Atoms

Howard Bauchner, *Editor-in-Chief*

Diagnosing TB: the beginning of a new era?

Combating the spread and reducing the rates of resistant tuberculosis (TB) requires diagnostic accuracy. Both under and over diagnosis have enormous consequences for patients and society. We need a diagnostic test that has extremely high precision—a balance of sensitivity and specificity. In this issue, Taylor and colleagues from Newcastle, describe the theoretical effects, based upon data from 120 children, of following the NICE guidelines for diagnosis of TB that emphasise the use of QuantiFERON-TB Gold. Although they estimate that 85% fewer children would have been diagnosed with latent TB infection, and spared chemoprophylaxis, two children would have been missed. In an accompanying perspective, Drs Shingadia and Novelli comment on the new diagnostic tests for TB, conflicting data that have emerged about these tests, and the complexities of making an accurate diagnosis. Until we have more experience with these new tests, or they are improved, the final diagnosis of TB in a patient will be based upon laboratory assessment, risk factor analysis and clinical experience.

See pages 189 and 200

Abbreviations in medicine: cleaning up the mess

My institution recently underwent its 5-year review by the US national accrediting body for hospitals. We were cited for close to 50 000 abbreviations that were not considered "legal." In an informative report from Birmingham, Sheppard *et al* found that 221 different abbreviations were used in 25 handover sheets and 479 abbreviations in a 168-set of medical notes. Mosby's Medical dictionary only recognised 17% of these abbreviations. I always felt that it was possible to write notes on patients in the neonatology intensive care unit without ever using anything but abbreviations or more than four letter words. As we move increasingly towards integrative electronic medical records that will include all progress notes, handoffs, consultations and reports, I suspect the solution will be new software to ensure that only appropriate abbreviations are used.

See page 204

Treatment failure in pneumonia: unrelated to penicillin-resistant pneumococcus

Many groups now recommend vancomycin for children with pneumonia if they are severely ill and the rates of resistance to pneumococcus are relatively high in that specific community. Although this seems to be a reasonable recommendation, more children ultimately will be exposed to vancomycin, possibly leading to increasing pneumococcal resistance even to this drug. In a report from three countries in Latin America, in which microbiological data were available from 240 children aged 3–59 months hospitalised with severe pneumonia, no relationship was found between treatment failure and in vitro resistance of S pneumoniae to penicillin. All children were treated with either ampicillin or penicillin G intravenously. The rates of treatment failure were virtually identical in children with susceptible (22%), intermediate (23%) and resistant (18%) strains. Are these data unique to Latin American? Although the authors acknowledge that there is heterogeneity amongst the patients because the study was conducted at 12 tertiary-care centres, they suggest that these data are consistent with numerous other contemporary studies and a report by Austrain and Gold published over 40 years ago that found that even with appropriate therapy, 10–15% of hospitalised patients with pneumococcal bacteraemic pneumonia fail therapy. Prior to using more "potent" antibiotics in children, we should be certain that they are indicated.

See pages 218 and 221

Timing of the VCUG

The NICE urinary tract infections (UTI) guidelines have certainly stirred up controversy (please see the leading article by Dr Coulthard). In the United States we remained married to the idea that in most infants, a voiding cystourethrogram (VCUG) is still indicated following a first UTI. If you are a believer, than the article by Sathapornwajana and colleagues from Thailand should be of interest. In 363 children whose mean age was about 18 months at the time of diagnosis of UTI, the rates of vesicoureteral reflux (VUR) was similar when the VCUG was performed within 7 days (22.8%) or more than 7 days after diagnosis (24.3%). We know that less than 50% of children who are asked to return 6–8 weeks after the diagnosis of a UTI for VCUG ever have the procedure done. The old adage was that the acute infection could "induce" VUR and it was better to wait. For proponents of VCUG this is an important study—nonbelievers can skip the article.

See pages 196 and 229

This month in *Fetal & Neonatal Edition*

- There is substantial worldwide variation in the rates of bronchopulmonary dysplasia. Most experts believe this is related to ventilatory practices. Owen and colleagues describe the use of intermittent positive airway pressure in NICUs throughout England. ***See page F148***
- A review by Chauhan, Henderson and McGuire discusses the impact of enteral feeding on the risk of necrotising enterocolitis. Like bronchopulmonary dysplasia, there is wide variation in the rates of necrotising enterocolitis, suggesting that there is room for improvement. ***See page F162***
- In a well done randomised clinical trial, McCullough *et al* describe the soothing effects of lingual 24% sucrose when preterms have a nasogastric tube inserted. ***See page F100***