BEST EVIDENCE TOPIC REPORTS

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

Edited by Simon D Carley

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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 practicing 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 which 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 Infirmary¹ or placed on the BestBETs website. Each BET has been constructed in the four stages that have been described elsewhere.² The BETs shown here together with those published previously and those currently under construction can be seen at <http://www.bestbets.org>.³ Four BETs are included in this issue of the journal.

- ▶ Cocaine induced myocardial ischaemia: nitrates versus benzodiazepines
- ▶ The use of loop diuretics in acute renal failure in critically ill patients to reduce mortality, maintain renal function, or avoid the requirements for renal support
- ▶ Kocher's or Milch's technique for reduction of anterior shoulder dislocations
- ▶ Hyperbaric oxygen therapy in acute fracture management

- 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.

Cocaine induced myocardial ischaemia: nitrates versus benzodiazepines

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Abstract

A short cut review was carried out to establish whether nitrates are better than benzodiazepines in the treatment of cocaine induced chest pain. Seven citations were reviewed of which two answered the three part question. The clinical bottom line is that in patients with cocaine induced chest pain it appears that nitrates or benzodiazepines are effective in combination or alone in resolving chest pain and improving cardiac performance. We recommend that the agent of choice may be influenced by the presence or absence of concurrent CNS symptoms.

Three part question

In [a cocaine user presenting to an emergency department with chest pain] are [nitrates superior to benzodiazepines] at [resolving chest pain]?

Clinical scenario

A 21 year old man attends the emergency department complaining of apparent cardiac chest pain. He has no risk factors for ischaemic heart disease but admits to recent cocaine abuse. His ECG appears ischaemic. You wonder how

Table 1

Author, date, country	Patient group	Study type	Outcomes	Key results	Study weaknesses
Honderick <i>et al</i> , 2003, USA	27 patients attending ED, chest pain <72 h duration. 15 treated with NTG alone, 12 treated with NTG and lorazepam. NTG group then crossed over	Randomised prospective single blind control	Pain score, chest pain severity	Mean pain score at 5 min 1.24 lower in NTG and lorazepam group ($p < 0.02$)	Convenience sample Sample size small No placebo arm for iv lorazepam Unusual therapeutic regimen No follow up
Baumann <i>et al</i> , 2000, USA	44 patients attending ED, all took cocaine within 24 h (median 5 h 37 min) with history suggestive of ischaemic chest pain, age 18–60 years	Randomised control, double blind placebo 7 control	Pain score, chest pain severity Haemodynamic performance and cardiac performance	No difference between either agent alone or in combination in terms of score reduction When baseline differences adjusted, statistical comparisons showed no demonstrable difference	Possibility of concomitant coronary artery disease, anxieties regarding perception symptomatology by cocaine users, possibility of non-ischaemic chest pain

NTG, nitroglycerin.