

# PROCEDURE: Cardiopulmonary Resuscitation (CPR)

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<b>KEY CHANGES FROM PREVIOUS VERSION</b>	Merged policies; updated appendices; additional procedure Do Not Attempt Cardiopulmonary Resuscitation (DNACPR)
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<b>CONSULTATION GROUPS:</b>	Operational Teams Trust wide, Compliance & Risk Team, Workforce & Training, Pharmacy Team, Physical Health Group.
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<b>CLINICAL PROCEDURE SUMMARY</b>	
<p>The purpose of this procedure is to ensure prompt, safe, early and appropriate cardiopulmonary resuscitation (CPR) within Essex Partnership University NHS Foundation Trust (EPUT). The strategy for resuscitation incorporates the current published guidelines for resuscitation (Resuscitation Council (UK) 2015).</p> <p>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.</p> <p>Please read in combination with the Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) clinical procedure and note that DNACPR only applies to CPR and not to other forms of care.</p> <p>All inpatient service users are monitored for signs of physical deterioration using an early warning scoring system.</p> <p>This policy makes direct reference to guidance from the British Medical Association, The Resuscitation Council (UK) and the Royal College of Nursing, in the document 'Decisions Relating To Cardiopulmonary Resuscitation', 3rd Edition (1st revision) 2016, previously known as the "Joint Statement". <a href="https://www.resus.org.uk/dnacpr/decisions-relating-to-cpr/">https://www.resus.org.uk/dnacpr/decisions-relating-to-cpr/</a></p>	

**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		

**ESSEX PARTNERSHIP UNIVERSITY NHS FOUNDATION TRUST**

**PROCEDURE: Cardiopulmonary Resuscitation (CPR)**

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**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 2.5 million people in a variety of settings ranging from in-patient wards to the patient's own home. In the event of a cardiac or respiratory arrest in any setting, all EPUT staff should be able to recognise and respond appropriately to maximise the chances of survival.
- 1.2 Patients cared for in inpatient settings can be particularly vulnerable to cardiac or respiratory arrest through coexisting physical illness, through self-harm, and through the effects of medication, including rapid tranquilisation, physical intervention, or seclusion in the short term management of disturbed or violent behaviour. Patients in 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 NICE Guideline NG10 (2015) requires that any setting where restrictive interventions may be used can access staff trained to basic life support (BLS) standards, and access appropriate equipment for BLS (including AEDs).
- 1.5 The purpose of this procedure is to ensure that:
- Service users are monitored for signs of potential deterioration if they are an inpatient using either the Trusts' modified early warning tool (MEWS) or national early warning scoring system (NEWS) which may facilitate early intervention to prevent further deterioration resulting in a cardiac arrest;
  - In the event of collapse when being seen by a member of Trust staff or when visiting any EPUT sites, service users, carers, staff and the public receive an appropriate response which will maximise their chances of survival;
  - All reasonable steps are taken to provide an initial first aid response for medical emergencies and that in all instances there is a referral for subsequent specialist treatment and care.
- 1.6 In the event of an unexpected cardiac arrest, every attempt to resuscitate the individual will take place in accordance with the advice 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. However, there is acknowledgement within the Guidance from the British Medical Association, the Resuscitation Council (UK)

and the Royal College of Nursing on Decisions Relating to Cardiopulmonary Resuscitation that there will be some people for whom attempting CPR is clearly inappropriate; for example, a person in the advanced stages of a terminal illness where death is imminent and unavoidable and CPR would not be successful, but for whom no formal CPR decision has been made and recorded. It is therefore imperative that conversations with patients and their families take place at the earliest opportunity to ensure their wishes are known and taken into consideration when planning care and considering DNACPR orders. Decisions regarding resuscitation status must be clearly communicated to all teams involved in the care of the patient.

