

PROCEDURE: Cardiopulmonary Resuscitation (CPR)

CLINICAL PROCEDURE REFERENCE NUMBER:	CLPG14
VERSION NUMBER:	15
KEY CHANGES FROM PREVIOUS VERSION	Removal of ESS training reference, reference to Resuscitation Council (UK) Immediate Life Support, rewording of 'Definition of terms' and updating of Resuscitation Council (UK) Guidelines, Inclusion of NEWS2 and updating of associated resuscitation Council (UK) guidance
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CONSULTATION GROUPS:	Operational Teams Trust wide, Compliance & Risk Team, Workforce & Training, Pharmacy Team, Physical Health Group.
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CLINICAL PROCEDURE SUMMARY	
The purpose of this procedure is to ensure prompt, safe, early and appropriate cardiopulmonary resuscitation (CPR) within Essex Partnership University NHS Foundation Trust (EPUT). This procedure incorporates the current resuscitation guidelines, as published by the Resuscitation Council (UK), in 2021. This procedure supports the EPUT Policy for CPR, by providing the Trust arrangements for practice and standards relating to management of the deteriorating patient and CPR. The Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) procedure should be referred to, in combination with these guidelines, to provide consideration to DNACPR orders, not other forms of care. All inpatient service users are monitored for signs of physical deterioration using a national early warning scoring system (NEWS2).	

The Trust monitors the implementation of and compliance with this clinical procedure in the following ways:

The resuscitation and deteriorating patient group will be responsible for monitoring implementation and compliance with this procedure through review of audit findings and post cardiac arrest reports.

The Executive Director responsible for monitoring and reviewing this Policy is the Executive Nurse

Services	Applicable	Comments
Trustwide	✓	
Essex MH&LD		
CHS		

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CPR Procedure

1.0 INTRODUCTION

- 1.1 Essex Partnership University NHS Foundation Trust (EPUT) provides community health, mental health and learning disability services for a population of approximately 3.2million people in a variety of settings ranging from in-patient wards to the patient's own home. In the event of a cardiac arrest in any setting, all EPUT staff must be able to recognise and respond appropriately to maximise the patient's chances of survival.
- 1.2 Patients cared for within inpatient settings can be particularly vulnerable to cardiac arrest as a result of coexisting physical illness, self-harm and the potential side effects of medication. Additional risks include rapid tranquilisation, physical intervention, or seclusion in the short-term management of disturbed or violent behaviour. Those within inpatient settings are also vulnerable to choking, through dysphagia associated with illnesses like dementia, behaviour such as food bolting, pica (attempting to eat non-food items) or intentional self-harm. (NPSA, 2008)
- 1.3 The Resuscitation Council (UK) requires all healthcare staff to have ongoing training in basic life support, and additionally suggests that automated external defibrillators (AEDs) should be provided in any healthcare setting, that might reasonably expect to use them, at least once every five years.
- 1.4 In 2020, the Care Quality Commission published a document entitled 'Brief guide: Immediate Life Support training for services that may use restrictive interventions'. The document describes how the "National Institute for Health and Care Excellence (NICE) Clinical Guidelines 25 (2005) recommends that any setting, where restrictive interventions (rapid tranquilisation, restraint or seclusion) are used, have immediate access to staff trained in Immediate Life Support (ILS) and to appropriate ILS medication and equipment. In 2008, The National Patient Safety Agency (NPSA) issued a Rapid Response Report (2008/RRR010) with similar recommendations" (Care Quality Commission, 2020).
- 1.5 The RCUK document entitled 'Quality Standards: Mental health inpatient care' updated in May 2020, states that the "Resuscitation Council UK's Immediate Life (ILS) course is recommended as a minimum standard, for staff who deliver or are involved in, rapid tranquilisation, physical restraint and seclusion" (Resuscitation Council UK, 2020).

- 1.6 The purpose of this procedure is to ensure:
- Patients are monitored for signs of potential deterioration using the national early warning scoring system (NEWS2) which may facilitate early intervention to prevent further deterioration resulting in a cardiac arrest (see CG87 Clinical Guidelines on the Use of NEWS2)
 - In the event of a medical emergency patients, carers, staff and members of the public, will receive an appropriate emergency response, which will maximise their chances of survival
- 1.7 In the event of a cardiac arrest, every attempt to resuscitate the individual will take place in accordance utilising the guidance provided by the Resuscitation Council (UK), unless a valid DNACPR decision or a valid Advance Decision to Refuse Treatment (ADRT), refusing cardiopulmonary resuscitation, is in place (see CLPG14B DNA CPR procedure).

