

Quality standards for cardiopulmonary resuscitation practice and training

Mental health - Inpatient care - equipment and drug lists

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Drug tables for cardiac arrest are highlighted in the text with the symbol !

1. Introduction and scope

Healthcare organisations have an obligation to provide a high-quality resuscitation service, and to ensure that staff are trained and updated regularly to a level of proficiency appropriate to each individual's expected role.

As part of the quality standards for cardiopulmonary resuscitation practice and training this document provides lists of the minimum equipment and drugs required for cardiopulmonary resuscitation in settings that deliver mental health inpatient care. These lists are categorised according to the clinical setting.

This document is referred to by the standards documents pertaining to specific clinical settings. Links to these documents are provided below:

Acute care

Primary care
Primary dental care

Mental health inpatient care

Community hospitals care

The core standards for the provision of cardiopulmonary resuscitation across all healthcare settings are described in the document:

Introduction and overview to quality standards for cardiopulmonary practice and training

2. General points

- 1. All clinical service providers must ensure that their staff have immediate access to appropriate resuscitation equipment and drugs to facilitate rapid resuscitation of the patient in cardiorespiratory arrest. The standard defibrillator sign should be used in order to reduce delay in locating a defibrillator in an emergency www.resus.org.uk/defibrillators/standard-sign-for-aeds/
- 2. All settings must have a means of calling for help (e.g. landline telephone [internal or external], mobile telephone with reliable signal, or alarm bell).
- 3. Standardisation of the equipment used for cardiopulmonary resuscitation (including defibrillators and emergency suctioning equipment), and the layout of equipment and drugs throughout an organisation is recommended.
- 4. It is recognised that planning for every eventuality is complex; therefore, organisations must undertake a risk assessment to determine what resources are required given their local circumstances. Risk factors to consider include patient group (e.g. adults, children), incidence of cardiac arrest, training of staff, and access to expert help.
 - For example, in secondary or tertiary care specific locations may need special provisions (e.g. for failed intubation, tracheostomy care, cardiac arrest in pregnancy etc.).
 - Some settings need a wide range of equipment immediately available (e.g. resuscitation room in emergency department). Suggested options include having basic equipment (and possibly drugs) available immediately (on a resuscitation trolley), and further equipment and drugs arriving with a resuscitation team (in a 'grab-bag'), or in some settings as part of an ambulance response.
 - Staff should be trained to use the available equipment according to their expected roles.
- 5. Depending on the organisation, this risk assessment must be overseen by a Resuscitation Service Structure or a designated resuscitation lead. Expert advice should also be sought locally from those involved frequently in resuscitation (e.g. resuscitation officers, emergency physicians, cardiac care unit staff, intensivists, anaesthetists, prehospital care physicians).
- 6. Resuscitation equipment should be single-patient-use and latex-free, whenever possible and appropriate. Where non-disposable equipment is used, a clear policy for decontamination after each use must be available and must be followed.
- 7. Personal protective equipment (e.g. gloves, aprons, eye protection) and sharps boxes must be available, based on a local risk assessment and local polices.
- 8. A reliable system of equipment checks and replacement must be in place to ensure that equipment and drugs are always available for use in a cardiac arrest. The frequency of checks should be determined locally.
- 9. It is recommended that equipment and drugs are presented in a clear and logical manner to enable easier use during an emergency.
- 10. The manufacturer's instructions must be followed regarding use, storage, servicing and expiry of equipment and drugs.
- 11. Further equipment and drugs may be needed to manage other types of emergencies that are likely to be encountered in a particular setting; this may include:
 - monitoring equipment (e.g. blood pressure, pulse oximetry, 3-lead electrocardiogram [ECG], temperature, waveform capnography),
 - o 12-lead ECG recorder
 - o near-patient tests (e.g. blood glucose, blood gas analysis).
- 12. A formal procurement process that includes trialing of equipment before purchase is recommended. Trialing of resuscitation equipment can take place in actual care settings or in simulated patient scenarios.
- 13. The precise availability of equipment and drugs should be determined locally. The lists include a suggestion on the immediacy with which equipment and drugs should be available:
 - Immediate available for use within the first minutes of cardiorespiratory arrest (i.e. at the start of the resuscitation)
 - o Accessible available for prompt use when the need is determined by the resuscitation team.

These lists are not exhaustive. Local experts should be consulted to ensure the appropriate equipment and drugs are available when they are needed, to enable provision of high-quality attempted resuscitation.

