

# Rural and Remote Emergency Services Standardisation: Emergency Equipment

## Queensland Health Guideline

### 1. Purpose

To provide best practice recommendations for standardisation of emergency resources in rural and remote health care facilities in Queensland with emergency services assessed as Level 1 or Level 2 (or adapted for use by higher level facilities in Queensland or interstate jurisdictions on advice of local health services) under the *Clinical Services Capability Framework for public and licensed private health facilities v3.2 (2014)*.

### 2. Scope

This guideline provides information for all Queensland Health employees (permanent, temporary and casual) and all organisations and individuals acting as its agents (including Visiting Medical Officers and other partners, contractors, consultants and volunteers) working in rural and remote health care facilities throughout Queensland with emergency services

The Rural and Remote Emergency Services Standardisation (RRESS) suite of guidelines do not address specific training requirements for the safe and competent use of equipment, consumables or medicines. It is the responsibility of the Hospital and Health Service to address this where appropriate

With a mobile workforce, standardisation promotes consistency of evidence based practice and benefits patient safety and quality outcomes. When updating equipment, Hospital and Health Services's should ensure staff are familiar and trained in its use, especially when working across multiple locations or Hospital and Health Services.

Brands of equipment are not listed in this document. To assist with consistent choice of emergency equipment (e.g. cardiac defibrillator/monitor, transport ventilator, fetal heart rate monitor, ECG machine), Hospital and Health Services are encouraged to contact Retrieval Services Queensland (RSQ) medical director, given the services' familiarity with multi-agency emergency equipment use and the emergency assistance they provide to Level 1 or Level 2 facilities, including telehealth services.

Ideally, standardisation between QLD Health facilities, QAS, and retrieval providers, such as RFDS and LifeFlight, would ensure seamless transfer of patients. However, it is acknowledged different services acquire their equipment according to unique needs e.g. ability to secure in road vehicles, flight weight requirements and scope of clinical practice.

### 3. Related documents

- Rural and Remote Emergency Services Standardisation guideline - Emergency Equipment
- Rural and Remote Emergency Services Standardisation guideline - Resuscitation Trolley
- Rural and Remote Emergency Services Standardisation guideline - Emergency Procedural Kits
- Rural and Remote Emergency Services Standardisation guideline - Emergency Response Packs
- Checklist - Resuscitation trolley contents
- Checklist - Emergency procedural kits contents
- Checklist - Emergency response pack contents
- S4HANA resource ordering spreadsheet
- All above available from: <https://www.health.qld.gov.au/rrcsu/html/rress> or <https://qheps.health.qld.gov.au/orrh>

## 4. Emergency equipment requirements

### 4.1. Key emergency equipment

#### 4.1.1. Cardiac defibrillator/monitor

- a) Each level 1 and 2 rural and remote facility providing an emergency service must have a cardiac defibrillator/monitor, which should:
  - i. be capable of defibrillation, synchronised cardioversion, and external (transcutaneous) pacing
  - ii. is suitable for use across the widest age range possible with age appropriate consumables e.g. neonate to adult

#### 4.1.2. Emergency transport ventilator

- a) Where HHS's elect to make emergency transport ventilators available, the HHS must ensure the chosen ventilator:
  - i. has optimal functionality e.g. provision of high flow O2 therapy, non-invasive ventilation capability, waveform capnography
  - ii. is suitable for use across the widest age range possible e.g. neonate to adult
  - iii. includes a range of age appropriate ventilation hose systems e.g. neonate to adult

#### 4.1.3. Fetal heart rate (FHR) doppler

- a) Each level 1 and 2 rural and remote facilities providing an emergency service must have a doppler (with water soluble transmission gel) for fetal heart rate monitoring:
  - i. kept in close proximity to the resuscitation trolley **or** in the Imminent birth and obstetric kit

#### 4.1.4. Electrocardiograph (ECG) machine

- a) Each level 1 and 2 rural and remote facility providing an emergency service must have an ECG machine for cardiac monitoring:
  - i. kept in close proximity to the resuscitation trolley
  - ii. with all machine specific leads, recording paper, electrodes (sticky dots) and any other consumables to ensure optimal functionality for use across the widest age range possible e.g. neonate to adult

#### 4.1.5. Neonatal resuscitaire

- a) At the discretion of the HHS, local inclusion or exclusion of a neonatal resuscitaire can be determined based on:
  - i. ability to provide emergency support to babies < 5 kg in a suitable pre-planned resuscitation environment i.e. warm, well lit, ergonomic, oxygen and suction, +/- medical air
  - ii. scope and skills of clinical workforce at their Level 1 and 2 facilities
  - iii. alternate arrangements e.g. bag valve mask and T-piece device and circuit

#### 4.1.6. Other diagnostic equipment and consumables

- a) Each level 1 and 2 rural and remote facility providing an emergency service should have other diagnostic equipment according to **Appendix A: Emergency diagnostic equipment and consumables for rural and remote facilities - Basic contents**
- b) All diagnostic equipment and consumable items should:
  - i. be within easy access of the emergency area
  - ii. be accompanied by a variety of age appropriate attachments and any other consumables to ensure optimal functionality

