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

- Pelvic radiography in severe blunt trauma
- The management of anterior epistaxis
- Topical analgesia in corneal abrasions
- Wound cleaning solutions

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Pelvic radiography in severe blunt trauma

Report by Terry Gilpin, Specialist Registrar

Search checked by Kevin Mackway-Jones, Consultant

Clinical scenario

A 40 year old male is admitted into the resuscitation area of the emergency department after a high speed road traffic accident. He tells you he has not injured his head and has no pain in his pelvic area. He is alert and orientated, he is not under the influence of any alcohol or drugs, and is neurologically intact. You cannot find any major injuries, his pulse is 94, and blood pressure 145/90 mm Hg. He has no pain on flexing his pelvis. You wonder if it is necessary to perform a pelvic x ray.

Table 1

<table>
<thead>
<tr>
<th>Author, date, and country</th>
<th>Patient group</th>
<th>Study type (level of evidence)</th>
<th>Outcomes</th>
<th>Key results</th>
<th>Study weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil et al, 1988, USA¹</td>
<td>265 patients with possible major trauma</td>
<td>Prospective survey</td>
<td>Fracture rates by clinical group</td>
<td>Unconscious (GCS&lt;8)</td>
<td>19% Obunded (8≤ GCS&lt;15) 11% Pelvic symptoms GCS=153% No pelvic symptoms GCS=150%</td>
</tr>
<tr>
<td>Salvino et al, 1992, USA²</td>
<td>810 blunt trauma patients. 12 year old with GCS &gt;13</td>
<td>Prospective survey</td>
<td>Fracture rates by clinical findings (pelvic symptoms and/or signs)</td>
<td>Positive 56.3%</td>
<td>Negative 0.04%</td>
</tr>
<tr>
<td>Yugerors et al, 1995, Colombia¹</td>
<td>608 haemodynamically stable adults with GCS &gt;10 and no spinal involvement</td>
<td>Prospective survey</td>
<td>Fracture rates by clinical findings</td>
<td>Positive 96.6%</td>
<td>Negative 0.004%</td>
</tr>
<tr>
<td>Ersoy et al, 1995, Turkey¹</td>
<td>65 conscious, non-intoxicated, orientated patients</td>
<td>Retrospective survey</td>
<td>Fracture rates by clinical findings</td>
<td>Positive 43.8%</td>
<td>Negative 0% Retrospective. Small numbers</td>
</tr>
<tr>
<td>Heath et al, 1997, USA²</td>
<td>82 adult, awake, alert blunt trauma victims</td>
<td>Prospective survey</td>
<td>Fracture rates by clinical findings</td>
<td>Positive 38.9%</td>
<td>Negative 3.13% Small numbers</td>
</tr>
</tbody>
</table>

GCS = Glasgow coma score.

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