3. Mental health inpatient care – ADULT

Mental Health Inpatient Care – ADULT

AIRWAY AND BREATHING

Item	Suggested availability	Comments
Ligature Cutter	Immediate	
Pocket mask with oxygen port, and oxygen tubing	Immediate	
Oxygen mask with reservoir, and oxygen tubing	Immediate	
Self-inflating bag with reservoir, and oxygen tubing	Immediate	
Clear face masks, sizes 3, 4, 5	Immediate	For use with self-inflating bag
Oropharyngeal airways, sizes 2, 3, 4	Immediate	
Nasopharyngeal airways, sizes 6, 7 (and lubrication)	Immediate	Will depend on local policy and staff training
Portable suction (battery or manual) with Yankauer sucker and soft suction catheters	Immediate	Airway suction equipment. NPSA Signal. Reference number 1309. February 2011
Supraglottic airway device with syringes, lubrication and ties/tapes/scissors as appropriate	Immediate/Accessible	Choice of device (e.g. laryngeal mask airway, i-gel®, laryngeal tube) and size will depend on local policy and staff training
Oxygen cylinder (with key where necessary)	Immediate	
Laryngoscope and Magill forceps	Immediate	Will depend on local policy and staff training
Stethoscope	Immediate	

Mental Health Inpatient Care – ADULT

CIRCULATION

Item	Suggested availability	Comments
Automated external defibrillator (AED)Manual defibrillator and/or AED for ECT departments	Immediate	Type of defibrillator and locations determined by a local risk assessment. Available to enable shock within 3 minutes of collapse.
Adhesive defibrillator pads x 2 packs	Immediate	
Razor	Immediate	Secure units must have a risk assessment
ECG electrodes	Immediate	If monitoring devices are available
Large heavy-duty scissors (e.g. 'Tuff Cut')	Immediate	Secure units must have a risk assessment
Intravenous cannulae (selection of sizes) and 2% chlorhexidine/alcohol wipes, tourniquets and cannula dressings	Immediate/Accessible	Will depend on local policy and staff training
Adhesive tape	Immediate/Accessible	
Intravenous infusion set	Accessible	Will depend on local policy and staff training
0.9% sodium chloride (1000 ml)	Accessible	Amount depends on access to further fluids
Selection of needles and syringes	Accessible	Will depend on local policy and staff training
Intraosseous access device	Accessible	Will depend on local policy and staff training
Dressing Pads x 2	Immediate	

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OTHER ITEMS

Suggested availability	Comments
Accessible	
Immediate	Further personal protective equipment may be required according to local policy
Accessible	Will depend on local policy and staff training
Immediate	Sharps container must be immediately available wherever sharps used
	Accessible Immediate Accessible

Mental Health Inpatient Care – ADULT				
2% chlorhexidine / alcohol wipes	Accessible			
Blood sample tubes	Accessible			
Blood glucose analyser with appropriate strips	Accessible	According to local policy		
Manual handling equipment	Accessible	According to setting. See <u>Guidance for safer</u> handling during resuscitation in healthcare settings		
Cardiorespiratory arrest record forms for patient notes, Audit forms and CPR decision forms	Accessible			
Access to algorithms, emergency drug doses	Accessible			

Mental Health Inpatient Care – ADULT CARDIAC ARREST DRUGS – FIRST LINE for intravenous use !!				
Item	Suggested availability	Comments		
Adrenaline 1mg (= 10 ml 1:10,000) IV as a prefilled syringe x 3	Immediate	Number of syringes depends on access to further syringes. 1 syringe needed for each 4-5 min of CPR. Will depend on local policy and staff training		
Amiodarone 300mg as a prefilled syringe x1	Accessible	First dose required after 3 defibrillation attempts. Will depend on local policy and staff training		

Mental Health Inpatient Care – ADULT			
OTHER DRUGS			
Item	Suggested availability	Comments	
Adrenaline 1mg (1 ml 1:1000)	Immediate	First line for anaphylaxis - 0.5 mg intramuscular injection in adults	
Chlorphenamine 10 mg x 1	Accessible	Second line for anaphylaxis, can also be given intramuscularly. Will depend on local policy and staff training	
		Second line for anaphylaxis, can also be given	

Mental Health Inpatient Care – ADULT				
Hydrocortisone 100 mg x 2	Accessible	intramuscularly. Will depend on local policy and staff training		
Aspirin 300 mg	Accessible	For acute coronary syndrome. Will depend on local policy and staff training		
Furosemide 50 mg IV x 2	Accessible	Will depend on local policy and staff training		
Flumazenil 0.5 mg IV x 2	Accessible	Will depend on local policy and staff training		
Naloxone 400 micrograms x 5	Accessible	For intamuscular or intravenous use. Will depend on local policy and staff training		
Midazolam for buccal administration	Accessible	Drug preparation and use will depend on local policy and staff training		
Glucagon 1 mg x 1	Accessible	For intamuscular or intravenous use. Will depend on local policy and staff training		
GTN spray	Accessible			
Ipratropium bromide 500 microgram nebules x 2 (and nebulizer device)	Accessible	Will depend on local policy and staff training		
Salbutamol 5 mg nebules x 2 (and nebulizer device)	Accessible	Will depend on local policy and staff training		

NOTES: Mental Health Inpatient Care – ADULT

- 1. A 999 ambulance must be called for any cardiorespiratory arrest unless there is a local Resuscitation team available.
- 2. Keeping resuscitation drugs locked away this problem was addressed in detail in 2005 by the Royal Pharmaceutical Society of Great Britain in a revision of the Duthie Report (1988) 'The Safe and Secure Handling of Medicines'. The RC (UK) responded with a statement, along with an accompanying letter written to the CQC explaining the position. www.resus.org.uk/media/statements/keeping-resuscitation-drugs-locked-away/
- 3. When deciding how and where to store emergency drugs, a local risk assessment is required to balance the risk of access to drugs by patients and visitors against the risk of a delay in access to emergency drugs in an emergency.

