Australian College of Rural & Remote Medicine
WORLD LEADERS IN RURAL PRACTICE

Australian College of Rural and Remote Medicine

Audit Template
Minimum Standards for small rural hospital emergency departments

Revised December 2019

Mary Jane Streeton
12-12-2019

How to use this Template

This Audit Template is based on the *"College Standards: Recommended Minimum Standards for small rural hospital emergency departments"* and should be read with this document. It provides a tool to assist your health service to assess their current arrangements against these standards.

The College Standards are not intended to be applied as a proscriptive measure but to provide guidance to assist rural hospitals and health services to be adequately equipped and resourced within the exigencies of their respective contexts and budgets.

It is hoped that this template will provide a useful resource for your organisation in quality benchmarking and provide a helpful guide to inform future planning toward excellence in safe, quality rural and remote health service provision.

1. Applicable Service

	Status *Applicable/Not Applicable*
Does your hospital/health service comply with the broad definition of a small rural hospital? • Geographical Classification MMM 4-7 (servicing a town of 5,000-15,000 population), and, • Emergency Department presentations of an approximate maximum of 10,000 per year	

2. General Principles

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
An Emergency Department must have the following basic elements:		
Suitably trained nursing staff available 24 hours a day, seven days a week.		
A triage process whereby patients are allocated priority based on		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

clinical need.		
A daily roster of suitably trained medical staff available in house or on-call 24 hours a day, seven days a week.		
Dedicated facilities to manage emergency presentations including a dedicated resuscitation area with appropriate equipment to provide advanced paediatric, adult and trauma life support prior to transfer to definitive care.		
A formal structure in place to be able to access other specialty advice 24 hours a day, seven days a week.		
A formal structure in place to be able to access appropriate retrieval services 24 hours a day, seven days a week.		

3. Physical Environment

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
The Emergency Department is clearly signed with direct access for disabled patients and those arriving by private vehicle.		
There are suitable mobility/transport aids (e.g. wheelchair, patient trolley) immediately available to assist patients into the Emergency Department.		
There is a designated undercover loading/off-loading area for ambulance vehicles with direct access into the Emergency Department.		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

There is a Helicopter Landing Site (HLS) readily accessible from the Emergency Department preferably via patient trolley. Ideally, the HLS should conform with Civil Aviation Advisory Publication for a Basic HLS (Refer to CASA Document CAAP 92-2(2) *Guidelines for the establishment and operation of on-shore helicopter landing sites* February 2014)		
There is an easily identified means for patients/carers to summon hospital staff when the Emergency Department does not have 24-hour staffing.		
There is at least one room designated as the "Resuscitation" room (that may be used for other purposes but can immediately be made available for the assessment and management of serious, and potentially serious patients).		
The Resuscitation room has minimum of 25m2 area and allows unimpeded entrance and exit for patient trolley to/from ambulance parking bay		
The room layout is sufficient to allow unimpeded staff circulation around the full 360-degrees of the patient trolley.		
A suitable dedicated patient trolley with hydraulic or electric assisted position adjustment.		
Transfer slide or sheet compatible with ambulance trolleys and hospital beds		
A minimum of two suction outlets, two oxygen outlets and eight General Power Outlets.		
Where possible, all power/medical		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

gas/suction/patient monitoring lines etc come from a single point of origin (e.g. back wall or overhead pendant).		
Adequate shadowless room lighting (to AS/NZS standard) with separate overhead 360-degree mobile light source for direct illumination for procedural work.		
Sufficient in-room organised storage space for all resuscitation, medical and ancillary equipment that limits need for staff to exit room to obtain necessary items.		
Organisation of equipment required for urgent adult/paediatric use by designated drawers/colour coding/wall mounted “shadow board” or similar to allow rapid sourcing by all staff. (In smaller hospitals, resuscitation equipment and associated pharmaceuticals may be best organised in a “crash trolley” for use in areas outside the Emergency Department.)		
Wall mounted white board for documentation.		
Wall mounted clock		
Minimal delay automatic back-up generator to supply power for all resuscitation room requirements		
Separate battery back-up/Uninterruptable Power Supply for emergency lighting		
A minimum of at least one other room in close proximity and of sufficient size and outfitting as to be capable of being used for patient care, consultation and private communication when necessary.		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

