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# Response to "Hyoscine butylbromide for the management of death rattle: sooner rather than later"

**Short title:** Response to Hyoscine butylbromide

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We read with interest the article "Hyoscine Butylbromide for the Management of Death Rattle: Sooner Rather Than Later" by Mercadante *et al*,(1) comparing pre-emptive hyoscine butylbromide for the management of noisy upper respiratory tract secretions (RTS) in patients in the last days of life with treatment of RTS when they occurred. Previous studies have administered anticholinergic drugs to treat already formed noisy RTS rather than preventing their formation, but anticholinergic drugs are unable to remove secretions already formed.(2, 3)

This exploratory study presents promising effects, however, the data should be interpreted in the context of its methodological limitations. The natural history of RTS is poorly described, so attribution of outcomes is difficult in an unblinded trial. In addition, no power calculations were reported, making it difficult to evaluate the significance of the findings. Importantly, harms were not reported but it is vital to know about toxicity when proposing a prophylactic treatment (potentially for the benefit of family and staff rather than the patient)(4-6) where a significant number of people would never develop noisy RTS (40% in comparator arm of current study) but nevertheless have now been exposed to a drug with a significant harm profile (including dry mouth, constipation and urinary retention).(2, 3) In particular, anticholinergics are known to contribute to delirium – of concern in this high-risk population.(7) In order to make clinical judgements we must be able to evaluate the net-benefit (harms-benefit balance) of exposing patients to a medication they might not need, but might cause clinically important harms. Furthermore, we cannot identify and target patients at higher risk of developing RTS.(8)

These data are useful to inform a subsequently adequately powered double-blind randomised placebo-controlled trial, but until high quality data are available (of both effectiveness and harms), a change in practice cannot be recommended.

**Disclosure statement**

None of the authors have any conflicts of interest.

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