



Event Safety Learning Resources

For use in First Responder Accreditation and
Reaccreditation programs

Acknowledgements

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Introduction

Safety is the essence of first aid and key to personal and community resilience. Checking for danger is the first step in our DRSABCD action plan. Safety must also be a conscious consideration in all leadership roles and all aspects of our first aid and health service delivery models. Safety is a core theme in the national command training framework.

This *Event Safety* module provides a basic framework and supporting information to help members develop their own approach to safety. Risk management, fatigue, health promotion and peer support are amongst the topics covered before, during and after operational deployments.

Safety - Where do we start?

Safety should be everyone's goal and applies to everyone at an event. Furthermore, all St John members in all states and territories have responsibilities under Workplace Health and Safety legislation to maintain a safe workplace.

We can approach this in the same way that we check for Dangers in our standard DRSABCD primary assessment algorithm by being constantly aware of:

- Your own safety and that of other members on duty. For example:
 - Do members need a security escort at the event?
 - Are rostered shifts too long?
 - Is there a good break-out rest area?
 - Are members adequately trained and prepared for this event?
 - Do members have appropriate uniform and shelter available?

- Members of the public, event staff and competitors:
 - What is the impact of current / predicted weather on the event?
 - Is the site safe for an event of this nature?
 - Are there any obvious hazards visible around the event site?
 - Is there an emergency management plan for the event?

- Our patients
 - Can we safely care for the expected number & type of patients?
 - Do we have the right services and resources to care for them?
 - Is it safe for the event to continue?

As a major provider of first aid and health services at local events and mass gatherings throughout Australia, it is important that St John Ambulance consider safety in all of our policies and at many points in time. In this module we will consider safety in the following phases:

- Planning for the Event
- During the Event
- After the Event

Each of these phases in the following discussions apply equally to local events, mass gatherings and emergency responses. Major events and emergencies in particular are inherently complex and it's important that we remain aware, alert and informed at all times. This keeps us prepared to respond at short notice to ensure our members' safety.

Many factors contribute to member safety and if not identified and addressed may conversely be a significant risk. We will consider risk assessment in more detail later and start with a discussion about fatigue: fatigue management is critical before, during and after all operational deployments.

Fatigue

In many ways, fatigue is like any other medical condition or physical injury. First, we need to know it exists and then think about it. Next we need to know the signs and symptoms before we can recognise it. Finally, we need to know how to manage it and the only cure for fatigue is sleep. Like any complex medical presentation the trigger may not be simple to overcome or a cure easily accessible, so we need to prevent fatigue where possible and have systems and resources in place to minimise until we can sleep.

Fatigue means different things to different people and ranges from feeling tired to falling asleep. We will discuss how to recognise the signs and symptoms of fatigue later but first it is important to start with a common understanding and definition. One definition, used in the *Queensland Health Fatigue Risk Management System*, defines fatigue as:

A decreased capacity to perform mental or physical work, or the subjective state in which one can no longer perform a task. Fatigue manifests in physiological performance decrements and cognitive impairment. Fatigue primarily arises as a result of inadequate restorative sleep, but is also influenced by time of day and prior wake.

In practice, this means that our ability to do our work safely is dependent on how long we have been working for, what time of the day it is and how much sleep we've had in the preceding days. Shift workers are often more tolerant of changes in work routine but studies have shown that fatigue peaks in the early hours of the morning, regardless of profession. This means that we all need to take this seriously and all lead by example.

Signs and Symptoms of Fatigue

Fatigue manifests in different ways and it is helpful to consider these as signs (that we can see) and symptoms (that we feel).

Signs & Symptoms	Performance
<ul style="list-style-type: none"> • Yawning • Head drooping • Heavy eyelids • Eye-rubbing • Involuntary sleep • Quiet and withdrawn • Lethargy • Lacking motivation • Irritable or bad temper 	<ul style="list-style-type: none"> • Difficulty concentrating • Decreased awareness • Slowed reaction time • Impaired coordination • Clinical errors • Poor communication • Memory lapses • Impaired decision-making

Practical implications

The impact of fatigue varies depending on the importance of the task being undertaken and the quality of safety-checks in place. We need to do all that we can to plan our operational deployments to minimise fatigue and address it rapidly where it occurs. The development of fatigue is multi-factorial and more than shift length alone, but the following table provides a good reference point for St John event and roster planning.

