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Infant and Child Basic Life Support

Practical 10 / Skills laboratory simulation

Aim

Demonstrate effective CPR and use a training AED in a child or infant arrest scenario.

Principle

Paediatric resuscitation emphasises both ventilation and circulation. Use the age-appropriate technique and the institute's current resuscitation programme.

Materials and Requirements

- Feedback infant and child manikins, bag-mask and training AED
- Timer and scenario checklist

Procedure

1. Assess safety and responsiveness, call for help and arrange emergency activation and AED retrieval. Assess breathing and pulse together for up to 10 seconds as trained.
2. Assign someone to activate the emergency response and bring an AED. In a single-rescuer drill, rehearse the activation and AED sequence for the assigned witnessed or unwitnessed collapse.
3. If breathing is absent or only gasping and you cannot feel a definite pulse within ten seconds, start CPR. With a pulse and inadequate breathing, support ventilation at one breath every two to three seconds and reassess the pulse every two minutes.
4. Begin compressions if the pulse is below 60/min with signs of poor perfusion despite oxygenation and effective ventilation. Call out the finding and the time when you cross this threshold in the scenario.
5. When CPR is indicated, compress at 100–120/min to at least one-third of the front-to-back chest depth, approximately 4 cm in an infant and 5 cm in a child.

Continue with step 6 on the next page.

Procedure Continued

Infant and Child Basic Life Support

6. Choose the trainer compression technique for size. For an infant practise the two-thumb encircling or heel-of-one-hand method under the current teaching guideline. Use feedback to achieve target depth and recoil.
7. Allow full recoil and use effective breaths. Without an advanced airway use 30:2 for one rescuer and 15:2 for two trained rescuers under the paediatric algorithm.
8. Demonstrate the correct ratio for the number of trained rescuers before an advanced airway. Watch for visible chest rise and resume compressions promptly after breaths.
9. Apply AED pads with paediatric attenuation if available for the age and device. Prevent pad contact, clear for analysis and follow prompts.
10. Check pad size and the device instructions. If pads would touch on the small trainer, use the labelled positions appropriate to the equipment and confirm everyone clears before analysis.
11. Resume CPR promptly, use feedback and minimise interruptions during role changes.
12. Record first CPR, AED timing, feedback and pauses. Change roles with minimal interruption and repeat the scenario with one specific improvement.

Precautions

- Practice compressions, ventilation and shocks on approved trainers.
- Use the neonatal resuscitation algorithm for a newborn at delivery.

Observations and Interpretation

Infant and Child Basic Life Support

Observations and Record

Item	What to record	What it tells you
Recognition	Breathing, pulse and time to compressions	Measures emergency response
CPR	Depth, rate, breaths and recoil	Checks effectiveness
AED and teamwork	Correct pads, clear call and interruptions	Checks safety and continuity

Worked Example

Two rescuers perform CPR on a child trainer using 15:2. Rate is 105/min but recoil is incomplete. The student adjusts hand pressure after every compression.

Result and Interpretation

Compression rate and ratio are appropriate for the scenario. Improve full recoil and maintain ventilations and short pauses.

Viva Questions and Answers

How deep are compressions relative to chest size?

At least one-third of the anteroposterior chest diameter.

Why arrange a quick role change?

Fatigue can reduce compression quality while prolonged pauses interrupt perfusion.

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