GP Quick Reference Handbook

Checklists for Crises in General Practice

General Practice is not a place for the management of emergencies and the guidelines in this handbook are not intended to be standards of medical care, they are there to support decision making when patients present acutely unwell to a Practice. The ultimate judgement with regard to a particular treatment plan must be made by the clinician in light of the clinical data presented, and consideration of the need for hospital transfer is an important part of that plan.

To ensure you have the most up to date edition, refer to contents page.
DO NOT add or remove documents**. DO NOT** alter the order of documents

This handbook remains the property of the _____ Surgery

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NHS
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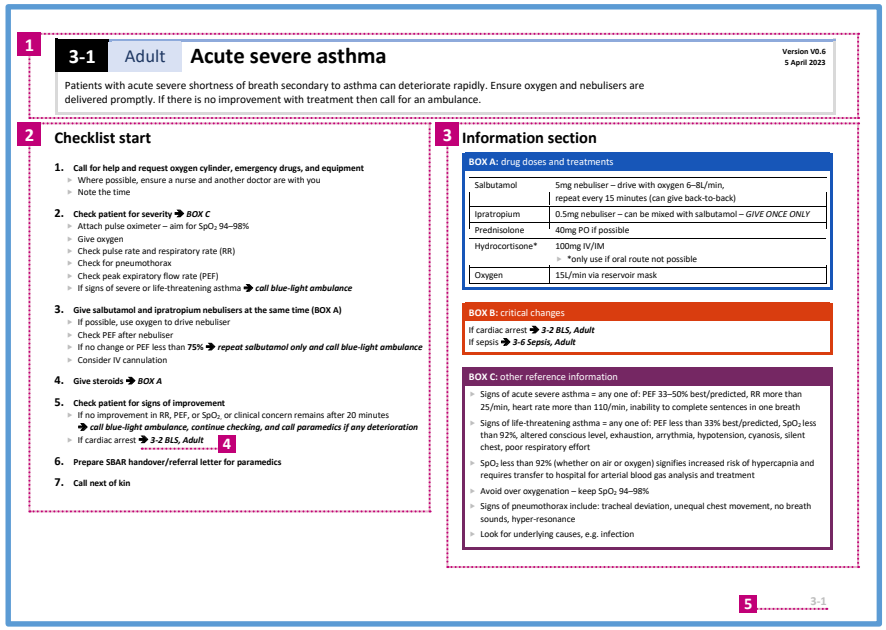
1-1 How to use the checklists

General Practice is not a place for the management of emergencies and the guidelines in this handbook are not intended to be standards of medical care. These checklists are meant to be used by people who are already familiar with them and experienced in their use.
Each checklist follows the same format:



Each checklist should be used in the same simple way:

- From **checklist start** work down the numbered steps on the left
- A step might instruct you to refer to an information box on the right
- Some steps might instruct you to switch to another checklist

Recommendations:

- One person should read the checklist out loud while someone else carries out the actions
- The reader should carefully and fully follow the checklist, making sure not to skip any steps
- When experienced help arrives, consider letting them take the lead as they may provide a fresh perspective and make a more objective assessment

1. **Checklist title block:**
   - Checklist number
   - Age group (if necessary) ADULT, CHILD, or INFANT
   - Checklist name
   - Version reference number
   - Date last updated
   - Description of the clinical situation for which the checklist is written
2. **The main checklist**
3. **Information section boxes**
   - BOX A = drug doses and treatments
   - BOX B = critical changes
   - BOX C = other reference information
4. **Document cross references**
   Sometimes, the next step will be to switch to a different checklist, in which case the number of the new checklist will follow an arrow, like this: ➔ ***2-1 Checklist name***
5. **Footer number reference**
   The checklist number always appears at the bottom-right of the page so that each checklist can be easily found without the need for a tabbed folder.

1-2 Location of emergency equipment and drugs

Use this sheet to specify the location of emergency equipment and evacuation points etc. in your own practice.

Location of emergency equipment and drugs	
Resuscitation equipment	
Automatic external defibrillator (AED)	
Oxygen tank	
Anaphylaxis kit	
I.V. Fluid	
Muster points for evacuation	
Add your own	
Add your own	
Add your own	

1-3 Emergency contact telephone numbers

Please add all relevant contact numbers which may be needed by your practice.

Contact/location	Telephone number
999 ambulance HCP line	
LOCAL hospital GP line	
LOCAL hospital A&E	
Add your own	
Add your own	
Add your own	

2-1 Key basic plan – non-specific collapse – DR ABCDE

Version V1.0
DD Month YYYY

What to do when a patient collapses with no obvious cause. A clinical member of staff should be present when using this checklist.

Checklist start

1. **D: Check for danger**
2. **R: Check for response**
   - If no response call for help and request oxygen cylinder, emergency drugs, and equipment
   - Note the time
3. **A: Check airway**
   - Attach pulse oximeter
   - Check for signs of airway obstruction, e.g. stridor ➔ ***BOX A***
4. **B: Check breathing ➔ *BOX A***
   - Check respiratory rate
   - Check oxygen saturation if SpO_2 less than 94% ➔ ***BOX A***
   - Check for equal chest movement
   - Check for breath sounds
5. **C: Check circulation**
   - Check pulse/heart rate
   - Check BP
   - Check capillary refill ➔ ***BOX C***
   - Check 12-lead ECG (not for children)
6. **D: Check disability ➔ *BOX C***
   - Check glucose
   - Check pupils
   - Check for drugs
7. **E: Exposure**
   - Check temperature
   - Check for rash
   - Check for injuries
8. **Calculate NEWS/PEWS**
   - Go to NEWS/PEWS score ➔ **4-3 Adult** *or* ***4-4 Child***
   - Check total score and decide on next steps ➔ ***BOX B***
   - If indicated, call blue-light ambulance and prepare SBAR handover
9. **Call next of kin**

Information section

BOX A: drug doses and treatments

Oxygen	15L/min via reservoir mask
Target saturations for oxygen therapy	SpO_2 94% without COPD
	SpO_2 92% adult with COPD or child

- For airway obstruction, use airway support techniques (head tilt, chin lift) and oro-pharyngeal (Guedel) airway if appropriate.

BOX B: critical changes

- Go back to **Checklist start** of key basic plan if:
  - No improvement
  - A new problem arises
- If cardiac arrest ➔ ***3-2 Adult – Basic life support*** *or* ***3-12 Child – Basic life support***

BOX C: other reference information

- **Capillary refill time:** press on nailbed for 5 seconds normal = less than 2 seconds; red flag = more than 3 seconds
- If **peripheries** are cold/shut-down, check cap refill on sternum
- Assessment of disability:
  - **A** – **A**lert
  - **C** – **C**onfusion
  - **V** – Responds to **V**oice
  - **P** – Responds to **P**ain
  - **U** – **U**nresponsive
- Normal glucose: 4–7mmol/L
- If known COPD, aim for SpO_2 greater than or equal to 92%

2-2 Adult Non-clinical staff emergency checklist

Version V1.0
DD Month YYYY

Guidance for non-clinical staff if a patient is unwell or collapses in the waiting room, car park, or other non-clinical area on surgery premises.

