



Quality standards for cardiopulmonary resuscitation practice and training

Mental health - inpatient care - Quality standards

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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 person's expected role.

This document provides quality standards for cardiopulmonary resuscitation practice and training in settings that deliver mental healthcare. In this standards document, mental healthcare refers predominantly to mental health inpatient units that provide care for adults of all ages, adolescents or children.

Each section of this document contains the quality standards, supporting information and supporting tools for a specific aspect of cardiopulmonary resuscitation in mental healthcare. The appendix provides a list of suggested measures to assess organisations' adherence to the standards specified in each section. The core standards for providing cardiopulmonary resuscitation across all healthcare settings are described in the document:

Introduction and overview to quality standards for cardiopulmonary practice and training

The Resuscitation Council (UK) recognises that the standards in this document may provide challenges for some mental health services and the organisations that are responsible for providing them. Intentionally, these standards are aspirational in certain areas. Where appropriate, each section contains links to implementation tools or examples of good practice. Each section also contains guidance on measures to assess adherence to standards.

Terminology:

1. The term 'MUST' has been used when the consensus is that the standard promotes normal practice and is obligatory.
2. The term 'SHOULD' has been used when the consensus is that the standard promotes normal practice.

3. The term 'RECOMMENDS' is used when the consensus is that the standard promotes best practice.

The Resuscitation Council (UK) recommends that each mental healthcare organisation considers the implications of these standards and makes suitable arrangements to develop the capabilities that are required.

Organisations should consider training some staff selected from within the organisation to a higher standard than is required generally so that they can undertake the actions that are necessary and/or cascade training within their facilities. Additionally, organisations could establish a suitable service level agreement with: acute healthcare services that are sufficiently close geographically; ambulance services; or external training organisations. Mental healthcare organisations may require a combination of arrangements.

2. Resuscitation Committee / Service Structure

Many organisations that provide mental healthcare do not have a separate Resuscitation Committee within the mental health service. However, if they do not, they must have a system that incorporates the duties of resuscitation services into their governance and clinical structures. The circumstances vary across organisations and with the jurisdiction in which patients are cared for, and treated in the UK. The Resuscitation Council (UK) recognises that the structure of the NHS, and mental health services within it, is different in England, Northern Ireland, Scotland and Wales. Therefore this document uses the term Resuscitation Service Structure throughout. The implementation of these standards may vary slightly in each of the countries that comprise the UK.

Standards

1. Every healthcare organisation that admits mentally ill people must have an identified Resuscitation Service Structure that has clearly defined terms of reference.
2. Every organisation must have an identified board member who is responsible for resuscitation services. This was required in England by Health Services Circular 2000/028, which stated that Chief Executives must ensure that 'a non-executive Director of the Trust is given designated responsibility on behalf of the Trust Board to ensure that a resuscitation policy is agreed, implemented, and regularly reviewed within the clinical governance framework'.
3. The Resuscitation Service Structure must be part of each responsible authority's management structure (e.g. clinical governance, clinical risk, quality improvement, education service structures).
4. The Resuscitation Service Structure must include local resuscitation experts, representatives from stakeholder groups (e.g. doctors, nurses, resuscitation officers, pharmacists, management, patient/lay representative, and appropriate specialties). Examples of appropriate specialties are the ambulance service, anaesthesia, cardiology, dentistry, emergency medicine, general practice, intensive care medicine, mental health, neonatology, obstetrics, and paediatrics. The exact composition of the Resuscitation Service Structure should depend on local needs and arrangements.
5. The lead person responsible for the Resuscitation Service Structure must have an active and credible involvement in resuscitation. This person must have the authority to drive and implement change to meet the standards in this document.
6. The Resuscitation Service Structure must have administrative support.
7. The Resuscitation Service Structure is responsible for implementing operational policies governing cardiopulmonary resuscitation practice and training.
8. In the absence of other organisational arrangements, the Resuscitation Service Structure must also be responsible for implementing operational policies that govern prevention of cardiac arrest, including recognition of patients who are deteriorating before they arrest.
9. Clear local arrangements should be negotiated and put in place for the Resuscitation Service Structure to provide advice to other local healthcare organisations that do not have the expertise that is necessary in resuscitation policies, training, clinical practice, monitoring and audit.
10. The Resuscitation Service Structure must determine the level of resuscitation training required by staff members.
11. At least twice-yearly meetings of the Resuscitation Service Structure are recommended.
12. Responsibilities of the Resuscitation Service Structure include:

- ensuring implementation and adherence to national resuscitation guidelines and standards;
 - defining the roles and composition of the resuscitation team within the organisation;
 - ensuring that resuscitation equipment for clinical use is available and ready for use;
 - ensuring that appropriate resuscitation drugs (including those for peri-arrest situations) are available according to local policy and ready for use;
 - planning adequate provision of training in resuscitation;
 - determining requirements for and choice of resuscitation training equipment;
 - preparing and implementing all policies relating to resuscitation (this may include managing anaphylaxis);
 - preparing and implementing policies relating to prevention of cardiac arrest and recognising patients who are deteriorating;
 - preparing and implementing a policy on resuscitation decisions (e.g. DNACPR decisions and advanced care planning);
 - quality improvement - action plans should be based on audits;
 - recording and reporting incidents in relation to resuscitation in which patients' safety may have been at risk.
13. The healthcare organisation must ensure that there is defined financial support for the Resuscitation Service Structure.

