

# 2018 Ian O'Rourke Scholarship in Patient Safety: New South Wales Health Clinical Excellence Commission

## Clinical Governance and Interagency Collaboration in Tactical Medical Operations

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### Executive Summary

- Prehospital terrorism response has been bolstered significantly in recent years; however there are still large capability gaps. International best practice and identified lessons from previous attacks can provide guidance on moving forward, with a systems approach to robust high threat medicine provision.
- Creation of a national Special Operations Medicine Institute would enable a strategic, collaborative approach to prehospital terrorism response. The Institute would provide for a repository of subject matter expertise across all high threat patient access and rescue domains, including police medics.
- A greater focus on the training and equipping of law enforcement officers across Australia will significantly add to the ability to save lives in intentional mass violence incidents and will save lives from the traumatic incidents that police officers encounter in their day to day role.
- High threat response training for all first responders is crucial and should be considered in all Australian emergency services.

Several strategies are easily implemented for refining and standardising Australian prehospital high threat response.

- New South Wales Ambulance (NSWA) Special Operations have a unique opportunity to build Tactical Medical Operations structure and training to include integrating with police more fully and to ensure that capacity exists for high threat response across the state, bridging a currently identified capability gap.

This is the unrestricted version of this scholarship report. Some elements have been removed due to the sensitive nature of the content and are available only to designated parties.

### Scholarship Recommendations

Recommendation 1 – Establish a Special Operations Medicine Institute.

Recommendation 2 – Current NSW Special Operations Team (SOT) Tactical First Aid program for police be expanded for specialised police units.

Recommendation 3 – Police tactical medical capability be strengthened with a focus on training, the scope of practice and governance.

Recommendation 4 – NSW Special Operations Tactical Medical Operations capability be expanded and become more

integrated with NSW Police Tactical Operations Unit, supporting the development of further police medical capability.

Recommendation 5 – NSW Special Operations Tactical Medical Operations capability be expanded to include full time staff, a rotating roster and an advanced tactical paramedic specialisation.

Recommendation 6 – A national guideline to be developed for Law Enforcement Tactical Triage

Recommendation 7 – Joint Response Unit police/paramedic models be considered for implementation in metropolitan centres in Australia

Recommendation 8 – A course and security cleared role to be investigated for use as an interagency liaison officer within Australian emergency services, potentially run centrally through a Special Operations Medicine Institute.

Recommendation 9 – Soft Litters to be located in Major Incident Support Unit (MISU) vehicles and in NSW forward

commander vehicles to provide an extrication capability at mass casualty incidents.

Recommendation 10 – Soft Litters to be utilised by emergency services to provide a lightweight, easily deployable extrication capability at intentional mass violence and other disaster/mass casualty incidents.

Recommendation 11 – A Tactical uniform be introduced for NSW Special Operations Tactical Medical Operations.

Recommendation 12 – Ballistic Protective Equipment be personally issued to Special Operations Tactical Medical Operations Paramedics and kept in responder vehicles to ensure an expedient and safe response to high threat incidents.

Recommendation 13 – High threat response training should be considered across all Australian emergency services.

Recommendation 14 – NSW AMPLAN be updated for specific discussion of response to intentional mass violence.

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## 1. Context and threat

Australia faces an increasing landscape of threat from terrorism. The threat has evolved significantly with the call in Al Qaeda's Inspire magazine in 2010 for strikes against pedestrians with vehicles being realised on the streets of Western countries. In combination with the use of edged weapons, firearms and improvised explosive devices (IED's) the devastating results include specific injury profiles and dynamic threat situations which in turn need a specific clinical and operational response. The attacks of the past year including Westminster, London Bridge and Manchester have tested the United Kingdom's (UK) response capabilities, and the operators from all emergency services have developed expertise and experience in working in dynamic, unsafe scenes.