2.0 DEFINITION OF TERMS

- 2.1 **National Early Warning Scoring System (NEWS2):** incorporated into the physiological observation chart which highlights potential patient deterioration by assigning a score to vital signs that fall outside of normal parameters.
- 2.2 **Basic Life Support (BLS)** The BLS course teaches participants to identify the causes and promote the prevention of cardiopulmonary arrest; recognise and treat the deteriorating patient;; undertake the skills of effective, high quality CPR and defibrillation (using AED) and simple airway manoeuvres.. Where provided BLS follows the guidance as set out by the Resuscitation Council (UK).
- 2.3 **‘Grab bag’ and Resuscitation Council (UK) ‘Immediate Life Support’ training** incorporate the components of BLS with additional training requirements in emergency skills, as required by the individual clinical services within EPUT.
- 2.4 **Cardiac Arrest** is a sudden, sometimes temporary, cessation of the hearts functioning. The patient will be unconscious, unresponsive and not breathing normally. Unless treated promptly irreversible brain damage and death can follow within minutes.
- 2.5 **Cardio-pulmonary Resuscitation (CPR)** the delivery of effective chest compressions and self-inflating, bag valve-mask ventilation with the utilisation of an AED.

- 2.6 **Automated External Defibrillator (AED)** is a medical device used to deliver a high energy electric shock to the heart of a patient in cardiac arrest. The devices use voice and visual prompts to guide staff during the resuscitation attempt, analysing the heart rhythm to determine the need for a shock. The staff will proceed to deliver the shock, when it has been confirmed that it is safe to do so.

3.0 EARLY WARNING SCORING SYSTEM AND THE DETERIORATING PATIENT

- 3.1 The Trust has adopted the National Early Warning Scoring System (NEWS2) which is designed to recognise the deteriorating patient within an inpatient setting and community healthcare setting (See CG87 Clinical Guidelines for the Use of National Early Warning Scoring System (NEWS2)).
- 3.2 In mental health and learning disability settings, baseline clinical observations and calculations of NEWS2 are to be recorded every 24 hours for the first 72 hours of admission unless more frequently recommended by the admitting doctor (See CG55 Physical Healthcare Clinical Guideline). If baseline clinical observations are considered by the multidisciplinary team to be within normal range after 72 hours, observations must then be recorded as a minimum as follows:
- **Once daily** for patients on older people's wards;
 - **Every 7 days** for patients on all other wards until discharged.
- 3.3 The SBAR communication tool (Appendix 8) must be used when communicating with medical colleagues (including the Ambulance Service) in relation to a deteriorating patient, to ensure clear, concise and relevant information is relayed in a timely manner.

4.0 PROCEDURE FOR CPR

- 4.1 Staff must be able to:
- Recognise cardiorespiratory arrest
 - summon help
 - start CPR
 - attempt defibrillation, if appropriate, within 3 minutes of collapse using an automated external defibrillator or manual defibrillator
 - The Duty Doctor must be informed of the cardiac arrest as soon as possible, so that they may contribute to the resuscitation attempt, and

liaise with the admitting team at the receiving hospital, if required. If occurring within a community location, the responsible doctor or the patient's GP must be informed.

