Clinical Pearls in NICU

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Listen to your elder's advice,

not because they are always right,

but because they have more
experiences of being wrong.

Clinical Perils in NICU

- Drawing blood from small vein
- Insertion of PCVL via tiny vein using 24 G angiocath
- Peripheral arterial cannulation (Temporal artery)
- Airway care:
  - Oropharyngeal airway
  - Nasopharyngeal tube
  - LMA insertion
- Epinephrine via ET tube
- TEF with huge fistular airleakage after gastrostomy

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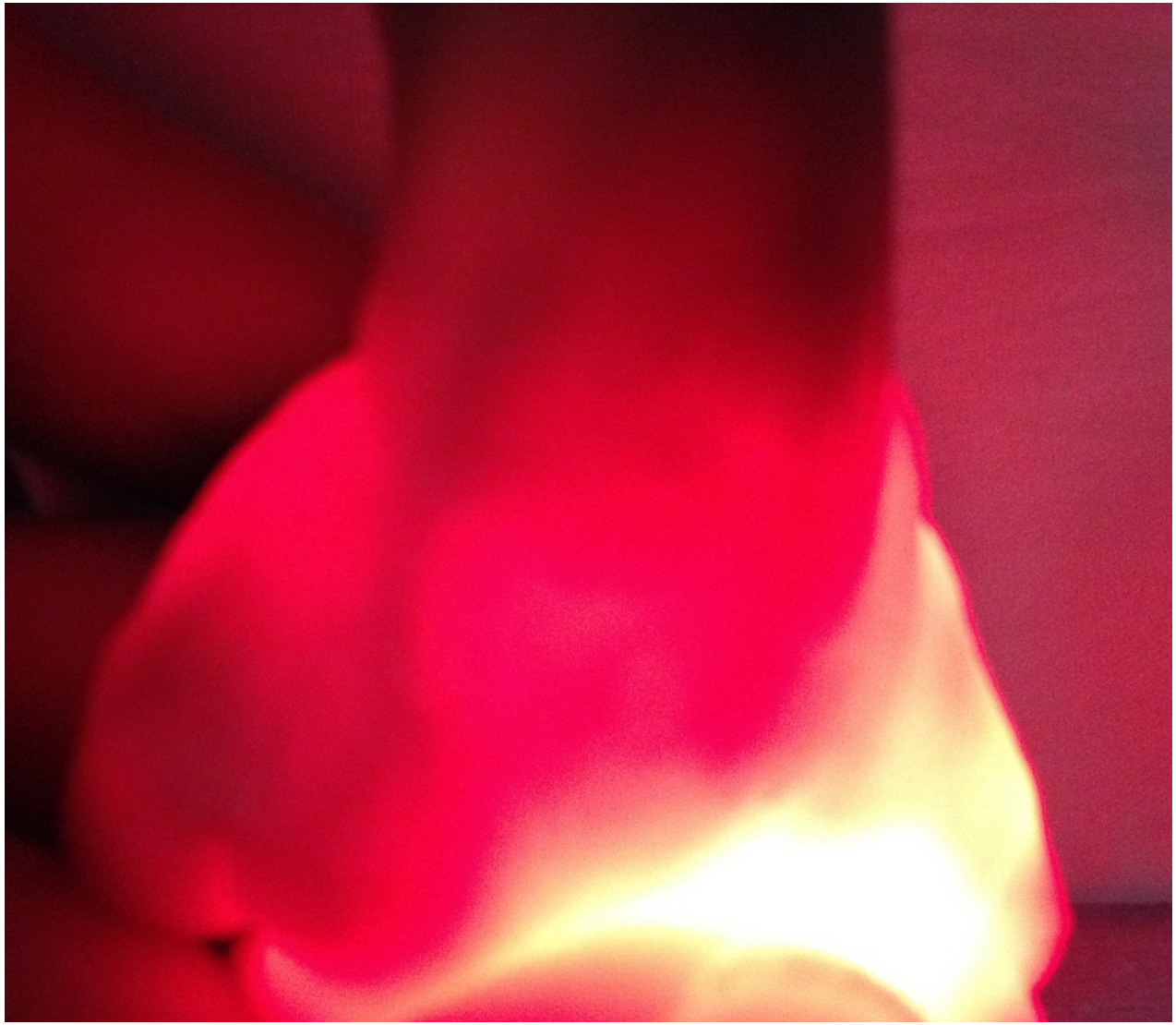
Blood Drawing from Tiny Vein

Transilluminator

Transilumination

peripheral vein



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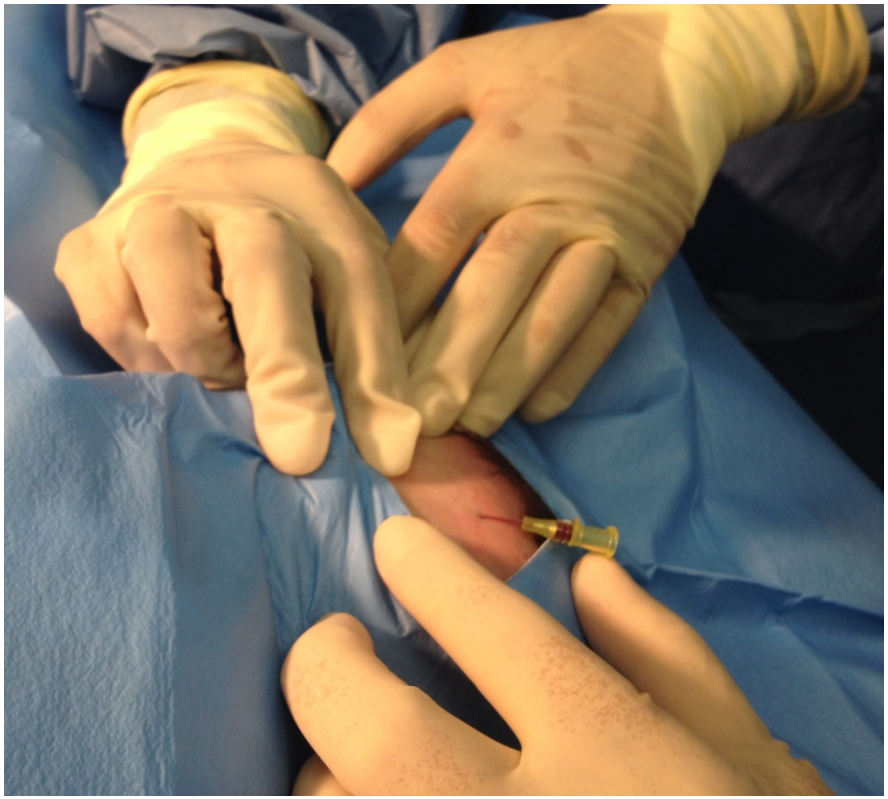
Percutaneous Central Venous Line (PCVL)
1 Fr catheter via 24 G angiocath



