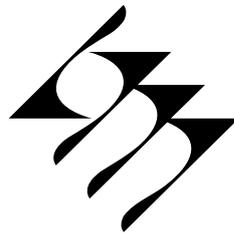


**THE ARREST OF SAMUEL HOGAN:
A CMC INVESTIGATION**

August 2005

CRIME AND
MISCONDUCT
COMMISSION



QUEENSLAND

CMC vision:

To be a powerful agent for protecting Queenslanders from major crime and promoting a trustworthy public sector.

CMC mission:

To combat crime and improve public sector integrity.

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Abbreviations

CMC	Crime and Misconduct Commission
LVNR	lateral vascular neck restraint
OC spray	oleoresin capsicum spray
OPM	Operational Procedures Manual (Queensland Police Service)
POST	police operational skills and tactics
PPRA	<i>Police Powers and Responsibilities Act 2000</i>
QPS	Queensland Police Service

SUMMARY

On 11 April 2004, Samuel Hogan, a young 20-year-old man from the Northern Beaches of Cairns, was seriously and permanently injured while being arrested by two Cairns police officers, Senior Constable Dorothy Buckman and Senior Constable Andrew Cussens. At the time Samuel appeared to be in the grip of a psychotic episode.

Samuel Hogan and his family will never recover from the tragic events of that day; nor will the police officers who arrested Samuel ever be likely to forget what happened. The task for the Crime and Misconduct Commission (CMC) has been to establish whether any blame attaches to Senior Constables Buckman and Cussens. Was their arrest of Samuel Hogan lawful? Was the amount of force used excessive? Are they criminally liable, or at least liable for disciplinary action, for what happened to Samuel?

After careful consideration of the facts of the case, and relying on expert medical opinion for some of its conclusions, the Commission has found that:

the arrest of Samuel Hogan was lawful and the force used was not excessive in the circumstances

the training provided to the two police officers was sufficient in relation to first aid and the use of capsicum spray, but not sufficient in relation to dealing with the mentally ill and monitoring the after-effects of lateral vascular neck restraints

the capsicum spray deployed on Samuel Hogan is unlikely to have caused his injury, although it cannot be absolutely ruled out as a contributory factor

the lateral vascular neck restraint applied to Samuel Hogan by Senior Constable Cussens is more likely to have caused, or contributed to, Samuel's injury than the spray

on the evidence, taking into account the circumstances and the training received by the officers, the officers are not criminally liable; nor should they be subject to disciplinary action.

Samuel Hogan's injury would appear to be a most unfortunate outcome of the police officers' decision to approach, arrest and continue the arrest in the face of determined resistance. While the officers broke no rules in doing so, and while it is conceivable that even worse consequences could have resulted from them not arresting Samuel,¹ the Commission recommends that the QPS consider reviewing the training of police officers so that they are better equipped to deal with the seriously mentally disturbed and have more understanding of the perils of lateral vascular neck restraints, in the hope that such tragic incidents may be avoided in the future.

The following report:

sets out what happened to Samuel Hogan

seeks to clarify how his injuries were caused, and

explains the reasons for the Commission's conclusions.

¹ Samuel was walking on the edge of the Captain Cook Highway when approached by police — if the officers had not arrested him it is possible that he could have been knocked down by a car or been the cause of a major traffic accident.

Role of the CMC

A police service in which the community can have full confidence is of fundamental importance in a democratic society. While the *Crime and Misconduct Act 2001* gives the QPS responsibility for investigating the conduct of its own officers, it also calls on the CMC to oversee the process and to itself investigate certain cases when it is in the public interest to do so.

In this case, the CMC decided to take over the police investigation because it involved the public interest and raised questions about the police use of controversial use-of-force options such as capsicum spray (the subject of a soon-to-be-released CMC research report) and lateral vascular neck restraints. The Commission also had concerns about the thoroughness of the original police investigation.²

² The QPS has been asked to respond to the CMC's concerns.

What happened to Samuel Hogan?

On 11 April 2004, Samuel Hogan, then aged 20, locked his uncle, Terry Hogan, into Mr Hogan's house, disconnected the phone because he feared his uncle would call the police, and exhibited such marked signs of mental disturbance (e.g. proclaiming himself to be the Messiah) that Mr Hogan's neighbours called for police help.

The officers who responded — Senior Constable Dorothy Buckman and Senior Constable Andrew Cussens — found Samuel walking on the edge of the busy Captain Cook Highway in the same direction as the traffic. They decided to approach him to assess his mental and physical condition.

As it is almost certain that Samuel Hogan will never be able to give an account of what happened, knowledge of the actual events can only come from the statements of the two officers. A passing motorist — security guard Robert Dyson — witnessed only some of the struggle. Over time, the officers have expanded and clarified their versions; however, they have each remained consistent to their own version. The differences between their accounts are understandable given the nature and speed of the events and their different perspectives during the struggle. The differences indicate there was no attempt to collude.

According to the officers, Samuel became agitated when he saw them, pushing past Constable Buckman and moving onto the road itself. In guiding him off the road, Samuel became aggressive towards the officers, and the three became involved in an intense struggle, with Cussens and Samuel falling to the ground.

Cussens describes the situation in these words:

He [Hogan] was kicking with two legs. He was lying on his front, and he was just kicking back with his legs ... And he was trying to push away off the ground, and trying to roll onto his back, and I was trying to keep him onto his front so we could bring his hands behind his back. But he kept on kicking. I noticed a couple of the kicks almost hit Dorothy [Buckman] in the back of the head.

Buckman told Samuel that he was under arrest and sprayed him with capsicum spray, but to no apparent effect.

Eventually the officers managed to handcuff him but, while attempting to put him into the police car, Samuel renewed the struggle, pulling one hand out of the handcuffs, a feat that required considerable strength and determination. Cussens describes what happened next:

... he was still really lashing out at Dorothy, and pushing against me, and his hand sorta went down. Then the next thing I felt was something tugging at my firearm, the holster. At first I thought it was Dorothy caught on me. I looked down at that time and saw that his hand was on the actual firearm itself and he was trying to pull it from me. ... I immediately put him in a lateral vascular neck restraint ... I fell to the ground and he fell down with me, and he just continued. He just got worse and more violent, just continued to kick as much as he could, his arms were waving with a clenched fist, with the loose handcuff he's still trying to swing with that towards Dorothy ... I was physically exhausted at that stage, and Dorothy I could say was really exhausted too. I then found that the neck restraint, the lateral vascular neck restraint, was just having no effect whatsoever, and he just kept on struggling even more. I then warned him. I said, 'Calm down, calm down I'm going to spray ya if you don't', and he just continued to struggle.

Once again Samuel was sprayed in the face with capsicum spray — this time by both officers — but to no effect. So Cussens applied the neck restraint more forcefully. Samuel stopped struggling almost immediately and was handcuffed by Buckman.

Cussens says:

At that point I completely let go of him. We just sort of kept an eye on his breathing and everything, and he was coughing a bit and we just thought that was the capsicum spray, the OC spray. And then he just progressively very quickly just stopped moving and his eyes sort of rolled back a bit and they were open ... we checked his pulse and realised he didn't have a pulse.

From her point of view, Buckman describes the second struggle as follows:

... So then we managed to get him in handcuffs. We thought we had him under control. We went to put him into our police car, the back door, and he's started fighting again and somehow managed to get one handcuff off. We didn't see him doing that. So we put him back down on the ground and Andrew Cussens deployed more capsicum spray. He then settled down enough so I could get his other arm behind his back. I pulled it out and we managed to get him in handcuffs, and that's when I've rung up to call for the van to come because we couldn't get him in our car.

When asked whether she had seen Samuel go for Cussens's gun, Buckman replied, 'I didn't see it, but I was in a different position. I was towards his [Samuel's] legs because he was kicking backwards with his legs'.

As well as calling for a van to take Samuel to Cairns, Buckman administered after-care (for the capsicum spray) to Samuel and Cussens. Both officers asserted that Samuel was conscious and breathing when the van was called. However, Cussens then noticed that Samuel was no longer breathing. Cussens uncuffed Samuel and Buckman called for an ambulance. The officers began CPR. A passing doctor, Dr Nathan Kesteven, helped them until paramedics arrived. Dr Kesteven later verified that the officers were applying CPR correctly.

