Bronchiolitis

Home observation is inadvisable

EDITOR,—David Isaacs's editorial on bronchiolitis contains guidelines that should cause some concern.[1] Bronchiolitis does not always fit into the static categories of mild, moderate, or severe but can carry an infant through to an obtunded state relatively quickly. Thus the suggestion that babies with moderate disease with a respiratory rate of up to 70 can be observed at home is worrying. It is also of concern that pulse oximetry should be considered to be relevant outside hospital. If the problem is indeed in the airways and not an interstitial lung problem then oxygen saturation should remain normal until the point at which respiratory muscle fatigue occurs. Other clinical observations in association with an increasing tachypnoea, such as heart rate and level of responsiveness, should predict this event before decompensation occurs. At this point a child needs not only supplementary oxygen but ventilatory support, and the logistics of providing this outside hospital hardly makes this a safe option.

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1 Isaacs D. Bronchiolitis. *BMJ* 1995;310:4-5. (7 January.)

Tribavirin may be helpful

EDITOR,—David Isaacs makes no mention of tribavirin in the management of bronchiolitis.[1] Despite its limited efficacy, possible toxicity, and expense (three 6 g phials cost £585) the synthetic nucleoside tribavirin is the only specific antiviral agent licensed for treatment of respiratory syncytial virus infection (the main cause of bronchiolitis) and merits further discussion.

Double blind trials of aerosolised tribavirin for lower respiratory tract infection with respiratory syncytial virus have shown some clinical benefit in normal and high risk infants but conflicting and disputed results in normal and high risk infants receiving assisted ventilation.[2-4] No important side effects were observed. While no trial has shown that aerosolised tribavirin reduces the likelihood of intubation or death or gives long term benefit, recent American guidelines recommend its use for the following groups in hospital with lower respiratory tract infection with respiratory syncytial virus: infants at high risk because of underlying chronic disease (congenital heart disease, bronchopulmonary dysplasia, or cystic fibrosis), prematurity, or immunodeficiency; transplant recipients and patients receiving chemotherapy; normal infants with severe disease (arterial oxygen pressure <65 mm Hg); and all patients receiving assisted ventilation.[5] The guidelines also recommend that tribavirin should be considered for infected infants who may be at risk of greater morbidity because of young age (under 6 weeks) or an underlying condition (multiple congenital anomalies, certain neurological or metabolic diseases).

Current practice at the Royal Hospital for Sick Children, Edinburgh, is to follow these guidelines, except that normal infants are treated only if there is evidence of progressive respiratory failure. When these criteria are used relatively small numbers of patients require treatment.

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1 Isaacs D. Bronchiolitis. *BMJ* 1995;310:4-5. (7 January.)
2 Smith DW, Frankel LR, Mathers LH, Tang ATS, Ariagno RL, Prober CG. A controlled trial of aerosolized ribavirin in infants receiving mechanical ventilation for severe respiratory syncytial virus infection. *N Engl J Med* 1991;325:24-9.
3 Moler FW, Bandy KP, Custer JR. Ribavirin for severe RSV infection. *N Engl J Med* 1991;325:1884-5.
4 Meert K, Sarnaik A, Gelmini MJ, Lieh-Lai MW. Aerosolized ribavirin in mechanically ventilated children with respiratory syncytial virus lower tract disease: a prospective double-blind, randomized trial. *Crit Care Med* 1994;22:566-72.
5 American Academy of Pediatrics. Use of ribavirin in the treatment of respiratory syncytial virus infection. *Pediatrics* 1993;92:501-4.

Isolated pulse oximetry readings are unreliable

EDITOR,—We are concerned at David Isaac's recommendation that general practitioners should routinely carry pulse oximeters to aid their assessment of children with bronchiolitis.[1] In support of this he cites two studies.[2,3] Both conclude that pulse oximetry gives the best single initial measurement of the severity of illness in bronchiolitis in the emergency department. They do not, however, support the view that general practitioners should assess acute respiratory disease in children in the community by using pulse oximetry.

An isolated measurement of oxygen saturation obtained by the general practitioner in the community is of only limited value. Oxygen saturation must be considered in the context of the child's overall clinical condition and the results of blood gas analysis. We therefore urge caution in the use of pulse oximetry; a normal value may give a false sense of security and might lead to a delay in referral to hospital with potentially fatal results.

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1 Isaacs D. Bronchiolitis. *BMJ* 1995;310:4-5. (7 January.)
2 Shaw KN, Bell LM, Sherman NH. Outpatient assessment of infants with bronchiolitis. *Am J Dis Child* 1991;145:151-5.
3 Mulholland EK, Olinsky A, Shann FA. Clinical findings and severity of bronchiolitis. *Lancet* 1990;335:1259-61.

Author's reply

EDITOR,—Roughly two fifths of all children develop disease of the lower respiratory tract with their first infection with respiratory syncytial virus, and almost all children have been infected with this virus by their second winter. Yet only about 1% of children with bronchiolitis are admitted to hospital. Clearly, decisions about which babies to admit are already being made in the community.

I agree with M D D Bell that babies with bronchiolitis can deteriorate rapidly and that frequent review is necessary. I disagree that the editorial suggested that ill babies should be managed in the community. I attempted to give guidelines for deciding which babies could most safely be managed at home. The assessment should be based on the history (baby feeding well and without risk factors for severe disease) and examination (not toxic looking or appreciably tachypnoeic). I suggested pulse oximetry as a possible adjunct on the basis of scientific studies that have shown it to predict outcome with reasonable accuracy.

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Advice to authors

We prefer short letters that relate to a recently published article and we are unlikely to publish letters longer than 400 words and containing over five references. Letters may be shortened. Your letters should be typed with double spacing and include a word count. All authors need to sign the letter and provide one current appointment and address. We encourage you to declare any conflict of interest. Please enclose a stamped addressed envelope if you require an acknowledgment.

Bullying in schools

A more aggressive preventive strategy is required

EDITOR,—Judith Dawkins's editorial reminds us of the entirely preventable morbidity of bullying.[1] In Britain the National Society for the Prevention of Cruelty to Children got its charter in 1889, 67 years after legislation was enacted to protect animals. It has taken another 100 years to recognise bullying as another form of child abuse. For doctors and others working with children to make an impact on bullying, however, Dawkins's suggestions do not go far enough.

To suggest, for instance, that victims should "be advised of simple measures" such as "ignoring name calling . . . and telling someone" is only a short step away from blaming the victim for his or her predicament. If doctors and nurses are to help the child then they need to address the school environment that tolerates bullying. They should do more than inform parents and advise them to take the matter up with the school directly. The chances are that this has already been done without result. Preventive strategies developed in more readily accepted medical disease models such as infectious diseases suggest a more aggressive