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</table>
## Contents

**Purpose of Plan**  
2  
**Scope of Plan**  
2  
**Planning Assumptions**  
2

### Pre-Hospital Response  
3  
**Initial Actions SAAS**  
3  
**Response Phases**  
3  
**BAT Activation Protocol Guidelines**  
4  
**Burns Presentations to Country Health SA LHN Hospitals**  
4

### Royal Adelaide Hospital Response – Adult  
5  
**SA Adult Burn Service Surge Capacity**  
5  
**Escalation to a coordinated response across Local Health Networks/Interstate**  
5

### Women’s & Children’s Hospital response – Paediatrics  
6  
**SA Paediatrics Burn Service Surge Capacity**  
6  
**Escalation to a coordinated response across Local Health Networks/Interstate**  
7

### Appendices  
8  
**Appendix 1 Referral Criteria to RAH Burns Service**  
8  
**Appendix 2 Referral Criteria to WCH Burns Service**  
9  
**Appendix 3 Incident Involving Multiple Adult Burns Flowchart**  
10  
**Appendix 4 Incident Involving Multiple Paediatric Burns Flowchart**  
11
Purpose of Plan

1. The objective of this plan is to ensure coordination of South Australia’s response to a multi burns casualty incident, including responsibilities, authorities and the mechanisms to manage multi burn casualty incidents in South Australia.

Scope of Plan

2. This plan is an annex to the SA Health Major Incident Plan and addresses the response, coordination and management of an incident resulting in burn injuries in South Australia.

3. Issues relating to the Prevention, Preparedness and Recovery from a major incident involving burns casualties are not within the scope of this plan as they have been addressed in the SA Health Emergency Management Framework and SA Health Major Incident Plan.

Planning Assumptions

4. This plan is based on the following assumptions:
   > There will be no staff movement between Local Health Networks (LHN) in the first response phase
   > In the event of an incident, direct communication will take place between the Royal Adelaide Hospital (RAH) Burns Unit/Women’s & Children’s (WCH) Burns Unit and key clinical counterparts both in SA and interstate to establish their capacity to receive patients
   > Aeromedical Transport is available
   > The new Royal Flying Doctor Service (RFDS) facility at Adelaide airport has a stabilisation bay which can hold up to 3 patients. Protocols for management of burns patients are currently under development at the time of writing, but this stabilisation facility is an option which can inform strategic decision making,
Pre-Hospital response

5. SA Ambulance Service (SAAS) will be the primary point of notification alerting the Health Service that there has been an incident involving multiple burns casualties.

6. Early notification to the relevant Health Service will maximise the burns service ability to absorb the surge. Details on notification are documented in paragraph 8.

7. Referral criteria to the appropriate Burns Service can be found in Appendix 1 and 2.

Initial Actions SAAS

8. **Action** - The SAAS State Duty Manager (SDM) will determine the initial level of response. Once established that there are burns patients the SDM is to inform the MedSTAR Medical Retrieval Consultant (MRC). A collaborative decision is made to allocate any additional resources to the incident.

9. **Action** - The MRC is to inform the RAH/WCH Burns Unit of the incident at the earliest opportunity.
   9.1 For adult casualties the burns consultant on call can be contacted via RAH switchboard 08 7074 0000.
   9.2 For paediatric casualties the appropriate contact is via WCH switchboard 08 8161 7000.
      > Burns Registrar on call (during business hours)
      > Surgical Registrar on call (outside of business hours)

9.3 The information required by the Burns Unit is:
   a. Location of incident
   b. Numbers and severity of casualties
   c. Type of incident
   d. SAAS resources at site or on route
   e. Initial strategy for transport of casualties and to where

Response Phases

10. This plan incorporates a phased response to and recovery from an incident resulting in multiple burns casualties. The notification & escalation and command, control and coordination arrangements which would be activated in the event of a major incident are fully documented within the SA Health Major Incident Plan, which should be referred to for further information.

11. See Appendix 3 and 4 for flow diagrams outlining the basic process.

12. **Action (Adult)** - The Primary Burns Surgeon will determine the initial response strategy at the RAH and will consider sending a Burns Assessment Team (BAT) to the incident site.

13. The role of the BAT is to provide specialist burn care beyond the capability of local clinicians. The composition of the BAT will be decided by the Burns Unit Medical Director in discussion with the Burns Unit Advanced Clinical service coordinator.

