Resuscitation Paediatric

Level 2 - Paediatric Basic Life Support
Core Skills Reader

Introduction to the Core Skills

The Core Skills standardises the training for 10 subjects commonly delivered as part of statutory and mandatory training requirements for health and social care organisations.

For each subject a set of learning of outcomes has been agreed nationally and is set out in the UK Core Skills and Training Framework (a copy of the framework is available on the Skills for Health website: www.skillsforhealth.org.uk/).

The learning outcomes specify what needs to be covered in the training for each Core Skills subject. This ensures a quality standard is set and provides clear guidance for organisations to deliver against these requirements as well as recognise the equivalent training delivered externally. This allows for Core Skills training to be portable between organisations and prevents the needless waste and duplication of statutory and mandatory training where is not required.

To aid organisations in the delivery of the Core Skills subjects, these education resources have been developed to be aligned to the learning outcomes in the UK training framework. Organisations have the flexibility to deliver these resources in a variety of formats as well as adapting them to add localised content alongside the Core Skills Materials.

If you require any further information about the Core Skills, in the first instance please contact the Learning and Development Lead in your organisation.
In the North West the implementation and management of the Core Skills is overseen by the North West Core Skills Programme on behalf of Health Education North West.

The programme can be contacted on: CoreSkills.Programme@nhs.net

Introduction to Resuscitation Paediatric

This reader covers the learning outcomes in the UK Core Skills Training Framework for Level 2 – Paediatric Basic Life Support.

In the UK Core Skills Training Framework there are 3 levels of training for resuscitation and separate outcomes for Adult, Paediatric and New born for levels 2 and 3. Skills for Health have developed the learning outcomes for the 3 levels of resuscitation training in consultation with and supported by the Resuscitation Council (UK).

This reader can be used either as a standalone document or as supporting material alongside the Core Skills Resuscitation Paediatric presentation or eLearning package (the relevant slide numbers and eLearning pages are given with each sub-heading). Whichever way the reader is used, it is recommended that the Core Skills Resuscitation Paediatric Assessment is completed afterwards to allow the learner to demonstrate they have retained the knowledge and learning required.

In line with best practice, organisations will likely include practical elements to the training and learners will be expected to undergo a practical assessment demonstrating their ability to perform recognised resuscitation elements and techniques such as chest compressions and rescue breaths.

The content covered here is likely to be a minimum requirement for all staff with direct clinical care responsibilities who work with children and infants. Specific staff members or groups may require additional and further advanced resuscitation training dependent upon their role.

Current national guidelines recommend that training for Level 2 – Paediatric Basic Life Support is refreshed at least once a year.

What you will learn in this session

(Slide No 2 / E-learning Page 1)

The objectives shown below covered by this reader are aligned to the Learning Outcomes for Level 2 – Paediatric Basic Life Support in the Core Skills Training Framework.

1. Current legislation, guidelines, local policies & procedures
2. Recognise & respond to patients with clinical deterioration
3. Initiate an appropriate emergency response
4. Provide basic airway management
5. Initiate and maintain effective lung ventilations
6. Initiate and maintain effective chest compressions
7. Role & responsibilities in emergency situations
8. Role & responsibilities in reporting & recording
9. Undertaking interventions within limits of capabilities
10. Apply local “”Do Not Attempt Cardiopulmonary Resuscitation” Policy

Why is this important?

(Slide No 3 / E-learning Page 2)

A cardiac or respiratory arrest is the ultimate medical emergency and correct treatment must be given immediately if a child or infant is going to have any chance of survival.

As a healthcare worker it is important that if you are present at the scene of a cardiac arrest you know the appropriate evidence based resuscitation skills and are able to put them into practice. This will increase the chances of a child or infant who has suffered a cardiac arrest of being resuscitated successful and making a full neurological recovery.

Some facts and figures to consider are:

- Cardiopulmonary arrest is much less common in children than adults.
- Children are more likely to have a respiratory arrest than a cardiac arrest
- Those who are not specialists in paediatric practice will often manage most cases initially.
- Bystander CPR intervention before arrival of emergency services significantly improves the outcome in children.
- Many children receive no bystander resuscitation because rescuers are frightened of doing harm.
- A child is more likely to be harmed if bystanders do nothing at all.
- Technique is often poor, again because bystanders fear doing harm.