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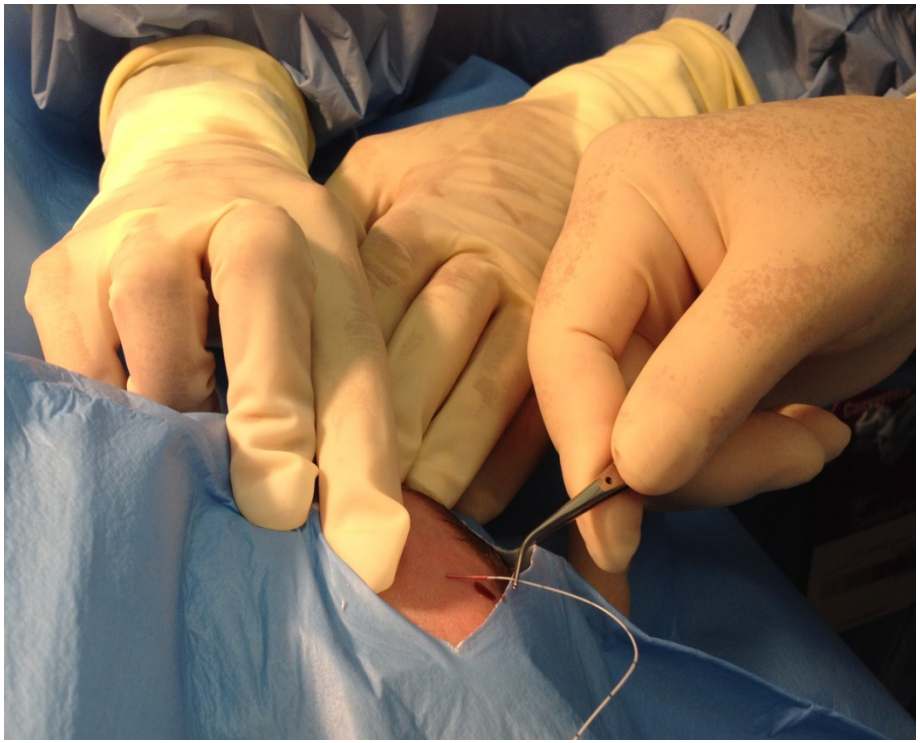

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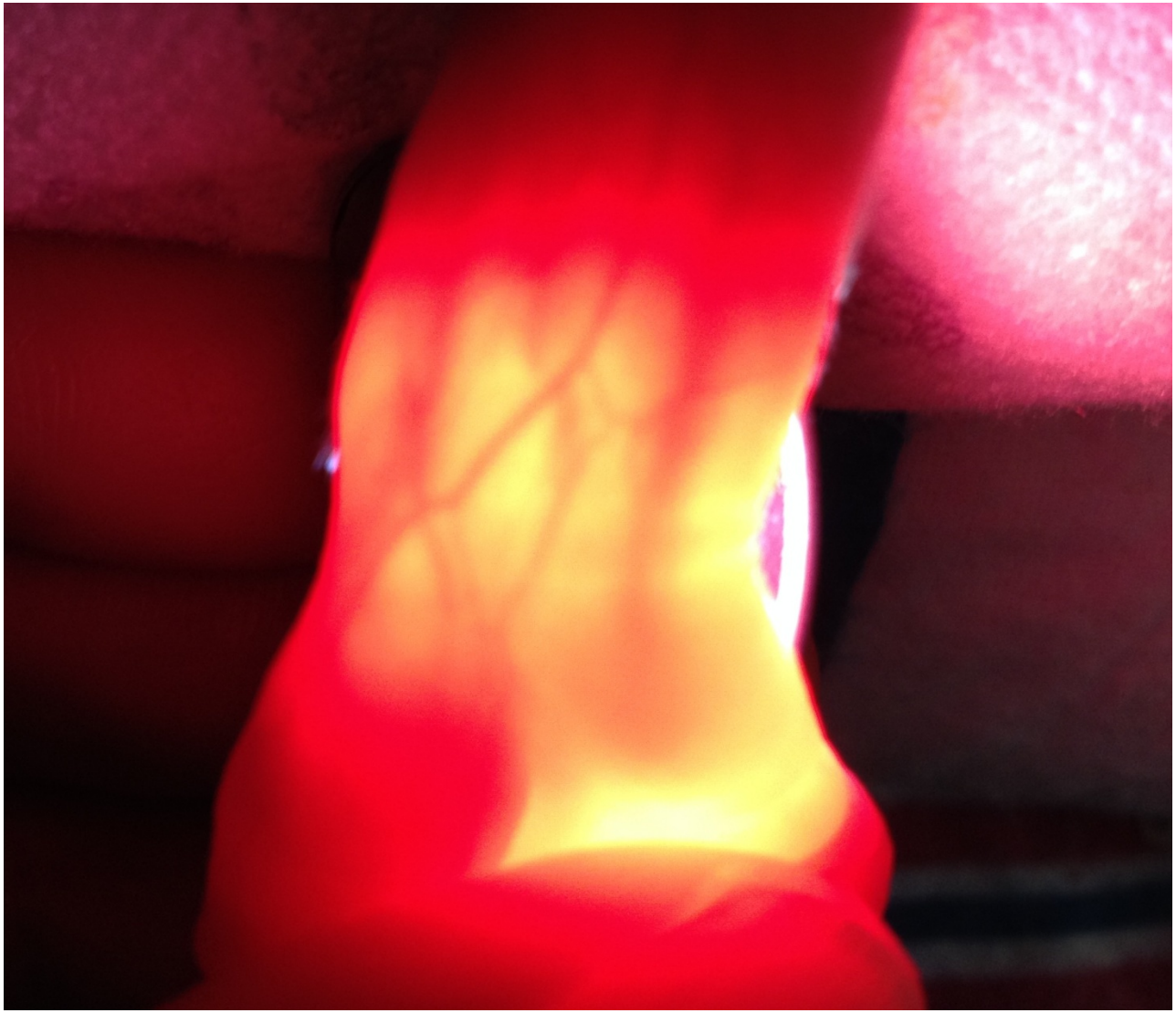
Transilumination

