Department of Emergency Medicine
Royal Melbourne Hospital

Department of Critical Care
University of Melbourne

EDMACAS 2022

Mass Casualty Active Shooter Course

Saturday 18th June

Developed in conjunction with:

- University of Melbourne
- Ambulance Victoria
- Victoria Police
- Australian Red Cross

EDMACAS

EDMACAS is a course designed for ED Doctors and Nurses to learn and practice the skills necessary to manage a mass casualty and or active shooter event from and ED perspective.

Foreword

EDMACAS is a one -day course for Doctors and Nurses, focusing on preparing and managing mass casualty shooting incidents in the ED. Pre-hospital response, ED management of mass casualties and management of the active shooter will be covered in lecture, table-top and interactive scenario discussion format.

The aims of the course are to enhance the knowledge and skills of ED staff. As such, the topics are presented in an "ED-centric manner" so as to gain an understanding of the ED's role and its relationship to other services in these events.

The structure of the course can be conceptualized as play with three acts. Each act presents relevant information in a series of interactive lectures then concludes with an exercise to reinforce the lecture material. In the background, a mass casualty event unfolds. Its progression is visited at various stages throughout the day.

Act 1 covers pre-hospital topics, beginning with an analysis of the current threats of terrorism and mass casualty shooting events followed by a discussion of pre-hospital response from a state and ambulance perspective. The next section examines the hospital response to a local mass casualty incident and provides detail on expected ballistic and blast injuries. The final act covers the role of Red Cross, psychological trauma and recovery. At this point the incident takes an unexpected turn and spills over in into the ED. A hospital active shooter scenario then ensues. This is supported by a discussion and lecture from Victoria Police.

By the end of the day participants will have experienced a mass casualty/active shooter event supported by the knowledge required to manage it. It is hoped that they will use this experience to promote awareness and develop capability with regards to these events in their own Emergency Departments.

EDMACAS would like to acknowledge the DHS, in particular Jane Canestra in supporting the development of this course and the provision of much of the course material for dissemination. We would also like to acknowledge the contributions from our speakers from Ambulance Victoria, Australian Red Cross, Victoria Police, RMH Trauma Service and the RMH ED FACEM faculty without whom this course would not be possible.

Timetable

Arts West North Wing, Level 4, Rm 453, Parkville, University of Melbourne

08:00-08:15	**Registration**
08:00 – 08:20	**Welcome and Housekeeping** Dr. Jonathan Papson
08:20 – 08:40	**Lecture:** Threat Analysis Dr. Martin Dutch
08:40 – 09:00	**Lecture:** Pre-hospital Response Mr Simon Jensen
09:00 – 09:20	**Lecture**: ED Management Dr Nicola Walsham
09:20 – 10 :20	**Group Whiteboard Exercise:** ED Preparation Faculty
10:20 – 10:50	**Morning Tea**
10:50 – 11:10	**Lecture:** Ballistic Injuries Mr David Read
11:10 – 11:30	**Lecture:** Damage Control Investigations Dr Martin Dutch
11:30 – 12:30	**Group Whiteboard Exercise:** ED Management Dr Jonathan Papson
12:30 – 13:00	**Lunch**
13:00 – 13:20	**Lecture**: Psychological Trauma Prof Rob Gordon
13:20 – 13:40	**Lecture**: Tactical emergency casualty care A/Prof Derrick Tin
13:40– 14:00	**Lecture**: Active Armed Offender Inspector Mark Doney – Victoria Police
14:00 – 15:30	**Interactive Exercise:** Active Shooter/Afternoon Tea
15:30 - 16:00	**Conclusion and Wrap-up** Dr. Jonathan Papson

Aims of Royal Melbourne Hospital Mass Casualty Active Shooter (**EDMACAS**) Course

Overall aims

- To enhance the knowledge and skills of ED staff in relation to mass casualty and active shooter events.
- Practice ED capability in pre-hospital, in -hospital and active shooter simulated exercises.
- Gain an understanding of ED's role and its relationship to other services in these events
- Enhance knowledge of Ballistic and Blast injury management in the ED
- Promote awareness and develop departmental capability with regards to active shooter events
- Encourage participants to apply these generic principles to their own Emergency Department/hospital situation

Speaker Biographies

Dr. Jonathan Papson is an Emergency Physician and the Director of multidisciplinary Emergency Medicine training at the RMH. He has an extensive background in simulation, including multi-disciplinary Trauma Team training, as well as advanced airway workshops, ventilation workshops, advanced life support training and was heavily involved in ED preparation for the West African Ebola outbreak (2013-2016) with in situ Ebola PPE and scenario training.

Dr. Martin Dutch is an Emergency Physician with special interest in pre-hospital, disaster and mass gathering medicine. He has a Master of Public Health and Tropical Medicine from James Cook University, and a post graduate certificate in Emergency Health (Disaster and Emergency Preparedness) from Monash University. He has been awarded the National Emergency Medal (Vic Bushfires) and is an Officer in the Order of St John. Dr Dutch currently works as an Emergency Physician and Medical Donation Specialist at Melbourne Health, and is the State Medical Officer for St John Ambulance Victoria. He has had extensive experience in providing care at mass gatherings in Australia, and has field experience working at Whittlesea casualty collecting post during Black Saturday, and has most recently been deployed as an AUSMAT Doctor to Vanuatu for Cyclone Pam. Dr Dutch has published multiple articles in the field of Mass Gathering Medicine in local and international peer reviewed journals

Mr. Simon Jensen is a paramedic and currently the Capability & Response Coordinator at Ambulance Victoria and a certified Emergo Train System instructor. He has held many roles at the Ambulance Victoria for over a decade including Advanced Life Support Paramedic Clinical Instructor, Team Manager and Driving Standards Facilitator.

Dr. Nicola Walsham is an Emergency Physician with special interests in Infectious Diseases, Trauma and Disaster Medicine and Toxicology. She was the Emergency Department lead in preparedness for the West African Ebola outbreak (2013-2016), with ongoing involvement with the RMH Emerging Infectious Diseases (EID) committee and lead of the ED EID team, maintaining preparedness for the next EID outbreak. She has the unfortunate ability to be in the wrong place at the wrong time, and as such has been heavily involved in every one of recent mass casualty incidents at RMH.

Mr David J Read CSC is the Director of Trauma and a Colorectal Surgeon at the Royal Melbourne Hospital. He has an interest in disaster response surgery and was involved in the surgical responses to both Bali Bombings, East Timor, and Ashmore Reef. He is pioneered the development of the surgical capability of Australian Medical Assistance Team (AUSMAT) and responded to Typhoon Haiyan in the Philippines in 2013. His other research interests include the effect on remoteness on trauma and cancer, generalism in surgery, and Indigenous health. David teaches on many topics such as trauma, disaster and burns related course and a frequent speaker at National and International conferences. He has been an active member of the Royal Australasian College of Surgeons Trauma Committee, an advocate for road safety and Indigenous health.

Prof. Rob Gordon is a clinical psychologist with a PhD in psychology and is a member of the Australian Psychological Society. He has worked with communities, individuals and families affected by natural disasters commencing with the Ash Wednesday fires of 1983. Since 1989 he has held the role of consultant and advisor in psychological aspects of recovery to the Department of Human Services in Victoria and the Australian Red Cross. He has been a consultant to communities, local and state government and funded agencies in all states of Australia and in New Zealand in over forty disasters over 30 years. He has also provided clinical treatment to many traumatised individuals from Victorian disasters.

A/Prof Derrick Tin has Commonwealth (2019) and Disaster Fellowship (2020) scholarship recipient and medical doctor with vast experience in corporate and clinical governance. Medical background in disaster medicine and mass casualty events. Involved in multi-agency maritime rescues with Australian Border Force, Australian Navy, Australian Department of Immigration and International Health and Medical Services. Medical Director at International SOS (2012-2015) overseeing South Pacific Region in conjunction with Operation Sovereign Borders . Founder of Alphazodiac Specialist Medical Advisory services (2016) with ASX top-50 and Fortune Global 500 listed clients and current Senior Fellow in Disaster Medicine (2020-2022) at Beth Israel Medical Center and Harvard University, Cambridge, Massachusetts. Co-Chair (2021) Counter Terrorism Medicine at World Association of Disaster and Emergency Medicine.

Inspector Mark Doney is currently the Victoria Police State Business Continuity Manager. He has extensive emergency management experience at operational and strategic levels including training and lessons management, exercise management and evaluation, real time monitoring and evaluation and command, control and coordination. He was the Officer in Charge of the Victoria Police Special Operations Group gaining extensive knowledge in counter terrorism and active armed offender incidents. He has conducted extensive active armed offender research over 10 years with USA, France and United Kingdom specialist police, debriefing tactical police and emergency services commanders involved in various global active armed offender incidents and terrorist attacks. He has developed the Active Armed Offender Integrated Response Model for police and emergency services in Victoria and is currently developing the Active Armed Offender Multi Agency Rescue Teams protocol for police and emergency services. He has participated in national and state Counter Terrorism exercises and active armed offender exercises with major shopping centres, airports, and critical infrastructure.

Speaker	Topic
Dr. Martin Dutch BMedSci(Hons),MBBS(Hons), FACEM Grad Cert Emerg Health (Disaster and Emerg Prep), MPH&TM, O.St.J.	**Threat Analysis**

Disaster

Disaster is defined by the Australian government as

> "A serious disruption to community life which threatens of causes death or injury in that community, and damage to property which is beyond the day-to-day capacity of the prescribed statutory authorities and which requires special mobilisation and organisation of resources other than those normally available to those authorities".