The increase in low tech attacks, encrypted communications and online remote radicalisation has created a situation where disruption through intelligence is more and more difficult for police and government agencies.<sup>2</sup> Since the Australian Terrorism Public Alert System was raised to 'Probable' in 2014 there have been 5 terror attacks and 15 disrupted, planned attacks. The current assessment from the Australian Security Intelligence Organisation (ASIO) is: *"Australia's National Terrorism Threat Level remains PROBABLE. Credible intelligence, assessed by our security agencies, indicates that individuals or groups continue to possess the intent and capability to conduct a terrorist attack in Australia."*(ASIO, 2017)

The Criminal and Terrorism Incident Annex to AUSTTRAUMAPLAN states that state ambulance services are required in the response phase of a terrorist or intentional mass violence incident to *"...provide initial triage and treatment of patients in a*

*heightened security environment and to those affected by CBR agents"* (Health, 2011). To fulfil this mandate all Australian ambulance services should be implementing a warm zone response capability and preparing all responders with high threat incident awareness training.

The occurrence of complex, coordinated terror attacks (CCTA's) such as Mumbai (2008), Norway (2011), Paris (2015) and London (2017) highlight the difficult response paradigm for ambulance services when large numbers of patients present with critical penetrating injuries and a dynamic threat.

An identified capability gap exists regarding the time to application of lifesaving interventions by healthcare providers during an attack. In the 2017 London Bridge/Borough Market terror attack specialist firearms police had killed all the offenders within 8 minutes. Due to the unknown element of secondary attacks or other perpetrators, many patients were not accessed by advanced medical providers for a significant amount of time, with the first patient conveyed by ambulance arriving at hospital 52 minutes after the onset of the incident (Hunt, 2018). A number of critically injured patients were still barricaded in restaurants for up to 2 hours after the incident was resolved. During this time police and military teams were clearing the area of Borough Market and Southwark Cathedral door to door. Larger numbers of police were in close proximity to patients in the warm zone than ambulance personnel, and with 48 injured (including 4 police officers) there was a need for first aid intervention for penetrating injuries, as well as rapid extrication, by as many emergency services personnel as possible (Brown & Rutherford, 2017).

This clearly outlines the 'therapeutic vacuum' that exists whereby critically

injured patients may not be accessed by advanced life support (ALS) providers for a significant time after the onset of the incident; even when the threat has been neutralised. The same issue has been identified in multiple intentional mass violence incidents in recent years.

There are a number of options to bridge this capability gap:

*Bystander first aid:*

Pros:

- Often in the immediate vicinity of victims at the point of injury.
- Can be a substantial number available to assist.
- If improvised techniques are familiar can provide effective haemorrhage control in crucial early stages.

Cons:

- Variable training, knowledge and skill level for lifesaving interventions.
- Usually will have no medical equipment available.
- Barriers to implementation of bystander care training exist in Australia due to a lack of perceived threat. This is possible as a result of effective gun control and police intelligence disruption of terrorist acts.

*Police tactical first aid:*

Pros:

- Often on the scene quickly.
- Variable training and experience, with programs giving critical skills and equipment to officers.
- Variable medical equipment available: Individual first aid kits (IFAK's) go bags, standard first aid medical kits.
- Training in tactical first aid offers cross-over benefit to other medical

and trauma incidents that police respond to.

Cons:

- Primary role is to focus on elimination and containment of the threat and to provide ongoing security, therefore medical care may be impossible or difficult in the early stages of an incident.

*Escorted warm zone care (Rescue Task Force):*

Pros:

- Provides lifesaving interventions to advanced life support (ALS) level.
- If performed rapidly will decrease the time of 'therapeutic vacuum'.

Cons:

- May be delayed due to the response model, availability of resources and threat level.
- The need for law enforcement escorts can divert resources from the primary role of threat suppression and elimination.
- Currently, in Australia, limited warm zone ALS resources are available.

A hybrid, integrated and layered approach to these models will be the most successful strategy.

The UK has faced a significant challenge with terrorist incidents over recent years, including the 2005 7/7 London Bombings, 2017 Westminster attack, 2018 London Bridge/Borough Market attack, Manchester Arena bombing as well as many others. This stimulus, as well as international experience through CCTAs in Mumbai (2008) and Paris (2015), has created a permissive environment for funding and change, and therefore enhanced training and capability across the UK.

