



Bradford Teaching Hospitals
NHS Foundation Trust

Cardiopulmonary Resuscitation Policy

Document control

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Strategic objective	To provide a framework and standards for Cardiopulmonary Resuscitation and services within the Trust

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Target audience	All BTHFT staff
Summary	The purpose of this policy is to provide structure and support to all BTHFT staff on and with issues surrounding Cardiopulmonary Resuscitation
Changes since last revision	Updated policy to reflect BTHFT policy template Incorporated Management of the Deteriorating Patient Group Appendices reviewed and updated Changes to crash trolley check procedure added into appendices
Monitoring arrangements	Compliance to the Cardiopulmonary Resuscitation policy will be monitored through the Management of the Deteriorating Patient group. Annual Audit
Training requirements	Staff should be made aware of the policy at induction and during their practical training session
Equality Impact Assessment	This Policy was assessed in November 2018. It has potential impact on Age; Disability; Maternity/pregnancy; Race and ethnicity and Religion and belief. These will be managed through line management

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1. Introduction

Healthcare institutions have an obligation to provide an effective resuscitation service and to ensure that their staff receives training and regular updates for maintaining a level of competence appropriate to each individual's employed role. This requires appropriate equipment for resuscitation, training in resuscitation, managerial and secretarial support, financial planning, and continual reappraisal of standards and results. Failure to provide an effective service is a failure in duty of care that is a clinical risk, contravenes the principles of clinical governance, and has implications for clinical negligence premiums. This policy supports the Recommendations for Clinical Practice and Training in Cardiopulmonary Resuscitation published by the Resuscitation Council (UK) (RCUK) and International Liaison Committee on Resuscitation (ILCOR) Guidelines, 2015. It has been constructed to promote compliance with the National Health Service Litigation Authority (NHSLA) Risk Management Standards (2012/201).

2. Purpose and Scope of the Policy

- To ensure that any individual who sustains a cardiopulmonary arrest receives, where appropriate, rapid and correct treatment.
- To ensure that all staff with patient contact are given annual resuscitation training appropriate to their expected abilities and roles.
- To ensure that resuscitation equipment is available throughout the Foundation Trust for clinical use and that provision is made for prompt replacement of equipment when needed.
- That all relevant staff are aware of the Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) Policy.
- That all staff with patient contact are able to access emergency support from the cardiac arrest team, emergency services, or both.
- The practice of resuscitation is audited to maintain and improve the standards of care.

3. Objectives

The objective of this policy is to provide structure and support to all Bradford Teaching Hospitals NHS Foundation Trust (BTHFT) staff on cardiopulmonary resuscitation and issues surrounding this.

4. Definitions

Cardiopulmonary Resuscitation – is a medical procedure involving repeated cycles of compression and artificial respiration, performed to maintain blood circulation and oxygenation in a person who has suffered a cardiac arrest.

5. Roles and Responsibilities

5.1 Chief Executive

- The Chief Executive will ensure that a comprehensive policy for resuscitation within the Foundation Trust is developed and agreed.
- The Chief Executive will delegate this responsibility to the Medical Director.

5.2 Medical Director

- Ensure the establishment of a suitably constituted Management of the Deteriorating Patient Group
- Designated Chair of the Management of the Deteriorating Patient Group
- Ensure the Management of the Deteriorating Patient Group discharges its responsibilities appropriately through the Patient Safety Sub-Committee within the Foundation Trust.

5.3 Patient Safety Sub-Committee

- The Patient Safety Sub-Committee is chaired by the Deputy Medical Director; the Committee will receive reports and recommendations from the Management of the Deteriorating Patient Group in order to ensure risk in relation to resuscitation is adequately managed by the Foundation Trust.
- Recommendations from the Management of the Deteriorating Patient Group will be discussed by the Patient Safety Sub-Committee and appropriate action agreed through the management structure within the Foundation Trust.
- All uncontrolled risks will be incorporated into the Foundation Trust's Risk Register and appropriate action taken to reduce risk wherever possible.
- The Management of the Deteriorating Patient Group will be a specialist advisory group to the Patient Safety Sub-Committee.
- The Management of the Deteriorating Patient Group will be chaired by the person designated by the Medical Director.
- The Management of the Deteriorating Patient Group will provide reports and recommendations on all aspects of resuscitation policy, training, equipment provision and audit to the Patient Safety Sub-Committee through minutes of meetings and feedback from a representative, who will be a member of the Patient Safety Sub-Committee.
- The Management of the Deteriorating Patient Group will meet on a monthly basis

5.4 Resuscitation Officers

- Provide specialist advice to the Foundation Trust through the Management of the Deteriorating Patient Group on the recommended provision of equipment, training and procedures to be followed for resuscitation.
- Facilitate the provision of resuscitation training in line with RC(UK) and ILCOR Guidelines 2015, to medical, nursing, midwifery, associated healthcare professional and auxiliary staff.
- Ensure there are systems in place for maintaining resuscitation equipment in good working

order.