Checklist start

1. **Call for help**
   - Make an emergency announcement: state, "emergency" and give location or use electronic emergency call (if available)
   - Call for doctor, nurse, or paramedic to help
   - Allocate a member of reception to support emergency
   - Request oxygen cylinder, emergency drugs, and equipment
   - Note the time
2. **Check patient**
   - If patient mobile ➔ ***move to clinical room***
   - If not mobile ➔ ***go to step 3***
3. **Check patient using DR ABC ➔ *BOX C***
   - If no response and no help present, call for blue-light ambulance
   - CPR for one minute ➔ ***BOX B and BOX C***
   - Ensure a member of the clinical team is present
4. **Check when to call next of kin**
5. **Access patient records**
   - Print summary of patient record, including ReSPECT form if available
   - Check doctor/nurse has completed SBAR handover sheet
   - Guide ambulance and paramedics to scene on arrival

Information section

BOX A: drug doses and treatments

Not applicable

BOX B: critical changes

If cardiac arrest ➔ ***3-2 BLS, Adult***

BOX C: other reference information

- Ensure a member of the clinical team attends immediately
- **DR ABC** system of assessment:
  - **D**anger – check it is safe to approach
  - **R**esponse – check if the patient is conscious and talking
  - **A**irway – check mouth is clear
  - **B**reathing – check for breathing
  - **C**irculation – check for pulse (only if confident doing this), check colour of lips
- **How to perform CPR:**
  - It is best to perform CPR on a firm surface
  - Lie patient flat
  - Place your hands in the centre of the patient's chest (the middle of the lower half of the breastbone)
  - Compress the chest to a depth of 5–6cm
  - Compress the chest at a rate of 100–120 per min
  - Do not lean on the chest - the chest needs to fully release between compressions
  - Avoid stopping or pausing the compressions as much as possible
  - If using a bag valve mask, alternate 30 compressions with 2 ventilations
  - Do not stop compressions unless exhausted or instructed to stop
- **Managing the environment:**
  - If the emergency is in the waiting room, move waiting patients away from the scene and screen-off the situation from view
  - If the emergency is outside the waiting room, tell the waiting patients what is happening and reorganise appointments if necessary
- Ensure next of kin is informed (check with clinical team); if next of kin present, support in a quiet area

3-1 Adult Acute severe asthma

Version V1.0
DD Month YYYY

Patients with acute severe shortness of breath secondary to asthma can deteriorate rapidly. Ensure oxygen and nebulisers are delivered promptly. If there is no improvement with treatment then call for an ambulance.

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, and equipment**
   - Where possible, ensure a nurse and another doctor are with you
   - Note the time
2. **Check patient for severity → *BOX C***
   - Attach pulse oximeter
   - Give Oxygen if SpO_2 less than 94% → ***BOX A***
   - Check pulse rate and respiratory rate (RR)
   - Check for pneumothorax
   - Check peak expiratory flow rate (PEF)
   - If signs of severe or life-threatening asthma → ***call blue-light ambulance***
3. **Give salbutamol and ipratropium nebulisers at the same time → *BOX A***
   - If possible, use oxygen to drive nebuliser
   - Check PEF after nebuliser
   - If no change or PEF less than 75% → ***repeat salbutamol only and call blue-light ambulance***
   - Consider IV cannulation
4. **Give steroids → *BOX A***
5. **Check patient for signs of improvement → *BOX B***
   - If no improvement in RR, PEF, or SpO_2, or clinical concern remains after 20 minutes → ***call blue-light ambulance, continue checking, and call paramedics if any deterioration***
   - If cardiac arrest → ***3-2 BLS, Adult***
6. **Prepare SBAR handover/referral letter for paramedics**
7. **Call next of kin**

Information section

BOX A: drug doses and treatments

Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 94%
Salbutamol	5mg nebuliser – drive with oxygen 6–8L/min, repeat every 15 minutes (can give back-to-back)
Ipratropium	0.5mg nebuliser – can be mixed with salbutamol – *GIVE ONCE ONLY*
Prednisolone	40mg PO if possible
Hydrocortisone*	100mg IV/IM ▸ *Only use if oral route not possible

BOX B: critical changes

If cardiac arrest → ***3-2 BLS, Adult***
If sepsis → ***3-6 Sepsis, Adult***

BOX C: other reference information

- Signs of acute severe asthma = any one of: PEF 33–50% best/predicted, RR more than 25/min, heart rate more than 110/min, inability to complete sentences in one breath
- Signs of life-threatening asthma = any one of: PEF less than 33% best/predicted, SpO_2 less than 92%, altered conscious level, exhaustion, arrythmia, hypotension, cyanosis, silent chest, poor respiratory effort
- SpO_2 less than 92% (whether on air or oxygen) signifies increased risk of hypercapnia and requires transfer to hospital for arterial blood gas analysis and treatment
- Avoid over oxygenation – keep SpO_2 94–98%
- Signs of pneumothorax include: tracheal deviation, unequal chest movement, no breath sounds, hyper-resonance
- Look for underlying causes, e.g. infection

3-2 Adult Basic life support (BLS)

Version V1.0
DD Month YYYY

Any patient who is showing no signs of life needs immediate attention. Start CPR in any unresponsive person who has absent or abnormal breathing. Patients in cardiac arrest may make some abnormal gasping movements but this is **not** a sign of life. If in doubt, start CPR.

Checklist start

1. **Check for danger**
2. **Call for help and request oxygen cylinder, emergency equipment, drugs, and automatic external defibrillator (AED)**
3. **Check patient response**
   - Use ABCDE approach
   - If no response ➔ ***step 4***
   - If response ➔ ***2-1 Key basic plan***
   - Note the time
4. **Check patient for signs of life**
   - If **not** breathing normally ➔ ***step 5***
   - If breathing normally ➔***2-1 Key basic plan***
5. **Call blue-light ambulance**
   - State, "adult cardiac arrest"
   - If you do not have an AED on site, the ambulance service will tell you where your nearest device is
6. **Start CPR ➔ *BOX C***
7. **Attach an AED when available**
   - Turn the device on and follow the instructions
   - Minimise interruptions to CPR while you attach the AED
   - Only pause CPR when instructed by the device
   - Restart CPR as soon as instructed by the device
8. **Continue resuscitation until signs of life or paramedics take over**
9. **Prepare SBAR handover/referral letter for paramedics (see SBAR checklist)**
   - Check which hospital they will go to
   - Call next of kin

Information section

BOX A: drug doses and treatments

Not applicable

BOX B: critical changes

If return of spontaneous circulation ➔ ***2-1 Key basic plan***

BOX C: other reference information

During resuscitation:

- If you are by yourself, leave the patient to get help and collect the resuscitation equipment then return to the patient as quickly as possible to begin CPR
- Correct CPR technique:
  - Place the heel of one hand in the centre of the chest with the other hand on top and interlock your fingers
  - Keep arms straight and position shoulders vertically over patient
  - Compress to 5–6cm allowing the chest to recoil afterwards
  - Repeat at a rate of 100–120 per min
  - Change CPR providers every 2 minutes
  - If patient is pregnant then manually and gently displace the uterus to the patient's left
  - If trained to do so, give two breaths after every 30 compressions
  - Airway management is often the most difficult task so give this to the most experienced person available
  - Attach any airway device (e.g. bag and mask) to oxygen at 15L/min
  - Check oxygen cylinder contents regularly
  - If you are unable or unwilling to give breaths then give continuous chest compressions
- Do not stop resuscitation unless the patient shows clear signs of life

After resuscitation:

- Call the patient's family
- Check to see if any colleagues need help
- Consider arranging a debriefing session

3-3 Adult Chest pain (acute coronary syndrome)

Version V1.0
DD Month YYYY

Patients with acute coronary syndrome (ACS) are at high risk of cardiac arrest. Have a high index of suspicion in patients with a pre-existing history or risk factors for cardiac ischaemia.