The past 2 years have seen a significant impact from terror attacks in the UK, with

long term effects on systems, staff and the public. (Moran, Webb, Brohi, Smith, & Willett, 2017). This scholarship intends to explore UK responses to these events and implementation of change to identify elements relevant for incorporation in Australia.

Research on international best practice through interaction with pioneering initiatives in the UK was sought to enable the flow of information to the NSW Ambulance (NSWA) Counter Terrorism and Emergency Management (CT & EM) Special Operations Unit, and through national dissemination to other Australian emergency services. With the goal of enhancing the quality and appropriateness of high threat clinical response, this research is intended to have a significant impact on patient safety during high threat operations in Australia.

Recommendations are indicated with colour codes to identify:

**National Recommendations**

**NSW Ambulance & NSW Special Operations Recommendations**

Some of the recommendations are easily implemented, whilst others are long term and ambitious projects that will take time, determination and energy to bring to fruition and see their effects on high threat capability.

## 2. Scholarship overview

The 2018 Ian O'Rourke Scholarship was designed around visiting ambulance and police tactical teams in the UK and Ireland to investigate the main issues that are vital to the enhancement of patient safety from high threat incidents such as terrorist attacks and intentional mass violence incidents.

Many thanks to the following units for facilitating visits and meeting to discuss tactical medicine systems and innovations.

The collective efforts of many individuals across these teams are creating world class care for their patients and building first rate response systems. The opportunity to learn has been a valuable experience.

*Dublin, Ireland:*

- Emergency Response Unit (ERU), An Garda Siochana.
- An Garda Siochana College.
- Special Operations, National Ambulance Service.

*London, England:*

- CO19 Counter Terrorism Specialist Firearms Operations (CTSFO)
- London Ambulance Service (LAS) Hazardous Area Response Teams (HART)
- LAS Joint Response Unit (JRU)
- LAS Tactical Response Unit (TRU)
- LAS Special Operations Response Teams (SORT)
- London Air Ambulance
- Georges University
- British Transport Police (BTP) Medic Program
- Metropolitan Police Specialist Training Centre, Graves End

*Leeds, England:*

- Yorkshire Ambulance Service (YAS) HART
- West Yorkshire Police

*Edinburgh, Scotland:*

- Scottish Ambulance Service (SAS) Special Operations Response Team (SORT)

*England:*

- National Ambulance Resilience Unit (NARU)



### 3. Research themes

#### 3.1 Clinical Governance and Models of National Standardisation

The first priority for this research project was governance systems across tactical medical operations units and personnel. The UK established national standardised systems after the 2005 London bombings, centred around Ambulance Trust HART's. Over the proceeding years, as a result of the significant elevation and evolution of the threat level, this system has been bolstered and innovative projects added to it, including police-ambulance integration through the LAS TRU and JRU.

The research undertaken in this project investigated whether UK and Irish models of governance and standardisation would have benefits for further exploration and implementation in Australia.

Can a systems based approach enhance patient safety in dynamic intentional mass violent events through the creation of doctrine and a clinical governance system? If so, on a state level doctrine and tactics, techniques and procedures (TTP's) will be created by and used within the NSW Special Operations Unit for Tactical Medical Operation's (TMO). This research will also translate to high threat response training that is currently proposed for all Paramedics in NSW.

On a national level the viability of an Australian body that can oversee high threat response training, doctrine and capability will be assessed, in line with UK models.

#### 3.2 Interagency Collaboration and Interoperability

The second theme of this research project centres on the interagency integration that

overseas units have established, and investigation for their relevance in Australia.

The units visited have a number of models of interagency interaction, and have the potential to bring great benefit to the public of NSW and Australia through safer, more effective high threat response and clinical care.

### 4. Recommendations

#### 4.1 National standardisation and interoperability

There is currently no system for national standardisation of high threat medicine in Australia. This creates an environment rich in siloing and duplication of effort. Disaster preparedness is represented by Emergency Management Australia (EMA), and Counter Terrorism by the Australian and New Zealand Counter Terrorism Committee (ANZCTC). ANZCTC has no medical representation and undertakes no national projects that focus on the medical response to terrorism.

