

Videolaryngoscopy

Indirect Laryngoscopes

Laryngoscopy

- Direct Laryngoscopy
- Indirect Laryngoscopy

Optimum positioning

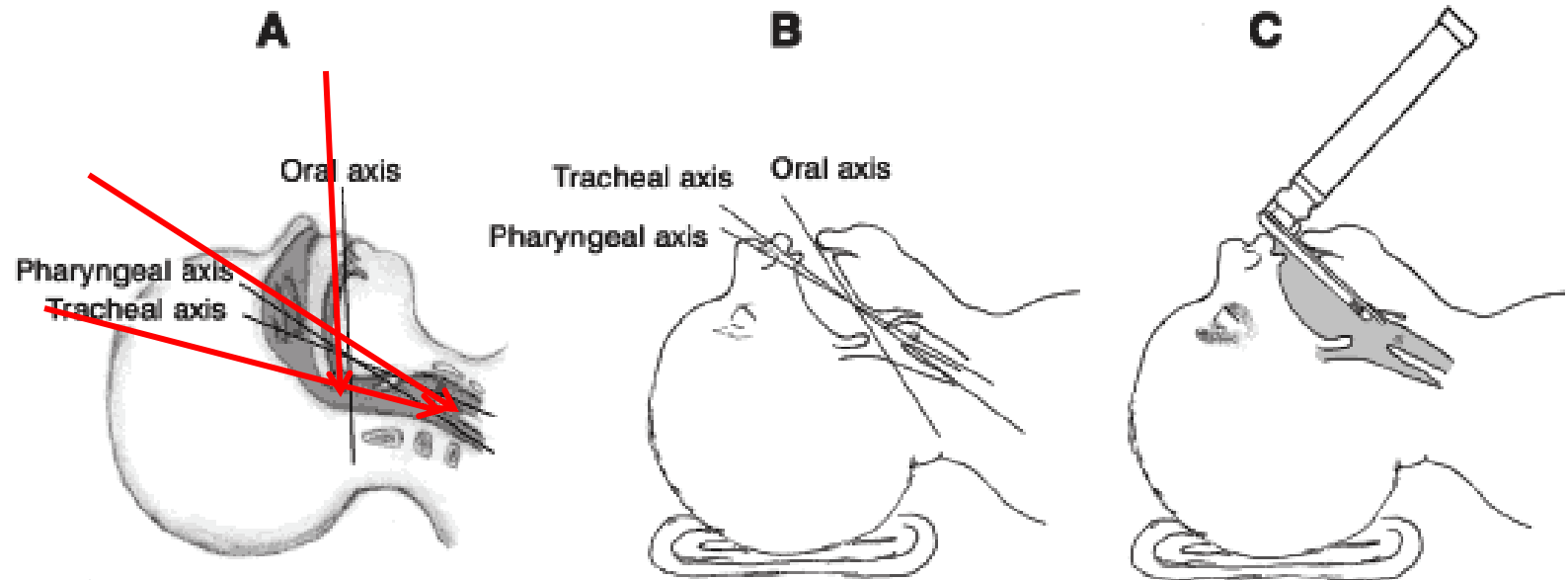
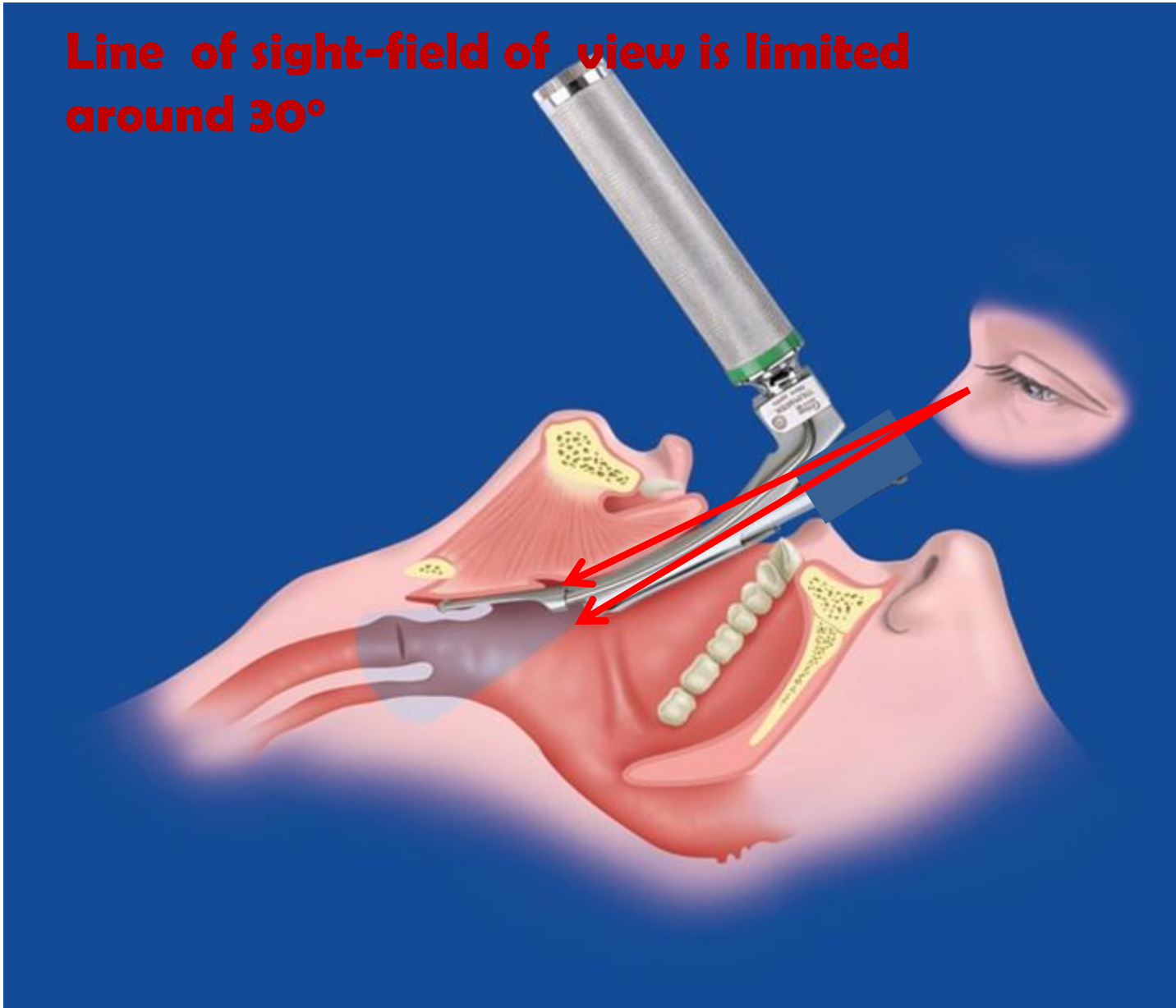