Supporting information

1. NHS Executive. Health Services Circular 2000/028 - Resuscitation Policy.
2. Report a patient safety incident (England). <http://www.nrls.npsa.nhs.uk/report-a-patient-safety-incident/>

3. Resuscitation Officers

Standards

1. Every organisation must have at least one person, the resuscitation officer (RO), resuscitation lead, resuscitation services manager, or a person who holds an equivalent role who is responsible for co-ordinating the teaching and training of staff in resuscitation. People in any of these posts are referred to as ROs throughout this document.
2. ROs have additional important responsibilities that include quality improvement, incident review, and maintenance of clinical equipment.
3. Depending on the size and geographical distribution of the organisation, more than one RO may be needed to fulfil training requirements and additional responsibilities relating to resuscitation.
4. One whole-time-equivalent RO is required to deliver training for 50% of their working time; this equates to one whole-time RO training no more than 821.5 hours per year - see below for further details.
5. Smaller organisations must also appoint a resuscitation lead who may have other roles as part of their work commitments.
6. Resuscitation Officers should possess a current Advanced Life Support (ALS) provider certificate (or equivalent) as a minimum standard; ideally, the ALS instructor qualification is recommended. Where appropriate, each organisation must ensure that ROs possess certified resuscitation training in other specialist areas (e.g. paediatrics and trauma).
7. ROs must have access to a designated training room(s) of adequate size. The room(s) should comfortably accommodate instructors, trainees and all the training equipment required for any teaching session.
8. ROs must have access to suitable electronic teaching aids and projection facilities. There must be adequate space for storing equipment. It is recommended that separate office space is available in which there is a desk, computer facilities and filing cabinets.
9. ROs must have adequate access to administrative assistance.
10. Equipment that is required for training will vary according to local needs. Adult, paediatric and neonatal

manikins, airway management trainers, an ECG monitor and rhythm simulator, and at least one defibrillator dedicated for training, must be available. Equipment used for training (especially defibrillators) must be of the same models as those that are used in actual clinical practice to ensure appropriate clinical use of the equipment. All efforts must be made to ensure that adequate of equipment is available to prevent unnecessary moving and handling of equipment, especially if the geographical area covered by an organisation is substantial.

11. There must be a defined resuscitation budget made available for ROs to maintain, upgrade and purchase new equipment for use with patients and for training. Purchasers and other funders of health care must to be made aware of this requirement when contracts, responsibilities and service agreements are negotiated and adequate provision must be made. This financial support for resuscitation services must be taken into account during budget planning by each organisation.
12. ROs must be responsible for ensuring that there are systems in place for maintaining resuscitation equipment in good working order. Usually, this requires delegation of routine checking of equipment to other members of staff.
13. ROs must ensure that all cardiorespiratory arrests are documented by the staff who are involved in the resuscitation attempt, and audited. The results should be sent to the local audit/governance structure.
14. In order to maintain standards and clinical credibility, it is recommended that responding to and participating in cardiac arrest management is an integral part of the RO's clinical responsibility. ROs who have a clinical role must have appropriate clinical supervision and support.
15. Each RO has a responsibility to maintain his/her own education in resuscitation. Teaching on resuscitation courses outside the organisation is recommended in order to achieve this. In addition, regular attendance at professional meetings must be supported with a budget for study leave and expenses.
16. ROs must not be expected to generate income to provide for their own salary.
17. If any RO is expected to generate income for their employing organisation, that responsibility should be agreed in writing with the relevant manager. Any income must be directed to improving resuscitation services.

Supporting information

1. Scottish Resuscitation Group. www.srg.scot.nhs.uk

Supporting tools

This is an example calculation to support the statement 'One RO is required to deliver training for 50% of their working time' (on the basis of a whole-time-equivalent (37.5 hr) week, one RO can offer training on 821.25 hours in a year):

	Hours
Whole-time RO = 37.5 hr per week x 52	1950.00
Less 41 days (7.5 hr = 307.5) annual leave (33) & Bank Holidays (8)	1642.50
Less 50% non-training hours = 821.25	821.25
Total training hours available per RO This is "classroom, mandatory training time" and does not include set up/set down time, preparation, administration, professional updating etc.	821.25

The following table is an example of the numbers of whole-time-equivalent (WTE) ROs needed according to number of staff that need training and duration of training sessions.

RO training time = 821.25 hr (50% of whole time hours)								
Time (hr) of course	2	3	4	5	2	3	4	5
Number of staff require training	2000	2000	2000	2000	3000	3000	3000	3000
Number per course per RO	6	6	6	6	6	6	6	6
Total Courses required over 12 month period	334	334	334	334	500	500	500	500
Total RO hr needed	667	1000	1334	1667	1000	1500	2000	2500

RO training time = 821.25 hr (50% of whole time hours)

Number of WTE ROs needed	0.81	1.22	1.62	2.03	1.22	1.83	2.44	3.04
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RO training time = 821.25 hr (50% of whole time hours)

Time (hr) of course	2	3	4	5	2	3	4	5
Number of staff require training	4000	4000	4000	4000	5000	5000	5000	5000
Number per course per RO	6	6	6	6	6	6	6	6
Total Courses required over 12 month period	667	667	667	667	834	834	834	834
Total RO hr needed	1334	2000	2667	3334	1667	2500	3334	4167
Number of WTE ROs needed	1.62	2.44	3.25	4.06	2.03	3.04	4.06	5.07

1. This is classroom time and does not include set up / set down time, preparation, administration etc.
2. The calculation above also does not include accredited courses (to maintain qualifications) or other training such as ward-based scenario or other types of sessions.
3. Most ROs spend at least 50% of their time involved in training activities when all the different types of training and preparation are taken into account.
4. The remainder of ROs' time includes other responsibilities such as audit, governance, DNACPR, clinical commitments, attending cardiac arrest calls, planning, finance, equipment checks, etc.