4. Personnel

Recommendation	Status *Met/Not Met*	Action *If Not Met - list alternative arrangements/ strategy to address*
A clearly defined and simple system for locating and calling in additional local medical, nursing, administrative and ancillary staff as required.		
Medical: • A designated Emergency Department Team Leader with overall administrative responsibility for orientating new/locum medical staff as well as liaising with local Hospital/Nursing administration on the delivery of Emergency Medicine services within the hospital (In smaller facilities, this may be the Director of Medical Services or a GP VMO).		
• This doctor is also responsible for liaising with the Regional Health Authority/Clinical Network (or however designated) for those over-arching issues necessary for delivery of safe and sustainable emergency services.		
• An appropriately trained doctor on site (or close call) at all times, responsible for consultation, telephone advice, assessment and management of patients presenting to the emergency department.		
• As a minimum, doctors providing emergency medicine services in small hospitals		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

(<10,000 Emergency Department attendances per annum) should have a recognised Fellowship (FACRRM or FRACGP/FARGP or equivalent) as well as current certification in Advanced Life Support, Advanced Paediatric Life Support, Emergency Management of Severe Trauma, and Emergency Obstetric Skills (or equivalent certification in these areas as determined by jurisdictional requirements)		
• At all times, there should be the ability to contact at least one other medical practitioner with Emergency/Resuscitation skills for advice and/or assistance. (In solo doctor towns this second doctor may be in a neighbouring town, RFDS doctor, regional Emergency Department, Retrieval service or via Telehealth services)		
Nursing: • A designated Emergency Department Nursing Team Leader with similar nursing and liaison roles as Medical Team Leader.		
• A minimum of one appropriately trained Registered Nurse on site at all times with responsibility for initial triage and assessment of patients presenting to the emergency department.		
Ancillary and Administrative staff: • A minimum of one other staff member on site at all times with accreditation in Basic Life Support, familiarity with hospital policies and procedures and physically able to assist with		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

patient care and movement (e.g. enrolled nurse, hospital aide, wardsman, orderly or however designated)		
• A minimum of one administrative staff member available at all times (on site or on call or by telephone consultation in smaller facilities) able to authorise and/or delegate other organisational requirements (e.g. expenditure, staff overtime, staff relief, occupational health and safety requirements, liaison and reporting to regional authorities on non-medical issues, media enquiries etc.)		
• Access to local ambulance personnel (or other emergency services personnel e.g. volunteer fire and SES personnel)) with agreed protocols to supplement hospital personnel as dictated by clinical need and level of training		

5. Standing orders/Policies/Protocols

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
Prominently displayed or immediately accessible resuscitation guidelines for adult, paediatric and neonatal BLS/ALS algorithms, anaphylaxis, and choking		
Immediately accessible documentation of pathways/protocols for urgent clinical management (e.g. thrombolysis protocol, failed		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

intubation pathway, severe asthma, acute pulmonary oedema, burns management, massive transfusion protocol (if access to blood products)		
Documented multi agency Mass Casualty Plan part tested at least annually. (Mass Casualty defined as *"Any number of casualties produced in a relatively short period of time that exceeds local clinical and logistic support capabilities of the Hospital")*		
Documented and regularly updated manual of clinical pathways for commonly presenting, but potentially serious medical conditions (e.g. acute coronary syndrome, stroke, Chronic Obstructive Pulmonary Disease)		
Documented and regularly updated manual of pharmacological agent storage, preparation and administration		
Documented and regularly updated manual of medical equipment use and trouble shooting		
All the above to be consistent with local/regional health authority/clinical network practices and supported by regular in-service training (at least annually)		
An agreed and clearly documented debrief and audit process for regular and systematic review of all serious cases/resuscitation/deaths/adverse events with input from appropriate		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

health professional staff including regional referral centre		
A clearly documented Security Response Plan, utilising appropriately trained in house staff (and external resources if required) to maintain a safe environment for patients, staff and visitors		

