Table 68: Hughes 2000[227]

Study	Hughes 2000[227]
Study type	Non-randomised comparative study.
Number of studies (number of participants)	1 (n=111)
Countries and setting	Conducted in United Kingdom; Setting: Hospice.
Line of therapy	Not applicable.
Duration of study	Until death or cessation of symptoms.
Method of assessment of guideline condition	Unclear method of assessment/diagnosis.
Stratum	Overall.

Subgroup analysis within study	Not applicable.
Inclusion criteria	People with advanced terminal cancer judged to be within a few days of death. Participants were unconscious with noisy retained secretions that persisted despite repositioning.
Exclusion criteria	Not stated.
Age, gender and ethnicity	Age - Other: Not stated. Gender (M:F): Not stated. Ethnicity:
Indirectness of population	No indirectness.
Interventions	(n=39) Intervention 1: Anti-muscarinic - Hyoscine hydrobromide. Hyoscine hydrobromide 0.4 mg subcutaneously stat, followed by 0.6 mg stat and 2.4 mg/24 hour by syringe driver. Duration Until death or no longer clinically indicated. Concurrent medication/care: Not stated. (n=39) Intervention 2: Anti-muscarinic - Hyoscine butylbromide. Hyoscine butylbromide 20 mg subcutaneously stat, followed by 20 mg stat and 20 mg/24 hour by syringe driver . Duration Until death or no longer clinically indicated. Concurrent medication/care: Not stated. (n=39) Intervention 3: Anti-muscarinic - Glycopyrronium bromide. Glycopyrronium bromide 0.2 mg subcutaneously stat, followed by 0.4 mg stat and 0.6 mg/24 hour by syringe driver. Duration Until death or no longer clinically indicated. Concurrent medication/care: Not stated.
Funding	Funding not stated.

RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: HYOSCINE BUTYLBROMIDE versus HYOSCINE HYDROBROMIDE

Protocol outcome 1: Subjective or objective improvement in respiratory secretions at hours/days
- Actual outcome: Level of change in noise intensity of respiratory secretions: absent, much better, slightly better, same, slightly worse, or much worse at Only specified as at death; Group 1: 24/37, Group 2: 20/37; Risk of bias: Very high; Indirectness of outcome: No indirectness.

Protocol outcome 2: Subjective ratings from informal carers' on distress relating to noisy breathing/respiratory secretions at hours/days
- Actual outcome: Change in relatives' distress: absent, much better, slightly better, same, slightly worse, or much worse at Only specified as at death; Group 1: 24/27, Group 2: 27/29; Risk of bias: Very high; Indirectness of outcome: No indirectness.

RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: GLYCOPYRRONIUM BROMIDE versus HYOSCINE HYDROBROMIDE

Protocol outcome 1: Subjective or objective improvement in respiratory secretions at hours/days - Actual outcome: Level of change in noise intensity of respiratory secretions: absent, much better, slightly better, same, slightly worse, or much worse at Only specified as at death; Group 1: 24/37, Group 2: 20/37; Risk of bias: Very high; Indirectness of outcome: No indirectness. Protocol outcome 2: Subjective ratings from informal carers' on distress relating to noisy breathing/respiratory secretions at hours/days - Actual outcome: Change in relatives' distress: absent, much better, slightly better, same, slightly worse, or much worse at Only specified as at death; Group 1: 22/25, Group 2: 27/29; Risk of bias: Very high; Indirectness of outcome: No indirectness. RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: GLYCOPYRRONIUM BROMIDE versus HYOSCINE BUTYLBROMIDE Protocol outcome 1: Subjective or objective improvement in respiratory secretions at hours/days - Actual outcome: Level of change in noise intensity of respiratory secretions: absent, much better, slightly better, same, slightly worse, or much worse at Only specified as at death; Group 1: 24/37, Group 2: 24/37; Risk of bias: Very high; Indirectness of outcome: No indirectness. Protocol outcome 2: Subjective ratings from informal carers' on distress relating to noisy breathing/respiratory secretions at hours/days - Actual outcome: Change in relatives' distress: absent, much better, slightly better, same, slightly worse, or much worse at Only specified as at death; Group 1: 22/25, Group 2: 27/29; Risk of bias: Very high; Indirectness of outcome: No indirectness.	
Protocol outcomes not reported by the study	Quality of life at hours/days; Hospitalisation at hours/days; Subjective ratings from people on distress related to noisy breathing /respiratory secretions at hours/days; Sedation (patient-rated, clinician-rated, carer-rated) at hours/days; Adverse events (particularly paradoxical agitation, failure to expectorate, dry mouth at hours/days; Hydration status at hours/days; Length of survival at hours/days; Length of stay at hours/days.