4. Training staff

Standards

1. All healthcare staff must undergo resuscitation training at induction and at regular intervals thereafter to maintain knowledge and skills.
2. Training must be to a level appropriate for the staff members' expected clinical responsibilities.
3. This training must include use of an 'early warning scoring' system to identify deteriorating patients, including use of an escalation protocol to ensure early and effective treatment of patients in order to prevent cardiac arrest. The scoring and escalation system must be the same as that used in actual clinical care. Use of the National Early Warning Score (NEWS) is recommended for these purposes. Use of paediatric early warning scoring systems is recommended for practice with children.
4. According to NICE Clinical Guideline 25 (2005) and NPSA Rapid Response Report (2008/RRR010), staff who care for patients in any mental health inpatient setting must have competences in monitoring, measurement, and interpretation of vital signs. They must have the knowledge, which is appropriate to the level of care they are providing, to recognise patients' deteriorating health and respond effectively to acutely ill patients.
5. Resuscitation Council (UK) Immediate Life Support (ILS) is recommended as a minimum standard for staff who deliver or are involved in rapid tranquilisation, physical restraint and seclusion. This guidance recommends that clinical staff in each mental health inpatient facility should receive regular update training in physical health skills in addition to ILS in response to an assessment of need undertaken by each organisation.
6. It is recommended that training enables clinical staff to possess the competencies defined in the Department of Health's document 'Competencies for Recognising and Responding to Acutely Ill Patients in Hospital'.
7. According to Resuscitation Council (UK) guidelines, training must be in place to ensure that clinical staff can undertake cardiopulmonary resuscitation. Training and facilities must ensure that, when cardiorespiratory arrest occurs, all clinical staff can, as a minimum:
 - o recognise cardiorespiratory arrest;

- summon help;
 - start CPR;
 - attempt defibrillation, if appropriate, within 3 minutes of collapse using an automated external defibrillator or manual defibrillator.
8. Clinical staff should have at least annual updates.
 9. In addition, units that undertake electroconvulsive therapy (ECT) must follow the latest standards for staff training and practice set by The ECT Accreditation Service (ECTAS).
 10. Training and updates that include an assessment are recommended for clinical staff.
 11. The expectation is that non-clinical staff have the resuscitation skills that would be expected from a lay person.

As a minimum, non-clinical staff should be trained to:

- recognise cardiorespiratory arrest;
 - summon help;
 - start CPR using chest compressions.
12. All staff must know how to summon help and be aware of the protocol for the settings in which they work. This could be dialling 999 or a standard telephone number within the organisation. We recommend that this should be a common national number 2222, as recommended by the National Patient Safety Agency.
 13. A variety of methods to acquire, maintain and assess resuscitation skills and knowledge can be used for annual updates of all staff, (e.g. life support courses, simulation training, in-house training, mock-drills, 'rolling refreshers', e-learning, video based training/self-instruction). The appropriate methods must be determined locally. Training materials such as Lifesaver (www.life-saver.org.uk), developed by the Resuscitation Council (UK), or very brief videos aimed at lay persons may be appropriate for non-clinical staff. 'Hands-on' simulation training and assessment is recommended for clinical staff.
 14. A system must be in place for identifying resuscitation equipment for which staff require special training, such as defibrillators and emergency suction equipment.
 15. All new members of staff must have training in resuscitation as part of their induction programmes. Even those who have current training require resuscitation training on induction to ensure they are familiar with local policies and equipment.
 16. ROs or resuscitation leads must organise and co-ordinate resuscitation training for staff. However, in order to achieve training targets, ROs may need to delegate some aspects of training.
 17. Organisations must recognise and make provision for staff to have enough time to train in resuscitation skills as part of their employment.
 18. Specific training for cardiorespiratory arrests in special circumstances (e.g. for children of all ages who have collapsed, patients who are secluded or subject to restraint, and patients who have suffered blood loss) must be provided for medical, nursing and other clinical staff in the relevant specialties.
 19. All clinical staff must receive training in recognising, monitoring and managing patients whose conditions are deteriorating.
 20. All training must be recorded (e.g. in the organisation's training database).
 21. Members of mental health resuscitation teams that have specific involvement in resuscitation, particularly team leaders, require a level of training beyond that provided by local ROs. These people should be encouraged and supported to attend nationally recognised courses, such as the Advanced Life Support (ALS) course.

Supporting information

1. Competencies for Recognising and Responding to Acutely Ill Patients in Hospital. Department of Health. 2009. http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_096989
2. The ECT Accreditation Service (ECTAS). <http://www.rcpsych.ac.uk/workinpsychiatry/qualityimprovement/qualityandaccreditation/ectclinics/ectas/ectasstandards.aspx>
3. Establishing a standard crash call telephone number in hospitals. Patient Safety Alert 02. London: National

Patient Safety Agency; 2004.