Figure 3 - A) Illustration of the axes (oral, pharyngeal and tracheal); B) alignment of these axes with correct positioning; C) viewing the glottic fold with a straight blade

Line of sight-field of view is limited around 30°



Indirect Laryngoscopes

Optical stylets

Bonfils

Shikani

Rigid laryngoscopes

Tube
channel

Airtraq

Pentax AWS, King-vision

C-Trach

Guiding
plate

Venner APA

None

Bullard

C-Mac

Glidescope

McGrath

Videolaryngoscopy

2 stage procedure

1. Visualisation of glottis
2. Placement of tube

Placement of tracheal tube

- Adequate glottic view
- Type of Videolaryngoscope

Channelled vs non-channelled/ type and size of blade

Technique of Videolaryngoscopy

- Midline vs para-glossal approach

Channelled: Midline

Non-channelled: midline or paraglossal to ensure some room for the tube in the oral cavity

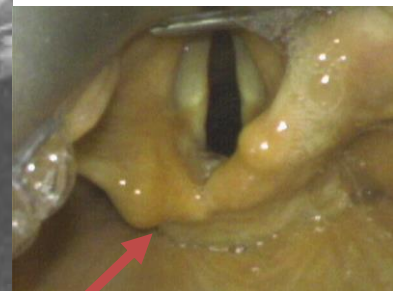
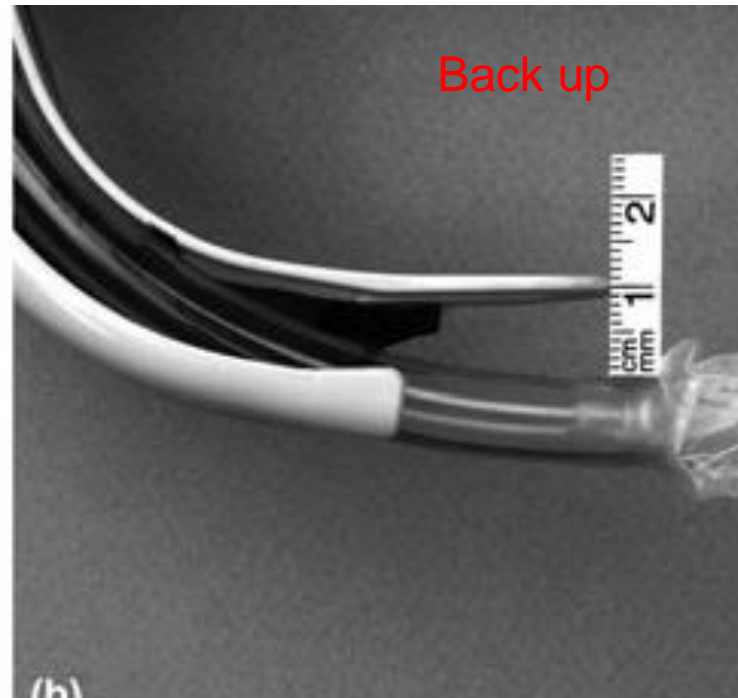
Technique Videolaryngoscopy for Glidescope

- Try like direct laryngoscopy: look into the oral cavity –**direct view**
- Look at the monitor –**indirect view**
- Direct view of the airway , direct visualisation tube placement-**direct view**
- Tube through glottis and trachea-**indirect view**

