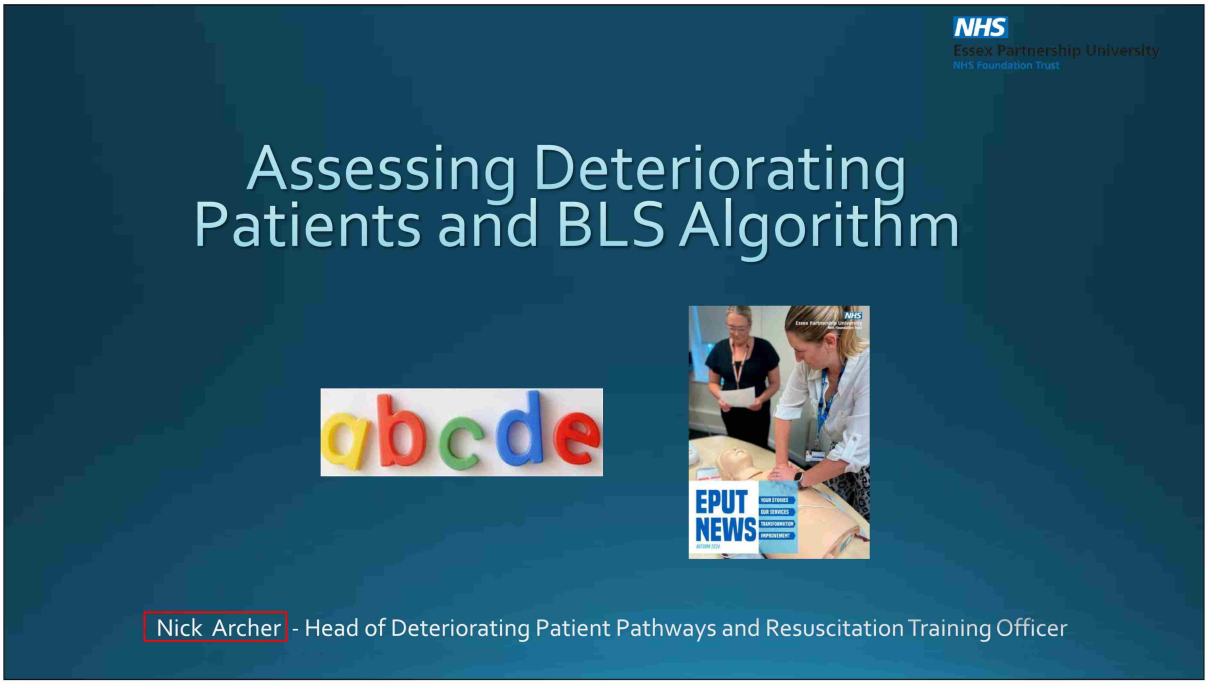


Thank you for inviting me Neil and welcome to everyone!!
Next 50 mins wanted to talk about the assessment and treatment of deteriorating patients as well as a focus on resuscitation. We have shared and implemented some really useful resources and important safety alerts but they are not always easy to find! This will neatly package all of the important information into one neat resource for staff to access!

Chain of prevention…



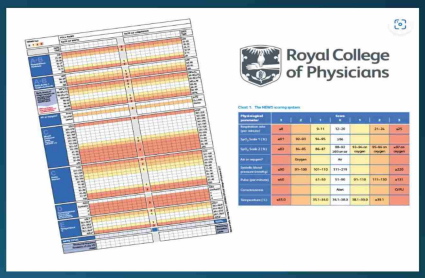
Assists in helping to prevent:

- Deterioration of the patient
- Admission to Critical Care
- Cardiac arrest and death

Forms integral part of every RCUK course

NEWS2…

- Most arrests are predictable!
- Signs of deterioration in up to 80% of patients prior to cardiac arrest
- Reduce delays in referral to higher levels of care



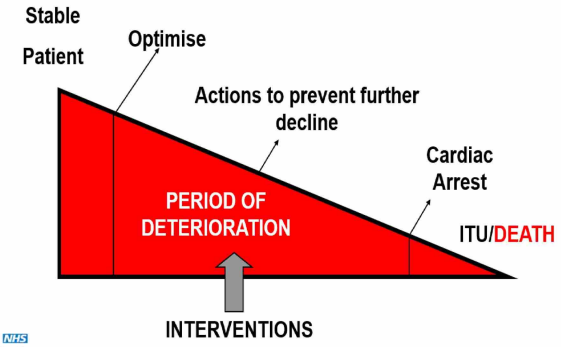
Predominately used in Inpatient setting but can be used in community and work is underway to explore its use

NEWS2 …

- Total score indicates level of intervention/escalation
- Clear and concise response to score (reverse of chart)
- Score is dynamic and changes with time
- Don't wait for a specific score before calling for help if clear signs of deterioration
- Clinician concern is an important predictor of patient deterioration (professional curiosity)
- Use dots NOT numbers (unless a red score)

NEWS2 ...