4. The Human Medicines Regulations 2012.
This legislation applies to non-prescribers and allows holders of a current Resuscitation Council (UK) 'Advanced Life Support' provider certificate to administer adrenaline and amiodarone without prescription to adults in cardiac arrest. <http://www.legislation.gov.uk/ukxi/2012/1916/contents/made>
5. National Early Warning Score (NEWS). Standardising the assessment of acute-illness severity in the NHS. Royal College of Physicians. Report of a working Party. July 2012.
<http://www.rcplondon.ac.uk/resources/national-early-warning-score-news>
6. National Institute for Health and Clinical Excellence. Acutely ill patients in hospital: recognition of and response to acute illness in adults in hospital 2007 (NICE Guideline 50).
7. National Institute for Health and Clinical Excellence. Violence: The short-term management of disturbed/violent behaviour in in-patient psychiatric settings and emergency departments (Clinical Guideline 25).
<http://publications.nice.org.uk/violence-cg25>
8. Rapid Response Report NPSA/2008/RRR010: Resuscitation in Mental Health and Learning Disability settings (November 2008).
<http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59895>
9. Resuscitation Guidelines 2015, Resuscitation Council (UK).
<http://www.resus.org.uk/resuscitation-guidelines/>

Supporting tools

1. Lifesaver. An interactive film by Martin Percy. 2013.
Mobile apps:
<https://itunes.apple.com/gb/app/lifesaver-mobile/id633999639?ls=1&mt=8>
<https://play.google.com/store/apps/details?id=air.com.unit9.lifesaver.android.mobile>
Tablet apps:
<https://itunes.apple.com/gb/app/lifesaver-for-ipad/id633568035?ls=1&mt=8>
<https://play.google.com/store/apps/details?id=air.com.unit9.lifesaver.android.tablet>
2. Paediatric Early Warning Scoring (PEWS) charts are available for download at:
http://www.institute.nhs.uk/safer_care/paediatric_safer_care/pews_charts.html
3. Resuscitation Training for Anaesthetists in Raising the Standard: A compendium of audit recipes for continuous quality improvement in anaesthesia.
<http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/the-audit-recipe-book-3rd-edition-2012>
4. Subject 11: Resuscitation. UK Core Skills Training Framework. Subject Guide. Skills for Health 2013.
5. User Guide for UK Core Skills Training Framework. Skills for Health. 2013.

5. Preventing cardiorespiratory arrest

Standards

1. The use of the 'Chain of Prevention' concept is recommended as a basis for structuring each organisation's responses to patients who deteriorate and for the prevention of cardiorespiratory arrest.
2. The organisation must have an education programme for ward staff and responding clinical personnel that is focused on preventing patients' deterioration. It is recommended that staff attain the necessary competences identified in the Department of Health document 'Competencies for Recognising and Responding to Acutely Ill Patients in Hospital' (2009).
3. The organisation must have a clear policy for monitoring patients' vital signs, based on the guidance in the National Institute for Health and Clinical Excellence Clinical Guideline 50 [Acutely ill patients in hospital: recognition of and response to acute illness in adults in hospital (2007)], National Institute for Health and Clinical Excellence Clinical Guideline 25 (2007), NPSA Rapid Response Report (2008/RRR010) and the Royal College of Physicians National Early Warning Score (NEWS) (2012).
4. An early warning scoring system must be in place to identify patients who are critically ill and, therefore, at risk

of cardiorespiratory arrest. The use of the National Early Warning Score (NEWS) or a paediatric early warning score for children is recommended.

5. The organisation must have a patient charting system that facilitates the regular measurement and recording of early warning scores.
6. The organisation must have a clear, universally known and understood, mandated, unambiguous, graded activation protocol for escalating monitoring or summoning responses to deteriorating patient. Its use should be standardised across the organisation.
7. The use of a standardised method for communicating information about deteriorating patients (e.g. SBAR, RSVP) between staff members is recommended.
8. When acute clinical crises are identified, a 999 ambulance must be called if there is no designated resuscitation team, outreach service or rapid response team (e.g. Medical Emergency Team [MET]) that is immediately available.
9. The organisation must have a clear and specific policy that requires a clinical response to 'calling criteria' or early warning systems ('track and trigger'). This must include the specific responsibilities of onsite / on call doctors and nursing staff, and include when to call for the ambulance service. NCEPOD recommends that, when patients continue to deteriorate after reviews that are not conducted by consultants, there should be escalation of patient care to senior doctors who specialise in acute physical healthcare. The reasons for non-escalation must be documented clearly in the case notes if this practice is not followed.

Supporting information

1. Competencies for Recognising and Responding to Acutely Ill Patients in Hospital. Department of Health. 2009. http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_096989
2. European Resuscitation Council Guidelines. <http://www.cprguidelines.eu>
3. International Liaison Committee on Resuscitation Consensus on Science with Treatment Recommendations. <http://www.ilcor.org>
4. National Early Warning Score (NEWS). Standardising the assessment of acute-illness severity in the NHS. Royal College of Physicians. Report of a working Party. July 2012. <http://www.rcplondon.ac.uk/resources/national-early-warning-score-news>
5. NICE Clinical Guideline 25. Violence: The short-term management of disturbed/violent behaviour in in-patient psychiatric settings and emergency departments. <http://publications.nice.org.uk/violence-cg25>
6. NICE Clinical Guideline 50. Acutely ill patients in hospital: recognition of and response to acute illness in adults in hospital. London: National Institute for Health and Clinical Excellence; 2007.
7. NPSA (2008) Resuscitation in mental health and learning disability settings. <http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59895>
8. Resuscitation Council (UK) Guidelines. <https://www.resus.org.uk/resuscitation-guidelines/>
9. Smith GB. In-hospital cardiac arrest: Is it time for an in-hospital 'chain of prevention'? Resuscitation 2010.
10. Time to Intervene? A review of patients who underwent cardiopulmonary resuscitation as a result of an in-hospital cardiorespiratory arrest. A report by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD). 2012. <http://www.ncepod.org.uk>

Supporting tools

1. Prevention of cardiac arrest in Raising the Standard: A compendium of audit recipes for continuous quality improvement in anaesthesia. <http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/the-audit-recipe-book-3rd-edition-2012>

6. Resuscitation teams and/or responding personnel

Standards

1. Unless the organisation that delivers mental healthcare is situated on the same site as an acute hospital, which provides a resuscitation team that is specifically contracted to deliver an on-call service for patients of the mental health unit, a 999 ambulance should be called immediately for any patient who collapses. In the interval before an ambulance arrives, staff of the mental health service should be capable of deploying the skills that are identified in paragraph 4 below.
2. The Resuscitation Service Structure must determine the composition of the resuscitation team / responding staff. This is likely to vary depending on location and clinical need. All clinical facilities must have access to an outside telephone line to summon the 999 ambulance service.
3. The RO must be informed of all cardiorespiratory arrests.
4. The staff who respond immediately must have the following **minimum skills**:
 - competent delivery of CPR;
 - defibrillation (automated external defibrillation);
 - basic airway interventions, including bag-mask ventilation and/or supraglottic airway;
 - skills required for immediate post-resuscitation care.