Samuel Hogan now lies in a non-responsive state, unlikely ever to recover, his condition caused by a severe hypoxic brain injury — i.e. a lack of oxygen to the brain for too long. A medical examination of Samuel when he was admitted to hospital indicated that he had experienced a cardiopulmonary arrest. He had no pulse and was not breathing. The CMC attempted to ascertain whether the lack of oxygen to the brain was caused by a cardiac arrest, or whether the lack of oxygen caused Samuel to have a cardiac arrest.

What caused Samuel Hogan's brain injury?

The CMC asked Doctor Robert Hoskins, Director of Queensland Health's Clinical Forensic Medical Unit, to comment critically on the relative likelihood that a neck restraint and/or use of capsicum spray contributed to Samuel Hogan's cardio-respiratory arrest. Later the CMC also asked Dr Hoskins to comment on whether conditions known as 'positional asphyxia' and 'excited delirium' could have contributed to what happened to Samuel. Dr Hoskins provided two reports to the CMC (see Appendixes B and C).

Dr Hoskins confirmed that Samuel Hogan's brain was deprived of oxygen for long enough to suffer permanent damage. He proposed several possible causes, which can be summarised as follows:

Samuel Hogan's brain did not get enough oxygen because either:

1. His heart stopped pumping sufficient blood to his brain following a cardiac arrest due to his exertions (and perhaps a partial or full blockage due to the neck restraint).
2. His heart stopped pumping blood altogether, or in sufficient quantities, because of accidental stimulation of his carotid sinus nerve during the application of the neck restraint.
3. A fully effective neck restraint was held for at least four minutes during which time he would have been limp and unconscious within 30 seconds of it being properly applied.

In relation to the third point, there is no evidence that the restraint was held for any time at all after Samuel Hogan became unconscious and was handcuffed. It does not accord with common sense that it would have been. The point of administering a lateral vascular neck restraint (LVNR) is to quickly render the recipient unconscious; once the person is unconscious there is no point in continuing the restraint, unless you want to harm the person — there is no evidence that Senior Constable Andrew Cussens wanted to harm Samuel.

All cadets and officers undergoing Police Operational Skills and Tactics (POST) training learn how to administer lateral vascular neck restraints. To the CMC's knowledge, there has never been an occasion when the recipient did not recover fully as soon as the restraint was released. The LVNR has been used in international judo competitions for many years. Recipients, even those in an oxygen-depleted state from their struggles, have never died or suffered an injury like Samuel's.

The timing of the cardiac arrest

Samuel's cardiac arrest happened either during or just after the altercation with the police officers. It is almost inconceivable that the cardiac arrest and the legal arrest were not related; however, it is not possible to attribute the cardiac arrest to any one particular act.

It is possible that Samuel Hogan had the cardiac arrest during the fight, and that his struggle for breath was interpreted by the officers as his continuing to fight. This may or may not have been during the time the LVNR was being applied.

It is equally possible that the cardiac arrest occurred after the final struggle finished and during the period between the call for a van and the call for an ambulance. If the cardiac arrest were in the nature of arrhythmic beating there would be no symptoms experienced by Samuel until he lost consciousness.

Samuel could have had a 'silent' cardiac arrest while continuing to breathe in the recovery position, until he eventually stopped breathing and this was noticed by Cussens. During

this time, oxygen reaching the brain would have been limited by the cardiac arrest. This is consistent with the injury, especially if Samuel was in an oxygen-depleted state from the extended fight and effective treatment was not immediately provided. Again, medically this is a possibility, but no more.

There was and is nothing in the police Operational Procedures Manual (OPM) to instruct officers to check for breathing when arresting patients who may be suffering from excited delirium. This is referred to later in relation to procedural recommendations (see page 17).

The neck restraint

The LVNR may have actually caused the cardiac arrest by stopping the flow of blood to the brain, even for a brief period such as 20 to 30 seconds. While a 'normal' person will recover from this almost instantly, a person in Samuel Hogan's physical and mental state may not have. This is very possible, the struggle being conducive to a condition known as 'excited delirium'. Dr Hoskins is simply not able to confirm this diagnosis as anything more than a possibility.

The lateral vascular neck restraint is categorised as 'lethal force' in the police OPM and, like firearms, is described as a last resort option. Doctor Hoskins, however, can see a benefit in placing it in a different category to firearms.

The problem is not how or when police use the neck restraint. It is about what you do after its application (i.e. closely monitor the person); and it is about not allowing a situation to develop where a protracted struggle with a mentally ill patient can only be ended with the application of a dangerous use-of-force option such as a neck restraint.

In the section in the OPM on handling mental patients, there is a need for alternatives to arrest. The OPM could emphasise the dangers of 'excited delirium' for such persons.

The problem in this case is not that the rules were not followed or that anything was done incorrectly, but that the rules did not properly guide the officers as to whether to initiate or continue restraint or arrest of this person in these circumstances. They also did not properly inform them what was necessary if they did need to use a neck restraint — i.e. close monitoring.

If the OPM were to specify 'no neck restraints' and a struggle reached a certain point, the only option left is firearms. Dr Hoskins prefers tasers, and these are already being considered by the QPS. Perhaps when they are integrated into POST, the rules should be 'no neck restraints where you have a taser'.³ Until such time, the LVNR, when used properly in conjunction with POST, is a valid option, albeit a next-to-last option.

Extra care is clearly needed in monitoring recovery from an LVNR, and extra training is required in how to approach the mentally ill. This is referred to later in relation to procedural recommendations (see page 17).

The effect of the capsicum spray

In his report to the CMC, Dr Hoskins lists bronchospasm and reflex cardiac arrest due to OC spray as possible causes of Samuel Hogan's brain injury (see Appendix B). However, in his opinion, while neither cause can be absolutely excluded, the likelihood 'is probably no higher than in the tens of thousands'.

It would appear from the medical evidence, therefore, that the OC spray played no direct role in Samuel's injuries. The officers chose to try capsicum spray as an appropriate use of

3 It is worth noting, however, that in situations of close physical struggle (such as in this case), it would be very difficult, perhaps impossible, to use a taser.

force before resorting to the LVNR. If it had been effective, a neck restraint would have been unnecessary.

Samuel's failure to react to the capsicum spray accords with research on the use of OC spray, which indicates that the spray can be ineffective against people in a highly agitated state — for example, a person on drugs or in the grip of a mental disorder.⁴

4 The CMC is about to publish a research report on OC spray use by Queensland police.

The evidence

In this case there is very little objective evidence on which to rely. The only witnesses to what happened are the two police officers and Samuel Hogan himself — Mr Dyson saw some of the struggle but too little to be a useful witness, and Dr Kesteven arrived on the scene after the struggles were over. Samuel Hogan is not in a position to tell us what happened; which leaves us with the accounts of the two officers. Given the rapidity of events and the frailty of human memory, their accounts cannot be expected to be infallible.

The only piece of objective evidence is the timing of the two police radio calls — i.e. Buckman’s call for a van followed by her call for an ambulance. These calls, which were digitally recorded, were nine minutes apart. Yet, according to the police officers, the calls were made *after* the struggles were over and, it seemed to them, within only a few minutes of each other. Neither officer is able to offer a satisfactory explanation for what happened during that critical nine minutes — critical because it was some time in this period that Samuel Hogan stopped breathing. This raises the question: Why did it take so long for the police officers to realise that Samuel Hogan was in trouble? Or, put another way: What were the police officers doing during the nine-minute gap?

There are several possible explanations:

- When the police officers say that all they did between calling for the van and calling for the ambulance was to administer after-care (for the capsicum spray), and that this took just a few minutes, they might be making a simple miscalculation about the time it took to catch their breath and administer OC spray after-care.
- It is also possible that the officers were not as attentive to Samuel during the period he was on the ground as their statements suggest; that they might have been themselves recovering from the struggle and hence did not notice Samuel’s worsening condition.
- It is possible that an application of force, other than those the officers have alluded to, might have occurred during this period. There is no evidence of this.
- Alternatively, the police officers might be confusing the sequence of events. The call to the van might have been made *before* the second struggle began — either at the start of the first struggle or just after it. Hence, some of the nine-minute period could have been taken up with the second struggle.

Given the conditions, the lack of independent witnesses and the passage of time, the above possibilities are speculative only. All the CMC investigation can rightly do is to decide whether, on such evidence as is available, the police officers were criminally liable, or at least liable for disciplinary action, for what happened to Samuel Hogan.

Liability of police officers

For the police officers to be criminally liable or liable for disciplinary action, the evidence would need to establish that they were guilty of police misconduct and/or official misconduct.

Police misconduct is conduct that is disgraceful, improper or unbecoming an officer; shows unfitness to be an officer; or does not meet the standard of conduct reasonably expected by the community of an officer.