- 4.2 Specific details relating to the roles and responsibilities of staff attending a resuscitation event and associated technical and non-technical skills, can be found within Appendix 6 and the supporting algorithms, which are to be followed when responding to a medical emergency are provided as Appendices 1-5.
- 4.3 Following the conclusion of a CPR event, the clinician in charge or the a senior member of staff must ensure that all resuscitation equipment is cleaned, checked and, if necessary, replaced immediately, including all single use equipment, in accordance with infection control procedures.
- 4.4 The patient's relatives must be informed of the CPR event as soon as is practicable by an appropriate member of staff.
- 4.5 Following return of spontaneous circulation (ROSC), the patient will be transferred to an acute hospital or specialist unit where on-going post-resuscitation care will be provided.
- 4.6 In the event of a cardiac arrest or sudden collapse the Ambulance Service must be contacted immediately, via 999. The exact location of the patient (i.e. specific ward or unit) must be shared with the Ambulance Service and the staff member must use the SBARD communication tool and be within close vicinity of the patient throughout the call.
- 4.7 A nominated individual will assist in directing the ambulance, when arriving on site.
- 4.8 In the event of a cardiac arrest in a patient's own home or elsewhere in the community, there is an expectation that emergency help would be summoned and CPR commenced where appropriate, in the absence of a DNACPR order.
- 4.9 If staff are unable to deliver rescue breaths, they should provide chest compression only CPR (i.e. continuous compressions at a rate of between 100–120 compressions per minute). (Resuscitation Council UK, 2021)
- 4.10 Although community staff would not be expected to have access to additional equipment, they should consider the availability of public access defibrillators (PAD) and may be directed to these by the emergency services. Those regularly meeting patients in public areas should make themselves aware of the location of PAD's.

- 4.11 Those trained only in adult BLS, who have no specific knowledge of paediatric resuscitation, should use the adult sequence they are familiar with, including the paediatric modifications if possible (Resuscitation Council UK, 2021).

5.0 THE RESUSCITATION EVENT REPORTING PROCEDURE

- 5.1 The outcome of the CPR event must be clearly documented in the patient's record by the doctor and the clinician in charge.
- 5.2 A DATIX Incident Form must be completed at the earliest possible opportunity along with a Resuscitation Event Form (Appendix 7), which is attached to the Datix.
- 5.3 The Head of Deteriorating Patient Pathway and Resuscitation Training Officer will confirm if the Resuscitation Event Report Form (Appendix 7) has been completed following an event and review, in order to identify examples of good practice, any knowledge or technical/non-technical skills shortfall and potential learning opportunities.

6.0 PROVISION AND MAINTENANCE OF EMERGENCY EQUIPMENT AND DRUGS

- 6.1 Basic resuscitation equipment (located within an approved resuscitation bag) should be held in all clinical areas, to enable staff to carry out basic life support.
- 6.2 The minimum requirements, relating to emergency equipment provision within in-patient areas, is documented within Appendix 9. Resuscitation equipment must be procured in accordance with this standardised product list (which is accessible via the intranet) and has been compiled by the Medical Devices and Resuscitation and Deteriorating Patient Groups.
- 6.3 All mental health in-patient areas must have ligature cutters available in the emergency grab bag, in addition to those kept within a designated location (indicated by a clearly displayed directional poster). Refer to the Trust CPG75 Ligature Risk Assessment & Management Procedure for further information.
- 6.4 In areas where additional expertise is readily available and there is a need for additional resuscitation equipment i.e. ECT suite staff are responsible for checking and maintaining the equipment, using an approved local checklist.
- 6.5 Staff must be familiar with the location of all resuscitation equipment within their working area and this must be covered on their ward induction.
- 6.6 Responsibility for the storage, maintenance and checking of resuscitation equipment resides with the manager of the ward, care home or department where the equipment is held.

- 6.7 It is important to ensure that resuscitation equipment is always readily available in the event of a cardiac arrest. The daily/weekly checks are carried out and signed, to ensure that resuscitation equipment is maintained in a ready-to-use condition and expiry dates have not lapsed. It is the responsibility of the nurse-in-charge to ensure the checks are completed.

The resuscitation bag or trolley must be checked, restocked (if required) and re-tagged if:

- opened during a resuscitation event
 - the tag is found to be missing or broken
 - the tag number is different to the one documented at the last check
 - when replacing any imminently expiring piece of equipment
- 6.8 When checking a portable (CD size) oxygen cylinder, it is important to take a reading from the gauge on the cylinder and ensure the cylinder valve hand wheel is in the ON position (as per EPUT internal alert (INT 2022 LL002) dated 08/08/2022).
- 6.9 In clinical areas where resuscitation equipment trollies are deployed, e.g. ECT suites, staff must ensure that appropriate checking procedures are in place to ensure that equipment is ready for use at all times and that the trolley is restocked immediately if equipment is used.
- 6.10 Where specialist services are delivered there may be a need for additional equipment or drugs to be held in order to meet local or national guidance. Each service is responsible for ensuring any such guidance is adhered to with regard to procurement, training and regular up-dating of staff.
- 6.11 Within the Rainbow Unit (Linden Centre) there is both an adult and paediatric resuscitation bag present.
- 6.12 In-patient wards should hold drugs which may be needed in the management of common medical emergencies as part of their normal ward stock. As a minimum:
- Adrenaline injection (1:1000, 1mg/ml)
 - Aspirin dispersible (300 mg)
 - Glyceryl trinitrate (GTN) 400 microgram spray
 - Glucagon injection 1mg
 - Glucose solution / tablets / gel / powder
 - Midazolam 10mg (buccal)
 - Salbutamol aerosol 100 micrograms inhaler
 - Naloxone 400 microgram/ml