As such, disasters are situations which overwhelm local resources. In Australian the most significant disasters are natural disasters, rather than man-made, particularly those from fire and heat waves.

Whilst it's common in the media to hear that disasters are becoming more common place, it's important to realise that communities locally and globally are becoming more resilient, and more populated. Whilst crowd densities, and mass migration forces may make some types of disaster more likely (e.g., disease outbreaks, famine), overall people as less likely to die from disasters than in previous times.

Acts of Violence

In the age of social media, and the 24-hour news cycle, it can seem that there is an epidemic of violence. However objective analysis shows that these are over-all peaceful times.

Australian Terrorism

Despite commentary from local politicians, acts of domestic terrorism in Australia are not new. In fact, as early as 1915, Pakistani-Australians aggrieved with developments in Turkey and their impact on fellow muslins, waged a Jihadist attack outside of Broken Hill.

The Global terrorism database identifies 88 incidents of terror in Australia, resulting in 19 deaths and almost 100 injured.

However, when we look at the distribution of both incidents and deaths, it's difficult to demonstrate any increase in trend with time.

Instead, the distribution both domestically and internationally of terrorism can be described as "bursty". The current bust of activity is the results of Jihadist inspired terrorists.

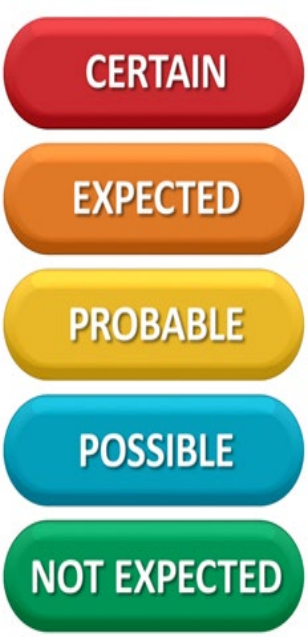
Jihadist Inspired Terrorism

More than 80% of terrorist acts have occurred in just 5 countries internationality: Iraq, Syria, Afghanistan, Pakistan and Nigeria.

Jihadist attacks on western countries display a 1:1 dead: injured ratio.

Compared to previous terrorist attacks in Australia and internationally, Jihadist attacks have higher lethality, are more likely to use explosives, incendiary devices and firearms, and more likely to attack Military targets, airports and civilian targets.

The Current Australian Terrorism Environment



- The Australian Government Terror Threat Advisory Status consists of 5 levels.
- In September of 2014 the government raised the threat level to PROBABLE.
- *"The factors that underpinned that decision persist, and some have worsened. Those who wish to do us harm, some located here and some overseas, continue to view Australia as a legitimate target."*
- Its estimated that there are over 200 ISIS supporters in Australia, and over 100 fighting overseas. The average age is in the low 20's.
  In the last 4 years, 24 Australians have been convicted of terrorism charges and 156 people have had their passports cancelled.
- The U.S department of Homeland security has recently named Australia as the equal 3rd most likely western target for Jihadist Terrorism.

Mass Shooting Events

Mass shootings are an important weapon modality for Jihadist inspired terrorism.

Australia and New Zealand have had 17 mass shooting events in the last 28 years, over half of which have occurred with military style weapons.

Overall homicide rates from firearms are dropping in Australia, and since the Howard government response to the Port Arthur Massacre, there have been no mass shooting events (not classified as domestic related).

Both Australian and US mass shooting have very similar death: injury ratios: approx. 1:1

Importantly the pattern of injury and mortality is significantly different from military firearm case series.

Civilian mass shootings show higher on scene mortality, with more shots to the head and chest. Of preventable deaths on audit, exsanguinating haemorrhage from the limbs is far less common. Only 7% of mass shooting deaths are preventable, and important interventions to reduce these deaths include relief of tension pneumothorax and establishment of a patent airway.

Bombings

Bombing are another important weapon modality for Jihadist terrorism, and the last decade has seen a significant spike in terrorism associated bombings.

Compared to firearms, they result in significantly higher injury burden.

There are a number of factors which modulate the number of deaths and injuries from bomb blasts.

- Suicide bombers produce 9 times more fatalities and 7 times more injuries than non-suicide attacks
- Building collapse is associated with a substantially higher mortality to injured ratio.
- Over-triage is associated with significantly higher case fatality rate.

Unlikely previously held beliefs, confined explosions provided buildings remained intact, do not significantly modify the number of injuries and deaths.
Of the primary blast injuries, tympanic membrane rupture and limb amputation are moderately common. The former does not predict the likelihood of other primary blast injuries. The latter is a significant marker of proximity to blast, and mortality. Blast lung, and blast hollow viscous injury are rare.

The London bombing demonstrated ED resus beds fill to capacity within 15 minutes, peak ED presentations occur in the second hours of the incident, theatre use peaks in the 3-4th hours of the incident and ICU peaks 10hrs post incident.

The majority of operations performed in the first 24hrs are orthopaedic.

Lessons from recent multi-site jihadist attacks in westerns countries

The talk will also summarise important lessons learnt from recent high profile terror attacks.

- Including the French Camembert philosophy
- Patient flow dynamics
- Importance of scene triage in determining critical mortality rates
- Communication systems and failures
- Importance of exercises

Speaker	Topic
Mr Simon Jensen B.Nursing, RN, B.Paramed. M. Disast and Emerg. Response Sci.	**Pre-Hospital Response to Mass Casualty Incidents**

Aims

- Context – state arrangements and SHERP
- Roles of Police/Ambulance/DHS/Fire/medical and nursing
- Concept of operations – response tiers, relationships, HIMT, ambulance role in this/functional command
- Response – Scene management, safety, tactical, incident triage, sieve/sort
- Receiving facilities – primary health care/clinical/field hospital/hospital
- Trauma system in Victoria overview
- Patient distribution from scene

Overall Context of Pre-Hospital Response

1. State Health Emergency Response Plan (SHERP)
2. State Emergency Management Arrangements

1. SHERP

The aims of SHERP are:

- to reduce preventable death and permanent disability
- to improve patient outcomes by matching the needs of injured patients to an appropriate level of treatment in a safe and timely manner.

SHERP ensures a safe, effective and coordinated health and medical response to emergencies by:

- clarifying who is accountable for command and coordination of the health response
- outlining the arrangements for escalating the health response
- describing how available clinical resources are organised
- describing how the health emergency response connects with the broader state and national emergency management response and recovery arrangements.

2. State Emergency Management Arrangements

- SHERP
- State Health Commander and State Health Co-ordinator
- State Health Emergency Management Co-ordinator
- Public Health Commander
- Regional/Incident Health Commander Health
- Incident Management Team (HIMT) Field
- Field Emergency Medical Coordinator (FEMC)
- Field Emergency Medical Officer (FEMO)
- Victorian Medical Assistance Teams (VMAT)

Lessons Learned

- Many casualties self-present to hospital
- Casualties are reluctant to wait at the scene for decontamination
- CBR MCI pose a high risk of:
    - Contamination of secondary sites
    - Contamination of personnel not involved
- Terrorists use secondary explosive devices to target first responders
- Target sites

MASS CASUALTY INCIDENTS: ROLES

1. Role of Ambulance

- Clinical
    - Triage and pre-hospital care
    - Assist through Decontamination
    - Transport of casualties

- Support
    - Health Incident Management Team, under a Health Commander
    - Coordinate Health Response
    - Represent Health in multi-agency Emergency Management Team
    - Notify State Health Coordinator, Field Emergency Medical Officers, & hospitals
    - Assist with coordination of medical teams
    - Coordinate first aid teams

- Pre-Hospital Resource Capacity - AV mass casualty capacity has been upgraded
    - AV Emergency Response Plan
    - Specialist Trained Paramedics
    - Specialist Vehicles/Equipment
    - Linked directly to State systems & key decision makers

2. Role of Department of Health & Human Services

- Specialist advice regarding
    - Handling, decontamination, infection control, surveillance, clinical effects and treatment of biological & radiological agents
    - Health effects of chemical agents
    - Potential human health impacts of threats
- Provides mass casualty management support and health sector coordination
- Delegated Relief and Recovery Coordination

3. Role of Fire services

- Incident controller for Chemical agents
  - Establish a hot zone (contaminated), warm zone (decontamination), and cold zone (clean area)
  - Evacuate and rescue victims
    Decontaminate exposed persons, animals and equipment
  - Obtain a sample of the material for identification
    Contain, recover and neutralise the chemical material
- Support agency for Biological and Radiological incidents
- Decontaminate under AV direction

4. Role of Police

- Control agency for terrorism, threats and hoaxes
- Establish a threat assessment team to establish credibility of threat
- Establish a threat management team to determine strategies & possible consequences of a release
- Generic emergency management roles
- Coordination of incident response
- Maintenance of public order & safety
- Investigation of crime
- Evacuation management / registration of evacuees
- Media coordination
- Disaster victim (deceased) identification

5. Medical and nursing

- Medical and nursing resources may be deployed to a scene where:
  - transport will be delayed and extended care is required in the field
  - patient unable to be moved & specialist clinical skills are required
  - Incident Health Commander requires support in undertaking patient distribution
  - large numbers of patients requiring specialist expertise (children)
  - large numbers of low-acuity patients who could be discharged from the scene after medical assessment.
- The options available include:
  - organised, experienced FEMOs
  - organised medical teams containing a range of medical and nursing personnel
  - local medical practitioners
  -