6. Lines of communication/referral/advice/distant support resources/medical records

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
Dedicated hands-free telephone in Emergency/Resuscitation Room		
Prominently displayed telephone numbers and direct dialling to Regional Emergency Physician/Retrieval Service/Advice line/Poisons Information etc. (as dictated by local, regional or state systems)		
Dedicated Emergency Department computer/fax/printer hardware with unrestricted internet/email access. This also requires local jurisdiction protocols for recording and accessing medical records (including My Health Record) as well as receiving/sending/storing patient information/images to/from other health providers		
For hospitals reliant on digital medical records, an alternative hard copy record that can be activated in the event of electronic record failure that allows patient information to be captured and treatment initiated		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

In house access (preferably located in Emergency/Resuscitation Room) to Telehealth videoconferencing facilities and ability to transmit clinical images in real time		
An alarm system to summon additional hospital staff in the event of sudden patient deterioration/overwhelmed resources		
In house reference material in readily accessible electronic or hard copy format (e.g. Australian Medicines Handbook, Therapeutic Guidelines series, ACRRM Clinical guidelines, Royal Children's Hospital guidelines, Cameron et al *Textbook of Adult Emergency Medicine, Textbook of Paediatric Emergency Medicine*).		
Readily accessible patient information sheets for commonly presenting conditions, available for distribution by hospital staff and written in plain language relevant to local cultural and literacy requirements.		

7. Diagnostic and monitoring equipment**

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
Point of care diagnostic pathology testing that includes: • basic quantitative haematology, biochemistry and serology		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

• fingerprick blood glucose and ketones		
• basic urinalysis including βhCG		
• breath alcohol analysis		
Mobile Digital Xray unit capable of chest and limb imaging (requires appropriately trained and credentialed staff in accordance with jurisdictional protocols)		
Digital camera for clinical photographs (and jurisdiction specific protocols for storage and transmission of images)		
Mobile diagnostic ultrasound unit with image storage capability and appropriate transducers for common emergency medicine examination and procedures (requires appropriately trained staff to a level of basic ultrasonography skills through a recognised College or jurisdiction approved course.)		
12 lead ECG machine (preferably with store and transmission capability)		
Portable or wall mounted ophthalmoscope/otoscope set		
Portable or wall mounted blood pressure monitor		
Standard thermometers and at least one thermometer capable of reading low temperatures		
Portable or wall mounted patient monitor capable of displaying continuous vital signs including: • pulse		
• blood pressure		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

• oxygen saturation		
• ECG wave form		
• End tidal CO2* (Disposable colourimetric CO2 indicator is an acceptable alternative)		
• Temperature		

8. Medical procedural and treatment resources***

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
A suitable cardiac monitor/defibrillator that incorporates AED, synchronisation and pacing capability (and 24-hour availability of staff trained in the use of this equipment) and associated pads/leads/cables.		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

Airway requirements: • full range of adult and paediatric oropharyngeal airways • Adult and paediatric rigid and flexible suction catheters • At least two suction points (either plumbed with medical gases or separate high-volume electrical suction apparatus) and separate from any other manual or venturi operated suction devices. • A full range of adult and paediatric nasopharyngeal airways • A full range of adult and paediatric supraglottic airways (e.g. laryngeal mask airways®) • A full range of adult, paediatric and neonatal endotracheal tubes • Adult and paediatric Magill forceps • Two laryngoscopes with interchangeable adult, paediatric and neonatal blades • A simple video laryngoscope system in addition to the above equipment* • Adult and paediatric percutaneous cricothyroidotomy kits • Adult and paediatric bougies and introducers • Surgical cricothyroidotomy set (including disposable scalpel, tracheal spreader/artery forceps, bougie, Size 6 endotracheal tube, gauzes) • Associated lubricant, connectors, tubing, securing devices		
Respiratory support requirements: • Adult and paediatric non-rebreather oxygen masks • Adult and paediatric nasal cannulae • Adult and paediatric nebulisation		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