radial artery & ulna artery



Video

Cannulation of temporal artery

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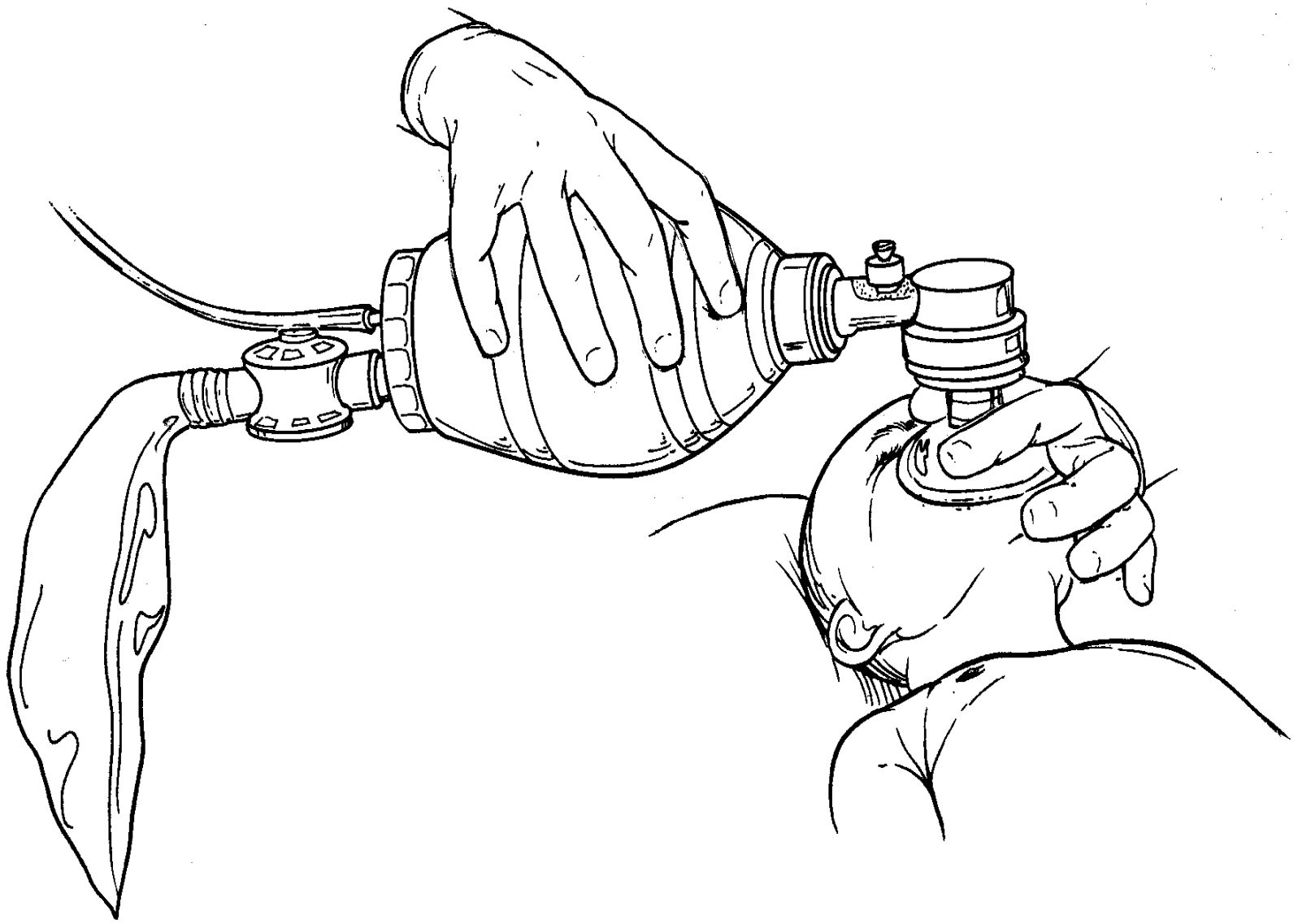
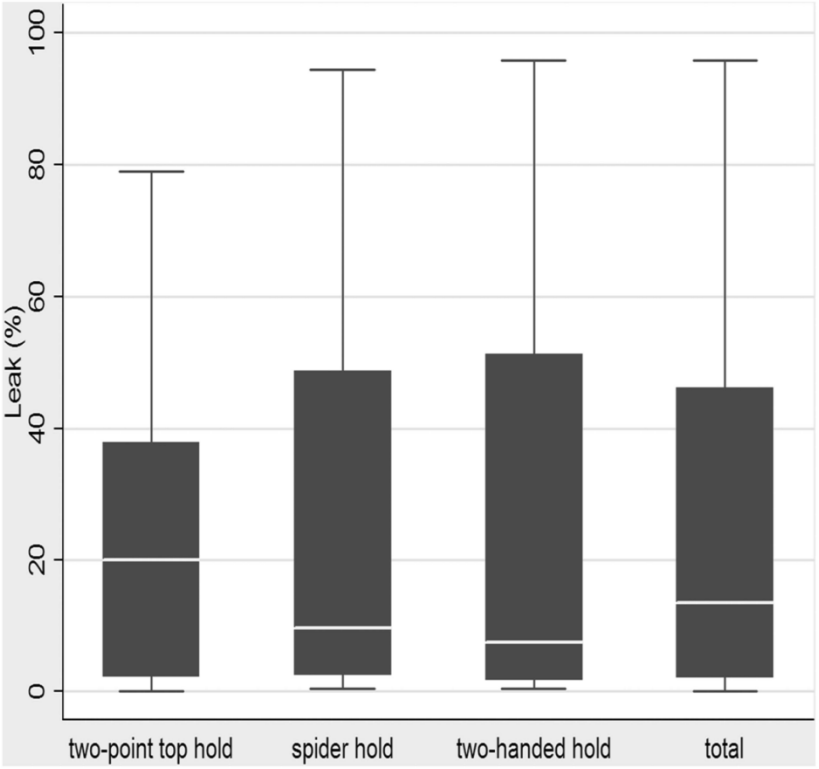


One-handed face mask application technique. Note that the fingers avoid pressure on the soft tissues of the neck, which could cause laryngeal/tracheal compression.

Fig 12. Two-handed face mask application technique. A second person is needed to ventilate the child.

A comparison of different mask holds for positive pressure ventilation in a neonatal manikin



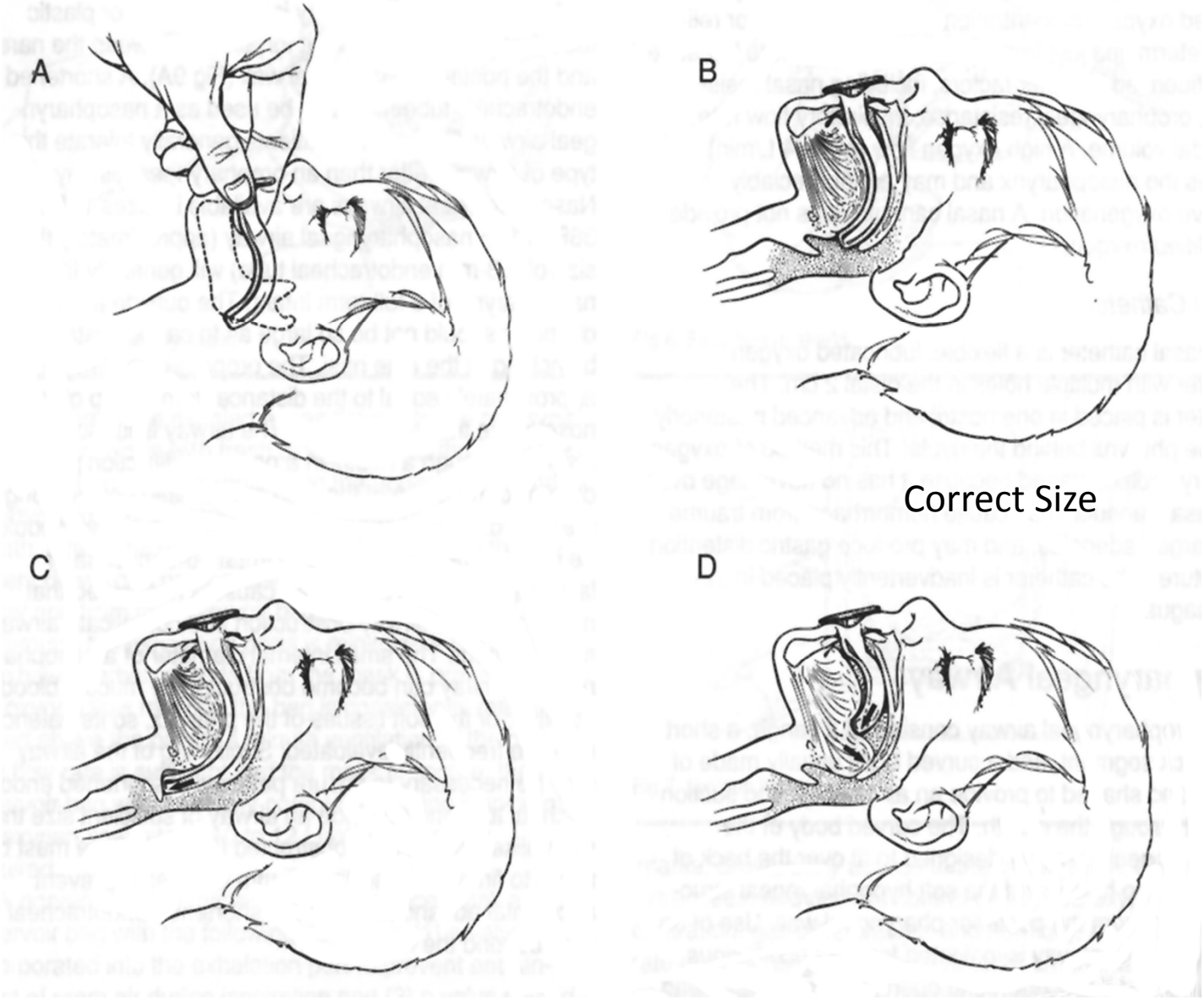
Box plot showing the leak for all participants using each hold type, and overall.