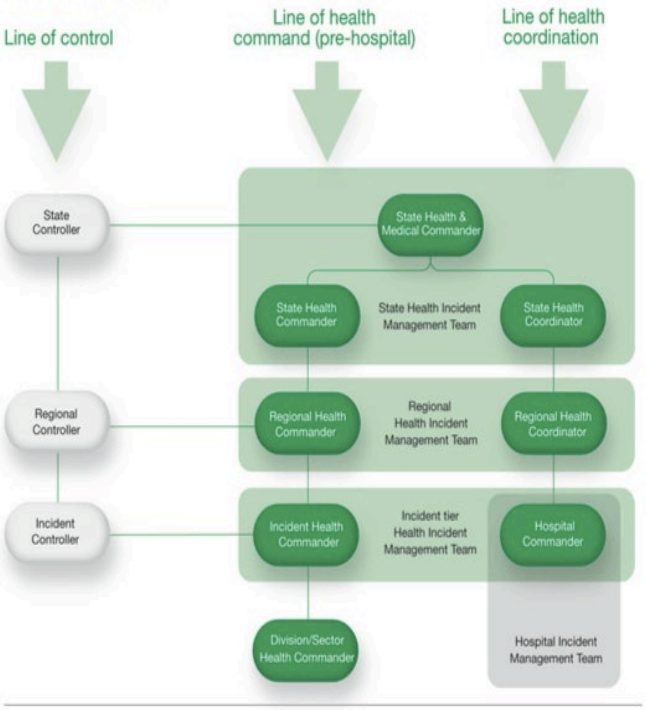
6. Victorian Government Roles

- Security and Emergency Management Committee of Cabinet
  - Supreme decision-making body, chaired by Premier Oversee whole of government decision making Approves and coordinates public communication
- State Crisis & Resilience Council
  - Coordinates government departments advises ministers
- State Emergency Management Team
  - Enables agencies to have consistent situational awareness
  - Identifies and manages strategic risks and consequences Develops a plan for high level action of all agencies

CONCEPT OF OPERATIONS

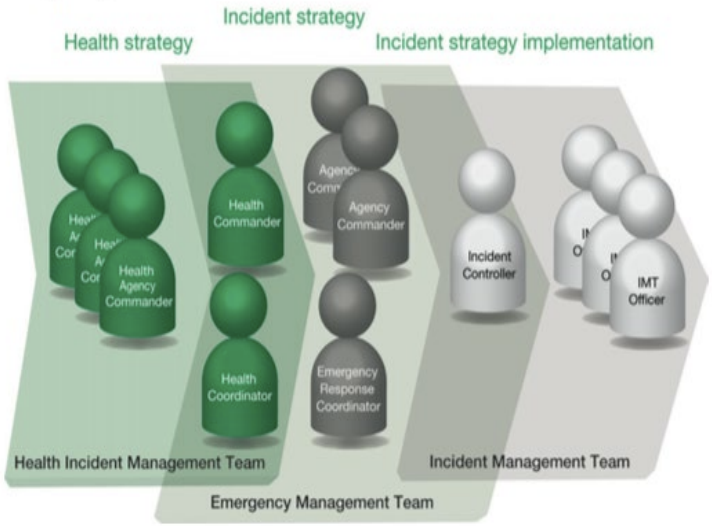
1. Response Tiers and Levels

Figure 1: Reporting relationships within the lines of incident control, health command and health coordination



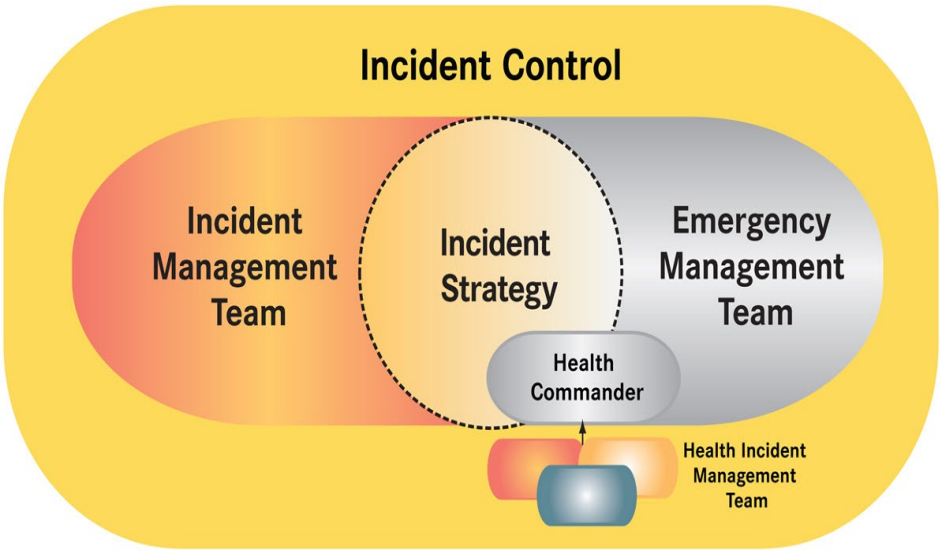
2. Strategic Relationships, Incident Tier Roles and Structure

Figure 2: The relationship between the HIMT, EMT and IMT in developing incident strategy and priorities



Functional Command

- Health aspects are dealt with within the Emergency Management Team
- The Health Commander represents all responding health agencies as a member of the Emergency Management Team supporting the Incident Controller.
- This is not just big events. Health commander may be required to coordinate car crash e.g., coordinate a few MICA teams, helicopter. The Incident management team coordinate other agencies on scene such as fire brigade, police to control traffic.
- This is known as Functional Command (the integrated command of associated activities, resources, capabilities existing across a number of agencies/organisations).



Health Incident Management Team

3. Notification

- The Control Agency has the responsibility to manage community information. This information should address:
  - what is known and unknown about the emergency
  - what is being done
  - ongoing threats
  - actions required by individuals and the community to prevent further injury, death and damage to property and the environment.
- The Health Commander at each tier, as the pre-hospital representative on the EMT, will give the Incident Controller information on health and medical issues.
- The State Health Coordinator will provide further information through the S-HIMT and the Chief Health Officer.

4. Media

- Health personnel at the incident site should not speak to the media or release any information about casualties. The Incident Controller is responsible for all media management.
- If the Control Agency cannot deal directly with the media, it may request assistance from the Health Commander, or the Emergency Management Team
- The Chief Executive Officer or their delegate is responsible for coordinating media management for each health service.

RESPONSE

Scene Management

1. Safety

- By their nature, incident sites may have a range of hazards. Safety is paramount.
- As a general rule, all health responders are responsible for their own personal safety and, where possible, that of people under their care. Each agency or organisation is also responsible for ensuring the safety of their personnel and people under their care.
- In addition the Incident Health Commander has overall responsibility for the safety of health responders and the people under their care. The Incident Health Commander will work with the Incident Controller and the EMT to ensure the safety of all those at the scene.
- Of particular note to health responders is the issue of contamination and correct use of personal protective equipment. For further information on decontamination see the Department of Health's *Decontamination guidance for hospitals.*

2. People Management

- Incident sites can be chaotic, with numbers of dead, injured and uninjured people. Three key groups are evident:
  - people with physical injuries (including the dead)
  - people with little or no physical injuries but who may be affected by the event
  - people electing to leave the scene prior to the arrival of emergency services or during the triage process. These people may self-present at hospitals or general practitioners' clinics, or simply return to their community.
  - *Note that the deceased are left in situ for the Coroner (or Victoria Police acting on behalf of the coroner) to process.*

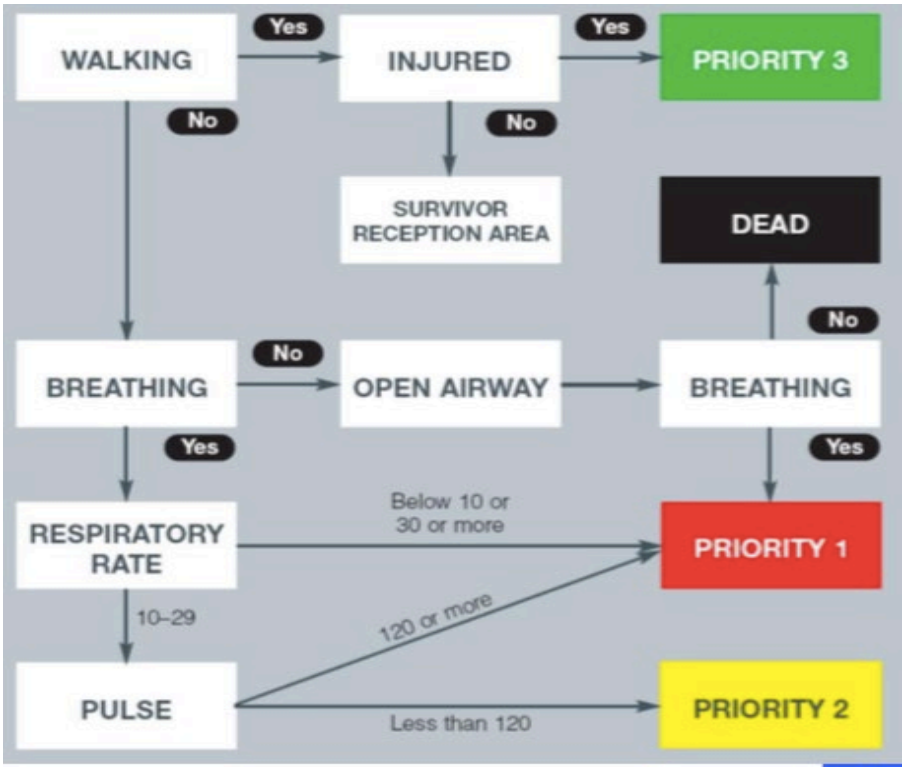
3. Mass Casualty Incident Triage

- Triage principles:
- Triage is an ongoing process of frequent reassessment
- It establishes priorities for treatment and transport
- It will generally be conducted by ambulance paramedics in decontamination corridors
- There are predetermined triage priorities for specific agents