The following skills are strongly recommended:

- intravenous cannulation (as determined by local policy and clinical need);
 - intraosseous access (as determined by local policy and clinical need);
 - drug administration (as determined by local policy and clinical need).
5. NCEPOD recommends that each hospital ensures that there is an agreed plan for airway management during cardiac arrest. This may involve bag-mask ventilation for patients during and after cardiac arrests of short duration or greater use of supraglottic airway devices as an alternative. This means that mental healthcare units must have staff available who are able to use these devices in the interval before an ambulance arrives.
 6. Patients requiring on-going acute medical care and resuscitation require transfer to an acute hospital. This means that:
 - there should be a protocol in place for arranging transfers between identified units and hospitals;
 - the protocol is tested periodically as a rehearsal and adjusted as is necessary;
 - formal agreements between mental health units and suitable acute hospitals are negotiated and funded;
 - there are formal agreements in place with the ambulance service to make the transfers that are required. The ambulance service must be party to the protocols between the mental health units and acute hospitals and engaged in the rehearsal.
 7. The team or designated responding staff (they can be from the mental health inpatient unit or acute hospital as determined locally) must be summoned in response to every cardiorespiratory arrest or when patients collapse.
 8. Activation of the team or designated responding staff must also be part of the local escalation plan for patients whose conditions deteriorate.
 9. The team or designated responding staff must be summoned to all cardiorespiratory arrests by the use of a common telephone number. The National Patient Safety Agency has recommended that this number should be 2222.
 10. The organisation must ensure that the resuscitation team or designated responding staff are activated within 30 seconds of the call for help. A daily test call is recommended as a minimum. Responses to test calls must be monitored and any failure must be followed up and remedied immediately.
 11. Relatives may or may not wish to be present during attempted resuscitation of patients who have a cardiorespiratory arrest. The organisation should have a policy on providing support for relatives during resuscitation attempts. The resuscitation team or designated responding staff are responsible for ensuring compliance with that policy.
 12. The resuscitation team or designated responding staff should arrange patients' transfers after their resuscitation.
 13. If there is a mental health resuscitation team, its members may change daily or more frequently, according to

shifts and patterns of duty. Members may not know each other or the skill mix of the team members. A Resuscitation Team meeting is recommended at the beginning of members' periods on duty.

14. Team debriefings of resuscitation team members are recommended. The exact mechanism (e.g. end of each event, end of each shift, weekly) must be determined locally.
15. Ideally, the role of team leader in a resuscitation team should be undertaken by a person who is a current Advanced Life Support (ALS) provider or has equivalent training. Immediate Life Support (ILS) providers (or those with equivalent training) can also lead the team while waiting for more skilled help to arrive. This may be from a hospital-based resuscitation team or from the ambulance service. In the case of units for children and young adolescents, the team leader must have equivalent Paediatric Life Support provider status. The role of team leader must be allocated on the basis of clinical knowledge, skills and experience.
16. The team leader is responsible for:
 - directing and co-ordinating each resuscitation attempt;
 - ensuring that current guidelines are followed;
 - ensuring the safety of those present;
 - ending the resuscitation attempt when indicated (if applicable to the individuals clinical role and training);
 - documenting each attempt to resuscitate (including ensuring that audit and incident report are completed in a timely way and submitted);
 - communication with relatives;
 - handover of care to other clinical teams;
 - diagnosis and documentation of death if appropriate.

Some of these responsibilities may require delegation to other team members (e.g. death certification by a registered doctor with a licence to practise).

17. The organisation must ensure that a complete and detailed record of the cardiorespiratory arrest is retained within the patient's clinical records. Collection of data at the time of the cardiorespiratory arrest is recommended for audit.
18. Units that undertake electroconvulsive therapy (ECT) must follow the latest standards for staff training set by The ECT Accreditation Service (ECTAS).

Supporting information

1. Deakin CD, Morrison LJ, Morley PT, Callaway CW, Kerber RE, Kronick SL, Lavonas EJ, Link MS, Neumar RW, Otto CW, Parr M, Shuster M, Sunde K, Peberdy MA, Tang W, Hoek TL, Böttiger BW, Drajer S, Lim SH, Nolan JP; Advanced Life Support Chapter Collaborators. [Part 8: Advanced life support: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations](#). Resuscitation. 2010 Oct;81 Suppl 1:e93-e174.
2. Deakin CD, Nolan JP, Soar J, Sunde K, Koster RW, Smith GB, Perkins GD. [European Resuscitation Council Guidelines for Resuscitation 2010 Section 4. Adult advanced life support](#). Resuscitation. 2010 Oct;81(10):1305-52.
3. The ECT Accreditation Service (ECTAS). <http://www.rcpsych.ac.uk/workinpsychiatry/qualityimprovement/qualityandaccreditation/ectclinics/ectas/ectasstandards.aspx>
4. Edelson DP, Litzinger B, Arora V, et al. Improving in-hospital cardiac arrest process and outcomes with performance debriefing. Arch Intern Med 2008;168:1063-9.
5. Establishing a standard crash call telephone number in hospitals. Patient Safety Alert 02. London: National Patient Safety Agency; 2004.
6. Guidance for Anaesthetists on cardiac arrest teams. Royal College of Anaesthetists. November 2010. <http://www.rcoa.ac.uk/document-store/guidance-anaesthetists-cardiac-arrest-teams>
7. Time to Intervene? A review of patients who underwent cardiopulmonary resuscitation as a result of an in-hospital cardiorespiratory arrest. A report by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD). 2012. <http://www.ncepod.org.uk>