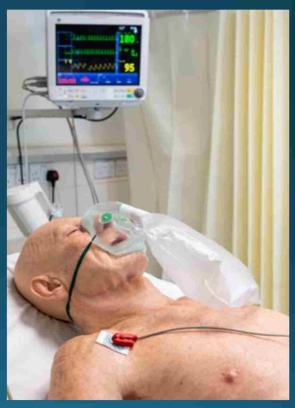
80% of cardiac arrests are predictable



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Causes of deterioration and cardiac arrest …

- Airway obstruction
- Breathing problems
- Circulation problems



'A' will kill the patient first!

ABCDE approach…

Airway
Breathing
Circulation
Disability
Exposure

ABCDE approach …

Underlying principles:

- Call for help early
- Complete initial assessment
- Treat life-threatening problems as they are found
- Assess response to treatment/interventions
- Use all members of the team
- Effective communication – SBARD

ABCDE approach …

- Personal safety including personal protective equipment
- First impression (view from the end of the bed)
- 'Do they look unwell? '….'How are you?'
- Monitor vital signs
  - SpO_2
  - Non-invasive BP
  - Respiratory rate
  - Pulse rate
  - ACVPU
  - Temperature
  - ECG

ABCDE Airway…

Causes of airway obstruction:

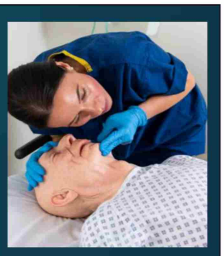
- Blockage of airway: blood, vomitus, foreign body
- Infection and oedema: direct trauma to face or throat, epiglottitis, pharyngeal swelling
- Narrowing of airway: laryngospasm, bronchospasm
- Central nervous system depression

ABCDE Airway…

Recognition of airway obstruction:

- Impaired vocalisation
- Difficulty breathing, distressed, choking
- Increased effort of breathing
- See-saw respiratory pattern, using accessory muscles
- Partial obstruction - noisy breathing
  Stridor, wheeze, gurgling
- Complete obstruction – no breath sounds

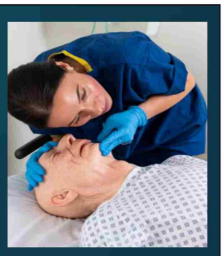
ABCDE Airway…



Treatment of airway obstruction:

- High flow supplementary oxygen (15L via non-rebreathe mask)
- Airway opening
  - Head tilt/chin lift or jaw thrust
- Simple adjuncts
  - Oropharyngeal or nasopharyngeal airway
- Advanced techniques
  - Supraglottic airway device (I-gel)

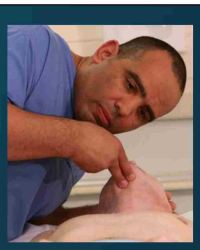
ABCDE Breathing…



Causes of breathing problems:

- Decreased respiratory drive
  - CNS depression
- Decreased respiratory effort
  - Muscle weakness
  - Pain from fractured ribs
- Lung disorders
  - Infection
  - Acute exacerbation COPD
  - Asthma

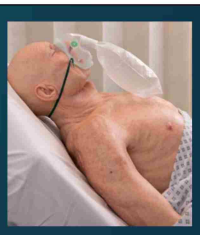
ABCDE Breathing…



Recognition of breathing problems:

- Look
  - Respiratory rate, rhythm, depth, use of accessory muscles
- Listen
  - Noisy breathing, breath sounds
- Feel
  - Expansion, tracheal position, surgical emphysema

ABCDE Breathing…



Treatment of breathing problems:

- High flow supplementary oxygen (15L via a non-rebreathe mask)
- Support breathing if required (inadequate rate)
  - Use of self inflating bag valve mask
- Treat underlying cause
  - Chest drain for pneumothorax

ABCDE Circulation…

Causes of circulation problems:

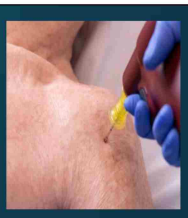
Primary	Acute coronary syndromes
	Hypertensive heart disease
	Drugs
	Electrolyte/acid base abnormalities
Secondary	
	Septic shock
	Blood loss
	Hypothermia
	Asphyxia

ABCDE Circulation…

Recognition of circulation problems:

- Shortness of breath
- Syncope
- Peer peripheral perfusion (temperature and CRT)
- Pulse (rate and quality)
- Blood pressure
- Blood loss
- Organ perfusion (chest pain and mental state)
- Bleeding (fluid losses)

