

# Atoms



Howard Bauchner, *Editor in Chief*

## TB IN CHILDREN

There has been a resurgence of tuberculosis (TB) in children in many countries. Howie *et al* describe a tripling in the annual incidence of TB in New Zealand children between 1992 and 2000. The vast majority of cases were associated with social deprivation. Marais and colleagues, from South Africa, describe symptoms associated with the diagnosis of TB in 16 children. Fatigue and a non-remitting cough were far more common in these children than a group of 135 children without TB. Lastly, the interpretation of chest x rays is critical to the diagnosis of TB – is mediastinal lymphadenopathy present? Swingler and colleagues, once again from South Africa, compare the interpretation of the x ray by three paediatricians and three primary care clinicians. The gold standard is spiral chest CT with contrast interpreted by a radiologist blind to the chest x ray. Not surprisingly, neither the sensitivity, 67%, nor specificity, 59%, were very good. Ulrich Heininger discusses the implication of these important findings. **See pages 1104, 1153, 1157, 1162, and 1166**

## CHILDREN IN NEED OF CPR

Children rarely need cardiopulmonary resuscitation (CPR). Learning, perfecting, and maintaining CPR skills is not easy. Tibbals and colleagues from Australia describe an entirely new approach to this problem—a consultant service, a medical emergency team whose goal is to prevent the need for CPR by identifying children with medical problems such as changing mental status, associated with resuscitation. Robert Tasker explores the implications of this excellent study and other related issues. It is likely that the recent articles describing poor CPR efforts by trained personnel will lead to a revision of basic and perhaps advanced life support. **See pages 1102 and 1148**

## FUNDING FOR CHILD HEALTH RESEARCH

How do countries align research funding opportunities in child health with national goals? In the UK, the National Service Framework in England and Wales and A Framework for Maternity Services in Scotland articulate a vision and commitment to the health and wellbeing of children and adolescents. Is there a match between funding opportunities and government policy? Hawkins and Law describe UK funding for children in 2002/2003 and Michael Patton adds a perspective. With renewed interest in the antecedents of adult disease in childhood, I am hopeful that additional resources will be available for child health research. However, I fear that, at least in the US, since there is perception that much of what impacts on child wellbeing involves social rather than medical issues, and adults still suffer from more “traditional” medical disease than children, there will be little shift in support for child health research.

**See pages 1101 and 1107**

## THIS MONTH IN FETAL AND NEONATAL EDITION

- The relationship between neonatal cranial ultrasound, school age MRI, and neurodevelopmental outcome in a group of 221 premature infants is explored by Rademaker *et al*. Ultrasound and MRI did not correspond well, except for those children with severe abnormalities. I can easily envision the day when all premature infants will have an MRI prior to discharge. However, whether MRIs will provide sufficient precision with respect to neurodevelopmental prognosis to influence medical and social care and our conversations with patients is much less certain.
- Fransson, Karlsson, and Nilsson from Sweden report that the variation between foot, abdominal, and rectal temperatures in 27 healthy full term infants is significantly greater when infants are in a cot than with their mother. These findings are not surprising, but reinforce the importance of ensuring that our newborn care systems allow as much direct continual contact between infant and mother as possible.
- In a pair of perspectives, the American Academy of Pediatric (AAP) guidelines for detecting hyperbilirubinaemia are discussed. The AAP developed these guidelines in response to concern that the number of cases of kernicterus in the US began increasing in the 1990s. The increase is attributed to a number of factors, including more rapid discharge from the nursery, a “kinder, gentler approach” to hyperbilirubinaemia that was advocated in the early 1990s, and an increase in the number of US infants being breastfed. Drs Kaplan and Hammerman outline a number of important points from the guideline, including the need to assess the risk of developing hyperbilirubinaemia on a nomogram based upon hours, rather than age in days; recognising that borderline premature infants are at higher risk than term infants; and the use of immunoglobulin in selected cases. Donal Manning discusses if these guidelines “are applicable in Britain?” It should be noted that there has been some concern that even though the AAP labels this statement a guideline, little evidence, but some wisdom, supports the majority of the recommendations.<sup>1</sup>

## REFERENCE

- 1 **Holtzman NA.** Management of hyperbilirubinemia: quality of evidence and cost. *Pediatrics* 2005;114:1086-7.