

## Hydrocortisone safer alternative for treatment of lung damage in premature birth

Researchers at the Wilhelmina Children's Hospital, part of the University Medical Center Utrecht, have demonstrated that hydrocortisone may be a better alternative to prevent damage to the immature lungs of premature babies.

According to medical researcher Dr Karina Kersbergen and paediatrician-neonatologist Dr Manon Benders, using hydrocortisone has fewer adverse effects on brain development than dexamethasone, which is currently used regularly to treat lung damage in premature babies (Kersbergen et al, 2013).

In the study, 73 premature babies with bronchopulmonary dysplasia requiring artificial

respiration were treated for an average of 22 days with hydrocortisone and compared with 73 babies who were not treated. A magnetic resonance imaging scan of the brain was then conducted on the due date, approximately 3 months after birth. The researchers looked at the differences in brain development between the two groups. No differences were found between the groups in terms of the volume of both the cerebrum and cerebellum.

Limitations of the current study include its retrospective nature, and the fact that there are still no known long-term effects because the infants are still too young to know how they will do in the long term.

Dr Benders commented: 'We believe that our research could encourage the use of hydrocortisone instead of dexamethasone in this vulnerable group of infants, with proper information for parents. Hydrocortisone appears to be just as successful in treatments as dexamethasone, but appears to have fewer neurological side effects.'

She added: 'We hope to get a final answer on the effectiveness of hydrocortisone from a Dutch/Belgian random multi-centre trial that was recently initiated.'

Kersbergen KJ, de Vries LS, van Kooij BJ et al (2013) Hydrocortisone treatment for bronchopulmonary dysplasia and brain volumes in preterm infants. *J Pediatr* May 21 (Epub ahead of print)

### Gold nanoparticles used to detect dengue fever

A low cost method of detecting dengue virus in mosquitoes based on gold nanoparticles has been developed by researchers from the University of Notre Dame, USA. The assay can detect lower levels of the virus than current tests, and is easy to transport and use in remote regions.

### Social deprivation is an independent risk factor for mortality in type 1 diabetes

A retrospective analysis of combined biochemical, demographic and health resource use shows that social deprivation is an independent risk factor for mortality in type 1 diabetes. The study, part of a collaboration between King's Health Partners and Novo Nordisk, collected data from 2002 to 2012 for type 1 diabetes patients across two inner city specialist diabetes outpatients clinics.

### Patient alert card and guide for *Clostridium difficile* infection

C-diff Support has launched 'Understanding *Clostridium difficile* Infection' – a new integrated patient alert card and patient guide which provides infection control advice for patients with *C. difficile* infection.

## Opportunities for early intervention being missed in people with alcohol-related illness

Hospitals are missing opportunities to save the lives of people with alcohol-related liver disease by failing to provide early intervention and specialist consultant input, the latest National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report *Measuring the Units* reveals.

Overall, NCEPOD advisors judged that the care of less than half (47%) of the patients included in this report was good and identified 32 deaths (32/385) which may have been avoided.

Annually nearly 9000 people die from alcohol-related liver disease, with the number of admissions to hospital rising to 198 900 in 2010–11, a 40% increase since 2002–3

when it was first measured, revealing how the incidence of the illness in the UK has been increasing.

'We know that abstinence works, and that when simple advice is offered to patients, one-in-eight will reduce their harmful drinking levels – that's better than the results from "stop smoking" support services,' said Dr Mark Juniper, NCEPOD Clinical Co-ordinator (Medicine) and Consultant Physician at the Great Western Hospitals NHS Foundation Trust, Swindon.

Dr Juniper admitted he was also concerned by the rising numbers of young people who have alcohol-related liver disease. 'The average age of death is now 59 years and falling,' he

said, adding: 'That's why it's essential to get the support services right so that we can help people to stop drinking and stop this worrying trend.'

National Confidential Enquiry into Patient Outcome and Death (2013) *Measuring the Units*. [www.ncepod.org.uk/2013arld.htm](http://www.ncepod.org.uk/2013arld.htm) (accessed 27 June 2013)