Sources of information about Paediatric Resuscitation

(Slide No 4 / E-learning Page 3)

There are no statute requirements set out in UK law for paediatric resuscitation. National guidelines are set by the Resuscitation Council (UK), who the recognised authority for resuscitation in this country. They aim to achieve the following across the UK:

- To encourage research into methods of resuscitation
- To study resuscitation teaching techniques
- To establish appropriate guidelines for resuscitation procedures
- To promote the teaching of resuscitation as established in the guidelines
- To establish and maintain standards for resuscitation
- To foster good working relations between all organisations involved in resuscitation and to produce and publish training aids and other literature concerned with the organisation of resuscitation and its teaching.

The Resuscitation Council (UK) is a member of the European Resuscitation Council (ERC). The overall objective of the ERC is to: ***"To preserve human life by making high quality resuscitation available to all."*** One of the ways it achieves this is by promoting and strengthening the network of National Resuscitation Councils across Europe. Along with the national guidance, it is important you are aware of specific policies in your organisation, which will apply the resuscitation guidelines in a localised context based on the needs, requirements and risks locally.

Recognised resuscitation techniques and the training underpinning their delivery are shaped and driven by evidence based practice. This means it is continually being developed and updated. Therefore it is important you refresh your resuscitation training on a regular basis to ensure you are aware the latest guidelines and accepted best practice in light of any recent changes.

- Resuscitation Council (UK): www.resus.org.uk
- European Resuscitation Council: www.erc.edu

Paediatric definitions

(Slide No 5 / E-learning Page 4)

There are a number of differences between adult and paediatric resuscitation. For example, primary cardiac arrest is more common in adults whereas children usually suffer from secondary cardiac arrest.

The onset of puberty can be considered the physiological end of childhood, and is a logical point to distinguish between an adult and child. This should be simpler to determine than setting an age limit, as age may be unknown. If unsure treat them as a child.

There are also differences between infant and child resuscitation, in the UK Core Skills Training Framework, there is a separate set of learning outcomes for Newborn Basic Life Support. The Resuscitation Council (UK) use the following definitions for paediatrics:

- **New born** - is a child just after birth
- **Neonate** - is a child in the first 28 days of life
- **Infant** - is a child under 1 year
- **Child** - is a child between 1 year and puberty

Remember, if you think it is a child, treat them as a child!

Paediatric Early Warning Score (PEWS) System

(Slide No 6 / E-learning Page 5)

Both the National Early Warning Score (**NEWS**) System and the Paediatric Early Warning Score (**PEWS**) System provide national guidance in the standardisation of critical signs for patients in an acute setting. They provide simple guides that can be used by hospital nursing and medical staff as well as emergency medical services to quickly determine the degree of illness of a patient. They are based on data derived from physiological readings and one observation (level of consciousness).
For an acutely unwell child, PEWS are appropriate and provide for a fast, efficient and consistent response, which is essential to optimise clinical outcomes. A number of national reports have highlighted the importance of early warning scores and several approaches are in use nationwide. The underlying rationale for PEWS is to encourage the adoption of this standardised approach across the NHS. This rationale anticipates delivery of healthcare to acutely ill patients will be substantially improved by the routine embedding of simple and consistent systems based on:

- Standardising the assessment of acutely ill children
- Early warning scoring system
- Aims to optimise clinical outcomes
- Standard level of response for optimum care
- Fast, efficient and consistent response
- Measures the degree of illness of a patient

Different observations are selected for children and adults due to their naturally different physiological responses. If a child's clinical condition is deteriorating the 'score' for the observations will (usually) increase and so a higher or increasing score gives an early indication that intervention may be required. For more information: https://www.england.nhs.uk/patientsafety/re-act/design/what-works/exploring-pews/

National Early Warning Score (PEWS) System

(Slide No 7 / E-learning Page 6)

The PEWS, like the adult NEWS system, is based on a simple scoring system in which a score is allocated to physiological measurements already undertaken when children present to, or are being monitored in hospital. Six simple physiological parameters form the basis of the scoring system:

- Respiratory rate,
- Respiratory distress
- Oxygen saturation rate
- Pulse rate & blood pressure (BP not a measure of PEWS)
- Temperature
- Level of consciousness

A score is allocated to each as they are measured, the magnitude of the score reflecting how extreme the parameter varies from the norm. The score is then aggregated. The score is uplifted for people requiring oxygen. It is important to emphasise that these parameters are already routinely measured in hospitals and recorded on the clinical chart. PEWS should be used to standardise the assessment of illness severity when children present acutely to hospital and also in pre-hospital assessment, for example by primary care and the ambulance service. It is also recommended that the PEWS is used as a surveillance system for all patients in hospitals, tracking their clinical condition, alerting the clinical team to any clinical deterioration and triggering a timely clinical response.