(A) Two-point top hold,
(B)Spider hold,
(C) Two-handed hold.

Airway adjuncts

- Oral airway
- Nasopharyngeal airway

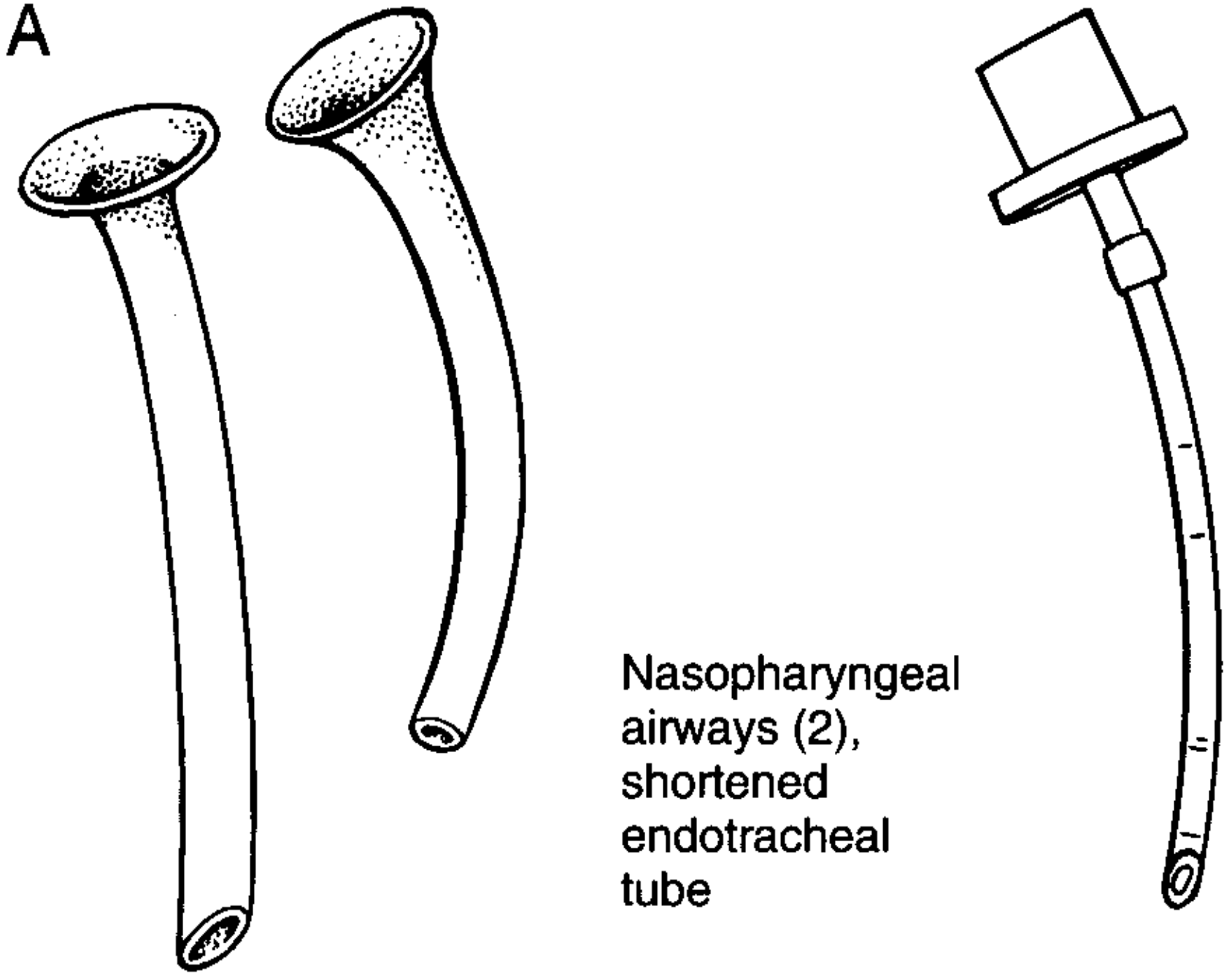
Oral Airways



Correct Size

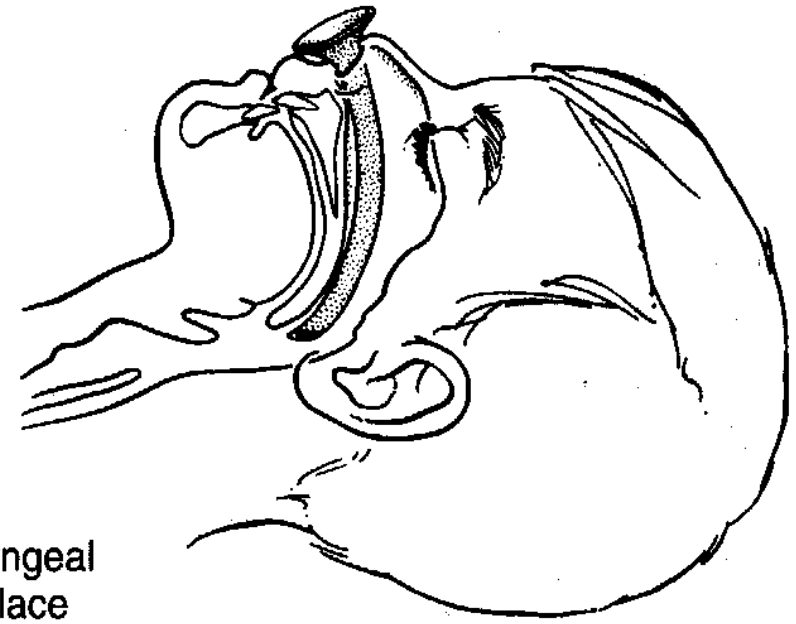
Too long

Too short



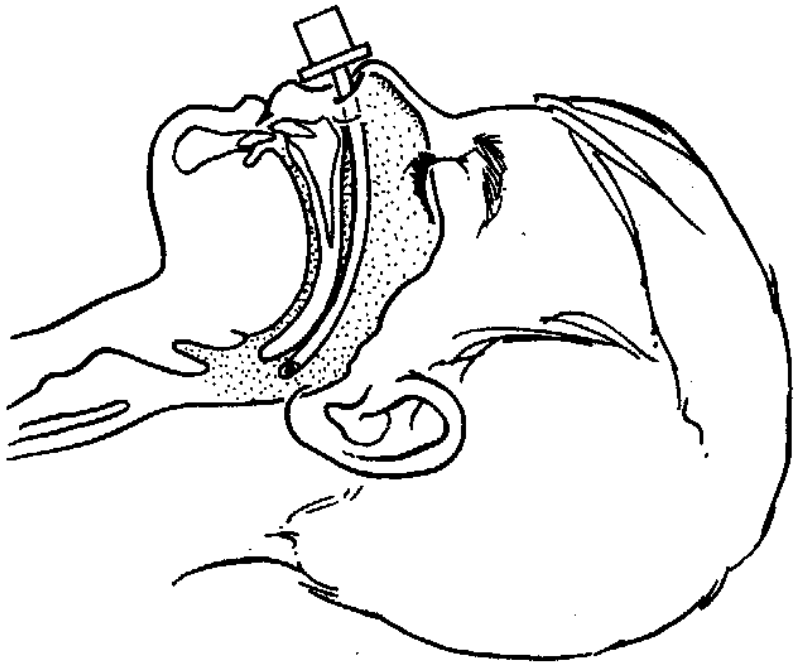
Nasopharyngeal airways (2), shortened endotracheal tube

