Queensland Health

Rural and Remote Emergency Services Standardisation: Resuscitation Trolley

Queensland Health Guideline

1. Purpose

To provide best practice recommendations for standardisation of resources in a resuscitation trolley in rural and remote health care facilities in Queensland with emergency services assessed as Level 1 or Level 2 services (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

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/rrcsu

4. Resuscitation trolley requirements

4.1. Resuscitation trolley choice and maintenance

4.1.1. The type, size and brand of resuscitation trolley is determined by the Hospital and Health Services Quality, Safety and Risk Unit. It should:

a) be ergonomically fit for purpose and

b) accommodate and promote immediate orderly access to contents, without hindrance, as per Appendix A. Resuscitation trolley for rural and remote facilities: Basic contents

c) be configured with five (5) clearly labelled drawers as follows

Drawer	Description
A	Airway
B	Breathing
C	Circulation
D	Medicines
E	Extras

4.1.2. It is the responsibility of each Hospital and Health Service to determine compliance or alteration to the resuscitation trolley taking into consideration fiscal impacts of items e.g. disposable items versus items requiring sterilisation

4.1.3. The contents and layout of the resuscitation trolley should be established, maintained and restocked immediately after use as per the Appendix A. Resuscitation trolley for rural and remote facilities: Basic contents

4.1.4. The resuscitation trolley should be easily accessible by all staff in a designated resuscitation area

4.1.5. All staff should be oriented to the resuscitation trolley as part of standard facility orientation

4.2. Emergency procedural kit support

4.2.1. The Emergency procedural kits are a vital part of emergency consumables required to support resuscitation and must be located within close proximity to:

a) the resuscitation trolley and

b) the emergency response pack

4.2.2. The procedural kits should be easily accessible by all staff in a designated resuscitation area

4.3. Quality assurance and maintenance

4.3.1. All contents within the resuscitation trolley are supported by evidence based best practice at time of signed approval

4.3.2. Procurement of resuscitation trolley items is governed by local Standing Offer Arrangements (SOA). The procurement of item(s) from differing manufacturers may:

a) vary between Hospital and Health Services but serve the same function

b) require specific resources or attachments for the procured item to function properly e.g. a manufacturers proprietary syringe to fit the procured item

c) require thorough checking of the procured item for compatibility with other resuscitation trolley contents

4.3.3. Local alteration of resuscitation trolley contents according to Appendix A. Resuscitation trolley

for rural and remote facilities: Basic contents is acceptable:

a) after consultation with, and approval by the local HHS Director of Medical Services and
b) after consultation with, and approval by the local HHS Quality, Safety and Risk Unit and
c) the HHS deems a facility is safely supported by a readily accessible nearby emergency department or
d) listed items vary according to local HHS Standing Offer Arrangements (SOA) or
e) the item serves the same purpose as the one being altered or
f) supply shortages requires the HHS to source alternative options

4.3.4. At the discretion of the HHS facility clinical manager a single use locking tag system can be used to secure each resuscitation drawer or compartment. The locking tag system:

a) provides a tamper proof indicator to support less frequent checking of resuscitation trolley contents
b) alerts clinicians to tampering of resuscitation contents
c) choice is at the discretion of the governing HHS
d) should be easily identifiable with a serial number
e) should be easily removed in the event of an emergency
f) should be checked daily to ensure tag is intact

4.3.5. Resuscitation trolley checking requirements:

a) The facility clinical manager should assign responsibility to an appropriate clinician for checking, maintaining, cleaning and stocking the resuscitation trolley and contents
b) The clinician assigned responsibility should check resuscitation trolley contents against the Resuscitation trolley checklist:
    i. daily for drawers without locking tag systems
    ii. monthly for drawers with locking tag systems
    iii. immediately after responding to an acute incident within the facility
c) Checking resuscitation trolley contents less than the above requirements should trigger a documented risk assessment
d) If equipment or consumables are not present or within date, then replace immediately
e) The signature of the person conducting the checking verifies items are present and within expiry dates, locking tags are unbroken, and equipment or consumables are charged, functioning, intact and calibrated to manufacturers specifications

4.3.6. Resuscitation trolley audit requirements:

a) The facility manager should conduct 6 monthly audits of the Resuscitation trolley checklist for compliance. Any anomalies:
    i. should be addressed and a risk assessment undertaken
    ii. requires audits to be undertaken monthly for a minimum of 3 months or until compliance has been restored, regardless of locking tag system
b) The resuscitation trolley contents must be consistent with the Appendix A. Resuscitation trolley for rural and remote facilities: Basic contents

4.3.7. The HHS Quality, Safety and Risk Unit should document routine scheduled audits of the resuscitation trolley at all rural and remote facilities under its jurisdiction