## 2.0 DEFINITION OF TERMS

- 2.1 **Advance Decisions to Refuse Treatment (ADRT)** An Advance Decision to Refuse Treatment enables someone, aged 18 and over, while still having mental capacity, to document their wish to refuse specified medical treatment for a time in the future when they may lack the capacity to consent to or refuse that treatment. It is governed by the Mental Capacity Act and is a legally binding decision.
- 2.2 **Automated External Defibrillator (AED)** is a computerised device used to deliver defibrillatory shocks to a patient in cardiac arrest. They use voice and visual prompts to guide staff. They analyse the heart rhythm to determine the need for a shock. The staff then deliver the shock when it has been ascertained that it is safe to do so.
- 2.3 **Basic Life Support (BLS)** comprises the following elements: initial assessment, then airway maintenance, chest compression and expired air ventilation (rescue breathing) with or without the use of a mouth-shield or mask.
- 2.4 **Basic Life Support with Airway Adjuncts and Defibrillation** comprises the following: initial assessment, airway maintenance with or without the use of a naso-pharyngeal, oropharyngeal or laryngeal mask airway, chest compression and bag-valve-mask ventilation (rescue breathing) with or without the use of oxygen and the application of the AED and following of prompts.
- 2.5 **Cardiac Arrest** is the cessation of effective pumping action of the heart. There is abrupt loss of consciousness and breathing stops. Unless treated promptly irreversible brain damage and death can follow within minutes.
- 2.6 **Cardio-pulmonary Resuscitation (CPR)** the delivery of chest compressions and ventilation +/- AED.
- 2.7 **Do Not Attempt Cardio-Pulmonary Resuscitation (DNACPR)** is an order that can be communicated only following a thorough consultation and assessment which must be recorded on the appropriate form. Evidence of the assessment process must be documented.

- 2.8 **Early Warning Scoring System (EWSS):** incorporated into the physiological observation chart which highlights potential patient deterioration by assigning a score to vital signs that fall outside of normal parameters.
- 2.9 Vital signs will be monitored in mental health inpatients by the Modified Early Warning Score (MEWS). EPUT Community Health Services (CHS) use National Early Warning Score (NEWS2) which, like MEWS, is based on a simple aggregated scoring system in which a score is allocated to physiological measurements. For details on how to complete EWSS, refer to the Trust Clinical Guidelines for Use of early Warning Scoring Systems (CG87).
- 2.10 **Enhanced Emergency Skills (EES)** incorporates the components of BLS with additional training requirements in emergency skills, as required by the individual clinical services within EPUT.
- 2.11 **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 using the ABCDE approach; undertake the skills of quality CPR and defibrillation (using AED) and simple airway manoeuvres and utilise non-technical skills to facilitate initial leadership and effective team membership. Where provided BLS follows the guidance as set out by the Resuscitation Council (UK).

### 3.0 EARLY WARNING SCORES & THE DETERIORATING PATIENT

- 3.1 The Trust operates Early Warning Scoring Systems (EWSS) that are designed to recognise the potentially physically deteriorating patient within an inpatient setting. For more details refer to EPUT Clinical Guidelines for the Use of Early Warning Scoring Systems (CG87)
- 3.2 In mental health setting baseline clinical observations and calculations of MEWS are to be recorded every 24 hours for the first 72 hours of admission unless more frequently recommended by the admitting doctor. 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 All physical observations should be recorded using the appropriate early warning system and a complete set of observations should be recorded each time i.e. temperature, pulse, blood pressure, respirations, oxygen saturation, and ACVPU, which is alert/confusion/voice/pain/unresponsive. Where an individual parameter or total score identifies potential physical deterioration, this must be escalated to the appropriate medical team and documented in the patient records.
- 3.4 Clinical observations **must be increased and reviewed** if the patient experiences any of the following: rapid tranquilisation or physical intervention, falls, seizures, the commencement of new/increased medication, signs of

recent confusion or agitation or if the staff, carers or the service user states that they suspect that they may be becoming physically unwell.

- 3.5 The EWSS is **not** intended to replace clinical judgement; for example a patient may be seriously ill yet **not** score highly on EWSS, staff would be expected to take appropriate steps to ensure the wellbeing of any patient whose condition gave cause for concern.
- 3.6 When communicating with medical colleagues in relation to the potentially deteriorating patient a communication tool such as SBAR (Situation, Background, Assessment and Recommendation) should be used, to ensure concise and relevant information is relayed in a timely manner. (Appendix 8)