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, equipment, and automatic external defibrillator (AED)**
   - Where possible, ensure a nurse and another doctor are with you
   - Note the time
2. **Check patient ➔ *BOX C***
   - Use ABCDE approach
   - Attach pulse oximeter
   - Give Oxygen if SpO_2 less than 94% ➔ ***BOX A***
   - Check pulse rate and respiratory rate (RR)
   - Check BP
   - Check 12-lead ECG
   - If ACS, call for blue-light ambulance and state, "acute coronary syndrome" or "chest pain"
   - If signs of cardiac arrest ➔ ***3-2 BLS, Adult***
3. **Give aspirin, nitrate, and morphine ➔ *BOX A***
4. **Check patient for improvement**
   - If no improvement in pain ➔ ***give further nitrate/morphine*** ➔ ***BOX A***
   - If deterioration in symptoms or signs, call ambulance to update
   - Consider inserting intravenous cannula
5. **Prepare SBAR handover/referral letter for paramedics**
6. **Call next of kin**

Information section

BOX A: drug doses and treatments

Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 94%
Aspirin	300mg PO **once** only
GTN	2 sprays SL **OR** 1 tablet SL, repeating after 5 mins up to 3 doses (give lying down and beware of low BP)
Morphine (if available)	5–10mg IM **OR** 2.5–5mg IV titrated to effect

BOX B: critical changes

If cardiac arrest ➔ ***3-2 BLS, Adult***
If diagnosis unclear ➔ ***2-1, Key basic plan***

BOX C: other reference information

- Symptoms of ACS: pain or pressure in the chest, shoulder, arm, neck, jaw or back; breathlessness, dizziness, nausea, vomiting, or sweating; patient grey and unwell-looking
- 12-lead ECG changes:
  - ST elevation or depression
  - T-wave flattening or inversion
  - New changes versus previous ECG including new LBBB
  - Arrhythmias, particularly ventricular
- Lack of typical ECG change does not exclude infarct
- Be aware of patients with diabetes who may not complain of pain (silent ischaemia)
- Avoid nitrates if systolic BP less than 100

3-4 Adult Diabetic ketoacidosis/hyperglycaemia

Version V1.0
DD Month YYYY

Undiagnosed diabetes can lead to hyperglycaemia in patients of any age. Patients with known diabetes may present with hyperglycaemia triggered by interruption in treatment or intercurrent illness. Symptoms include polyuria, thirst, and weight loss.

Checklist start

1. **Check the patient**
   - Use ABCDE approach
   - Check vital signs, including conscious level ➔ ***BOX B***
   - Note time
2. **Check capillary blood glucose**
   - If greater than 11mmol/L, consider diabetic ketoacidosis (DKA) or hyperosmolar hyperglycaemic state (HHS)
   - Beware patients on SGLT2i ➔ ***BOX C***
3. **Check ketones in blood or urine ➔ *BOX C***
   - If evidence of DKA/HHS ➔ ***call blue-light ambulance***
4. **Consider IV cannulation and fluid bolus ➔ *BOX A***
5. **Consider insulin ➔ *BOX A***
6. **Prepare SBAR handover/referral letter for paramedics**
   - ➔ ***see SBAR checklist***
7. **Call next of kin**

Information section

BOX A: drug doses and treatments

IV normal saline if systolic BP less than 90	500ml over 15 minutes
IV normal saline if systolic BP greater than 90	500ml over one hour
If patient has previous diagnosis of diabetes consider additional bolus of their own rapid-acting insulin	Blood sugar: 13–17.9mmol/L = 2 units Blood sugar: 18–25 mmol/L = 4 units Blood sugar: >25 = 6 units

BOX B: critical changes

If unconscious ➔ ***2-1 Key basic plan***

BOX C: other reference information

- **Symptoms of hyperglycaemia**: polyuria, polydipsia, abdominal pain, nausea, confusion
- **Signs of hyperglycaemia**: weight loss, altered conscious state, Kussmaul breathing or raised respiratory rate, ketotic breath, dehydration
- **Signs of HHS**: blood glucose typically greater than 30mmol/L with no ketones
- **Ketone levels** (NB check correct test stick used):
  - Blood ketones between 1.6 and 2.9mmol/L ➔ ***admit to hospital***
  - Blood ketones greater than 3 ➔ ***call blue-light ambulance***
  - Urine ketones if greater than 2+ ➔ ***admit to hospital***
- **Risk factors for hyperglycaemic emergencies**:
  - Unstable glycaemic control
  - Omission or interruption of treatment (especially insulin or insulin pump)
  - History of DKA
  - Acute infection
  - Pancreatitis
  - MI or unstable angina
  - Trauma, surgery, or burns
  - Medications including corticosteroids, atypical antipsychotics, immunosuppressants, SGLT2i (gliflozins)
  - In patients taking SGLT2i (gliflozins), DKA may rarely present without hyperglycaemia
  - Alcohol or recreational drugs
  - Elderly patients
  - Pregnancy

3-5 Adult Fit/status epilepticus

Version V1.0
DD Month YYYY

Tonic-clonic seizure in adult over 18yrs lasting more than 5mins, or more than 3 seizures in 1hr.

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, and equipment**
   - Call blue-light ambulance and state, "adult prolonged seizure"
   - Ensure patient is safe, protect from injury, and cushion head
   - Note the time
2. **Check blood sugar**
   - If hypoglycaemia ➔ ***give IM glucagon or IV glucose*** ➔ ***BOX A***
3. **Give benzodiazepine ➔ *BOX A***
   - Buccal midazolam as first line
   - If not possible ➔ ***rectal diazepam***
4. **Put patient in recovery position ➔ *BOX C***
5. **Attach pulse oximeter**
   - Give Oxygen if SpO_2 less than 94% ➔ ***BOX A***
6. **Check for other causes of seizure ➔ *BOX C***
7. **Check patient for improvement**
   - If no improvement ➔ ***consider second dose of benzodiazepine*** and ➔ ***BOX B***
   - If fit ends, check vital signs
   - Update ambulance if necessary
8. **Prepare SBAR handover/referral letter for paramedics**
9. **Call next of kin**

Information section

BOX A: drug doses and treatments

If hypoglycaemia (blood sugar 4mmol/L or less):	
Glucagon OR	1mg IM
IV Glucose	150–200 ml 10% dextrose over 15 minutes
Buccal midazolam	10mg (unlicensed but in NICE guideline) – repeat ONCE ONLY after 10mins if still fitting
OR diazepam	10–20mg PR – repeat ONCE ONLY after 15mins if no response (10mg if elderly)
Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 94%

BOX B: critical changes

If cardiac/respiratory arrest ➔ ***3-2 BLS, Adult***

If no improvement ➔ ***2-1 Key basic plan***

BOX C: other reference information

- Do not restrict or move patient while seizure ongoing
- If fit ends, use ABCDE approach to review patient
- Recovery position is left lateral, unless not possible
- Causes of seizure to consider: convulsive syncope, pseudoseizure, hypoglycaemia, drug overdose. or withdrawal

3-6 Adult Sepsis

Version V1.0
DD Month YYYY

Sepsis is a potentially life-threatening condition. Consider it in any patient attending with signs or symptoms of infection, even if they do not have a high temperature. Sepsis may present with non-specific, non-localised symptoms. Particular care is needed for patients with communication difficulties.