The Australian and New Zealand Policing Advisory Agency (ANZPAA) reports to the police commissioners of Australia and New Zealand and does not currently have any tactical medical representation.

In NSW the State Rescue Board (SRB) fulfils a similar role to the UK's National Ambulance Resilience Unit; however this only extends to rescue units and therefore does not provide the same functions for terrorism response and tactical medical operations.

The Australian Tactical Medical Association (ATMA) was formed in 2017 to provide a platform for standardisation and representation of the sector to advocate for greater capability in high threat medical response. As a not for profit, the mandate of ATMA is to create national networks and

working groups to facilitate capability progression and shared learning. ATMA runs clinical professional development and an annual conference, but are not a training provider.

The UK utilises a national, standardised structure to deliver education and provide governance for all specialist high risk prehospital providers. Each National Health Service (NHS) Trust has HART units that respond to any high threat incident, including firearms and terrorist incidents.

The National Ambulance Resilience Unit is a national centre for all the NHS Trusts that oversees training, standards and models of response for UK special operations or hazardous area medical response. HART, Ambulance Intervention Teams and TRU paramedics from all NHS trusts attend initial and ongoing training at NARU's training facility in Salisbury. NARU also oversees auditing and regulation of all HART across the trusts, including daily consolidation of available resources and any deviation from minimum staffing. NARU is also the central point for mutual aid coordination between trusts if a major incident occurs that requires assistance from other HART locations.

The NARU model works very well in the UK, however in Australia an alternative means of creating a national body that will form a knowledge bank, standards manager, governance system and education provider is required that sits outside of the current emergency services system. The disparate nature of Australian emergency services across state and territory jurisdictions creates significant barriers that in turn require a less structured and centralised model than the UK NHS system.

### **Recommendation 1 – Establish a Special Operations Medicine Institute**

The establishment of a national 'centre of excellence' to standardise and develop education and training in high threat response is recommended, based on the UK NARU model. A significant difference from NARU would be an advisory, educational and training role, but not a regulatory role. With significant differences in state-based legislation as well as TTP's and structures, it would be a significant and unnecessary task to attempt complete standardisation and regulation across the country. Local threat context and environmental factors mean that this type of regulatory standardisation would be inappropriate.

A 'Special Operations Medicine Institute' would become a central repository of knowledge and best practice for all forms of high threat response, with the following fundamentals:

- A Police faculty to provide a central point of reference for AAO medical training, Police tactical group (PTG) medics and tactical first aid programs across the nation.
- The police faculty can provide clinical governance guidance to state based law enforcement medical programs.

A prehospital special operations medicine faculty with a focus on:

- Medical directorship of special operations and tactical medical teams.
- Training and governance of ambulance special operations teams.
- Advising on best practice in prehospital special operations and capability development

Due to the significant involvement of the Australia prehospital sector with university level education, it would be a logical step



for the body to be associated with a tertiary institution. This would provide access to a platform for research as well as the development of graduate and postgraduate courses in special operations and law enforcement medicine.

Currently in Australia:

- An undergraduate degree is currently the baseline for most Paramedic education nationally.
- Postgraduate qualifications are quickly becoming the baseline for Critical Care or Intensive Care Paramedics nationally.
- A number of courses are provided in the medical aspects of disaster response and emergency management by universities including Edith Cowan University (ECU) and Monash University.
- Central Queensland University (CQU) will begin a Graduate Certificate in Tactical Medicine in early 2019. This includes pathways for police medics to enrol with appropriate experience and qualifications.

Partnerships with the Department of Home Affairs, ATMA and ANZCTC will ensure that this organisation does not duplicate effort and provides a significant capability across the nation. A national training facility, as per the NARU model, is recommended to provide for the high fidelity, immersive training that is fundamental to the provision of effective high threat medicine. The John Hopkins Centre in the USA is an exemplar in this field and may be a potential source of guidance.