- Triage Sieve: Initial triage by health responders will 'sieve' people into the following priorities:

Triage priority	Code	Comment
Priority 1	Red	Transport priority; move to a casualty clearing point
Priority 2	Yellow	Delayed transport; move to a casualty clearing point
Priority 3	Green	Walking wounded, potential to discharge at scene; move to a casualty clearing point
Survivor	Grey	Not injured, potential for psychological support; move to a relief centre
Dead	Black	No treatment; leave in place for the coroner

- Triage Sieve
  - Applied at the "scene"
  - Is dynamic and must be repeated regularly
  - Designed to rapidly categorise patients with minimum intervention
  - Identifies all patients capable of walking as "Green" (Priority 3) Applied at the "scene"



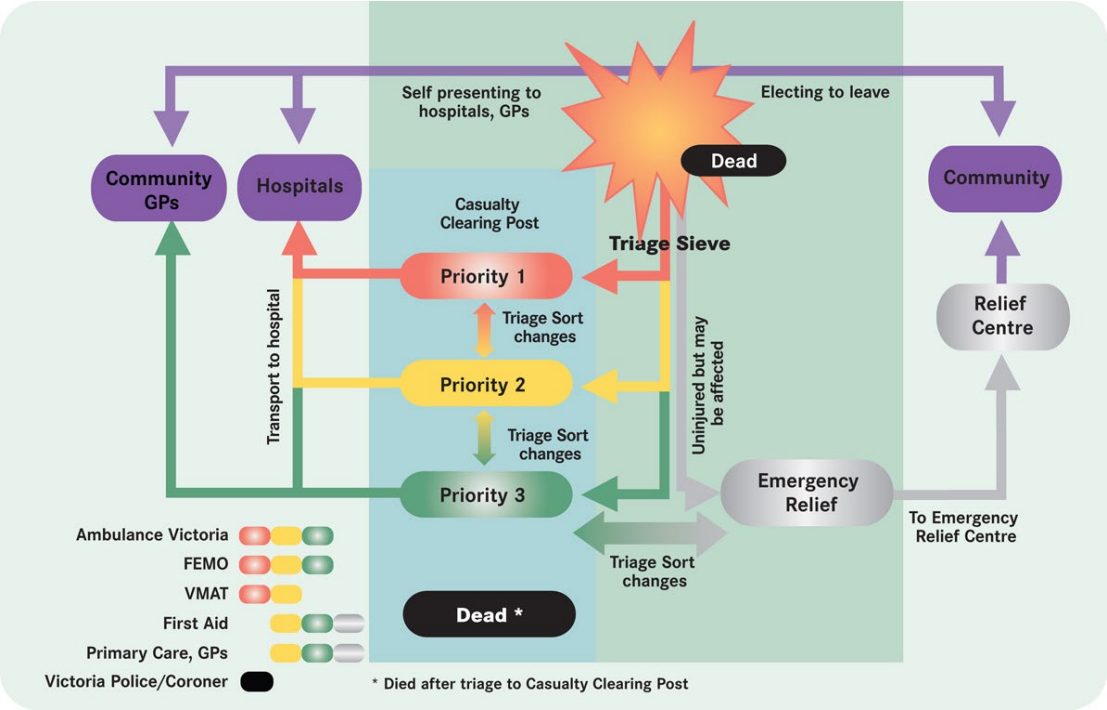
- Triage Sort
  - Following initial triage and movement to a casualty clearing point, a secondary triage is undertaken (when resources allow) to 'sort' patients on a more detailed physiologic assessment - will often get a different result than Sieve

Total Glasgow Coma Scale	13 – 15 9 – 12 6 – 8 4 – 5 3	4 3 2 1 0	
Respiratory Rate	10 - 29 More than 29 6 - 9 1 - 5 0	4 3 2 1 0	
Systolic BP	90 or more 76 - 89 50 - 75 1 - 49 0	4 3 2 1 0	
		TOTAL :	
12 = PRIORITY 3 11 = PRIORITY 2 10 or less = PRIORITY 1		TIME :	:

4. Casualty Clearing Point

- An effective way of organising a scene is to establish a casualty clearing point where patient management activities can be aggregated. For large or complex scenes, multiple casualty clearing points may be required.
- Establishing casualty clearing points is the responsibility of the Incident Health Commander. Some key principles are listed below:
  - Ensure the site is located safely away from the hazard.
  - Provide sufficient space.
  - Minimise the exposure of low-priority patients to the dead and severely injured.

5. Scene Management



6. Psychosocial Response

- First Responders use proven psychological support principles:
  - ensuring people feel safe;
  - helping people to help themselves
  - keeping families and groups together;
  - being calm and hopeful;
  - preserving privacy and dignity;
  - facilitating early access to physical, emotional support.
- People not triaged for medical treatment are directed to a safer area, away from exposure to the noise and direct viewing of the incident scene. They should not be left unattended. Personal support teams should be activated to provide psychological support and other forms of personal support - for the uninjured as well as the injured.
- The Incident Health Commander liaises with the Incident Controller, who has the primary responsibility for activating emergency relief services. The Municipal Emergency Response Coordinator (Victoria Police) will liaise with the Municipal Emergency Resource Officer or the Municipal Recovery Manager to coordinate relief services at the site if it is safe to do so, or at a nearby location.

- Relief agencies (Red Cross and non-government organisations including the Victorian Council of Churches (VCC)) have volunteers trained in psychological support who can be activated through municipal emergency management plans. Red Cross and the VCC can be deployed at short notice to relief centres or incident sites.

7. Management of Trauma

- The Victorian state trauma system facilitates the management and treatment of major trauma patients in Victoria.
  - The system aims to:
    - → *reduce preventable death and permanent disability*
    - → *improve patient outcomes by matching the needs of the injured patient to an appropriate level of treatment in a safe and timely manner.*
  - The system works to have 'the right patient delivered to the right hospital in the shortest time'. Early activation of the trauma system is required to optimise response capacity.

8. Managing Spontaneous Volunteers

- When health agencies arrive at an incident, spontaneous volunteers may already be actively assisting patients.
- Once they have handed over their care to responders, spontaneous volunteers may be able to assist in a range of activities, with or without specific qualifications.
- Spontaneous health and medical volunteers will require registration and checking of credentials before assisting in the health response.
- Victoria Police is responsible for volunteer registration and the Incident Health Commander (or delegate) will be responsible for checking credentials and task deployment.
- Volunteers will be specifically tasked under the command of a health agency within the HIMT.

TRANSPORT TO RECEIVING FACILITIES

Patient distribution from a scene

- Patient distribution needs to be managed by the Incident Health Commander with support from the I-HIMT.
- The Ambulance Victoria State Communications Centres have routine, direct communication with hospital emergency departments.
- For smaller incidents, they can provide the Incident Health Commander and I-HIMT with information on hospital capacity and capability for use in planning and distribution. The medical and nursing section of the I-HIMT may also be tasked with gathering information on hospital capacity and capability.
- For large incidents at the state tier, the FEMOP may be required to assist with the distribution plan.
- For smaller incidents, medical practitioners, short-term clinics and FPCCs should also be considered in patient distribution.
- The following criteria are taken into account when distributing patients:
  - patient numbers and complexity
  - percentage occupancy at the destination hospital
  - time to the destination
  - transport resources
  - type of injuries
  - special needs patients, e.g., Paeds, Burns
- Receiving Facilities:
  - primary healthcare
  - short-term clinics
  - field primary care clinics
  - hospitals and health services

SUMMARY

- Resources will be exceeded in a Mass Casualty Incident
- Safety of personnel, both at the site, and at secondary sites has to be the highest priority
- Triage needs to be done effectively to achieve the greatest good for the greatest number, “Do the Most, For the Most”
- Triage must maximise available resources, and take into account the roles of specific agents

Speaker	Topic
Dr. Nicola Walsham MBBS, Dip Tropical Medicine and Hygiene, Post Grad. Cert Med. Tox.	**Hospital Management Code Brown**

Aims

- To understand how to manage the ED as the mass casualties pour in
- ED preparation
- Chain of command
- Formation of treating teams concept
- Patient flow through ED
- Triage
- Tracking of patients
- Concept of scalability
- Managing surge
- What to do with non ED helper staff

Hospital emergency response to deal with external incident that threatens to overwhelm or disrupt health service capabilities.