### 4.2. Quality assurance and maintenance

- 4.2.1. For auditing purposes, the HHS should document routine scheduled:
- a) calibration of emergency equipment to manufacturers specifications
  - b) testing of emergency equipment for functionality
  - c) maintenance of staff skills, competencies and/or credentialing
- 4.2.2. Where clinicians are expected to safely operate emergency equipment for patient monitoring and support, they should:
- a) familiarise themselves with **Appendix A. Emergency equipment for rural and remote facilities – Basic contents**
  - b) Ensure equipment or consumables are present, charged, functioning, intact, calibrated to manufacturers specifications and ready for immediate use

## 5. Consultation

- The initiative to standardise emergency equipment in rural and remote facilities was developed by an expert Project Reference Group to satisfy coroners recommendations following patient safety incidents
- The review of this document sought expert advice from a Reference Group with broad experience in rural and remote environments, retrieval medicine and supporting rural networks consisting of representatives from:
  - Australasian College for Emergency Medicine (ACEM)
  - Australian College of Rural and Remote Medicine (ACRRM)
  - Cairns and Hinterland Hospital and Health Services (CHHHS)
  - Central Queensland Hospital and Health Service (CQHHS)
  - Darling Downs Hospital and Health Services (DDHHS)
  - Metro North Hospital and Health Service (MNHHS)
  - Metro South Hospital and Health Service (MSHHS)
  - North West Hospital and Health Service (NWHHS)
  - Queensland Ambulance Service (QAS)
  - Retrieval Services Queensland (RSQ) and RSQ Telehealth
  - Royal Flying Doctor Service, Queensland Section (RFDS)
  - South West Hospital and Health Service (SWHHS)
  - Torres and Cape Hospital and Health Service (TCHHS)
  - Townsville Hospital and Health Services (THHS)
  - West Moreton Hospital and Health Services (WMHHS)
  - Wide Bay Hospital and Health Services (WBHHS)

## 6. Key references and resources

- [The Primary Clinical Care Manual \(PCCM\)](#) is the principle reference document for all acute presentations in rural and remote facilities
- [ANZCOR algorithms and flowcharts](#) to print out and made available in with kits, trolley or ERP
- [Children's Health Queensland resuscitation and MET resources](#)
- [Queensland Health Paediatric Emergency Care](#)
- [Maternity and Neonatal Clinical Guidelines](#)
- [The Australian Resuscitation Council suite of emergency protocols](#)
- [Queensland Emergency Department Strategic Advisory Panel \(QEDSAP\) resources](#)
- [Resuscitation Medicine Safety \(ReMS\)](#)
- [Safer Ventilation in Emergency \(SaVE\)](#)

- Main [PROV-ED website](#)
  - [PROV-ED Standardised and Safe Intubation Package \(SSIP\)](#)
  - [PROV-ED Resuscitation Medication Safety \(ReMS\)](#)
  - [PROV-ED RESUSMENU](#)
- [Plaster template resources](#) to print and place in Dislocations and fracture kit
- [RSQ Bariatric Sizing Chart asset summary](#)
- [CREDD guideline](#)
- [Clinical Services Capability Framework Version 3.2 \(2014\)](#)
- [Medicines and Poisons \(Medicines\) Regulation 2021](#)

## 7. Document approval details

### 7.1. Document custodian

7.1.1. The Office of Rural and Remote Health Clinical Support Unit

### 7.2. Approval officer

7.2.1. Frank Grainer, Assistant Director of Nursing Office of Rural and Remote Health

### 7.3. Dates

7.3.1. Approved 5th Feb 2025

7.3.2. Next review Feb 2027

## 8. Version control

Version No.	Date	Modified by	Amendments authorised by	Approved by
2024_v1.0_draft	16/7/24	Sean Booth	review and update for ref group	N/A
2024_v1.1_draft	7/8/24	Sean Booth	amend as per ref group feedback	RRESS Reference Group
2024_1.3_draft	28/8/24	Sean Booth	amend as per ref group feedback	RRESS Reference Group
2024_1.4_final_draft_RG_APPROVED	4/9/24	Sean Booth	amend as per ref group feedback	RRESS Reference Group APPROVED
2024_1.5_final_draft_RG_APPROVED	2/12/24	Sean Booth	amend as per neonatal ref group feedback	RRESS Neonatal Reference Group APPROVED
2025_v3.0_final	5/2/25	Sean Booth	APPROVED	ADON-ORRH

## Appendix A. Emergency equipment for rural and remote facilities - Basic contents

All items within easy access of emergency area	
DIAGNOSTIC EQUIPMENT AND CONSUMABLES	
Flexible tape measure	
Scales adult	
Scales baby/infant	
Combined blood glucose and ketone monitor	
Blood glucose monitor strips bottle	
Ketone monitor strips bottle	
Urinalysis strips bottle	
Thermometer tympanic digital	
Thermometer tympanic digital probe covers packet	
Thermometer axillary paediatric	
Pneumatic tourniquet machine	<b>Optional at the discretion of the HHS</b>
Auroscope	
Ophthalmoscope	
Pulse oximeter	
I-STAT hand held biomedical analyser	
I-STAT cartridges CG4 packet	
I-STAT cartridges CHEM8 packet	
I-STAT cartridges INR packet	
I-STAT cartridges TROPONIN packet	
Blue top blood tube packet	
Purple top blood tube packet	
Yellow top blood tube packet	
Pink top blood tube packet	
Adult anaerobic blood culture bottles	
Adult aerobic blood culture bottles	
Child anaerobic blood culture bottles	
Child aerobic blood culture bottles	
Centrifuge	<b>With sealed rotor &amp; timer</b>
Specimen fridge	