ABCDE Circulation…

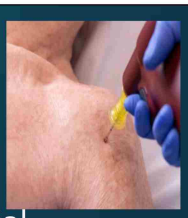


Treatment of circulation problems:

- Oxygen (if applicable saturations <94%)
- IV/IO access (Take bloods)
- Fluid challenge
- Inotropes/vasopressors
- Treat cause

(**MONA** morphine, oxygen ,nitrates and aspirin for acute coronary syndromes only if appropriate)

ABCDE Disability…



Causes:

- Hypoxia, drugs, hypoglycemia, hypothermia, intracranial hemorrhage

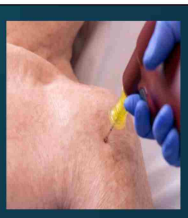
Recognition:

- ACVPU or GCS and pupils
- Measure BM and temperature

Treatment:

- Oxygen (if appropriate)
- Treat underlying causes
- Check drug chart
- **Consider recovery position**

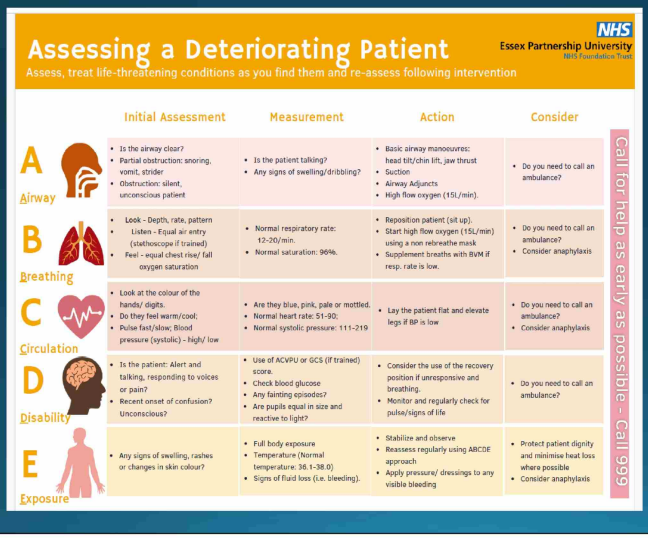
ABCDE Exposure…



- Maintain dignity and privacy
- Avoid heat loss
- Examine 'Top to toe'
- Remove clothes to facilitate examination

  Looking for Injuries, bleeding or rashes

eSOP 'ABCDE assessment'...



Assessing a Deteriorating Patient

NHS Essex Partnership University NHS Foundation Trust

Assess, treat life-threatening conditions as you find them and re-assess following intervention

	Initial Assessment	Measurement	Action	Consider
A Airway	• Is the airway clear? • Partial obstruction: snoring, vomit, strider • Obstruction: silent, unconscious patient	• Is the patient talking? • Any signs of swelling/dribbling?	• Basic airway manoeuvres: head tilt/chin lift, jaw thrust • Suction • Airway Adjuncts • High flow oxygen (15l./min).	• Do you need to call an ambulance?
B Breathing	• Look - Depth, rate, pattern • Listen - Equal air entry (stethoscope if trained) • Feel - equal chest rise/ fall oxygen saturation	• Normal respiratory rate: 12-20/min. • Normal saturation: 96%.	• Reposition patient (sit up). • Start high flow oxygen (15L/min) using a non rebreathe mask • Supplement breaths with BVM if resp. rate is low.	• Do you need to call an ambulance? • Consider anaphylaxis
C Circulation	• Look at the colour of the hands/ digits. • Do they feel warm/cool; • Pulse fast/slow; Blood pressure (systolic) - high/ low	• Are they blue, pink, pale or mottled. • Normal heart rate: 51-90; • Normal systolic pressure: 111-219	• Lay the patient flat and elevate legs if BP is low	• Do you need to call an ambulance? • Consider anaphylaxis
D Disability	• Is the patient: Alert and talking, responding to voices or pain? • Recent onset of confusion? Unconscious?	• Use of ACVPU or GCS (if trained) score. • Check blood glucose • Any fainting episodes? • Are pupils equal in size and reactive to light?	• Consider the use of the recovery position if unresponsive and breathing. • Monitor and regularly check for pulse/signs of life	• Do you need to call an ambulance?
E Exposure	• Any signs of swelling, rashes or changes in skin colour?	• Full body exposure • Temperature (Normal temperature: 36.1-38.0) • Signs of fluid loss (i.e. bleeding).	• Stabilize and observe • Reassess regularly using ABCDE approach • Apply pressure/ dressings to any visible bleeding	• Protect patient dignity and minimise heat loss where possible • Consider anaphylaxis

