Speaker Disclosures

I do not have financial relationships to disclose.
A patent airway – first step to oxygenation

- Align axes and open pharynx
A patent airway – first step to oxygenation

- Align axes and open pharynx
- Head tilt/chin lift

Davies et al. Respir Care 2014
A patent airway – first step to oxygenation

- Align axes and open pharynx
- Head tilt/chin lift
- Jaw thrust

Davies et al. Respir Care 2014
A patent airway – first step to oxygenation

- Align axes and open pharynx
- Head tilt/chin lift
- Jaw thrust
- Sniffing position
A patent airway – first step to oxygenation

- Align axes and open pharynx
- Head tilt/chin lift
- Jaw thrust
- Sniffing position
- Ramping – increases FRC
Rahiman et al.
Anesthesia & Analgesia 2017
Ramping increases FRC

Effect of position and positive pressure ventilation on functional residual capacity in morbidly obese patients

17 Spontaneously ventilating obese volunteers
Mean (SD) BMI
50 (8) kg/m²

Zero Inspiratory Pressure
Inspiratory Pressure = 0 cm H₂O
PEEP = 0 cm H₂O
FiO₂ = 0.21

Positive Pressure Support
Inspiratory Pressure = 8 cm H₂O
PEEP = 10 cm H₂O
FiO₂ = 0.21

FRC: mean (SD)
2215 (481) mL

FRC Mean Difference: 356 mL
95% CI, 209 to 502 mL; P<0.001

FRC: mean (SD)
2571 (477) mL


#VisualAbstract
Increasing FiO2

- Increase alveolar PO2
- Apneic oxygenation
<table>
<thead>
<tr>
<th>Device (L/min)</th>
<th>( \text{FiO}_2 ) / each L/min ↑</th>
<th>Final ( \text{FiO}_2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal Cannula (1-6)</td>
<td>0.04</td>
<td>0.24 - 0.44</td>
</tr>
<tr>
<td>Simple Mask (6-10)</td>
<td>0.05</td>
<td>0.40 - 0.60</td>
</tr>
<tr>
<td>Mask with Reservoir (6-10)</td>
<td>0.10</td>
<td>0.60 - 0.80+</td>
</tr>
</tbody>
</table>
Increasing FiO2

- Increase alveolar PO2
- Apneic oxygenation
- High-flow nasal cannula
Bag – facemask ventilation

- C-grip lifts jaw and achieves seal
- 2-handed approach improves seal
- Beard, obesity, thick neck, lack of teeth predict difficult BMV
Naso-/oropharyngeal airways

• Lift tongue, improve access to hypopharynx

• Can easily obstruct (NPA)
Naso-/oropharyngeal airways

- Lift tongue, improve access to hypopharynx
- Can easily obstruct (NPA)
- Correct size is important
Naso-/oropharyngeal airways

- Lift tongue, improve access to hypopharynx
- Can easily obstruct (NPA)
- Correct size is important
- Correct insertion is important
Supraglottic airways

- Provide stable access to hypopharynx
- Direct gas flow to glottis
- Some insulation to esophagus, reducing aspiration risk
Supraglottic airways

• Require open glottis
• Many allow fiberoptic intubation through device
• Laryngeal mask airway (LMA) and variation vs pharyngeal tube (e.g. King airway)
Supraglottic airways - LMA
LMA

- Used for anesthesia when aspiration risk is low
Supraglottic airways – King Airway

- Faster and safer than intubation in pre-hospital setting
Thank you!

Next station is Intubation