severely agitated schizophrenics or manics.

13 It is clear, however, that deaths do occur in
14 temporal proximity to various interventions,
15 including CEWs. They're reported in forceful
16 restraint. They've been reported with chokeholds.
17 They've been reported with pepper spray. And they
18 are reported mostly in those individuals that you
19 would expect to be the most physically compromised
20 individuals in the community. Compromised by
21 what? They are compromised by general health
22 issues. Delirious patients have general health
23 issues. They may have AIDS, they may at the time
24 of intervention be seriously dehydrated. In many
25 cases they have lived on the street. They haven't
26 eaten regularly. They haven't cared for
27 themselves physically and they're a vulnerable
28 population. So there are general health issues
29 and there are specific health issues, such as AIDS
30 and, most commonly of all, there are
31 intoxications, particularly again with cocaine.

32 One of the factors that interests me
33 particularly is that in terms of being
34 compromised, the level of exhaustion is, I
35 believe, an extremely important factor. And it is
36 not a factor that is easy to detect. One would
37 assume that with impending exhaustion there is a
38 gradual slowing down of activity, less resistance.
39 That's usually not the case. The individual in
40 that kind of situation is rather like the car with
41 the gas pedal full down. It will go at full speed
42 until it runs out of gas. There's no petrol
43 gauge, there's no gas gauge to tell you that
44 something is going to happen. It runs straight
45 out of gas.

46 And the police will describe circumstances
47 where the individual has been restrained, has been

1 very violent, it's been prolonged, and then no
2 sooner are they restrained than they seem to
3 collapse into inactivity. I believe that at that
4 point they are severely exhausted and I believe
5 that it's one of the most important vulnerable
6 factors in these individuals.

7 The police have exceedingly difficult
8 situations to deal with. And as they deal with
9 these situations, one would hope that they are
10 constantly aware of risk/benefit in the things
11 that they do. They can foresee a benefit. They
12 can foresee a benefit in rapid control of the
13 individual, the safety of the public. They may
14 perceive a benefit in being able to have the
15 individual rapidly taken for care. That benefit
16 may encourage them to intervene physically,
17 perhaps faster than they should. But there are
18 perceived benefits in any way that they intervene.
19 There are obviously risks.

20 A risk has two elements. There are always
21 two elements in risk, the frequency of the risk
22 and its severity. Problems may not arise
23 frequently, but if the severity is death, it
24 doesn't have to happen very frequently to be of
25 great significance. That risk/benefit evaluation
26 by anybody who intervenes is not a one-shot deal.
27 It's a continuing process. Because the
28 risk/benefit will shift depending on what is
29 happening. The risk to the public, for example,
30 may shift if the police suddenly discover that the
31 individual has a lethal weapon where they didn't
32 know that at first.

33 In medicine, when we consider risk/benefits,
34 as we do in pretty well everything that we do, we
35 expect that prior to, for example, the release of
36 a new medication, the risk/benefit evaluation has
37 been very extensive. The drug companies have to
38 establish that the medication, for example, that
39 they propose to use, will have a considerable
40 benefit. They also have to establish what the
41 risks might be so that the authorities can
42 evaluate risk/benefit ratio before - before - any
43 such medication is released. The same occurs in a
44 hospital if there's a new procedure. By research,
45 we have to know about risk/benefit before the
46 procedure is introduced. That, of course, to my
47 understanding, didn't happen with the CEWs, at

1 least, not to that extent. So that we have to
2 deal now with something that is on the street and
3 we're dealing with it after the fact.

4 Because of the problems that the police have
5 in these situations and because restraint
6 instruments such as CEWs have been released, there
7 is a very urgent need for research. And the first
8 level of that research has to be in the reporting
9 of events. I doubt if that can be done properly
10 unless there is a central registry of
11 intervention. We need to know specifically what
12 took place, what restraints methods were used,
13 what the immediate reaction was, and what the
14 final outcome was.

15 We need to have protocols for intervention,
16 particularly using CEWs because we know relatively
17 little about them. When should they be used and
18 when should they not be used? Again, that's
19 exceedingly difficult for police officers because
20 they have to deal with a very difficult situation.
21 But I believe that they have to recognize that in
22 dealing with these very difficult situations they
23 are also dealing with the most vulnerable members
24 of our community, people who are most likely to
25 have problems when you intervene.

26 The first step in intervention should very
27 rarely be physical restraint of any kind. The
28 physical restraint by itself tends to escalate the
29 situation, when the purpose really should be to
30 de-escalate. The escalation of the situation with
31 further agitation and excitement is a danger in
32 itself.