The PEWS Clinical Observations Chart

To facilitate standardisation and a national unified approach, colour-coded clinical charts have been developed to be used across the NHS to record routine clinical data and track a child's clinical condition. This tracking system will alert the clinical team to any untoward clinical deterioration and also clinical recovery. This in turn should determine the urgency and scale of the clinical response. The NHS Institute for Innovation and Improvement categorise children for PEWS:

- 0 - 11 MONTHS
- 1 – 4 YEARS
- 5 – 12 YEARS
- 13 -18 YEARS

More info**:**
https://www.england.nhs.uk/patientsafety/re-act/design/what-works/pews-charts/

Approach safely

(Slide No 8 / E-learning Page 7)

If you come across a child who is suffering a cardiac arrest or has collapsed, even though your first instinct may be to go to their immediate assistance. You must first consider whether they can they be approached safely, taking into account your own and their safety. Take notice of the wider environment and be aware of any potential dangers. For example this may include broken glass, slippery floors, traffic, live electricity, risk of infection etc. Some things to consider before you approach with care are listed below:

- Approach with care
- Check out the scene
- Is it safe for you to approach?
- Is the victim safe?
- Are all bystanders safe?
- Assess the infection risk
- Is there blood
- or other fluids present?
- Do you need Personal Protective Equipment (PPE)?

Check response

(Slide No 9 / E-learning Page 8)

If you come across a child or infant who has collapsed, the first thing you should do is check if they are responsive. This can be done by giving them a gentle shake. Be aware of other factors that hamper communication and perceived responsiveness. Things to consider include, the child or infant may be hard of hearing, they may have learning difficulties or there may be a language barrier.

If they respond, you should do the following:

- If it's safe to do so, leave them in the position you found him
- Try to find out what's wrong and get appropriate help if necessary
- Regularly reassess.

If the child or infant is unresponsive it is important you take action and raise the alarm by first **Shouting for Help**. At this stage it is only general assistance that's required. However, in some situations it will already be obvious that the outcome of further assessment will serve only to reinforce that emergency assistance will be required in some shape or form.

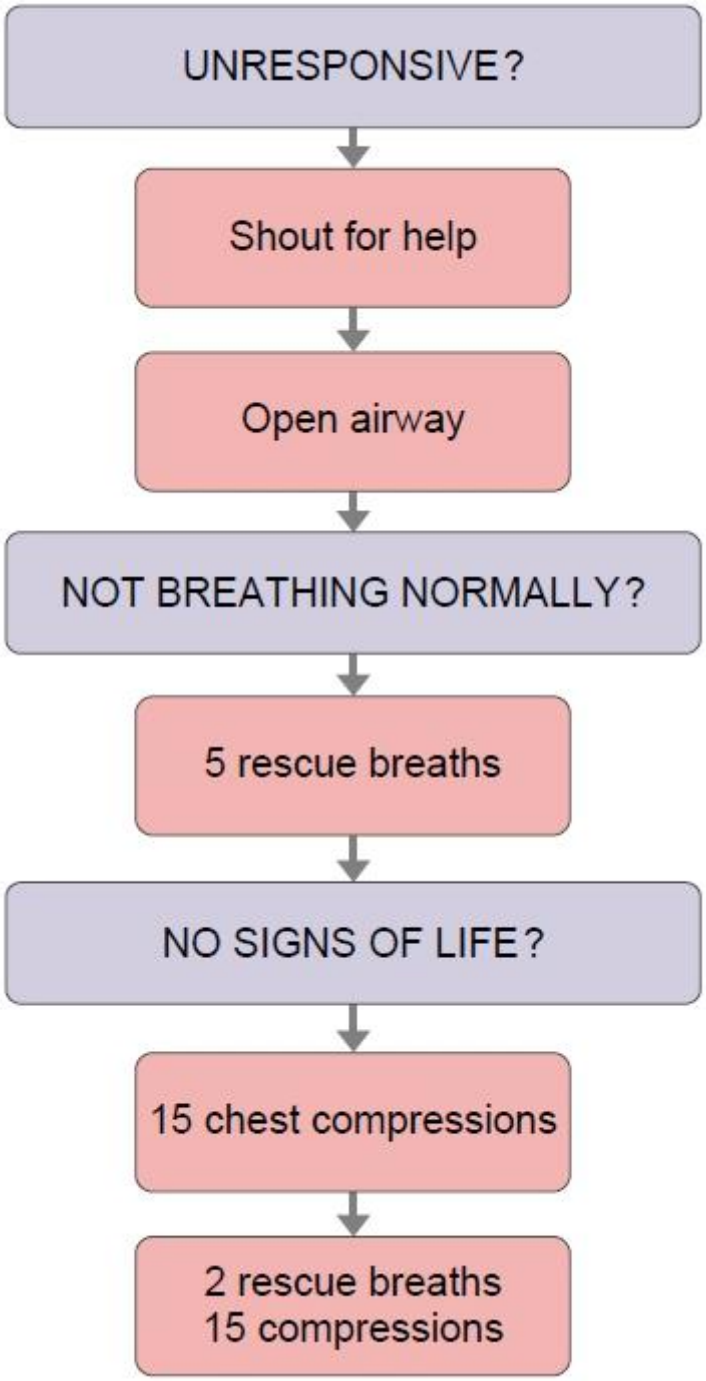
If you come across a child or infant who is collapsed, the following 3 S model will help you remember the key initial steps to take:

- **Safety** - Of yourself and the child or infant
- **Stimulate** - Establish if the child or infant is responsive
- **Shout** - Raise the alarm, get help and support

Paediatric Basic Life Support

(Slide No 10 / E-learning Page 9)

The algorithm shown below is taken from the latest Resuscitation Council (UK) guidelines. It shows the logical process to follow to try and achieve the best outcome following asphyxia or cardiac arrest.



Head tilt, chin lift - opens the airway

(Slide No 11 / E-learning Page 10)

With an unresponsive child or infant, the focus needs to be on the importance of positioning them in order to open their airway and assess them properly. There may be other injuries present that you may be concerned about, particularly those involving the head, neck and back that may risk causing further damage to the spinal cord.

The sniffing position for a child

The general principle is not to move a child or infant if you suspect they may have a head or neck injury. However, in this situation, failure to move them onto their back may present a threat to their life from respiratory and/or cardiac arrest. Establishing an open airway takes priority.

Head tilt and chin lift

The head tilt and chin lift technique is the primary method practiced to open the airway:

- Turn the child or infant onto their back
- Place your hand on their forehead and gently tilt the head back
- With your fingertips under the point of their chin, lift the chin to open the airway

This is commonly known as the “sniffing position” and is suitable for a child (over 1 year). For an infant (under 1 year) you need to place their head in a “neutral position”. This is because the upper airway in infants is easily obstructed due to the narrowness of the nasal passages, the entrance to the vocal cords and the trachea. The trachea is soft and pliable and may be distorted by excessive backward head tilt or jaw thrust (see below). Therefore in infants the head should be kept neutral and maximum head tilt should not be used.

The neutral position for an infant

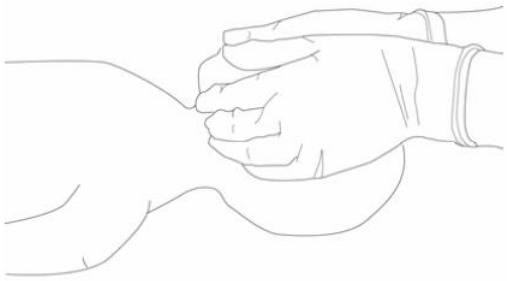
Other options to open the airway

The jaw thrust technique is an alternative method to the head tilt and chin lift for opening the airway, particularly in a child or infant with a suspected spinal injury.

The jaw-thrust technique moves the casualty's tongue forward (away from the airway) without extending their neck. Opening the airway using the jaw thrust can be difficult to do, because of this it is not recommended to be used by lay rescuers, although health care professionals still maintain the technique for specific applications. Lay rescuers should open the airway using the head tilt, chin lift manoeuvre for both injured and non-injured victims.

To perform the Jaw Thrust technique:

- With the victim on their back, the head should be in the neutral position (not tilted forward or back)
- Grasp the angles of the lower jaw and lift with both hands, one on each side, moving the jaw forward
- If the victim's lips are closed, open the lower lip with your thumb



Jaw Thrust for a child Jaw Thrust for an infant

Check breathing

(Slide No 12 / E-learning Page 11)

Once you have opened and maintained the airway you need to check if the child or infant is breathing normal.

