

Eastern Metropolitan Region Palliative Care Consortium

Clinical Working Party

Guidelines for the management of respiratory secretions in an imminently dying patient

December 2010

© 2010. These guidelines have been copyrighted. The EMRPCC grants permission to reproduce parts of this publication for clinical and educational use only, provided that the Eastern Metropolitan Region Palliative Care Consortium (Victoria) is acknowledged. Requests to reproduce this document, for purposes other than those stated above, should be addressed to:

Consortium Manager
Eastern Metropolitan Region Palliative Care Consortium
PO Box 227, Nunawading VIC 3131
Australia

Guideline review due: February 2013.





Background:

Terminal respiratory secretions (known as 'death rattle' or 'noisy breathing') are often observed in an imminently dying person. Despite the symptom occurring in 23 - 92% of patients (1) there is a lack of robust research to quide its' assessment or management. The cause of terminal respiratory secretions is unproven, but is considered to be due to a pooling of respiratory secretions that occurs as a person becomes weaker, loses consciousness and the ability to cough or swallow normally $_{(2)}$. Family members often express concern that terminal respiratory secretions may be distressing to the patient, and they require ongoing support and education to allay their anxieties.

Rattle Intensity Score (5) A scoring tool may be used in clinical documentation

0	Not audible
1	Only audible near patient
2	Clearly audible at the end of the patients bed in a quiet room
3	Clearly audible at a distance of about 9.5m in a quiet room

Key points to remember

- The death rattle is a strong predictor of death after the death rattle commences, median survival is 23 hours. (3)
- The literature search conducted for these guidelines showed no anti-secretory medication to be consistently better than another.
- Providing quality care and support to the patient's family is critical, including bereavement care.
- Mouth care and position changes will maximise patient comfort.
- Clinical experience shows suctioning can be "very uncomfortable for the patient and cause significant...distress" (8). If suctioning is felt to be needed, gentle oral suctioning only maybe appropriate.
- Implement the management flow chart (p3) when the symptom is detected.
- Medication is not always required.
- Regularly assess the patient's clinical situation and response to any medication administered.

Guidelines for initiating medication:

- 1) Identify "death rattle" as soon as it starts. Medications are most effective when started at a rattle score of 1 (see scoring tool above) (3)
- 2) Assess the hydration of the mouth as medication may exacerbate dryness.
- 3) Continue pharmaceutical treatment for 24 hours. Effectiveness improves with time (3)
- 4) If sedation is required consider using drugs which are tertiary amines (Atropine and Hyoscine Hydrobromide/Hyoscine[™]) (3, 4)
- 5) Drug selection & prescribing is based on the differing pharmacological profiles, prescriber preference, accessibility and the cost of medication. (7)

Abbreviations used in the flow chart: mg = milligrams





The patient is dying with noisy respiratory secretions ("death rattle")

GENERAL APPROACH

Patient care:

- Nurse the person on their side, reposition to other side every 3-4 hours.
 - Elevate the head of the bed slightly, retain a position of comfort
 - Provide frequent mouth care (every 1-2 hours).

Family care:

- Explain how & why noisy secretions develop, emphasising it is a normal part of the dying process.
- Give reassurance that the noise & secretions are not distressing for the patient
- Provide the EMRPCC family leaflet on this symptom or other appropriate supportive literature.

Are the noisy secretions still problematic?

Yes

No

Continue with the general approach

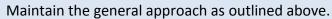
Maintain the general approach (as above).

Any of the following drugs (listed alphabetically) are suitable for subcutaneous administration, depending on availability & preference

- Atropine (can be sedating) 0.4 0.6mg stat;
- Glycopyrrolate 0.2mg stat, or
- Hysocine Butylbromide (Buscopan) 20mg stat, or
- Hysocine Hydrobromide (Hyoscine) 0.4mg stat

Has it been effective?