#### **4.0 PROCEDURE FOR CPR**

- 4.1 The core procedure for responding to a sudden cardiac arrest and initiating life support is shown in Appendices 1-3. It is recognised that some clinical areas may wish to provide additional information, such as emergency contact telephone numbers and the location of emergency equipment. This should be included in a local service procedure for CPR which must be clearly displayed.
- 4.2 **Immediate Action to be taken on finding a collapsed individual where no DNACPR order is in place**
- This includes initiation of resuscitation and the system for summoning help.
  - It is essential that the person who finds the collapsed individual immediately assesses the safety of the environment, shouts or calls for help and raises an emergency alarm if available, to alert others to the situation.
  - The collapsed individual should be assessed for signs of life using the ABC approach and if appropriate, BLS should be commenced immediately if emergency services or a crash team has already been summoned. The single rescuer should normally contact emergency help before commencing BLS.
  - Other staff arriving at the scene should bring emergency equipment to assist with the resuscitation attempt as quickly as possible. The AED should be switched on and the instructions followed without delay.
  - Minimise interruptions to CPR when attaching the AED pads to the victim. Defibrillation within 3–5 min of collapse can produce survival rates as high as 50–70% (Resuscitation Council, UK)
  - Early defibrillation and good quality chest compressions are key to increasing the chances of survival.
  - Oxygen should be used with bag-mask-ventilation when available.
  - Consideration may need to be given to the surface on which the patient is lying and staff should be familiar with equipment used in their clinical



setting, knowing how to institute the emergency deflation of air mattresses or neutral positioning of profiling beds. Staff should be aware that a greater level of energy will be required to deliver effective chest compressions to a patient lying on a mattress than on a more rigid surface and if effective chest compression cannot be achieved i.e. depression of the chest by 5-6 cm then consideration should be given to moving the patient to the floor if safe to do so. The efficacy of chest compressions should be assessed before considering moving the patient and this should only be attempted following careful assessment of the risks to staff and patient.

- Staff performing chest compressions should rotate approximately every 2 minutes to minimise the effect of fatigue on performance. Changing CPR providers should not interrupt chest compressions and resuscitation attempts should continue until there are signs of life or the crash team or emergency services have arrived and are ready to take over.
- The most senior clinician present will assume the lead role in the co-ordination of the resuscitation attempt until emergency services (paramedics or Emergency Response team) arrives (in some instances in Community Health Services this may be the Band 3 Healthcare Support Worker). These responsibilities will include ensuring:
  - a) The situation is assessed for any specific risks to staff or patient;
  - b) The patient is assessed to establish if resuscitation is indicated;
  - c) Emergency assistance is summoned;
  - d) Management and safety control of the environment;
  - e) Ensuring appropriate equipment [see Appendix 9-11] is available for the incident;
  - f) Basic life support is commenced if appropriate without any delay by an appropriately trained
  - g) That an AED is brought immediately [if available] and set up without any delay;
  - h) Tasks are assigned to team members who have the most appropriate skills;
  - i) Witnesses, including other patients, staff and relatives who are involved/witness a resuscitation attempt are supported at the time if possible and after the event.
  - j) That the appropriate documentation is completed.
  - k) That emergency equipment is replenished immediately after the resuscitation attempt

#### 4.3 **Contacting Emergency Services**

- All non-clinical and clinical staff will be made aware of the process for contacting emergency services in their individual department.
- At Basildon Hospital site the number **2222** - will alert the crash team to cardiac and respiratory arrest/sudden collapse (see Appendix 14)

- **Please note at Basildon MHU only** when a 2222 resuscitation call is made the Site Officer is responsible for:
    - a) ensuring that a staff member is immediately allocated to open the front door on reception level B for the team to gain access
    - b) allocating staff to open the doors along the level A link corridor to the general hospital (a key fob is located in the site office folder)
    - c) informing the allocated staff to stand down once the team have arrived
  
