



Charles Bloe Training Ltd
PROFESSIONAL DEVELOPMENT FOR PEOPLE WHO CARE

Vaccination Workshop



This booklet is for delegates who have attended one of our Vaccination workshops
April 2019 (Review date April 2020)



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This booklet complements our online learning resource and interactive face-to-face training.

Please note: anyone who immunises or advises on immunisation should have access to the most up to date version of the Green Book. You can keep informed of updates to the UK vaccination policy by subscribing to the vaccine update newsletters (subscribe through gov.uk).

References

- Immunisation against infectious disease: The Green Book: available to download from www.gov.uk
- Resuscitation Council (UK): www.resus.org.uk
- Electronic Medicines Compendium (eMC): www.medicines.org.uk

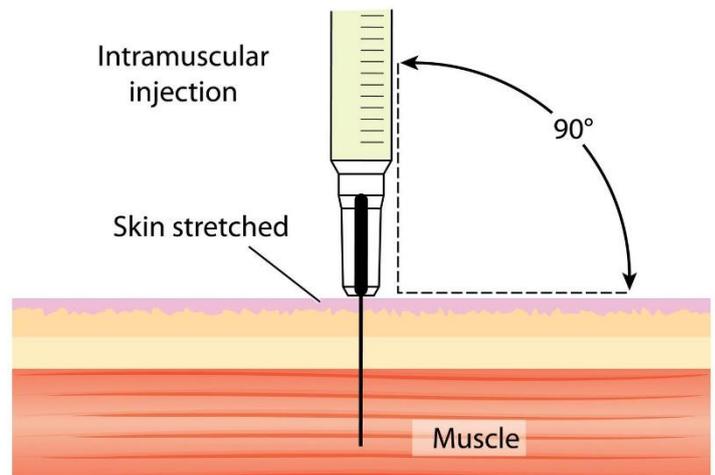
VACCINATION TECHNIQUE

Please refer to your online 'vaccination programme' course for more detailed information, e.g. storage of vaccines, pre-vaccination checklists and injection techniques.

Most vaccines are administered by the intramuscular (IM) route into the deltoid muscle of the upper arm. However, always check advice given in the Green Book as well as the summary of product characteristics (SPC) for each vaccine.

Key points when administering a vaccine:

- Skin cleansing is not necessary unless the skin is visibly dirty. It is not necessary to disinfect the skin
- Wash hands *
- Unless pre-filled vaccine, draw up content of ampoule and reconstitute if required
- A blue 23G 25mm needle is suitable for most patients**
- Spread the skin to ensure firmness and better needle entry
- Insert the needle at 90° angle slowly but firmly in a dart-like fashion
- Insert syringe content slowly and remove the needle when injection is completed
- Dispose of sharps immediately into an appropriate puncture resistant sharps container
- Apply gentle pressure to site with gauze swab



*Please check local policy to see if gloves should be worn

** The 16mm (orange) needle length is only recommended for pre-term or very small infants. In larger adults, a longer length (38mm, green) needle may be required: you will need to assess patients individually.

Recipients of vaccines should be observed for adverse drug reactions for several minutes after the injection.

KEY CONSIDERATIONS WHEN VACCINATING CHILDREN

Consent

- Young people aged 16 or 17 can consent to their own medical treatment.
- Younger children who understand fully what is involved in the proposed procedure (referred to as 'Gillick competent') can also consent to their own medical treatment.
- When immunising babies or young children consent must be gained from a person with parental responsibility.

Preparing parent and child

Vaccinations can be frightening for both children and their parents. As the attitude and behaviour of parents towards the vaccination process can impact on the child it can be helpful to focus on the parent (or accompanying adult) and ask them to act normally, smile, remain calm and be reassuring to their child.

Sometimes a child may not have received any preparation from their parents prior to the appointment. If the child is old enough to understand it is important to discuss the vaccination with them and to answer their questions. Points to consider include:

- Explain why the vaccination is needed.
- Describe the procedure.
- Do not tell them that the injection will be painless.
- Explain that they will feel a tingling, squeezing or pinching sensation and that it will not last very long.