14. The BAT will be located within the closest and most appropriate health facility and will not operate in the field or at a casualty clearing station.

15. The BAT will be under the operational direction of the MedSTAR MRC in terms of:
   a. Authority to practice in the setting the team has been dispatched to
   b. Transport arrangements for BAT and equipment (subject to availability)
   c. Coordination of BAT onsite including:
      i. Location within a local health facility
      ii. WHS
16. A BAT may also be deployed interstate following a major incident in another jurisdiction or to the port of entry following an overseas incident involving Australians being repatriated. This would be coordinated through existing national health arrangements in accordance with the AUSBURNSPLAN.

17. **Action (Paediatric)** - The WCH Burns Consultant on call or delegate will determine the initial response strategy relative to the incident.

   *Note: BATs are not available for paediatric burns victims*

### BAT Activation Protocol Guidelines

18. The BAT is a resource to be activated following discussion between the MedSTAR MRC and the Burn Unit RAH Medical Director in line with the guidelines below.

19. Guidelines for activation of the BAT are for either:
   - An incident on a single site outside Metropolitan Adelaide generating large numbers (>10) of burn-injured
   - or
   - A ‘contained’ incident within Metropolitan Adelaide generating large numbers (>20) burn-injured.

20. The BAT will **not** be dispatched if a rural incident (such as a bush fire) creates **several separate potential sources** of burn-injured casualties
   - or
   - A disaster within Metropolitan Adelaide which is ‘uncontained’
   - or
   - Where intelligence suggests that the incident site and the burn-injured generated therein are contaminated by chemical, biological and/or radiological agents.

### Burns Presentations to Country Health SA LHN Hospitals

21. If a burns casualty is transported by ambulance to a Country Health SA LHN hospital for stabilisation reasons or a casualty self presents the receiving hospital shall undertake the following actions:

#### Adults

22. **Action** - contact the RAH Burns Unit via the RAH switchboard and establish a video link on the SA Health (Cisco) Videoconferencing facility (if available) or via teleconferencing and seek guidance on treatment.

23. **Action** – Contact the nearest Burns ‘Link Nurses’ which are established in regional hospitals within South Australia and seek advice.

24. A decision will then be made by the Burns Unit to either retrieve the casualty to the Burns Unit at the RAH or to another facility either in SA or interstate, dependant on severity of the burns and/or the capacity at the RAH.

#### Paediatric

25. **Action** - contact the WCH Burns Unit via the WCH switchboard requesting the on call Burns Registrar and seek guidance on treatment.

26. **Action** – Contact the nearest Burns ‘Link Nurses’ which are established in regional hospitals within South Australia and seek advice.

27. A decision will then be made by the WCH Burns Unit to either retrieve the casualty to the WCH or to another facility either in SA or interstate, dependant on severity of the burns and/or the capacity at the WCH.
Royal Adelaide Hospital Response – Adult

28. The Burns Unit at the RAH is responsible for management of all Adult burns casualties that require treatment. The Unit has the resources and experience to deal with a multiple burns incident.

29. **Action –** ALL burns casualties are to be assessed/triaged by the Primary Burns Surgeon (normally the RAH Burns Unit Director or delegate) in order to develop a clinical plan to manage their injuries. At a minimum, all Priority 1 and 2 burns casualties are to be assessed at the RAH. Casualties will then be continually assessed in order to prioritise their treatment.

30. **Action –** Where resources are available, those casualties which meet referral criteria (refer to Appendix1) in rural/remote locations are to be retrieved to the RAH for assessment. Consider utilisation of Video Conferencing resources where available or multimedia to triage non-referral criteria casualties. Default, where no communications available, is to transfer all casualties to RAH.

**SA Adult Burn Service Surge Capacity**

31. The limitation on the number of burns casualties that can be treated in one location is determined by the acuity of the casualties’ injuries which determine the ongoing treatment requirements, not the number of specialist burns beds available. The RAH Burns Unit can accommodate:

   5 patients > 50% Total Body Surface Area (TBSA)
   or
   10 patients with burn injuries covering between 15% and 50% TBSA
   or
   7 patients > 15% TBSA where no more than 2 have burns >50% TBSA

32. **Action –** The RAH Primary Burns Surgeon will determine whether the number of burn-injured exceeds the Burns Unit’s capacity:

33. **Action –** The decision to divert burns casualties to another major trauma hospital in SA or interstate will be made by the RAH Primary Burns Surgeon.