- Flumazenil 500 microgram/5ml
- Insulin (rapid acting)

This list will be reviewed as part of the on-going work of standardisation across the Trust.

7.0 POST INCIDENT CARE

- 7.1 Resuscitation attempts are extremely demanding both physically and emotionally for patients, their relatives, carers and staff. Care should be taken to ensure that those people who may be traumatised by the incident are identified. Every effort should be made to support those involved by listening and offering appropriate support immediately following the incident and at a later stage. Staff may have very limited experience in traumatic events, such as a cardiac arrest.
- 7.2 Debriefing following a cardiac arrest must be handled with sensitivity. A nominated individual i.e. a Nurse in Charge, Ward Manager, Matron, Service Manager/Clinical Lead, Consultant or another member of the Senior Medical Team, must be identified, to facilitate the debrief and engage with patients, relatives, carers and staff who may have been affected following a resuscitation attempt. The facilitation of a debrief must be documented and recorded within the 'Action taken' section of the DATIX Incident Form.
- 7.3 The objective is to provide support for those involved and for staff to learn from the incident, whilst allowing those involved the opportunity to discuss the event in a facilitated, constructive and supportive forum. Debriefing by a person with facilitation experience, should take place within seven days of the incident. If the incident occurs within a ward or residential setting, a meeting with patients / residents should be convened, to ensure support and appropriate aftercare can be offered as required.

8.0 RESUSCITATION STATUS & DECISIONS RELATING TO DNACPR

- 8.1 Please refer to the CLPG14B (DNACPR Procedure) for more detailed guidance.

9.0 TRAINING

- 9.1 Upon induction, each staff-member must make themselves aware of the location of emergency equipment within their clinical area, and of the reporting procedure.

- 9.2 There is a requirement for Trust staff to achieve a level of competency in CPR that is appropriate to their role, for which they will be expected to attend for training on an annual basis.
- 9.3 The Trust's Workforce Development and Training Department will provide training in accordance with the requirements of the clinical service and as set out within the Mandatory Training Policy. Training will be provided in accordance with the current RCUK guidelines.
- 9.4 The Ward Manager, Matron or Service Manager/Clinical lead for each in-patient ward/Unit, will be responsible for ensuring that simulations of CPR events are undertaken at least three times each year. This will include one simulation of a clinical emergency within a ward environment, which can be facilitated Workforce Development and Training Department .Each Ward/Unit must record when a simulation event occurs.
- 9.5 All staff in mental health in-patient areas will undergo training in relation to the use of NEWS2 and the SBAR communication tool.

10.0 REFERENCES

1. National Patient Safety Agency, 2008. Rapid Response report NPSA/2008/RRR010: Resuscitation in mental health and learning disability settings. [pdf] Available at :< [Microsoft Word - RRR010 Word.doc \(choiceforum.org\)](#)> [Accessed 5 June 2022].
2. Resuscitation Council (UK) (2021) *2021 Resuscitation Guidelines*. [online] Available at: < [2021 Resuscitation Guidelines | Resuscitation Council UK](#)> [Accessed 1 June 2022].
3. Care Quality Commission, 2020. Brief guide: Immediate life Support training for services that may use restrictive interventions. [pdf] Available at :< [20200325_briefguide-LifeSupportTraining.pdf \(cqc.org.uk\)](#)> [Accessed 6 June 2022].
4. Resuscitation Council UK, 2020. Quality Standards: Mental health inpatient care. [pdf] Available at: <[Quality Standards: Mental health inpatient care | Resuscitation Council UK](#)> [Accessed 6 June 2022].

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