#### **4.2 Law Enforcement Medical Capability**

**Recommendation 2 – Current NSW SOT tactical first aid program for police be expanded for specialised police units.**

**Recommendation 3 – Police tactical medical capability to be strengthened with a focus on training, the scope of practice and governance.**

CO19, as the tier 1 firearms police response for terrorist incidents in London, have medics integrated into teams that can provide advanced medical treatment for their own team, and also have the potential to treat civilian casualties once the threat level has been mitigated or reduced. This is mirrored in the counter terrorism specialist firearms officer systems around the country.

The Irish ERU, with the same law enforcement role, also train a number of operators as medics with a specific focus on tactical medical interventions. Outside of the police tactical group, there is minimal medical training for An Garda officers, and this is an area of future focus and expansion.

Other specialised police units throughout the UK undertake the same training. Authorised firearms officers (AFO's) that staff the armed response vehicles (ARV's) in England attend a high number of cases and are well versed in the application of lifesaving interventions in high threat environments, as well medical care for a range of patient presentations (Wheatley, Hollingsworth, & Greaves, 2018). Due to their availability as mobile resources, ARV officers attend a large number of cases and are anecdotally highly skilled at the application of life saving interventions in high threat environments.

Doctors and paramedics from London HEMS attend a large number of high acuity penetrating trauma cases, with 2017

statistics showing these representing 31% case load of all responses (The highest of all categories). A number of HEMS staff stated that they often attend these cases with excellent initial TECC care already undertaken by firearms police.

Armed police throughout the UK, including British transport police and the civil nuclear constabulary (CNC) undertake medical training up to the level of D13 (enhanced). This consists of a 5 day course with an extensive overview of prehospital medical knowledge including tactical interventions such as wound packing and tourniquets, as well as the use of airway adjuncts and oxygen. The medical training level of D13 for all armed police officers in the UK from AFO, ARV to CTSFO all follow the D13 module which is contained within the NPFTC – National Police Firearms Training Curriculum.

This includes all county and metropolitan police forces as well as BTP and CNC and ensures a parity of training level. Clearly individual forces offer greater or lesser exposure to incidents; however, all armed police officers are trained to the same base line level of D13.

There are two levels to D13 – D13.1 (Standard one day ELS training) and D13.2 (Enhanced 5 day course).

Each module consists of similar content with D13.2 being the ‘enhanced’ level because the 5 day course goes into a little more detail and contains more scenario based training.

Analysis of patient report forms (PRF’s) completed from patient encounters by D13 trained UK AFO’s reveal a significant benefit to patients with medical care provided prior to the arrival of ambulance resources (Carr, Doyle, Wheatley, Kyle, & Mellor, 2017; Hartley, Howells, Thurgood, Hall, & Porter, 2018).

Australian police medic programs are in various stages of progress on tactical

medical capability and should be expanded drawing on the experience and lessons of the UK. The expansion of capability, particularly if further interventions and medications are added to the police medics scope of practice, requires a strong governance system.

In NSW, SOT TMO should expand the current tactical first aid package for specialised police units. Across the nation, tactical first aid and further immersive training and capability should be an area of priority for police services.

**Recommendation 4 – NSW Special Operations Tactical Medical Operations capability be expanded and become more integrated with NSW Police Tactical Operations Unit, supporting the development of further police medical capability**

Restricted

### 4.3 NSW Tactical Medical Operations cell

**Recommendation 5 – NSW Special Operations Tactical Medical Operations capability be expanded to include full time staff, a rotating roster and an advanced tactical paramedic specialisation**

Restricted

### 4.4 Planning

Restricted

### 4.5 Operational Response

The TRU model provides a good example of how an effective full time team can provide coverage and short response times for terrorism, and should be considered as an avenue for SOT tactical paramedics to

ensure that NSW maintains a capability for this eventuality.

However, the structure of the tactical response is not ideal for the NSW context. When TRU, AIT or HART paramedics enter the warm zone they move through an entry control point at the forward command post (FCP). They move in a team, usually of 3 (1 team leader and 2 paramedics) and are directed to either treat and leave, or treat and extricate.