Actual Length of Shift	Level of Risk	Actual Time Off Before or Between Shifts
< 10 hours	LOW	> 12 hours
10 – 12 hours	MODERATE	10 – 12 hours
12 – 16 hours	HIGH	8 – 10 hours
> 16 hours	VERY HIGH	< 8 hours

Adapted from QH FRMS

When considering actual shift length and time off in a consecutive 24 hours period, it is important that we also consider:

- Travel time to and from the event
- Event timing (e.g. overnight, early morning starts)
- Other personal and work commitments, in addition to St John shift
- Cumulative effect of multi-day and residential deployments, especially where this involves overnight on-call
- Additional time spent by command team and support services preparing and cleaning up
- Whether everyone needs to be there for the entire event or can shifts be staggered?

We should plan to minimise fatigue and intervene early to mitigate its effects once detected. Rostering to minimise fatigue is a critical planning step discussed in more detail below.

Strategies to combat fatigue

We should all plan to avoid fatigue but some strategies to provide temporary relief are listed below.

- “Power naps” – a quick sleep of between 15 and 30 minutes may provide a few hours of recharged energy but this should serve as a warning that it is time to start stopping
- Take a real break – making sure that you are not indispensable is a planning issue and involves having a good command team and being prepared to handover at short notice
- Caffeine – can provide short-term relief but may affect the quality of recovery sleep
- Practical event options include:
 - safe rostering, including limiting shift length & splitting shifts
 - car pooling and/or use of buses for member transport
 - accommodation nearby for events with long travel time
 - planned shift changeovers & travel during daylight hours
 - provision of rest space away from event workload
 - delegation of responsibilities within command team
 - roster members to perform specific logistical functions

Event Planning

Many of the critical components of a safe event should be identified and addressed in the event planning stage. This should be done during the preparation of a major event operational plan or in the development of emergency response policy but it is far more regularly done as we think about how we are going to resource every one of the thousands of local events attended by St John each year.

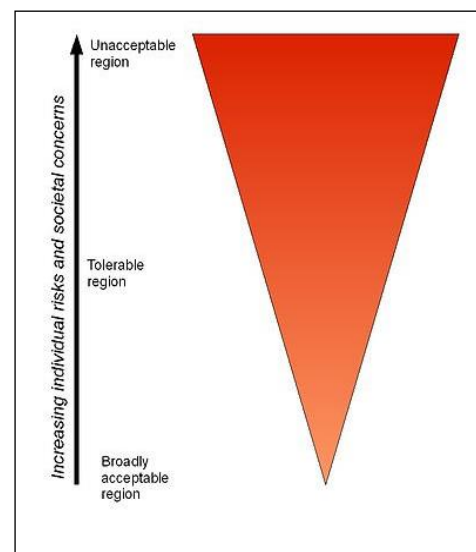
Risk Assessment

A risk assessment should be conducted for all events and should be relative to its size, type, scale and duration. This starts when the event details are received from an event organiser and may progress to a formal study for larger or more complex events. When conducting a risk assessment, we should consider the process in stages:

- Identify hazards – a hazard is something that can cause adverse effects
- Determine risk – risk is the likelihood that a hazard will actually cause an adverse effect, combined with a measure of the impact/severity of the effect

It is rarely possible or practical to reduce risk likelihood to zero so we aim to reduce a risk to be as low as reasonably possible (ALARP).

The ALARP principle can be diagrammatically represented with three zones (pictured right), with the aim being the central “tolerable” region for any identified risk. The degree to which risk is reduced will depend on the likely impact, balanced with practical and resource limitations.



Emergency Services use an “all hazards, all agencies” approach to event and incident planning. We use an integrated planning process to reduce risk while involving all interested parties, optimising resource utilisation and maintaining staff and asset safety.

For example:

Variable	Low Risk	Medium Risk	High Risk
Weather forecast	Cloudy, 20 degrees	Raining, 30 degrees	Sunny, 40 degrees
Crowd size	500	15,000	150,000

It is important to remember that most variables interact and may dramatically change a risk rating. For example, a small dance party often attracts a higher risk rating than a large football match, and an extreme weather day will likely affect the dance party more.

