Preparing for difficult RSI

Case 1

You receive a BAT call to advise that a 168kg, 42yo man is en-route to your ED post MVA. He has significant facial trauma and is in a cervical collar. Obs – HR 122, BP 80/50, RR30,sats 92% non-rebreathing mask, GCS12.

a. Outline your preparation to receive this patient?
b. Initial airway assessment and management?
c. You decide to do a modified RSI. What modifications to a "standard RSI" are required?
d. You induce the patient but you are unable to ventilate him despite optimal attempts at facemask/LMA/ETT. What now….?

Case 2

A 4yo girl with Down's syndrome presents with severe croup. She obstructs and has a respiratory arrest as she is being transferred from the ambulance trolley to the resus bed.

a. Outline your initial airway management
b. You are unable to ventilate her with a bag/mask/valve. How do you proceed?

http://www.rch.org.au/clinicalguide/guideline_index/Acute_Upper_Airway_Obstruction/

http://www.uptodate.com/contents/needle-cricothyroidotomy-with-percutaneous-transtracheal-ventilation

Discussion

How do you anticipate/assess a difficult airway?

- Lemon
  - Look
  - Evaluate 3-3-2
  - Mallampati
  - Obstruction
  - Neck Mobility

Methods for optimizing success

- Preparation/position/Vortex

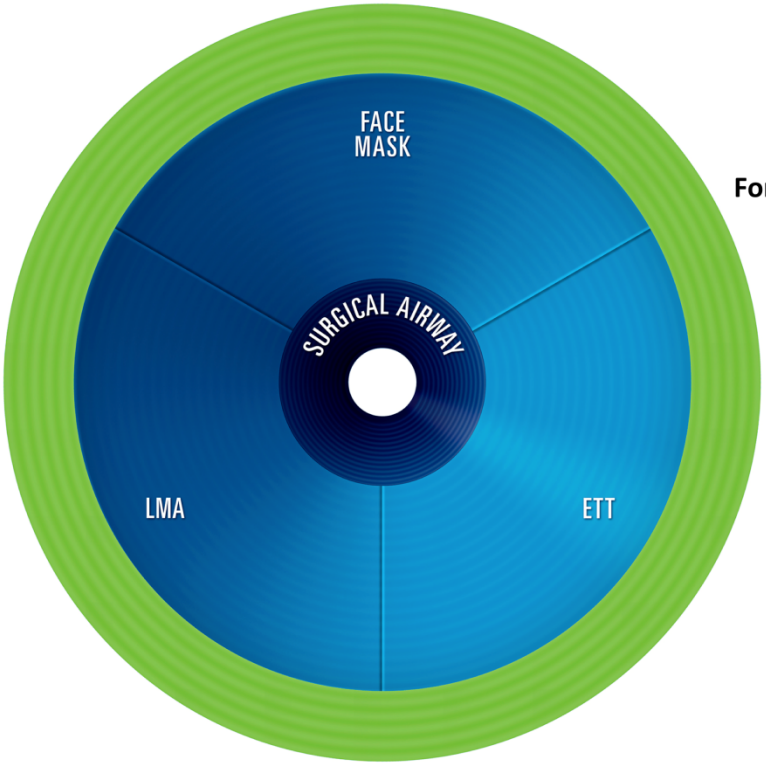
- Preoxygenation
- Premed + Paralysis
- Placement of airway
- Post intubation Mx.

http://emedicine.medscape.com/article/80222-overview#a30 – Difficult Airway Assessment

http://www.vortexapproach.com/Vortex_Approach/Vortex.html

The Vortex

MONASH SIMULATION



For each NSA Technique Consider:

1. Manipulations:
   - Head & Neck
   - Larynx
   - Device
2. Adjuncts
3. Size/Type
4. Suction
5. Pharyngeal Muscle Tone

NO MORE THAN THREE TRIES AT EACH NSA TECHNIQUE
AT LEAST ONE TRY SHOULD BE HAD BY MOST EXPERIENCED AVAILABLE LARYNGOSCOPIST

Thus **the trigger for performing an emergency surgical airway is the inability to establish a patent airway following optimal attempts via each of the 3 non-surgical airways**, NOT the occurrence of oxygen desaturation.

Mallampatti views

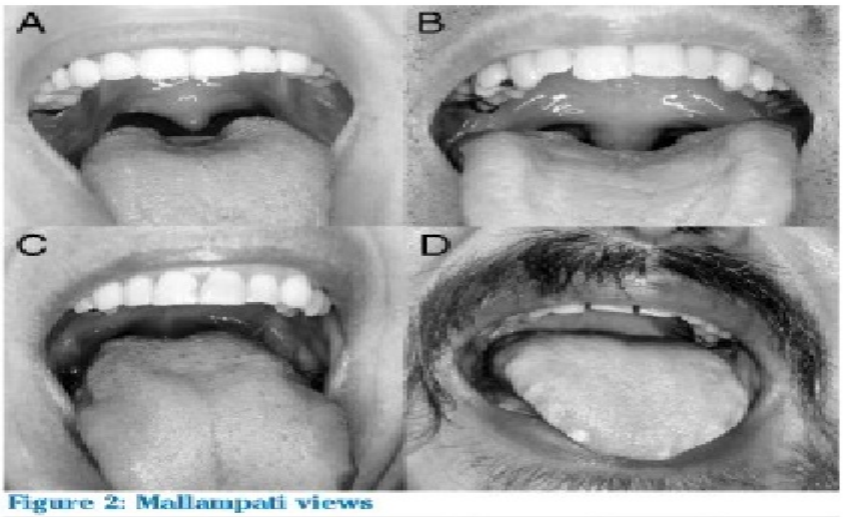


Figure 2: Mallampati views

Mallampatti/Cormack-Lehane

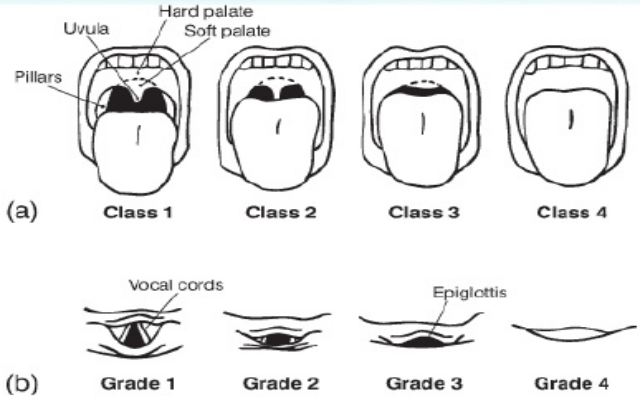


Figure 2 - **a)** Mallampati classification modified by Samsoon and Young: Class 1 - visualization of the soft palate, Class 2 - complete visualization of uvula, Class 3 - visualization of the base of the uvula, Class 4 - soft palate is not visible at all; **b)** Laryngoscopy according to the classification of Cormack and Lehane: Grade I - most of the glottis visible, Grade II - only the posterior extremity of the glottis visible, Grade IV - not even the epiglottis visible[6]

Positioning in the obese patient