Checklist start

1. **Check patient**
   - Check for possible source of infection
   - Check for skin changes or rashes
   - Check for sepsis risk factors ➔ ***BOX C***
   - Note the time
2. **Check vital signs**
   - Check respiratory rate
   - Attach pulse oximeter
   - Give Oxygen if SpO_2 less than 92% ➔ ***BOX A***
   - Check pulse rate and blood pressure ➔ ***consider IV fluid*** ➔ ***BOX A***
   - Check conscious level (AVPU)
   - Check temperature
   - Check urine output ➔ ***BOX C***
   - Check for any allergies
   - Calculate NEWS (see NEWS2 calculator)
3. **Check NICE criteria for risk of serioºus illness** ➔ ***4-5 References***
   - High risk ➔ ***emergency admission to hospital***
   - Moderate risk ➔ ***emergency admission required if definitive diagnosis and treatment cannot be established in primary care***
   - Low risk ➔ ***treat in primary care***
4. **Check if emergency admission required** ➔ ***BOX C***
   - If yes ➔ ***call blue-light ambulance and give antibiotics if meningococcal sepsis*** ➔ ***BOX A***
   - Prepare SBAR handover/referral letter for paramedics
   - If no (low risk) ➔ ***check if the patient is known to be colonised with any resistant organisms (e.g. MRSA), give antibiotics per local protocol, warn patient about symptoms to monitor, tell the patient when and how to get medical attention if situation changes***
5. **Call next of kin**

Information section

BOX A: drug doses and treatments

Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 92%
Meningococcal sepsis	Benzylpenicillin 1.2g IM/IV
	OR if allergic to penecillin consult local guidance
IV 0.9% saline if hypotensive	10 to 30ml/kg bolus

- Raise legs if hypotensive
- For IM antibiotics use proximal muscle, e.g. anterolateral thigh

BOX B: critical changes

If cardiac arrest ➔ ***3-3 BLS, Adult***
If unsure of diagnosis ➔ ***2-1 Key basic plan***

BOX C: other reference information

Risk factors for sepsis:

- Age over 75 or very frail
- Trauma, surgery, or invasive procedure in the last 6 weeks
- Impaired immunity due to illness or treatment, particularly if there is a risk of neutropaenia
- Indwelling lines, catheters, history of IV drug use, or breaches of skin integrity
- Pregnancy or delivery in the last 6 weeks, especially if comorbidities such as gestational diabetes, operative delivery, prolonged rupture of membranes, close contact with someone with group A streptococcal infection; note ongoing vaginal discharge or bleeding is a significant finding

Emergency admission via ambulance if any of the following:

- Objective change in behaviour or mental state
- Respiratory **rate 25 breaths** per minute or more **OR** needs oxygen to maintain saturations above 92% (88% if COPD)
- Heart rate more than 130 beats per minute **OR** systolic blood pressure less **than 90mmHg OR** systolic blood pressure 40mmHg less than normal
- No urine output in last 18 hours (less than 0.5ml/kg/hour if catheterised)
- Mottled **OR** ashen appearance **OR** cyanosis
- NEWS2 greater than or equal to 5
- Non-blanching rash of the skin may be a sign of meningococcal sepsis
  ➔ ***arrange for emergency admission and give parenteral benzylpenicillin*** ➔ ***BOX A***

3-7 Adult Severe shortness of breath (respiratory failure)

Version V1.0
DD Month YYYY

Consider all possible causes of respiratory failure systematically. Avoid spending too long on any one aspect until you have run through the whole checklist.

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, and equipment**
   - Ensure you have a nurse and an additional doctor present if possible
   - Note the time
2. **Check patient for severity (ABCDE approach):**
   - Open and assess **Airway**
   - Check **Breathing** ➔ chest symmetry, rate, breath sounds, SpO_2, and consider peak expiratory flow rate
   - Check **Circulation**➔ pulse rate and rhythm, heart sounds
   - Check for **Disability** ➔ conscious level, check pupils, check blood glucose
   - **Exposure** ➔ check for injury but keep patient normothermic
   - Attach pulse oximeter"
   - Give Oxygen if SpO_2 less than 94% ➔ ***BOX A***
3. **Check for causes of respiratory failure ➔ *BOX C***
   - Start treatment ➔ ***BOX A***
   - If signs of respiratory failure ➔ ***BOX C*** ➔ ***call blue-light ambulance***
   - If critical changes ➔ ***BOX B*** ➔ ***call blue-light ambulance***
   - Consider siting IV cannula
4. **Check patient for signs of improvement:**
   - If no improvement in RR, PEF, or SpO_2 after 20 minutes ➔ ***call blue-light ambulance or update paramedics***
5. **Prepare SBAR handover/referral letter for paramedics**
6. **Call next of kin**

Information section

BOX A: drug doses and treatments

- Select treatment according to the most likely diagnosis

Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 94% (92% if known COPD)
Salbutamol	5mg nebuliser – drive with oxygen 6–8L/min, can repeat every 5 minutes
Ipratropium	0.5mg nebuliser – can be mixed with salbutamol ▸ **give ONLY ONCE**
Prednisolone	40mg po if possible
Hydrocortisone	100mg IV (if oral route not possible)
Furosemide PO/IM	Give 1–2 times normal dose or 20–40mg if no previous diuretics

BOX B: critical changes

If acute coronary syndrome ➔ ***3-3 Chest pain (acute coronary syndrome)***
If asthma ➔ ***3-1 Acute severe asthma, Adult***
If cardiac arrest ➔ ***3-2 BLS, Adult***
If sepsis ➔ ***3-6 Sepsis, Adult***
If anaphylaxis ➔ ***3-8 Anaphylaxis, Adult & Child***

BOX C: other reference information

Signs of respiratory failure include: cyanosis, elevated respiratory rate, accessory muscle use, difficulty completing sentences

Consider differential diagnoses:

- **Airway:** foreign body, tumour
- **Respiratory:** COPD, asthma, pneumonia
- **Cardiovascular:** Acute coronary syndrome, heart failure, pulmonary embolism
- **Other causes:** neurological conditions, anaphylaxis, drug overdose, trauma, toxins

3-8 Adult & Child Anaphylaxis

Version V1.0
DD Month YYYY

Acute onset of illness with rapidly progressing and life-threatening systemic symptoms and history of contact with allergen (known or unknown).

