



**ThinkAskLearn**  
Health Professional Education

## Post Intubation Management

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### Intubation: You are doing it wrong!



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### Difficult Intubation???



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Post Intubation





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Structured Approach

- Airway
- Breathing
- Circulation
- Disability
- Useful Mnemonics
  - FAST HUGS + MORE



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CENA Standards

- Staffing
  - One on one
- Competency
  - Evidence based competency program (Min)
  - Relevant post graduate program (CENA recommends)
- Resources and Environment
  - Resuscitation area
  - Other staff able to assist



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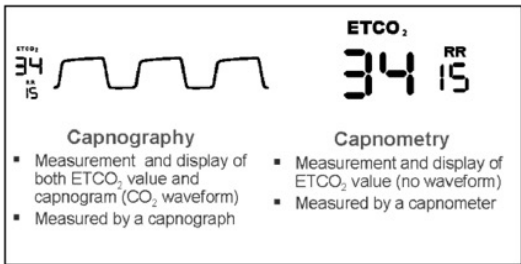
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Airway – Placement of ETT

- Confirmation methods



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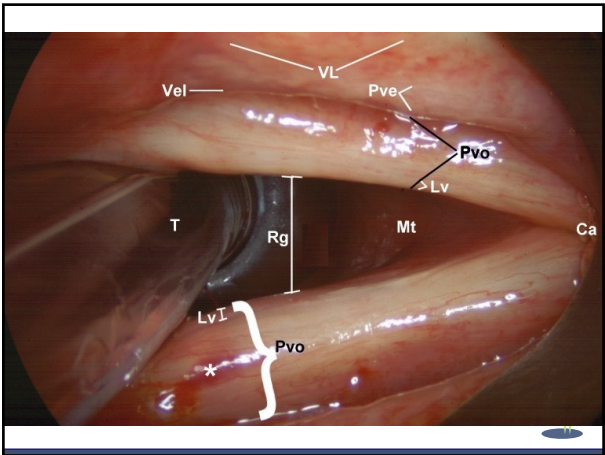
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Airway – Placement of ETT

- Confirmation methods
  - ETCO2
  - View of tube in cords
  - Auscultation of epigastrium
  - Auscultation of bilateral bases
  - Saturation monitoring
  - Rise and Fall of the chest
  - Misting of the tube
  - CXR



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AIRWAY

- ETT SECURITY
- There is little evidence for a best practice standard for this, firm but not so tight

Best practice in stabilisation of oral endotracheal tubes: a systematic review

Gardner et al 2005 Aust Crit Care



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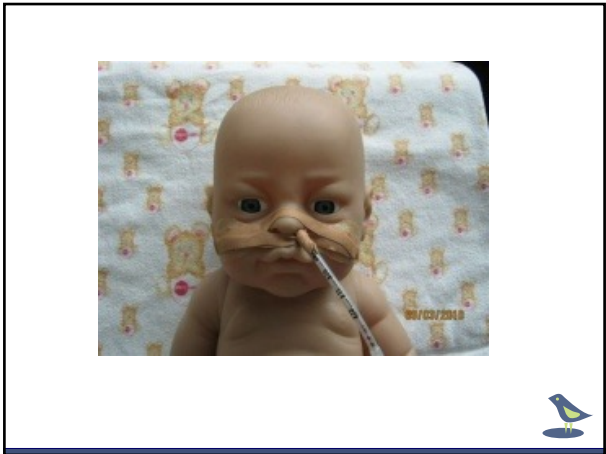
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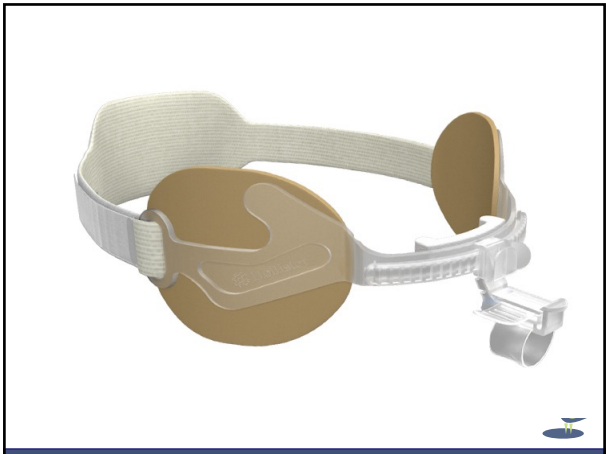
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### Tying the ETT