Airtraq and King vision

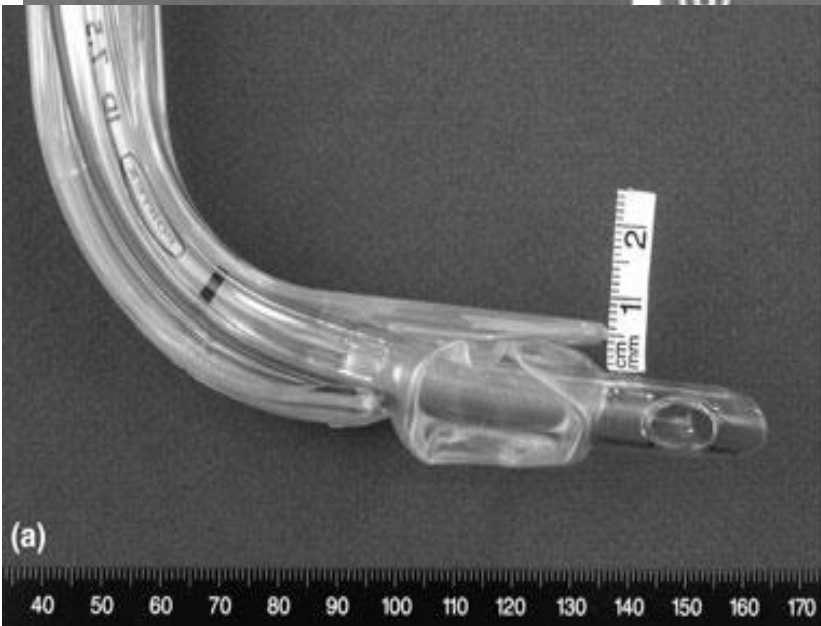


Back up

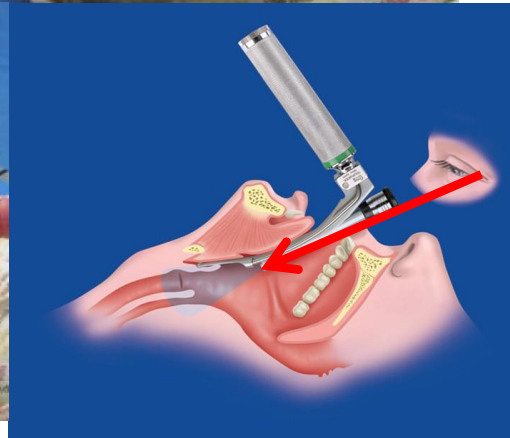
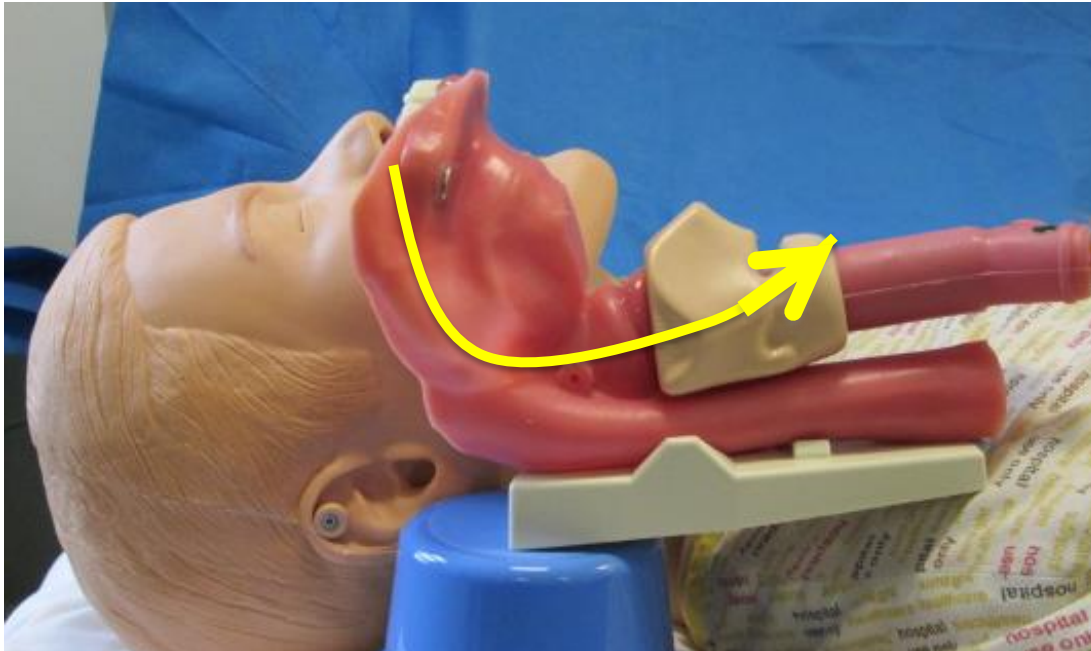