7. Resuscitating children in mental health inpatient units

Standards

1. Unless the mental health inpatient facility is situated on the same site as an acute hospital, a 999 ambulance should be called immediately to each child who collapses or deteriorates (see section on the resuscitation of children in the [standards for acute care](#)).
2. Organisations have a duty to ensure that staff who work with children are trained accordingly. Ideally, the team leader or designated responding staff should have expertise in resuscitating children.
3. The designated responding staff must have knowledge about the equipment and doses of drugs (the availability of which should be determined by local policy) that children require. They must understand the differences in causes of, and treatment required by cardiorespiratory arrest in children as compared with adults.
4. The designated responding staff must be familiar with their expected roles and should receive training in paediatric resuscitation.
5. When resuscitating children, particular consideration must be given to allowing the presence of relatives or caretakers during the resuscitation attempt. An experienced member of staff who can explain what is going on should be delegated to stay with them and liaise with the team on their behalf.
6. The use of paediatric resuscitation charts and drug dosing aides is essential. In circumstances in which a child's weight is not known, a method of calculating drug dosages from length or age is useful.
7. Most paediatric cardiac arrests are secondary events. Therefore, specific paediatric early warning scoring systems with a 'Track and Trigger' should be used to maximise prevention of cardiac arrest.
8. Where appropriate, a separate CPR decision form and/or Emergency Healthcare Plan (EHP) is recommended for children.

Supporting information

1. Resuscitation Council (UK) Guidelines. <https://www.resus.org.uk/resuscitation-guidelines/>
2. The Royal College of Paediatrics and Child Health. Withholding and Withdrawing Life Sustaining Treatment in Children: A Framework for Practice, 2nd edn. London: RCPCH, 2004.

Supporting tools

1. Intercollegiate Committee for Standards for Children and Young People in Emergency Care Settings. Standards for Children and Young People in Emergency Care Settings. 2012. <http://www.rcpch.ac.uk/emergencycare>
2. Paediatric resuscitation in Raising the Standard: A compendium of audit recipes for continuous quality improvement in anaesthesia. <http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/the-audit-recipe-book-3rd-edition-2012>
3. Paediatric Early Warning Scoring (PEWS) charts are available for download at: http://www.institute.nhs.uk/safer_care/paediatric_safer_care/pews_charts.html
4. The Royal College of Paediatrics and Child Health. Withholding and Withdrawing Life Sustaining Treatment in Children: A Framework for Practice, 2nd edn. London: RCPCH, 2004

8. Resuscitation in special circumstances

Standards

1. Organisations must have policies and procedures in place for resuscitation in special circumstances (e.g. blood loss due to trauma, suffocation, application of a ligature to the neck and hanging, self-harm, seclusion, rapid tranquillisation, etc.).

Supporting information

1. Maternal Collapse in Pregnancy and the Puerperium (Green-top 56). Royal College of Obstetricians and Gynaecologists. 2011
2. National Tracheostomy Safety Project. <http://www.tracheostomy.org.uk>
3. NICE Clinical Guideline 25. Violence. The short-term management of disturbed/violent behavior in in-patient psychiatric settings and emergency departments (February 2005). <http://guidance.nice.org.uk/CG25/Guidance/pdf/English>
4. Regional Networks for Major Trauma NHS Clinical Advisory Groups Report. September 2010
5. Truhlář A, Deakin CD, Soar J et al. European Resuscitation Council Guidelines for Resuscitation 2015: Section 4. Cardiac arrest in special circumstances. Resuscitation. 2015;95:148-201

9. Transferring patients

After successful resuscitation, patients must be transferred to acute hospitals for more specialised care. Transfers must be carried out by the 999 ambulance service, a retrieval team, or by local arrangements where the mental health unit is on a site that is shared with an acute hospital. All transfers should follow the appropriate national guidance.

The organisation should have a system in place to ensure handover of care and safe transfer.

Supporting information

1. Association of Anaesthetists of Great Britain and Ireland (AAGBI) Safety Guideline - Interhospital Transfer. 2009. www.aagbi.org/
2. Intensive Care Society. Guidelines for the transport of the critically ill adult (3rd Edition 2011). www.ics.ac.uk/
3. Paediatric Intensive Care Society. Standards for the care of critically ill children. 4th Edition, version 2. June 2010. http://www.ukpics.org.uk/documents/PICS_standards.pdf

10. Post-cardiac-arrest care

Mental health organisations must transfer to acute inpatient units for further post-resuscitation care all patients who have been resuscitated after a cardiorespiratory arrest. They must use the 999 ambulance service unless there are other local transfer arrangements where the mental health unit is on a site that is shared with an acute hospital. Post-cardiac-arrest care must be based upon the current guidelines.

