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## Respiratory Tract Secretions

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### Introduction

Approximately 92% of patients approaching last days of life are often unable to clear their upper respiratory tract. Noisy respiratory secretions generally occur when the patient is unconscious and many refer to it as the “death rattle” due to noise created by the condition. There are suggestions that relieving secretions can help prevent or reduce restlessness and dyspnoea in terminally ill patients. What follows are recommended treatments/management to help reduce or relieve this problem & should be used when patients are imminently dying.

### Non-pharmacological interventions

- Changing the patient's position to help facilitate drainage can often be very effective however this may not be possible or appropriate.
- In severe cases only, suction may be required. This is often unpleasant for the patient and requires sedation prior to procedure.

### Advice to relatives/carers

- Patients will not be distressed if they are unconscious.
- Noisy breathing occurs because patient is unable to clear their throat.
- Medication may not always be effective.

### Pharmacological interventions

- Antimuscarinics are the drugs of choice – need to be commenced at the first sign of noisy secretions, as they tend not to work as well on established secretions.
- Drugs need to be administered via subcutaneous route to achieve faster, more effective relief.
- Glycopyrronium bromide 200 micrograms subcutaneous 6 hourly or 800 -1200 micrograms over 24 hours via syringe driver. Fewer side effects than hyoscine hydrobromide. Onset of action 30-40 minutes. This is the drug of choice as recommended on the Manchester [Integrated Care Pathway](#) for the dying.
- Hyoscine hydrobromide is an alternative if glycopyrronium is unavailable. If patient is conscious it is important to be aware that it can cause patients to experience agitation and occasionally psychotic episodes. Avoid concurrent use of prokinetic. Dose range 400 micrograms subcutaneously 4-6 hourly or 400 -2400micrograms via syringe driver over 24 hours.
- Hyoscine butylbromide 20mg stat subcutaneously or 20-40mg over 24 hours via syringe driver. Less sedating than hyoscine hydrobromide but is generally less effective. Normally used for treatment of colic. Again avoid concurrent use of prokinetic. Take care not to confuse with hyoscine hydrobromide

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### References

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- Kaye. P (2003) A-Z Pocketbook of Symptom Control EPL Publications Northampton.
- Twycross. et.al. (2002) Palliative care Formulary second edition. Radcliffe Medical Press Oxon.