Official misconduct is conduct (other than police misconduct), relating to the performance of the officer's duties, that is serious enough to justify dismissal from the QPS or is a criminal offence.

Are the police officers criminally liable?

The laws governing how people can assault or detain or arrest one another are contained in the Queensland Criminal Code. Laws applying only to police are found in the *Police Powers and Responsibilities Act 2000* (PPRA). The rules governing how Queensland police officers work in the field are contained in the Operational Procedures Manual (OPM).

The essence of the law is that no-one can be assaulted, arrested or detained unless there is a law justifying it. Once there is, that law makes it lawful for a police officer to act (PPRA, s. 198). They may then use only as much force as is reasonably necessary in order to arrest the person. They cannot use deadly force⁵ except in certain limited circumstances (PPRA, s. 377). Any force in excess of that permitted is unlawful (Criminal Code, s. 283).

Defences that apply under the Criminal Code, once apparent on the facts, have to be disproved by the prosecution.⁶ One of these is a mistake of fact (Criminal Code, s. 24). In effect, you must be dealt with on the basis that something that you honestly and reasonably believed to be true was true. For example, if you were shooting at a dummy at your rifle club and later discovered someone had replaced it with a live person, you would not be responsible for killing that person during target practice.

The law recognises that varying degrees of force can be used and will cause various consequences. These range from an assault that can be as little as a touch, to an assault that causes an injury, a serious injury, or death.

Force that can be applied lawfully essentially falls into two categories: deadly and non-deadly force. Deadly force can only be lawfully used as a last resort where someone is acting in self-defence from an attack that is also using deadly force, and cannot escape (Criminal Code, s. 271).

As the versions given by the two police officers are the only accounts we have of the incident itself, and as they are not inconsistent with the other facts, any criminal prosecution would have to proceed on the basis that what they said was true or that they believed it to be true (Criminal Code, s. 24).

The following analysis is only of the legal implications of the actions taken in this case. It is not a judgment of whether they were the best actions to take.

Was the arrest of Hogan lawful?

It was lawful to arrest Samuel Hogan once he had assaulted Senior Constable Buckman by brushing past her. Section 444 of the PPRA makes it an offence to assault or obstruct a police officer in the performance of the officer's duties.

Was the amount of force used excessive in the circumstances?

If the arrest was lawful, as it was, then it was lawful to use any amount of force necessary to effect that arrest as long as it was not 'deadly force' (PPRA, s. 376).

The police involved had been told as part of their training that use of the lateral vascular neck restraint was not likely to cause death or grievous bodily harm, i.e. that it was not 'deadly force'. They were taught it would temporarily disable someone with no permanent

5 In this report, the term 'deadly force' means a force that might kill someone or cause them grievous bodily harm, i.e. a permanent or serious injury. ('Grievous bodily harm' is defined in section 1 of the Criminal code — see Appendix A.)

6 *Loveday v. Ayre* [1955] Qd R 264 at 267 per Philp J.

effects. They said they believed what they had been taught. They were therefore not liable if, in fact, it turned out to be deadly force in these circumstances.

In any event, once Senior Constable Cussens thought that Samuel Hogan was going for his gun, Cussens could use deadly force to defend himself and Buckman (Criminal Code, s. 271 [2]).

If the force used was lawful and not excessive, then is there any criminal liability for its effects?

There can be no doubt that Samuel Hogan has suffered grievous bodily harm, as defined in the Criminal Code.

There are three bases on which a person can be convicted of doing grievous bodily harm:

That they did it, intending to do it. (Criminal Code, s. 317)

There is no evidence that either officer intended to harm Samuel Hogan.

That they caused it by an unlawful act. (Criminal Code, s. 320)

The act that caused Samuel Hogan's injury is not known. Suspicion focuses on the application of the neck restraint, applied by Senior Constable Cussens. As explained above, that act was lawful. The consequences are therefore not unlawful.

Another way of looking at this is to say that the consequences of using the neck restraint were an accident (Criminal Code, s. 23). To prove a criminal offence, it would be necessary to establish 'that the accused intended that the event in question should occur or foresaw it as a possible outcome or that an ordinary person in the position of the accused would reasonably have foreseen the event as a possible outcome'.⁷ Any ordinary person in Senior Constable Cussens's position, with his experience and training, could not have reasonably foreseen that using the neck restraint could result in a heart attack.

That they caused the injury by a lawful act that they should have known might cause it. (Criminal Code, s. 288)

To establish criminal negligence the following questions need to be answered:

1. *Does section 288 of the Criminal Code (duty of persons doing dangerous acts) apply in this particular case? Is it a case involving 'any other lawful act which is or may be dangerous to human life or health'?* Yes — for the purpose of this report it will be assumed that cutting off the flow of blood to the brain, even temporarily, is such an act. Therefore, section 288 does apply.
2. *Did the officer have reasonable skill?* Yes. Senior Constable Cussens was fully trained in when and how to use neck restraints.
3. *Did the officer use reasonable care in doing the act?* The answer depends on how long it was held. Buckman thought it was held for a brief time only. Cussens said it was released as soon as he heard Buckman say she had cuffed Samuel Hogan's hands. This was very soon after the struggling diminished and very soon after Cussens had fully applied the neck restraint. That was in accordance with their training. If the time were this short, it was not foreseeable that the results would have occurred.
4. *If the officer failed either to have the requisite skill or to use reasonable care, did the act cause the injury?* This is not possible to prove on the medical evidence.
5. *Were the officers negligent to the necessary extent?* No. Cussens would be liable if he were negligent to the necessary extent, which is 'in order to

⁷ *R v. Taiters; ex-parte Attorney-General* [1997] 1 Qd R 333 at 338.

establish criminal liability the facts must be such that, in the opinion of the jury, the negligence of the accused went beyond a mere matter of compensation between subjects and showed such disregard for the life and safety of others as to amount to a crime against the state and conduct deserving punishment'.⁸ Considering that the state trained him, it seems unlikely that the Crown could ever succeed on this test.

Is there evidence of a disciplinary offence?

There are four potential areas where the conduct of the police officers comes under close scrutiny.

1. An error in the decision to arrest Samuel Hogan

Sections 9, 33 and 34 of the *Mental Health Act 2000* (see Appendix A) offer alternatives to arrest for the mentally ill; however, these provisions are not mentioned or referenced in the police Operational Procedures Manual (see Chapter 6.6). It is therefore difficult to criticise the officers in this case, even if it was against the spirit of the Mental Health Act.

2. An error in the decision to continue effecting arrest once Samuel Hogan broke free from the handcuffs

Samuel Hogan appeared immensely strong, irrational, oblivious to danger to himself and impervious to painful compliance techniques. There is nothing in the OPM to assist police in discontinuing the decision to arrest a mentally ill person. In particular, there is nothing about alternatives that might have been available. These would have included:

- calling for backup
- allowing him to go, and following him in the car or on foot to Cairns, or
- seeking a formal assessment order.

In the circumstances, it is difficult to see how misconduct could be made out in the absence of more specific provisions in the OPM.

It is also worth re-stating that if the officers had not arrested Samuel, it is possible that he could have been knocked down by a car or been the cause of a major traffic accident.

3. An error in the decision to apply a neck restraint, and in not telling Senior Constable Buckman the reason

This applies to Senior Constable Cussens only. According to Chapter 14.3.3 of the OPM, 'The use of any neck restraint is considered to be a lethal "use of force" option.' Chapter 14.3.5 states, 'Officers should consider all of the "use of force" options available and all of the circumstances when determining the most relevant level of force to be used.'

Had Cussens warned Buckman that he thought Samuel Hogan was going for his gun before choosing to apply the LVNR, she may have been able to assist him, or tell him that Samuel had not got it. Cussens also did not consider at that stage regaining control of the weapon or checking whether it was still there.

In addition Senior Constable Cussens did not call upon Samuel Hogan to let go of the gun, as is required by section 377(5) of the PPRA, before using what the OPM calls 'lethal force'.

In fairness to Cussens, these decisions were made almost instantly while struggling with an apparently mentally ill person of great strength who seemed not to be able to be controlled in any other manner. Cussens had previously warned Samuel to calm down and stop struggling. Cussens and Buckman both warned him before using capsicum spray. Another

8 See *R v. Bateman* (1925) 94 LJKB 791; [1925] All ER Rep 45; (1925) 19 Cr App R 8.

warning in the heat of the moment was unlikely to be practicable or make any difference to the outcome.

