NIV & Tracheostomies - Dispelling the Myths & Putting the Person First

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Complex Ventilation
WHAT IS THE RIGHT MASK
Masks

• What is right for you?
  – Nasal Mask
  – Nasal Pillows
  – Full-face mask

• Comfortable

• Enable speech and eating

• Not cause pressure sores

• Not leak
Masks
Is there an alternative interface for daytime ventilation needs?
Mouthpiece Ventilation (MPV)

- **When?**
  - Can be started if you find you are needing to use NIV in the day
  - If you notice increased breathlessness in the afternoons
  - Decreased audibility of speech

- **Settings:**
  - Aim is for a hyper insufflation
    - > 1L volume
    - No PEEP
    - No BPM
    - Long Ti
    - Kiss trigger
Current Problem

- Royal College of nursing (RCN) 2018 paper
- Community care for children and young adults
  - Statement: Only registered nurses can carry out ANY SUCTION
- No stakeholder discussion prior to publication
- Care packages will need to be increased to include RN
- Impact is HUGE
TRACHEOSTOMY TALES
Back in time…

- Tracheostomy derived from 2 Greek words meaning “I cut the trachea”
- Reference to the procedure existed in the Rig Vedas – the sacred book of Hindu medicine: 2nd millennium BC
- 1st successful tracheostomy recorded 1546 by an Italian physician
- 1800’s performed on children with diphtheria
- Chevalier Jackson refined the technique in 1909
The children's diphtheria ward
Going forward…

• Last 60 years 3 major developments:
  – IPPV and ICU (due to polio epidemic)
  – Low pressure tracheostomy cuffs
  – Percutaneous dilatational technique (1969)

• Creative and imaginative people!
Reasons for a Tracheostomy Tube

• Long term invasive mechanical ventilation
• Tracheal obstruction
  – Upper airway – stenosis, abnormal vocal folds
  – Tracheomalacia
• Copious, unmanageable secretions OR unable to clear secretions effectively despite adjuncts
Types of Tracheostomy Tubes

- Cuffed
- Uncuffed
- Double lumen
- Single lumen
- Fenestrated
- Unfenestrated
- PVC, PU, Silicone, Silver
- Subglottic port
- Differing lengths and curvature
Upper Airway - physiological

NEED NORMAL AIRFLOW

• 1st line of defence
• Humidification & warming
• Taste and smell
• Swallow
• Phonation
• Cough
• Subglottic pressure
Physiological Changes

- All physiological functions are impaired
  - Increase risk of infection
Psychological changes

- Altered body image
  - Self
  - Society
- Lack of communication
- Reduced cognitive / sensory development
- Feelings of vulnerability
- Reduced lifestyle
- Medicalised
The Myths

- Cuffs stop aspiration
- ‘you won’t be able to eat or drink’
- ‘you will never be able to talk again’
- ‘you won’t be able to have a bath or shower’
- ‘you won’t be able to go home’
- ‘The tube will never come out.’
Having a Trache and reducing the risks

• The right tube for the job!
  – Model & material
  – Size & length
  – Curvature

• Meticulous planning for discharge
  – Education (it is NOT critical care)
  – Training
  – Optimal weaning or ongoing weaning at home
  – Equipment
Essential Equipment

- Emergency box
  - Spare TT
  - TT licence
- Consumables
- Suction machine x 2 (with battery)
- Ventilators x 2 (if ventilated)
  - Carry bags
  - Spare batteries
- Humidification
- Bag valve mask (resuscitation bag)
Having a Trache

• Holistic collaborative and integrated management
  – Where the tube will be changed and who by
  – Access to local ENT
  – Trache passport – red flags
  – Who to contact and what support
  – Management plan
  – Emergency and escalation plans
  – Psychological input
  – Working within the person and family’s lifestyle
Current Problem

• Royal College of Nursing (RCN) 2018
• Health needs for in community – children and young adults
  – All suctioning has to be carried out by registered nurses!
• No involvement with actual stakeholders
  – Nurses
  – Physio
  – Parents
  – Patients
  – Carers
Having a Trache

• Effective humidification
  – Buchanan bib / HME
  – Effective hydration
  – Fisher & Paykall humidifier (active)
  – Nebulisers

• Speaking valves
  – Upper airway restoration valves

• Effective chest clearance
  – Suctioning
  – Other adjuncts
Why Can’t I Speak With a Speaking Valve?
Possible Causes

- Trache tube too big
- If cuffed tube – cuff not deflated
- Anatomical obstruction / dysfunction
  - Vocal cords
  - granulation
- Unable to open diaphragm in valve
  - Try different valve
What Is Deep Suction And When Should It Be Taught?
Deep Suction

- To clear chest secretions effectively
- Suction catheter goes down to the carina
Deep Suction

- Should be taught to all those caring for a person with a trache
- Should start at the hospital prior to discharge
- Clean technique
- Adapted for each individual person
- Use number graded suction catheters
Trache Tube Changes

- All those caring for the person should be able to change the trache tube
- Preferably at HOME
  - normalise
  - Clean technique
- It is part of their being
Enabling…

- Risk take with back up plans
- Home
- Patient and carer narratives
- **Actively Listen** to the person and their carers
  - Never say never
- Patient and carer forums
  - Influence local and national policy
  - De-mystify disability

Imagination and Creativity
Enabling a life worth living...