Risk Identification Tools

Hazard identification is a critical step in performing a risk assessment and is therefore pivotal early in the event planning process. Adopting a standardized approach to hazard identification increases efficiency, reliability and reproducibility: adopting a standardized template may make this process easier. An example of a risk identification tool is included below, in this case for a 220km Ironman event.

RISK IDENTIFICATION					
Event Name: Ironman Melbourne		Dates(s): 25/03/12			
Instructions: Select options with a "1" in boxes, tally columns & allocate accordingly					
Major Events (all to be reviewed by State Operations Team)					
<input type="checkbox"/> Airshow		<input type="checkbox"/> EM / Exercise		<input type="checkbox"/> Music Festival	
<input checked="" type="checkbox"/> Marathon		<input type="checkbox"/> New Year		<input type="checkbox"/> Protest	
				<input checked="" type="checkbox"/> National or International Event	
				<input type="checkbox"/> Est. attendance > 100,000	
Event Type	Divisional		Regional	State	
Ceremonial	<input type="checkbox"/> Local (funeral, memorial...)		<input type="checkbox"/> Municipal	<input type="checkbox"/> State	
Concert	<input type="checkbox"/> Local		<input type="checkbox"/> Children	<input type="checkbox"/> Stadium	
Festival/parade	<input type="checkbox"/> School		<input type="checkbox"/> Local	<input type="checkbox"/> Municipal	
Horse-related	<input type="checkbox"/> Club event		<input type="checkbox"/> Rodeo	<input type="checkbox"/> X-country	
Motor sports	<input type="checkbox"/> Club event		<input type="checkbox"/> Motorbikes	<input type="checkbox"/> Moto-cross	
Sports	<input type="checkbox"/> Local		<input checked="" type="checkbox"/> Water	<input checked="" type="checkbox"/> Triathlon	<input checked="" type="checkbox"/> Major carnival
				<input checked="" type="checkbox"/> Endurance	
Event Details					
Duration	<input type="checkbox"/> < 4 hours		<input type="checkbox"/> 4 - 12 hours	<input checked="" type="checkbox"/> 12-24 hours	<input type="checkbox"/> 1-7 days
Queuing	<input checked="" type="checkbox"/> < 1 hour		<input type="checkbox"/> 1 - 2 hours	<input type="checkbox"/> 2 - 4 hours	<input type="checkbox"/> 4 - 12 hours
Time of day	<input checked="" type="checkbox"/> Day		<input checked="" type="checkbox"/> Evening	<input checked="" type="checkbox"/> Shift start at / before 06:00	<input type="checkbox"/> Overnight
Residential	<input type="checkbox"/> Indoor (fixed)		<input type="checkbox"/> Indoor (temp)	<input type="checkbox"/> Camping	
Fatigue Risks	<input checked="" type="checkbox"/> > 10hr shift		<input type="checkbox"/> > 1hr travel	<input checked="" type="checkbox"/> > 12hr shift	<input type="checkbox"/> Overnight on-call
Location (select all that apply with a "1")					
Precinct	<input type="checkbox"/> Indoor		<input type="checkbox"/> Secure site	<input checked="" type="checkbox"/> Outdoor	<input checked="" type="checkbox"/> Public Roads
Venue	<input type="checkbox"/> Stadium		<input checked="" type="checkbox"/> Temporary	<input type="checkbox"/> Airport	<input checked="" type="checkbox"/> No fixed outer boundary
Patron Demographics (select all that apply with a "1")					
Age	<input checked="" type="checkbox"/> Young Adult		<input checked="" type="checkbox"/> Adult	<input checked="" type="checkbox"/> Child	<input checked="" type="checkbox"/> Elderly
Seating	<input type="checkbox"/> Seating		<input checked="" type="checkbox"/> Marquee	<input checked="" type="checkbox"/> Grandstand	<input checked="" type="checkbox"/> Standing
Groups	<input checked="" type="checkbox"/> Family		<input type="checkbox"/> Political	<input type="checkbox"/> Rival groups	<input type="checkbox"/> History of crowd violence
Est. attendance	<input type="checkbox"/> < 1,000		<input type="checkbox"/> 1 - 4,999	<input checked="" type="checkbox"/> 5 - 14,999	<input type="checkbox"/> 15 - 50,000
Previous / Similar Event Experience (select best option only with a "1")					
Pt numbers	<input type="checkbox"/> Low (<1%)		<input type="checkbox"/> Mid (1-2%)	<input checked="" type="checkbox"/> 1st event	<input type="checkbox"/> High (> 2%)
				<input checked="" type="checkbox"/> Total > 200	
Clinical & Logistics (select all that apply with a "1")					
Expected risks	<input type="checkbox"/> Alcohol		<input checked="" type="checkbox"/> Cold	<input checked="" type="checkbox"/> Exercise	<input checked="" type="checkbox"/> Medical
			<input checked="" type="checkbox"/> Pt transport	<input checked="" type="checkbox"/> Heat	<input type="checkbox"/> Dense crowd
Nearest hospital	<input checked="" type="checkbox"/> Tertiary		<input type="checkbox"/> Regional		<input type="checkbox"/> Local rural hospital
Receiving hospital transport times	<input checked="" type="checkbox"/> < 30min (road)		<input type="checkbox"/> > 30min (road)		<input type="checkbox"/> > 30min (air)
Comms coverage	<input type="checkbox"/> No mobile ph		<input type="checkbox"/> No SJ Network	<input type="checkbox"/> HF required	<input checked="" type="checkbox"/> Comms assistance required
Vehicle access	<input checked="" type="checkbox"/> 2WD (sealed)		<input type="checkbox"/> 2WD (dirt rd)	<input type="checkbox"/> 4WD required	<input checked="" type="checkbox"/> Water access
				<input type="checkbox"/> Air retrieval	
Column total:	A	7	B	8	C
					11
					D
					8
					E
					3
Total (A + B + 2xC + 3xD + 5xE) + 10 points for automatic major event: 96					