4. Failure to adequately supervise Samuel Hogan while he was lying handcuffed on the ground

The officers may not have been able to do more than they did even if they did notice earlier that Samuel had stopped breathing. He was placed on his side, which is the correct recovery position. They did observe him. While the OPM refers to positional asphyxia, it gives no guidance on how to check respiration or how often to check it in other restraint situations.

Conclusions and recommendations

Conclusions

It is not appropriate to embark on a minute dissection of the actions of the police officers without having full regard to the attendant difficult circumstances they were facing at the time. Any decisions were made suddenly, in a complex situation and were finely balanced. It is not appropriate to look at the tragic consequences and therefore assume misconduct on the part of the police officers.

Criminal prosecution

The provable facts on a criminal prosecution are limited. The appropriate offence under consideration is a charge of doing grievous bodily harm under section 320 of the Criminal Code. In such a prosecution it would be necessary to prove beyond a reasonable doubt all of the elements of the offence, including the element of unlawfulness. In that regard the Crown could not negate accident (s. 23), self-defence (s. 271), nor could the Crown prove that the force was excessive in making the arrest (ss. 254 and 283). Any one of these would provide a complete defence.

Regarding criminal negligence, the evidence is insufficient to prove a breach of duty (s. 288) for the reasons outlined earlier in this report (see page 14).

Disciplinary action

When interviewed, the officers stated that Samuel Hogan was conscious, breathing and in a recovery position after the final struggle. That version cannot be negated on the medical evidence. It would appear in those circumstances that there was no breach of the OPM and the police operational skills and tactics training was followed. There is no basis for referring the matter to the Commissioner of Police for disciplinary action.

Recommendations

To help ensure that the tragedy that befell Samuel Hogan does not happen again, the following procedural recommendations are made to the Commissioner of Police:

1. That the Operational Procedures Manual (OPM) and police operational skills and tactics (POST) training be reviewed regarding:
 - a) the detention and arrest of people believed to be suffering from a mental illness
 - b) the monitoring of restrained prisoners, and
 - c) the monitoring of persons who have been the subject of a neck restraint.
2. That the principles for exercising powers under the *Mental Health Act 2000*, as stated under section 9 of that Act, be emphasised. (OPM 6.6)
3. That practical guidance be given to:
 - a) the matters that need to be taken into account when deciding to detain a person
 - b) the degree of danger to the person or others
 - c) the best method to detain the person
 - d) the decision as to whether the person should be restrained
 - e) alternatives to arrest such as:
 - monitoring the patient
 - contacting family
 - alerting medical authorities. (OPM 6.6.3)

4. That the state known as 'excited delirium' be explained, including its possible causes. The added risks to the health and life when detaining a person in this condition should be highlighted. (OPM 6.6.3)
5. That instruction be given to police to constantly monitor the respiration of restrained prisoners until they are in an upright or seated position. (OPM 14.3.6)
6. That police give special attention to monitoring the respiration of persons who have been the subject of a neck restraint. (OPM 14.3.3)

Appendix A: The relevant law

The Queensland Criminal Code

Section 1 Interpretation

grievous bodily harm means—

- (a) the loss of a distinct part or an organ of the body; or
- (b) serious disfigurement; or
- (c) any bodily injury of such a nature that, if left untreated, would endanger or be likely to endanger life, or cause or be likely to cause permanent injury to health; whether or not treatment is or could have been available.

Section 23 Intention — motive

- (1) Subject to the express provisions of this Code relating to negligent acts and omissions, a person is not criminally responsible for—
 - (a) an act or omission that occurs independently of the exercise of the person's will; or
 - (b) an event that occurs by accident.
- (1A) However, under subsection (1)(b), the person is not excused from criminal responsibility for death or grievous bodily harm that results to a victim because of a defect, weakness, or abnormality even though the offender does not intend or foresee or cannot reasonably foresee the death or grievous bodily harm.
- (2) Unless the intention to cause a particular result is expressly declared to be an element of the offence constituted, in whole or part, by an act or omission, the result intended to be caused by an act or omission is immaterial.
- (3) Unless otherwise expressly declared, the motive by which a person is induced to do or omit to do an act, or to form an intention, is immaterial so far as regards criminal responsibility.

The Crown must negate any defence fairly raised on the evidence. In accordance with *R v. Taiters; ex-parte Attorney-General [1997] 1 Qd R 333 at 338* 'the Crown is obliged to establish that the accused intended that the event in question should occur or foresaw it as a possible outcome or that an ordinary person in the position of the accused would reasonably have foreseen the event as a possible outcome'.

Section 24 Mistake of fact

- (1) A person who does or omits to do an act under an honest and reasonable, but mistaken, belief in the existence of any state of things is not criminally responsible for the act or omission to any greater extent than if the real state of things had been such as the person believed to exist.

Section 257 Other cases of preventing escape from arrest

- (1) When a person who is not a police officer is proceeding lawfully to arrest, without warrant, another person for an offence which is such that the offender may be arrested without warrant, and when any person is proceeding lawfully to arrest another person for any cause other than such an offence, and, in either case, the person sought to be arrested takes to flight in order to avoid arrest, it is lawful for the person seeking to arrest the other person to use such force as may be reasonably necessary to prevent the other person's escape.
- (2) But this section does not authorise the use of force which is intended or is likely to cause death or grievous bodily harm.

Section 254 Force used in executing process or in arrest

It is lawful for a person who is engaged in the lawful execution of any sentence, process, or warrant, or in making any arrest, and for any person lawfully assisting the person, to use such force as may be reasonably necessary to overcome any force used in resisting such execution or arrest.

Section 258 Preventing escape or rescue after arrest

- (1) When any person has lawfully arrested another person for any offence, it is lawful for the person to use such force as the person believes, on reasonable grounds, to be necessary to prevent the escape or rescue of the person arrested.
- (2) But, if the offence is not a crime which is such that the offender may be arrested without warrant, this section does not authorise the use of force which is intended or is likely to cause death or grievous bodily harm.
- (3) This section does not limit the powers a police officer has under the *Police Powers and Responsibilities Act 2000*.

Section 271 Self-defence against unprovoked assault

- (1) When a person is unlawfully assaulted, and has not provoked the assault, it is lawful for the person to use such force to the assailant as is reasonably necessary to make effectual defence against the assault, if the force used is not intended, and is not such as is likely, to cause death or grievous bodily harm.
- (2) If the nature of the assault is such as to cause reasonable apprehension of death or grievous bodily harm, and the person using force by way of defence believes, on reasonable grounds, that the person cannot otherwise preserve the person defended from death or grievous bodily harm, it is lawful for the person to use any such force to the assailant as is necessary for defence, even though such force may cause death or grievous bodily harm.

Section 283 Excessive force

In any case in which the use of force by one person to another is lawful the use of more force than is justified by law under the circumstances is unlawful.

Section 288 Duty of persons doing dangerous acts

It is the duty of every person who, except in a case of necessity, undertakes to administer surgical or medical treatment to any other person, or to do any other lawful act which is or may be dangerous to human life or health, to have reasonable skill and to use reasonable care in doing such act, and the person is held to have caused any consequences which result to the life or health of any person by reason of any omission to observe or perform that duty.

The test as to criminal liability for negligence is set out in *R v. Bateman* (1925) 94 LJKB 791; [1925] All ER Rep 45; (1925) 19 Cr App R 8 where Hewart LCJ said:

In explaining to juries the test which they should apply to determine whether the negligence in the particular case amounted or did not amount to a crime, judges have used many epithets, such as 'culpable', 'criminal', 'gross', 'wicked', 'clear', 'complete'. But, whatever epithet be used, and whether an epithet be used or not, in order to establish criminal liability the facts must be such that, in the opinion of the jury, the negligence of the accused went beyond a mere matter of compensation between subjects and showed such disregard for the life and safety of others as to amount to a crime against the State and conduct deserving punishment ... It is desirable that, as far as possible, the explanation of criminal negligence to a jury should not be a mere question of epithets. It is in a sense a question of degree and it is for the jury to draw the line, but there is a difference in kind between the negligence which gives a right to compensation and the negligence which is a crime.