B

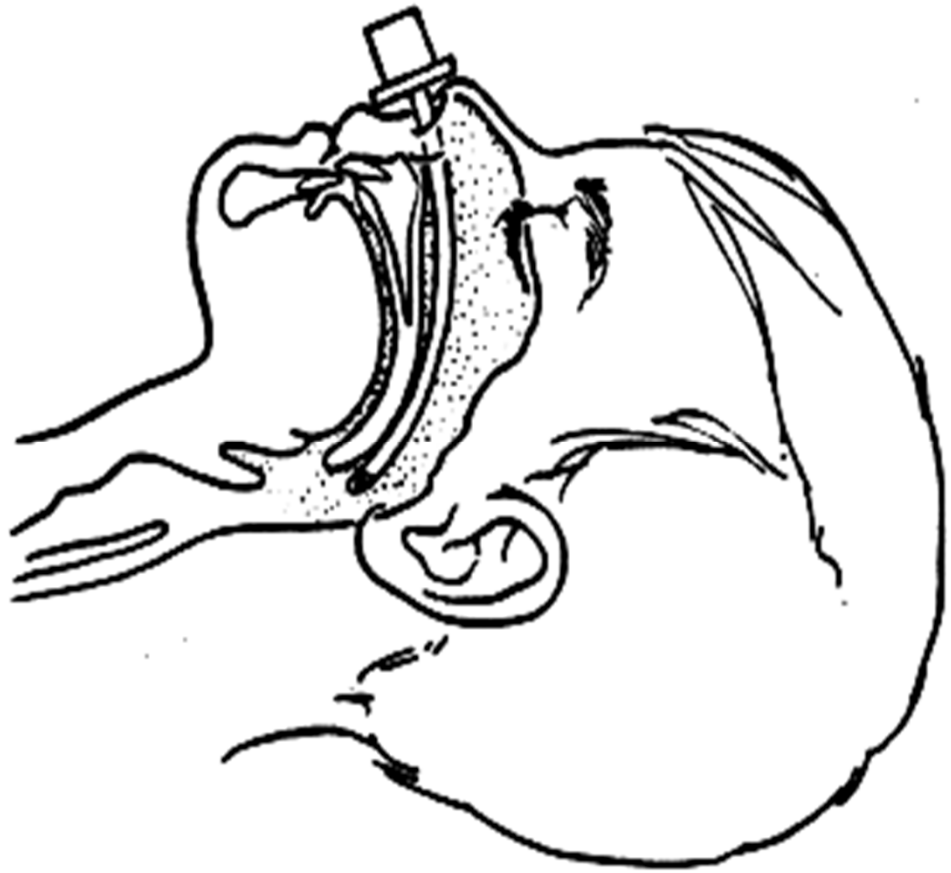


Nasopharyngeal
airway in place

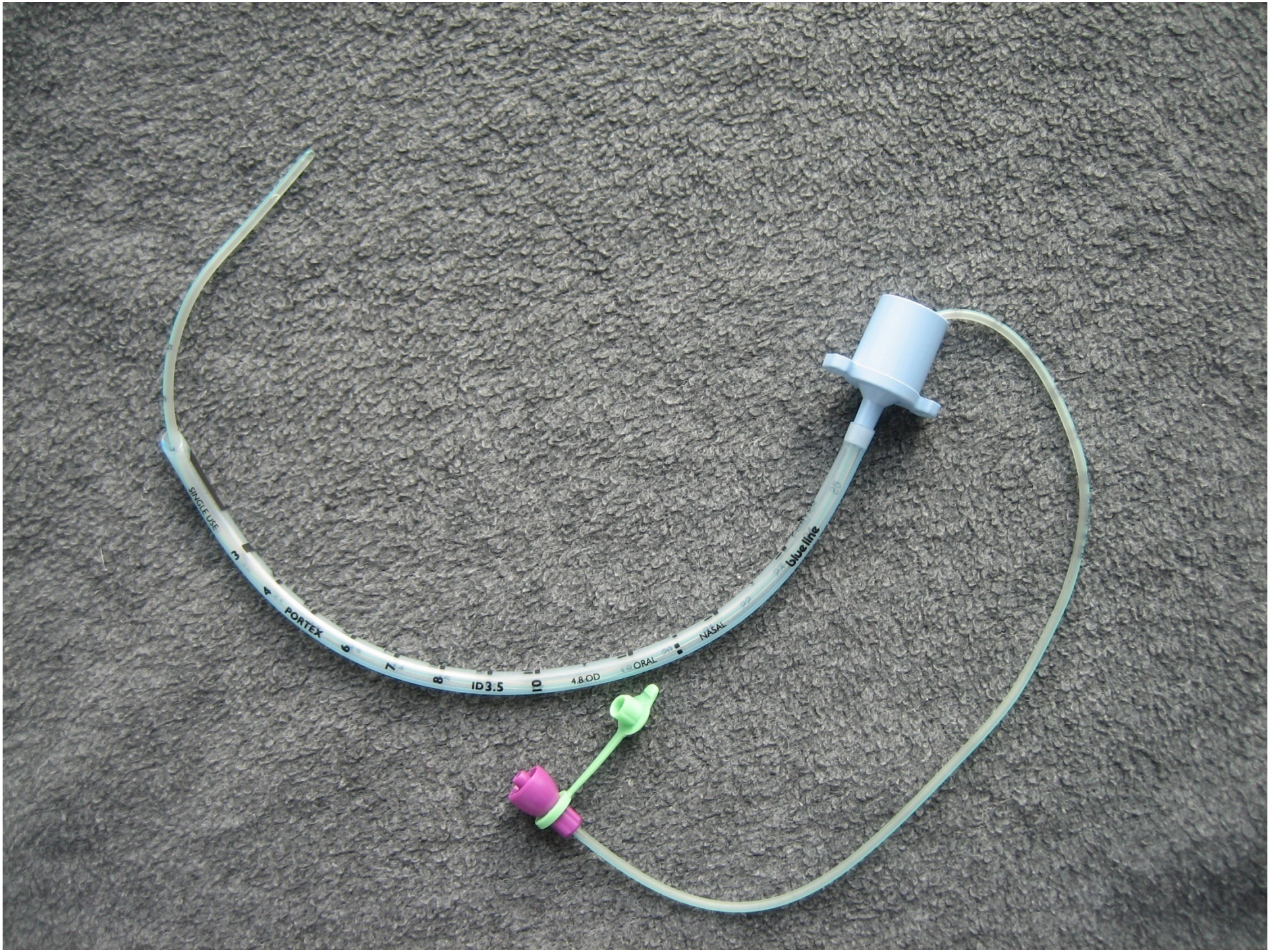
C



Endotracheal tube as nasal airway



A regular ETT can be cut and used as a nasal airway


SINGLE USE
PORTEX
ID3.5
4.8 OD
ORAL
NASAL
blueline

Nasopharyngeal Airway

Length: Nostril to Tragus

NASOPHARYNGEAL AIRWAY

Contraindications:

- Basilar skull fracture
- CSF leak
- Coagulopathy

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Laryngeal Mask Airway (LMA)

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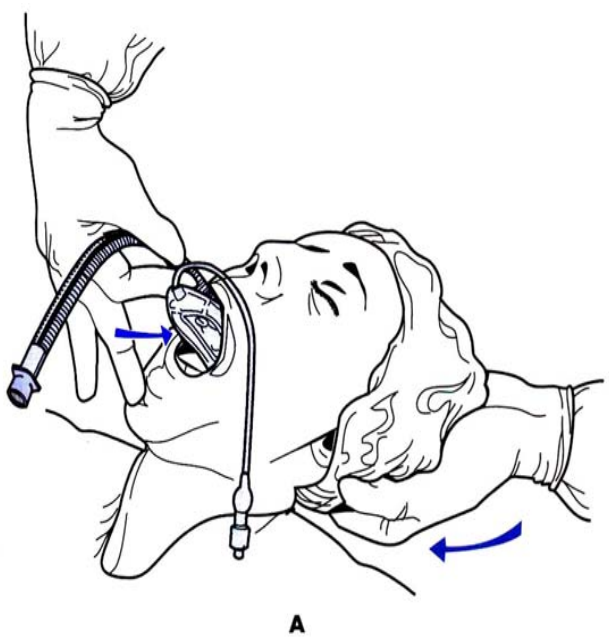
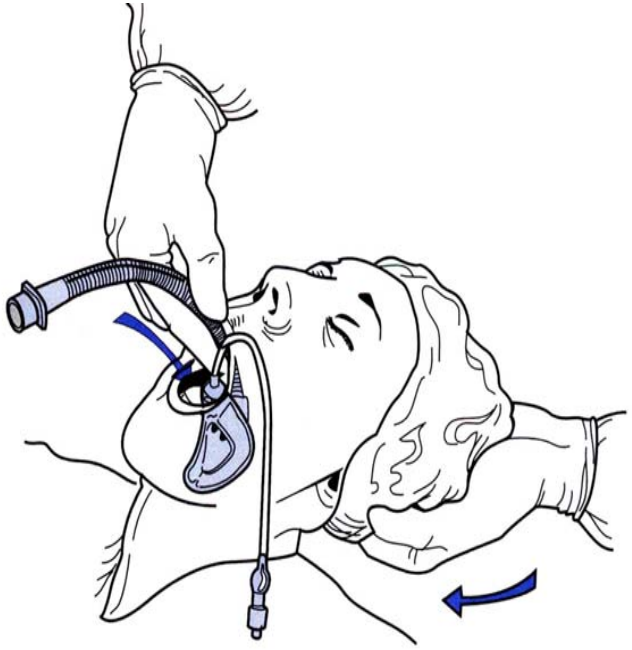
Insertion Technique:

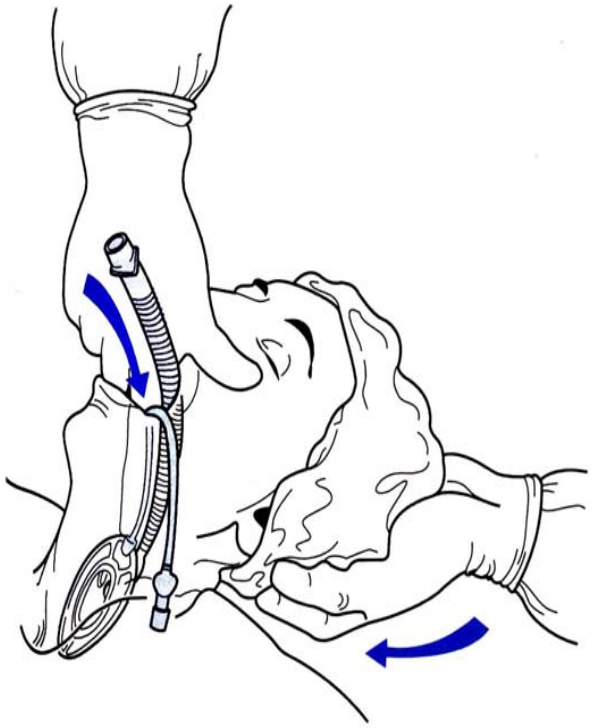
- The LMA is completely deflated to form a smooth, flat wedge shape (Some are preferred partial inflation)
- A water-soluble lubricant is placed on the back of the mask
- The patient is placed in sniffing position
- A finger is placed on the anterior surface where the tube joins the mask, the posterior aspect of the LMA is pushed along the hard palate, following the natural curvature of the oropharynx, until seated
- The flattened mask allows the LMA to pass behind the epiglottis/arytenoids and for the tip to lodge in the area of the upper esophageal sphincter



