



## Medical Risk Classification for Mass Gatherings

WA is unique in its size and geographical isolation. This makes it especially important to ensure that adequate plans are put in place to cater for the unexpected medical emergencies that may occur at any pre-planned public event, particularly those which have an anticipated number of attendees that is larger than the normal daily population at that location. The key component of this assessment is how well any casualties could be managed in the event of an incident, i.e. the goal is to reduce the severity of any injury should it occur.

WA Health resources available for care of the critically unwell are severely limited outside the metropolitan area. Whilst the Royal Flying Doctor Service and St John Ambulance provide an excellent transfer service to the Perth hospitals for anyone that is seriously injured or unwell, neither provider has any capability to transfer large number of persons at any one time. In addition, if health resources are over-whelmed in the metropolitan area, then the expected time for assistance to arrive from interstate is approximately 24 – 36 hours. These factors make it vitally important that appropriate planning is carried out prior to the event taking place and that management strategies for medical emergencies and first aid care are put in place.

These management strategies should include both singular events, where a patron or competitor of the event falls ill or injures him or herself whilst attending the event, and also the mass casualty event, where the number of casualties will overwhelm the local health resources.

Major events have the potential to result in injuries and illness in participants. An important consideration is the time for casualties to reach primary or tertiary treatment. An example of a medium risk event is provided in the last column.

- Experience shows that at least 1-2% of a crowd will require some type of first aid or medical care. Of those requiring medical attention, around 10% will need ongoing care on site and 1% will require transport to hospital by ambulance.
- These figures increase where there are high-risk activities such as crowd surfing, moshing, presence of alcohol and other related activities. In addition, external factors such as weather conditions contribute to patient presentations.
- Experience from different types of events (not just rock concerts) show that most casualties are from:
  - Heatstroke, dehydration, respiratory distress;
  - Blistered feet;
  - Fainting and exhaustion from a combination of hysteria, heat, and alcohol;
  - Cuts from broken glass and drink can ring pulls;
  - Illicit drug and alcohol abuse;
  - Trampling or crushing from crowd pressure at barriers;
  - Epilepsy attacks brought about from strobe lighting.



- First aid and ambulance support have traditionally been provided by the St John Ambulance Australia, but there are other agencies. Event organisers are responsible for ensuring that the agency providing First Aid and Ambulance services is an accredited provider.

#### **First Aid Providers**

- St John Ambulance.
- Advanced Life Ambulance Service.
- Sports Medicine Australia.
- Royal Life Saving Society of Australia.
- Surf Life Saving Association.
- First Aid Services WA (Red Cross)

#### **Ambulance Services**

- St John State-wide
- Advance Life – limited metro/outer metropolitan areas only

- Medical support needs to be considered for all phases of events, and not just the event itself.

### **GUIDELINES**

To address the key medical and first aid issues at an event, the following issues need to be addressed in conjunction with the event organiser. These include:

4.1 The first aid provider for all large and high-risk events should develop a medical plan based on risks identified utilising the process outlined in AS 4360:2004 Risk Management. These risks should also be incorporated into the Event Risk Management Plan.

4.2 Use the Support Tools Medical Resources & Event Rating assessment tool developed by the Department of Health, to determine the events level of risk.

4.3 Ensure that the appropriate level of health input and pre-planning required for the medical and first aid response is carried out.

4.4 Service providers need to be fully conversant with event designs and not presume that conditions will be the same as previous events.

4.5 Event organiser's reputations will be dependant upon the skills of the planning team and first aid provider. Event organisers should ensure that they understand and are fully satisfied with the level of care being provided.

4.6 The number of first aid personnel and first aid posts will vary with the type of event.

4.7 First aid posts should be conspicuous and identified by an illuminated sign at night. Ideal locations are near the main entry or command post. For high risk concerts, a post should also be located behind the stage barrier in a location where patrons extracted from the mosh pit can be observed prior to rejoining the concert site.



4.8 At all events, first aid providers should have oxygen equipment, semi-automatic defibrillator and basic first aid supplies.

4.9 All first aid providers should have appropriate professional indemnity insurance for their personnel and should hold current first aid qualifications from an accredited training provider.

4.10 First aid personnel must be appropriately trained and routinely requalified.

4.11 It is **not acceptable** for staff to have dual roles e.g. a crowd controller with a first aid qualification is first and foremost a crowd controller.