4.4. Medicine compliance

4.4.1. Facility managers must ensure medicines kept in an emergency room complies with the Medicines and Poisons (Medicines) Regulation 2021 which requires:

a) all Schedule 8 (S8) Controlled medicines, unless in the personal possession of an

authorised clinician, be stored in an S8 safe and

b) all Schedule 4 (S4) Restricted medicines:

i. are secure from public access and

ii. signage indicates restricted public access to the area and

iii. all staff actively monitor the approved restriction

4.4.2. To comply with state legislation any resuscitation trolley compartments containing S4 medicines must be secured with a single use locking tag system. The locking tag system:

a) will alert clinicians to any tampering of compartments

b) choice is at the discretion of the governing HHS

c) should be easily identifiable with a serial number

d) should be easily removed in the event of an emergency

e) should be checked daily, with serial numbers recorded next to the clinician signature

4.4.3. Where clinicians have scope (e.g. IHW, RN, RIPRN, ATSIHP, MID) to use medicines, facility managers should ensure clinicians satisfy their responsibilities to maintain skills, competencies and/or credentialing to enable:

a) safe quality use of medicines and

b) safe and thorough assessment skills

4.5. Safe emergency equipment use

4.5.1. Where staff are expected to safely operate emergency equipment for patient monitoring and support, the HHS should provide and 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

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

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2024_v1.0_draft	16/7/24	Sean Booth CNC RRESS	review and update for ref group	Frank Grainer ADON
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Appendix A. Resuscitation trolley for rural and remote facilities: Basic contents

N.B. The Airway and Breathing procedural kit is a vital part of the consumables required for resuscitation and must be located on, or close to the resuscitation trolley. Refer to Rural and Remote Emergency Services Standardisation Guideline: Procedural Kits available at: https://www.health.qld.gov.au/rrcsu/html/rress	
MONITOR/DEFIBRILLATOR TRAY	
Defibrillator/monitor with therapy cable attached	ALERT: Ensure 'test load' is disconnected from defibrillator after completing test. Risks patient harm by simulating asystole if attached NOTE: These consumables may be required when responding to an acute incident outside the facility or transferring a patient to another facility
Defibrillator battery support unit/charger connected	
NIBP cable attached	
SpO2 cable attached	
Defibrillator pads adult x 1	
Defibrillator pads paediatric/infant x 1	
ECG/monitoring dots x 8	
Trauma shears	
Torch (pencil)	
OTHER	
Sharps bin	
IV pole & mount	
Sphygmomanometer (manual within 2 metres of trolley)	
Stethoscope (hanging on pole) x 1	Adult and neonatal
Goggles x 2	
Calculator x 1	
Bag valve mask self-inflating with PEEP valve paediatric x 1	Hanging on IV pole
Bag valve mask self-inflating with PEEP valve adult x 1	
IV pressure bag 1 litre clear x 1	
DRAWER A - AIRWAY	
Brown tape 1 cm x 1	
Filter for BVM adult supraglottic device x 1	
Filter for BVM paediatric supraglottic device x 1	
Supraglottic airway size 1 x 1	Uncuffed second generation device prefered e.g. I-Gel
Supraglottic airway size 2 x 1	
Supraglottic airway size 3 x 1	
Supraglottic airway size 4 x 1	
Supraglottic airway size 5 x 1	
Nasopharyngeal airway size 3 mm x 1	
Nasopharyngeal airway size 4 mm x 1	
Nasopharyngeal airway size 5 mm x 1	
Nasopharyngeal airway size 6 mm x 2	
Nasopharyngeal airway size 7 mm x 2	
Nasopharyngeal airway size 8 mm x 2	
Oropharyngeal airway size 2 (70 mm) x 1	Be mindful that sizes in millimetres (mm) may differ between brands. Sizes here are for Coviden's DAR®
Oropharyngeal airway size 3 (80 mm) x 1	
Oropharyngeal airway size 4 (90 mm) x 1	
Oropharyngeal airway size 5 (100 mm) x 1	

Suction catheter 10 Fr x 2	
Suction catheter 12 Fr x 2	
Suction catheter 14 Fr x 2	
Syringe luer tip 20 mL x 1	For use in non-preferred inflatable Supra-glottic airway e.g. Laryngeal Mask Airway
Yankeur sucker x 2	
DRAWER B - BREATHING	
Mask (Hudson) oxygen paediatric x 1	
Mask paediatric non re-breather x 1	
Mask paediatric nebuliser x 1	
Mask (Hudson) oxygen adult x 1	
Mask adult non re-breather x 1	
Mask adult nebuliser x 1	
Nasal prongs adult x 1	
Nasal prongs paediatric x 1	
Nebuliser chamber x 2	
O2 tubing x 1	
Spacer (for MDI use) x 1	
DRAWER C - CIRCULATION	
Alcohol swabs (Alcowipes®) 2% chlorhexidine gluconate 70% alcohol x 10	
Drawing up needles x 5	
Fluid dispensing connector x 4	
Injection site connector (bungs) x 5	e.g. BD Smartsite
IV bag spike x 1	
IV burette x 1	
IV giving set x 1	Appropriate for infusion pump being used
IV giving set blood two pronged x 2	Appropriate for infusion pump being used
IV rapid infusion pump set x 2	Appropriate for infusion pump being used
IV three-way tap with extension tubing x 2	
Micropore® 2.5 cm x 1 roll	
Non-safety needle size 18 g x 5	
Non-safety needle size 21 g x 5	
Non-safety needle size 23 g x 5	
Retractable IV cannula 14 g x 2	
Retractable IV cannula 16 g x 2	
Retractable IV cannula 18 g x 2	
Retractable IV cannula 20 g x 2	
Retractable IV cannula 22 g x 2	Must be standard cannula without blood control tech
Retractable IV cannula 24 g x 2	
Syringe 1 mL x 5	
Syringe Luer lock 5 mL x 2	
Syringe Luer lock 10 mL x 5	
Syringe Luer lock 20–30 mL x 5	