If available, fire and rescue personnel will also move with the teams and assist with lifesaving interventions and extrication.

Prior to entering the warm zone, zones will have been designated according to known information by a joint decision in the FCP, and a limit of exploitation set which the teams are specifically prevented from going past. If the situation changes on the ground they must relay back through their team leader to the FCP where a joint decision must again be made by interagency commanders. I believe that this system seriously decreases agility and may interfere with the ability of the teams to make dynamic risk assessments and save the maximum lives in a CCTA.

The restrictions of this system validate the current NSW special operations approach that relies on a dynamic risk assessment and individual operator's initiative to determine appropriate working areas in the warm zone, predicated on threat, cover and concealment and protective elements.

A consideration that has excellent value in Australia just as it does in the UK is that of expediting cold zone declaration. Due to the fact that once this occurs a much larger number of resources can be sent in, this decision is sought as soon as possible. If the following criteria are known commanders can redesignate a warm zone to a cold zone:

- No ballistic threat.

- No IED threat (Known).
- No imminent return of attackers.

In light of recent attacks having this consideration in front of the commander's minds during a future attack will enable the flow of resources into previously non-permissive environments rapidly.

#### 4.6 Tactical Triage

##### **Recommendation 6 – A national guideline to be developed for Law Enforcement Tactical Triage**

In a terror attack, particularly if it involves marauding terrorists, it is likely that police will be on scene with multiple injured patients and no ambulance resources available. While some prehospital warm zone response exists in limited numbers in a couple of jurisdictions, they are unlikely to be available in the initial stages of an incident and in significantly limited amounts.

LAS utilises a warm zone triage system of 'Alive or Dead' due to the difficulty in applying standard triage algorithms that are based on physiological parameters in an area of high stress, distraction and a dynamic threat. Once a victim has been located and treatment applied, a triage tag is applied and the operator radios in to the forward commander to get a triage number, writing this on the tag.

As a result of previous inquest directives, particularly 7/7 (7<sup>th</sup> July London bombings), triage principles have been adjusted to 'The best for everyone' instead of the previous 'The most for the most'. The same directives require LAS warm zone triage to call in over the radio each time a patient is found to obtain a patient number for the triage card, as a result of previous criticism that ambulance commanders in 7/7 did not know exact numbers of patients triaged and treated.

NARU is implementing a similar system of 'Red or Dead' to also simplify the triage process during warm zone operations. To determine the category the NasMed triage algorithm is still utilised for the first few steps, including catastrophic haemorrhage and airway assessment.

During the 'Therapeutic vacuum' expedient application of lifesaving interventions by police officers will save many lives, however recognition of those patients that need urgent extrication to definitive care will save even more. Data from intentional mass violence incidents in the United States suggests that wounding profiles may be significantly more likely to involve torso injuries and fewer extremity wounds (Edward Reed Smith, Shapiro, & Sarani, 2016; E Reed Smith, Shapiro, & Sarani, 2018). The ability to recognise these wounding profiles could allow police to identify priority patients for rapid extrication.

The following are characteristics of an ideal law enforcement triage tool:

- Simple, easy to recall and apply
- No numbers or physiological parameters
- Understandable by non-medical providers
- Identifies non-compressible torso haemorrhage
- Identifies patients with shock

The rapid assessment of mental status and pulse (RAMP) tactical triage system (Keating, 2017) being implemented by SOT Paramedics in NSW ticks most of these boxes however, the requirement for a radial pulse to be taken could be unreliable amongst police officers with little experience in the skill.

Ethical and moral considerations also surround the application of triage to those know to have perpetrated violence who have now become patients, and some guidance on this should be considered in

the tactical triage process (Gold & Strous, 2017).

Based on these considerations work will be conducted to develop a tactical triage tool for use by police officers in intentional mass violence incidents.