  - Where the casualty is in a building or grounds which are not easily or readily accessible to the Crash Team on acute hospital sites, then an emergency ambulance is also to be called in order to ensure that the casualty is promptly assisted and transferred to the medical unit.
  - In the event of a cardiac/respiratory arrest/sudden collapse at a non-hospital site/ community area the paramedic service must be contacted on 999 (+/-external prefix).
  - For areas where community clinics are held and there is a likelihood that a doctor may be present in the building, staff should be aware of formal local systems of summoning emergency assistance such as bells or computer alerts. If available, medical assistance should be summoned either at the same time as 999 or after the 999 call has been made.
  - The precise location of the patient must be communicated promptly and clearly to the emergency service switchboard operator, stating the name of the ward/clinical area clearly.
  - It is vital to nominate one individual to direct crash teams and emergency services to the casualty on arrival.
  - N.B. Switchboard is unable to ring for emergency services on behalf of wards, since they will not have the details of the casualty and circumstances which are necessary to activate the emergency call. Contacting the emergency services is to be done by the staff closest to or handling the event. Switchboard / reception staff should be alerted to the incident so that they can help direct emergency services when arriving on site.
  - The Duty Consultant / Doctor should be informed of the cardiac arrest as soon as possible, so that they may contribute to pre-transfer care if time permits, or liaise with the admitting team at the receiving hospital. If occurring at a community location, the responsible doctor or the patient's GP must be informed.
- 4.4 **Automatic External Defibrillator (AED)** the algorithm for the use of an AED is included within Appendix 1, although an AED must only be operated by persons specifically trained in their use or following instructions provided by emergency services with respect to a public access AED.

- 4.5 The Trust uses a number of different defibrillators, and currently not all of them have the capability to be able to print/download activity data. However where this is possible, clinicians are to ensure that they do record the transmitted activity details as part of the medical record. The data is therefore retained for a period of 8 or 20 years in line with medical records retention procedure. The Nurse Consultant for Physical Health will review if staff are recording the transmitted details following a resuscitation event.
- 4.6 **Response in the Community (domiciliary services)** - 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. Some Trust services provide palliative and End of Life care and it should be acknowledged that in some instances there may not be a DNACPR order in place for a number of reasons. As detailed in section 1.6 there will be some people for whom attempting CPR is clearly inappropriate; for example, a person in the advanced stages of a terminal illness where death is imminent and unavoidable and CPR would not be successful, but for whom no formal CPR decision has been made and recorded.
- 4.7 It is recommended that a mouth shield should be provided for community staff to be carried with them at all times.
- 4.8 If staff are unable to deliver rescue breaths, they should give chest compression only CPR (i.e. continuous compressions at a rate of at least  $100\text{--}120\text{ min}^{-1}$ ) (Resuscitation Council UK, 2015)
- 4.9 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.
- 4.10 **CPR in babies / children** All staff are encouraged to initiate CPR in children even if they haven't been taught specific paediatric techniques. CPR should be started with the Compression: Ventilation ratio that is familiar and for most, this will be 30:2. The paediatric modifications to adult CPR should be taught to those who care for children but are unlikely to have to resuscitate them. The specific paediatric sequence incorporating the 15:2 ratio (Appendix 3) is primarily intended for those who have the potential to resuscitate children as part of their role (Resuscitation Council UK, 2015).
- 4.11 **Cross Infection during Resuscitation.** Whilst the risk of cross infection transmission from patient from patient to rescuer during direct mouth-to-mouth resuscitation is extremely rare, isolated cases have been reported. It is recommended that staff use Mouth Shields. The use of a mouth shield is included in training. Chest compressions must be started whilst awaiting the arrival of equipment.
- 4.12 **Informing Relatives** the patient's relatives should be informed of the CPR event as soon as is practicable by a staff-member nominated by the person in charge.

- 4.13 **Post Resuscitation Care:** should the person survive a cardio-respiratory arrest, s/he will be transferred to an acute hospital where post-resuscitation care will be provided.

## 5.0 THE RESUSCITATION EVENT REPORTING PROCEDURE

- 5.1 The outcome of the CPR event must be clearly documented in the patient's care record by the doctor and the clinician in charge.
- 5.2 It is imperative that a DATIX Incident Report Form is completed at the earliest possible opportunity.
- 5.3 The Resuscitation Event Report Form (Appendix 7) should be completed for all incidents and attached to the DATIX report.
- 5.4 The senior member of staff on duty at time of the resuscitation incident is responsible for ensuring the Resuscitation Event Report Form (see Appendix 7) is completed accurately.
- 5.5 Following the conclusion of a CPR event, the clinician in charge OR the 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.
- 5.6 The Nurse Consultant for Physical Health will review if the Resuscitation Event Report Form (Appendix 7) has been done following an event.

