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

Edited by K Mackway-Jones, Consultant

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. Each BET has been constructed in the four stages that have been described elsewhere. The three topics covered in this issue of the journal are:

- Eye patches and corneal abrasion
- Paracetamol or ibuprofen in febrile children
- Alkalinisation and tricyclic antidepressant overdose

In addition three clinical questions are presented for which no relevant evidence could be found (negative BETs):

- Collar and cuff or sling after fracture of the clavicle
- Curettage or silver nitrate for pyogenic granulomas on the hand
- Support for uncomplicated shaft of humerus fractures

Eye patches and corneal abrasion
Report by Kevin Mackway-Jones, Consultant
Search checked by Simon Carley, Clinical Fellow

Clinical scenario
A young woman attends the emergency department with pain in her right eye. Her infant son has inadvertently put his hand in her eye. Examination reveals a corneal abrasion. You wonder whether an eye patch should be applied to protect the cornea.

Three part question
In [patients with superficial corneal abrasions] is [an eye patch better than no eye patch] at reducing [pain and time to healing]?

Search strategy
Medline 1966 to 12/98 using the OVID interface. ([exp eye injuries OR exp eye foreign bodies OR corneal abrasion$].mp) AND [exp bandages OR eye patch$.mp OR patch$.mp]) AND [maximally sensitive RCT filter].

Search outcome
Forty one papers were found of which 30 were irrelevant and five of insufficient quality for inclusion; the remaining papers are shown in table 1.

Comment
There are six prospective randomised controlled trials of varying quality and power in this area. All show no benefit from patching and the largest shows positive benefit from no patch.

Clinical bottom line
Patients with corneal abrasion should not have an eye patch.

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