Call for help as early as possible - Call 999

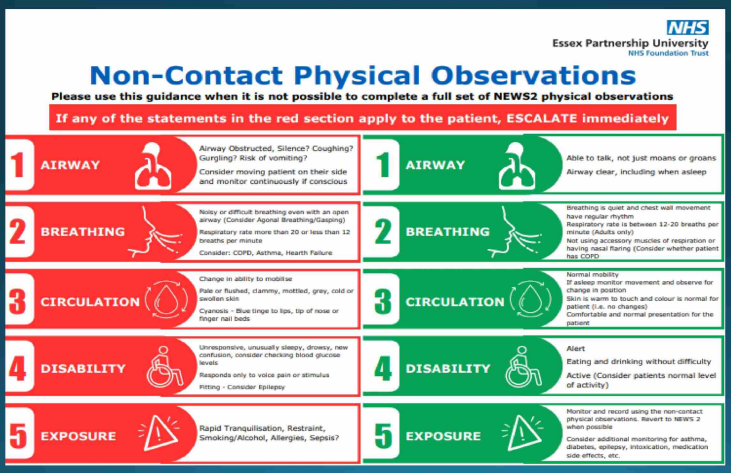
Used to help carry out a robust 'top to toe' physical health assessment of the patient

‘Patient declined’…



Used to help carry out a robust ‘top to toe’ physical health assessment of the patient

Non-contact physical observations…



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Non-Contact Physical Observations

Please use this guidance when it is not possible to complete a full set of NEWS2 physical observations

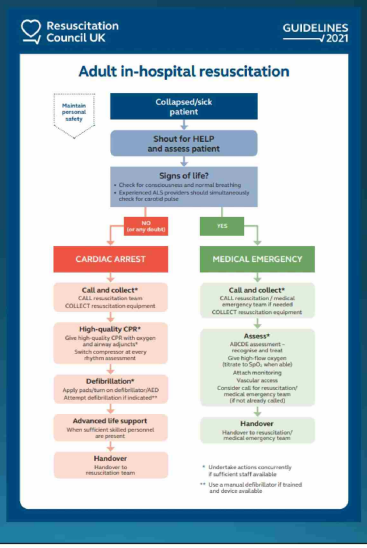
If any of the statements in the red section apply to the patient, ESCALATE immediately

1 AIRWAY	Airway Obstructed, Silence? Coughing? Gurgling? Risk of vomiting? Consider moving patient on their side and monitor continuously if conscious	1 AIRWAY Able to talk, not just moans or groans Airway clear, including when asleep
2 BREATHING	Noisy or difficult breathing even with an open airway (Consider Agonal Breathing/Gasping) Respiratory rate more than 20 or less than 12 breaths per minute Consider: COPD, Asthma, Hearth Failure	2 BREATHING Breathing is quiet and chest wall movement have regular rhythm Respiratory rate is between 12-20 breaths per minute (Adults only) Not using accessory muscles of respiration or having nasal flaring (Consider whether patient has COPD
3 CIRCULATION	Change in ability to mobilise Pale or flushed, clammy, mottled, grey, cold or swollen skin Cyanosis - Blue tinge to lips, tip of nose or finger nail beds	3 CIRCULATION Normal mobility If asleep monitor movement and observe for change in position Skin is warm to touch and colour is normal for patient (i.e. no changes) Comfortable and normal presentation for the patient
4 DISABILITY	Unresponsive, unusually sleepy, drowsy, new confusion, consider checking blood glucose levels Responds only to voice pain or stimulus Fitting - Consider Epilepsy	4 DISABILITY Alert Eating and drinking without difficulty Active (Consider patients normal level of activity)
5 EXPOSURE	Rapid Tranquilisation, Restraint, Smoking/Alcohol, Allergies, Sepsis?	5 EXPOSURE Monitor and record using the non-contact physical observations. Revert to NEWS 2 when possible Consider additional monitoring for asthma, diabetes, epilepsy, intoxication, medication side effects, etc.