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, and equipment**
   - Where possible, ensure a nurse and another doctor are with you
   - Call blue-light ambulance
   - Note the time
2. **Check patient → *BOX C***
   - Remove trigger if possible
   - Give IM adrenaline → ***BOX A***
   - Attach pulse oximeter
   - Give Oxygen if SpO_2 less than 94% → ***BOX A***
   - Check for clear airway
   - Check respiratory rate (RR)
   - Check pulse rate and blood pressure (BP)
   - If unconscious → ***3-2 BLS, Adult, or 3-12 BLS, Child*** → ***BOX B***
3. **Position patient appropriately: adapt for breathlessness or low BP → *BOX A***
4. **Check patient for improvement**
   - If no improvement → ***repeat adrenaline, update paramedics, and give IV fluid if possible*** → ***BOX A***
5. **Prepare SBAR handover sheet/referral letter for paramedics**
6. **Call next of kin**

Information section

BOX A: drug doses and treatments

Adrenaline* (use 1:1,000 IM only, in anterolateral thigh)	Adult or child over 12yrs	500micrograms IM (0.5ml)
	Child 6–12yrs	300micrograms IM (0.3ml)
	Child 6 months to 5 yrs	150micrograms IM (0.15ml)
	Child less than 6 months	100–150micrograms IM (0.1– 0.15ml)
	▸ *Repeat adrenaline after 5 minutes if no improvement in SpO_2 or BP (half-life of adrenaline is approx. 2mins but the effect may be sustained for 5–10mins after IM injection)	
Intravenous fluid (0.9% saline) bolus	Adult	500–1000ml
	Child	10ml/kg
Oxygen	15 L/min via reservoir mask ▸ Aim for SpO_2 greater than 94%.	

- Consider using opposite thigh if second IM dose of adrenaline required
- Raise patient's legs to treat low blood pressure
- Antihistamines are only useful for skin symptoms
- Refractory anaphylaxis is diagnosed where there is no improvement in respiratory or cardiac symptoms after 2 appropriate doses of IM adrenaline
- Nebulised salbutamol may be considered for persistent bronchospasm in refractory anaphylaxis

BOX B: critical changes

If cardiac arrest → ***3-2 BLS, Adult or 3-12 BLS, Child***
If unsure → ***2-1 Key basic plan***

BOX C: other reference information

What to look for:

- History of exposure to **allergen** (e.g. peanuts, wasp, or bee sting)
- **Airway**: swelling, hoarseness, or stridor
- **Breathing**: high resp rate, wheeze, fatigue, cyanosis, SpO_2 less than 92%, or confusion
- **Circulation**: pale, clammy, low BP, faintness, or drowsiness
- **Blotchy rash** which blanches to pressure (not always seen)

3-9 Child (0 to 6yrs) Croup

Version V1.0
DD Month YYYY

Croup causes upper airway obstruction. Usual age affected = 0–6yrs. It is important to minimise stress and handling of the child as much as possible.
Do not examine the throat. Do not attempt venepuncture. Respiratory failure is usually the cause of cardiorespiratory arrest in infants.

Checklist start

1. **Call for help and request oxygen cylinder, nebuliser machine, and pulse oximeter**
   - Where possible, ensure a nurse and another doctor are with you
   - Minimise stress to child as much as possible
   - Move child to appropriate environment if necessary
   - Note the time
2. **Check patient for severity ➔ *BOX C***
   - Use ABCDE approach
   - Sit child upright and keep them with parent or carer
   - Check for clear airway – look but don't touch
   - Attach **paediatric** pulse oximeter"
   - Give Oxygen if SpO_2 less than 92% ➔ ***BOX A***
     – To minimise stress allow parent/carer to hold the mask on or near the child
   - Check respiratory rate (RR) and pulse rate, and for equal chest movement
   - If signs of respiratory failure ➔ ***BOX C*** ➔ ***call blue-light ambulance***
   - Call blue-light ambulance if child is less than 3 months old
   - If cardiac arrest ➔ ***3-12 BLS, Child***
3. **Give steroid OR budesonide ➔ *BOX A***
4. **Check patient for improvement**
   - If no improvement in RR, SpO_2 or HR, or child is tiring ➔ ***call blue-light ambulance***
5. **Prepare SBAR handover/referral letter for paramedics (see SBAR checklist)**
6. **Call next of kin**

Information section

BOX A: drug doses and treatments

Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 92%
Dexamethasone	0.15mg/kg PO
OR prednisolone	1mg/kg PO ▸ Caution with Dose for high BMI
OR budesonide	2mg nebuliser – SINGLE DOSE ▸ If oral route not available, use budesonide nebuliser and allow parent/carer to apply nebuliser

BOX B: critical changes

If cardiac arrest ➔ ***3-12 BLS, Child***

BOX C: other reference information

- Croup can present with varying combinations of the following symptoms/signs: stridor, barking cough, hoarseness, respiratory distress, exhaustion
- Admit all children with croup if age less than 3mths
- Lower threshold for admission in child with significant co-morbidities or reduced urine output
- **Croup severity:**
  - Mild (can be managed at home) = symptoms/signs only present when upset or active, NOT present at rest
  - Moderate (manage in hospital) = symptoms/signs present at rest and worsen when active
  - Severe (manage in hospital) = As moderate + respiratory failure, agitation, or lethargy
- **Signs of respiratory failure:**
  - Increasing upper-airway obstruction
  - Grunting, marked chest recession, asynchronous chest wall, and abdominal movement
  - Respiratory rate more than 60 br/min
  - Saturation less than 94% on air
  - Signs of exhaustion – listlessness or decreased respiratory effort, reduced consciousness
  - Apnoeic episodes
  - Failure to maintain adequate oxygen saturation despite oxygen
  - Central cyanosis or pallor
- **Differential diagnoses**: tracheitis, epiglottitis, anaphylaxis, foreign body obstruction

3-10 Infant (0 to 24 months) Bronchiolitis

Version V1.0
DD Month YYYY

Respiratory failure is usually the cause of cardiorespiratory arrest in infants (0–24mths). Adequate ventilation and oxygenation must be ensured.

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, and equipment**
   - Where possible, ensure a nurse and another doctor are with you
   - Note the time
2. **Check for severity**
   - Use ABCDE approach
   - Open and check airway
   - Attach **paediatric** pulse oximeter
   - Give oxygen if SpO_2 less than 92% ➔ ***BOX A***
   - Check respiratory rate (RR) and pulse (use brachial pulse or stethoscope)
   - Check capillary refill ➔ ***BOX C***
   - Check for red flags ➔ ***BOX C***
   - If red flags ➔ ***call blue-light ambulance***
   - If signs of cardiorespiratory arrest ➔ ***3-12 BLS, Child***
3. **Check patient for signs of improvement**
   - If no improvement in RR, HR, SpO_2, or clinical concern ➔ ***call blue-light ambulance, continue checking, and call paramedics if any deterioration***
   - If improving or no red flags ➔ ***provide parent/carer with advice on red flags and no smoking near child***
4. **Prepare SBAR handover/referral letter for paramedics**
5. **Call next of kin**

Information section

BOX A: drug doses and treatments

Oxygen	15L/min via reservoir mask ▸ Aim for SpO_2 greater than 92%

- The only recommended therapeutic agent in bronchiolitis is oxygen
- **Do NOT use other treatments**, e.g. NO antibiotics, NO corticosteroids, and NO nebulised salbutamol, ipratropium bromide, saline, or adrenaline

BOX B: critical changes

If cardiac arrest ➔ ***3-12 BLS, Child***

BOX C: other reference information

Red flags – consider referring if:

- Child looks unwell to health professional
- Grunting, marked chest recession, respiratory rate over 60 br/min
- Signs of exhaustion – listlessness or decreased respiratory effort
- Apnoea observed or reported
- Saturation less than 92% on air
- Failure to maintain adequate oxygen saturation despite oxygen
- Central cyanosis
- Difficulty breastfeeding or inadequate oral fluid intake
- Poor perfusion: capillary refill time more than 3s, cool peripheries, or mottled/pale
- Significant co-morbidities (chronic lung disease, congenital heart disease, age less than 6 weeks, premature birth, neuromuscular disorders, immunodeficiency, Trisomy 21)

Signs of cardiac arrest:

- Unresponsive and no signs of life
- Not breathing normally or occasional gasps
- Pulse rate less than 60

3-11 Child Acute severe asthma

Version V1.0
DD Month YYYY

Children with acute severe shortness of breath secondary to asthma can deteriorate rapidly. Ensure oxygen and nebulisers are delivered promptly and if there is no improvement with treatment then call for an ambulance.