Supporting information

- 1. Association of Anaesthetists of Great Britain and Ireland (AAGBI) Safety Guideline Interhospital Transfer. 2009. http://www.aagbi.org
- 2. Intensive Care Society. Guidelines for the transport of the critically ill adult (3rd Edition 2011). http://www.ics.ac.uk
- 3. The Hospital Management of Hypoglycaemia in Adults with Diabetes Mellitus https://www.diabetes.org.uk/Documents/About%20Us/Our%20views/Care%20recs/JBDS%20hypoglycaer

4. Mental health inpatient care - PAEDIATRIC

Mental Health Inpatient Care – PAEDIATRIC

AIRWAY AND BREATHING

Item	Suggested availability	Comments
Pocket mask with oxygen port & oxygen tubing – paediatric and adult	Immediate	Will depend on local policy and staff training
Oxygen mask with reservoir & oxygen tubing – paediatric and adult	Immediate	Will depend on local policy and staff training
Self-inflating bag with reservoir & oxygen tubing – paediatric and adult	Immediate	Will depend on local policy and staff training
Clear face masks size 00, 0, 1, 2, 3, 4	Immediate	For use with self-inflating bag. Sizes and need to be determined according to local policy.
Oropharyngeal airways size 0, 1 and tongue depressor	Immediate	Will depend on local policy and staff training
Portable suction (battery or manual) with Yankauer sucker (paediatric and adult) and soft suction catheters, sizes 6, 8, 10, 12, 14	Immediate	Soft suction catheters will be dependent on suction device available
Oxygen cylinder (with key if necessary)	Immediate	
Laryngoscope and Magill forceps	Immediate	Will depend on local policy and staff training

Mental Health Inpatient Care – PAEDIATRIC

CIRCULATION

Item	Suggested availability	Comments
Defibrillator - Manual defibrillator and/or AED	Immediate	Type of defibrillator and locations decided by a local risk assessment. AEDs are not suitable for infants (less than 12 months old) and this should be considered at risk assessment
Adhesive defibrillator pads – paediatric and adult sizes	Immediate	Spare set of pads also recommended
Intravenous cannulae (sizes 14, 16, 18, 20, 22, 24G) and 2% chlorhexidine / alcohol wipes, tourniquets and dressings	Accessible	Will depend on local policy and staff training
Adhesive tape	Accessible	
Intravenous infusion sets (with and without incorporated burette)	Accessible	Will depend on local policy and staff training
IV extension set with 3-way taps and bungs	Accessible	Will depend on local policy and staff training
0.9% sodium chloride	Accessible	Will depend on local policy and staff training

Mental Health Inpatient Care – PAEDIATRIC			
10% Dextrose	Accessible		
Selection of needles and syringes	Accessible		
Intraosseous access device with needles suitable for children and adults	Accessible	Will depend on local policy and staff training	

Mental Health Inpatient Care – PAEDIATRIC						
CARDIAC ARREST DRUGS – FIRST LINE for intravenous use !						
Item	Suggested availability	Comments				
Adrenaline 1mg (= 10 ml 1:10,000) prefilled syringe(s)*	Immediate	According to local policy				
Chlorphenamine 10 mg x 2*	Accessible	Second line for anaphylaxis. For intamuscular or intravenous use. Will depend on local policy and staff training				
Hydrocortisone 100 mg x 2*	Accessible	Second line for anaphylaxis. For intamuscular or intravenous use. Will depend on local policy and staff training				

^{*} These lists refer to drug availability and not to the doses used for the treatment of children. Correct dosing is available at http://resus.org.uk/resuscitation-guidelines/

Mental Health Inpatient Care – PAEDIATRIC						
OTHER ITEMS						
Item	Suggested availability	Comments				
Clock / timer	Accessible					
Gloves, aprons, eye protection	Immediate					
Manual handling equipment	Accessible	According to setting. See <u>Guidance for safer</u> handling during resuscitation in healthcare settings				
Cardiac arrest record form for patient notes and audit forms	Accessible					
Access to algorithms, emergency drug doses, paediatric drug dose calculators (e.g. Broselow tape)	Immediate	According to local policy				

Mental Health Inpatient Care – PAEDIATRIC

OTHER EMERGENCY DRUGS

Item	Suggested availability	Comments
Adrenaline 1mg (1 ml 1:1000)*	Immediate	First line for anaphylaxis for intramuscular use
Glucagon 1 mg x 1*	Accessible	For intamuscular or intravenous use. Will depend on local policy and staff training
Salbutamol 5mg nebules x 2 (and nebulizer device) *	Accessible	Will depend on local policy and staff training

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NOTES - Mental Health Inpatient Care - PAEDIATRIC

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Supporting information

1. The Hospital Management of Hypoglycaemia in Adults with Diabetes Mellitus https://www.diabetes.org.uk/Documents/About%20Us/Our%20views/Care%20recs/JBDS%20hypoglycaer

May 2014, updated May 2017, updated March 2018