34. The Burns Unit have a list of surgeons and contact details that, in this type of event, can be contacted to support the Unit theatre requirements in the initial phase.

35. **Action –** The Burns Unit is to ensure the contact list for Surgeons is regularly updated.

**Escalation to a coordinated response across Local Health Networks/Interstate**

36. Once the decision is made to transfer burns casualties across LHN’s and/or interstate this process will be coordinated by Health State Command and SAAS Gold Command. This coordination will be consistent with the arrangements for coordination of any whole of Health incident, details of which are contained in the SA Health Major Incident Plan.

37. The Primary Burns Surgeon along with the other key Burns Unit staff will be involved either directly or indirectly in the clinical treatment of casualties and will not be available to attend the CALHN Incident Management Team. CALHN Network Command will need to ensure a liaison officer can relay information between the CALHN Command Centre and the burns unit, The Burns Unit Shift Coordinator or delegate could fulfil this role.

38. **Action -** The CALHN Network Commander will relay escalation and diversion requests from the Primary Burns Surgeon, including requests for additional resources from within SA, to State Command who will also consider activation of national emergency health arrangements through the burns annex (AUSBURNSPLAN) of the Australian Governments plan for Mass Casualty Incidents of National Consequence AUSTRAUMAPLAN.

39. **Action –** State Command will facilitate communications (via teleconferencing) with all LHN’s (Network Command) SAAS Gold Command and other jurisdictions/Governments where required, to establish an incident action plan for patient distribution.
Women’s & Children’s Hospital response – Paediatrics

40. The Women’s & Children’s Hospital (WCH) Paediatric Burns Service is responsible for management of all paediatric burns casualties that require treatment. The Unit has the resources and experience to deal with a multiple burns incident.

41. **Action** – Burns casualties are to be assessed/triaged by the Burns Consultant on call, in consultation with the on-call trauma consultant at the WCH in order to develop a clinical plan to manage their injuries. At a minimum, all casualties who fit the criteria for referral are to be assessed at the WCH. Casualties will then be continually assessed in order to prioritise their treatment.

42. **Action** – Where resources are available, those casualties in rural/remote locations who meet the criteria for referral (refer to Appendix 2) are to be retrieved to the WCH for assessment.

SA Paediatrics Burn Service Surge Capacity

43. As with adult burns the limitation on the number of burns casualties that can be treated in one location is determined by the acuity of the casualties’ injuries which determine the ongoing treatment requirements, not the number of specialist burns beds available. The Burns Unit at the WCH can accommodate:

   For paediatrics -
   
   1 patient > 50% TBSA
   or
   4 patients 10% to 50% TBSA
   or
   2 patients >10% where 1 has burns over 50% TBSA
   or
   10 patients with burns < 10% TBSA

   *Note: these are NOT definitive numbers but a guide only (dependent on age, site of injury, presence of inhalation injury, etc.)*

44. **Action** – The Burns Consultant on call will determine whether the number of burn-injured exceeds the Burns Unit’s capacity:

45. **Action** – The decision to divert burns casualties to other major trauma hospitals in SA (minor burns only) or interstate will be made by the Burns Consultant on call.

46. The Burns Unit have a list of Burns and Plastic surgeons and contact details that, in this type of event, can be contacted to support the Unit theatre requirements in the initial phase.

47. **Action** – The Burns Unit is to ensure the contact list for Surgeons is regularly updated.

48. **Action** – If the Burns Unit requires medical support from the adult burns service within SA this will be coordinated at a unit to unit level as required.
Escalation to a coordinated response across Local Health Networks/Interstate

49. Once the decision is made by the Burns Consultant on call to transfer burns casualties across LHN’s and/or interstate, this process will be coordinated by SA Health State Command. This coordination will be consistent with the arrangements for system wide coordination of any major incident, details of which are contained in the SA Health Major Incident Plan.

50. The Burns Consultant on call along with the other key Burns Unit staff will be involved either directly or indirectly in the clinical treatment of casualties and will not be available to attend the WCHN Incident Management Team. WCHN Network Command will need to ensure a liaison officer can relay information between the CALHN Command Centre and the burns unit. The Advanced Clinical Practice Consultant - Burns (Adv. CPC - Burns) or delegate could fulfil this role.

