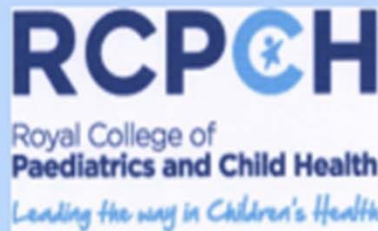


Life Support Infants and Children

Assessment and management of a **collapsed** child or infant over 1 month of age: FIMNCI



Collapse versus signs of life

A child who has collapsed has no apparent signs of life; no pulse, not breathing, is not rousable

- Needs life support - ABCD

A child who is very sick but not yet collapsed

- Needs rapid assessment ABCCD and emergency treatment before full review

Note: This is for a child who has not suffered trauma:
a modified approach is needed when trauma is suspected

Emergency care in hospital

- When a child collapses what is the most important factor in successful rescue?

Be prepared!

- **Who** is responsible?
 - Who comprises the team?
 - How are they alerted?
- **Where** will support take place?
 - Special area?
 - Bedside?
- **What** Equipment?
 - Responsibility?
- **How** knowledge (guidelines)?
 - Training?
 - Orientation?

Provision of emergency care in hospital.

What is the most important factor in saving lives?

Prevention

- early recognition of very severe illness and appropriate action so that children do not collapse.

What are the most common causes of 'collapse / arrest' in children?

- Respiratory failure
 - Pneumonia
- Circulatory failure
 - Severe anaemia
 - Dehydration
 - Septic shock.
 - (Pump failure – adults and children with CHD)

The collapsed child

- a structured approach

- Safe, Stimulate, Shout, Setting, Squeeze
- **A** Airway
- **B** Breathing
- **C** Circulation
- **D** Drugs

Resuscitation

A - Airway



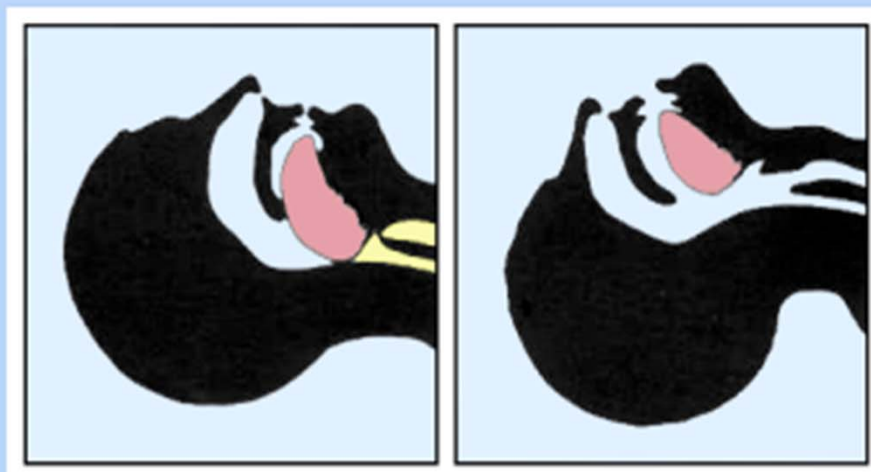
The picture shows the neutral position in a small infant

Is the airway clear and safe?

- At risk because he is floppy?
- Obstructed?
- Look in the mouth
 - Vomit?
 - Secretions?
- Position the airway

