BEST EVIDENCE TOPIC REPORTS

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

Edited by K Mackway-Jones

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.

The BETs published below were first reported at the Critical Appraisal Journal Club at the Manchester Royal Infirmary.¹ Each BET has been constructed in the four stages that have been described elsewhere.² The four topics covered in this issue of the journal are:

- Follow up of a positive elbow fat sign
- Steroids in De Quervain's tenosynovitis
- Antibiotics after dog bite
- Immobilisation after first anterior shoulder dislocation

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.

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Follow up of a positive elbow fat sign

Report by Andrea Gorzack, *Clinical Fellow*
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Clinical scenario

A 35 year old patient presents to the emergency department after a fall on the out-stretched hand. He has tenderness over the radial head and limitation of pronation/supination of the forearm. You suspect a radial

head fracture and perform radiography. This shows a positive fat pad sign but no fracture. You treat him with a collar and cuff but wonder if follow up radiography is really necessary.

Three part question

[In a patient with no obvious fracture but a positive fat pad sign after indirect trauma to the elbow] are [further x rays better than initial clinical impression] in [identifying new clinically important injuries]?

Table 1

Author, date, and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
Smith and Lee, 1978, UK ¹	88 consecutive emergency department patients of all ages with elbow trauma	Prospective observational study	Detection of fractures at elbow joint on x ray (inpatients with tenderness at weekly review)	14 had fractures discovered on initial x ray. 9 of 14 patients with positive fat pad sign and no initial fracture had evidence of minor bony trauma on x ray at follow up	Small number of patients (14) with positive fat pad sign and no initial fracture
	28 patients with positive fat pad sign, age young and old, A&E patients		Change in clinical management	No change	Ages not reported
Beaux <i>et al</i> , 1992, Scotland ²	49 emergency department patients aged 14–90 years with positive fat pad sign but no fracture	Retrospective observational study	Detection of clinically significant fracture at 14 day appointment	2 of 31 patients at follow up x ray showed clinically insignificant undisplaced fractures of the radial head	15 patients were lost to follow up and 3 patients were not re x rayed at follow up
			Change in clinical management	No change	The reported 6% new fracture rate at follow up may be as high as 30% (worst case scenario)