Adapted from a neighbouring Trust who sadly lost a patient when they were being nursed in seclusion
Paediatric and community versions being developed

2021 BLS Algorithm…





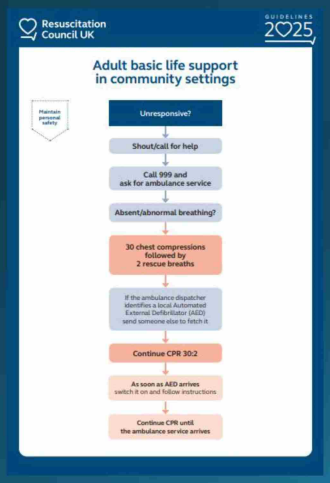
Use left version!
No resus team and lack of ALS providers….we are first responders until expert help and equipment arrives!
Use radio to state ‘medical emergency’

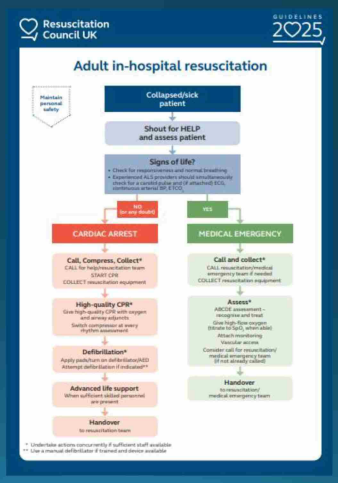
Updated 2025 RCUK guidance…

- If patient is unresponsive- call for help
- Breathing assessment – call handler can assist caller
- 2025 focus on absent or abnormal (agonal or fast 'panting' in athletes)
- Compress chest at least 5cm but no more than 6cm
- Moving patient from bed to floor is discouraged as it can cause delays – compress chest deeper
- 2025 focus on correct AED pad positioning
- 2025 focus on support for those attending the resuscitation event
- Choking – moved to 'First aid'

Use left version!
No resus team and lack of ALS providers….we are first responders until expert help and equipment arrives!
Use radio to state 'medical emergency'

2025 BLS Algorithm…



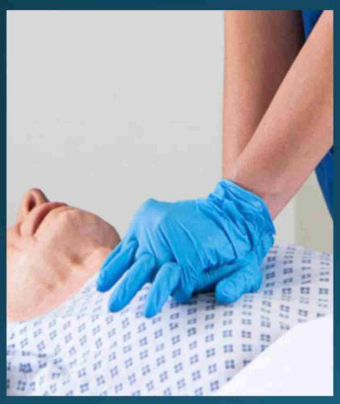


Use left version!
No resus team and lack of ALS providers….we are first responders until expert help and equipment arrives!
Use radio to state ‘medical emergency’

Early CPR…

- Chest compressions and ventilation of the person's lungs will slow down the deterioration of the brain and heart
- Extends the period in which resuscitation may be successful
- Doubles the chances of survival after a VF/pVT cardiac arrest

Chest compressions…



- 30:2
- compressions
  - centre of chest
  - 5-6 cm depth
  - 2 per second (100-120 min^{-1})
  - recoil
- maintain high quality compressions with minimal interruptions (< 5 s)
- continuous compressions once airway secured
- switch CPR provider every

  2 min cycle to avoid fatigue

Use left version!
No resus team and lack of ALS providers….we are first responders until expert help and equipment arrives!
Use radio to state ‘medical emergency’

Early defibrillation…

- Defibrillation within 3 – 5 mins of collapse can produce survival rates as high as 50 – 70%
- Every minute of delay to defibrillation reduces the probability of survival to hospital discharge by 10 – 12%
- In the UK, an AED is deployed in about 5% of out-of-Hospital cardiac arrests before ambulance arrival

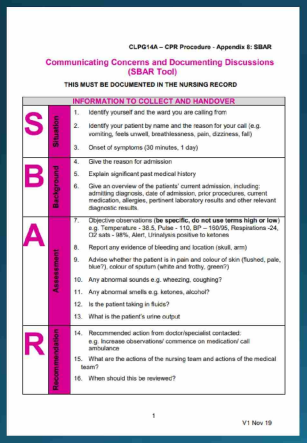
When and how to use an AED…

- As soon as the AED arrives, or if one is already available at the site of the cardiac arrest, switch it on
- Attach the electrode pads to the person's (who has sustained cardiac arrest) bare chest according to the position shown on the AED or on the pads
- If more than one rescuer is present, continue CPR whilst the pads are being attached
- Follow the spoken (and/or visual) prompts from the AED. Ensure that nobody is touching the person whilst the AED is analysing the heart rhythm

Compressions before defibrillation…

- Continue CPR until an AED (or other type of defibrillator) arrives on site and is switched on and attached to the person
- Do not delay defibrillation to provide additional CPR once the defibrillator is ready

SBAR and ''Calling (9)999 document'...