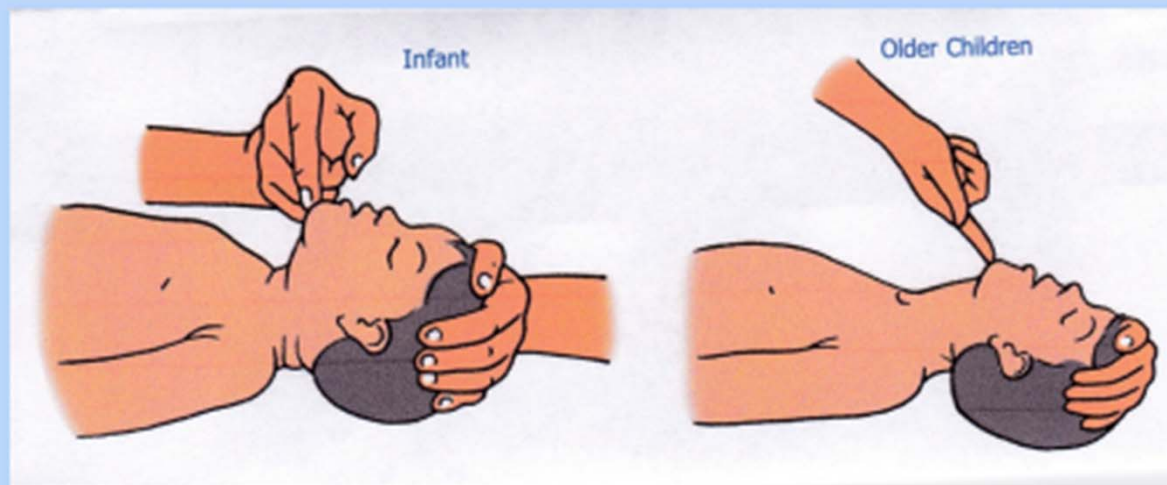
If there is an airway problem – ACT!

- Call for help
- Suction only if you can see secretions or vomitus
- Airway opening manoeuvres
 - Hold the jaw forward
 - Oropharyngeal airway



Resuscitation

A & B – is there any **B**reathing?



After positioning

Look

Chest movement?

Listen

Stridor?

Secretions?

Noises of breathing?

- Feel

- Air movement?

Resuscitation

Step 1 – Airway and Breathing

Open / Clear the AIRWAY:

Look / Listen / Feel for BREATHING

Child is breathing

Check adequacy of breathing and
need for oxygen.

**Child is NOT
breathing
enough**

Proceed to rescue breaths with bag
and mask

Effective Bag and Mask Ventilation



*right size
and position
of mask*



right

*mask held
too low*



wrong

*mask too
small*



wrong

*mask too
large*



wrong

Resuscitation B – giving rescue breaths

Open / Clear the AIRWAY:

Look / Listen / Feel for BREATHING

Child IS NOT breathing enough

2 effective breaths with Bag and Mask device

1 second inspiration, 1 second expiration

Watch and make sure the chest rises

Attach oxygen to BVM device as soon as possible

The chest must rise well at least twice.

Resuscitation

C – Circulation check large pulse

2 effective breaths with Bag and Mask device

Check Large Pulse

**Heart
Rate very
slow, < 60
bpm**

**Help is
needed**

Heart Rate > 60 bpm

Continue with B & M breathing 1 - 2
mins (using oxygen), rate of ~20
breaths/min.

Then re-assess!

