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.¹ Each BET has been constructed in the four stages that have been described elsewhere.² 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

1 Carley SD, Mackway-Jones K, Jones A, *et al.* Moving towards evidence based emergency medicine: use of a structured critical appraisal journal club. *J Accid Emerg Med* 1998;15:220-2.
2 Mackway-Jones K, Carley SD, Morton RJ, *et al.* The best evidence topic report: a modified CAT for summarising the available evidence in emergency medicine. *J Accid Emerg Med* 1998;15:222-6.

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**Nebulised ipratropium bromide and
bronchiolitis**
Report by Martin Smith, *Specialist Registrar*
Search checked by Mohammed Al Zarad,
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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 ipra-
tropium will improve the clinical condition.

Three part question
In [infants with acute bronchiolitis] does
[treatment with nebulised ipratropium bro-
mide] reduce [the clinical severity or the length
of stay]?

Table 1

Author, date, and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
Henry <i>et al</i> , 1983, UK ¹	66 infants (7 to 52 weeks) Ipratropium <i>v</i> saline	PRCT	Clinical severity score Parental/nurse subjective assessment	No significant change No significant difference	Randomisation and blinding not explained. No basic data or results presented
Wang <i>et al</i> , 1992, Canada ²	62 children (2 months to 2 years) Salbutamol or placebo <i>v</i> ipratropium or placebo	PRCT	Pulse oximetry Clinical severity score Hospitalisation	No significant change No significant difference No significant difference	Possible selection bias as all patients received emergency room treatment Infrequent observations
Schuh <i>et al</i> , 1992, Canada ³	69 children (6 weeks to 2 years) Albuterol and saline <i>v</i> albuterol and ipratropium	PRCT	Respiratory rate Accessory muscle score Wheeze score Oxygen saturation Hospitalisation rate	No significant difference No significant difference No significant difference No significant difference 17 <i>v</i> 10	
Chowdhury <i>et al</i> , 1994, Saudi Arabia ⁴	89 children (6 weeks to 24 months) Ipratropium alone <i>v</i> salbutamol alone <i>v</i> ipratropium and salbutamol <i>v</i> saline	PRCT	Clinical severity score Admission days	No significant difference in all groups No significant difference in all groups	Small groups with no blinding. Not all patients included
Goh <i>et al</i> , 1997, Singapore ⁵	89 children Nebulised salbutamol <i>v</i> nebulised ipratropium <i>v</i> nebulised saline <i>v</i> humidified oxygen	PRCT	Clinical severity score Length of stay	No significant difference No significant difference	Small numbers with possible type 2 error. Second control group added later

PRCT = prospective randomised controlled trial.