

Colchester Fibreoptic Intubation Training



On: Friday 2010/2011
From: 08.45 – 17.00
Venue: Post Graduate Medical Centre (Theory)
Theatre 5 Constable Theatres (Practical)

Course Faculty

Joe Adams, Andrew Eldridge, Kate Gardner,
Sue Pearson, Gerald Timmins
Mohammed Ramali

With the generous support of STORZ

Programme

Please have breakfast and a drink before 07.00
and then nothing else to eat or drink

08.45 – 11.30 Topics

- Course introduction
- Assessment of the difficult airway
- Care, handling & cleaning of scope
- Topical anaesthesia method
- Video demonstration
- Mannequin practice
- Model practice
- Calculate dosages for practical
- Discussion

12.00 – 16.00 Practical course

16.00 Q & A
Feedback

17.00 Close

Awake Fiberoptic intubation.

As a participant , you need to understand what the procedure entails and be aware of the relevant risks.

Method

The procedure takes place in a fully equipped operating theatre with all resuscitation facilities available. It is important to have breakfast no later than 07.00. You should only consume clear fluids thereafter (We provide clear fluids throughout the morning.)

Please enter your weight in the chart provided overleaf.

- Routine monitoring is established (ECG, NIBP and pulse oximetry).
- Topical xylometazoline (Otrivine®) spray is applied to both nostrils.
- A 20/22g cannula is inserted into the dorsum of the hand or the antecubital fossa.
- Glycopyrrolate 3 micrograms/kg is given intravenously.
- 5mL of 2% lidocaine is given by nebuliser. Supplemental oxygen will be administered via a nasal sponge.
- Further airway analgesia will be given as a nasal and oral spray.
- The epiglottis, cords and tracheal mucosa will be anaesthetised with 2% lidocaine administered through the bronchoscope.
- A 5mm uncuffed endotracheal tube will then be passed into the trachea.
- Course members, under direct supervision, will perform airway anaesthesia & endoscopy, then intubation. Each delegate will perform the endoscopy procedure on the other 3 delegates in turn.
- Each candidate will only be intubated once.
- Pulse, BP and SaO₂ will be monitored at frequent intervals during the procedure.
- Local anaesthetic injections, cocaine or sedation will NOT be used.

Risks

- Airway trauma -bleeding or perforation and abscess formation
- Allergic reactions to lidocaine, glycopyrrolate, xylometazoline, latex etc.
- Drug toxicity due to lidocaine
- Aspiration of gastric contents
- Infection: localised or systemic

Apart from minor nasopharyngeal trauma, none of these complications are common. The lidocaine dosage used is large (9mg/kg) however this has been found to be safe in multiple studies. (Efthimiou J, Higenbottam T, Holt D, Cochrane GM. Plasma concentrations of lignocaine during fiberoptic bronchoscopy. *Thorax* 1982; 37: 68-71). Awake fiberoptic intubation seems to be safe in patients at high risk of aspiration (Ovassapian A, Krejcie TC, Yelich SJ, Dykes MHM. Awake fiberoptic intubation in patients at high risk of aspiration. *Br J Anaesth* 1989; 62: 13-16).

How Does it Feel?

Inevitably, most people are anxious prior to the intubation, but our feedback forms indicate that the vast majority of delegates find the procedure acceptable or better.

- You will be seated on an operating table and routine monitoring will be applied - NIBP, ECG and pulse oximetry.
- A small cannula will be inserted into the back of your hand or the antecubital fossa.
- This is followed by the IV administration of Glycopyrrolate 3 mcg/kg. Over the following ten minutes the glycopyrrolate will produce a dry mouth.
- Xylometazoline (Otrivine®) drops are applied to the nose; these may sting a little and taste unpleasant.
- Topical application of local anesthetic spray to the airway causes some coughing. It stings initially and tastes bitter.
- When topicalisation is complete the tracheal tube is passed through the nose. A soft 5mm uncuffed tube is used. As it passes through the nose there is a feeling of pressure and some discomfort. In general the procedure is well tolerated. The tracheal tube position is confirmed & then removed.

You may feel a certain degree of elation when the procedure is over. This sensation is enhanced by the effects of lidocaine, which produces some dysphoria. Following the procedure a sore throat and nasal stuffiness are common. When oro-pharyngeal sensation returns to normal we recommend paracetamol to deal with the nasal and throat discomfort. Both usually settle after 12 to 24 hours.

We have to be extremely careful when organizing a course of this nature. You must understand that some delegates may be refused entry as participants.

Participating candidates must not drive for 4 hours after endoscopy or be on call that day.

You will be asked to fill in a feedback form and provide a contact telephone number after the course. The course organisers will telephone you the next day to see how you are feeling and whether you had any problems overnight.

Equipment & Method

- Fully operational scope/ TV monitor- set up & checked
- Monitoring equipment / resuscitation facilities
- Assistant
- Suction apparatus
- Oxygen supply; nasal sponge
- Different type/size ETT's (6.0, 6.5 flexible reinforced ETT's in practice, but 5.0 for the purposes of the course)
- IV cannula, Glycopyrrolate 3mcg/kg, Otrivine® drops
- Epidural Catheter 16G (with tip cut off)
- Nebuliser with 5ml 2% Lidocaine
- Mucosal atomisation device (MAD)
- 10% Lidocaine spray
- 2% Lidocaine, ten x 1ml (each in 2ml syringe with 1ml air)
- KY Jelly (nose), Saline (lubrication for railroading tube over scope)

Name:

Weight: Kg

Maximum Dose of Lidocaine (9mg/kg):

- Draw up according to weight:

In 1 x 2ml syringe: 3mcg/kg Glycopyrrolate (maximum 200mcg)

In 10 x 2ml syringe: 1ml 2% lidocaine with 1 ml air

Method/Technique

- 1ml Otrivine® to each nostril
- 5ml 2% lidocaine (100mg) via nebuliser
- 2ml 2% lidocaine (40 mg) to nostril
- 4 x 10% lidocaine (40mg) sprays to selected nostril)
- 2 x 10% lidocaine (40mg) sprays to each side of throat with tongue protruded
- Up to 8ml x 2% lidocaine (160mg) onto epiglottis, cords and tracheal mucosa through the scope via epidural catheter (in 1ml aliquots each in 2ml syringe with 1ml air)

Total lidocaine dose above = 380mg

In participants or patients of lower weights, the quantity and or concentration of lidocaine will be reduced to stay within safe dosage limits.

Consent to Endoscopy and Intubation under Local Anaesthesia

As a voluntary participant on this course, this will involve undergoing fiberoptic nasotracheal endoscopy and nasal intubation under local anaesthetic.

There may be some discomfort, namely nasal and airway irritation during the procedure, which causes coughing and a dry mouth & nasal stuffiness afterwards lasting several hours. Candidates will have fasted for at least 4 hours prior to the procedure and are advised to fast until oropharyngeal sensation has returned post procedure and not to drive for 4 hours afterwards or be on call that night.

Risks to be aware of include: -

- Trauma to the airway including bleeding or perforation
- Allergic reactions to lidocaine, glycopyrrolate, xylometazoline etc
- Drug toxicity due to lidocaine
- Aspiration of gastric contents
- Infection; localised or systemic

Consent:

I wish to take part in this endoscopy airway training course. In doing so, I am willing to act as a subject for endoscopy and intubation under local anaesthesia. I have fasted as per recommendations. I am also aware of the side effects of the procedure and the possible risks/complications of the procedure listed above. As far as I am aware, I am not pregnant.(Confirm on day of course)

Name (Print)

Signature

Date