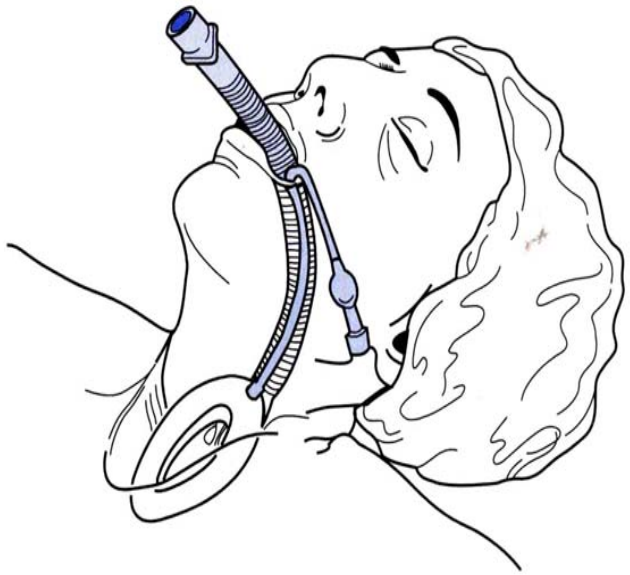
A



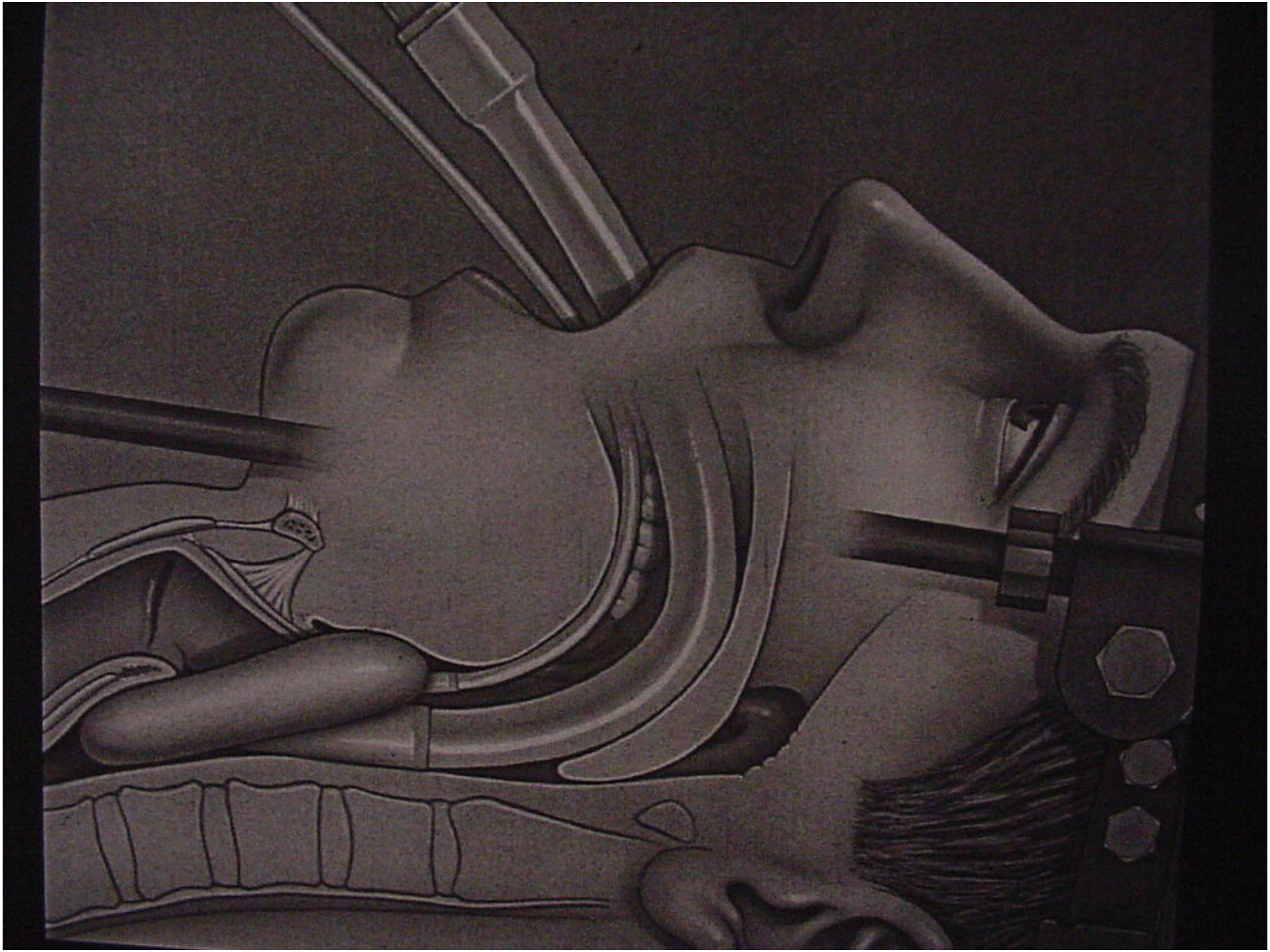
B



C



D



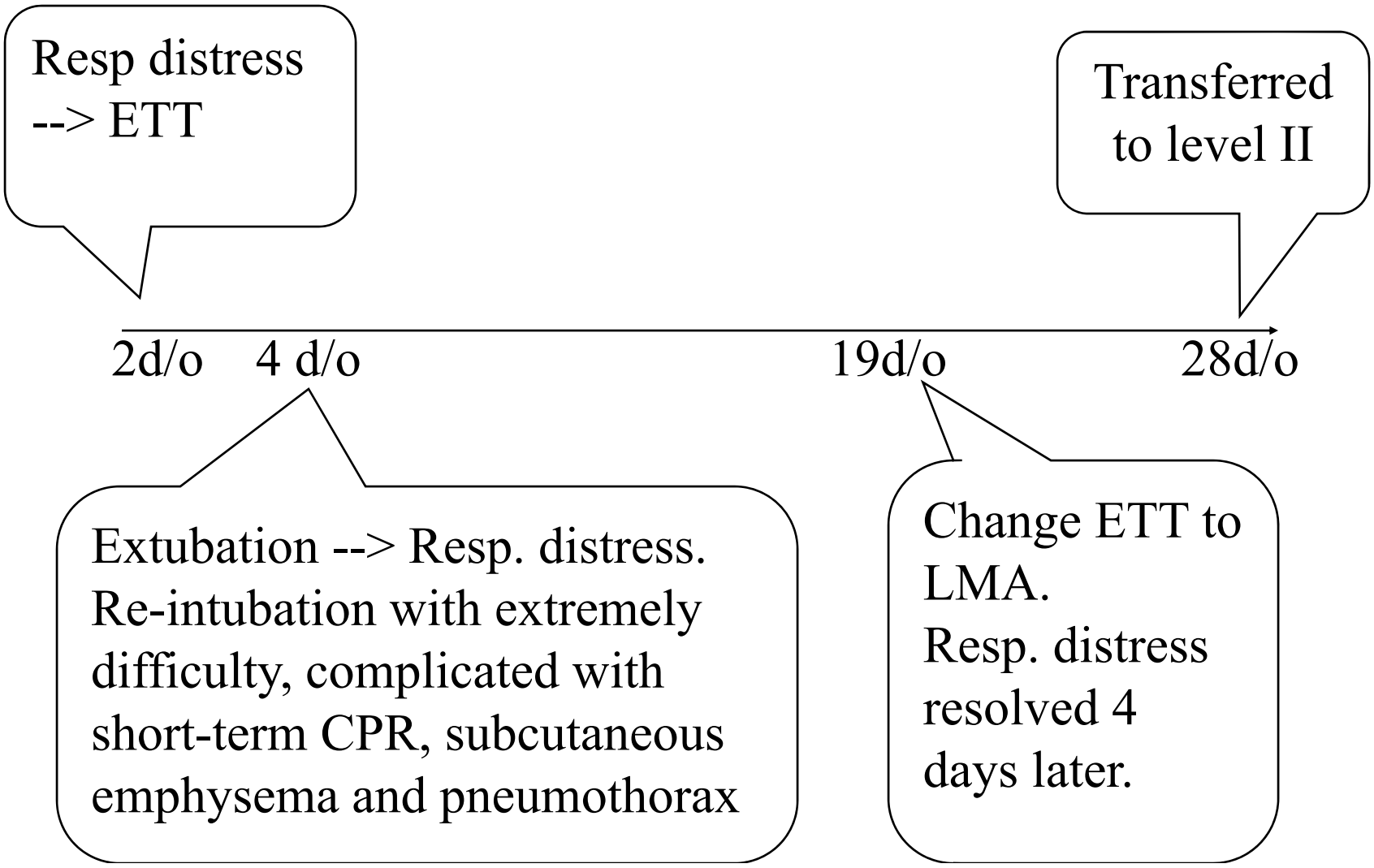
Case Presentation(1)