Section 317 Acts intended to cause grievous bodily harm and other malicious acts

Any person who, with intent —

- (a) to maim, disfigure or disable, any person; or
- (b) to do some grievous bodily harm or transmit a serious disease to any person; or
- (c) to resist or prevent the lawful arrest or detention of any person; or
- (d) to resist or prevent a public officer from acting in accordance with lawful authority—
either —
- (e) in any way unlawfully wounds, does grievous bodily harm, or transmits a serious disease to, any person; or
- (f) unlawfully strikes, or attempts in any way to strike, any person with any kind of projectile or anything else capable of achieving the intention; or
- (g) unlawfully causes any explosive substance to explode; or
- (h) sends or delivers any explosive substance or other dangerous or noxious thing to any person; or
- (i) causes any such substance or thing to be taken or received by any person; or
- (j) puts any corrosive fluid or any destructive or explosive substance in any place; or

- (k) unlawfully casts or throws any such fluid or substance at or upon any person, or otherwise applies any such fluid or substance to the person of any person; is guilty of a crime, and is liable to imprisonment for life.

Section 320 Grievous bodily harm

Any person who unlawfully does grievous bodily harm to another is guilty of a crime, and is liable to imprisonment for 14 years.

Police Powers and Responsibilities Act 2000

Section 198 Arrest without warrant

- (1) It is lawful for a police officer, without warrant, to arrest an adult the police officer reasonably suspects has committed or is committing an offence if it is reasonably necessary for 1 or more of the following reasons—
 - ...
 - (g) to preserve the safety or welfare of any person, including the person arrested;

Section 376 Power to use force against individuals

- (1) It is lawful for a police officer exercising or attempting to exercise a power under this or any other Act against an individual, and anyone helping the police officer, to use reasonably necessary force to exercise the power.
Example—

A police officer may use reasonable force to prevent a person evading arrest.
- (2) Also, it is lawful for a police officer to use reasonably necessary force to prevent a person from escaping from lawful custody.
- (3) The force a police officer may use under this section does not include force likely to cause grievous bodily harm to a person or the person's death.

Section 377 Power to use force against individuals in critical situations

- (1) This section applies if a police officer reasonably suspects a person—
 - (a) has committed, is committing, or is about to commit an offence punishable by life imprisonment; or
 - (b) has committed an offence punishable by life imprisonment and is attempting to escape arrest or has escaped from arrest or custody.
- (2) This section also applies if—
 - (a) a police officer reasonably suspects a person is doing, or is about to do, something likely to cause grievous bodily harm to, or the death of, another person; and
 - (b) the police officer reasonably suspects he or she can not prevent the grievous bodily harm or death other than in the way authorised under this section.
- (3) It is lawful for the police officer to use the force reasonably necessary—
 - (a) to prevent the continuation or repetition of the offence or the commission of another offence punishable by life imprisonment; or
 - (b) to apprehend the person; or
 - (c) to prevent the escape of a person from arrest or custody; or
 - (d) to prevent the commission of an act mentioned in subsection (2).
- (4) The force a police officer may use under this section includes force likely to cause grievous bodily harm to a person or the person's death.
- (5) If the police officer reasonably believes it is necessary to use force likely to cause grievous bodily harm to a person or the person's death, the police officer must, if practicable, first call on the person to stop doing the act.

Section 444 Offence to assault or obstruct police officer

- (1) A person must not assault or obstruct a police officer in the performance of the officer's duties. Maximum penalty — 40 penalty units or 6 months imprisonment.
- (2) ...
- (3) In this section—

assault has the meaning given by the Criminal Code, section 245. Obstruct includes hinder, resist and attempt to obstruct.—

Mental Health Act 2000

Section 9 Principles for exercising powers and performing functions

A power or function under this Act relating to a person who has a mental illness must be exercised or performed so that—

- (a) the person's liberty and rights are adversely affected only if there is no less restrictive way to protect the person's health and safety or to protect others; and
- (b) any adverse effect on the person's liberty and rights is the minimum necessary in the circumstances.

Section 33 Application of subdivision 1

This subdivision applies if a police officer or an ambulance officer reasonably believes—

- (a) a person has a mental illness; and
- (b) because of the person's illness there is an imminent risk of significant physical harm being sustained by the person or someone else; and
- (c) proceeding under division 2 would cause dangerous delay and significantly increase the risk of harm to the person or someone else; and
- (d) the person should be taken to an authorised mental health service for examination to decide whether a request and recommendation for assessment should be made for the person.

Section 34 Taking person to authorised mental health service

The police officer or ambulance officer must take the person to an authorised mental health service for examination to decide whether assessment documents for the person should be made.

Appendix B: Independent medical opinion

**Clinical Forensic Medicine Unit
51, Herschel Street,
Brisbane, Qld. 4000.**

24 November 2004

STATEMENT OF NINE PAGES

Qualifications

- a) I am employed as Director of Queensland Health's Clinical Forensic Medicine Unit;
- b) I am a duly qualified medical practitioner, registered to practise in the State of Queensland;
- c) I hold a medical degree (Bachelor of Medicine and Bachelor of Surgery) and a Master's degree in Forensic Medicine;
- d) I have been elected Fellow of the Australian College of Legal Medicine (where I also serve on the Council) and of the Australasian College of Biomedical Scientists (where I also serve on the Board).

Material Facts on Which this Report is Based

Steve HARDY from the Crime and Misconduct Commission has provided me with the following information in relation to **Samuel Zenon HOGAN @ KROWICKY (DOB 29/10/1983)**:

1. As a result of circumstances that do not bear on the opinion sought from me, police restrained Mr HOGAN on 11th April 2004. This involved the use of a "lateral neck restraint", handcuffing and several applications of Oleoresin Capsicum (OC) spray.
2. There is considerable evidence to suggest Mr HOGAN was psychotic at the time. This may have been due to a diagnosable primary mental disorder and/or drug use. The cause of the psychosis is not relevant from my perspective. (I have been told that a drug screen was negative.)
3. During restraint, Mr HOGAN suffered a cardio-respiratory arrest (his heart stopped beating effectively and he stopped breathing).
4. Attempts were made to resuscitate him. To an extent these were successful. He remains alive but has severe brain damage from which he is expected to make no further recovery. Absent these attempts he would almost certainly have died.
5. I have been provided with an extract from the Queensland Police Operating Procedure Manual (OPM) containing, amongst other things, sub-section 14.3.3, which deals with "Neck restraint holds". It says "*the lateral vascular neck restraint hold (carotid neck restraint) which applies pressure to the sides of the neck (establishes) control by impeding the blood supply to and from the brain and by breaking a person's balance to the rear*".
6. I have been asked to comment critically on the relative likelihood that neck restraint and/or use of OC spray contributed to Mr HOGAN's cardio-respiratory arrest.
7. I have also been asked to make any other comments that may be relevant to preventing similar tragic outcomes in the future.

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Body of Report

On the information provided, including Dr KESTEVEN's report, it is quite clear that Mr HOGAN had experienced a cardio-respiratory arrest. There is nothing unique about cardio-respiratory arrest in itself: cardio-pulmonary arrest is the final cause of death from almost all mechanisms. If respiration is interrupted for long enough the heart will stop. If the heart is stopped for long enough, breathing will fail. The focusing question here is what caused the cardio-respiratory arrest. A number of possibilities can be postulated, explored and weighted.

1. Bronchospasm due to OC spray

OC spray is irritant. Many irritant aerosols cause sudden narrowing of the airways, as happens with an asthma attack. For this reason a recurrent theme in the discussion of the use of this agent is "can it cause acute bronchospasm?". There is a skerrick of evidence to suggest, in animal experimental models, that this can be shown at the microscopic level. However, in human studies it has never been shown. This applies in volunteers, volunteers who have been physically restrained as well as sprayed and in subjects restrained by police who have subsequently been reviewed in hospital emergency departments.

It remains logical to continue to consider that such a mechanism might be remotely possible but quite unreasonable to see it as anything other than an extremely improbable and as yet unproven possibility.

2. "Reflex cardiac arrest" due to OC spray

We are all familiar, at least at the conceptual level, of giving someone such a large fright that their heart stops. Two mechanisms exist that may result in this. In the first there is such an outpouring of adrenalin that the heart is overstimulated and goes into an uncoordinated wobbling (ventricular fibrillation) that prevents effective pumping. In the second, over-stimulation of the vagus nerve causes the heart to slow to the point of stopping.

Reports of deaths following the use of OC spray usually identify a cause other than the heart stopping suddenly. At least one study has found this to be the most likely explanation, albeit that cannabis (which is not generally thought of as harmful to the heart) was also present. People have studied the effects of OC spray in people with asthma and mental illness but I am unaware of any studies of its effects in people with abnormal heart rhythm or function – it would appear nobody has been game to try!

