





# **Cannula cricothyroidotomy or cannula tracheotomy**

## **Contents:**

- . CICO flowchart**
- . 5 ml syringe + saline**
- . 3 x 14ga Insyte Cannulas**
- . Rapid-O<sub>2</sub> device**

## **PTO for Instructions**

## **Instructions for Cannula Cricotracheotomy**

### **Airway**

- Assemble syringe-saline-needle cannula
- Stand on patients left side (reverse if left handed)
- Identify cricothyroid membrane or trachea with non-dominant hand and stabilise
- (**\*\* if airway anatomy impalpable, see below**)
- Advance needle at a shallow angle while continually aspirating
- When air is aspirated, stabilise needle, and advance cannula
- Stabilise cannula and withdraw needle
- Confirm cannula placement with repeat aspiration
- Connect oxygenation device

### **Oxygenate and stabilise**

- Initial oxygenation
  - Oxygen set at 10 l/min (=166 ml/sec)
  - Give 6 second inspiration (=1000 ml)
- Subsequent oxygenation
  - Use 3 second inspirations
  - Give when SaO<sub>2</sub> falls 5% from peak

**Awaken or proceed to Melker 5.0 cuffed airway (Seldinger technique)**

### **\*\* Impalpable airway anatomy**

- Still attempt cannula cric/trach, modified as below
  - Insert needle at a steeper angle (more perpendicular) to skin
  - 1st attempt in apparent midline, *unless* it is suspected that the trachea is positioned elsewhere
  - 2nd attempt 1cm lateral
  - 3rd attempt 1cm contralateral
  - If unsuccessful after 3rd attempt progress to scalpel-finger-cannula

# Scalpel bougie

## Contents:

- Scalpel with no. 10 blade
- Frova bougie
- 15mm Rapi-fit attachment

## PTO for Instructions

## **Instructions for Scalpel Bougie**

### **Bougie**

- **Stand on patients left side (reverse if left handed)**
- **Identify cricothyroid membrane or trachea with non-dominant hand and stabilise**
- **Make a horizontal stab incision with cutting edge of scalpel facing you**
- **Apply gentle traction towards you, then rotate scalpel 90° so that the cutting edge now faces caudally**
- **Pull scalpel towards you to make a triangular hole with the scalpel blade forming the base**
- **Change hands, and use dominant hand to introduce bougie**
- **Hold bougie horizontally, facing away from you, with the coude tip pointing into the hole**
- **Run the tip down the scalpel blade and into the trachea**
- **Rotate and lift bougie to align with trachea**
- **Remove scalpel**
- **Advance bougie down trachea 10-20 cm**
- **Attach 15mm connector to end of bougie**
- **Connect to anaesthetic circuit or self inflating bag**

**Oxygenate and stabilise using anaesthetic circuit, check capnograph for CO<sub>2</sub>**

### **Intubation — Use Melker kit (orange pack)**

- **Remove Melker 5.0 cuffed tube from dilator assembly**
- **Remove 15mm Rapi-fit connector from bougie**
- **Railroad Melker over bougie**
- **Stabilise airway and remove bougie**
- **Inflate cuff and attach anaesthetic circuit to 15mm connector, check capnograph for CO<sub>2</sub>**

# Scalpel finger cannula

## Contents:

- Scalpel with no. 10 blade
- 5 ml syringe + saline
- 3 x 14ga Insyte Cannulas
- Rapid-O<sub>2</sub> device

## PTO for Instructions

## **Instructions for Scalpel Finger Cannula**

- Stand on patients left side (reverse if left handed)
- Secure skin of neck with non-dominant hand
- Make an 8-10 cm vertical midline incision down to strap muscles
- Using fingers of both hands separate strap muscles and blunt dissect down to airway
- Stabilise airway with non dominant hand
- Use Cannula Cricothyroidotomy/tracheotomy technique to cannulate airway

### **Oxygenate and stabilise**

- Initial oxygenation
  - Oxygen set at 10 l/min (=166 ml/sec)
  - Give 6 second inspiration (=1000 ml)
- Subsequent oxygenation
  - Use 3 second inspirations
  - Give when SaO<sub>2</sub> falls 5% from peak

**Proceed to Melker 5.0 cuffed airway (Seldinger technique)**



# Melker 5.0 cuffed kit

## Contents:

- Cook “Melker” size 5.0 cuffed kit

## PTO for Instructions

## **Instructions for Melker Airway**

### **NOTE:**

- Only need wire, scalpel, and airway/dilator assembly from kit
- Airway cannula or bougie will already be in situ, and patient oxygenated and stabilised

### **Insertion (Seldinger)**

- Disconnect oxygenation tubing from cannula
- Insert wire, soft end first
- Withdraw cannula
- Make a stab incision with the scalpel along the wire approx 2cm until a “pop” is felt as it enters the airway
- Gripping the dilator/airway assembly to prevent separation, advance over the wire and into the trachea
- Stabilise airway, remove dilator and wire together
- Inflate cuff and attach anaesthetic circuit to 15mm connector, check capnograph for CO<sub>2</sub>

### **Insertion (over bougie)**

- Remove Melker 5.0 cuffed tube from dilator assembly
- Remove 15mm Rapi-fit connector from bougie
- Railroad Melker over bougie
- Stabilise airway and remove bougie
- Inflate cuff and attach anaesthetic circuit to 15mm connector, check capnograph for CO<sub>2</sub>