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 five topics covered in this issue of the journal are:

- Radiography for fish bones in the throat
- Mobilisation of neck sprains
- Oral or topical antibiotics for impetigo
- Conservative or surgical management for first patellar dislocation
- Splint or plaster cylinder for first patellar dislocation

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

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## Radiography for fish bones in the throat

Report by Lesley Bethune, Specialist Registrar

**Clinical scenario**

A 40 year old man attends the emergency department having recently eaten fish. He feels that a bone has got stuck in his throat. Examination of the oropharynx does not reveal a bone. You wonder whether an x ray would aid diagnosis.

**Three part question**

In [patients who might have a fish bone in the throat] is [an x-ray of the neck] indicated to [diagnose and locate the bone]?

**Search strategy**

Medline 1966 to 6/99 using the OVID interface. (exp fishes OR fish*.mp) AND (exp bone and bones OR bone$.mp) OR fish-bone$ AND (exp pharynx OR throat.mp OR exp oropharynx OR oropharynx.mp).

**Search outcome**

Forty two papers were found of which were 37 irrelevant and two of insufficient quality for inclusion. The three remaining papers are shown in table 1.

**Comment**

While there are many studies that show that fish bones can be seen on x ray, the studies in the table show that the clinical utility and accuracy of lateral neck radiography is poor in the clinical situation.

**Clinical bottom line**

Lateral neck x ray is not indicated in the emergency department management of suspected fish bone impaction.

<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>Ngan et al, Hong Kong, 1990</td>
<td>310 of 358 patients over the age of 12 years complaining of fish bone ingestion</td>
<td>Prospective diagnostic</td>
<td>Sensitivity</td>
<td>32%</td>
<td>Sample size</td>
</tr>
<tr>
<td>Evans et al, Hong Kong, 1992</td>
<td>100 neck radiographs of patients with known fish bones mixed with 100 normal control films</td>
<td>Diagnostic</td>
<td>Sensitivity</td>
<td>25.3%</td>
<td>Sample size</td>
</tr>
<tr>
<td>Sundgren et al, Sweden, 1994</td>
<td>42 consecutive patients with fish bone ingestion</td>
<td>Retrospective diagnostic</td>
<td>Sensitivity</td>
<td>28.6%</td>
<td>Small numbers</td>
</tr>
</tbody>
</table>
Mobilisation of neck sprains

Report by Katrina Richell-Herren, Research Fellow
Search checked by Rosemary Morton, Consultant

Clinical scenario
A 45 year old man attends the emergency department after a road traffic accident. He complains of neck discomfort. He has discom­fort on neck movement and clinical examination reveals muscular tenderness. You diagnose a neck sprain (whiplash injury). You wonder whether a early mobilisation is better than immobilisation in a soft collar.

Three part question
In [patients with a neck sprain] is [early neck mobilisation or immobilisation in a soft collar] better at [reducing early and late neck symptoms]?

Search strategy
Medline 1966 to 6/99 using the OVID interface. (exp whiplash injuries OR whiplash.mp OR [exp neck injuries OR exp neck OR neck.mp] AND [exp sprains and strains OR sprain$$.mp OR strain$$$.mp])) AND [exp physical therapy OR physiotherapy.mp OR manual therapy.mp OR exp emergency treatment OR exp treatment failure OR exp treatment outcome OR treatment$$.mp or treat$$.mp] AND maximally sensitive RCT filter LIMIT to human and english.

Table 2

<table>
<thead>
<tr>
<th>Author, date, and country</th>
<th>Patient group</th>
<th>Study type (level of evidence)</th>
<th>Outcomes</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Mealy et al, UK, 1986†</td>
<td>61 patients with acute whiplash injury</td>
<td>PRCT</td>
<td>Cervical movement at 8 weeks Intensity of pain at 8 weeks</td>
<td>Significantly better in mobilisation group (p&lt;0.05)</td>
<td>Rest group abandoned half way through trial</td>
</tr>
<tr>
<td>McKinney et al, 1989, UK‡</td>
<td>170 patients with acute whiplash injury</td>
<td>PRCT</td>
<td>Cervical movement at 1 and 2 months Severity of neck pain at 1 and 2 months</td>
<td>Mobilisation and physiotherapy significantly better than rest (p&lt;0.01)</td>
<td>All patients given collars</td>
</tr>
<tr>
<td>McKinney, 1989, UK‡</td>
<td>128 of the 170 patients in ref 2 followed up at 2 years Rest v home mobilisation v physiotherapy</td>
<td>PRCT</td>
<td>Proportion of patients with symptoms at 2 years</td>
<td>Significantly lower in advice alone group</td>
<td>68% follow up rate</td>
</tr>
<tr>
<td>Gennis et al, 1996, USA*</td>
<td>196 of 250 patients with whiplash injury following automobile crashes Cervical collar v no collar and unsupervised mobilisation</td>
<td>PRCT</td>
<td>Pain at 6 weeks</td>
<td>No significant difference</td>
<td>Short follow up period</td>
</tr>
<tr>
<td>Borchgrevink et al, 1998, Norway†</td>
<td>201 patients with neck sprain that resulted from a car accident Cervical collar v unsupervised mobilisation</td>
<td>PRCT</td>
<td>Neck pain at 14 days and 24 weeks Neck movement at 14 days and 24 weeks</td>
<td>Significantly better in mobilised group Significantly better in mobilised group</td>
<td>Only 69% of patients completed the trial</td>
</tr>
</tbody>
</table>

PRCT = prospective randomised controlled trial.