CLPG14A – CPR Procedure - Appendix 8: SBAR

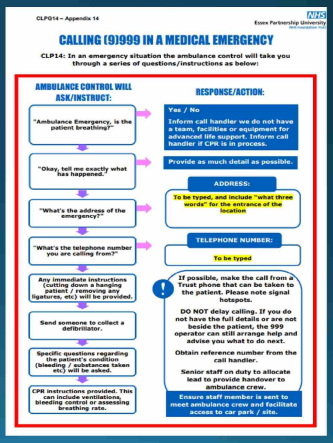
Communicating Concerns and Documenting Discussions (SBAR Tool)

THIS MUST BE DOCUMENTED IN THE NURSING RECORD

		INFORMATION TO COLLECT AND HANDOVER
S	Situation	1. Identify yourself and the ward you are calling from 2. Identify your patient by name and the reason for your call (e.g. vomiting, feels unwell, breathlessness, pain, dizziness, fall) 3. Onset of symptoms (30 minutes, 1 day)
B	Background	4. Give the reason for admission 5. Explain significant past medical history 6. Give an overview of the patients' current admission, including: admitting diagnosis, date of admission, prior procedures, current medication, allergies, pertinent laboratory results and other relevant diagnostic results.
A	Assessment	7. Objective observations (**be specific, do not use terms high or low**) e.g. Temperature - 36.5, Pulse - 110, BP – 150/95, Respirations -24, O2 sats - 98%, Alert, U/Analysis positive to ketones 8. Report any evidence of bleeding and location (skull, arm) 9. Advise whether the patient is in pain and colour of skin (flushed, pale, blue?), colour of sputum (white and frothy, green?) 10. Any abnormal sounds e.g. wheezing, coughing? 11. Any abnormal smells e.g. ketones, alcohol? 12. Is the patient taking in fluids? 13. What is the patient's urine output
R	Recommendation	14. Recommended action from doctor/specialist contacted: e.g. Increase observations/ commence on medication/ call ambulance 15. What are the actions of the nursing team and actions of the medical team? 16. When should this be reviewed?

1

V1 Nov 19



CLPG14 – Appendix 14

Essex Partnership University NHS

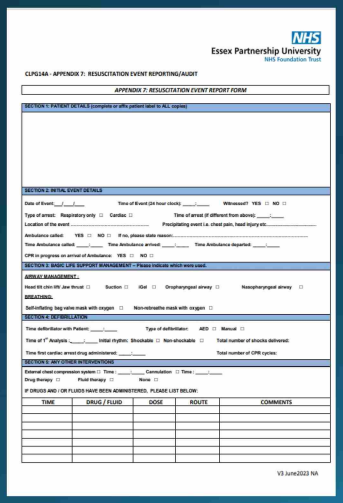
CALLING (9)999 IN A MEDICAL EMERGENCY

CLP14: In an emergency situation the ambulance control will take you through a series of questions/instructions as below:

AMBULANCE CONTROL WILL ASK/INSTRUCT:	RESPONSE/ACTION:
"Ambulance Emergency, is the patient breathing?"	Yes / No Inform call handler we do not have a team, facilities or equipment for advanced life support. Inform call handler if CPR is in process.
"Okay, tell me exactly what has happened."	Provide as much detail as possible.
"What's the address of the emergency?"	ADDRESS: To be typed, and include "what three words" for the entrance of the location
"What's the telephone number you are calling from?"	TELEPHONE NUMBER: To be typed
Any immediate instructions (setting down, hanging patient / removing any ligatures, etc) will be provided.	If possible, make the call from a Trust phone that can be taken to the patient. Please note signal hotspots. DO NOT delay calling. If you do not have the full details or are not beside the patient, the 999 operator can still arrange help and advise you what to do next. Obtain reference number from the call handler. Senior staff on duty to allocate lead to provide handover to ambulance crew. Ensure staff member is sent to meet ambulance crew and facilitate access to car park / site.
Send someone to collect a defibrillator.	
Specific questions regarding the patient's condition (bleeding / substances taken etc) will be asked.	
CPR instructions provided. This can include ventilations, bleeding control or assessing breathing rate.	

Use Trust portable handset and take the handset to the patient!
Environment differences (wifi coverage, mobile signal, have resulted in different solutions required to tackle differing localised challenges.

Resus Event Form…



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CLPG14A - APPENDIX 7: RESUSCITATION EVENT REPORTING/AUDIT

APPENDIX 7: RESUSCITATION EVENT REPORT FORM

SECTION 1: PATIENT DETAILS (complete or affix patient label to ALL copies)

SECTION 2: INITIAL EVENT DETAILS

Date of Event: ___/___/___ Time of Event (24 hour clock): ____/____ Witnessed? YES ☐ NO ☐

Type of arrest: Respiratory only ☐ Cardiac ☐ Time of arrest (if different from above): ____/____

Location of the event: ..... Precipitating event i.e. chest pain, head injury etc: .....

Ambulance called: YES ☐ NO ☐ If no, please state reason: .....