- Ensure training attendance registers are returned to training reception to be added to the On Line Management (ILM) System.
- Attend 75% of in hour's cardiac arrest calls to provide feedback to team members as part of their continuing training in resuscitation.
- Ensure a system is in place for the completion of the Foundation Trust Cardiac Arrest Audit Form for all cardiac arrests (appendix 11).
- Ensure a system is in place for the regular audit of cardiac arrests, including quarterly cumulative reports from The National Cardiac Arrest Audit (NCAA), the results of which are fed back through the Management of the Deteriorating Patient Group.
- Participation in the NCAA and ensuring that arrest data is entered on to the secure national electronic database.
- Complete a quarterly audit to ensure compliance of the cardiac arrest trolley checking procedure, following feedback from directorates audit data.

5.5 Divisional Clinical Directors / General Managers

- Put in place mechanisms to ensure adherence to the Resuscitation Policy.
- Identify resources to support recommendations agreed through the Patient Safety Sub-Committee
- Ensure the level of training (ALS, ILS, EPALS, PILS, ATLS, NLS, MOET, BLS, PBLs and AED) is appropriate to their area of responsibility/staff group, following appropriate risk assessment, taking advice from the Resuscitation Department as necessary.
- Ensure adequate resuscitation equipment is available and adequately maintained so that it is available for immediate use within their areas of responsibility.
- Action recommendations agreed through the Patient Safety Sub-Committee.

5.6 Heads of Nursing / Heads of Service / Heads of Departments

- Ensure that all staff are aware of the current Foundation Trust Resuscitation Policy and adhere to it.
- Undertake a training needs analysis of staff and identify those staff requiring resuscitation training and the appropriate level of training to be undertaken, taking advice from the resuscitation department as necessary.
- Incorporate resuscitation training into Appraisal, Development and Performance Review (ADPR).
- Ensure new starters, as part of their Corporate Induction training; attend resuscitation training appropriate to their post as soon after commencement of employment as possible, within 4 weeks.
- Ensure that all relevant staff are trained in the safe use of resuscitation equipment available within the department.
- Record all locally based training on the OLM System.
- Ensure equipment is maintained and checked, and take responsibility for the day- to-day management of the system within their management area, including cardiac arrest equipment and emergency drugs where appropriate.
- Heads of department will be responsible for undertaking a monthly audit of the cardiac

arrest trolley checking procedure (Appendix 20), any discrepancies or non-compliance found with the daily checks will be reported to staff and actions put in place for improvements to be made

5.7 Individual Staff

- Be aware of and adhere to the current BTHFT Resuscitation Policy.
- Attend suitable induction including resuscitation training appropriate to their post on commencement of employment with the Foundation Trust.
- Attend annual resuscitation training updates (This includes temporary staff, TNR and locum medical staff). Staff required to possess ILS/ALS/EPALS/PILS/NLS/MOET/ATLS skills will ensure they attend training at the appropriate level and maintain this qualification.

6. Implementation

- Following approval and ratification, this policy will be disseminated to all staff through the Foundation Trust's Core Brief. It will be published on the Policy Library on the Foundation Trust Intranet and notification made through the Global Email System.
- Divisional Clinical Directors and General Managers are responsible for seeing that this policy is implemented as appropriate within their areas of responsibility.

7. Impact Assessments for this policy

7.1 Equality Impact Assessment

This Policy was assessed in November 2018 to determine whether there is a possible impact on any of the nine protected characteristics as defined in the Equality Act 2010. It has potential impact on:

Disability

It is recognised that some staff may require support, have specific needs or be unable to understand or read the text of this policy. In such instance it will be explained on a one-to-one basis by the Department responsible for this policy or the manager of the member of staff. Any support will be provided in confidence.

It has been found not to have impact on:

- Age – covers children and adults
- Gender
- Gender reassignment
- Marriage and civil partnership
- Maternity/pregnancy
- Race and ethnicity
- Religion and belief
- Sexual orientation

It has also been assessed to determine whether it impacts on human rights against the FREDa principles (Fairness, Respect, Equality, Dignity, and Autonomy) and it is considered that could have a positive impact for those who sustain cardiac arrest. This assessment will be reviewed when the policy is next updated or sooner if evidence of further impact emerges.