## 6.0 PROVISION & MAINTENANCE of EMERGENCY EQUIPMENT & DRUGS

- 6.1 Basic resuscitation equipment should be held in all clinical areas to enable staff to carry out basic life support. Staff in the community setting (non-Trust properties), will be issued with a mouth shield which should be carried with them at all times whilst on duty.
- 6.2 Each in-patient ward will have access to the following equipment: pocket masks; an Automatic External Defibrillator (AED) (*which will be available during each cardiac arrest incident*); a standard grab bag and/or resuscitation trolley, a portable oxygen cylinder and a suction unit. The minimum requirements for emergency equipment are summarised in **Appendices 9 - 12**.
- 6.3 In units where additional expertise is available and there is a need for additional equipment to support this, staff are responsible for checking and maintaining this in a ready state, using a local checklist.
- 6.4 Where restraint and the pharmacological management of acutely disturbed behaviour occur, staff must have access to an AED, oxygen and airway adjuncts.
- 6.5 Staff must be familiar with the location of all resuscitation equipment within their working area and this must be covered on induction.

- 6.6 Responsibility for the storage, maintenance and checking of resuscitation equipment resides with the manager of the ward, home or department where the equipment is held.
- 6.7 The AED must be operationally checked in accordance with Trust's Medical Devices and Equipment Management Policy and associated Procedure.
- 6.8 All units will purchase resuscitation equipment from the standardised product list determined by the Medical Equipment and Resuscitation Committee (**Appendices 9 - 12**) which can be found on the EPUT intranet. The Trust **Purchasing department** can also assist with codes for ordering items – Telephone 01375 364470 or via 0300 123 0808.
- The crash trolleys at Basildon MHU are owned by Basildon and Thurrock University Hospitals (BTUH) therefore staff must follow guidance on checking equipment and restocking the trolley set in accordance with BTUH check list kept on the crash trolley.
- 6.9 It is important to ensure that resuscitation equipment is always readily available in the event of a cardio-respiratory arrest. **Checking equipment** is a requirement that should be undertaken to ensure that resuscitation equipment is maintained in a **ready-to-use** condition, **expiry dates have not lapsed** and checks are undertaken and recorded. It is the responsibility of the **nurse-in-charge** to ensure the following checks are carried out:

#### **Daily checks**

The defibrillator must be checked daily to ensure that the machine is rescue -ready, i.e. that the battery is charged and pads are attached, where appropriate. The oxygen cylinder gauge is visible through the resuscitation bag clear panel and should be inspected daily to ensure an adequate supply, i.e.  $\frac{3}{4}$  full.

The numbered tag must also be inspected on a daily basis to ensure that it is the correct serial number and that it has not been broken. Equipment should be replaced one month in advance of its expiry date, (recorded on the checklist).

Where resuscitation equipment is kept on untagged trolley.

#### **Weekly check for grab bag:**

In order to ensure that resuscitation equipment is always ready for use, the contents of the resuscitation bag must be checked weekly and the checklist completed to assure that all equipment is present and ready to use. The resuscitation bag must be sealed using a numbered tag, to indicate that it has not been tampered with between these checks. The numbered tag must be replaced weekly.

#### **There is a need for a full check:**

- Where resuscitation equipment is kept on untagged trolley;
- When the tag is broken;
- When the tag is missing;

- When the number of the tag is different from the last check;
- Imminent expiry of equipment.

