Nitzoxanide is a broad-spectrum anti-parasitic drug active against Cryptosporidium parvum. A study in Zambia (Lancet 2002;360:1375–80) has shown it to be effective treatment for cryptosporidial diarrhoea in children. The trial included 47 HIV-negative and 49 HIV-positive children. A 3 day course of the drug gave significant benefit in the HIV-negative group (resolution of diarrhoea within 7 days, 14/25 (nitzoxanide) v 5/22 (placebo); parasitological response by 10 days, 13/25 v 3/22; deaths within 8 days, none v four) but not in the HIV-positive group. A second 3 day course given to both HIV-negative and HIV-positive non-responders appeared to benefit many of them.

Sinotral re-entry tachycardia is a form of supraventricular tachycardia in which the P-wave morphology is normal. Radiofrequency ablation has been used but until now the youngest patient so treated has been 15 years old. Now cardiologists in Utrecht (Heart 2003;83:1) have treated a 2 month old baby who had intermittent paroxysmal tachycardia and a dilated left ventricle with globally impaired systolic function. They decided to use radiofrequency ablation rather than antiarrhythmic drugs because they feared making the ventricular dysfunction worse. Although they took precautions to avoid heat injury to the right phrenic nerve the baby developed transient paralysis of the right hemidiaphragm. He was completely well, however, when seen 8 weeks later.

Women who take 5-aminosalicylic acid for ulcerative colitis during pregnancy may be at increased risk of stillbirth or preterm birth. In Denmark (Gut 2003;52:243–7) a cohort study showed a doubling of the risk of preterm birth and a six-fold increase in risk of stillbirth but no increase in risk of congenital malformation. It was not possible to say with certainty whether the increased risks were due to the drug or the disease.

Risks were due to the drug or the disease.

With bi-directional case-crossover analysis the level of environmental hazard at the time of an event is compared with the levels before and after the event. Researchers in Canada (Journal of Epidemiology and Community Health 2003;57:50–5) argued that this approach would give more consistent results than the usual time series analysis. Using data on hospital admissions for asthma of children aged 6–12 years in Toronto between 1981 and 1993 and government environmental pollution data they confirmed that exposure to carbon monoxide, sulphur dioxide, and nitrogen dioxide was associated with increased risk of hospital admission for asthma in the short term. The time from exposure to admission was several days longer for girls.

On the other hand a study at three schools in Kent (Occupational and Environmental Medicine 2003;60:82–9) has shown no clear effect of air pollutants on mean peak expiratory flow rates in the winter months. Pollutant levels were, however, significantly associated with large (>20%) decrements in peak flow. Particulate matter was more likely than other pollutants to produce a large fall in peak flow in wheezy children. Overall, nitrogen dioxide and particulate matter had a greater negative effect than sulphur-dioxide suggesting that vehicle emissions played a greater part than those from power stations.

To what extent injuries found at autopsy can be attributed to resuscitation attempts remains controversial. A post-mortem study of 204 children in Melbourne (Emergency Medicine Journal 2003;20:10–12) included 153 for whom resuscitation had been attempted, before the arrival of an ambulance for 123. In the no-resuscitation group only six children had injuries, all minor, but injuries were detected in 65 children (42%) in the resuscitation group. These were mainly bruises and abrasions on the scalp, face, and chest, and around vascular access sites. Two children in this group were judged to have more serious injuries. One had had a tooth knocked out and the other had a large haematoma related to intravenous infusion. Eighteen children had relatively minor injuries to the airway (nasal bleeding in nine) and seven had small areas of pulmonary contusion. There were no rib fractures or major visceral injuries.

Drinking water contains disinfection by-products (DBPs) the most important of which are trihalomethanes (THMs) including chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Many DBPs are suspected of being carcinogens and of having adverse effects on the fetus. A study of over 57 000 births in Massachusetts in 1990 (Occupational and Environmental Medicine 2003;60:173–80) has shown that exposure to high total THM concentrations in drinking water was associated with low birthweight for gestational age. Exposure to drinking water concentrations >80 µg/L throughout pregnancy was associated with a 14% increase in risk of low birthweight for gestational age but not with increased risk of preterm delivery.

The anti-tumour necrosis factor drugs etanercept and infliximab are effective treatment for adults with rheumatoid arthritis and etanercept is effective in juvenile idiopathic arthritis (JIA). In a non-randomised, open label trial in Finland (Annals of the Rheumatic Diseases 2003;62:245–7) 10 patients with refractory JIA were treated with etanercept and 14 with infliximab. A 50% improvement (American College of Rheumatology grading) at 3, 6, and 12 months was achieved by 9/10, 8/9, and 8/9 patients in the etanercept group and by 8/12, 10/12, and 7/9 in the infliximab group. A 75% improvement at 12 months occurred in two thirds of patients in each group. Withdrawals were more frequent in the infliximab group (5%) than in the etanercept group (1%).

A landless nation of people, the Arab Saharan Democratic Republic, has been living in refugee camps in the middle of the Algerian Sahara desert for over 25 years. A Spanish team (British Journal of Ophthalmology 2003;87:142–6) has examined 527 children in these camps for trachoma and found a much lower prevalence of active trachoma than expected. On clinical examination 13 children (2.5%) were suspected of having acute trachoma and 62 (12%) had features of chronic cicatricial trachoma. Twelve children had a positive PCR assay for Chlamydia trachomatis. A single oral dose of azithromycin eliminated C trachomatis.