It is illegal to forcibly restrain a child to carry out any medical intervention (including vaccination). However, it is deemed acceptable to hold a child safely, in order to protect / prevent them from injuring themselves.

Immediately before and during the procedure, it may be useful to provide some form of distraction for the child. For a younger child this could involve using a squeaky or musical toy. Deep breathing is known to make the body relax its stress response so distractions such as blowing bubbles may also help. For an older child ask questions, e.g. about their hobbies, school or an upcoming event. Alternatively, they could listen to music on their phone etc.

ANAPHYLAXIS

Anaphylaxis is a severe, life-threatening, generalized or systemic hypersensitivity reaction.

It is characterized by rapidly developing, life threatening, airway and / or breathing and / or circulation problems, usually in association with skin or mucosal changes.

Anaphylaxis is **highly likely** when the **three following criteria** are met:

1. Sudden onset and rapid progression of symptoms
2. Life threatening airway and / or breathing and / or circulation problems
3. Skin and /or mucosal changes (flushing, urticaria, angioedema)

Note: skin or mucosal changes alone are not a sign of an anaphylactic reaction.

Airway Problems may include:

- Airway swelling (throat and tongue)
- Difficulty breathing or swallowing or a feeling of the throat closing up
- Hoarse voice
- Stridor

Breathing problems may include:

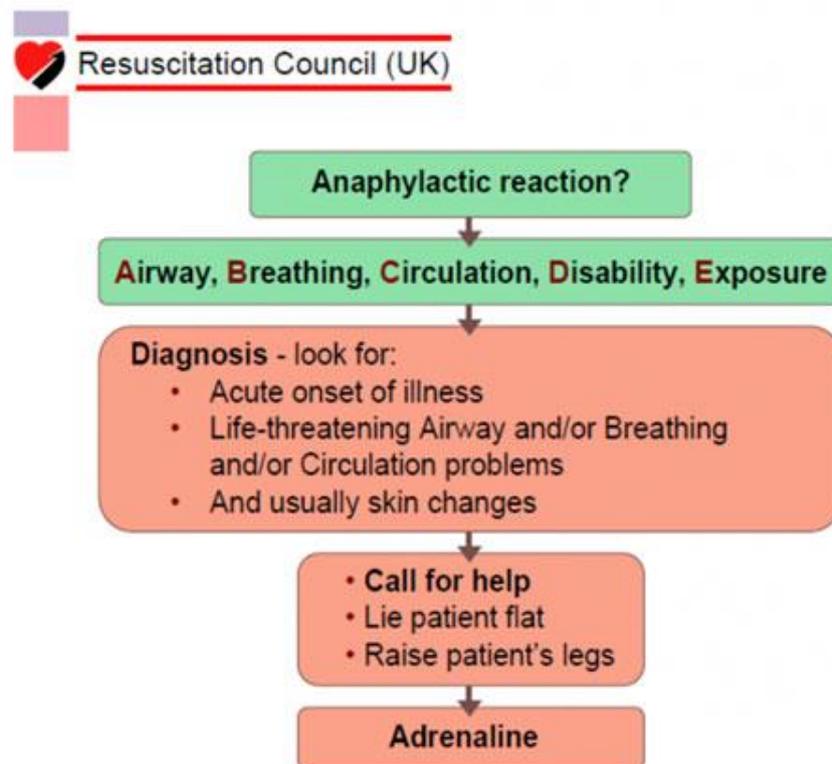
- Shortness of breath
- Increased respiratory rate
- Wheeze
- Tiredness
- Confusion
- Cyanosis as a late sign
- Respiratory Arrest

Circulation problems may include:

- Signs of shock
- Low blood pressure
- Rapid heart rate
- Decreased conscious level
- Myocardial ischaemia (chest pain)
- Cardiac arrest

Management of an Anaphylactic Reaction

Please refer to the Resuscitation Council (UK) Guidelines for the most up to date management of an anaphylactic reaction.



