

Highlights from this issue

R Mark Beattie, *Editor in Chief*

MANAGEMENT OF HEAD INJURY

Over the last 10–15 years there has been a significant change in the management of head injury from admission for observation to early imaging, usually by CT, with discharge if normal. The decision to image isn't however straightforward, particularly in mild cases, where the risk benefit and economic implications need to be considered. Colvin and colleagues report a significant increase in attendances with concussion (doubled over the last 10 years, now 1 in 160 attendances), although the number of admissions remained stable. Data is from multiple US centres. 60% underwent CT; almost 50% received medication/intravenous fluids. In terms of cost the visit plus CT cost less than an admission (without CT) for observation. The CT rate is very high with less than 1% showing significant abnormality. In a second paper Holmes and colleagues compare various different imaging rules (plus CT everyone, CT no-one) from the health economic benefit of the prevention of death or disease from secondary complications of head injury versus the cost of CT and the risk of malignancy from the radiation dose given. The detail is in the paper. They conclude the CHALICE rule has the best overall cost benefit in essence using a decision rule to determine the need for a CT scan rather than scanning all children. The authors suggest that admission of children with a normal CT is not an effective use of health care resources.

These papers raise important issues discussed in the accompanying editorial including the best strategy for management in the context of increasing attendances for emergency care, the potential over (and under) use of imaging, the use of inpatient observation and the risk benefit and cost of whatever processes are adopted. *See pages 934, 939 and 925.*

EFFECT OF TEENAGE MOTHERHOOD ON OUTCOME AT AGE 5 YEARS

Children born to teenage mothers tend to do less well. Many potential factors are implicated including perinatal morbidity, socioeconomic inequality, maternal mental health and parenting ability all of which have been shown independently to be associated with cognitive development. Morinis and colleagues use data from the Millenium Cohort Study (18 818 infants born between 2000

and 2001) to examine the association between teenage motherhood and cognitive development at 5 years using the British Ability Scales II. 617 (5%) of infants were born to mothers 18 years and under. Children of teenage mother's had significantly lower cognitive scores compared with children of mother's aged 25–34 years; difference in mean score for verbal ability -8.9 (-10.88 to -6.86 , $p < 0.001$); non verbal ability (-10.52 to -5.19 , $p < 0.001$); spatial ability -4.7 (-6.39 to -3.07 , $p < 0.001$) which is equivalent to an average delay of 11, 7 and 4 months respectively. After correction for perinatal and sociodemographic factors the effects were attenuated although a difference persisted in verbal ability scores of -3.8 (-6.6 to -1.4 , $p < 0.003$) equivalent to an average delay of 5 months. *See page 959.*

COLLECTING DATA ON ADMISSIONS

Length of stay is often used as a marker of performance and increasingly used as a 'benchmark' for efficiency. It is however affected significantly by admission rates in that units who admit more patients are likely to have a shorter length of stay. Shahnaz and colleagues compare the length of stay for infants with bronchiolitis across 17 units in Eastern England during the winter months (2009–2012) assessing the impact of admission rates. Overall admission rate was 3.3% (range 1.5–5.7%) with length of stay ranging from 1.2 to 3.5 days. If bed days are factored in (range 34.5–122.3 per 1000) then 'corrected' length of stay—factoring in admission rates—showed high discordance when compared to the average length of stay. It is worth looking through table 1 in detail. The implication of this data is that length of stay should only be considered in conjunction with admission rates if it is going to be used as a marker of performance. *See page 951.*

MEASURING HEALTH CARE BY QUALITY STANDARDS

In February 2013 the National Institute of Health and Care Excellence (NICE) published quality standards for the management of asthma in children, young people and adults. These are to be welcomed and present us with real opportunities to improve asthma care through auditing benchmarking and service improvement. The quality standards are challenging but

set reasonable and evidence based goals for services to aspire to and offer us insight into how we can change expectations, impact on quality and thereby improve outcome. Asthma is the commonest chronic medical condition and the commonest reason for an acute medical admission. There are 1.1 million children in the UK who receive treatment and the annual health care cost for asthma management approaches £1 billion. It seems reasonable to aspire to children presenting to a health care professional with a severe or life threatening acute exacerbation of asthma receiving oral or intravenous steroids within 1 h of presentation (standard 8) and them having a structured review by a member of a specialist respiratory team before discharge (standard 9). Introduction of these standards into your unit are likely to impact on quality of care. *See page 928.*

AUTOIMMUNE LIVER DISEASE

Autoimmune liver diseases in childhood include autoimmune hepatitis and autoimmune sclerosing cholangitis. There are rare disorders characterised histologically by interface hepatitis, biochemically by raised transaminases, and serologically by autoantibodies and increased levels of IgG. Autoimmune hepatitis is particularly aggressive in childhood and progresses rapidly unless immunosuppressive treatment is started promptly. With prompt treatment 80% achieve remission and long term survival. Autoimmune sclerosing cholangitis responds less well to immunosuppression with a high requirement for liver transplantation long term. Mieli-Vergani and colleagues discuss the aetiology, clinical features, diagnosis and management of these disorders in an authoritative review based on the authors extensive experience working and researching for more than 25 years in this important field. *See page 1012.*

IN E&P THIS MONTH

There is the usual collection of excellent articles. I would particularly like to highlight the three articles in the Best practice series including how and when to refer a child for specialist palliative care and 15-minute consultations on troublesome crying in infancy and the management of hypermobility. All are practical and focused and relevant to clinical practice.