Management of excessive secretions

**Hypersalivation / drooling**
Drooling most commonly occurs with normal production of saliva but excessive saliva (sialorrhoea) can be a causative factor. Most cases of drooling are associated with neuromuscular disorders e.g. MND but it may also be a problem with head and neck cancers.

**Management**
- Tricyclic antidepressant e.g. Amitriptyline 10-30mg PO nocte.
- Propantheline 15mg PO tds
- Hyoscine hydrobromide 300 micrograms tds SL ‘Kwells’ or transdermal patches which release 1mg of hyoscine over 72 hours
- Glycopyrronium penetrates biological membranes slowly and erratically and is therefore unlikely to cause central effects such as confusion. Enteral absorption is poor but 200-400 micrograms tds PO is associated with an antisialogogic effect. It can be given orally, SC or via a gastrosomy
- Irradiation of salivary glands (rarely indicated in palliative care)

**Death rattle** is used to describe a rattling noise, which is produced by secretions in the hypopharynx. Generally it is only seen in patients who are close to death. It occurs in 30-50% of patients and can be distressing for relatives and carers.

**Non-drug treatment**
- Reassure relatives that the semiconscious patient is not distressed by the rattle
- Position the patient semi-prone to allow postural drainage
- Oropharyngeal suction may be required if a patient has copious secretions and is unconscious

**Drug treatment** (it is questionable whether this does work)
- Antimuscarinic antisecretory drugs need to be given promptly because they do not affect existing secretions. Given via a CSCI the efficacy of hyoscine hydrobromide, hyoscine butylbromide and glycopyrrolate in reducing secretions appear similar. Hyoscine hydrobromide crosses the blood-brain barrier and exerts sedative and anti-emetic effects in addition to its anti-secretory effects. This can be beneficial in terminal secretions. Hyoscine butylbromide and glycopyrrolate do not cross the blood brain barrier and are therefore devoid of CNS effects i.e confusion

- Hyoscine butylbromide 20mg SC stat followed by 80–120 mg / 24 hours CSCI
- Glycopyrrolate 0.2 - 0.4 mg SC stat followed by 0.6–1.2 mg / 24 hours CSCI
  The onset of action of glycopyrrolate is slower than with hyoscine hydrobromide
- Hyoscine hydrobromide 0.4 mg SC stat followed by 1.2–2.4 mg / 24 hours CSCI

Not all patients will respond to antisecretory medication.

Noisy tachypnoea in unconscious patients may be less distressing if the respiratory rate is slowed to 10-15 breaths / minute. The respiratory rate can be slowed with Diamorphine SC or Midazolam 5mg stat SC and 10 –30 mg / 24 hrs CSCI

**References**