Use your helper to check circulation

Resuscitation

C – give chest compressions

2 effective breaths with Bag and Mask device



Check Large Pulse



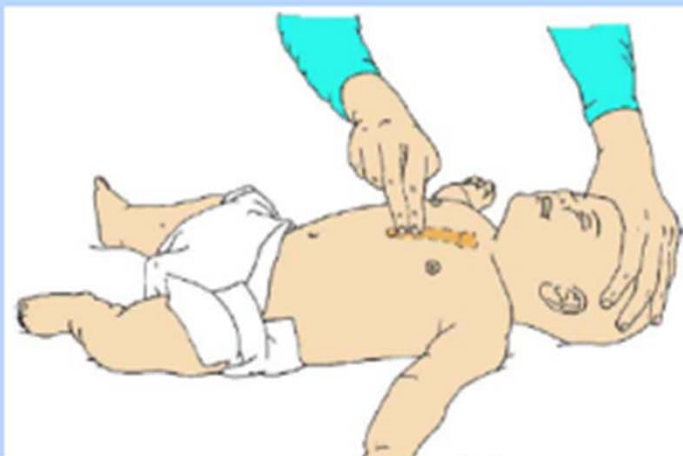
Heart Rate very slow, < 60 bpm

Chest compressions

15 compressions to every two B & M breaths

Aim for 6 – 7 cycles of 15:2 per minute

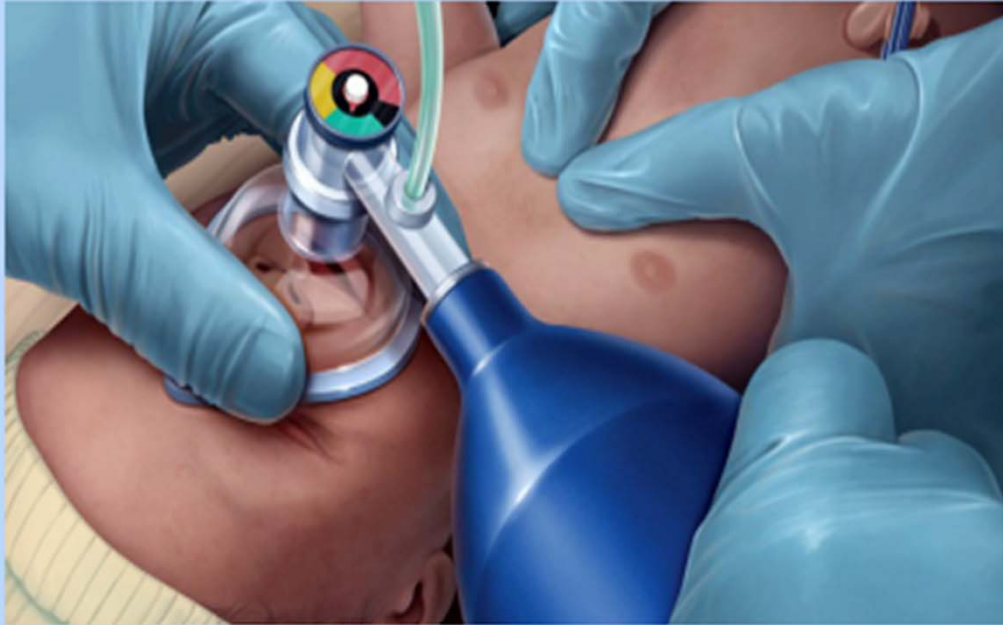
C Chest compressions



- Lower 1/3rd of sternum
- Avoid xiphisternum
- In the midline.
- Compress the chest by 1/3rd its depth
- 100bpm



15 compressions: 2 breaths
keep going steadily



No pulse or slow pulse: continue both

Reassess after every 2 minutes:

Pulse > 60/min stop compressions
continue ventilation

Continue ventilating the child until he is breathing adequately



Reassess after every 2 minutes :

Not breathing adequately continue ventilation

Pulse > 60/min stop compressions

Resuscitation D- Drugs

Only consider this if there are at least three helpers and the ABC is continuing

Set up access in a large vein or via intra-osseous route

Adrenaline (Epinephrine) 1 in 10,000 0.1ml/kg

Repeat if no response after 3-5 minutes

After successful resuscitation

- Reassess carefully and frequently
- If unconscious place in recovery position
- Take full history from carer and look for any emergency signs which need immediate treatment
- Give supportive therapy – oxygen, glucose, fluids
- Diagnose and treat underlying condition(s)
- Explain to parents what has happened

Choking



Questions?

Summary – the collapsed infant / child.

- 4 S Safe, stimulate, shout for help, setting
- A
 - Clear? Position?
- B
 - Is BVM needed? (add oxygen to bag)
- C
 - Are chest compressions needed (no or slow pulse)
- D
 - Drugs: adrenaline may be indicated if poor response and adequate help

Acknowledgements



FIMNCI



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