- **Look** for chest movement
- **Listen** for breath sound
- **Feel** for air on your cheek

- **Take no more than 10 seconds to check**

- If you have any doubt whether the breathing is normal, act as if it is **NOT** normal

In the first few minutes after asphyxia or cardiac arrest, a child or infant may be barely breathing, or taking infrequent, noisy gasps. This is termed as **agonal breathing** and must not be confused with normal breathing. Remember, if in doubt act as if the breathing is not normal.

If the child is breathing normally:

- Place them in the recovery position (covered in further detail later on)
- Summon help, leave the victim only if there is no other option
- Continue to assess that breathing remains normal. If in doubt start CPR

If the child is not breathing normally:

- Summon help, leave the victim only if there is no other option
- Start CPR with chest compressions (covered in further detail later on)

5 rescue breaths

(Slide No 13 / E-learning Page 12)

The sudden collapse of children or infants is commonly of respiratory origin and the rescue breaths alone may be effective. The difference in rescue breaths between children and infants relates to the positioning of the rescuers mouth.

In children, it is mouth to mouth: With the hand that's also tilting the forehead, pinch the nose with the index finger and thumb on the soft part of the nose, while the other hand maintains the chin lift.

In infants it is mouth to nose and mouth: Take a breath, cover mouth and nose ensuring good seal. If a good seal can't be achieved with this technique, you can seal just the nose or the mouth making sure you close the other orifice.

Once a good seal has been achieved, you should:

- Ensure an appropriate head position
- Use a normal breath
- Steadily blow for 1 - 1.5 seconds, watching the child / infant's chest rise out of the corner of your eye
- Turn your mouth away and watch to see if the chest falls
- Take another breath and repeat this sequence up to 4 more times, giving up to 5 rescue breaths in total.

If the chest doesn't rise and fall with the first rescue breath:

- Check the child / infant's mouth for any obvious object causing an obstruction.
  - If one is seen, make an attempt to remove it
  - **Do not attempt blind or repeated finger sweeps** – these can impact the object more deeply into the pharynx and cause injury.
- Check head tilt / chin lift positioning

There is a low risk of infection transmission during mouth-to-mouth ventilation. There have been few incidents of rescuers suffering adverse effects from undertaking CPR, with only isolated reports of infections such as tuberculosis (TB) and severe acute respiratory distress syndrome (SARS). Transmission of HIV during CPR has never been reported.

Dependent on your organisation's policy, you may want to consider using a barrier device such as a pocket mask. Studies have shown that certain filters, or barrier devices with one-way valves, prevent transmission of oral bacteria from the victim to the rescuer during mouth-to-mouth ventilation. Rescuers should take appropriate safety precautions where feasible, especially if the victim is known to have a serious infection such as TB or SARS. During an outbreak of a highly infectious condition (such as SARS), full protective precautions for the rescuer are essential.

Chest compressions

(Slide No 14 & 15 / E-learning Page 13 & 14)

If after administering 5 rescue breaths, there is still no sign of life in the child or infant, you need to start chest compressions, following the guidance below:

- In both children and infants it is the lower half of the sternum that should be compressed
- Avoid compressing the upper abdomen, by locating the xiphisternum. To do this, find the angle where the lowest ribs join in the middle and compress the sternum one finger's breadth above this
- Compression should be sufficient to depress the sternum by at least 1/3 of the depth of the chest
- Do not be afraid to push too hard. You should push "hard and fast"
- Release the pressure completely, then repeat at a rate of 100 - 120 compressions per minute (2 per second)
- After 15 compressions, tilt the head, lift the chin, and give 2 effective breaths
- Continue compressions and breaths in a ratio of 15:2

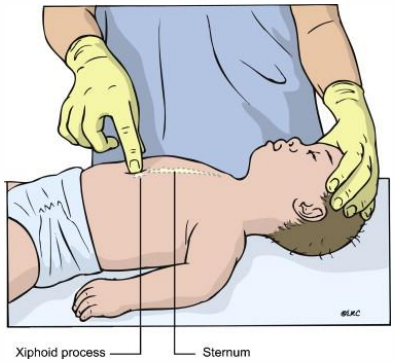
Please note there are some slight variations in chest compressions between children and infants.