6.10 When checking oxygen cylinders, it is important to note the following:

- **Portable (CD Size) Oxygen Cylinders:** to check the oxygen level in a portable oxygen cylinder, simply take a reading from the gauge rather than turning the cylinder on, as the reading is valid even if the cylinder and valve are both switched off. When a portable oxygen cylinder is full: 460 litres at 10 litres per minute will provide oxygen for 46 minutes, and for 30 minutes if giving 15 litres per minute.
- **Traditional Metal / Large Oxygen Cylinders:** to check the oxygen level, turn open the valve to check and record the available level. Please replace the cylinder when the reading falls to ¼ full (red area) – *do NOT wait until this reaches zero.*
- If a medical equipment item **develops a fault**, call Althea (previously known as TBSGB) on **0844 809 4778** if in South Essex and Bedfordshire, for services in North East and Mid East call **EBME Colchester** (based at Colchester Hospital) - telephone number **01206 742492** (direct line to EBME office). For services in West Essex area call **EBME Harlow** (based at Princess Alexandra Hospital) telephone number **01279 444455** (PAH switchboard-ask to be put through to EBME). More details are available on Input intranet - type the name of company in search box and on **Insite** - type Medical Device and Equipment in search page and provide the following information:
  - The asset code if applicable, if equipment has not been labelled give details of the make and model of the item.
  - The nature of the fault.
  - Name, location and contact telephone number of where they are calling from.
  - Keep the equipment in the department / on site with a notice in red that clearly states that the equipment is “not for use” and that Althea or EBME have been informed.
- In clinical areas where resuscitation equipment trollies are deployed, e.g. Basildon MHU, 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.
- **National Patient Safety Agency (NPSA) Safety guidance on Oxygen in Hospitals state the following robust systems must be in place:**
  - a. To ensure reliable and adequate supplies, including checking and stocktaking of cylinders.
  - b. The risks of confusing oxygen and medical compressed air are assessed and action plans developed (e.g. removing the medical air flow meter from the wall outlet when not in regular use).
  - c. In an emergency, oxygen should always be given immediately and documented later. Oxygen is prescribed in all other situations in

accordance with British Thoracic Society (BTS) guidelines (**these do not cover critical care or children under 16 years**).

- d. It should **be noted** that oxygen is not kept in areas where it cannot be safely managed e.g. day centres and community areas/units i.e. **STARS, MVA, SAS/APMS**. Resuscitation equipment would still be available, with a range of airway maintenance, ventilation and defibrillation equipment, all of which can be successfully deployed without using supplementary oxygen.

6.11 Drugs intended for the immediate treatment of cardiac arrest (for example adrenaline 1:10 000 injection, amiodarone 300mg injection) will only be held on wards based on local acute trust sites where an Emergency Response (“crash”) team response is available or where there is additional expertise available. The emergency drugs to be held as part of the Cardiac Arrest Trolley will be determined by the relevant acute trust.

6.12 Other 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

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

6.13 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.

6.14 In Mother and Baby unit, there are two grab bags for adults and babies.

## **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.

- 7.2 Debriefing following a cardiac/respiratory arrest must be handled with sensitivity. Team leaders, ward managers, matrons, consultants and senior medical staff are identified to engage with patients, relatives, carers and staff who may have been affected following an incident.
- 7.3 Many staff will have little experience of dealing with such a traumatic event as a cardiac arrest. The objective is to provide support for those involved and for staff to learn from the incident and allow those involved the opportunity to discuss the event in a constructive way. Debriefing by a person with facilitation experience should take place within seven days of the incident. If the incident happens in a ward or residential setting a meeting with patients / residents should be convened so that support and appropriate aftercare can be offered as necessary.

## 8.0 RESUSCITATION STATUS & DECISIONS RELATING TO DNACPR

- 8.1 Please refer to the DNACPR Procedure for more detailed guidance.
- 8.2 The resuscitation status of each in-patient must be clearly communicated to all staff. As a minimum this must be recorded on the handover sheet. It is imperative that any additional measures to communicate this e.g. list kept in nursing office; red dot against name, must be kept up-to-date with accurate information at all times.
- 8.3 It must be recognised that a DNACPR Order applies **solely** to the use of CPR and, in general terms, the following will still be provided: medical treatment; position and comfort; control of any bleeding; analgesia; providing oxygen, if required; providing emotional support; and, liaison with other healthcare providers – *for example*, a hospice and/or home care.
- 8.4 In some circumstances, there may be reversible causes of a cardio-respiratory arrest that are either pre-planned or acute, where it would be appropriate to suspend a DNACPR decision. For example: certain pre-planned medical procedures (*such as the induction of anaesthesia, surgical operations*) or acute events (*where the person suffers from an acute, unforeseen, but immediately life threatening situation, such as anaphylaxis or choking*) could precipitate a cardio-respiratory arrest. In these circumstances, the individual should receive treatment, unless intervention in these circumstances has been otherwise specified (*Decisions Relating To Cardiopulmonary Resuscitation 3rd Edition (1st revision) 2016*”).
- 8.5 If a DNACPR decision is made on medical grounds, not in relation to a mental health condition and a person attempts to end their life, every reasonable attempt should be made to resuscitate the individual in this situation as the DNACPR form was not completed with the eventuality of suicide in mind.