33 In order to intervene without using physical
34 restraint as a first step, I believe it's
35 necessary to develop specialized intervention
36 teams. There is specific training in that form of
37 intervention. I believe that it's too much to ask
38 the police force to have the level of training
39 that is available as a general training throughout
40 the police. It requires specific selected
41 officers to be specifically trained under our very
42 extensive training programs now. Even then, I
43 don't believe that they should act alone. I
44 believe it should be a team effort. Mental health
45 personnel should have the same training, and they
46 should work in conjunction. Now, it may be that
47 those police officers will be on general duties

Dr. Maelor Vallance (Medical experts presenter)
Questions by Mr. Vertlieb (cont'd)

1 and they'll be available for these specific
2 interventions. But I believe it's necessary to
3 have that. I think if we don't, then I believe
4 that we will continue to have too early physical
5 intervention. I don't think that there will be
6 enough effort at de-escalation, and I think that
7 particularly vulnerable individuals will then be a
8 considerable risk, because they are the most
9 vulnerable individuals, and not just to CEWs but
10 to other methods of restraint, too.

11 Those are my additional comments.

12 THE COMMISSIONER: Counsel, do you have any questions
13 at all?

14 MR. VERTLIEB: Thank you.

15
16 QUESTIONS BY MR. VERTLIEB, continuing:

17
18 Q Dr. Vallance, we have heard from different
19 policies that the police have concerning what to
20 do when the police have a perception of this
21 excited delirium, and I'm certainly not going to
22 go through the discussion you've already given us,
23 which was helpful, about the terminology. But
24 just I want to give you a for instance of a policy
25 and just get your comment on it.

26 If a policy for someone to be in a police
27 position and having a Taser weapon available, if
28 the policy was suggesting that individuals
29 experiencing excited delirium require medical
30 treatment, which first requires they be
31 restrained, what would your thought about that
32 policy be?

33 A My comment would apply to not just the populous
34 term of excited delirium, but it would apply to
35 delirium, it would apply to acute schizophrenia,
36 and it would apply to mania. In any of these
37 situations where you have essentially a deranged
38 individual who is severely agitated, the
39 temptation is to control them as rapidly as you
40 can and get them to more specific assistance.
41 That may be well-meaning, and sometimes it may
42 work. It may work in that nothing happens and the
43 person is in care. I'm concerned about the
44 instances where something does happen. That's
45 what you consider in risk/benefit management, and
46 there would appear to be instances when something
47 does happen. Given that that happening can be

1 very severe, I don't have any doubt in my mind
2 that the first intervention should be a non-
3 physical, non-physically restraining intervention.
4 Under our techniques of doing that, it takes more
5 time, it takes more patience, sometimes it may
6 even take more risk, but I believe it's of value
7 in virtually every case, and of a greater value if
8 you have specialized teams capable of doing it.

9 Q Explain to us from your knowledge as a physician
10 why so many times here this morning you've
11 mentioned to the Commissioner that these people
12 are vulnerable, they're at risk. Just explain
13 that medically so that we understand why you have
14 this overarching concern for these vulnerable
15 people.

16 A They're at risk because their general health is
17 extremely poor often. Many of them have been on
18 the street for a while. They're at risk because
19 they have, apart from their general health
20 depletion, they have specific illnesses. Many of
21 them have AIDS, many of them have heart conditions
22 secondary to other conditions. Many of them,
23 upwards of 70 percent, are intoxicated, on a
24 substance, usually cocaine. The physiological
25 effects of cocaine raise risks of its own. You
26 intervene physically on top of that, then it's not
27 surprising that from time to time you're going to
28 run into serious physical problems.

29 Q So take us through the analogy with the foot on
30 the gas pedal. You mentioned to the Commissioner
31 the term of having the foot full throttle on the
32 gas pedal. Just take us through that as you see
33 it relating to Taser.

34 A To Tasers?

35 Q Yes, the foot.

36 A Well, I was referring there to whether or not you
37 can detect the level of exhaustion of an
38 individual in an acutely agitated state, and I
39 believe that you cannot, because they suddenly run
40 out of steam. It's not something that gradually
41 tapers off so that you know what's happening. So
42 you may be dealing with somebody who is in a
43 seriously depleted state. That's a risk.

44 The second risk is that when you have someone
45 who is decidedly agitated, again as if they had
46 their foot full down on the gas pedal, and if at
47 the same time somebody puts their foot on the

1 brake pedal, you have a vehicle that spins out of
2 control. The way to tackle the situation like
3 that is to decelerate, is to de-escalate, not to
4 increase the escalation and at the same time have
5 physical restraint. They're in a sense
6 counterproductive.

7 Q So to follow the analogy of the foot on the gas
8 pedal, and the foot on the brake and the vehicle
9 spinning out of control, take that to the real
10 life situation: what is the foot on the gas pedal
11 and what's the brake?

12 A The foot on the gas pedal is the agitation, the
13 level of agitation increases with the
14 intervention, I mean, there's no way around that.
15 You don't reassure anybody by any of these
16 interventions. They all increase agitation. And
17 at the same time you're putting physical restraint
18 on the individual and that creates problems.