Phases

➢ **Alert**	➢ **Activation,**
➢ **Standby**	➢ **Stand-down**

Notification

- Typical: DHS, AV
- Other: self-presenters, media, friends

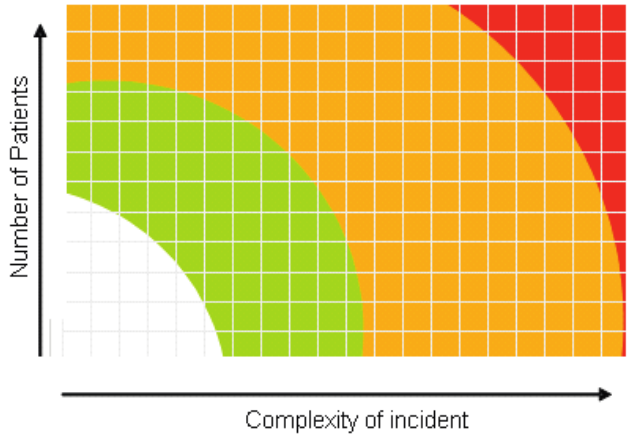
Escalate

- To Bed Manager / After Hours Controller
  - *They escalate to Director of Operations / exec on call*
  - *Who informs the Hospital Commander (HC)*
- HC liaises with ED and other organizations to verify incident.
- They call
  - *CODE BROWN STANDBY*
  - *CODE BROWN ACTIVATE*

Information

- Type of incident i.e., special needs (CBRN, burns, paeds, infectious)
- Patient volume
- Injury severity

Risk Assessment



The graph opposite illustrates how escalation is affected by the complexity of an incident and the number of patients involved – this has consequences for normal agency operations.

Normal operations	Level 1	Level 2	Level 3
Low impact on normal operations	Medium impact on normal operations; resolved through use of local or initial response resources	Major impact on normal operations; more complex management of emergency response in size, resources or risk	Severe impact on normal operations; complexities requiring substantial management of response

Command Structure
Preparation

- Staff
- Equipment
- Patient Tracking / Medical Record
- Clear the ED?
- Alternate treatment areas?
- Prepare to Secure the site - Lockdown ED
    - *Ingress / Egress tightly controlled*
    - *Hospital id required*

Staff Management

- No staff go home
- Call Staff together
- Inform of Code Brown
    - *Assign Roles & Responsibilities*
    - *Hand out Action Cards*
- Staff as victims - family and friends, homes
- Staff list: Where is it? Who's going to call them?
- Who to recall and how many are needed?
    - *Remember the next shift has to be staffed*
    - *Staff will need breaks to eat, drink, rest*
- Non-ED staff
- Labelling - everyone gets a label with their name / position / specialty
- Assignment of tasks
- Holding Room for the unassigned

Roles – Action Cards

- ED Director
- Medical Team Leader
- Area Team Leader
- Nursing Team Leader
- Flow-Co-ordinator
- Logistics
- Triage
- Clerical
- Other

Plan to clear ED?

- Waiting room / ambulant patients
  - *Re-triage by doctor → home +/- GP vs. stay*
- Non-urgent admitted patients e.g., minor plastics
- Admitted patients to wards / corridors?

Treatment Areas

- Minor Injuries (Walking Wounded) area - Level 1 South Outpatients
- Psychological Trauma - Level 1 Centre Outpatients
- Discharge Area - Level 1 Centre Outpatients
- Alternatives: Short Stay/BAU/AMU
- Staffing and oversight
- Alternate triage area
  - *Ambulance Bay*
  - *Next to mass decon shower*

- More Crit Care areas in the ED
  - *Where*
  - *Equipment and trained staff*
- Decontamination Areas

Treating Teams

- Doctor / Nurse teams
- Share other resources: EDA, radiology
- Communicate directly up chain
- Specialist can float between teams
- Surgeon/Anaesthetics communicate with OT
- Intensivist communicates with ICU

Treatment Goals

- Triage
- Resuscitate
- Disposition

Medical Record

- Computer vs. Paper
  - *How many patients per hour will need to be triaged/registered?*
- Pre-assembled packs
  - *Folder with UR numbers, medical note paper, path/ imaging slips*
  - *Attach Disaster Armband to each patient as they arrive*

Triage using familiar ATS

- Keep tri-colour field triage with patient

Tracking Patients

- Triage from a single site
- Patient Tracking Form
- Whiteboard
- Disaster Armband

Security

The Unexpected

Speaker	Topic
Mr David J Read CSC MBBS, FRACS	**Ballistic Injuries**

- 'Ballistics' is the study of thrown objects.
- Ballistic injury may be caused by a number of weapon systems including forearms and explosives.
- Ballistics injuries can produce very complex injuries.
- Trauma from a gunshot wound varies widely based on the bullet, velocity, entry point, trajectory, and affected anatomy.
- Gunshot wounds can be particularly devastating compared to other penetrating injuries because the trajectory and fragmentation of bullets can be unpredictable after entry. Additionally, gunshot wounds typically involve a large degree of nearby tissue disruption and destruction due to the physical effects of the projectile correlated with the bullet velocity classification.

- The degree of tissue disruption caused by a projectile is related to the cavitation the projectile creates as it passes through tissue. A bullet with sufficient energy will have a cavitation effect in addition to the penetrating track injury. As the bullet passes through the tissue, initially crushing then lacerating, the space left forms a cavity; this is called the permanent cavity. Higher-velocity bullets create a pressure wave that forces the tissues away, creating not only a permanent cavity the size of the caliber of the bullet but also a temporary cavity or secondary cavity, which is often many times larger than the bullet itself. The temporary cavity is the radial stretching of tissue around the bullet's wound track, which momentarily leaves an empty space caused by high pressures surrounding the projectile that accelerate material away from its path.
- The extent of cavitation is related to the following characteristics of the projectile:
    - Kinetic energy: KE = $1/2mv^2$ (where m is mass and v is velocity).
        - Wounds produced by projectiles of higher mass and/or higher velocity produce greater tissue disruption than projectiles of lower mass and velocity.
        - The velocity of the bullet is a more important determinant of tissue injury. Although both mass and velocity contribute to the overall energy of the projectile, the energy is proportional to the mass while proportional to the *square* of its velocity. As a result, for a constant velocity, if the mass is doubled, the energy is doubled; however, if the velocity of the bullet is doubled, the energy increases four times.
        - The initial velocity of a bullet is largely dependent on the firearm. Muzzle energy, which is based on muzzle velocity, is often used for sake of ease of comparison.
        - The size of the temporary cavity is approximately proportional to the kinetic energy of the bullet and depends on the resistance of the tissue to stress.

Yaw:

- Handgun bullets will generally travel in a relatively straight line or make one turn if a bone is hit. Upon travelling through deeper tissue, high-energy rounds may become unstable as they decelerate, and may tumble (pitch and yaw) as the energy of the projectile is absorbed, causing stretching and tearing of the surrounding tissue.

Fragmentation:

- Most commonly, bullets do not fragment, and secondary damage from fragments of shattered bone is a more common complication than bullet fragments.

- Tissue:
  - More elastic → large temporary cavity but rebound with little permanent damage
  - Inelastic tissue → smaller temporary cavity, but strong shear forces = lots of damage
  - Thickness and density = more drag = more energy transfer
  - Bone = bone fragments become secondary projectiles bigger heavier projectiles produce more fragments

Types of bullets:

- Full metal jacket: metal casing around a soft core, the round is non-expanding and deep penetrating. Military.
- Soft Point: bullet has an exposed lead tip and expands rapidly in tissue and 'dumps' as much energy as possible into the tissue ensuring the victim is rapidly killed or disabled and that bullets do not go through the target and into someone else.
- Shotgun: contains metal pellets. Short effective range of 30-50m. Injuries produced depend on whether weapon fired close to target (pellets hit close together, creating one big wound) or at a distance (creating multiple small wounds).
- The primary aim of military rounds is to create casualties on the opposition without risking your own soldiers. Casualties are better than fatalities as they consume more resources. Military rounds need to be able to impart damage from a long way away & accurately. Full metal jacket, solid rounds = very fast, light, accurate.
- The primary aim of police rounds is to stop and drop the target. They are essential self-defense weapons that need to impart a lot of energy without creating the risk of secondary victims that is common with full metal-jacketed solid rounds. Police rounds are fat (38 cal or 9mm) unjacketed, hollow point bullets that deform quickly in the tissues imparting all their energy quickly. Police are taught to aim for the centre of mass, the torso biggest thickest target, so they don't miss and injure bystanders and so they stop the target fast.

Summary

- Ballistic injuries depend on what you are shot with, where you get hit and how far you are away from the source
- A shotgun at close range causes massive damage as all the energy is imparted into the target. The same weapon at distance may produce no damage at all.
- A full metal jacket military round striking a target in the chest may pass though producing a temporary cavity but unless it strikes bone may produce little or no permanent cavity. The same round striking the thigh or other dense tissues will slow and tumble transmitting more energy, if it strikes bone it may create secondary projectiles that produce their own temporary and permanent cavities and may result in deflection of the bullet into other tissues.

- A police round striking a target in the chest will deform and impart most of its energy in the victim producing major injuries. The same round striking a target in the thigh may have slowed so much by the time it reaches bone that it has insufficient energy to produce secondary projectiles

Speaker	Topic
Dr. Martin Dutch BMedSci(Hons),MBBS(Hons), FACEM Grad Cert Emerg Health (Disaster and Emerg Prep), MPH&TM, O.St.J.	**Damage Control Investigations**

Aims for talk:

What is the load on radiology is real disasters?

What are the lessons from real life?