Checklist start

1. **Call for help and request oxygen cylinder, emergency drugs, and equipment**
   - Where possible, ensure a nurse and another doctor are with you
   - Note the time
2. **Check patient for severity use ABCDE approach**
   - Check airway
   - Attach **paediatric** pulse oximeter
   - Give oxygen if SpO_2 less than 92% ➔ ***BOX A***
   - Check respiratory rate (RR) and pulse rate
   - Check peak expiratory flow rate (PEF) ➔ ***BOX C***
   - If signs of severe or life-threatening asthma ➔ ***call blue-light ambulance***
3. **Give salbutamol and ipratropium ➔ *BOX A***
   - If moderate asthma ➔ ***can use spacer to deliver salbutamol ➔ BOX A***
   - If poor response ➔ ***nebuliser***
   - Use oxygen to drive nebuliser if possible
   - If poor response ➔ ***repeat nebuliser and call blue-light ambulance***
   - Consider IV cannulation
4. **Give steroids ➔ *BOX A***
5. **Check patient for signs of improvement**
   - If no improvement in RR, PEF, or SpO_2, or clinical concern remains after 20 minutes ➔ ***call blue-light ambulance, continue checking, and call paramedics if any deterioration***
   - If cardiac arrest or bradycardia in infants ➔ ***3-12 BLS, Child***
6. **Prepare SBAR handover/referral letter for paramedics**
7. **Call next of kin**

Information section

BOX A: drug doses and treatments

Salbutamol nebuliser ▶ driven with oxygen 6–8L/min, can repeat every 5 minutes ▶ Use spacer if nebuliser not available.	1mth–5yrs	2.5mg
	Above 5yrs	5mg
Salbutamol metered dose inhaler	1-4 yrs	up to 5 puffs and over 5 is up to 10, 1 puff via spacer every 30-60 seconds
Ipratropium nebuliser (moderate asthma) ▶ driven with oxygen 6–8L/min ▶ Can be mixed with salbutamol ▶ Use spacer if nebuliser not available. Do not repeat ipratropium within 4hrs	1–12mths	125micrograms
	12mths–12yrs	250micrograms
	Above 12yrs	500micrograms
Soluble prednisolone	Less than 2yrs	10mg PO if possible
	2–5yrs	20mg PO if possible
	Above 5yrs	30–40mg PO
Hydrocortisone*	▶ *only if oral route not possible	
	2–5yrs	50mg IV/IM
	Above 5yrs	100mg IV/IM
Oxygen ▶ Aim for SpO_2 greater than 92%	15L/min via reservoir mask	

BOX B: critical changes

If cardiac arrest ➔ ***3-12 BLS, Child***

BOX C: other reference information

- Signs of **life-threatening asthma** = ONE of: PEF less than 33% best/predicted, SpO_2 less than 92%, altered conscious level, exhaustion, arrythmia, hypotension, cyanosis, silent chest, poor respiratory effort
- Signs of **acute severe asthma** = ONE of: PEF less than 50% best/predicted; RR more than 25/min above 12yrs, or 30/min 5-12yrs, or 40/min 2–5yrs; heart rate more than 110/min above 12yrs, or 125/min 5–12yrs, or 140/min 2–5yrs; accessory muscle use, inability to complete sentences in one breath, or in infants inability to feed, with SpO_2 of at least 92%
- Signs of **moderate asthma**: PEF at least 50% best or predicted with normal speech and no features of acute severe or life-threatening asthma
- SpO_2 less than 92% (irrespective of whether on air or oxygen) signifies increased risk of hypercapnia and requires transfer to hospital for arterial blood gas analysis and treatment
- Consider admitting children with moderate asthma if: previous severe asthma attack, exacerbation despite dose of oral steroid before presentation, presentation in the afternoon or at night, recent nocturnal symptoms, recent hospital admission, concern over social situation
- Aim for SpO_2 94–98% and avoid over oxygenation
- Signs of pneumothorax (rare in children but consider in tall boys aged 14–17): tracheal deviation, unequal chest movement, absent breath sounds, hyper-resonance
- Look for underlying causes, e.g. infection

3-12 Child Basic life support (BLS)

Version V1.0
DD Month YYYY

Any child who is showing no signs of life needs immediate attention. Cardiac arrest in children is usually due to lack of oxygen, so prioritise ventilation and oxygenation. Patients in cardiac arrest may make some abnormal gasping movements but this is not a sign of life. If in doubt, start CPR.

Checklist start

1. **Check for danger, call for help, and request oxygen cylinder, emergency drugs and equipment, and automatic external defibrillator (AED)**
   - Note the time
2. **Check patient response with gentle stimulation**
   - If no response ➔ ***go to step 3***
   - If response ➔ ***2-1 Key basic plan***
3. **Check patient for signs of life**
   - If not breathing normally ➔ ***go to step 4***
   - If breathing normally ➔ attach **paediatric** pulse oximeter
   - Give Oxygen if SpO_2 less than 92% ➔ ***2-1 Key basic plan***
4. **Start resuscitation ➔ *BOX C***
5. **Call blue-light ambulance**
   - State, "paediatric cardiac arrest"
   - If you do not have an AED on-site, the ambulance service will tell you where your nearest device is
6. **Attach AED**
   - Turn the device on and follow the instructions
   - Minimise interruptions to CPR while you attach the AED
   - Only pause CPR when instructed by the device
   - Restart CPR as soon as instructed by the device
7. **Continue resuscitation until signs of life or paramedics arrive**
   - If signs of life ➔ ***continue oxygen and place in recovery position***
8. **Prepare SBAR handover/referral letter for paramedics**
   - Ask paramedics which hospital they will go to
9. **Call next of kin**

Information section

BOX A: drug doses and treatments

Not applicable.