Supporting information

1. Resuscitation Council (UK). European Paediatric Advanced Life Support. Fourth Edition, 2016.

11. Resuscitation equipment

Standards

Equipment lists for specific healthcare settings are contained in the separate document section: [Minimum equipment and drug lists for cardiopulmonary resuscitation](#)

Supporting tools

1. Resuscitation equipment checks in Raising the Standard: A compendium of audit recipes for continuous quality improvement in anaesthesia. <http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/the-audit-recipe-book-3rd-edition-2012>

12. Decisions relating to cardiopulmonary resuscitation

Standards

1. Healthcare professionals must be familiar with and follow published guidance, including in particular 'Decisions relating to Cardiopulmonary Resuscitation, a joint statement by the British Medical Association, the Resuscitation Council (UK), and the Royal College of Nursing' and the General Medical Council's current guidance on 'Treatment and care towards the end of life: good practice in decision making'.
2. Healthcare professionals must be familiar with and must comply with the law as it applies to decisions about CPR. There are some differences in the law among countries of the United Kingdom. Healthcare provider organisations must ensure that their staff receive appropriate information and training regarding these laws.
3. Healthcare professionals involved in making decisions about CPR must have appropriate training and competency in so doing, and similarly those who undertake the sensitive discussions with patients and those close to patients must have appropriate training and competency in so doing. Healthcare provider organisations must ensure that they have sufficient staff trained and competent in performing these functions, and that staff have adequate time and facilities to perform them properly.
4. The Resuscitation Council (UK) has defined standards for recording decisions about CPR. It is recommended that decisions about CPR are recorded on a form that is easily recognised and has a standard content and format, to allow healthcare professionals to recognise it and assess its content and validity immediately.
5. Healthcare organisations must have policies about CPR decisions and documents that are recognised by the other organisations so that decisions about CPR continue across organisational and geographic boundaries when patients are transferred from one setting to another. In particular this should include the ambulance service, so that these decisions are respected during transfer.
6. Healthcare organisations must ensure that healthcare staff have access to appropriate stationery or electronic media for recording, accessing and reviewing decisions about CPR.
7. Healthcare organisations must ensure that patients and those close to patients have ample opportunities to discuss resuscitation and decisions about CPR should they wish to, but that such discussions are not forced upon those who do not want them. Written information about resuscitation decisions, or information in other media (e.g. DVD or 'podcast') should be made readily available for patients and those close to them, but should not be used as an attempted substitute for sensitive, face-to-face discussion with a suitably trained and competent healthcare professional.

Supporting information

1. Adults with incapacity (Scotland) Act 2000 Part 5 Code of Practice.
<http://www.scotland.gov.uk/Publications/2008/06/13114117/0>
2. Guidance from the British Medical Association, the Resuscitation Council (UK), and the Royal College of Nursing. 2016.
<http://www.resus.org.uk/dnacpr/decisions-relating-to-cpr/>
3. Do not attempt resuscitation (DNAR) decisions in the perioperative period, Association of Anaesthetists of Great Britain and Ireland, May 2009. http://www.aagbi.org/sites/default/files/dnar_09_0.pdf
4. Mental Capacity Act 2005 (England and Wales).
<http://www.legislation.gov.uk/ukpga/2005/9/contents>
5. NHS Executive. Health Services Circular 2000/028 – Resuscitation Policy
6. Recommended standards for recording decisions about cardiopulmonary resuscitation. Resuscitation Council (UK). Revised 2015.
<http://www.resus.org.uk/dnacpr/do-not-attempt-cpr-model-forms/>
7. Time to Intervene? A review of patients who underwent cardiopulmonary resuscitation as a result of an in-hospital cardiorespiratory arrest. A report by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD). 2012. <http://www.ncepod.org.uk>
8. Treatment and care towards the end of life: decision making, General Medical Council. http://www.gmc-uk.org/guidance/ethical_guidance/end_of_life_care.asp

Supporting tools

1. Inappropriate cardiac arrest calls in Raising the Standard: A compendium of audit recipes for continuous quality improvement in anaesthesia.
<http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/the-audit-recipe-book-3rd-edition-2012>
2. The Resuscitation Council (UK) provides model DNACPR forms for use in adults and children respectively.
<http://www.resus.org.uk/dnacpr/do-not-attempt-cpr-model-forms/>
3. Scotland has a single DNACPR policy. For more information including supporting tools see:
<http://www.scotland.gov.uk/Topics/Health/Quality-Improvement-Performance/Living-Dying-Well/DNACPR>
4. Recommended Summary Plan for Emergency Care and Treatment.
<http://www.respectprocess.org.uk/>

13. Audit and reporting

Standards

1. NCEPOD recommends that every CPR attempt is reported through the healthcare organisation's patient safety incident reporting systems. This information must be reported to the organisation's Board on a regular basis.
2. All CPR attempts must be reviewed. When appropriate, a root cause analysis must be undertaken and the action plan implemented. A suggested guide for reviewing cardiac arrests is available in the supporting tools below.
3. Taking part in the National Cardiac Arrest Audit (NCAA) is recommended. NCAA is included in the Department of Health's Quality Accounts as a recognised national audit (This is only appropriate if a mental healthcare organisation has access to a resuscitation team summoned by the use of 2222).
4. Audit of DNACPR policies is mandatory (Health Services Circular 2000/028).
5. Organisations must review local audit data regularly against published standards. Where audit identifies deficiencies or unexpected poor performance, a review at an appropriate level must be undertaken. The Resuscitation Service Structure must receive appropriate support to achieve this.

