



Tracheostomy Flags

1.0 Tracheostomy Red Flags

- Like most critical incidents, warning signs often precede tracheostomy-related clinical problems. As these signs are sometimes only apparent with hindsight, it is essential that you know what to look out for, so that you can troubleshoot at an early stage and stop minor problems escalating.
- Tracheostomy-related clinical problems are called ‘Tracheostomy Red Flags’, although some are applicable to laryngectomy patients too. It is easy to develop a false sense of security when a patient has a tracheostomy tube in situ. Remember though that this is an artificial airway, just like an endotracheal tube. Problems that arise are therefore airway problems and can develop quickly and dramatically into life-threatening situations, especially if the patient is ventilator-dependent or critically ill.
- Think about a patient in the ICU with a large air leak from an ET tube; everyone would agree that this needs to be addressed urgently. This is the same for a tracheostomy tube (McGrath 2014).

1.1 What to do if you detect a Red Flag?

- A prompt assessment of the tracheostomy and the patient should be made by someone who is competent to do so. Who this is depends on how the patient is, your role and where you work, but the person making the assessment must be able to work out what the problem is and to address it. Interventions could range from a simple reassuring assessment, a fibreoptic inspection of the tube or airways, or replacement of the tracheostomy tube.
- Refer to Tracheostomy Care and Management Guideline (SJH:N069).
- Like any assessment of an unwell patient, this should always start with ‘A for Airway’. In the case of a patient with a tracheostomy, there may be two airways to consider, or only one in the case of a laryngectomy (neck breather only). Any airway problem can cause the patient to become unwell and to show signs of distress. Conversely, patients with tracheostomies can become unwell with all of the problems that other patients get too. It is easy to become fixated on the tracheostomy.
- The flags be divided up into different categories (McGrath 2014) :
 - a. Airway flags
 - b. Breathing flags
 - c. Specific tracheostomy flags
 - d. General flags.

a. Airway Flags:

- ✓ If the patient has a cuffed tracheostomy correctly sited in the trachea, no gas should escape through the mouth. If the patient is talking to you, or audible air leaks, or bubbles of saliva are seen or heard at the mouth or nose, then gas is escaping past the cuff. This may imply that the tube is too small for the patient to achieve an adequate seal or that the cuff is damaged or that the tube tip is not correctly sited. Grunting, snoring or stridor are also signs that there is an airway problem.
- ✓ If the tracheostomy inner cannula is checked and patent yet resistance is met on suctioning this can indicate that the tube is blocked distally with secretions or has become displaced in the airway. If resistance is noted (ie suction catheter not passing freely) ENT/Intensive care anaesthetist/Tracheostomy CNS should be notified immediately and a capnography monitor or flexiscope should be carried out to confirm the position of the tube in airway. Tube removal should be considered if resistance on suctioning is combined with acute desaturation.

b. Breathing flags:

- ✓ Listening to the patient, observing the patient, or the use of instrumentation may show that the patient:
 - Is not breathing (apnoea), which is detected by capnography or clinically.
 - Has difficulty breathing (or with ventilation), which may be reported by the patient or observed clinically:
 - Accessory muscle use.
 - Increased respiratory rate.
 - Higher airway pressures.
 - Lower tidal volumes.
 - Is hypoxic.
 - Is making whistling noises or has noisy breathing.

c. Specific tracheostomy flags:

- ✓ Careful observation may show that the patient:
 - Has a visibly displaced tracheostomy tube: if the patient has an adjustable flange tube, check to see where it was last positioned.
 - Has blood or blood-stained secretions around the tube: a recently performed or changed tracheostomy bleeds a little, but if in doubt, it should be assessed.
 - Reports increased discomfort or pain.
 - Requires a great deal of air to keep the cuff inflated, which may be because:
 - the tube has become displaced and the cuff needs hyper-inflation to keep it sealed.
 - the cuff is damaged or has a leak (in which case it needs to be replaced).
 - the tube is too small for the patient and needs to be upsized.

d. General flags:

- ✓ Any physiological changes can be because of an airway problem. Specifically, changes in:
 - Respiratory rate.
 - Heart rate.
 - Blood pressure.
 - Level of consciousness.
 - Anxiety, restlessness, agitation and confusion may also be because of an airway problem (McGrath 2014).