Communicating Risks

Communicating the importance of event safety is a key skill. Something that just makes sense to us might have never occurred to others and it is important that we put our needs in the context of the bigger picture. Continuing the analogy to our patient treatment algorithms, we can consider giving this information in a similar way to the 5 rights of medication administration:

- The right information – make sure your information is accurate and relevant
- The right amount – how much do they need or want to know?
- To & from the right person – is there an event safety officer? Can they make the decision?
- At the right time – is this issue urgent? Is this the right information at the wrong time?
- In the right way – should this conversation be documented in writing / e-mail?
- For the right reason – is this really important to the event or can we compromise?

One of the key challenges when communicating risk is complacency. An event organiser or St John member with many years of experience at an event may not see the need to change. Conversely it is important to consider the absolute requirement for change and not just change for change's sake.

Safe Rostering

Rostering is where event safety meets fatigue management. We usually focus on finding enough people to cover the event, but how we roster our members is just as important as how many.

Managing fatigue starts with safe rostering and it follows that St John should be aiming for:

- Maximum actual shift length of 12 hours
- Minimum actual time off between shifts of at least 10 hours
- Use of multiple and/or staggered shifts where event duration exceeds 12 hours
- Compliance by **all** staff, including the command team and support services
- Times to include consideration of travel, consecutive days worked & other commitments

When managing multi-day events or emergencies we need to be particularly aware of the cumulative effects of long shifts and changes to natural physiological rhythms. Some good rostering principles to consider include:

- Rostering whole rest days for events that run for longer than 7 consecutive days
- Rotating command roles and instituting routine handover plans
- Providing good, quiet accommodation for multi-day deployments
- Consideration of likely nature and volume of workload
- Scheduling regular meal and rest breaks
- Planning long drives and staff changeovers to occur during daylight hours where possible
- Maintaining regular day/night cycles by avoiding day/night shift swaps where possible

There are far too many reported instances of people struggling to stay awake through a shift and inadvertently making a critical error at work or crashing their car on the way home. We owe it to our members to plan carefully and roster safely. There is no place for pride in fatigue management.

Staffing

In balancing the roster, it is important that we have enough of the right staff on duty. This is important to make sure that members have a good idea of what the event is going to be like and having sufficient staff on duty gives everyone an opportunity to take a regular break. We also need to consider whether it is appropriate to roster cadets, observers, Advanced Responders and / or Health Professionals to the event.

