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:

- Nebulised ipratropium bromide bronchiolitis
- Gag reflex and intubation
- Bell's palsy and prednisolone
- Glue or sutures for facial lacerations in children


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**Nebulised ipratropium bromide and bronchiolitis**

Report by Martin Smith, Specialist Registrar

Search checked by Mohammed Al Zarad, Research Fellow

**Clinical scenario**

A 6 month old baby with three day history of coryzal symptoms, increasing cough and wheeze presents to the emergency department.

Your clinical diagnosis is bronchiolitis. You wonder whether the addition of nebulised ipratropium will improve the clinical condition.

**Three part question**

In [infants with acute bronchiolitis] does [treatment with nebulised ipratropium bromide] reduce [the clinical severity or the length of stay]?

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**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>Henry <em>et al</em>, 1983, UK</td>
<td>66 infants (7 to 52 weeks) ipratropium v saline</td>
<td>PRCT</td>
<td>Clinical severity score</td>
<td>No significant change</td>
<td>Randomisation and blinding not explained. No basic data or results presented</td>
</tr>
<tr>
<td>Wang <em>et al</em>, 1992, Canada</td>
<td>62 children (2 months to 2 years) Salbutamol or placebo v ipratropium or placebo</td>
<td>PRCT</td>
<td>Pulse oximetry</td>
<td>No significant change</td>
<td>Possible selection bias as all patients received emergency room treatment</td>
</tr>
<tr>
<td>Schuh <em>et al</em>, 1992, Canada</td>
<td>69 children (6 weeks to 2 years) Albuterol and saline v albuterol and ipratropium</td>
<td>PRCT</td>
<td>Respiratory rate</td>
<td>No significant difference</td>
<td>Infrequent observations</td>
</tr>
<tr>
<td>Chowdhury <em>et al</em>, 1994, Saudi Arabia</td>
<td>89 children (6 weeks to 24 months) Ipratropium alone v salbutamol alone v ipratropium and salbutamol v saline</td>
<td>PRCT</td>
<td>Clinical severity score</td>
<td>No significant difference</td>
<td>Small groups with no blinding. Not all patients included</td>
</tr>
<tr>
<td>Goh <em>et al</em>, 1997, Singapore</td>
<td>89 children Nebulised salbutamol v nebulised ipratropium v nebulised saline v humidified oxygen</td>
<td>PRCT</td>
<td>Clinical severity score</td>
<td>No significant difference</td>
<td>Small numbers with possible type 2 error. Second control group added later</td>
</tr>
</tbody>
</table>

PRCT = prospective randomised controlled trial.