Adrenaline administration

Adrenaline is the first-line drug used in the management of an anaphylactic reaction. The following doses (Adrenaline 1:1000) are administered by the intramuscular (IM) route:

Age	Dose
Adult or child over 12 years	500 micrograms IM (0.5mL)
Child 6-12 years	300 micrograms IM (0.3mL)
Child <6 years	150 micrograms (0.15mL)

The dose may be repeated **after 5 mins** if there is no improvement.

Adrenaline auto-injectors are designed for self-use. However, if this is the only adrenaline available it may be used to treat an anaphylactic reaction. There are several different adrenaline auto-injectors available so please familiarise yourself with the one used in your workplace.

ADULT BASIC LIFE SUPPORT

Assessing a collapsed person:

- Make sure the person, any bystanders and you are safe.
- Check the person for a response by gently shaking his / her shoulders and asking, 'are you alright?'

If the person responds: leave her / him in the position in which you found her / him and try to determine what caused the collapse. Keep the person warm.

If the person does not respond: shout for assistance and place the victim on her / his back. Open the airway using the head-tilt chin-lift manoeuvre that you were shown in your workshop and which is shown opposite. Keeping the airway open, check for signs of breathing by:

- **Looking** for any chest movements.
- **Listening** for breath sounds.
- **Feeling** for air against your cheek.



You should spend no more than **10 seconds** making this assessment.

If the person **IS** breathing normally place her / him in the recovery position, summon help and continue to assess that breathing remains normal.

If the person is **NOT** breathing normally get someone to call for an ambulance and ask for an automated external defibrillator (AED). Start chest compressions.

- Kneel by the side of the person. Place the heel of one hand in the centre of the chest and place the heel of the other hand on top of the first hand.
- Interlock your fingers to avoid spreading pressure.
- Position yourself vertically above the person and commence compressions using straight arms.
- Press down on the sternum 5 - 6 cm.
- After each compression, release the pressure on the chest without losing contact and repeat compressions at a rate of 100 - 120 per minute.



Combine chest compressions with rescue breaths

- After 30 compressions, open the airway again as previously described (head-tilt chin-lift manoeuvre).
- Pinch the soft part of the person's nose using your forefinger and thumb of your hand on the forehead as shown opposite.
- Allow the person's mouth to open while maintaining the chin-lift.
- Take a normal breath and form a seal using your own lips around the victim's mouth and blow steadily into her / his mouth, whilst watching for the chest to rise. Take your mouth away and look for the chest to fall and then repeat. These **two rescue breaths** should not take more than **five seconds**.
- Give 30 further chest compressions and repeat this cycle in a ratio of **30 chest compressions: 2 rescue breaths**.



Continue resuscitation until qualified help arrives and takes over, the person starts to show signs of regaining consciousness or you become exhausted.