Health Professionals

Planned deployments of St John health professionals may be an important safety consideration. Emergency Response Teams and Medical Assistance Teams provide additional clinical skills to compliment the First Aider, First Responder and Advanced Responder skill sets.

Vulnerable People

Event planning and risk assessment should include consideration of the needs of people with additional care needs. This might include patrons who are children, elderly or who have physical and/or intellectual disabilities.

We also need to consider our own members. Some events are not appropriate for inexperienced members while other deployments require particular attention to skill mix and supervision. Cadets are considered separately below.

While planning and prevention is important, stressful and traumatic incidents may occur at any event and all members should be familiar with their local peer support program.

Cadets

Cadet members are an important part of St John. The cadet program develops confident, competent young first aiders who have gained important clinical, leadership and life skills. Many cadet members are inspired to pursue a career in health care as a result of their experiences in St John.

We are responsible for cadet members while they are gaining this St John experience which may include activities at training nights, during activities, on camps and during events. We need to select appropriate events for cadet members to attend and ensure their wellbeing during events.

The National Cadet Group (NCG) has developed the St John 'Cadets at Events: National Best Practice Guidelines' (available from the members website: members.stjohn.org.au – search for cadet event) which provides a good practice guide for decision makers in assessing the suitability of an event for Cadets. The guidelines are intended to ensure that a safe environment is provided for their learning and development and is not intended to limit or restrict the participation of Cadets at suitable events.

General considerations for selecting suitable events for Cadets to attend include:

- Type of Event
- Overnight Requirements
- Provision of Clinical Care
- Supervision by suitability clinically qualified adult
- Duty hours
- Transport to/from the Event
- Behaviour Management

Appointing a dedicated adult member, preferably with cadet management experience, to oversee the Cadets at events is strongly recommended.

All questions relating to involving Cadets at events, should be directed to your State/Territory Officer or equivalent position.

Uniform & Equipment

Careful consideration must be given to appropriate uniform and protective equipment for each event. Unless otherwise directed, members should wear a high-visibility outer garment at events at all times. Members should be provided with adequate shelter, uniform and protective equipment to protect them from prolonged environmental (heat, cold, UV light) exposure.

It is also important to determine equipment needs and allocate sufficient resources to each event. This may be done best by involving the state / territory logistics team, especially for high risk and major events.

Event Day

In this section, we will consider the factors that contribute to a safe event. It is important to remember that event day often starts early for the command team and support services and we need to consider these preparatory times in our “event day” thought processes.

Member Briefing

It is important to do a briefing at the beginning of every event. If there are only two of you on duty this might be a quick chat. A more formal and detailed briefing should be given for a major event or emergency. This is also the time to make sure that everyone signs on and completes next of kin forms as needed.

Important safety issues to include in an event day briefing include:

- Summary of known hazards and risks
- Consideration of potential hazards and risks
- Overview of operational plan
- Emergency plans, assembly points and exits
- Member welfare reminders (fluid intake, sunscreen, uniform, meal breaks)
- Weather forecast
- Communications summary, including emergency contact details

Preventive Healthcare & Health Promotion

St John Ambulance is ideally placed to provide preventive health care measures and contribute to the provision of health promotion.

Preventive health care may involve:

- Providing water, sunscreen and shade
- Being aware of and tracking public health concerns (eg. gastro / food poisoning, inadequate drinking water, sanitation concerns, insufficient shelter)
- Continuing health care during emergencies and residential events
- Future strategic partnerships with health promotion agencies

We have a highly recognisable brand and a good media profile for promoting health in the media before, during and after events. We should also be educating our patients during clinical interactions – this might include reminders about sun smart behaviour or risk reduction in drug and alcohol affected patients.

Using the approved non-clinical patient services forms allows us to track and report the preventive interventions we provide, in addition to the first aid and health care we provide.

First Aid Posts

Determining first aid post location and services is an important early consideration when developing operational plans with event organisers.