It remains logical to continue to consider that such a mechanism might be remotely possible but quite unreasonable to see it as anything other than an extremely improbable.

3. Asphyxiation from occlusion of the pharynx due to lateral neck restraint
Some basic anatomy. The larynx, or voice box, sits in the front of the neck. It is a fairly rigid structure with a skeleton of very firm cartilage and a few fine bones. Above this is the pharynx which comprises the throat (hence sore throat = pharyngitis), the oropharynx (mouth) and the nasopharynx (nose). The larynx is a very mobile structure, so far as vertical movement is concerned. In restraining a person by the neck it is likely that the larynx will be forced upwards towards the softer tissues where the throat joins the mouth. This can block the passage causing asphyxiation.

The QPS OPM suggests that part of the purpose of the lateral neck restraint is to break the subject's balance to the rear. I have difficulty understanding how a lateral neck restraint alone would achieve this but, if balance were lost, this would have the effect of pulling the body down relative to the larynx (or moving the larynx up with respect to the body) and increase the risk of airway occlusion.

The plausibility and probability of this mechanism are very much higher than for either of the mechanisms postulated for OC spray. Had this happened it would have been undetectable at the hospital. However, in contrast with the ease with which people are smothered in the movies, this would require several minutes continued occlusion to cause loss of consciousness or cardiac arrest on its own.

This probably applies even with the subject struggling if the parallel of free divers⁹ is considered.

4. Asphyxiation from occlusion of the larynx due to lateral neck restraint
The larynx itself can be squashed to such an extent that airflow is impeded. However, doing so involves damage to the cartilages and/or bones of the structure and would lead to bleeding/bruising on the inner surface of the larynx. Additionally it may not spontaneously resume its original shape.

Achieving this requires a considerable amount of force/pressure. This would be unlikely to happen with a restraint in which the larynx was located in the crook of the restrainer's elbow. In any event the damage caused would inevitably have been apparent on Mr HOGAN's arrival at the hospital when doctors inserted a tube into his larynx to aid with respiration.

(This is relevant to a consideration of what might be done differently in the future. The second of the two basic types of neck restraint holds featuring in the QPS OPM is "*the respiratory neck restraint hold (choke hold) which applies pressure directly to the trachea (wind pipe) and establishes control through the principles of pain and strangulation*". Of the two neck restraints the choke hold would have much greater likelihood of damaging the larynx.)

5. Occlusion of the neck veins due to lateral neck restraint
The internal hydrostatic pressure of blood in veins is more than an order of magnitude lower than the hydrostatic pressure of blood in the arteries. Additionally, vein walls are thin and flimsy whilst artery walls are muscular and rubbery. This means that veins can be occluded at a much lower pressure than that required to occlude arteries.

Forensic medical texts often describe the "classical" features of strangulation when cardiac arrest is delayed. These features rely on vein occlusion but arterial patency. These signs comprise congestion/engorgement of the face together with bleeding from the nose and ears and pinpoint bleeds over the eyelids and the whites of the eyes. They are an over-pressure phenomenon that occurs when the blood vessels of the head continue to have blood pumped in through the arteries whilst its exit is blocked by pressure on the veins. It is thought (but lacks experimental corroboration for obvious reasons) that it takes 20 to 30 seconds for this phenomenon to develop. When it does it is hard to miss. However, it will not occur at all if the arteries are also **fully** occluded.

I reject this possibility on the basis that had it occurred it beggars belief that nobody who saw Mr HOGAN would have commented on its presence.

6. Occlusion of the neck arteries (carotid arteries) due to lateral neck restraint
This would be relatively easy to achieve with the lateral neck restraint, especially if the subject's balance were lost and the restrainer were using the restraint to support a portion of the body weight. It leaves no signs that would have been detectable at the hospital.

In the absence of sustained arterial blood pressure the flow of blood stagnates. This is a situation that permits consciousness only for tens of seconds (estimates range from 12 to 30). (Charles-Louis Sanson, the official executioner of the French Revolution reported that facial expressions and eye movements persisted for about 15 seconds after guillotine execution although beheading may cause unrepresentative pressure drops.)

Similarly we lack good data on how much time must elapse after loss of consciousness before cardiac and/or respiratory arrest would occur.

9 A 'free diver' is a person who dives without breathing equipment.

7. Carotid sinus stimulation due to lateral neck restraint

The carotid sinuses are an area of the upper carotid artery that contains the carotid bodies. These contain nerves that, when stimulated, provide a negative feedback loop that reduces heart rate. In the normal course of events it is a system that helps regulate blood flow and pressure.

The system is sufficiently sensitive and effective that some patients with abnormal heart rhythms can be effectively treated simply by massaging these structures with the fingers.

It is well-recognised that sudden or severe pressure may, in some individuals, cause the heart to stop beating abruptly – a phenomenon that has been described as ‘reflex cardiac arrest’.

In contrast with occlusion of the arteries it can achieve effect with the briefest of contact. The onset of effect is at least as sudden as complete arterial occlusion (because when the heart stops beating the effect on arterial pressure is the same). Unlike arterial occlusion, removal of the causative stimulus does not reverse the effect.

The release of adrenalin and similar hormones would have sensitised the heart to such a response. This would have had the effect of making stoppage, as opposed to simple slowing, more likely than it otherwise would have been.

Such an effect would lead to no signs that would have been detectable at the hospital.

8. Causes independent of neck restraint and OC spray

There is nothing in the material I have been shown to suggest that Mr HOGAN experienced cardio-respiratory arrest from something else altogether and coincidentally just happened to be being restrained at the time. I mention this only to dismiss it as implausible.

However, it is worth discussing whether drugs, if present, would have had any contributory effect. Firstly, everything said above applies to people who have not consumed drugs. Secondly, there are many prescription drugs that can impact on the likelihood of abnormal heart rhythm and may predispose towards a susceptibility to reflex cardiac arrest. This list of drugs includes many that are used to treat psychosis and depression. Having regard to the over-representation of mental health patients among police detainees this (along with aberrant behaviour) may help explain why mental health patients are even more heavily over-represented amongst deaths during detention.

Thirdly, stimulant drugs such as methylamphetamine and MDMA/ecstasy have a chemical action identical to hormones such as adrenalin and would be as likely to increase susceptibility as release of these hormones.

Despite all this it is worth mentioning again that the medical reports provided to me suggest Mr HOGAN was prescribed none of the drugs mentioned above and his hospital drug screen is said to have been clear.

Range of Opinions

The range of possibilities discussed above can be categorised as follows.

- A. Cannot be excluded absolutely but likelihood probably no higher than one in tens of thousands.
 - Bronchospasm due to OC spray
 - Reflex cardiac arrest due to OC spray
 - Causes independent of neck restraint or OC spray
- B. Can be excluded because they would have left evidence that has not been reported.
 - Asphyxiation from occlusion of the larynx due to lateral neck restraint
 - Occlusion of the neck veins from lateral neck restraint
- C. Should be excluded because, although they are significant possibilities, they would have required continued use of the lateral neck restraint for a period of minutes after loss of consciousness in order to cause cardio-respiratory arrest.
 - Asphyxiation from occlusion of the pharynx due to lateral neck restraint
 - Occlusion of the neck arteries due to lateral neck restraint
- D. Most likely having regard to all the information.
 - Carotid sinus stimulation due to neck restraint

Reflex cardiac arrest due to pressure on the carotid arteries sits well with the described sudden onset of cardiac arrest as well as the absence of any specific signs. Asphyxiation due to pharyngeal occlusion and occlusion of the carotid arteries are very real risks with lateral neck restraint. However, both would be expected to result in no more than a loss of consciousness from which spontaneous recovery would be the norm. The only exception to this would require the person to be held in the restraint for some minutes after consciousness had been fully lost.

Discussion

I have been asked to turn my mind to how a similarly tragic outcome could be avoided in the future.

Firstly, I am aware of and have had explained to me the Situational Use of Force model espoused during Police Operational Skills Training (POST). This model effectively encourages appropriate engagement/disengagement having regard to the risk of the situation and the risk of the use of force.

This model employs the terms “lethal force” and “less than lethal force”. OC spray is considered less than lethal force: it is not expected to result in death or GBH. It is intriguing and possibly worrying that neck restraints are completely undifferentiated from use of firearms. Both are lumped together as lethal of force options. Although there is a possibility of a fatal outcome from neck restraints, the number of investigations such as this one is testament to the relative infrequency of fatal outcomes. The same cannot be said of delivering a large calibre hollow point projectile into any body cavity at short range. From the perspective of the medical probability of an undesirable outcome there is merit in differentiating neck restraints from use of firearms.