masks • Adult, paediatric and neonatal Bag-Valve-Mask assemblies with full range of mask sizes • Portable ventilator with CPAP/BiPAP capability and suitable for both adult and paediatric requirements*** • Directly plumbed or portable cylinder supply of oxygen, medical air, and nitrous oxide capable of maintaining prolonged high-volume requirements • Associated connectors, tubing, filters • Pneumothorax set including full range of intercostal catheters, fine wire guided catheter, aspiration set and associated non-return underwater seals and flutter valves		
Circulatory requirements: ▪ Full range of peripheral IV cannulae ▪ Intra-osseous cannulae (manual or power driven) ▪ Multi lumen central venous line insertion kit ▪ Rapid infusion exchange catheter ▪ Associated giving sets, lines, 3-way taps, securing tapes etc. ▪ In line IV pump sets – manual and electronic ▪ In line warming device or warm fluid storage ▪ Paediatric burettes ▪ Adequate supplies of appropriate IV resuscitation, maintenance and infusion fluids o 0.9% normal saline (NaCl) o 5% dextrose o 0.9% normal saline/5% Dextrose (or other suitable paediatric maintenance fluid as per local/regional guidelines) o hypertonic saline o mannitol		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

o saline/glucose/potassium adult maintenance fluid as per local/regional guidelines		
Paediatric specific requirements: • Readily accessible paediatric and neonatal resuscitation flowcharts, percentile charts, guidelines and protocols • Paediatric pharmacopeia and calculator • Broselow tape (or similar rapid measure system) • Nasal administration devices/atomisers • Infant scales		
Obstetric and Gynaecological: • Delivery bundle (drapes, obstetric lubricant, cord clamp, scissors, foetal heart doppler) • Vaginal speculae and light source • Sponge/swab holding forceps • Neonatal set (warming blankets/heater, meconium aspirator, small suction catheters, cord blood sample tubes)		
Musculoskeletal requirements: • Adult and paediatric semi-rigid and soft cervical collars • Adjustable lower limb traction splint • Upper limb slings and splints • Pelvic binder • Suitable plaster or fibreglass casting material and associated soft underlay • Cast cutter and spreaders		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

ENT and Ophthalmological requirements: • Head torch/binocular magnifying glasses • Nasal speculae • Otoscope • Nasal packing system for both anterior and posterior packing • Fine alligator forceps, blunt hook/probe • Fine suction catheters • Silver nitrate sticks • Slit lamp* • Ophthalmoscope • Alger brush and burrs		
Dental requirements: • Emergency Dental Handbook for Medical Practitioners • GC Fuji IX kit powder + liquid • Dycal Cs(OH)2 base + catalyst • Plastic cement spatula • SS double ended spatula • Microbrush applicators • disposable dental mirrors • Surgicel® or Kaltostat® • 500mg Tranexamic acid tablets (to make 5% solution for intra-oral haemorrhage control) • Bupivacaine 0.5%		
Urological requirements: • Bladder scanner (if ultrasound unit not available) • Full range of Foley catheters • Multi-lumen irrigation catheters • Suprapubic catheter set • Lignocaine gel/lubricant • Associated connectors, measuring and collection bags		
Gastro-enterological requirements: • Range of Orogastric and		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

nasogastric tubes • Proctoscope and light source		
Wound care • Skin cleaning/Irrigation fluids - saline, chlorhexidine, iodine • Assorted swabs/gauze/packs suitable for wound cleaning, exposure and haemorrhage control • Range of dressings including specialised burns care (non-stick gauze and plastic cling film) • Suture sets and range of common size suture material - absorbable and non-absorbable • Tissue glue • Surgical instruments – disposable scalpels, large and small needle holders, large and small scissors, large and small artery forceps, toothed and non-toothed tissue forceps		
Miscellaneous requirements: • Assorted Syringes, syringe labels, needles for injection • Personal protective equipment (PPE) – gloves, goggles, masks, waterproof aprons, gowns • Weight scales • Large scissors for clothing removal • Battery powered vacuum for safe removal of broken glass/foreign material • Miscellaneous tools to aid foreign body removal – ring cutter, pliers, wire cutter, bolt cutter		