Time Ambulance called ____/____ Time Ambulance arrived: ____/____ Time Ambulance departed: ____/____

CPR in progress on arrival of Ambulance: YES ☐ NO ☐

SECTION 3: BASIC LIFE SUPPORT MANAGEMENT – Please indicate which were used.

AIRWAY MANAGEMENT:

Head tilt chin lift/ Jaw thrust ☐ Suction ☐ iGel ☐ Oropharyngeal airway ☐ Nasopharyngeal airway ☐

BREATHING:

Self-inflating bag-valve mask with oxygen ☐ Non-rebreathe mask with oxygen ☐

SECTION 4: DEFIBRILLATION

Time defibrillator with Patient: ____/____ Type of defibrillator: AED ☐ Manual ☐

Time of 1st Analysis ____/____ Initial rhythm: Shockable ☐ Non-shockable ☐ Total number of shocks delivered:

Time first cardiac arrest drug administered: ____/____ Total number of CPR cycles:

SECTION 5: ANY OTHER INTERVENTIONS

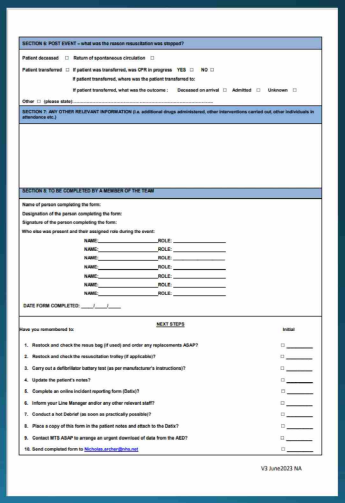
External chest compression system ☐ Time: ____/____ Cancellation ☐ Time: ____/____

Drug therapy ☐ Fluid therapy ☐ None ☐

IF DRUGS AND / OR FLUIDS HAVE BEEN ADMINISTERED, PLEASE LIST BELOW:

TIME	DRUG / FLUID	DOSE	ROUTE	COMMENTS

V3 June2023 NA



SECTION 6: POST EVENT – what was the reason resuscitation was stopped?

Patient deceased ☐ Return of spontaneous circulation ☐

Patient transferred ☐ If patient was transferred, was CPR in progress YES ☐ NO ☐

If patient transferred; where was the patient transferred to:

If patient transferred, what was the outcome: Deceased on arrival ☐ Admitted ☐ Unknown ☐

Other ☐ (please state): .....

SECTION 7: ANY OTHER RELEVANT INFORMATION (i.e. additional drugs administered, other interventions carried out, other individuals in attendance etc.)

SECTION 8: TO BE COMPLETED BY A MEMBER OF THE TEAM

Name of person completing the form:

Designation of the person completing the form:

Signature of the person completing the form:

Who else was present and their assigned role during the event:

NAME: _____ ROLE: _____
NAME: _____ ROLE: _____
NAME: _____ ROLE: _____
NAME: _____ ROLE: _____
NAME: _____ ROLE: _____
NAME: _____ ROLE: _____
NAME: _____ ROLE: _____

DATE FORM COMPLETED: ____/____/____

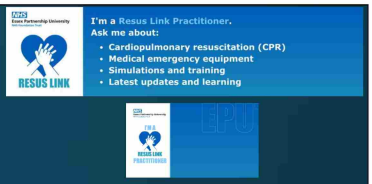
NEXT STEPS

Have you remembered to:	Initial
1. Restock and check the resus bag (if used) and order any replacements ASAP?	☐ _____
2. Restock and check the resuscitation trolley (if applicable)?	☐ _____
3. Carry out a defibrillator battery test (as per manufacturer's instructions)?	☐ _____
4. Update the patient's notes?	☐ _____
5. Complete an online incident reporting form (Datix)?	☐ _____
6. Inform your Line Manager and/or any other relevant staff?	☐ _____
7. Conduct a hot Debrief (as soon as practically possible)?	☐ _____
8. Place a copy of this form in the patient notes and attach to the Datix?	☐ _____
9. Contact MTS ASAP to arrange an urgent download of data from the AED?	☐ _____
10. Send completed form to Nicholas.archer@nhs.net	☐ _____

V3 June2023 NA

Complete as the medical emergency unfolds
Use as a tool to assist with handover to the Ambulance Service

Resus Link Practitioners…

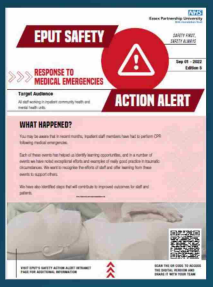


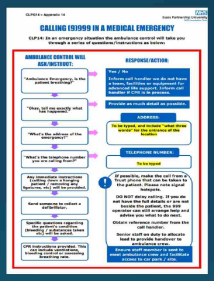
The role is open to all nurses and HCAs/support workers and the RLP will act as a link between the Resuscitation and Deteriorating Patient Group and their ward, promoting best practice and raising awareness. The RLP will:

