Two unrelated male infants presented in San Francisco (*New England Journal of Medicine* 2005;**352**:1884–90), one at 3 months with irritability, and the other at 2.5 months with convulsions. Both had hyponatraemia, serum hypo-osmolality, and urine hyperosmolality, consistent with the syndrome of inappropriate antidiuretic hormone secretion but neither had detectable arginine vasopressin (antidiuretic hormone) in serum. Both infants had a missense mutation, causing gain-of-function, of the X-linked V2 vasopressin receptor gene. The condition has been called the nephrogenic syndrome of inappropriate antidiuresis.

In developing countries almost half of all births are supervised by traditional birth attendants. In rural Pakistan (*New England Journal of Medicine* 2005;**352**:2091–9; see also perspective article, ibid: 2047–8) traditional birth attendants received 3 days of training in antenatal and delivery care, use of a disposable delivery kit, and care of the newborn. Obstetric teams set up outreach clinics for antenatal care. Perinatal mortality fell significantly by 30% compared with control districts. A 26% fall in maternal mortality was not statistically significant.

More evidence that high environmental noise levels are bad for children has come from a study in Holland, Spain, and the UK (*Lancet* 2005;**365**:1942–9, see also comment, ibid: 1908–9). A total of 2844 children aged 9–10 years living near Schiphol, Barajas, and Heathrow airports were included in the study. Exposure to chronic aircraft noise was associated with impairment of reading comprehension and of recognition memory, and with increased annoyance. Neither aircraft nor road traffic noise levels affected sustained attention, self-reported health, or overall mental health.

Colorectal cancer is very rare in children. In a registry for familial gastrointestinal cancer in Toronto (*Gut* 2005;**54**:1146–1150) 16 of 1382 probands with colorectal cancer were under 25 years old at the time of diagnosis and eight were aged 18 years or younger. Of the six youngest children, aged 9–16 years at diagnosis, three had hereditary non-polyposis colorectal cancer (HNPCC) confirmed by the finding of a germline mismatch repair gene mutation and two others had strong family evidence for a diagnosis of HNPCC. Unlike adults with HNPCC, who usually have right colon tumours, these six children all had rectosigmoid tumours. Their presenting features included abdominal pain, bloody diarrhoea, bowel obstruction, and bowel perforation. Among the eight children aged 18 years or younger four had colorectal polyps (including two of the three with proved HNPCC) and three developed second colorectal cancers after intervals of up to 22 years. One also developed duodenal cancer and one had a third colorectal cancer: two developed non-gastrointestinal cancers (glioblastoma and ovarian cancer). Four of the eight have died.

Infants with acute bronchiolitis have abnormalities of the nasal epithelium. Researchers in Leicester (*Thorax* 2005;**60**:582–7) studied 31 previously healthy infants (mean age 15 weeks) admitted to hospital with acute bronchiolitis (14 RSV-positive). Biopsies (nasal ciliary brushings) were taken at weeks 0, 3, 6, 12, and 24 for measurement of ciliary beat frequency (CBF) and examination of epithelial ultrastructure by transmission electron microscopy. Ciliary loss and epithelial abnormalities (denuded epithelial cells, abnormal epithelial cell projection, detached cells, and dead cells) recovered after 13–17 weeks. There was a non-significant trend to increase in CBF between weeks 0 and 12. The results were not affected by treatment with inhaled fluticasone propionate.

Do thoughts of possible medico-legal comebacks make doctors adhere to NICE guidelines? In the case of head injuries in children, staff at the Royal Aberdeen Children's Hospital (*Emergency Medicine Journal* 2005;**22**:541–3) seem to overrule the guidelines for CT scanning fairly frequently. Of 537 children presenting with mostly mild head injury eight had a CT head scan. Strict adherence to NICE guidelines would have resulted in 54 more being scanned. Thirty-nine of these extra scans would have been done because the child vomited more than once. (In the NICE guidelines on the use of CT scanning after head injury in people of all ages more than one episode of vomiting is given as a reason for CT scanning but it is stated that clinical judgement should be used in assessing the importance of this criterion in children). In the Aberdeen study few clinical details are given and it is not clear why a scan was not performed on 15 children who had NICE guidelines criteria other than the vomiting criterion. None of the eight scans that were performed showed an intracranial abnormality.

Infants put down to sleep on their backs are less likely to be victims of sudden infant death syndrome (SIDS) but they may show a degree of delay in motor development. In Montreal (*Developmental Medicine and Child Neurology* 2005;**47**:370-6) 121 infants who were routinely placed to sleep supine were assessed, 71 at age 4 months and 50 at 6 months. In the 4 month olds motor development scores were normal but the 6 month olds showed motor delays. Mean scores were below accepted standard "normal" mean scores for the Peabody developmental motor scale (PDMS) gross motor and fine motor quotients and for the Alberta infant motor scale (AIMS). Time spent prone ("tummy time") whilst awake was associated with better scores. Twenty-two per cent of the 6 month olds exhibited gross motor delays and only 22% (against an expected 50%) could sit without arm support. Knowing that these infants could show motor delays might prevent inappropriate referrals. There is no suggestion that the children come to any long term harm and the practice of placing infants to sleep supine should continue.

Is early antiepileptic drug treatment needed after a single, a few, or infrequent, seizures? A large international pragmatic unmasked randomised study of immediate versus deferred treatment (*Lancet* 2005;**365**:2007–13 see also Comment, ibid: 1985–6) included 1443 patients aged from 1 month to over 70 years, 547 under the age of 19 years, and 52 under 5 years. The seizures were of many types, but mostly tonic-clinic; no attempt was made at syndromic classification. Randomisation was to immediate treatment or treatment only when patient and clinician decided it was necessary. Fewer patients in the immediate treatment group (37% vs 48%) had a seizure within 2 years of randomisation. By 8 years, however, 95% of each group had achieved a 2-year remission. Adverse events were mostly minor but they occurred more often in the immediate treatment group. Among adult patients deferred treatment was well accepted. The authors of this paper and the *Lancet* commentators seem to incline towards deferred treatment when the circumstances are right. As with many antiepileptic drug trials that cover the whole age span paediatricians will thirst for more information about the children. We are promised that the data will be used to generate prognostic models to fit individual patients; let's hope they'll be useful in paediatric clinics – but don't hold your breath.