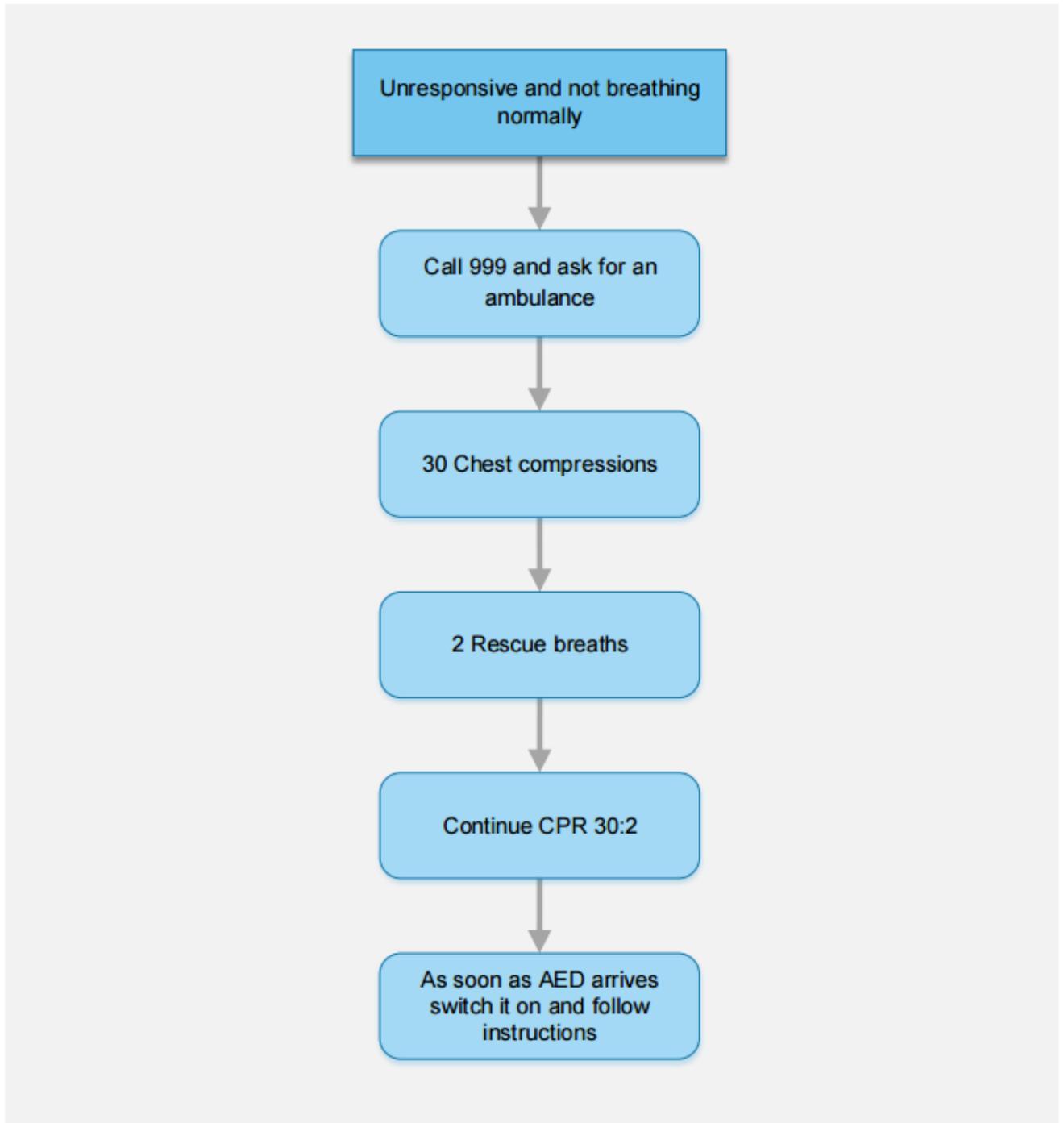
If you are unable or unwilling to perform rescue breaths, then you should perform compression-only resuscitation. This may be effective for a limited period.

