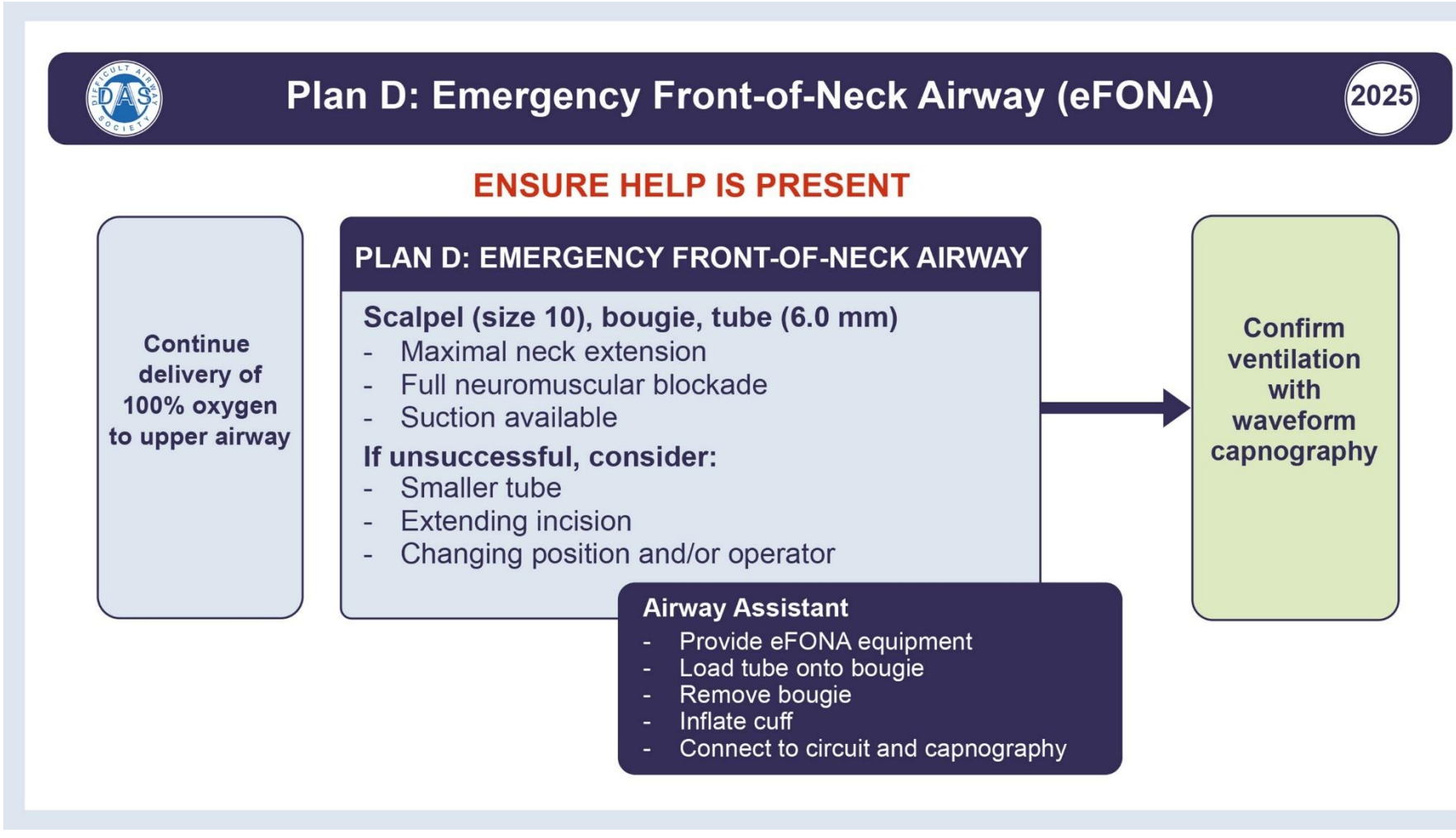
PLAN D

eFONA Action card

Vertical Skin Incision



If the cricothyroid membrane is impalpable, or if the palpability has not been assessed and technique determined, the **'Vertical Skin Incision' should be performed for eFONA as a default.**

If the cricothyroid membrane has previously been assessed and determined as palpable (or marked with USS) a 'Transverse Stab Incision' can be performed for eFONA.