From a non-medical as well as medical perspective I also take issue with the categorisation of neck restraints as a lethal use of force option having regard to the definition, which specifies they are “**intended** (my emphasis) to cause death or grave injury”. This is arrant silliness: if death is the intended outcome, why would an officer risk injury by choosing a neck restraint rather than just shooting someone?

It seems to me there is scope for a further category that separates “high probability” lethal force from “slight possibility” lethal force.

Other than neck restraints there are methods in use or being evaluated for use that would fall into the “slight possibility” lethal force category. These include:

- What the Americans call the “Prone Maximal Physical Restraint” (PMPR) position (which has been heavily implicated in positional asphyxia as referred to in Detective Senior Constable BISHOP’s report);
- The direct effects of some (but not all) forms of stun guns/Tasers;
- The indirect effects of stun guns;
- Impact devices; and
- Some disorientation devices.

In this case, physical restraint and OC spray had been used without effect. The question of interest is “what is the next safest option?”. Unfortunately, the answer depends on the circumstances, including:

- The environment;
- The duration and type of resistance;
- The mental state of the person to be restrained;
- The balance of strength between the subject and the police;
- The level of intoxication of the subject; and
- The options available.

I lack the knowledge to make the list exhaustive but the point is that making an instantaneous informed decision requires calculations across the full spectra of the above against a background of complex knowledge. In practical terms it is going to be impossible and, accordingly, police need to be told which order restraints should be applied in.

All of the available medical information suggests that modern electrical stunning (electro-mechanical disruption) devices are a safer option than neck restraints. The only exception to this general rule is if the person being restrained could fall to a more hazardous location or level.

Summary of Conclusions

OC spray cannot be excluded absolutely in having played a part but the cause of Mr HOGAN’s cardio-respiratory arrest was almost certainly the use of lateral neck restraint.

Of the ways in which lateral neck restraint can cause harm, reflex cardiac arrest is the possibility best supported by the available information.

This risk (as well as others) is inherent in every neck restraint.

From a medical perspective and from an OH&S perspective, electrical stunning devices such as the Advanced Taser appear to offer lower risk than neck restraints.

Access to Additional Facts

I have made inquiry into the existence of any additional facts that could materially alter my views. There is no extant information, of which I am aware, that would have this capacity.

Declaration

- a) The factual matters stated in this report are, so far as I know, true; and
- b) I have made all enquiries I consider appropriate; and
- c) I genuinely hold the opinions stated; and
- d) This report contains reference to all matters I consider relevant; and
- e) I understand my duty is to the Court and I have complied with this duty.

JUSTICES ACT 1886

I acknowledge by virtue of section 110A(5)(c)(ii) of the Justices Act 1886 that:

- 1) This written statement by me dated the 24 November 2004 contained in the pages numbered 1 to 34 is true to the best of my knowledge and belief; and
- 2) I make this statement knowing that, if it were admitted as evidence, I may be liable to prosecution for stating in it anything I know is false.

Signature

R D Hoskins

Signed at Brisbane this 24 November 2004.

Appendix C: Addendum statement

**Clinical Forensic Medicine Unit
51, Herschel Street,
Brisbane, Qld. 4000.**

31 May 2005

ADDENDUM STATEMENT OF EIGHT PAGES

Qualification

- e) My name is Robert David HOSKINS and my professional address is as above.
- f) I am employed as Director of Queensland Health's Clinical Forensic Medicine Unit;
- g) I am a duly qualified medical practitioner, registered to practise in the State of Queensland;
- h) I hold a medical degree (Bachelor of Medicine and Bachelor of Surgery) and a Master's degree in Forensic Medicine;
- i) I have been elected Fellow of the Australian College of Legal Medicine (where I also serve on the Council) and of the Australasian College of Biomedical Scientists (where I also serve on the Board).
- j) I hold an appointment as Associate Professor in Forensic Medicine at Griffith University Medical School.

Material Facts on Which this Report is Based

- 1. On 23rd November 2004 I prepared a nine page statement in relation to injuries sustained by **Samuel Zenon HOGAN @ KROWICKY (DOB 29/10/1983)**.
- 2. I have subsequently received a letter dated 18th April 2005 from Michael O'CONNOR of the CMC together with a briefing from Detective Sergeant Barry BRITTON of the CMC.
- 3. I have been provided with DVDs of further records of interview with Senior Constables BUCKMAN and CUSSENS (along with transcripts) and have watched these in their entirety.
- 4. I have been provided with a copy of the QPS document "Good Practice Guide on Positional Asphyxia and Excited Delirium" and asked to comment on my acceptance of the information contained therein. I have also been asked to comment on whether either of these conditions could have contributed to the outcome.
- 5. I have performed a literature review on excited delirium and positional asphyxia.

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Does the additional information change my views?

The short answer is “no”. Through the interviews and demonstrations it is clear that the lateral vascular neck restraint was applied as it was intended to be applied. Despite uncertainty over the length of time for which it was applied it appears that it could have been applied for as long as four minutes but possibly much less than that. There was nothing in the additional material to suggest that the patency of Mr Hogan’s throat had been compromised nor that his chest had been compressed. Given Mr Hogan’s described habitus in the semi-prone position chest compression would have been difficult in any event.

The relative positions of Senior Constable CUSSENS and Mr HOGAN would have mitigated in favour of both contributing to the effectiveness of the vascular compression. My view is that this remains the most likely explanation but that the other causes previously indicated as possible cannot be excluded.

Really this should surprise nobody. The intended purpose of this restraint is to achieve cerebral hypoxia!

However, in the additional materials that I accessed to consider these questions I came across documentation of the relative forces required to achieve vascular and airway occlusion. Complete occlusion of the carotid

arteries can be achieved with as little as 5kg of rope tension, whereas six times this amount is required to occlude the trachea. The latter also requires application of the pressure to the front of the windpipe which would be unlikely to occur unless the position of the forearm moved – something it is described as having not done.

Could cerebral hypoxia have been avoided?

The likelihood of causing cerebral hypoxia is dependent on the duration for which a lateral vascular neck restraint is applied. The precise duration for which cerebral blood flow can safely be interrupted will depend on circumstances that are likely to apply in the context of detention.

The following are factors that would shorten the period for which a lateral vascular neck restraint could safely be applied:

Oxygen debt as a result of physical activity such as running or fighting.

Increased metabolic rate as a result of physical activity.

Increased metabolic rate as a result of consumption of stimulant drugs such as methylamphetamine, MDMA and cocaine.

Raised body temperature which is more likely in the presence of stimulant drugs and may develop with physical activity even if it was not present beforehand.

Compromised respiration due to:

- (Partial) occlusion of the mouth or nose;
- (Partial) obstruction of the structures in the throat;
- Limitation of the movements of the chest;
- Limitation of the movement of the abdomen.

Shock from blood or fluid loss due to trauma, dehydration or burns.

Bradycardia. The carotid bodies are structures in the carotid arteries. When stimulated they send a nerve reflex to slow the heart. In extreme cases this may stop the heart altogether. If the heart continues beating slowly it will impair the delivery of oxygenated blood to the tissues, including the brain.

Clearly these are all factors that have the capacity to apply during restraint by police. In an ideal world it would be preferable to be able to say “this restraint can be safely used provided it is applied for no longer than X”. However, there are two things that make this impossible. The first is that variability in the factors described above mean that “X” would need to be impractically short **and** accompanied by advice regarding what to do instead. The second is that causes of poor outcomes other than vascular compression would be unlikely to be affected by such advice.

Excited Delirium and Positional Asphyxia

The term “positional asphyxia” has only very recently been coined and it is only a hypothetical construct. It is a “diagnosis” of exclusion that to be made requires the following conditions:

1. The victim is dead; and
2. An autopsy is performed at which no other identifiable cause of death can be found; and
3. There is a description of third party actions or body habitus that might reasonably be inferred to have caused great difficulty breathing.

When these conditions are met the cause of death may be given as positional asphyxia but it is still sufficiently debatable that some pathologists will not do so. There are no specific autopsy findings that “diagnose” the condition in the same way that there would be for heart attacks, strokes and cancers.

Nonetheless it is a reasonably persuasive hypothesis that has a lot of support. As a diagnosis of exclusion it is technically one that cannot be made without autopsy. However, if it is a valid hypothesis it may be reasonable to infer that the operating mechanisms could, particularly with resuscitation attempts, lead to an outcome short of death. There is nothing in the literature that I could find on such non-fatal outcomes.