9. Pharmaceutical supplies

(NB: some pharmaceuticals are listed in multiple categories)

Recommendation	**Status** *Met/Not Met*	**Action** *If Not Met - list alternative arrangements/ strategy to address*
Resuscitation/cardiac: • Adrenaline 1:1000 • Amiodarone • Atropine • Aspirin • Clopidogrel • Ticagrelor • GTN spray or sub-lingual, topical and IV • Frusemide • Magnesium • Adenosine • Metoprolol • Digoxin • Calcium gluconate • Tenecteplase • Enoxaparin • Unfractionated heparin		
Other agents: Antibiotics: • Penicillin • Clindamycin • Amoxycillin • Flucloxacillin • Piperacillin/Tazobactam • Cephazolin • Ceftriaxone • Metronidazole • Gentamicin • Vancomicin • Doxycycline • Acyclovir		
Inotropes/Vasoconstrictors: • Adrenaline • Noradrenaline • Metaraminol		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

Induction agents/sedatives: • Midazolam • Propofol • Ketamine		
Neuromuscular blockers: • Suxamethonium • Rocuronium		
Metabolic agents: • Glucagon • Short acting insulin • 50% dextrose • Sodium bicarbonate • Potassium chloride (KCl)		
Analgesics: • Morphine • Fentanyl (including intra-nasal atomiser device) • Ketorolac • Oral oxycodone • IV paracetamol • Minor analgesics o Paracetamol (oral and rectal) o Ibuprofen o Non-steroidal anti-inflammatory drugs o Paracetamol/codeine combinations		
Anti-emetics: • Metoclopramide • Ondansetron • Droperidol • Prochlorperazine		
Respiratory: • Salbutamol (MDI, nebuliser and IV) • Ipratropium • Prednisolone • Hydrocortisone		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

• Dexamethasone		
Gastro-intestinal preparations: • Oral antacid • Esomeprazole (or other PPI) • Activated charcoal • Octreotide		
Anti-convulsants • Midazolam • Phenytoin		
Anti-psychotics/anxiolytics/sedatives • Olanzapine • Ketamine • Droperidol • Haloperidol • Chlorpromazine • Diazepam		
Ophthalmological and ENT preparations: • Oxybuprocaine ocular drops • Fluorescein ocular drops • Atropine or short acting mydriatic ocular drops • Chloramphenicol drops and ointment • Dexamethasone ocular drops • Steroid + antibiotic drops • Cophenylcaine spray • Lignocaine spray		
Haemostasis: • Tranexamic Acid • Other Blood products* (e.g. Fresh Frozen Plasma, Group O Rh negative blood, Platelats, Prothrombinex) as determined by regional/state guidelines		
Toxinology: • Naloxone		

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.

• Flumazenil • N-acetylcysteine • Vitamin K • Dantrolene* • Antivenom* (relevant to local geographical area and regional/state guidelines)		
Obstetric and gynaecological: • Syntocinon • Ergometrine • Anti D		
Local anaesthetics: • 1% and 2% lignocaine • Lignocaine + adrenaline • Ropivacaine • Topical amethocaine/lignocaine/adrenaline solution • Topical lignocaine/prilocaine cream or patch (EMLA)		

Notations

* This item/equipment is recommended for larger emergency departments with 10,000 or more patient attendances per annum.

**Where possible, any new equipment purchased should be consistent with that used by local ambulance or retrieval service.

***Where possible, medical procedural equipment should be packaged as a bundle with all requirements for that procedure or purchased as a single use kit with long shelf life.

Acknowledgments

The College would like to thank the many members who provided valuable contributions to this project and acknowledge their role as the national arbiters of the practice of rural generalist emergency medicine. In particular we would like to acknowledge:

- Dr Peter Arvier FACRRM
- A/Prof Bruce Chater FACRRM
- Dr Aniello Ianuzzi FACRRM
- Dr Peter McInerney FACRRM
- Dr Bill Nimo FACEM, FACRRM

ACRRM acknowledges Australian Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation. We respect the traditional owners oflands across Australia in which our members and staff work and live, and pay respect to their elders past present and future.