If at any time you require assistance with the completion of the risk assessment tool or the health and medical planning requirements please contact the Disaster Preparedness and Management Unit staff on 08 9222 2437.

The Environmental Health Directorate can provide assistance with health messages in relation to personal health and food issues relevant for extreme weather conditions.

### **Acknowledgements**

The Department of Health (WA) acknowledges that much of the original concept material used in the development of this Mass Gatherings Medical Risk Assessment Tool has been sourced from the following two documents:

1. St John Ambulance Australia (2005) *Guidelines for Managing First Aid Services at Major Events*. St John Ambulance Australia.
2. Emergency Management Australia (1999). *Safe and Healthy Mass Gatherings: Manual 2*. Australian Emergency Management Series, Commonwealth of Australia.

In addition to the above, the Department of Health (WA) gratefully acknowledges the assistance provided by Mr Bill Thompson (St John Ambulance WA, Perth) and Mr Jeffrey Williams (St John of God Hospital, Subiaco) in the preparation of these guidelines and this document.



## MEDICAL RISK CLASSIFICATION

Category	Grouping	Allocation	Event Scoring
Event Description	Cat 1 - e.g. Classic Music / Children's concert / Youth camps	1	4
	Cat 2 - e.g. Family events & shows / local sporting events / Schoolies	2	
	Cat 3 – e.g. Festivals/ Major sporting event /	4	
	Cat 4 – e.g. Rock Concert / Extreme Sporting events	8	
Number of people	<2000	1	32
	2001-5000	2	
	5001-10,000	4	
	10,001 - 50,000	8	
	50,001 - 100,000	16	
	>100,000	32	
Type of people attending	Families	1	1
	Fan clubs / support groups	2	
	International stars / competitors / visitors	3	
	VIPs	4	
Age Group	30-65 inc family	1	1
	>65 / 0 - 12	2	
	12 - 16.	3	
	16-30	4	
Event location / confinement	Outside - open area	1	1
	Outside - confined area	2	
	Inside - space	3	
	Inside - crowded	4	
Available Health Resources	Tertiary Hospitals	1	1
	Regional / General hospitals	2	
	Integrated district health services	3	
	Small hospital	4	
	Multi purpose centre	5	
Distance to Local Health Resources	< 10 kms	1	1
	10 - 50 kms	2	
	50 - 100 kms	4	
	> 100 kms	8	



Distance to Tertiary Health Resources	< 30min	1	1	
	31 – 60 mins	2		
	61 - 90 mins	4		
	91 – 120 mins	8		
	121 - 152 mins	16		
	> 153 mins	32		
Duration of event	<1 hour	1	3	
	2 - 4 hours	2		
	4 – 8 hours	3		
	8 - 12 hours	4		
	12 – 24 hours	5		
Alcohol	None	1	2	
	Restricted	2		
	Readily available	4		
	No controls	8		
Probability of drugs	None	1	2	
	Possible	2		
	Probable	4		
Time of event	Morning	1	4	
	Afternoon	2		
	Evening	3		
	All day	4		
Date of event	Spring / Autumn	1	1	
	Summer / Winter	2		
		Min	Max	<b>This Event</b>
Aggregate Score		13	120	<b>54</b>



**OVERALL RISK CATEGORIES**

Low	< 13
Medium	14 - 49
High	50 - 85
Extreme	86 +

**ACTION FOR EVENT ORGANISERS, BASED ON MEDICAL RISK SCORE**

Planning required	Level of risk			
	Low	Medium	High	Extreme
Notify local SJA of event	Yes	Yes	Yes	Yes
Notify local hospital / health care provider	Yes	Yes	No	No
Notify DPMU	No	No	Yes	Yes
Minimal notification period to all agencies	4 weeks	10 weeks	20 weeks	28 weeks
Provision of transport arrangement	Yes	Yes	Yes	Yes
Provision of first aiders	Yes	Yes	Yes	Yes
Provision of first aid centre's	No	Yes	Yes	Yes
Provision of paramedics	No	No	Yes	Yes
Provision of adequately equipped medical centre's	No	No	Yes	Yes
Provision of on site medical teams	No	No	No	Yes
Public information and health notices	No	Yes	Yes	Yes