7.2 Privacy Impact Assessment

There is no impact

7.3 Financial Impact Assessment

Resuscitation training is prioritised in accordance with the available resources of the resuscitation service. The provision of equipment is the responsibility of the individual Divisions, advised by the Resuscitation Department. Cardiac arrest trolley consumables are recharged on a standard system of slicing from each Directorate budget.

8. Duty of Candour which includes the Being Open Framework

Where an incident or near miss occurs this should be reported, managed and investigated in accordance with the Foundation Trust's Risk Incident and Reporting Policy. Communication with the patient, family and those whom the patient has stated they want to be involved in decisions about treatment and care should be managed in accordance with the Foundation Trust's Being Open Policy.

9. Patient and public involvement

Patients and public were not involved in writing this policy

10. Training requirements

- The Foundation Trust is committed to optimising positive outcomes from cardiac arrest. The provision of resuscitation training is integral to this objective. The emphasis of this training must be on strengthening the links between the Chain of Survival (RCUK and ILCOR Guidelines 2015).
- They comprise:
 - a) Early recognition and prevention
 - b) Early basic life support
 - c) Early defibrillation
 - d) Early post resuscitation care
- All staff with patient contact should be given as minimum annual resuscitation training appropriate to their expected abilities and roles (RCUK). This will be determined locally and guidance for clinical staff on the type of training required can be found in the mandatory training policy.

- Individuals who are unsure of what level of training they, or their staff, require should contact the Resuscitation Department for advice. Basic Life Support course details and dates can be found on the OLM System. Training records are updated via the OLM System, which is accessible by departmental managers.

10.1 revention of Cardiac Arrest

- Training staff to recognise patients at risk of cardiopulmonary arrest, and to start treatment to prevent cardiopulmonary arrest, is an important component in improving survival from critical illness (RCUK).
- The organisation has adopted the National Early Warning Score established for the prevention of cardiopulmonary arrest (National early warning score – NEWS 2 & paediatric warning score - PAWS). All clinical staff will be trained in the identification of critically ill patients and the use of physiological observation charts to enhance decision making and care escalation. The organisation of this preventative system incorporates outreach services and/or appropriate emergency teams, which are orientated to respond to medical emergencies in addition to cardiopulmonary arrest. The Management of the Deteriorating Patient Group has the expectation that this system and any other measures to detect and treat deteriorating patients in a timely manner are maintained within the organisation.
- The NEWS algorithm and guideline in use by Departments other than Community Hospitals, is presented as Appendix 2.
- The MEWS algorithm used in the Community Hospital setting is presented as Appendix 3.

10.2 ardiac Arrest Call Procedure

- In the event of a cardiac arrest within the Bradford Royal Infirmary (BRI) main hospital building the cardiac arrest team should be alerted by immediately phoning 2222. State “Cardiac arrest” and the ward/department, and repeat. In certain clinical areas at BRI it is anticipated that personnel will be available immediately to manage cardiac arrest, these clinical areas are:
 - Emergency Department
 - Intensive Care Unit
 - Theatres

In these clinical areas **no** cardiac arrest call will be made routinely, however if personnel are not immediately available then a cardiac arrest call should be placed using the procedure described above.

- All medical and nursing / midwifery members of the cardiac arrest team will carry arrest bleeps, pre-programmed to alert members of a cardiac arrest/peri-arrest emergency via switchboard.
- Role allocations of the cardiac arrest team will be advised in the Acute Medical Unit (AMU) morning meeting by a Resuscitation Officer who will also be in attendance – where resources allow.
- The first member of the team to arrive at the cardiac arrest will be designated Team Leader until the arrival of an appropriately trained member of the team who will then take over the

role of Team Leader to promote the best chance of successful resuscitation. This will be the most appropriately qualified and experienced cardiac arrest team member, ideally the Medical Registrar who may have the most experienced non-technical skills – such as task management, decision making and communication, in the event of a Consultant also attending the emergency the Medical Registrar will remain in the team leader role and the Consultant will be available for extended clinical expertise/advice and decision making