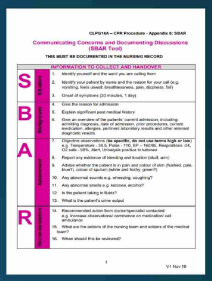
- help facilitate medical emergency simulations on their ward;
- have access to a fully-stocked resus bag (which itself is checked weekly by nursing staff) and training mannequin to help train staff;
- help ensure all ward staff know what emergency equipment is on the ward, where it is, how to use it, and the importance of checking it regularly;
- update colleagues on key life support messages and training;
- participate in audit data collection; and
- attend bi-monthly Resus Link meetings, where important Resuscitation Council UK updates are shared, medical emergency simulation outcomes are discussed and RLP have a chance to raise any questions

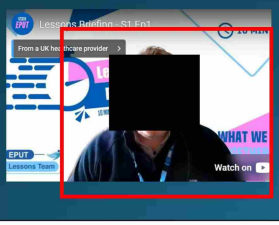
Lessons identified…

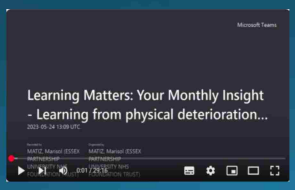
















Oxygen cylinder alert….NHS shared an alert in 2018 ‘Risk of death and severe harm from failure to obtain and continue flow from oxygen cylinders’
Mask location issue

Internal Safety Alert…

An alert has been issued. The details are:

- Title: SWARM early learning (Resus)
- Reference: INT GEN 25 006 - SWARM early learning (Resus) Issued by:
- Date issued: 23/06/2025
- Shared with Matrons, Service Managers, DDQS' and PNE's.

Internal Safety Alert…

A recent SWARM huddle, which was carried out following a medical emergency on one of the Trusts inpatient units, has highlighted a number of issues including staff being unable to locate specific emergency equipment within the resus bag and lack of medical emergency simulations being facilitated.

As a direct result, a number of urgent actions have been shared to mitigate any potential risk:

Internal Safety Alert…

- The oropharyngeal and nasopharyngeal airways are to be stored within the mesh pocket (along with the pen torch and McGills forceps), which is located on the inside of the inside of the bag. Please see attached picture for clarification. This action must be undertaken when the next Resuscitation Bag / Trolley Daily Weekly Check (CLPG14A Appendix 10) is completed. The checklist will be amended to reflect the storage location.

Internal Safety Alert…

- The 'Resus Bag Refresher' film must be viewed by all staff working within an inpatient setting and a local record kept with the names of those who have viewed the short film, in order to document completion of the action. This action must be highlighted at the next Team meeting.

https://youtu.be/Qt56iam7ZwY?si=dJ2Iam72xLxrqXrj

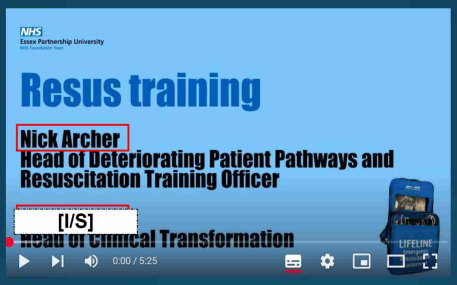
Internal Safety Alert…

- A medical emergency simulation must be carried out every 4 months (minimum requirement) in accordance with the EPUT CPR Procedure (CLPG14A). The Resus Link Practitioners can assist with the facilitation of the simulation and will have access to the library of medical emergency simulations, which have already been developed and shared, with the support of Ward Managers, Matrons, Service Managers/Clinical leads and Professional Nurse Educators. If time does not permit to undertake the simulation in its entirety, one specific element of simulation can be chosen and focused upon, with the learning conversation capturing the important learning i.e. recognising a deteriorating patient. The attached 'Medical Emergency Scenario Practice Report' document must be completed during the medical emergency simulation and stored as a local record of completion, as well as being scanned and sent to [I/S] A question relating to the facilitation of the medical emergency simulations will be added to the Ward Managers audit on Tendable for audit purposes.

Medical emergency simulations…

- Classroom/online training once a year
- Muscle memory reduces after 3 months
- Consolidates learning into 'little and often' hands-on sessions
- Is there ever a 'Perfect time' to facilitate a simulation?
- Risks of not practising
- Engagement…participation…respect…treat as the 'real thing'!

Resources…



The UK Sepsis Trust
Resuscitation Council UK
Royal College of Physicians
OLM '364 Recognising & Managing Deterioration'