Supporting information

1. The Mid Staffordshire NHS Foundation Trust Public Inquiry - Chaired by Robert Francis QC.
<http://www.midstaffspublicinquiry.com>
2. National Cardiac Arrest Audit. <http://www.resus.org.uk/research/national-cardiac-arrest-audit/>
3. NHS Executive. Health Services Circular 2000/028 – Resuscitation Policy
http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Healthservicecirculars/DH_4004244
4. Raising the Standard: A compendium of audit recipes for continuous quality improvement in anaesthesia.
<http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/the-audit-recipe-book-3rd-edition-2012>
5. Report a patient safety incident.
<http://www.nrls.npsa.nhs.uk/report-a-patient-safety-incident/>
6. Time to Intervene? A review of patients who underwent cardiopulmonary resuscitation as a result of an in-hospital cardiorespiratory arrest. A report by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD). 2012. <http://www.ncepod.org.uk>

Supporting tools

Example guide* to reviewing cardiac arrests:

Answer the following questions:

1. Was there a clearly documented physiological monitoring plan stating type and frequency of observations in the 24 hours preceding the arrest (as per NICE, RCP and NCEPOD Guidance) and were these undertaken as requested?

2. What were the patient's Early Warning Scores in the 12 hours preceding the arrest?
3. If the patient's scores at any time in that 12-hour period were elevated to 'trigger level', as per the local escalation policy, was the correct escalation undertaken?
4. Were there other reasons for escalating care (e.g. symptoms [chest pain], signs [clammy], laboratory results, or staff or patient/relative concern)?
5. If there were other reasons for escalating care was the correct escalation undertaken?
6. Did the patient receive appropriate assessment and/or treatment in response to a clearly identified reason for escalation?
7. If the patient received treatment, did his/her condition improve in response to that treatment?
8. If the patient did not improve, was the patient's assessment and treatment escalated to a more senior level in a timely manner?
9. Did the patient have documented and discussed ceilings of care/CPR status?
10. Has the review identified any other issues (e.g. missing equipment or drugs, equipment failures, problems with team performance or communication)?

If the answer to any of the above questions raises concern, proceed to root cause analysis and action plan.

** Modified from original checklist developed by Kate Beaumont, Nursing Director, The Learning Clinic*

14. Research

Standards

1. Research must be conducted in accordance with the NHS Research Governance Framework. Research involving human participants, their organs, tissue or data require NHS Research and Development approval. Such research may also require approval from a Research Ethics Committee. If in doubt, advice should be sought from the local Research and Development Office in the first instance or NHS Research Ethics Advice Service.
2. Research involving patients who lack capacity must also comply with relevant legislation (e.g. UK Medicines for Human Use [Clinical Trials] Regulations 2004; Mental Capacity Act 2005 [England and Wales]; Adults with Incapacity [Scotland] Act 2000).
3. The organisation's Resuscitation Service Structure can be a valuable source of advice for staff who are contemplating undertaking clinical research in resuscitation.

Supporting information

1. National Research Ethics Service. <http://www.nres.nhs.uk/>
2. National Research Ethics Service Does my project require review by a Research Ethics Committee? <http://www.hra-decisiontools.org.uk/research/>
3. NHS Constitution. <https://www.gov.uk/government/publications/the-nhs-constitution-for-england>

15. APPENDIX:

Suggested measures to assess adherence to standards

The numbers listed in the first column correspond to the standards referred to in the corresponding chapter of this document.

Aspect of cardiopulmonary resuscitation in mental health inpatient care	Example measures
Resuscitation Service Structure standards	
1, 2, 3, 4, 5, 6	Check list
1, 2, 3, 4, 5, 6, 8, 12	Resuscitation Policy and minutes of meetings
6, 10, 12	Trust Training Policy
4, 11, 12	Terms of reference, Annual report
6, 13	Audit of accounts
Resuscitation Officers standards	
1, 4	Staffing records
1, 2, 4, 5, 6	RO job description or person specification
6, 7, 8, 9, 14, 15	Evidence from RO appraisal
7, 8, 9	Checklist
11, 16, 17	Accounts
10, 12, 13	Evidence of equipment checklists, action plans and equipment policy
13	Audit reports
Training of staff standards	
1, 2, 5, 6, 8	Resuscitation Policy, induction programme, training records, training matrix
5, 6, 7, 8, 9, 10, 12, 13, 14	Training records, competency documents, audit of individual cardiac arrests
14	Minutes of resuscitation committee (or equivalent) meetings; medical devices records
15	Induction programme and records
16, 17, 19, 20, 21	Staff training records
Prevention of cardiorespiratory arrest standards	
1, 2, 3, 4, 5, 6, 7, 8, 9	Copy of policy
4, 5, 6	Patient observation chart and escalation plan
5, 6, 7	Documentation and evidence of training
The resuscitation team standards	
1, 2, 3, 5, 6, 8, 9, 11, 12, 13, 16	Copy of policy and minutes of meetings
7, 9, 10	Switchboard records and test logs
4, 5, 14, 16, 18	Training records and certificates

Aspect of cardiopulmonary resuscitation in mental health inpatient care	Example measures
14	Evidence of action plans from debriefings
3, 17	Documentation and audit reports
Resuscitation of children standards	
1, 2, 3, 5, 8	Copy of policy
2, 3, 4	Training records and certificates
6	Equipment lists and checklists
7	Inspection of observation chart and escalation plan
Resuscitation in special circumstances standards	
1	Policy
Patient transfer standards	Policy
Post-cardiac-arrest-care standards	Policy, Care Pathway
Decisions relating to cardiopulmonary resuscitation standards	Policy
Audit and reporting standards	
1, 2, 3, 4, 5	Policy, minutes of Trust Board meetings, audit
1, 2, 3, 4, 5	Audit reports, e.g. NCAA reports, and action plans
1, 2, 4, 5	Minutes of meetings
Research standards	
1, 2, 3	Policy; Ethics Service Structure minutes and records

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