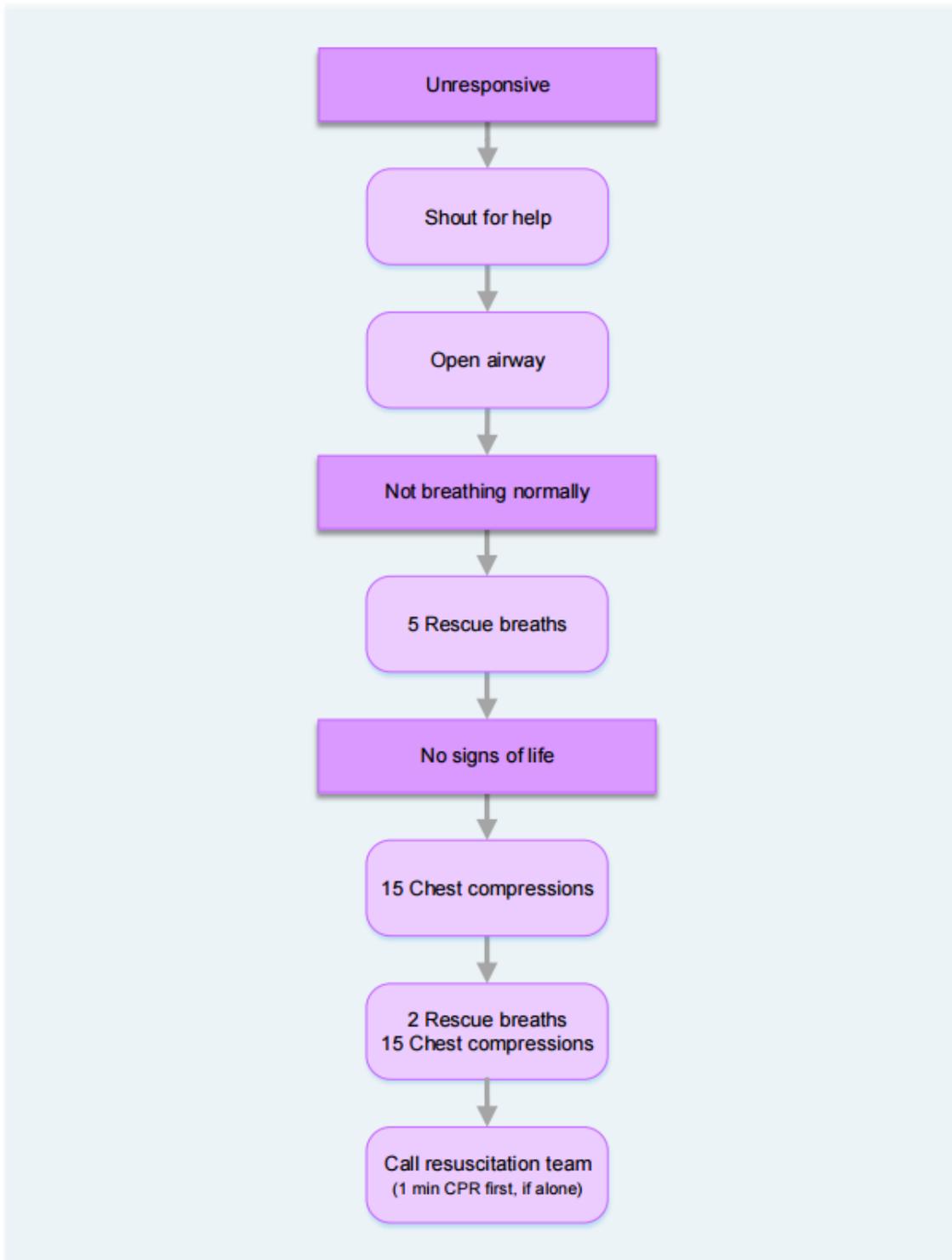
PAEDIATRIC BASIC LIFE SUPPORT

Staff who have been taught adult BLS, and have no specific knowledge of paediatric resuscitation, should use the adult sequence with the following modifications for children:

- Give 5 initial rescue breaths before starting chest compressions.
- If you are on your own, perform CPR for 1 min before going for help.
- Compress the chest by at least one-third of its depth, approximately 4 cm for an infant (under 1 year) and approximately 5 cm for an older child.
- Use two fingers for an infant under 1 year; use one or two hands for a child over 1 year to achieve an adequate depth of compression.
- The compression rate should be 100 -120 per minute.

Staff experienced in resuscitation of children should follow the Paediatric Basic Life Support algorithm and use a ratio of 15 chest compressions: 2 rescue breaths.





References

Resuscitation Council UK. Adult basic life support and automated external defibrillation 2015 guidelines. Paediatric basic life support 2015 guidelines. Both available from www.resus.org.uk

NOTES



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