- 2 people to tie
- Cloth Tape mostly
  - Avoid Head Injury
- Trouser Leg Tapes
  - Kids, Head injuries,
  - Avoid Beards, sweaty people, Burns, cellulitis
- Avoid pressure on lips



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### Airway

- Measuring the ETT
  - Teeth vs Lips
- Measuring the Cuff Pressure
  - 10mls of air
  - Air until you hear no leak ???



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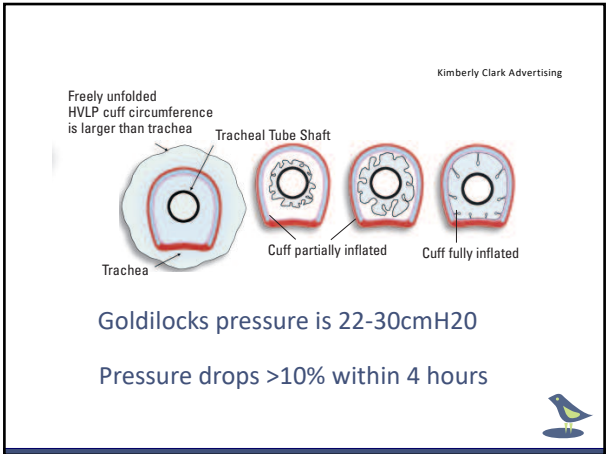
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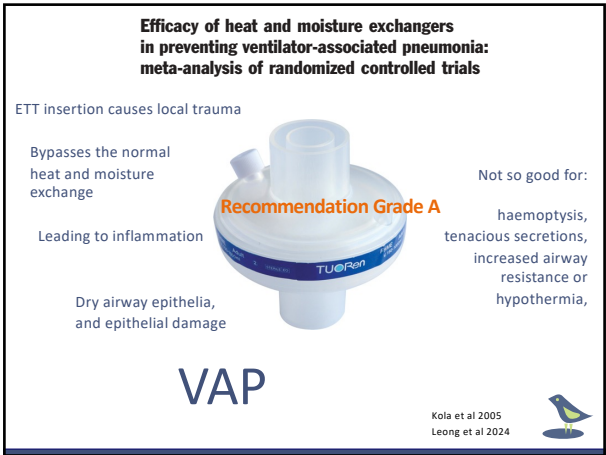
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Breathing

- Auscultate for adventitious breath sounds
- Assess for symmetrical chest excursion/ TML (trachea mid line)
- Assess SaO2, ETCO2, ABG
- Check tubing for integrity, kinks, snag risks
- Ensure tubing is secure and supported
- Confirm ventilator settings. Document vent obs



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Breathing- Ventilator Settings

- MODE
  - SIMV/CMV
- PEEP
- TV
- Rate
- IE Ratio
- Alarm Limits
- Oxygen Percentage
  - Aim for 96% asap



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Breathing

- Note any spontaneous resps
  - Is patient fighting the ventilator? Does the ventilation mode need to be changed?
- Check ventilator is on correct O2 supply and power supply
  - Remember to swap your patient back from cylinder to wall oxygen when returning from a trip to CT or Xray
- Assess need for suctioning
  - High airway pressures, decreased saturation



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Circulation

- Assess pulse pressure/ blood pressure /urine output
- Observe MAP
- Peripheral Cannula security
- Assess central catheters
- Check for active external bleeding
- Check IV fluids



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Disability

- Document the GCS
- Check pupils
- Nurse 30° Head Up
  - Neuro and all, Tilt bed for spinal