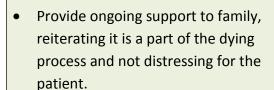




Repeat subcutaneous dose in 4-6 hours as needed.

If ongoing doses of medication are required then consider using a continuous subcutaneous infusion of the effective drug.

- Atropine 1.2 2.4 mg /24 hours (9)
- Glycopyrrolate 0.6 1.2 mg /24 hours (6)
- Hyoscine Butylbromide (Buscopan)
 - 60 80 mg /24 hours (6)
- Hyoscine Hydrobromide (Hyoscine)
 - 0.8 2.4mg /24 hours (6)



No

- Continue with the general approach (as outlined above).
- An alternate drug or dose may be used but is unlikely to relieve the noise.
- Address the grief and bereavement needs of carers & family.





DISCLAIMER

This document is to be printed in colour in its entirety.

The information contained in this document is to be used as a guideline only. It is the responsibility of the user to ensure information is used correctly.

These guidelines reflect current Australian/Victorian palliative care practice and available literature at the time of release. Printed versions can only be considered up to date for a period of one month from the printing date, after which the latest version should be downloaded from the Eastern Metropolitan Region Palliative Care Consortium website. Follow your organisation's policy and procedures regarding management of respiratory secretions and end of life care.

REFERENCES

- 1) Wee B, Hillier R, 'Interventions for noisy breathing in patients near death (Review)' *Cochrane Database of Systematic Reviews Issue 2* 2010, pp. 1-17.
- 2) Harlos, M, 2009'The terminal phase' in Hanks GWC, Cherney N I& Christakis NA, Fallon M, Kaasa S, & Portenoy RK (eds), *Oxford Textbook of Palliative Medicine*. 4th ed. Oxford, England: Oxford University Press, pp. 1556-7.
- 3) Wildiers H, Dhaenekint C, Demeulenaere P, Clement P, Desmet M, Van Nuffelen R, Gielen J, Van Droogenbroeck E, Guers F, Lobelle J-P & Menten J. 'Atropine, Hyoscine Butylbromide, or Scopolamine Are Equally Effective for the Treatment of Death Rattle in Terminal Care' Journal of Pain and Symptom Management, 38 (1) 2009, pp. 124-133
- 4) Bennett M, Lucas V, Brennan M, Hughes A, O'Donnell V, Wee B. 'Using anti-muscarinic drugs in the management of death rattle: evidence- based guidelines for palliative care' *Palliative Medicine* 2002, 16: 369-74.
- 5) Back IN, Jenkins K, Blower A & Beckhelling J. 'A study comparing hyoscine hydrobromide and glycopyrrolate in the treatment of death rattle', *Palliative Medicine* 2001, 15: 329-36
- 6) Therapeutic Guidelines Limited. *eTG complete* [Online]. Melbourne: Therapeutic Guidelines Limited. Accessed March Aug 2010
- 7) WA Cancer & Palliative Care Network. 'Evidence based clinical guidelines for adults in the terminal phase'. Western Australia Department of Health 2010. Accessed August 2010. http://www.healthnetworks.health.wa.gov.au/cancer/docs/Flip_Chart.pdf
- 8) Dudgeon D. 'Dyspnea, Death Rattle, and Cough' in Rolling Ferrell B, Coyle N (eds), *Textbook of Palliative Nursing*, Oxford University Press, New York, 2001, pp. 169-70.
- 9) Twycross, R & Wilcock, A (eds), *Palliative Care Formulary Third Edition*; palliativedrugs.com Ltd: Nottingham, 2007.

Acknowledgements and Contributors:

EMRPCC – Clinical Working Party (2010)

Eastern Health: Dr J. Moran; Mr S. O'Neill; Mr A. Goff RDNS: Ms H. Carr

Eastern Palliative Care: Dr P. Sherwen; Mr D. Halliwell EMRPCC: Ms C. Brusamarello.

Centre for Palliative Care: Dr J. Philip; Ms K. Quinn