Alternative Imaging Strategies

Approaches to flow

Process step	System performance findings	Explanation	Recommendation
Patient arrival to order entry	• Large number of order cancellations, both duplicated and never performed imaging	• Confusing patient identification system • Multiple ordering providers • Rapid influx of large number of patients with multiple orders	• Improve patient identification system • Designate single provider to input orders on each patient • Implement IT fail-safes to prevent duplicate orders

Order entry to exam completion	• Increase in median x-ray TAT	• Single x-ray plate reader bottleneck
		• Large volume of x-ray orders
			• Switch to wireless portable digital radiography system
			• Formalize procedures to
			  • Mobilize additional x-ray and CT equipment
			  • Clear CT scanner schedule
			  • Mobilize technical staffing

	• Decrease in median CT TAT	• Simultaneous availability of 3 CT scanners • ER radiologist stationed at each scanner to protocol and trouble-shoot CT scans	

Exam completion to available dictated report	• Decrease in x-ray, CT, and all modality TAT[1]	• Increased emergency radiologist staffing	• Formalize
			  • Procedures to mobilize backup radiologist staffing
			  • Abbreviated preliminary results communication via handwritten or electronic PACS notes with full dictations to follow

Figure 5: Key findings of process evaluation with summarized explanation and recommendations for improving future performance. [1]Not statistically significant, but explainable variations in performance. *PACS* = picture archiving and communication system, *TAT* = turnaround time.

Keys to faster CTs

1. Develop an MCI Protocol

    Non-Contrast CT Head and Neck

    Single Phase Chest, Abdo Pelvis

2. Delay your reformats until after the rush.

    Push your thins to PACs

    Takes 5-10 minutes

    Can acquire in interim

    Allows Delayed C/T/L Reformats

3. Have a radiologist @ the console

    To re-protocol on the fly

    Allow radiographers to remain task focused.

    Perform & Communicate 'hot' reads.

4. Use a paper-based forms to record hot reads

    Travels with patient

    Triplicate allow copy to reporting radiol consultant.

5. No U-turn CTs

    Having plan A and plan B destinations when possible.

    6. Recruit other CT resources

    Inpatient Scanner

    Private Scanner

General Radiology Advice

- Open up inpatient CTs
- Bring Ultrasounds to resus bays
- Bolster Portable XR machines
- Wifi Digital Image transfer best
- Have multiple developers in ED
- ID naming conventions are important
- Angiography and MRI available but likely not needed.

Speaker	Topic
Prof Rob Gordon	**Psychological Trauma**

Aims

- Outline the role of Red Cross in mass casualty incidents and use this to discuss aspects of psychological trauma
- Register/Find/Unite
- Disaster behaviour myths
- Sensory and Information trauma
- Personal support – acute phase tips/pitfalls
- Emergency worker psychologic trauma
- Recovery process

Psychological Response to Emergencies

1. Sensory Trauma: If directly at the scene, immersed within the disaster

- Plunges people into themselves or sends them into the environment
- Into themselves
  - Dissociation – they become de-bonded from each other, isolated in their personal fragment of the trauma
  - They don't know what they are taking in
  - They lose awareness of their own and others needs
  - Disorientation
  - Inability to effectively understand and manage themselves
- Into the environment
  - Activates instinctive survival programming
  - Increased physical and psychological resources
  - Explode into "highly aroused, emotionally motivated purposeful action" (sometimes misguided)
  - "Emotion bypassed in the favour of action"
  - If you prevent highly aroused people from doing their 'action' then they will become aggressive.
  - People step into roles of rescuer, organiser etc, if they have no role then they become distressed/disorganized and emotional, so give people a simple role

- Both
    - Narrowed attention to the present with cognitive distortions of time and reality sense
    - Intense impressions dominate experience
    - Loss of self and social awareness - neglect pre-existing social relationships in the moment. Later seek reunion with loved ones

2. Informational Trauma – not directly at the scene, given information about loved ones involved in a disaster

- Tears the person out of the social fabric
- Become oblivious to those around them while traumatic restructuring occurs
- They must construct the sensory details from interpretation of the available information
- They hunger for facts to contain fantasies
- Tend to attack the system, as opposed to sensory trauma where tend to involve themselves with tasks

Disaster Behaviour Myths

- Most people (60-80%) maintain social values and act with altruism
- Helplessness rare – often transient
- Panic rare – possible if worsening threat, narrowing chance of escape, loss of social bonds
- Panic is NOT “highly aroused, emotionally motivated, purposeful action” or anxious demand for information

Risk Factors for Psychological Trauma:

- Severe personal life threat or injury
- Exposure to shocking images (mutilated bodies, people dying)
- Persisting, intense arousal or dissociation
- Emotional Isolation
- Lack of support, care or sensitive management
- For most people, disasters do not lead to PTSD or other morbidity; if supported they recover (months)
- But, 20% may have serious long term problems
- Many more suffer “degraded quality of life” in the long term

Hospital Management Psychologic trauma:

- Hospitals need to manage the psychologic responses of uninjured, exposed people and refer them into the Recovery system. Need 'psychological first aid' immediately after traumatic events.
- Personal support reduces isolation and initiates recovery
- Simple social interactions restore the common non traumatic world, stop restructuring around the trauma
- People often DON'T give the right psychological support- 'psychological first aid needs to be taught'. Especially not trying to do too much.

Personal Support - Acute Phase:

- Goal: information is a mental health intervention
- Information reduces uncertainty and stress
- Provides structure and confidence amid confusion
- Provide registration (NRIS) and info as soon as possible
- Information quality:
  - One main source
  - Simple
  - Accurate
  - Honest
  - Credible
  - Repeated
  - Active communication - revealing more, adding new details

Helpful Response to Trauma

- Individuals cope in their own ways – let them. Be accepting of their emotions
- Given them time to stabilize, but with support
- If they want to talk – listen to them
- Empathy – offering them something different
- Calm, attentive communication
- Sense of control protects from trauma
- Help them make decisions about their needs
- Allow time to make decisions
- Assist them to communicate with loved ones
- Practical assistance communicates emotional care
- Preserve dignity and self determination
- Provide for children- children are often overlooked, distressed parents cannot meet their needs

What not to do for Psychological Trauma

- Enforce discussion of the experience or catharsis – "getting it out"
- Impose immediate debriefing
- Ignore or talk down to the affected people
- Order them around or be authoritarian
- Make them feel unimportant
- Leave them unattended or without information
- Passive communication
- Saying the same things
- Reiterating or ruminating on losses
- Express emotions without adding meaning
- Avoiding the emotions
- Sympathy – offering them more of the same
- Exhibit negative emotions
- Reassurance, platitudes

Emergency Workers

- Training and preparation mitigates effects
- Increased risk/vulnerability
  - Many shocking or gruesome deaths
  - Deaths of children
  - Frustration or inability to fulfil tasks
  - Excessive or prolonged rostered hours
  - Insensitive management

- Support prevents psychologic trauma
  - Access to Peer Support alongside operational debriefing
  - Demobilization or defusing at end of shifts
  - Psychological debriefing or other support through agency arrangements a few days later
  - Management support and stress information
  - Later individual counseling if problems persist
  - Supportive, assertive management of stress risk
  - Official recognition of their efforts

Community Recovery

- Community supports must be integrated with health services- protocols for sharing information
- Recovery Plan programs establishes community support systems for follow up care
- Community Recovery programs may continue for 2 years or more
- Many people do not present problems till 6- 24 months later

Speaker	Topic
Dr. Derrick Tin MBBS, M. Disast. Emergency Response, Fellowship Disaster Medicine	**Tactical emergency casualty care**

Active shooter incident

In an active shooter event the police would coordinate **any** "all clear" declaration.

The ED would then would become a crime scene and effectively be shut down.

The ED would not function in its current space and would have to relocate? RWH.

The nominated liaison officer will generally obtain information about
the likely duration of the scene examination, which may mean ED operation may not be restored for some time.

While the actual process may not change significantly, the amount of time it takes often will.

Debriefing

1. Hot Debrief

Occurs at the end of an incident/ or shift in the case of protracted incidents &provides an opportunity for personnel to express their views and hear others' perspectives.
Is important to prevent psychological trauma to staff and arrange peer support.

2. Operational Debrief

Is undertaken by a particular agency to assess its response.

HIMT does this and will ask ED to report.

Aim is to revise and enhance disaster plans

Tactical emergency casualty care

In an active shooter incident care may need to be given to victims/colleagues whilst hiding.

Military experience has provided a body of literature.

Important principles are:

- Ongoing Enemy fire
- Medical equipment limitations
- Variable evacuation time
- Military Tactical considerations

Preventable deaths on battlefield/when under fire:

- inadequate airway
- tension pneumothorax
- extremity haemorrhage

Ninety percent of the deaths on the battlefield occur before the casualty reaches a definitive care facility.

The killed in action rate can be reduced by1 5%-20% if appropriate care at the point of wounding is instigated.

Phases of Battlefield Care

1. Care under Fire
   → care rendered by the medic at the scene of the injury while he and the casualty are still under effective hostile fire.
2. Tactical Field Care
   → rendered by the medic once he and the casualty are no longer under effective hostile fire.
3. Combat casualty evacuation care
   → combat Casualty Evacuation Care is care rendered once the casualty has been transported.

Considerations in Care under fire

- Airway management is generally best deferred until the Tactical Field Care phase.
- Cervical Spine immobilization adds little to care
- Decompress tension pneumothoracies
- Stop any life-threatening haemorrhage with a tourniquet.

Evidentiary Collection

There are established protocols for evidentiary collection.

First responders or contact with the patients are often health providers – not police who are trained to manage evidentiary collection.

The unaware may lose evidence through

- Removal of clothing
- Medical procedures
- Movement/transport/decontamination
- X-Rays/CTs

Physical evidence is crucial to establishing lines of enquiry

Early isolation of physical evidence, with a continuity chain linking it to its place in the scene is the best result for investigators.