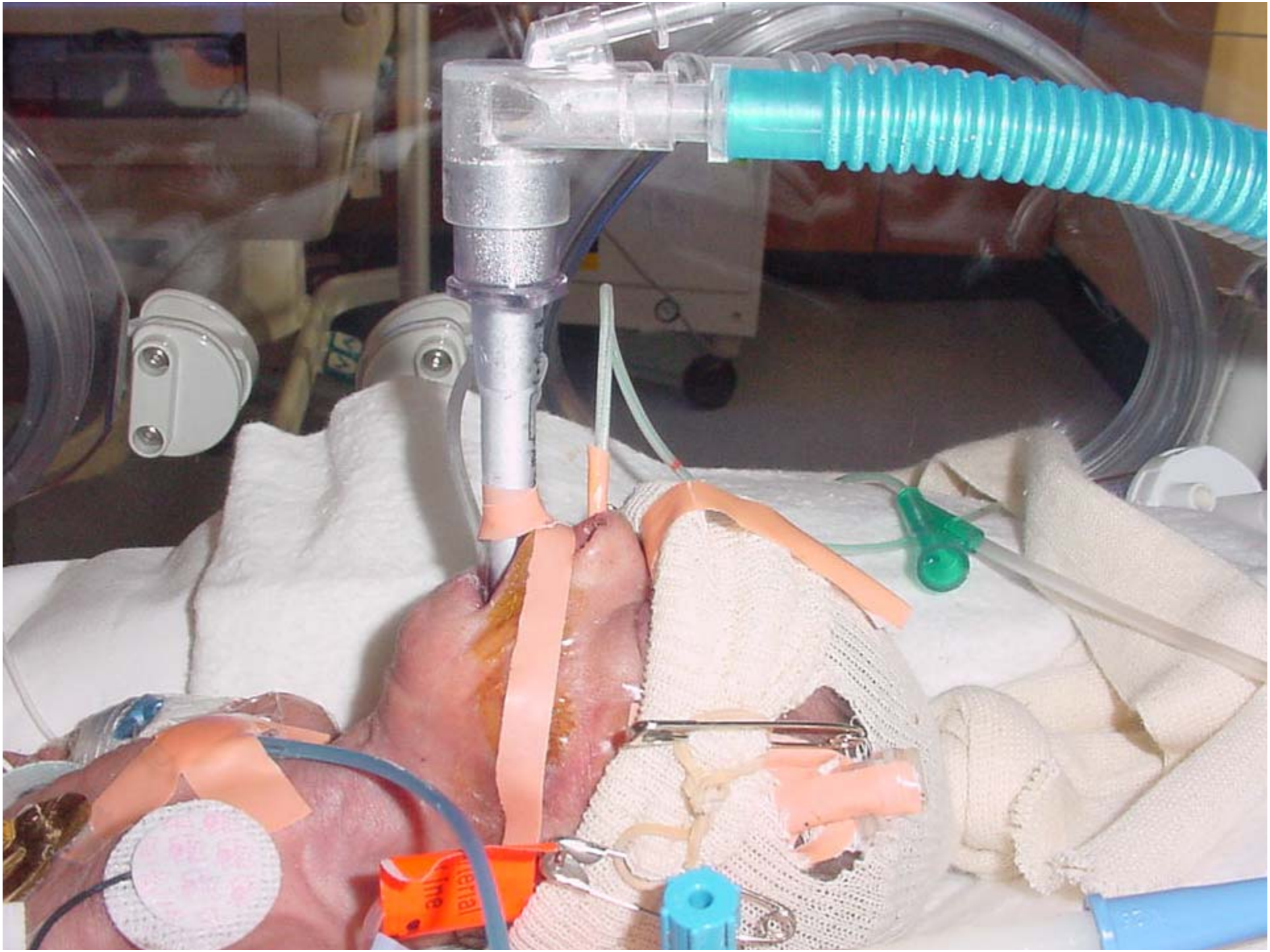
- GA 40 weeks,
- BW 2900g
- Micrognathia, retrognathia, glossoptosis, Cleft palate

Case Presentation(2)

- Progressive dyspnea, stridor
- Severe respiratory distress, subcostal retraction, poor air entry
- ABG: pH 7.22 PCO_2 66.6 PO_2 65 HCO_3 26.5

Case Presentation(3)






Line

Video

insertion of LMA

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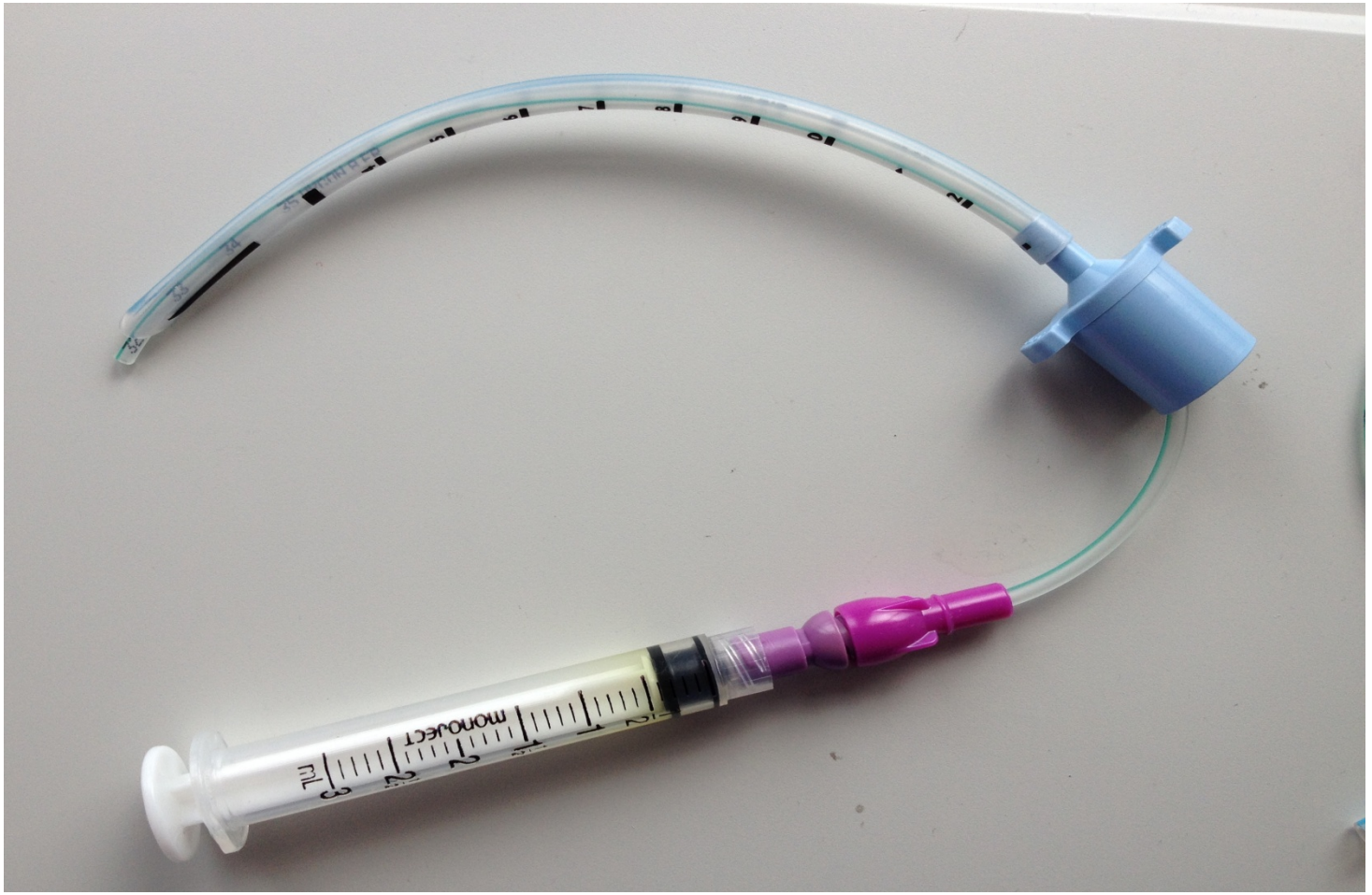
Give Epinephrine via ET tube



- Dilute epinephrine with N/S to make1:100,000 dilution
- Give 1 ml/kg (like give surfactant)

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Video

Tracheoesophargeal Fistula

(TEF)

with huge air leak

→ fistular → G-tube

leads to Difficult Ventilation