51. **Action** - The WCHN Network Commander will relay escalation and diversion requests from the Burns Consultant, including requests for additional resources from within SA, to State Command who will also consider activation of national health emergency arrangements through the burns annex (AUSBURNSPLAN) of the Australian Governments plan for Mass Casualty Incidents of National Consequence AUSTRAUMAPLAN.

52. **Action** – State Command will facilitate communications (via teleconferencing) with all LHN’s (Network Command) SAAS Gold Command and other jurisdictions/Governments where required, to establish an incident action plan for patient distribution.
Appendix 1

Referral Criteria to RAH Burns Service

The RAH provides an inpatient and outpatient service, including telephone consultations and patient transfers for persons aged 16 years and over:

- Burns greater than 10% total body surface area (TBSA)
- Burns to face, hands, feet, genitalia, perineum, major joints
- Full thickness burns
- Electrical burns – to allow for full assessment
- Chemical burns – to allow for full assessment
- Circumferential burns of limbs or chest
- Burns at the extremes of age (elderly)
- Burn injury in patients with pre-existing medical disorders
- Burns with associated inhalation injury
- Any burns patient with concomitant trauma
- Any burns patient with concomitant medical illness
- Non accidental injuries
- Any patient with pre-existing psychiatric disorder that may compromise management
- Any other burn that the referring department is not happy about or confident to send home

This criterion is based on the Australian and New Zealand Burns Association transfer guidelines for Burns Retrieval Service referrals (2012).
Appendix 2

Referral Criteria to WCH Burns Service

The WCH provides an inpatient and outpatient service, including Digital Referral Service for persons aged 0-16 years for:

- Any burn where the referring department/GP/Clinic/nurse/or health worker requires management or advice from the paediatric burns service.
- Burns greater than 5-7% total body surface area (TBSA)
- Burns to face, hands, feet, genitalia, perineum, major joints
- Full thickness burns
- Electrical burns
- Chemical burns
- Inhalation burns
- Circumferential burns
- Burn injury in patients with pre-existing medical disorders
- Burns associated with trauma
- Burn injury with a suspicion of non-accidental injury

This criterion is based on the Australian and New Zealand Burns Association transfer guidelines for Burns Retrieval Service referrals (2012).
Appendix 3

Incident Involving Multiple Adult Burns Flowchart

Inform MedSTAR MRC
Inform Primary Burns Surgeon RAH

Multiple burns casualties reported to SAAS SDM

Transferred immediately to RAH for Assessment

YES

Primary Burns Surgeon assesses casualties

Casualties to be managed within RAH

YES

NO

INCIDENT MANAGED

Retrieve to RAH

YES

NO

Primary Burns Surgeon sends Burns Assessment Team (BAT) to location

Local hospital utilise video link with RAH/contact Burns link Nurses for advice

NO

Incident managed

Primary Burns Surgeon informs Health Gold Command who will facilitate transfer

Transfer interstate

Retrieve to alternative SA Facility

Primary Burns Casualties clearly surpasses RAH capacity

NO

Retrieve to alternative SA Facility

YES

YES

YES
Incident Involving Multiple Paediatric Burns Flowchart

- Inform MedSTAR MRC
- Inform Burns Consultant on Call at WCH

- Multiple paediatric burns casualties reported to SAAS SDM
  - Transferred immediately to WCH for Assessment
  - Burns Consultant on call assesses casualties
  - Casualties to be managed within WCH
    - YES
    - Incident managed
    - NO
    - Retrieve to WCH
      - YES
      - Retrieve to alternative SA Facility
      - Transfer interstate
    - NO
      - Location of incident and/or lack of available transport necessitates a delay or not practical to retrieve to WCH
      - Local hospital utilise video link with WCH/contact Burns link Nurses for advice
      - Numbers of Burns Casualties clearly surpasses WCH capacity
      - Burns Consultant on call informs Health Gold Command who will facilitate transfer
      - Casualties to be managed within RAH
        - YES
        - Incident managed
        - NO
        - Retrieve to alternative SA Facility
          - Transfer interstate

- Multiple burns casualties reported to SAAS SDM
  - Primary Burns Surgeon informs Health Gold Command who will facilitate transfer
  - Primary Burns Surgeon sends Burns Assessment Team (BAT) to location
  - BAT assess situation
  - Casualties to be managed within RAH...