For both techniques, the scalpel should always be held in the operator's **dominant hand** and **incisions made away** from the nondominant hand.

Equipment

Help – Ensure help is present
Declare **CICO**, ensure full neuromuscular blockade

Oxygenate
Facemask / high flow nasal O_2 / SAD

Equipment
Scalpel (size10), bougie, tube (6.0mm cuffed), suction

Position

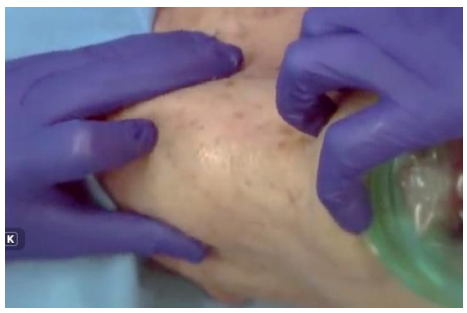
Patient
Maximal neck extension, no rotation

Pillow between scapulae

Operator

If right-handed – On the **left** side of the patient
If left-handed – On the **right** side of the patient

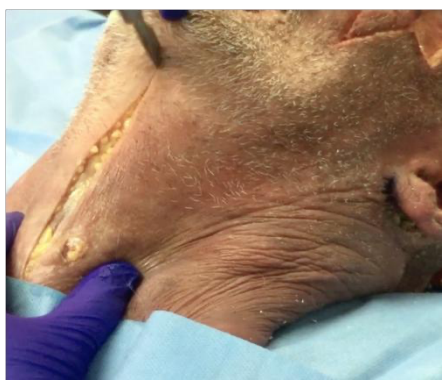
Locate & Incise



Landmarks

Using **non-dominant** hand: Laryngeal handshake
Locate cricothyroid membrane

Stretch skin, fix trachea: thumb & middle fingers



Incision

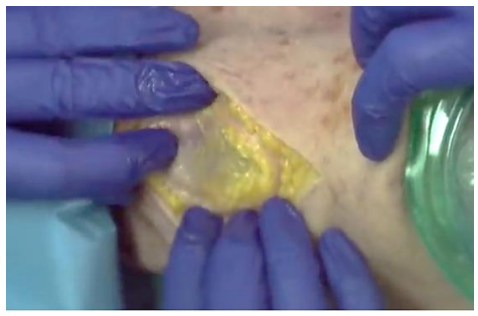
Apply tension to the skin and stabilise the larynx with the nondominant hand

8-10cm vertical skin incision

From sternal notch towards chin

The following techniques rely on feel rather than visualisation as blood is likely to obscure the surgical field

Vertical Incision Technique

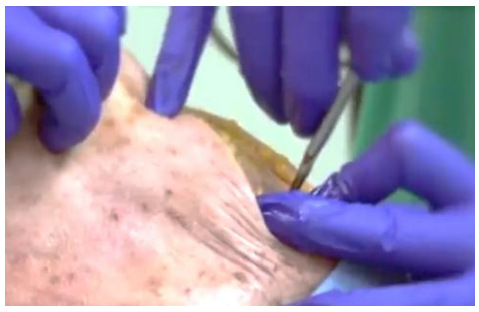


Finger dissection of soft tissues

Use both hands to pull strap muscles apart

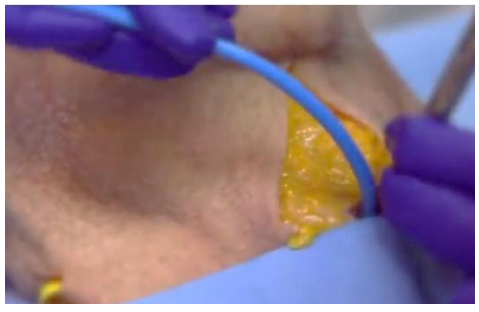
Identify cricothyroid membrane with index finger of non-dominant hand