- Bleep tests are conducted on a daily basis by switchboard (08:00 & 20:00). An immediate response from each team member carrying the bleep at the time of test call is required, returning the call to switchboard. This data will be monitored by the Management of the Deteriorating Patient Group regularly. In the event of a member of the cardiac arrest team failing to respond, this will be noted on the daily data sheet. Each individual has a personal responsibility to check their bleep is in working order when they pick it up.
- Paediatric emergency calls are made using the 2222 system, staff will state 'paediatric emergency' followed by location. Response will be indicated via the voice command when an alert is made via the bleep system. The paediatric cardiac arrest team (including an anaesthetist) will respond accordingly.
- In the event of a cardiac arrest in the Women's Hospital and the victim is a pregnant woman, arrest calls are made via the 2222 system, with clear instructions on location for the team to attend, this will also be supported by an Obstetric emergency call to help facilitate rapid attendance of emergency personnel, and potentially the neonatal emergency team also.
- In the event of cardiac arrest in any hospital premises other than the main building on the BRI site, arrest calls are made via the 2222 system, and in addition a 999 call should be made for an ambulance to attend.
- In the event of cardiac arrest in the grounds of either BRI or St Luke's sites, cardiac arrest calls are made via the 2222 system and in addition a 999 call should be made for an ambulance to attend.
- In the event of cardiac arrest within a Community Hospital or Westwood Park Diagnostic and Treatment Centre a 999 call must be made. Upon being directed to the ambulance switchboard state that a cardiac arrest has occurred, and whether there is medical support in attendance and specifically request a paramedic to attend. Basic/immediate life support should be continued until a paramedic attends.
- Staff witnessing a cardiac arrest in a patient's home or other community premises must call 999 for paramedic support and commence basic life support as detailed above.

10.3 Members of the Cardiac Arrest Team at BRI and St Luke's Hospital

Refer to appendix 16

10.4 Decisions to cease resuscitation attempts and confirmation of death

The decision to cease resuscitation attempts should always be made with the best interests of the patient central to the team thinking. Decisions of this nature should be made as a team, with the team leader initiating and leading the discussion. It would be impossible to give examples of when this decision should be addressed, however consideration to ceasing resuscitation should be made when the realistic chance of a meaningful recovery have been exhausted. The Academy of Medical Royal Colleges recommends that the point after cardiorespiratory arrest at which death of a living human being occurs is identified by the following conditions;

- The simultaneous and irreversible onset of apnoea and unconsciousness in the absence of

the circulation

- Full and extensive attempts at reversal of any contributing cause to the cardiac arrest have been made. Such factors include body temperature, endocrine, metabolic, and biochemical abnormalities.
- One of the following should be fulfilled:
 - The individual meets the criteria for not attempting resuscitation
 - Attempts at cardiopulmonary resuscitation have failed
 - Treatment aimed at sustaining life has been withdrawn as it has been decided it is no longer of benefit to the patient, in the best interests of the patient, or is in respect of their wishes via an advance decision to refuse treatment
- The individual should be observed by the person responsible for confirming death for a minimum of five minutes to establish that irreversible cardiorespiratory arrest has occurred. The absence of mechanical cardiac function is normally confirmed using a combination of the absence of a central pulse on palpation and absence of heart sounds on auscultation. Where available this may be supplemented by asystole on a continuous ECG display, absence of pulsatile flow using direct intra-arterial pressure monitoring and absence of contractile activity using echocardiography
- Any spontaneous return of cardiac or respiratory activity during this period of observation should prompt a further five minutes observation from the point of cardiorespiratory arrest
- After five minutes observation the absence of pupillary responses to light, of the corneal reflexes and of any motor response to supra orbital pressure should be confirmed. The time of death is recorded as the time at which these criteria are fulfilled.

Whilst it is imperative the individuals' family be informed as soon as practicably possible of the outcome to the resuscitation attempt, it is clear that this should not occur until after this formal process has been completed.

10.4 ost Resuscitation Care

Refer to appendix 31

10.5 ecisions relating to Cardiopulmonary resuscitation

Refer to appendix 32

10.6 quipment

Refer to appendix 33

10.7 Cardiac arrest equipment checks and crash trolley audit

Refer to appendix 34

11. Monitoring arrangements

Minimum requirement to be monitored	Process to be used for monitoring	Responsible individual/committee for carrying out monitoring	Frequency of monitoring	Responsible individual/group for reviewing the results	Responsible individual/committee for developing an action plan	Responsible individual/for monitoring the action plan
Activities of the Resuscitation service	NCAA	Resuscitation Lead	Annually	Patient Safety Sub-Committee	Management of the Deteriorating Patient group (MDPG)	MDPG Chair
Resuscitation training service needs	Audits/ training needs analysis/ reports	Resuscitation Lead	Annually	Patient Safety Sub-Committee	Management of the Deteriorating Patient group (MDPG)	MDPG Chair
Audit of cardiac arrest trolley checks	Review of trolley checklist books	Heads of department (monthly) Resuscitation department (Quarterly) Matron's (weekly) Allocated staff (daily)	Quarterly by the Resuscitation department	Management of the Deteriorating Patient group (MDPG)	Management of the Deteriorating Patient group (MDPG)	MDPG Chair
Defibrillator and suction equipment checks	Audit	Medical engineering	Twice yearly	Management of the Deteriorating Patient group (MDPG)	Management of the Deteriorating Patient group (MDPG)	MDPG Chair