#### **4.7 Police/Paramedic Interoperability – Joint Response Unit**

##### **Recommendation 7 – Joint Response Unit models be considered for implementation in metropolitan centres in Australia**

The joint response unit (JRU) in London is a program that provides a paramedic responder in each Borough of the city dedicated to responding to Metropolitan Police incidents. The program has been very successful in stimulating interagency collaboration and freeing up police to conduct their primary role, especially during peak periods. This program has seen improvements in patient care and safety since the pilot began in 2011 (Zipfel & McIlwaine, 2016). The program is now being introduced in other NHS Trusts across the country.

The model provides rapid access to a paramedic for police in that area, as well as developing and enhancing the relationship between the services and building familiarity with staff across traditional interagency barriers.

The London JRU is manned by tactical response unit (TRU) personnel during nightshifts on Thursday – Saturday nights. Each paramedic responder is assigned a police area at the start of their shift and then make their way to an initial briefing at the central police location. They hold a police radio and are available for dispatch by both police and ambulance control centres.



The TRU is a small team of specially trained paramedics for MTFAs incidents, and they work closely with police agencies across London to ensure a fast response 'warm zone' capability to terrorism incidents. The JRU role ensures TRU paramedics and police are working together regularly and are familiar with each other's capabilities and procedures. To realise the benefits that the JRU brings to both police and ambulance the model should be emulated in Australia. This will take various forms depending on local response models, however, at its core, it will involve the use of paramedic single responders utilising a police radio and working in close liaison with police during busy periods such as weekend nights, public holidays and major events.

#### 4.8 Interagency Liaison Officers

**Recommendation 8 – A course and security cleared role be investigated for use as an interagency liaison officer within Australian emergency services, potentially run centrally through a Special Operations Medicine Institute**

The nature of CT operations requires a level of security clearance to discuss sensitive matters openly. Terrorism and high threat incidents are complex events that require a specific knowledge base for an effective response from emergency services. At the confluence of these two factors is the requirement for operational commanders and leaders to hold a level of security clearance that enables the free flow of information from police and intelligence agencies, as well as specific knowledge of terrorism fundamentals and the response to terrorism.

In the UK the NILO program provides an interagency training opportunity through a

9 day course at the UK National Fire Service Academy.

NILO Course Aim:

*"The course is explicitly constructed to expose students to 25 of the UK's leading experts in terrorism and their organisational roles and responsibilities and capacities and capabilities to respond. Students will develop a common understanding of the relationships, planning and collective response to various terrorist and other malicious attacks, natural hazards, major accidents and other non-malicious attacks. The National Inter-Agency Liaison Officer (NILO) course provides a multi-agency cadre of trained and qualified (vetted) Officers who can advise and support Gold/Service Commanders from FRS, Police, Medical, Military and other Government agencies on their Service's operational capacity to reduce risk and safely resolve incidents."*

AUSTRALMAPLAN Annex C states that an additional activity required by State and Territory agencies in regard to criminal and terrorism incidents is:

*"Connecting the health sector to the security intelligence framework by ensuring that appropriate health personnel have relevant security clearances and that there is appropriate health representation on relevant committees."*

Creating a vetted interagency liaison role would enable local jurisdictions to comply with this national disaster plan.

#### 4.9 Extrication

**Recommendation 9 – Soft Litters located in Major Incident Support Unit (MISU) vehicles and in NSW forward commander vehicles will provide an extrication capability at mass casualty incidents.**



**Recommendation 10 – Soft Litters to be utilised by emergency services to provide a lightweight, easily deployable extrication capability at intentional mass violence and other disaster/mass casualty incidents**

International experience has shown again and again that the ability to extricate patients rapidly and appropriately for their injuries is a recurring issue during intentional mass violence incidents. The UK experience has mirrored this, and responders to Manchester Arena bombing stated this occurred once again, with many patients being moved by improvised means such as crowd barriers. The Kerslake report (Deeming, 2018), completed in response to the bombings, highlighted this issue as the following quotes from bystanders show:

*“Metal railings were used to carry out all the injured people from the Arena. Me and six police officers carried X to the station. I assisted with five or six people being carried out.”*

*“I was carried out of the Arena on an advertising board. There was a lack of first aid equipment for people to access. They had small first aid boxes on their belts and were not allowed to collect more from stores as the zones were closed off.”*