Excited delirium is a more acceptable construct and comprises the clinical picture where there is delirium and excitability. Excitability has the dictionary definition. Delirium is a severe disorder of mental state in which there is confusion and disorientation and these may be accompanied by delusions, hallucinations, altered sensation and loss of motor control. Causes of excited delirium include mental illness, intoxication with drugs and/or alcohol, febrile illness, head injury and advanced liver disease.

It is questionable whether Mr HOGAN had excited delirium at the time he was initially approached by police and quite probable that he did by the time attempts had been made to detain him. The reported conversations with his uncle and police officers suggest mental illness at the time he was approached but there was nothing in the materials before me to suggest he was initially excited or excitable.

Senior Constables CUSSENS and BUCKMAN describe making attempts to respond to concerns for Mr HOGAN’s safety and these seem rational in the circumstances. However, if, as seems likely, Mr HOGAN

was experiencing delusional thought processes at the time his response would have been likely to have been different to that of a person who was not suffering from a mental disorder. His perceptions of their words and actions would have been interpreted in the context of his delusional mindset. His resistance to them may have been quite rational to him – indeed it is not improbable that he interpreted his own actions as the *only* logical response in the context of his delusions. In this context resistance and excitability may have been inevitable consequences.

Could excited delirium have contributed to cerebral hypoxia?

The answer appears to be “yes”. There is very good theoretical reason to believe that a person whose body is agitated enough to consume more oxygen will be at greater risk of hypoxia than others. Additionally there is a growing body of medical literature specifically addressing “restraint asphyxia” which is that group of deaths due to cerebral hypoxia in people who have excited delirium.

Such deaths are reported with “positional asphyxia” in which hog-tying with or without weight placed on the upper body is the root cause. Without hog-tying this group would survive. They are also reported with vascular neck restraints, albeit less commonly.

It would be easy to leap to the conclusion that both methods of restraint are inherently dangerous and that hog-tying is more dangerous than neck restraint. However, such a conclusion needs to be tempered with extreme caution. The literature fails to take account of:

Other forms of restraint. It is astonishing that medical series on death due to restraint do not mention gunshot wounds at all. This suggests a degree of selectivity in the way in which study populations were selected.

Selection bias. Most series (with one notable exception that includes subjects presenting for medical treatment) deal only with fatalities. As a result we just don’t know what proportion of people who are subdued with neck restraints (or hog-tying) suffer health problems. To do this it would be necessary to follow up all people who were restrained and count how many had problems – a useful exercise that has not, as far as I can determine, been done.

The relative frequency with which different restraint options are exercised. Is hog-tying a more common cause of restraint asphyxia than neck holds only because it is used more often or is it because it is more dangerous? We don’t know.

Alternatives. If one starts with the assumption that there are people who need to be restrained, what is the least dangerous way of doing so and is there a hierarchy? Again, without appropriate study we don’t and won’t know.

There seems to be an association between excited delirium and restraint deaths. However, it is absolutely unclear whether this association is:

- a) Due to the sensitivity of these individuals to the types of restraint used; or alternatively,
- b) Due to the fact these individuals resist so hard and for so long that the consequences of restraint are more marked in them.

And so it is likely that excited delirium would have contributed to cerebral hypoxia although either of the above explanations could apply.

Could positional asphyxia have contributed to cerebral hypoxia?

I think it is no more than speculative to pursue this. The diagnosis cannot be made other than at autopsy. The accounts provided suggest no trunk loading and maintenance of the semi-prone position at all times. The features were not those typically ascribed to positional asphyxia.

Again, it is most probable that Mr HOGAN suffered the intended consequence of the restraint applied.

Asking this question is a bit like asking whether a person died from something other than the gunshot wound to their chest – possible but improbable unless supported by cogent facts.

What do I think of the POST Good Practice Guide?

1. It would have been helpful to see the evidence base. Without this it is difficult to assess the cogency of the advice. If 286 deaths occurred in custody, what portion were in the detention category and what proportion of these showed clear signs of excited delirium?
2. Whilst the taxonomy used (institution/detaining/escaping) might be useful when apportioning blame it may be less useful when considering prevention. As the published literature shows, restraint deaths occur in escapees and corrective institutions, too. If prevention is a goal I would have found a taxonomy using categories such as “during restraint”, “intoxication”, “injury” and “medical condition” more helpful.
3. I wasn’t surprised to read that “individuals affected by drugs, and/or suffering from a mental illness are over represented....and are the most likely group of persons to inexplicably die in police custody”. Close to 90% of police detainees are intravenous drug users. There have been moves towards

community-based mental health care in the last two decades. It follows that this group of people are the most likely to explicitly be in police custody. Are there hard data to say that they are over-represented despite this selection bias?

4. The comments on page 5 that police are not at fault and that such individuals are so fragile they may have died anyway are a spin not supported by the literature. There have been many cases of successful litigation following such incidents.
5. The contention that hog-tying is a major contributing factor is supported by a balanced review of the literature.
6. The contention that excited delirium predisposes is also supported by a balanced review of the literature. There is no way of knowing (as stated above) whether this reflects an underlying predisposition or whether it reflects the increased duration and force of restraint required.
7. A detainee who feels subjectively hypoxic will struggle more – wouldn't we all if we thought we were suffocating? Although this is mentioned it is given insufficient weight. Increased struggling, especially when followed by rapid and inexplicable quiescence is a significant danger sign. There is no real guidance on how to respond to this before the subject stops breathing.
8. Unfortunately, the warning signs of gurgling/gasping, cyanosis and sudden tranquillity indicate cardiac arrest. At this point the subject will die without intervention (as Mr HOGAN almost certainly would have done). I think it would be prudent to group them separately from the other signs which may give the option to disengage prior to this happening.

Summary of Conclusions

1. I still think it is far more likely than not that Mr HOGAN's condition resulted from the intended consequences of the application of a lateral vascular neck restraint – direct compression of the large blood vessels in the front of the neck.
2. Excited delirium would have made this more likely either
Because it created an underlying predisposition to hypoxia; and/or
Because the extent and duration of restraint required in such subjects predisposes to more severe outcomes than in less resistant subjects.
3. There is a need for research within law enforcement circles to broadly monitor the consequences of various restraint models in order to document their relative safety and the frequency with which adverse events occur. As it selects only the adverse outcomes as a starting point, the medical literature will never achieve this goal. We need to be aware of the denominator as well as the numerator.
4. Based on the information provided, positional asphyxia as defined medically was not an issue in this case.
5. The lateral vascular neck restraint is intended to deprive the brain of oxygen. At rest the brain will be permanently damaged if it is deprived of oxygen for more than about four minutes. The "safe period" will be considerably less in a subject with excited delirium. I can't say what the safe period is and nor could anyone ethically study it. It may be more prudent to suggest that lateral neck restraints should not be used in such subjects if at all. However, such a suggestion necessarily means that an alternative would have to be a part of standard procedure. Deciding the relative risk of that alternative would be difficult without primary research. In any event, the Interviews suggest Mr HOGAN may have been in the lateral neck restraint for up to four minutes.¹⁰ This is too long. It seems self-evident but if the service wants to time limit them they need to time them!

10 According to Dr Hoskins (see page 25, point 6) a correctly applied LVNR permits consciousness for only tens of seconds. Both officers in this case say that Samuel Hogan continued to struggle while Senior Constable Cussens's arm was around his neck. Cussens says that when he used both arms to increase the pressure of the neck restraint, Hogan stopped struggling very quickly.

Access to Additional Facts

I have made inquiry into the existence of any additional facts that could materially alter my views. There is no extant information, of which I am aware, that would have this capacity.

Declaration

- f) The factual matters stated in this report are, so far as I know, true; and
- g) I have made all enquiries I consider appropriate; and
- h) I genuinely hold the opinions stated; and
- i) This report contains reference to all matters I consider relevant; and
- j) I understand my duty is to the Court and I have complied with this duty.

JUSTICES ACT 1886

I acknowledge by virtue of section 110A(5)(c)(ii) of the Justices Act 1886 that:

- 3) This written statement by me dated the 31 May 2005 and contained in the pages numbered 1 to 8 is true to the best of my knowledge and belief; and
- 4) I make this statement knowing that, if it were admitted as evidence, I may be liable to prosecution for stating in it anything I know is false.

Signature

R D Hoskins

Signed at Brisbane this 31 May 2005.