

## BEST EVIDENCE TOPIC REPORTS

# Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary

Edited by S D Carley

Best evidence topic reports (BETs) summarise the evidence pertaining to particular clinical questions. They are not systematic reviews, but rather contain the best (highest level) evidence that can be practically obtained by busy practising clinicians. The search strategies used to find the best evidence are reported in detail in order to allow clinicians to update searches whenever necessary. Each BET is based on a clinical scenario and ends with a clinical bottom line that indicates, in the light of the evidence found, what the reporting clinician would do if faced with the same scenario again. The BETs published below were first reported at the Critical Appraisal Journal Club at the Manchester Royal Infirmary<sup>1</sup> or placed on the BestBETs web site. Each BET has been constructed in the four stages that have been described elsewhere.<sup>2</sup> The BETs shown here together with those published previously and those currently under construction can be seen at <http://www.bestbets.org>.<sup>3</sup> Four BETs are included in this issue of the journal.

- ▶ Endotracheal intubation in  $\gamma$ -hydroxybutyric acid intoxication and overdose.
- ▶ No clinical evidence for gastric lavage in lithium overdose
- ▶ Paddle position in emergency cardioversion of atrial fibrillation
- ▶ Reinsertion of the stylet prior to needle removal in diagnostic lumbar puncture

S D Carley, Department of Emergency Medicine, Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL, UK; [s.carley1@btinternet.com](mailto:s.carley1@btinternet.com)

- 1 Carley SD, Mackway-Jones K, Jones A, *et al*. Moving towards evidence based emergency medicine: use of a structured critical appraisal journal club. *J Accid Emerg Med* 1998;**15**:220–2.
- 2 Mackway-Jones K, Carley SD, Morton RJ, *et al*. The best evidence topic report: a modified CAT for summarising the available evidence in emergency medicine. *J Accid Emerg Med* 1998;**15**:222–6.
- 3 Mackway-Jones K, Carley SD. [bestbets.org](http://www.bestbets.org): Odds on favourite for evidence in emergency medicine reaches the worldwide web. *J Accid Emerg Med* 2000;**17**:235–6.

## Endotracheal intubation in $\gamma$ -hydroxybutyric acid intoxication and overdose

Report by Helen Michael, *Medical Student*  
Checked by Magnus Harrison, *Clinical Research Fellow*

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### Abstract

A short cut review was carried out to establish whether intubation is always required in patients presenting with a decreased conscious level after  $\gamma$ -hydroxybutyrate ingestion. Altogether 95 papers were found using the reported search, of which two presented the best evidence to answer the clinical question. The author, date and country of publication, patient group studied, study type, relevant outcomes, results and

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study weaknesses of these best papers are tabulated. A clinical bottom line is stated.

### Clinical scenario

A comatose 20 year old man is brought to the emergency department with a GCS of 3/15 and in respiratory arrest. Acute overdose with  $\gamma$ -hydroxybutyric acid is suspected. Ventilation is initially assisted with a bag and mask. Your anaesthetic colleagues are very reluctant to intubate the patient as they state that the patient will wake up soon and there are no beds in the intensive care unit.

### Three part question

In [patients with presumed GHB intoxication and respiratory depression] is [endotracheal intubation more effective than non-invasive airway management] at [reducing the complications of an unprotected airway]?

### Search strategy

Medline 1966–09/04 using the OVID interface. [exp Hydroxybutyrates OR gamma hydroxybutyric acid.mp. OR GHB.mp] AND [exp Poisoning OR intoxication.mp OR exp Overdose OR overdose.mp] LIMIT to English language.

### Search outcome

Altogether 95 papers were found. Two papers were relevant to the three part question (see table 1).

### Comment(s)

The evidence for and against endotracheal intubation is scanty. These reports show no evidence for aspiration but the numbers involved (of non-intubated patients) are small. There is insufficient evidence here to change the standard approach to airway management in the unconscious patient. The reduced GCS is an indication for airway protection that would normally be achieved using a rapid sequence induction of anaesthesia.

### ▶ CLINICAL BOTTOM LINE

In patients with suspected GHB toxicity, reduced GCS and a threatened airway, rapid sequence induction and intubation should be performed.

Li J, Stokes SA, Woelckner A. A tale of novel intoxication: seven cases of gamma-hydroxybutyric acid overdose. *Ann Emerg Med* 1998;**31**:723–8.  
Chin RL, Sporer KA, Cullison B, *et al*. Clinical course of gamma-hydroxybutyrate overdose. *Ann Emerg Med* 1998;**31**:716–22.

## No clinical evidence for gastric lavage in lithium overdose

Report by Stewart Teece, *Clinical Research Fellow*  
Checked by Ian Crawford, *Clinical Research Fellow*

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