Important points to consider during planning and on event day include:

- Size & number of first aid posts
- What is to be provided by St John / event organizers
- Location – ease of access / egress, proximity to stages / speakers / exits / crush points / toilets / rest areas
- Visibility – can people find us when they need us?
- Facilities – disabled/stretchers access, climate control (heat & cold), overflow options
- Security – stationed at the post / running with crews
- Communications – phone / radio coverage

Site Safety

Some events have appointed safety officers but many do not. We should all be “safety aware” while moving around an event and report hazards through to the team leader or command team. An exhaustive list is not practical at this point but things to consider include:

- Unsteady structures (tents, temporary rides)
- Electrical, water and fire hazards
- Public health concerns (water, toilets, waste)
- Convergence / crush points
- Road / traffic safety

Infection Prevention

No conversation about event safety is complete without discussing Infection Prevention. In addition to the personal aspects to reduce transmission of infection, on event day we need to think about:

- Availability of hand-washing facilities and clean drinking water
- Access to toilets for staff and patients, including those requiring mobility assistance
- Management of bio hazardous waste, including full bags after use
- Availability of waste removal and cleaning equipment/staff as required

The agitated patient

Managing an agitated patient is often very difficult. These patients can be unpredictable and are inherently dangerous. Experienced clinicians should ideally manage them but this is obviously not always practical or possible. The cause of agitation may be obvious and potentially reversible, but often it is not. Causes of agitation include drug intoxication, anger, frustration and mental illness.

It is sometimes not possible to get the management right, but there are some useful strategies that can help to get it less wrong.

- Always have an exit path – do not let an agitated patient get between you and the exit!
- Discreetly remove objects that might be used as weapons or projectiles (ideally do this before the patient arrives!)
- Do not argue with agitated, drug or alcohol affected patients – it achieves no benefit and often makes things worse
- Seek early assistance from on-site security and / or police as appropriate – it's better to have help and not need it than to not have it when you do need it
- Consider friends being involved carefully – they can make things better or a lot worse!

The use of basic de-escalation techniques is often helpful. Some strategies include:

- Minimising the number of people talking to the patient
- Reducing the amount of noise and bright light in the area
- Using words, tone and body language that are not judgemental and non-accusatory
- Reinforcing that you are only concerned about their health and not other issues
- Removing friends and/or combatants that are making things worse
- Acknowledging concerns and not arguing back

Post Event

The post event period is where we recognise, understand and learn from our experiences. We also need to pay special attention to the welfare of our members during this period.

Event Debrief

Learning from past experiences is critical to the development and maintenance of safety and policy and it is therefore important to debrief at the end of all operational deployments.

This may take the form of:

- A short discussion with event organisers to identify good practice or any problems
- “Hot debrief” of significant incidents at the end of an event
- Preparation of routine event returns to State / Territory Office
- Submission of event reports by command team
- Delayed multi-agency debrief after a major event or incident

All event debriefs should be minuted. Recommendations on how to improve services and address safety concerns should be directed to the responsible manager. This may lead to change in policy and practice.

Event Statistics

This is an important part of reporting what we do and helps us plan for future events and includes:

- Number of members that attended the event and total hours
- Any rostering and/or transport problems
- Number of patients treated
- Number of Extended Care Patient Reports
- Number of non-clinical patient services
- Cardiac arrest report (Utstein forms)
- Review of Incident and Near Miss Reports
- Review of logistics issues, including amount of consumables used
- Recommendations for future events

Peer Support

At some point, we will all encounter something that affects us emotionally. It is difficult to predict what this will be, how it will affect us and what we will need to get over. It is important that we accept this, know what to look for and where to ask for help. Things to consider include:

- Grief may progress through phases of denial, anger, bargaining, depression and acceptance
- Forcing peer support on people can be counter-productive
- We often change how we feel about things a few days or a week afterwards – people may be more vulnerable and in need of support during these times
- Knowing how to contact your state / territory peer support service

A detailed discussion of Peer Support is beyond the scope of this topic and would appropriately form the basis of an entire training night delivered by an experienced counsellor or psychologist.

Conclusion

Throughout this module, we have aimed to develop more conscious awareness of things that we often take for granted. We must be vigilant in our monitoring for and management of fatigue. We must consider safety during the planning, operational and reconciliation phases of all events and emergencies. Developing our approach to safety and preventive health care provides exciting ongoing opportunities to keep reviewing and improving our service delivery models.