Airway Management During CPR: The do’s and don’ts

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Management of the drowned victim

- CPR
- Oxygen
- Suction
- Advanced medical Care

Insulate and Evacuate
Decisions-When to start CPR?

• Knowing what to do is the easy part

• Making the decision to do what you know you need to do is the hard part

• www.youtube.com/watch?v=88uCTEmuuGI

• www.youtube.com/watch?v=KXjEnTHMUow
Challenges in pre-hospital airway management

• Reluctance of rescuer to have direct contact with patient
• Airway positioning/clenching
• Regurgitation
• Aspiration
• Stiff lungs
• Co-ordination with chest compressions
• Ventilation during transport
Challenges in drowned patient

- **Regurgitation**
  - fluid/vomit in the airway
  - yuk factor

- **Stiff lungs – difficult to ventilate**
  - laryngospasm
  - due to inhaled water and loss of surfactant
  - high lung resistance
  - preferential movement of air into stomach
  - different ventilation requirements to optimize airway recruitment
Options for Airway Management

• Mouth to mouth/nose
  – First response option
  – In water rescue

• Mouth to mask
  – Can be used with oxygen therapy

• Oro-pharyngeal (Guedel) airways

• Bag valve mask ventilation

• Supraglottic airway devices

• Intubation

• Suction devices
LSV resuscitation training BVMV

- Bag valve mask ventilation
  - Two man technique to operate the unit
  - Third person to do the chest compressions
LSV resuscitation training BVMV

- Difficulties arise in scenarios with one or two rescuers.
  - Requires a resuscitation team
  - One handed technique not an option
  - Failure to ventilate – adequate only ~50% time
  - Regurgitation
Do’s

• Empower rescuers to start CPR without fear of harm
• Trust your instinct that victims looks dead
• Roll victim onto the side if fluid/debris is seen in airway on initial inspection
• Aim for continuous CPR with minimal interruptions
• Continually assess efficacy of ventilation – is chest rising/falling
• Clear airway if vomit or particulate matter is present – then reassess
Dont’s

• Don’t EVER use pulse checks in CPR decision making
• Don’t wait for airway equipment before starting CPR
• Don’t routinely roll drowned victim onto their side to clear the airway
• Don’t use victim’s own fingers to clear mouth
• Don’t force clenched jaw open with your fingers
• Don’t interrupt chest compressions to insert oral airway or suction
• Don’t interrupt chest compressions to clear an airway that keeps re-accumulating clear fluid
Questions?
LSV supraglottic airway trial
Supraglottic airway devices

• Definition
  – Tube with a cuff, inserted blindly into the pharynx
  – Allows ventilation to be directed over the glottis

• Role in airway management
  – anaesthesia
  – wards
  – ambulance services
  – field medicine
SGA use by first responders

• Possible advantages
  – Low cost, single use
  – Training manikins
  – Stays in place
  – Suitable for teams of two
  – Decreased hands off chest
  – Decreased risk of regurgitation and aspiration

• Likely disadvantages
  – Delayed time to first breath
  – Insertion failure rate
  – Reluctance to use perceived invasion device
  – Ongoing training requirements
  – Airway leak