**Antibiotics after dog bite**

Report by Sue Maurice, Consultant
Search checked by Katrina Herren, Research Fellow

**Clinical scenario**
A 30 year old man attends the emergency department having been bitten by a dog four hours previously. He has puncture wounds and a 1 cm laceration on his forearm. His wounds are thoroughly cleaned and a dressing applied. You want to know whether to prescribe antibiotics as well.

**Three part question**
In [healthy adults with dog bite wounds] do [prophylactic antibiotics] reduce [the incidence of wound infection]?

**Search strategy**
Medline 1966 to 06/98 using the OVID interface. [((exp antibiotics OR antibiotic$ti.ab.sh$) AND (exp bites and stings OR bite$ti.ab.sh$)) AND (exp dogs OR dog$ti.ab.sh$ OR canine$ti.ab.sh$)] LIMIT to human AND english language.

**Search outcome**
Altogether 120 papers found of which one was a meta-analysis of eight other papers


**Table 3**

<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>Cummings, 1994, USA</td>
<td>8 randomised controlled trials</td>
<td>Meta-analysis</td>
<td>Wound infection</td>
<td>Relative risk of infection in the treated (antibiotic) group was 0.56; 14 patients must be treated to prevent 1 infection</td>
<td>This was not a systematic review</td>
</tr>
</tbody>
</table>

**Immobilisation after first anterior shoulder dislocation**

Report by Wendy Dollery, Senior Registrar
Search checked by Simon Carley, Clinical Fellow

**Clinical scenario**
A 25 year old man presents to the emergency department with a left anterior shoulder dislocation. This is reduced satisfactory. You wonder how long his shoulder should be immobilised? There is no previous history of a dislocation.

**Three part question**
In [patients less than 30 years old presenting with first anterior shoulder dislocation] is [early mobilisation better than delayed mobilisation] at [reducing the redislocation rate]?

**Table 4**

<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>Kiviluoto et al, 1980, Finland</td>
<td>226 patients aged 16–86 years with primary anterior shoulder dislocation, 53 patients were less than 30 years old</td>
<td>Prospective controlled trial over 1 year</td>
<td>Redislocation rate</td>
<td>6/27 (22%) v 13/26 (50%); p &lt; 0.05</td>
<td>Randomisation not stated</td>
</tr>
<tr>
<td>Howelius et al, 1996, Sweden</td>
<td>257 patients age 12–40 years with primary anterior shoulder dislocation, 84 patients were less than 30 years old</td>
<td>Prospective multicentre controlled trial over 10 years</td>
<td>Redislocation rate</td>
<td>44/65 (67%) v 40/68 (59%)</td>
<td>10 patients lost to follow up</td>
</tr>
</tbody>
</table>

Randomisation not uniform
Search strategy
Medline 1966 to 06/98 using the OVID interface. (exp shoulder dislocation OR shoulder dislocation ti.ab.sh) AND {immobilisation ti.ab.sh OR exp bandages OR bandages ti.ab.sh}) AND maximally sensitive randomised controlled trial filter.

Search outcome
Thirty one papers found of which 27 were irrelevant and two were early reports of another; the remaining papers are shown in table 4.

Comment
The numbers of young patients studied is small and randomisation is suboptimal. The two studies have different follow up periods (1 v 10 years). The study with the longer follow up suggests that any early benefit of immobilisation may be lost in the long term.

Clinical bottom line
For patients under 30 years old with a first anterior shoulder dislocation, maximum early benefit is obtained by maintaining immobilisation for three weeks.

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Immobilisation after first anterior shoulder dislocation.

W Dollery

doi: 10.1136/emj.15.6.382-a

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