Bag, Tag, Seal and Secure

1. BAG

- Use Standard precautions
- Consider PPE if appropriate
- Change gloves between patients
- Remove clothing without cutting through holes from gunshot, shrapnel, or chemical
- One item per paper bag
- Include debris on sheets, and shrapnel removed from victims

2. TAG

- Name, UR number
- Date and time
- Staff member
- Description of item

3. SEAL

- Seal each bag, preferably with tape
- Keep all items from one patient together

4. Secure

- Store in a designated secure area as soon as possible after collection.
- Register of items received and personnel entering and leaving this area

Management of deceased

- At the scene, disturb only if necessary to save other victims
- If death occurs during care, leave the person as is
- Clothing and sheets should remain with the body
- The body should not be washed

Management of Victims:

- As set out in guidelines for terrorism incident reception centres:

Terrorism Incident Reception Centre (TIRC)

A function, managed by police in response to a terrorist incident, where an affected person's identity, details and information are recorded. It is an opportunity for those affected persons to receive medical and welfare support if required.

This may be set up at or near the scene with the roles of:

- Identification of affected persons
- Identification of suspects/offenders
- Information and evidence gathering
- Medical and welfare support

Would be utilised in Domestic Terrorist incidents, which may involve the reception of affected persons at:

- hospitals
- evacuation centres
- medical centres or doctors' surgeries
- medical triage or casualty clearing points
- people congregating in the vicinity of an incident
- transport hubs and international points of departure

These centres process people separating victims from perpetrators. Processed people are photographed and details recorded.
Identification placard for photos of affected persons

Speaker	Topic
Inspector Mark Doney Victoria Police	**Active Armed Offender**

Key talking points:

- history/threat analysis of active shooter incidents
- principles behind the ANZ CTC Active Armed Offender Guidelines for Crowded Places 2017
- characteristics of active armed offender incidents
- response advice for individuals
- response of police
- response advice for management

History/Threat analysis of Active Armed Offender incidents

- 211 mass shootings incidents in the USA in the first five months of 2022 (The Gun Violence Archive 2022)
- The highest figure was recorded in 2017 when 143 people were killed and 591 wounded in just 31 individual incidents. The high casualty is the result of a mass shooting in Las Vegas, Nevada on 1 October
- between 1971 – 2020 there have been 21 terrorist attacks in Australia
- between 2014 - 2016 there were 12 foiled terrorist attacks in Australia
- Two significant active shooter events were the catalyst for change in police response:
    - **USA - Columbine High School April 1999 –** - Catalyst for change to global police tactics from 'Cordon & negotiate' to 'advance and stop the threat'
    - **USA - Sandy Hook Elementary School, Connecticut, Dec 2012 –**Catalyst for the development of Tactical Emergency Casualty Care by first responders to increase survivability of casualties (Generally hemorrhage control)
- Active armed offender attacks continue to be one of the most common tactics used by terrorists and other criminals around the world. This is, in part, due to the relative ease of access to a variety of weapons, including edged weapons, firearms and more recently vehicles.
- The use of chemicals or improvised explosive devices is not as common due to the technical nature of accessing components and building the mode of attack.

Definition for Active Armed Offender: An armed offender who is actively engaged in killing or attempting to kill people, and who demonstrated their intention to continue to do so while having access to additional potential victims

Principles behind the ANZ CTC Active Armed Offender Guidelines 2017

National Guidelines - ANZ CTC Active Armed Offender Guidelines for Crowded Places 2017.

'Crowded Places Advisory Group' (CPAG) on behalf of the Australia-New Zealand Counter-Terrorism Committee (ANZCTC) produced the new 2017 *"Active Armed Offender Guidelines for*

Crowded Places". Changes were made to incorporate the use of vehicle, edged weapons and a change of terminology to include crowded places such as shopping centre's, cinemas, and open areas.

The Guidelines for Crowded Places are intended to increase understanding of the threat that active armed offender incidents pose in crowded places. The Guidelines seek to illustrate the key role that owners and operators of crowded places can play in developing and implementing appropriately informed prevention, preparedness, response and recovery arrangements to reduce the risks posed by such a threat

The guidelines should be read in conjunction with Australia's Strategy for Protecting Crowded Places from Terrorism; Improvised Explosive Device Guidelines for Crowded Places, Chemical Weapon Guidelines and the Hostile Vehicle Mitigation Guidelines for Crowded Places.

The guidelines are intended to:

- increase understanding of the threat that active armed offender incidents pose in crowded places
- illustrate the key role that owners and operators can play in developing and implementing appropriately informed prevention, preparedness, response and recovery arrangements to reduce the risks posed by such a threat
- to increase the awareness of owners and operators of crowded places of the dynamic terrorism threat, while providing guidance on the issues and options which can be considered during risk mitigation and contingency planning activities
- set out several broad guiding principles to be considered to reduce the vulnerability of sites to the threat of terrorism
- highlight that prevention and preparedness arrangements should be underpinned by an intelligence-led, risk management approach
- effective security outcomes in complex environments require cooperation and coordination among stakeholders. Gaining a better understanding of the risk environment, and options for preventing and dealing with active armed offender incidents, will enable owners and operators in the private sector in particular to more effectively contribute to the collective national efforts to manage the active armed offender
- this knowledge will lead to the development of contingency plans or sub-plans to supplement existing emergency response plans and arrangements at facilities and venues

Characteristics of active armed offender incidents

- active shooters attempt to kill as many as possible within a short period of time
- incidents often occur in in crowded places where the offender has access to a large number of potential victims, such as shopping centres, schools and other open areas
- most incidents evolve rapidly and are often over within 10-15 minutes.
- the rapid development of active shooter incidents often means the police first responders will be uniformed, general-duties police

- active shooters continue to attempt to harm victims until confronted by police or some other type of intervention
- an active shooter incident does not generally (but may) include a hostage situation
- most incidents will not be resolved through negotiation or peaceful means

Primary objectives

Active shooters need freedom of movement and ready access to victims in order to achieve their objective. Therefore, **minimising the offender's access to potential victims** is vital.

This is most likely to be achieved through the following activities:

- initiating immediate response arrangements
- minimising the duration of the incident
- restricting the offender's movements
- moving people from danger
- preventing people from entering the scene
- helping police to locate and contain the shooter

TIME + FREEDOM OF MOVEMENT = INCREASED CASUALTIES

Prevention

Not all risks or emergencies can be prevented, so the concept of prevention needs to have a much broader meaning and should encompass activities that may reduce the severity or impact of the emergency event. General prevention-related activities can include gathering and analysing intelligence, developing strategies to reduce the impact on life/property and identifying or eliminating vulnerabilities at potential target sites. Active armed offender incident prevention activities should aim to:

- assess the threat and risk to address vulnerability
- develop a proactive protective security posture
- deter a would-be attacker – by providing physical and electronic security measures, coupled with good management practices
- detect an intrusion – by providing alarm and visual detection/recording systems
- delay or limit the intrusion for a sufficient period to allow a response force to attend – by putting in place measures that will potentially limit the movement of the offender

The main focus of prevention activities should be on 'restricting the movement of the offender/s' while 'reducing their access to further victims'. How to best achieve this will depend on many variables, such as the physical design and security features of the venue, the movement of the offender and the opportunities for escape/shelter in place.

Not all crowded places will share the same risk profile or have similar vulnerabilities therefore a reasonable balance between protective security measure and the freedom of use by the public needs to be considered.

Preparedness

Activities associated with preparedness include risk assessment, emergency planning, resourcing, capability development, and testing of preparedness arrangements. Risk management activities are generally focused on the development of standing plans for known or expected incidents, threats or emergency events. However, for unexpected and dynamic events, such as active armed offender incidents, crowded place owners and operators should consider adopting a 'contingency planning' approach.

Contingency plans should involve multi-stakeholders and provide a range of options and scenarios to deal with specific issues. It should form part of overall emergency planning and be tested and reviewed regularly.

There is no one model to respond to every emergency, so responses need to be flexible and varied according to the nature and effects of the crisis. However, there are some common objectives that characterise most emergency responses

These include:

- saving and protecting life
- facilitating the evacuation of those at risk
- containing the incident or threat; and
- supporting emergency response and investigation activities

Response

Initial actions by individuals

Because of the dynamic and unpredictable nature of active armed offender incidents there is no single best practice that crowded place owners and operators can build into their plans, arrangements and training activities. Therefore, owners and operators should develop, and practise strategies aimed at evacuating people and isolating the offender

Appendix C of the Active Armed Offender Guidelines for Crowded Places provides advice on initial action by individuals. The three key actions for individuals under the guidelines are:

Escape:

- the priority is to remove victims from close proximity to the offender
- consider evacuating the site if it is safe to do so
- determine the safest escape route before beginning to move.
- maintaining situational awareness and use available concealment or cover while moving

Hide:

- If safely evacuating the venue is not possible, occupants of crowded places should attempt to hide in a secure area where they can lock the door, blockade the entrance with heavy furniture, cover windows, turn off lights and remain silent. Mobile phones or other personal electronic devices should also be turned to silent
- avoid congregating in the open. If the option of hiding is adopted, individuals should continually re-assess the situation and their opportunities to safely evacuate or better secure themselves within the premises

- they may also need to consider options to incapacitate the active armed offender in the event they are located. This can include using or throwing available objects or using aggressive force when confronted. Such action should only be taken as a last resort and in order to protect life
- continually re-assess the situation and opportunities to safely evacuate or better secure themselves within the premises
- they may also need to consider options to incapacitate the active armed offender in the event they are located. This can include using or throwing available objects or using aggressive force when confronted. Such action should only be taken as a last resort and in order to protect life

Tell:

- The more information people can pass on to the police or security the better, but NEVER at the expense of an individual's own safety or the safety of others
- if it is safe to do so information should be provided immediately to the police via 000. People passing on information to police may be asked to remain on the line and provide any other information or updates that the operator requests. You may be a key witness

If it is safe to do so, think about obtaining the following information:

- exact location of the incident
- description of the offender and whether moving in any particular direction description of the offender and whether moving in any particular direction
- details of any firearm/s, weapons being used
- number of people in your area and any that have been injured. This will be used by police to priorities police rescue teams' deployment

consideration should always be given to providing information and advice to others who may be unfamiliar with the site, the nature and extent of the threat, or what they should do to remain safe.