*“Without a shadow of a doubt, we need trauma kits and stretchers in all arenas and public places. This should be done as soon as possible.”*

Kerslake Report recommendations regarding extrication:

Recommendation: *“All major transport hubs and public venues should possess and provide immediate access to basic frameless canvas stretchers to enable rapid movement and evacuation of casualties during terrorist attacks or other high-threat or dynamic-hazard incidents.”*

Recommendation: *“All emergency services should consider developing a capability to give their staff rapid access to basic frameless canvas stretchers to enable rapid movement and evacuation of casualties during terrorist attacks or other high-threat or dynamic-hazard incidents.”*

A simple solution is available in the form of soft litters. They are cheap, light, compact and strong, and require very little knowledge or training to use. Within NSW having a store of these on forward commanders' vehicles would provide a ready supply in the event of a terrorist attack.

NSW SOT currently uses the North American Rescue™ (NAR) Quiklitter Lite™ and the Phantom soft litter™ for tactical medical operations due to these considerations and further implementation of this extrication platform, of any brand, is highly recommended.

#### 4.10 Tactical Uniform

**Recommendation 11 – A Tactical uniform be introduced for NSW Tactical Medical Operations**

Restricted

#### 4.11 Ballistic Protective Equipment (BPE)

**Recommendation 12 – BPE be personally issued to SOT Paramedics and kept in responder vehicles to ensure an expedient and safe response to high threat incidents**

Restricted

#### 4.12 High Threat Response Training

**Recommendation 13 – High threat response training should be considered across all Australian emergency services**

Throughout the UK and Ireland consideration and planning was underway for the introduction of high threat response training for all first responders. Many examples in recent attacks showed that general duties first responders will inadvertently arrive at scenes and potentially enter warm/hot zones.

Another issue highlighted in many previous intentional mass violence incidents is the recognition of high threat indicators and the ensuing dispatch of resources. The recent UK experience has again shown this to be an area for future improvement. The London Bridge, Manchester and Westminster attacks in 2017 suffered from a late recognition of severity and complexity of the incidents, with the average major incident declaration at the 15 minute mark (Hunt, 2018). At Westminster a multitude of 999 calls was received at the onset, creating confusion around the type of incident occurring. Auto dispatch was turned off shortly after to prevent ambulance resources being sent into dangerous locations (Hunt, 2018).

Training for all first responders in recognition of pre-incident indicators as well as the principles of tactical emergency casualty care is essential in the current climate of heightened threat.

A package has been created by SOT TMO and is ready for rollout to all NSW paramedics online, and similar training should be implemented across Australian emergency services to ensure the safety of responders.

**4.13 NSW AMPLAN Update****Recommendation 14 – NSW AMPLAN be updated for specific discussion of response to intentional mass violence**

The NSW Ambulance major incident response plan (AMPLAN), is currently based upon an all hazards approach. As a result, it is well suited to large scale natural or transport related disasters over geographically spread areas, with minimal active threat and where a delay in patient contact is acceptable. The unique wounding patterns of intentional mass violence, specific lifesaving interventions and the potential presence of a dynamic threat require a specific response. This would replicate international best practice, with the UK disaster resilience focus on an all hazards approach, with specific subsets of response SOP's based around tactical and high threat incidents. The Australasian Fire and Emergency Service Authority Council (AFAC) has a high threat response doctrine (*Emergency Services Support Role to Deliberate High Threat Incidents*) to be released in the near future, which will provide a basis for standardised approach across national boundaries.

**5. Conclusion**

Prehospital tactical medical providers throughout the UK and Ireland have well developed systems and are integrated with other agencies to ensure a layered and effective response is available to patients in the event of a terrorist incident. The establishment of these systems has also had the flow on effect of bolstering the availability of well trained and equipped first aid for day to day operations.

The information from this scholarship has both validated the current setup of tactical medical operations in Australia and provided guidance for its future development. The implementation of these

recommendations will bridge current capability gaps and ensure that patients in high threat incidents will receive care in

accordance with international best practice, as well as mitigating risk for first responders.

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