12. Review arrangements

- The resuscitation policy will be reviewed as required, to incorporate current medical and scientific research of resuscitation procedures recommended by the Foundation Trust Management of the Deteriorating Patient Group. The review date is displayed on the front cover of this Policy and will be every 2 years. Responsibility for review sits with the Management of the Deteriorating Patient Group

13. Associated Documentation and References

Do Not Attempt CPR (DNACPR) Policy [adults and young people aged 16 years and over]. (CP69 - April 2014) – Appendix 29

Bereavement Policy (CP03 - 2014) – Appendix 30

Duty of Candour policy (including being open) – Appendix 31

European Resuscitation Council guidelines for adult basic life support. International Committee on Resuscitation (ILCOR 2015)

European Resuscitation Council Guidelines for Adult Advanced Life Support.

International Committee on Resuscitation (ILCOR 2015)

European Resuscitation Council Guidelines for Paediatric Advanced Life Support.

International Committee on Resuscitation (ILCOR 2015)

Resuscitation Council (UK) Standards for Clinical Practice and Training (2013)

Glossary of Terms

Registered Health Care Professional: Any professional registered with the GDC, GMC, HCPC, NMC

AED	Automated External Defibrillator
ALS	Advanced Life Support
ATLS	Advanced Trauma Life Support
BLS	Basic Life Support
BRI	Bradford Royal Infirmary
CPR	Cardiopulmonary Resuscitation
DNACPR	Do not attempt cardio-pulmonary resuscitation
EPALS	European Paediatric Advanced Life Support
FY1	Foundation Year 1 Doctor
FY2	Foundation Year 2 Doctor
GDC	General Dental Council
GMC	General Medical Council
HCPC	Health and Care Professions Council
ICU	Intensive Care Unit
ILCOR	International Liaison Committee on Resuscitation
ILS	Immediate Life Support
LUCAS 2[®]	Lund University Cardiopulmonary Assist System
NCEPOD	National Confidential Enquiry into Patient Outcomes and Death
NCAA	National Cardiac Arrest Audit
NEWS	National Early Warning Score
NLS	Newborn Life Support
NMC	Nursing and Midwifery Council
PGD	Patient Group Direction
PILS	Paediatric Immediate Life Support
SLH	St. Lukes Hospital
SpR	Specialist Registrar (medicine)
ST/CT	Specialist Trainee/Core Trainee (medicine)
MDPG	Management of the Deteriorating Patient Group
PSSC	Patient Safety Sub-Committee

APPENDICIES

1	Terms of Reference and Membership of the Deteriorating Patient Group	
2	National Early Warning Score Chart and Adult NEWS Algorithm	
3	Community MEWS	
4	RC (UK) 2015 Algorithms	
5	Adult Arrest Trolley Checklist	
6	ICU Arrest Trolley Checklist	
7	Paediatric Arrest Trolley Checklist	
8	Community Hospital Arrest Trolley Checklist	
9	Paediatric Resuscitation Protocol	
10	Newborn Resuscitation Protocol	
11	Cardiac Arrest Audit Form	
12	Ordering Process for Arrest Trolley Supplies	
13	Adult Arrest Trolley Order Form	
14	Paediatric Arrest Trolley Order Form	
15	Community Arrest Trolley Order Form	
16	Cardiac Arrest Team Members	
17	SLH Operational Policy	
18	Intralipid Locations	
19	LUCAS 2 Device Locations	
20	Heads of Department Monthly Audit Form	
21	Anaphylaxis Management Box Contents	
22	Adult Emergency Drugs Box	
23	Paediatric Emergency Drugs Box	
24	PGD - Use of Adrenaline in Anaphylaxis	
25	PGD - Use of Salbutamol in Anaphylaxis	
26	Human Medicines Regulations 2012 - Summary	Awaiting...
27	Adult Tracheostomy Policy	
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