Miller Technique

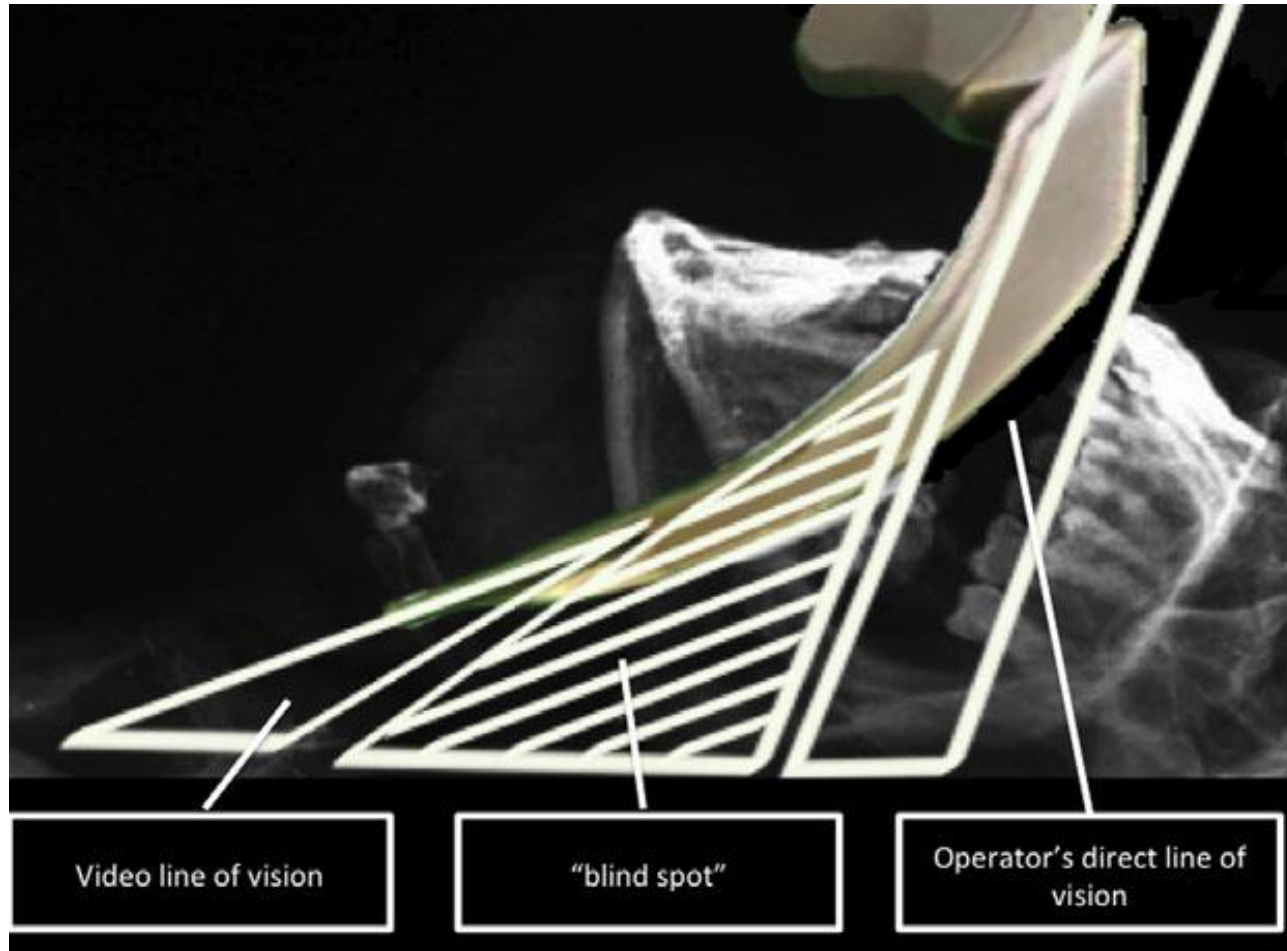
Pentax blade



Grade 1 view not able to advance the tube or stylet/ bougie.
impingement with anterior tracheal wall. In direct laryngoscopy because of
straight line, this does not occur



Blind Spot: The part airway between operator's direct line of vision and video line of vision



Avoid blind spot and avoid airway injury



Complications of VL

- Technical problems : Malfunction

Know your device well; How it works?, Trouble shooting/ electronics

- ETT cuff tear
- Patient: Airway injury

ETT Cuff Tear

- Airtraq blades: repeated forward and backward movement of the tube within the blade

Patient: Airway injury

- Palatoglossal arch tear
- Injury to tonsillar pillar
- Perforation of soft palate

Advantages

- Improved view of the larynx
- Doesn't need straight line- neutral position
- Less force –less sympathetic stimulation
- Supervision of trainee
- External laryngeal manipulation by ODP
- Observe the effect of cricoid pressure
- Second opinion/witness for difficult intubation
- Record keeping

Clinical Pearls In Videolaryngoscopy

- Experience with Macintosh does not equate to skill with videolaryngoscope
- Experience with one type laryngoscope does not equate to skill with all videolaryngoscopes
- Good view of larynx does not equate to easy intubation
- A bougie may not help when in difficulty
- Videolaryngoscope should be selected according to indication (teaching: Macintosh type, unexpected difficulty-curved blade. For pre-hospital- screen should be visible under light).

Kelly FE, Cook TM, Seeing is believing, getting best out of VLscopy, BJA 117, S1 i9-i13, 2016

Summary

- Videolaryngoscopy gives indirect/ magnified view of glottis
- Laryngoscopy & intubation-2 step process
- Learning curve variable
- Channeled and non-channeled VLs
- Avoid blind spot/ avoid airway injury
- Definite role in difficult intubation
- Experience is essential