19 Q The physical restraint becomes the --

20 A External restraint.

21 THE COMMISSIONER: I take it, too, Doctor, and maybe
22 you can comment on this - find my voice, I seem to
23 have lost it - if a person has a mental disorder.

24 A Yes.

25 THE COMMISSIONER: And even although there is no
26 immediate obvious harm, can there be any harm
27 caused by the fact that they have been shot by the
28 weapon?

29 A Yes. You scare them even more.

30 THE COMMISSIONER: And could that be long lasting?

31 A Well, one would hope that eventually you get them
32 into treatment and as you treat the underlying
33 disorder, whatever it is, then all the elements
34 around fear, for example, would diminish,
35 including that one. But it's not a momentary
36 effect. I mean, you scare somebody like that it
37 can have a significant effect on their early
38 treatment, yes.

39 MR. VERTLIEB:

40 Q In our report that you have prepared for the
41 Commissioner, at page 4 you make a comment, I'd
42 like to have you just explain it, and it's the
43 second-to-last paragraph of page 4, and I'll just
44 read it out and then ask you to give us your
45 thoughts. You say in your written material:
46
47 Much is made in the police information that

1 even with much more widespread use of CEWs
2 there has been no increase in fatalities in
3 association with their use. That may only
4 mean that CEWs are now also being used in a
5 broader population where the risk is in any
6 event lower, rather than exclusively in the
7 more extreme cases of disturbed behaviour
8 where the individual is likely already in a
9 severely compromised state.

10
11 Just explain what you are meaning there, that
12 "where the risk is lower". Just give the
13 Commissioner your thoughts about why you have
14 written that.

15 A Well, in the most agitated deranged state, you are
16 likely dealing with the most vulnerable people in
17 the community, and you're also likely dealing with
18 them at the most vulnerable stage in the sense
19 that they may well be completely depleted of
20 resources, and in fact exhausted and consequently
21 more vulnerable. If you use an instrument such as
22 a Taser, if you use that in a lesser situation
23 where the individual is not as exhausted, may be
24 running away, may not even be deranged, I mean,
25 not necessarily, they may be severely agitated
26 about a particular situation but not necessarily
27 deranged, and not depleted in any way, then your
28 risks are less.

29 Now, if you take a narrower population of the
30 very disturbed people, it's not that that
31 population has so dramatically extended that the
32 taser is being used on a rapidly expanding
33 seriously depleted population.

34 If you're expanding its use and that
35 particular severely vulnerable population is not
36 in itself expanded, then you are likely expanding
37 its use into much less disturbed individuals, much
38 less agitated individuals, and much less depleted
39 individuals. One would expect in these
40 circumstances the risks to be less, and one would
41 not expect the same death rate, for example, in
42 that population.

43 So that simply saying that you've extended
44 its use, you would then have to qualify that by
45 saying you'd likely extended its use into a much
46 less vulnerable population, consequently there are
47 fewer adverse effects.

Dr. Maelor Vallance (Medical experts presenter)
Questions by Mr. Vertlieb (cont'd)

1 Q You mentioned that the people in this state of
2 agitation, although you would expect them to slow
3 down as they become more tired, they actually
4 don't, you've explained that to the Commissioner.
5 You then said, though, that once they're
6 restrained they would collapse into inactivity.
7 Just what do you call that state when you've had
8 someone be very excited then suddenly go very
9 quiet?

10 A Well, I don't think it's simply once they're
11 restrained. It's when they run out of resources
12 completely that they will suddenly collapse. That
13 happens to coincide often enough with the point at
14 which the police have managed to get restraints on
15 them. So they see that as once restrained, they
16 suddenly become quiescent, and I think they
17 suddenly become quiescent coincidentally with
18 running out of resources.

19 Q What do you view that quiescent state as? Do you
20 have a way of describing that?

21 A I think that's something we know remarkably little
22 about. That state of severe exhaustion, and we
23 don't know all of the elements. We know some of
24 the elements in a state of severe exhaustion that
25 makes people very vulnerable. But we do know that
26 when they're in it, they are vulnerable.

27 Q And vulnerable to what?

28 A Vulnerable to death.

29 MR. VERTLIEB: Thank you, Mr. Commissioner.

30 THE COMMISSIONER: Dr. Vallance, thank you very much
31 for coming.

32 A Thank you, sir.

33 THE COMMISSIONER: Your presentation is very much
34 appreciated.

35 A Thank you.

36 THE COMMISSIONER: It certainly added to my knowledge,
37 thank you.

38 A Thank you.

39 THE COMMISSIONER: All right. We are adjourned until
40 ten o'clock tomorrow.

41

42 (PROCEEDINGS ADJOURNED TO MAY 22, 2008 AT
43 10:00 A.M.)

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