

# Atoms

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## SLEEP MEDICINE

As the science of sleep has become better understood, we have seen sleep medicine develop as a new specialty. New medicines to help us sleep, and to prevent and arouse more quickly from sleep are being introduced each year. In part regulations in various countries to reduce work hours for physicians in training have been fueled by a greater understanding of the relationship between sleep deprivation and performance. In this issue of *ADC*, investigators from Belgium, explore the association between obesity in children and sleep-disordered breathing. They use nocturnal polysomnography to differentiate children with primary snoring from those with obstructive apnoea and central sleep apnoea. Not surprisingly, they found that the prevalence of obstructive sleep apnoea was quite common. More disturbing, however, was that approximately 10% of children had central sleep apnoea and it was associated with significant oxygen desaturation. I find it difficult to decide which children with a history of snoring should be referred for further diagnostic testing. Unfortunately, given the prevalence of obesity, and the significant decline in tonsillectomy and adenoidectomy rates over the past two decades, a history of snoring in children is quite common.

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## DIET AND PKU – HOW LONG A SPECIAL DIET?

Newborn screening for phenylketonuria (PKU), followed by diet management, has dramatically improved the neurocognitive development of these children. However, how long the appropriate diet should be maintained remains uncertain. In a well done study by a group from the National Hospital for Neurology and Neurosurgery, three groups of adults were compared: patients who were diagnosed early with PKU and had their diets discontinued as adolescents; a group who maintained their diet continuously; and a control group. The subjects were all assessed at about age 30. The group in which diet was discontinued had small, but significantly lower scores in accuracy

and speed on performance tests. How should these data influence what we advise patients with PKU? Much has been made of a patient-centred approach to care. Often times in paediatrics we go to remarkable lengths to ensure high quality care and preserve life even in the absence of data. In this case, it would seem prudent to share the data with patients and help them make a decision about continuation or discontinuation of diet.

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## IMPROVING VARIOUS HEALTH OUTCOMES IN VULNERABLE CHILDREN

In many countries home visiting by someone skilled in parenting is common practice. In studies conducted in the UK, US, Australia and New Zealand, home visiting programmes have been found to be of varying effectiveness. In a multicentre randomised trial, Barlow and colleagues from Warwick assigned 131 vulnerable pregnant women to weekly home visits by health visitors trained in the Family Partnership Model 6 months antenatally and 12 months postnatally or to standard care. There was a modest impact of the intervention on a number of outcomes, including maternal sensitivity, and breastfeeding rates at 6 months. Child protection issues were similar in the two groups. The cost of the home visiting intervention was estimated at 3246 lb per child. Are these differences worth the cost?

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## CONCERNS ABOUT THE NATIONAL HEALTH SERVICE

In every trip to the UK I find the newspapers filled with doom and gloom about the NHS. Soaring expenses, inefficiency, poor quality, and less personal and more bureaucratic care, are just some of the recurring themes that are often mentioned. As an “outside” observer, who has toured many hospitals, and spoken with numerous physicians, I believe the NHS is certainly no worse (and quite possibly better) than the healthcare system in the US and other countries in Europe. Virtually every healthcare measure indicates that the UK fares quite well in comparison to the US and Europe—but the UK continues to spend substantially less money on healthcare. Although cost and quality indicators are only a gross measure of a system, they are important ones. The constant reorganisation of the system should stop. I believe that much of the angst is related to the dizzying pace of change which makes it difficult to assess what is working and what is failing. We asked Professor Terence Stephenson to reflect on the “problems” with the NHS particularly with respect to children’s health services.

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## THIS MONTH IN FETAL & NEONATAL

- As technological advances have led to the resuscitation and survival of smaller and smaller babies, ethical concerns about hastening the deaths of newborns have been more widely and publicly discussed. In a remarkable report from New Zealand, Peter Barr examined the relationship of how neonatologists’ personal fear of death impacts on their reported behaviour in end-of-life decisions. Martin Ward Platt adds an incisive commentary. I am unaware of any other data regarding the influence of our own fears of death and end-of-life decision making. See pages F81 and F104
- The relationship between nurse staffing levels and mortality in neonatal units is of enormous importance. In a study from the National Perinatal Epidemiology Unit, Hamilton and colleagues found a 48% reduction in risk-adjusted mortality in units with nurses who had neonatal qualifications in intensive care and nurse staffing ratios of 1:1. If confirmed by other studies, or as part of a prospective trial, this has critical implications for how neonatal units should be staffed. See page F99
- The role of oxygen in neonatal resuscitation has come under increasing scrutiny. Drs Tin and Gupta review the uncertainties about optimal oxygen therapy for resuscitation. Given the liberal use of oxygen during the birth process, it is critical that we study what represents best practice. See page F143