BOX B: critical changes

If not cardiac arrest or there is return of spontaneous circulation ➔ ***2-1 Key basic plan***

BOX C: other reference information

Paediatric resuscitation:

- Place child on flat, firm surface
- Prioritise ventilation
- Place head in neutral position to open airway – avoid overextending the head
- Apply bag valve mask with age-appropriate paediatric mask and switch on oxygen, or use mouth-to-mouth/nose ventilation
- consider oral airway if ventilation difficult
- Start by giving 5 rescue breaths. Check chest is rising with ventilation.
- Reassess after initial 5 breaths – if no signs of life ➔ ***start chest compressions*** (compression:ventilation = 15:2)
- Place one hand on the lower sternum (use fingertips if age less than 1yr, otherwise use heel of hand)
- Compress the chest by 1/3 of the anteroposterior diameter (4cm in an infant and 5cm in a child)
- Compress the chest at a rate of 100–120 per min and ensure chest recoil between compressions
- Do not stop resuscitation unless the patient shows clear signs of life

Consider causes:

- 4 H's: hypoxia, hypo- or hyperthermia, hypotension, hypo- or hyperkalaemia
- 4 T's: tension pneumothorax, tamponade, toxins, thrombosis

After resuscitation:

- Call the patient's family
- Check to see if any colleagues need help
- Consider arranging a debriefing session

3-13 Child Choking/airway obstruction

Version V1.0
DD Month YYYY

Airway obstruction in a child can rapidly lead to hypoxia and cardiac arrest unless action is taken. Ensure someone takes a clear history from the child's parent or carer to help decide on underlying cause.

Checklist start

1. **Call for help and request emergency equipment, oxygen cylinder, and pulse oximeter**
   - Where possible, ensure a nurse and another doctor are with you
   - Ensure child has parent or carer with them
   - Use ABCDE approach
   - Note the time
2. **Check for foreign body**
   - Check for effective cough ➔ ***BOX C***
   - If effective, encourage cough
   - If cough NOT effective ➔ ***go to step 3***
3. **Start manoeuvres to clear airway ➔ *BOX C***
   - **Infant**: alternate 5 back blows then 5 chest thrusts – keep upper body tilted downward
   - **Child:** alternate 5 back blows then 5 abdominal thrusts
   - If child becomes unconscious ➔ ***3-12 BLS, Child and call blue-light ambulance***
   - If cough or airway manoeuvres NOT effective ➔ ***call for blue-light ambulance***
4. **Check conscious level**
   - If unconscious ➔***3-12 BLS, Child***
   - Update paramedics
5. **Continue until child recovers or paramedics arrive**
6. **Prepare SBAR handover sheet/referral letter for paramedics**
7. **Call next of kin**

Information section

BOX A: drug doses and treatments

Not applicable.

BOX B: critical changes

If cardiac arrest ➔ ***3-12 BLS, Child***

If no improvement ➔ ***2-1 Key basic plan***

BOX C: other reference information

- Signs of effective cough include: deep inspiration, frequent and powerful cough
- Management of child airway obstruction:
  - Do NOT use blind finger sweeps
  - Keep going until the obstruction is relieved, then reassess and consider if further immediate review and investigation in hospital is required
  - If child becomes unconscious then start BLS
- Signs of airway obstruction include: stridor, cyanosis, high respiratory rate, history consistent with foreign body ingestion
- Differential diagnoses include: epiglottitis, croup

3-14 Child Fit/status epilepticus

Version V1.0
DD Month YYYY

Tonic-clonic seizure in child, lasting more than 5 mins or more than 3 seizures in 1 hour.

Checklist start

1. **Call for help and request oxygen cylinder and emergency equipment**
   - Call for blue-light ambulance and state, "child with prolonged seizure"
   - Ensure child is safe – protect from injury and cushion their head
   - Note time
2. **Check blood sugar**
   - If blood sugar less than 4mmol/L give glucose or glucagon ➔ ***BOX A***
3. **Give benzodiazepine ➔ *BOX A***
4. **Put in recovery position and keep airway open**
5. **Attach paediatric pulse oximeter**
   - Give Oxygen if SpO_2 less than 92% ➔ ***BOX A***
6. **Consider other causes ➔ *BOX C***
7. **Check for improvement**
   - If no improvement ➔ ***consider second dose of benzodiazepine and ➔ 2-1 Key basic plan***
   - If fit ends, check vital signs
   - Update ambulance if necessary
8. **Prepare SBAR handover/referral letter for paramedics**
9. **Call next of kin**

Information section

BOX A: drug doses and treatments

First choice Midazolam (buccal)	Up to 6mths	0.3mg/kg – max 2.5mg	
	6mths–1yr	2.5mg	
	1–5yrs	5mg	
	5–10yrs	7.5mg	
	More than 10yrs	10mg	
	▸ A single repeat dose may be given after 10 mins		
Second choice Diazepam (rectal)	Less than 1mth	1.25–2.5mg	
	Child 1mth–1yr	5mg	
	Child 2–11yrs	5–10mg	
	Child 12–17yrs	10–20mg	
	▸ A single repeat dose may be given after 10 mins		
If hypoglycaemia give IM glucagon OR IV glucose			
Glucagon IM (1mg/ml)	8yrs or below (or body weight up to 25kg)	500mcg IM (0.5ml)	
	9–17yrs (or body weight over 25kg)	1mg IM (1ml)	
IV glucose	2ml/kg 10% dextrose		
Oxygen	15L/min via reservoir mask ▸ Aim for SpO2 92%		

- If hypoglycaemia protracted or no response to glucagon in 10 mins then give IV glucose.

BOX B: critical changes

- If cardiac arrest ➔ ***3-13 BLS, Child***
- If no improvement ➔ ***2-1 Key basic plan***

BOX C: other reference information

- Avoid restricting or moving child while seizure ongoing (clinician decision whether or not to move child to treatment area where appropriate)
- Recovery position is left lateral, unless not possible
- Causes of seizure to consider: convulsive syncope, pseudoseizure, hypoglycaemia, drug overdose or withdrawal

4-1 ISBAR handover form

Version V1.0
DD Month YYYY

Ambulance ref. no: **Time first called:**

BOX 1: Identity and situation

Time:	Date of Birth:	History and working diagnosis:
Patient name:	Next of kin details:	
GP name:	Next of kin informed: ☐ Yes ☐ No	

BOX 2: Background – attach summary printout if possible

Past medical history: print out	**Current medication:** print out

BOX 3: Assessment

Airway	**Circulation** ▶ HR ▶ Reg/Irreg ▶ BP ▶ IV site and size	**Disability, Exposure** ▶ ACVPU , pupils: ▶ Blood glucose ▶ Temperature ▶ ECG (attach copy) ▶ NEWS score (attach copy)
Breathing ▶ RR ▶ O2 saturation		

BOX 4: Recommendations and requests

Medication given (time and dose):	**Oxygen:** ☐ Yes ☐ No	**Defibrillation:** ▶ Number of shocks:
Requests:	**Other:** ▶ DNAR: ☐ Yes ☐ No ▶ Team accepting	

Note any discussion with accepting team:

Attach: ☐ Summary printout ☐ ECG ☐ NEWS/PEWS score ☐ ReSPECT form ☐ Treatment Escalation Plan

4-2 Post-emergency debrief form

Version V1.0
DD Month YYYY

After an emergency event it can be helpful to run a debrief of what happened. Please check with the team if they feel this would be useful and find a convenient time (as close to the event as possible) and a quiet place to conduct a supportive conversation aimed at learning from what happened.

Debriefing	
Date of emergency:	**Clinical lead:**
Outline of emergency:	**Action taken:**
Relatives in attendance?	**Outcome:**
What went well?	**Any areas for improvement?**

Please return form to practice manager

4-3 Adult Other Documents – NEWS documents

Version V1.0
DD Month YYYY

National early warning score (Adult patients) observation and escalation charts.