## 9.0 TRAINING

- 9.1 Upon induction, each staff-member must make themselves aware of the availability and location of emergency equipment within the clinical / service area, and 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 Training will be provided in accordance with the United Kingdom and European Resuscitation Council's Guidelines. Training guidelines will be regularly updated in accordance with the Council's updates, which should be read in conjunction with the Trust's Induction / Mandatory Training Policy.
- 9.4 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.
- 9.5 The service manager/team lead/matron in each clinical service will be responsible for ensuring that simulations of CPR events are undertaken at least three times each year. This may include simulation of emergency situations facilitated in the workplace by Workforce Development. Each ward or unit must record when simulation events occur.
- 9.6 Regular training updates on how to use emergency equipment safely and effectively will be incorporated within all BLS / CPR training sessions.
- 9.7 All staff in mental health in-patient areas will undergo training in relation to Early Detection of the Deteriorating Patient incorporating use of EWSS and SBAR tool.

## 10.0 REFERENCES

1. **British Medical Association, The Resuscitation Council (UK) and the Royal College of Nursing** (2016) Decisions Relating To Cardiopulmonary Resuscitation, Guidance from the British Medical Association, The Resuscitation Council (UK) and the Royal College of Nursing, previously known as the "Joint Statement", 3rd Edition (1st revision) 2016. <https://www.resus.org.uk/dnacpr/decisions-relating-to-cpr/>
2. **Department of Health** (2005) *Mental Capacity Act 2005*
3. **Department of Health** (2009) *Competencies for Recognising and Responding to Acutely ill Patients in Hospital*: London: DH, [https://www2.rcn.org.uk/\\_\\_data/assets/pdf\\_file/0004/435586/Competencies\\_for\\_Recognising\\_and\\_Responding\\_to\\_Acutely\\_Ill\\_Patients\\_in\\_Hospital\\_2009.pdf](https://www2.rcn.org.uk/__data/assets/pdf_file/0004/435586/Competencies_for_Recognising_and_Responding_to_Acutely_Ill_Patients_in_Hospital_2009.pdf)

4. NHS East of England Do Not Attempt Cardiopulmonary Resuscitation [DNACPR] Frequently Asked Questions  
[https://heeo.e.hee.nhs.uk/palliative\\_dnacpr](https://heeo.e.hee.nhs.uk/palliative_dnacpr)
5. **Health and Social Care Act** 2008 rev 2015
6. **NICE** (2015) Violence and aggression: short-term management in mental health, health and community settings NICE guideline [NG10]  
<https://www.nice.org.uk/guidance/ng10/chapter/1-Recommendations#using-restrictive-interventions-in-inpatient-psychiatric-settings-2>
7. **NICE** (2007) *Acutely ill Patients in hospital: Recognition and Response to Acute illness in Adults in Hospital*, London: NICE, [www.nice.org.uk/CG50](http://www.nice.org.uk/CG50)
8. **National Patient Safety Agency** (2008) Resuscitation in mental health and learning disability settings <http://www.nrls.npsa.nhs.uk/resources/healthcare-setting/mental-health-service/?entryid45=59895&q=0%c2%accardiac+arrest%c2%ac>
9. **National Patient Safety Agency** (2009) *Oxygen safety in hospitals (acute, community and mental health)* found at:  
<http://www.nrls.npsa.nhs.uk/resources/?entryid45=62811&q=0%c2%acoxygen%c2%ac>
10. **Resuscitation Council (UK)** (2015) *Resuscitation Guidelines*. London: Resuscitation Council
11. **Resuscitation Council (UK)** (2015) *Quality standards for cardiopulmonary resuscitation practice and training: Mental Health – Inpatient care* London: <https://www.resus.org.uk/quality-standards/mental-health-inpatient-care-quality-standards-for-cpr/>

<b>END</b>
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