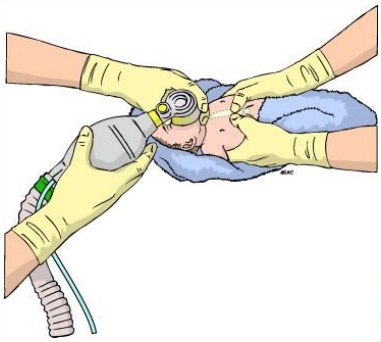
For children, you should:

- Place the heel of one hand over the lower half of the sternum
- Lift your fingers to ensure that pressure is not applied over the child's ribs
- For larger children, or if the rescuer is small it may be more effective to use both hands with the fingers interlocked (as in adult chest compressions)

  The procedure is then:
- Position yourself vertically above the chest and compress the sternum - depressing it by at least 1/3 of the depth of the chest. Remember, do not to be too scared about pushing too hard
- Remove pressure completely
- Repeat for 100-120 times per minute

For infants, you should:





- Compress the sternum with the tips of two fingers
- Or if 2 or more rescuers are present, use the encircling technique:
- Place both thumbs flat, side by side, on the lower half of the sternum , with the tips pointing towards the infant's head
- Spread the rest of both hands, with the fingers together, to encircle the lower part of the infant's rib cage with the tips of the fingers supporting the infant's back
- Press down on the lower sternum with your two thumbs to depress it at least one-third of the depth of the infant's chest

After 15 compressions, you should give 2 rescue breaths and repeat the circuit at a rate of 15 compressions to 2 breaths.

Calling for help and what to say

(Slide No 16 & 17 / E-learning Page 15 & 16)

If a child or infant is not breathing normally it is important you get the appropriate help and support they need as soon as possible.

- Help can be summoned at the scene using a mobile phone
- If it is not possible to telephone for help and there is more than one rescuer available, one (or more) starts resuscitation while another goes for assistance
- If only one rescuer is present, they should undertake resuscitation for about 1 minute before going for assistance
- If only one rescuer is present, to minimise interruptions in CPR. If able to, an infant or small child should be carried whilst summoning help. The victim **should not be left alone** at any stage, only leave them if there is no other way of obtaining help
- The only exception to performing 1 minute of CPR before going for help is in the case of a child with a witnessed, sudden collapse when the rescuer is alone. In this situation, a shock-able rhythm is likely and the child may need defibrillation
- Make sure you know the local procedures and any specific emergency numbers to dial in your organisation
- 2222 is the standard number in NHS acute trusts in England and Wales to summon the emergency crash team following a cardiac arrest in hospital
- Otherwise, dial 999 for an ambulance

When summoning or calling for help you need to be able to give as much accurate information as possible. You will not be expected to make a full diagnosis and if unsure of the full details or what has happened, give as much detail as you can:

- Be clear about the help required, ie **"suspected cardiac arrest"**
- State who / what you want
- Be clear about your location
- Do you require any other help?
  - Paramedics?
  - Other emergency services?
  - Surgeon?

Continue resuscitation until

(Slide No 18 / E-learning Page 17)

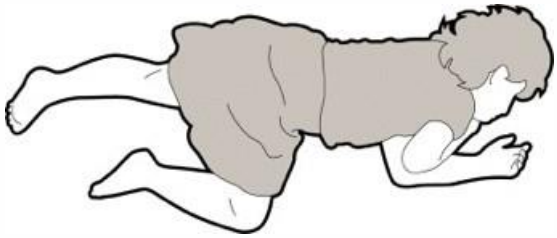
Once you have started resuscitation, you should only stop if:

- The child show signs of life, such as:
  - Coughing
  - Opening their eyes
  - Speaking
  - Moving purposefully
  - Breathing normally
- Qualified help arrives and takes over
- You become too exhausted to continue

The recovery position

(Slide No 19 / E-learning Page 20)

If the child or infant's airway is clear and they are able to breathe normally, they should be placed into the recovery position. They should be placed in as true a lateral position as possible with the head dependent, and with no pressure on the chest to impair breathing. The position should be as stable as possible and in small children and infants it may help to support the lateral position with a pillow or cushion in their back. Rescuers should be able to view and access the airway easily.



The adult recovery position is suitable for older children:

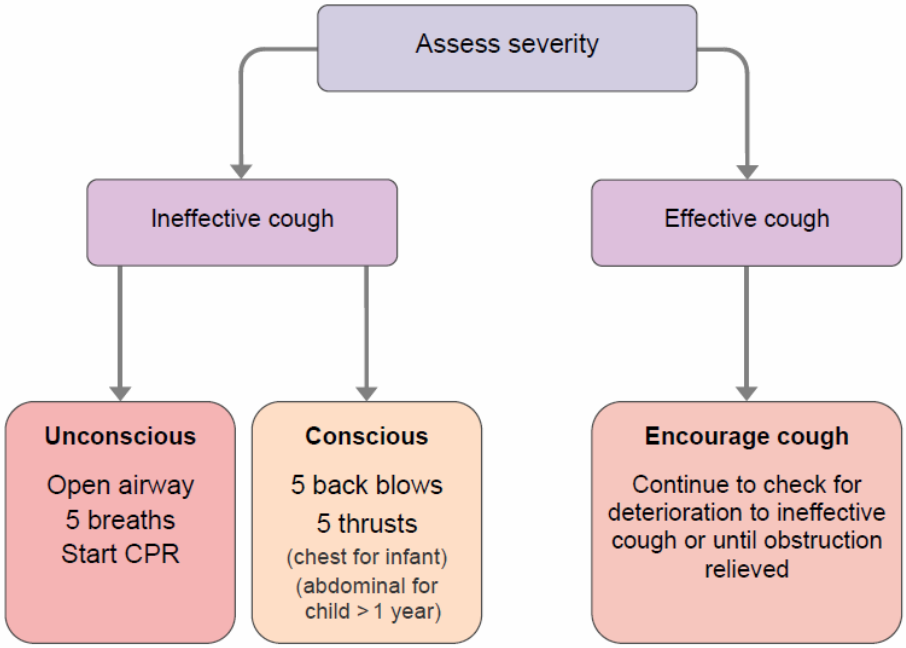
- Kneel beside the victim and make sure that both legs are straight.
- Place the arm nearest to you out at right angles to the body with elbow bent and the hand palm-up
- Bring the far arm across the chest, and hold the back of the hand against the victim's cheek nearest to you
- With your other hand, grasp the far leg just above the knee and pull it up, keeping the foot on the ground

- Keeping the hand pressed against their cheek, pull on the far leg to roll them towards you on to their side
- Adjust the upper leg so that both the hip and knee are bent at right angles
- Tilt the head back to make sure that the airway remains open
- If necessary, adjust the hand under the cheek to keep the head tilted and facing downwards to allow liquid material to drain from the mouth
- Check breathing regularly

Children just like adults need to have pressure relieved and if they have been in the recovery position for **more than 30 minutes**, you should turn them onto the opposite side, relieving the pressure on the lower arm.

Choking

(Slide No 20 / E-learning Page 19)



The algorithm shown above is for the treatment of children who are choking. Back blows; chest thrusts and abdominal thrusts all increase intra-thoracic pressure and can expel foreign bodies from the airway. Using more than one technique is often necessary to relieve the obstruction. If one technique doesn't work, try another.

Managing the choking child or infant

(Slide No 21, 22 & 23 / E-learning Page 20, 21 & 22)

In the first instance you should look for any obvious object or foreign body causing an obstruction to the airway. If you are able to, remove the obstruction, but **do not attempt blind or repeated finger sweeps**. These can impact the object more deeply into the pharynx and cause injury. If this doesn't work, you will need to administer back blows and abdominal thrusts for a child; and back blows / chest thrusts for an infant. If this is still ineffective and the child or infant becomes unresponsive, commence resuscitation.

Choking for a child (over 1 year)

If the child shows signs of mild airway obstruction:

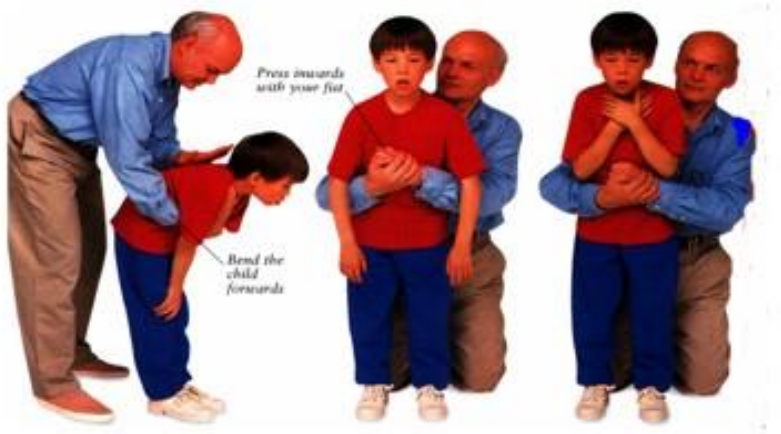
- Encourage them to continue coughing and monitor to see if they expel any objects.