NEWS

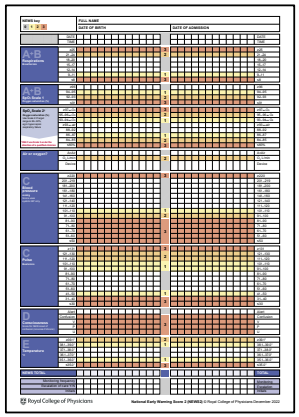
Document name: **NEWS scoring system**

Chart 1: The NEWS scoring system

Physiological parameter	Score 3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO_2 Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO_2 Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

National Early Warning Score (NEWS) 2 © Royal College of Physicians 2017

Document name: **NEWS observation chart**



The latest versions of these documents can be downloaded:
https://www.england.nhs.uk/ourwork/clinical-policy/sepsis/nationalearlywarningscore/

Chart 1: The NEWS scoring system

Physiological parameter	Score 3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO_2 Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO_2 Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

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NEWS key	FULL NAME	
0 1 2 3	DATE OF BIRTH	DATE OF ADMISSION

	DATE				DATE
	TIME				TIME
A+B Respirations Breaths/min	≥25		3		≥25
	21–24		2		21–24
	18–20				18–20
	15–17				15–17
	12–14				12–14
	9–11		1		9–11
	≤8		3		≤8
A+B SpO_2 Scale 1 Oxygen saturation (%)	≥96				≥96
	94–95		1		94–95
	92–93		2		92–93
	≤91		3		≤91
SpO_2 Scale 2† Oxygen saturation (%) Use Scale 2 if target range is 88–92%, eg in hypercapnic respiratory failure †ONLY use Scale 2 under the direction of a qualified clinician	≥97 on O_2		3		≥97 on O_2
	95–96 on O_2		2		95–96 on O_2
	93–94 on O_2		1		93–94 on O_2
	≥93 on air				≥93 on air
	88–92				88–92
	86–87		1		86–87
	84–85		2		84–85
	≤83%		3		≤83%
Air or oxygen?	A=Air				A=Air
	O_2 L/min		2		O_2 L/min
	Device				Device
C Blood pressure mmHg Score uses systolic BP only	≥220		3		≥220
	201–219				201–219
	181–200				181–200
	161–180				161–180
	141–160				141–160
	121–140				121–140
	111–120				111–120
	101–110		1		101–110
	91–100		2		91–100
	81–90		3		81–90
	71–80				71–80
	61–70				61–70
	51–60				51–60
	≤50				≤50
C Pulse Beats/min	≥131		3		≥131
	121–130		2		121–130
	111–120				111–120
	101–110		1		101–110
	91–100				91–100
	81–90				81–90
	71–80				71–80
	61–70				61–70
	51–60				51–60
	41–50		1		41–50
	31–40		3		31–40
	≤30				≤30
D Consciousness Score for NEW onset of confusion (no score if chronic)	Alert				Alert
	Confusion		3		Confusion
	V				V
	P				P
	U				U
E Temperature °C	≥39.1°		2		≥39.1°
	38.1–39.0°		1		38.1–39.0°
	37.1–38.0°				37.1–38.0°
	36.1–37.0°				36.1–37.0°
	35.1–36.0°		1		35.1–36.0°
	≤35.0°		3		≤35.0°
NEWS TOTAL					TOTAL
	Monitoring frequency				Monitoring
	Escalation of care Y/N				Escalation
	Initials				Initials

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National Early Warning Score 2 (NEWS2) © Royal College of Physicians December 2022

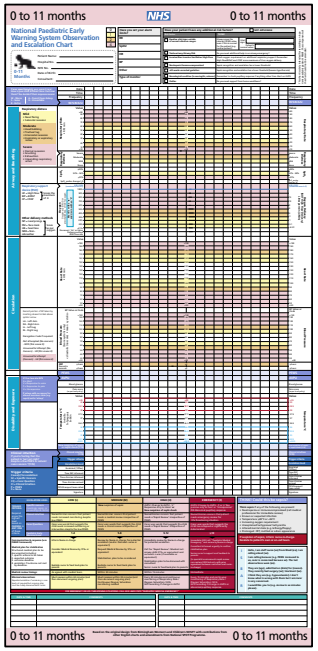
4-4 Child Other Documents – PEWS documents

Version V1.0
DD Month YYYY

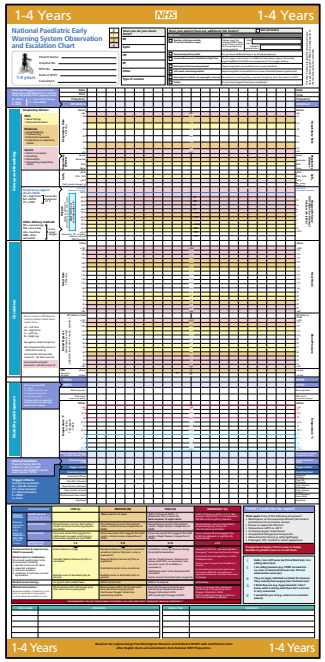
National paediatric early warning system (PEWS) observation and escalation charts.

PEWS

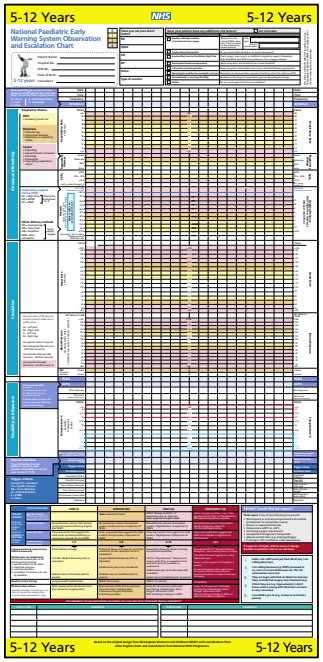
Document name:
PEWS observation and escalation chart 0–11 months



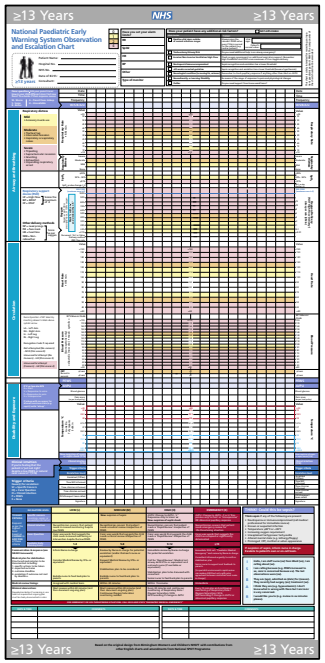
Document name:
PEWS observation and escalation chart 1–4 years



Document name:
PEWS observation and escalation chart 5–12 years



Document name:
pews observation and escalation chart ≥ 13 years



The latest versions of these documents can be downloaded:
https://www.england.nhs.uk/publication/national-pews-observation-and-escalation-charts/

4-5 References and further information

National paediatric early warning system (PEWS) observation and escalation charts https://www.england.nhs.uk/publication/national-pews-observation-and-escalation-charts/
National early warning system (NEWS) https://www.england.nhs.uk/ourwork/clinical-policy/sepsis/nationalearlywarningscore/
Nice Guidelines for sepsis https://www.nice.org.uk/guidance/ng51
NICE Guidelines for epilepsies in children, young, people, and adults https://www.nice.org.uk/guidance/ng217