Syringe Luer lock 50 mL x 2	
Transparent adhesive IV dressing x 5	
Tourniquet x 2	
DRAWER D - Medicines	
First Line	
Adrenaline 1:10,000 prefilled syringes x 5	Or ampoules
Amiodarone ampoule 150 mg/3 mL x 3	
Aspirin 300 mg dispersible tablet x 8 (1 sleeve)	
Atropine sulphate 600 microg/mL ampoule x 2	
Glyceryl trinitrate tablets 600 microg bottle x 1	
Second Line	
Adenosine 6 mg/2 mL ampoule x 6	
Adrenaline 1:1000 ampoule x 10	
Calcium gluconate 2.2mmol of calcium in 10mL vial x 3	NOTE: Solution prone to precipitation. Examine the vial and do not use if a precipitate is present
Droperidol 10 mg/2 mL vial x 3	
Glucose 50% 50 mL vial x 1	
Glucose 10% 500 mL bag x 1	
Glucose gel 40% 15 g tube x 1	
Glucagon 1 mg injection x 1	
Glyceryl trinitrate 50 mg/10 mL ampoule x 1	GTN is adsorbed by PVC. If using PVC infusion equipment, keep alert sticker with GTN labelled: "ALERT: GTN infusion. Change to non-PVC as soon as practicable"
Honey and jam caterers packs each x 6	Kept in envelop in imprest and labelled "For suspected ingestion of button battery. Jam for < 1 years; Honey for > 1 years"
Intranasal Mucosal Atomisation Device (MAD) x 2	
Ipratropium bromide 21 microg metered dose inhaler (MDI) x 1	
Ipratropium bromide 250 microg/mL nebule x 5	
Levetiracetam 500 mg/5 mL vial x 10	
Magnesium sulfate 2.5 g/5 mL ampoule x 6	
Metaraminol 5 mg/10 mL syringe x 2	
Midazolam 5 mg/mL ampoule x 4	
Naloxone hydrochloride 0.4 mg ampoule x 2	
Noradrenaline 2 mg/2 mL ampoule x 3	
Potassium chloride 10 mmol in 100 mL minibag x 1	
Salbutamol 100 microg metered dose inhaler (MDI) x 1	
Salbutamol 5 mg/2.5 mL nebule x 5	
Sodium bicarbonate injection 8.4% 100 mL vial x 1	
Sodium chloride 0.9% prefilled syringe 10 mL x 6	
Sodium chloride 3% (hypertonic) 250 mL bag x 1	With alert sticker attached stating 3%
Sterile water for injection 10 mL ampoules x 10	
DRAWER E - EXTRAS	

Defribrillator cables that allow ECG, pacing and extended purposes	
Defribrillator trace paper roll x 1	If required
ECG electrodes (dots) packet x 1	Variety of sizes to address age groups
Defibrillator pads paediatric x 2	
Defibrillator pads adult x 2	
Clippers and or razor x 2	
Spare disposable torch	Or extra batteries if torch not disposable
Paediatric SpO2 probe x 1	
Neonatal SpO2 sensor wrap x 1	
Space blanket x 1	
SIDE OF TROLLEY	
Oxygen tank holder	
Oxygen cylinder size C with regulator	
Portable suction unit with suction tubing connected	
Yankaeur sucker and tubing x 1	
SIDE OF TROLLEY – SWING POCKETS	
Top pocket	
NIBP cuff child size x 1	For chosen defibrillator/monitor on resus trolley
NIBP cuff small adult size x 1	
NIBP cuff adult size x 1	
NIBP cuff large adult size x 1	
NIBP cuff adult thigh size x 1	
Second pocket	
Glucose (dextrose) 5% 100 mL bag for infusion x 2	
Sodium chloride 0.9% 1000 mL bag for infusion x 2	
Sodium chloride 0.9% 500 mL bag for infusion x 2	
Sodium chloride 0.9% 100 mL bag for infusion x 2	
Sodium chloride 0.9% with 5% glucose (dextrose) 1000 mL bag for infusion x 1	
HOOK ON BACK OF TROLLEY	
Extension cord	