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Environment

- Monitor pt temperature (Remember the lethal triad: hypothermia, acidosis, coagulopathy)
- Invasive temperature standard on all intubated patients
- Consider oesophageal/idc probe
- Consider need for active warming (eg hypothermic trauma patients) or active cooling (eg post VF arrest)



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**Paralysis and Sedation**

- When last had paralysis?
- What drugs are we using?
- What are the aims of patients care?
- Tearing, Eyelid reflexes,



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**Monitors**

- Pay attention! But go to the patient not the monitor
- Check power supplies
- Zero transducers. Arterial/Central Venous Pressure
- Monitor integrity
- Cable safety



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**Emergency Equipment**

- ANTICIPATE & PLAN Know your way around the advanced life support trolley
- BVM- bag valve mask + PEEP valve Even when your patient is intubated, dont for get to have a correctly fitting mask handy...worst case scenario
- Full O2 cylinders
- Suction available
- Take away drugs (when transporting to CT, ICU etc)



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Oral Care

- Suctioning prn
- 2nd hourly oral hygiene.
- Vaseline to lips.
- Check for FB (teeth etc)



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Eye Care

- Risk of complications from conjunctivitis to corneal injury/ulceration
- Sedation and muscle relaxants
- Consider taping of eyes.
- Inspect regularly.
- 2nd hourly eye care.
- Care during suctioning (bacterial Keratitis).



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GIT

- NG tube confirmation
  - Best practice: test pH of aspirate. If less than 5.5-6.0 you are good.
- NG tube security



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IDC Genital/Urinary

- Urinalysis.
- Regular Penile/perineum catheter care.
- Hourly FBC (fluid balance chart).



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PAC

- Regular repositioning (2nd hourly):
  - Assists with clearance of secretions
  - Prevents pressure areas
  - Improves oxygenation
- Clean sheets
- Remove Debris



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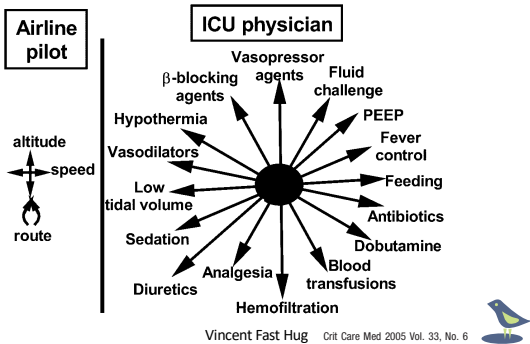
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Decisions,Decisions



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Checklist: FAST HUG

- F = Feeding
- A = Analgesia
- S = Sedation
- T = Thromboembolic Prophylaxis
  
- H = Head of Bed Elevated
- U = Stress Ulcer Prevention
- G = Glucose Control

Vincent Fast Hug

Crit Care Med 2005 Vol. 33, No. 6



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FAST HUGS BID

- S = Spont Breathing Assessment
  
- B = Bowel Regime
- I = IDC removal
- D = De-escalating of Antibiotics

Vincent

Crit Care Med 2009 Vol. 37, No. 7



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Then madness ensues

- FAST HUGS in BED Please (Nickson 2011 LITFL)
- FAST HUGS WIPP (Bloomer 2012)
- FAST HUG MAIDEN (Mabasa 2011)
- FAST HUGS EACH HOUR (Vincent 2009)
- FAST HUGS with FAITH (Chikungwa 2010)



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When to pay close attention

- Papson et al 2007 Royal Melbourne ED
- Prospective observational study of intrahospital transfers of critically ill patients
- 339 transports, 230 had adverse events, 640 unexpected events.
- 79.1% required an intervention
- 5% of unexpected events were classed as serious
- Unable to find other ED papers, a couple of ICU ones 10yrs ago (44%)



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Dave’s Rule

Most unexpected events occur when patient leaves bed to get into another



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In Conclusion

- Standards for care of the ventilated patient
- Understand the structured approach to care
- Identify the high risk times for ventilated patients
- Turn your brain on



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