It is important to remember:

- police may initially not be able to distinguish you from the offender/s
- the police priority is to locate and neutralise the offender—they will move past people that need help
- police officers will be armed and could point guns in your direction
- police may treat you firmly or not respond to your questions
- avoid quick movements or shouting and keep your hands visible
- stay where you are hiding until police tell you it is safe to evacuate
- police may enter your location to secure the building and locate people who have hidden from the threat
- promptly follow any instructions given by emergency responders
- you will be evacuated when it is safe to leave the area

Police Response

Police responses may vary slightly across Australian states and territories, so crowded places owners and operators should consult with local police agencies when developing their plans.

There are a number of differences in emergency management arrangements, processes and terminology across the states and territories. It is therefore critical that the owners and

operators of crowded place and major event stakeholders develop a firm understanding of the emergency service arrangements that apply to the jurisdiction in which they are operating

Due to the dynamic nature of active shooter incidents, highly trained and equipped police tactical group operators may be unable to respond to a scene in a timely manner. As such, uniformed, general-duties police officers and Protective Services Officers will generally provide the initial response and potentially manage it to its conclusion.

While the specific tactics, policies and training of police first responders may vary across jurisdictions, it is expected that the following objectives will guide their initial response activities.

Transition Considerations – Venue to police

Responsibility for implementing and coordinating initial response activities will, in most instances, be assumed by the venue/facility management or security staff until police first responders are able to take over that responsibility. A critical aspect of managing that response and transitioning responsibility will be the ability to gain 'situational awareness'. Establishing early, effective and continuous lines of communication from the incident site to the responding police agency will be critical in order to accurately inform them of the present situation and its subsequent development. Knowing or understanding the expectations of police responders will also enable a faster transition of incident management. Planning and staff capability/training activities should include:

- developing strategies that allow designated staff to safely maintain situational awareness of the incident and relay any new information to police first responders
- training staff and occupants in how to respond when law enforcement arrives on scene

It is expected that the following objectives will guide the initial response by police:

- **saving lives and minimizing risk of serious injury:** This will generally be achieved through a rapid deployment strategy, the purpose of which is to defeat or mitigate the threat posed by the active armed offender as quickly as possible. The focus of a rapid deployment strategy should be to reduce or suppress the threat posed by the active armed offender as quickly as possible
- **locate and isolate**: The focus of police first responders will be to locate the offender(s) with a view to reducing their area of operation and access to further
- **resolve**: Police first responders will keep moving past casualties and panicked people to try and contain the threat as quickly as possible
- **command and control**: Any response to a major emergency or incident should be managed by an appropriate command, control and coordination structure, however, this might not be achievable in the first instance as it may delay any rapid deployment activities

The need to establish effective command and control of the incident, including coordination with venue management, may therefore become a secondary priority that is delegated to other responding police units

Public Information

Media or public information activities must support operational policies and actions and in the response phase are the responsibility of Victoria Police (See Victorian State Emergency Management Plan and Class 3 emergency sub plan). To achieve this, public messaging should be developed in coordination with the relevant police and owner's media/public relations managers. This is particularly important in situations where an offender has been taken into custody or charged with offences relating to the incident, as issues of sub-judice may arise. Information should be provided regularly to keep the public informed and should only be restricted in the interests of safety and/or operational security. Information issues relating to consequence management, such as helping victims, should be clearly identified as separate from the actual incident or security issue.

As a general rule:

- an agency must only release information for which it has responsibility
- a log of all public information activities and decisions should be maintained
- the National Security Public Information Guidelines provide a framework for the Australian Government and state and territory agencies relating to national security issues and incidents. They are available at www.nationalsecurity.gov.au

Recovery

Police will transfer control from the response phase to the agency responsible for the recovery phase. To ensure a smooth transition from response to recovery, arrangements that commenced during response should be gradually devolved and integrated. This will include aspects such as media and information management, impact assessment, rehabilitation of the built environment and restoring community and staff confidence. While many recovery-related matters will be similar for the majority of emergency events, significant or traumatic events such as terrorist acts or active shooter incidents may add extra complexity to normal recovery procedures.

Key recovery considerations may include:

- public information and community confidence
- scene preservation and investigation activities
- business continuity challenges
- engagement with recovery agency and owners/operators
- long term recovery consideration for owners/operators

Crime scene and investigation activities

Police will conduct a major investigation for all active shooter incidents. This could involve criminal and forensic investigations as well as coronial investigations on behalf of the coroner. These investigation processes will need to be extremely thorough and may often be protracted, particularly where the incident has occurred over a broad geographical area, or involves significant forensic challenges. During the investigation phase the police may also seek assistance from management at the location to help identify potential sources of evidence or witnesses.

This could include CCTV footage, and radio, telephone or decision-making logs. Operators recovery or business continuity plans should identify a suitable liaison officer that can work with the police to help facilitate these types of requests.

Business continuity

How quickly owners and operators return to business-as-usual following an attack active armed offender incident depends on how effectively they can devise and implement their business continuity management arrangements. Through their contact with investigating police, the nominated liaison officer will generally be in a position to obtain information about the likely duration of the scene examination, allowing the venue to start implementing their business continuity arrangements.

As the immediate location will be a significant crime scene and severely restrict your service delivery, the use of identified redundancy sites as detailed in your Business Continuity Plan should be considered.

Victoria Police Active Armed Offender training program

- development of the Integrated Response Model for police and emergency services
- police contact teams
- rescue teams concept (Police and multi-agency) – Based on Tactical Emergency casualty Care
- hemorrhage control kit (Tourniquet & quick clot gauze) for carriage by front line police

Initial action advice for management

The following points are considerations for owners/operators of crowded places in the initial stage of an active armed offender incident:

1. Saving and protecting life

- appoint an incident manager to coordinate activities until police arrive.
- use the built environment to restrictor deny access
- commence CCTV surveillance and track the offender(s)
- communicate appropriate cover and concealment options to those present
- identify and establish a safe medical triage/first aid location
- restrict further vehicle access to the site (bollards, gates, road closures, etc.)
- restrict physical access to the site or general vicinity

2. Facilitating the evacuation of those at risk

- notify key staff of the incident through prearranged messages/codes and methods
- appoint an evacuation manager and ensure they have situational awareness
- provide guidance on safe routes for those that are self-evacuating
- assess the suitability and potential safety of normal evacuation routes
- evaluate the safety of standing evacuation muster points and change if necessary
- identify potential safe places or strong holds for those unable to evacuate

3. Containing the incident or threat

- consider using electronic or mechanical isolation systems to constrain the movement of the offender or restrict access to potential victims
- identify and establish a perimeter
- use the existing built environment to best advantage for safety and containment action
- consider restricting escape options for the offender if these may endanger others

4. Supporting emergency response and investigation activities

- identify and communicate safe access routes/form up points for emergency services
- consider using CCTV and other remote methods where possible
- commence incident and decision-making logs

- nominate a suitable emergency services liaison officer to meet/brief the police
- ensure access to site plans and CCTV footage (where possible)
- clearly identify when incident management has transitioned to the police
- provide ongoing support to the emergency response action as requested

It is important to regularly practice these and any additional initial response activities so that key managers and staff clearly understand the priority actions and are able to perform these actions in a high–stress and dynamic environment.

State 'Crowded Places Forums'
Under the Australia's Strategy for Protecting Crowded Places from Terrorism, the primary vehicle for police to engage collectively with owners and operators of crowded places in each jurisdiction is known as 'Crowded Places Forums'. These Forums already exist in some jurisdictions (Victoria) and will be introduced in all others.

Additional considerations for Health Care providers:

Critical patient care - Although *escape*, *hide* and *tell* should be the overriding individuals aim, it must be acknowledged that health care providers often feel a moral responsibility to the ongoing care of their patients. This applies particularly to patients who are incapacitated and unable to escape, such as those undergoing anaesthesia, in ICU, ED or labour ward. Ultimately, it is a personal decision whether the health care provider choses to escape. It is worth noting that in a recent survey, 60% of health care providers and patients felt the provider had a duty to protect their patients. in situations where providers and patients are unable to escape. Active Armed Offender planning needs to consider the option of~~,~~ locking down wards with electronic or mechanical devices designed to barricade entrances or access. Activities are made quiet, whilst procedures and operations are switched to damage control or life preserving actions only.

Adequate hemorrhage control supplies - It should be noted that although active shooters are often quickly neutralised, it may take an extended amount of time for the police to "clear" the hospital so it can return to normal function. Areas where health care providers may choose to remain with their patients, need then to be discussed in the planning phase by management and a position taken on stocking specific areas with adequate supplies similar to defibrillators.

Ability to lockdown patient areas– Your decision to remain may be influenced by the ability to lock down areas where incapacitated patients are located. Active armed offender planning (and exercising) should consider effective lockdown procedures to restrict the access to patients by the offender/s and add another level of safety to medical staff who choose to remain. This should also include active armed offender alert procedures for staff.

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