If the child's coughing is, or is becoming, ineffective:

- **Shout for help** immediately and determine the child's conscious level

If a child is showing signs of severe airway obstruction and is still conscious:

- **5 back blows** - Give up to 5 back blows. Lean the child forwards; stand or kneel behind the child and slap between the shoulders
- After each back blow check if the obstruction has become dislodged or can be removed
- **5 abdominal thrusts** - If 5 back blows don't work, give up to 5 abdominal thrusts. Stand behind the child, hold a fist against the abdomen and press sharply inwards
- After each abdominal thrust check if the obstruction has become dislodged or can be removed
- Seek help if the blockage cannot be removed



Choking for an infant (under 1 year)

- Support the infant in a head-downwards, prone position enabling gravity to assist removal of the foreign body
- If seated or kneeling, you can hold the infant across your lap
- The infant's head can be supported by placing the thumb of one hand at the angle of the lower jaw, and one
  or two fingers from the same hand at the same point on the other side of the jaw
- Soft tissues under the infant's jaw should not be compressed, as this could make any obstruction worse
- Give up to 5 sharp back blows with the heel of one hand in the middle of the back between the shoulder blades

If nothing is dislodged and the infant is still conscious then give up to 5 chest thrusts:

- Turn the infant into a head-downwards supine position, placing your free arm along the infant's back and encircling the occiput with your hand
- Support the infant down your arm, which should be placed down (or across) your thigh
- Find the correct position for chest compression (lower sternum approximately a finger's breadth above the xiphisternum)
- Deliver up to 5 chest thrusts which should be similar to chest compressions, but sharper and delivered more slowly
- Seek help if the blockage cannot be removed, keep the infant with you.

Remember, if the child or infant becomes unresponsive you should commence resuscitation.

Your role and responsibilities

(Slide No 24 / E-learning Page 23)

Working within the health sector, you will have a number of responsibilities dependent on your role and position. As a minimum though you need to:

- Know and comply with your organisation's policies and procedures for emergency situations.
- Ensure your knowledge and training is up-to-date
- Attend refresher and training updates when due
- Undertake interventions and work within the limits of your knowledge and capabilities
- Comply with your professional Code of Conduct. This may be used as a measure for compliance
- Maintain an accurate record of events and actions, for example in relation to a patient collapsing, requiring resuscitation, organisation audit etc

It is also important to understand the role of the Resuscitation Council (UK), whose guidelines are endorsed by National Institute of Clinical Excellence (NICE).

Localised Delivery

(Slide No 25 / E-learning Page 24)

Within your organisation it is important to be aware of any specific issues relating to Paediatric Resuscitation procedures. These will be captured in local policies and procedures. Things to consider include:

- The use of Panic Buttons
- The type of equipment available and how to use it
- Access through Locked Doors
- Summoning help / support:
  This may be an arrest / crash team,
  a single doctor, an ambulance, etc

Apply local Do Not Attempt Resuscitation Policy

(Slide No 26 / E-learning Page 25)

Do Not Attempt Resuscitation (DNAR) orders are frequently found in patients' notes within a hospital setting, and occasionally in the community. They are used when it is thought that performing cardiopulmonary resuscitation (CPR) on a patient who has a cardiorespiratory arrest would not restart the heart and maintain breathing, or when the patient themselves has expressed a wish not to have CPR.
The decision as to when a DNAR order is appropriate is usually made by the most senior clinician involved in that patient's care. DNAR decisions apply only to CPR and not to any other aspects of treatment. The decision must be recorded and captured on a recognised form (The Resuscitation Council (UK) provide sample / model forms). This should travel with the patient whenever possible and appropriate and should be recognised and accepted by all healthcare services.
If a patient has the mental capacity the doctor should discuss the benefits and burdens of CPR with the patient. The doctor should discuss in non-medical terms what CPR involves, the associated risks and possible consequences / complications even if CPR is successful. When a patient lacks the mental capacity it is essential to establish:

- If the patient has appointed a legal deputy (Personal Welfare Power of Attorney) who has the authority to make such a decision.
- If there is a valid and applicable Advance Directive.

For further information please see:

- Resuscitation Council (UK) Guidance: www.resus.org.uk/pages/DNARrstd.htm
- Mental Capacity Act: www.gov.uk/government/publications/mental-capacity-act-code-of-practice

Acknowledgements

The North West Core Skills Programme would like to particularly acknowledge the following people for their advice and support in developing the Core Skills Paediatric Resuscitation Level 2 education resources:

- John Allton Warrington and Halton Hospitals NHS Foundation Trust
- Jane Carnall St Helens and Knowsley Hospitals NHS Trust
- Menna Harland Liverpool John Moores University
- Nick Moseley Moseley Multimedia Ltd