Stabilise larynx with non-dominant hand



Stab & Twist

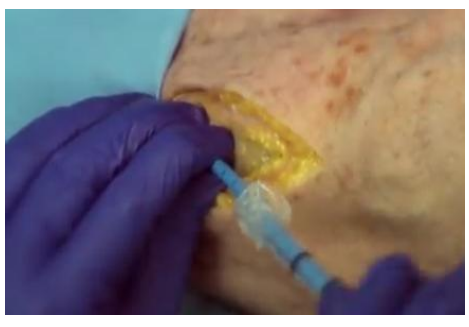
Hold scalpel in dominant hand
Transverse stab incision, cutting edge towards you
Twist scalpel, perpendicular to skin, cutting edge caudad
Traction on scalpel towards you, handle upright



Bougie

Swap hands; hold scalpel with nondominant hand
Take bougie in dominant hand, holding near the coudé tip

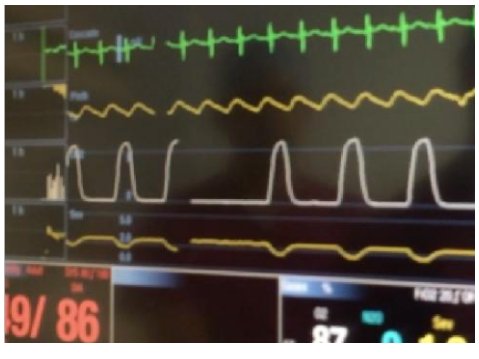
Slide the bougie down the scalpel blade, rotate 90 degrees and advance into the trachea 10-15cm



Tube

Remove scalpel
Railroad size 6 tube over bougie, use rotation of tube

Remove bougie and inflate cuff



Check

100% oxygen
Ventilation: confirm waveform capnography
Check tube depth
Secure the tube

Teaching framework scalpel for cricothyroidotomy

For use as a prompt when teaching.

Vertical Incision (Default / impalpable cricothyroid membrane)

Communication	**Completed?**
Declare CICO and need for front of neck airway	
Ensure help is present	
Confirm full neuromuscular blockade	
Rescue oxygenation	**Completed?**
Ensure attempts to oxygenate via upper airway are maintained: 100% oxygen via Facemask ventilation/ high flow nasal oxygen/ SAD	
Equipment	**Completed**
List and explain equipment: • Scalpel size 10 or 20 (broad blade similar width to tube) • Bougie with angled tip • Size 6.0 cuffed endotracheal tube • 10ml syringe • Self inflating bag or circuit • Suction	
Position	**Completed?**
Extend patients neck Stand on left hand side of patient if right handed (reverse if left handed)	
Technique*	**Completed?**
Perform laryngeal handshake with non-dominant hand – locate midline	
Tension skin with non-dominant hand	
Make 8-10cm vertical incision caudal to cephalad	
Use both hands to blunt dissect/ separate tissues and identify larynx	
Use non-dominant hand index finger to identify the cricothyroid membrane	
Make transverse **stab** incision with cutting edge towards operator	
Apply gentle traction towards operator, **twist** blade through 90^0 (blade points towards feet) creating triangular hole	
Swap hands maintaining traction	
Keep scalpel perpendicular to skin	
Hold **bougie** near coudé tip with dominant hand	
Position bougie parallel to floor and at right angles to the trachea	
Insert bougie using scalpel blade as a guide	
Rotate bougie to align with trachea and advance (to 10-15 cm)	
Note that clicks or hold up may be present	
Stabilise trachea and tension skin with non-dominant hand	
Rotate **tube** over bougie as it is advanced	
Remove bougie, inflate cuff & ventilate – **confirm waveform capnography**	
Check depth of tube and secure	
If unsuccessful:	**Completed?**
Consider extending the incision	
Perform more blunt dissection down to the cricothyroid membrane	
Change position of the patient or operator	
Change operator	
Change to a smaller tube	