The cardiovascular impairment seen with pre-eclampsia does not recover with delivery, but persists postpartum. A prospective case control study in Hypertension found that one year after delivery, 14% of women who developed pre-eclampsia after 37 weeks of pregnancy met the criteria for stage B asymptomatic heart failure, as defined by the American Heart Association and American College of Cardiologists, compared with 8% of controls (2011;58:709-15, doi:10.1161/HYPERTENSIONAHA.111.176537). The proportion rose to 56% in women developing pre-eclampsia before 37 weeks; this group also showed impaired myocardial contractility, with 40% developing essential hypertension within two years.

Researchers have reconstructed a draft sequence of the Yersinia pestis genome using DNA extracted from ancient pathology specimens from four people who died during the Black Death (1347-51) and who were buried in the East Smithfield cemetery in London. Analyses indicate that the Black Death was the main event responsible for introducing worldwide dissemination of currently circulating strains of Y. pestis. Comparison with modern strain genomes suggests that factors such as the environment, vector dynamics, and host susceptibility also have a role in emerging Y. pestis infections (Nature 2011 doi:10.1038/nature10549).

Is the outcome better if a frozen shoulder is manipulated and injected under anaesthetic (MUA) sooner, rather than later? The answer is no, according to a retrospective review of a consecutive series of MUs performed by a single surgeon. Nearly 250 patients underwent the procedure within four weeks of presenting to the surgeon (time taken to present ranged from six to 156 weeks). Regression analysis showed no correlation between the duration of the presenting symptoms and the Oxford shoulder score at initial or long term follow-up, improvements were all sustained at 42 months (Journal of Bone and Joint Surgery 2011;93-B:1377-81, doi:10.1302/0301-620X.93B10.27224).

What happens if you undergo a percutaneous coronary intervention but do not achieve full revascularisation? Data from the reporting system in New York state showed that for 3803 matched pairs of complete and incomplete revascularisation, the eight year survival rates were 80.8% and 78.5%, respectively (P=0.04). Risk of death was slightly yet significantly increased for incomplete revascularisation using bare metal stents, compared with individuals who achieved complete revascularisation (Circulation Cardiovascular Interventions 2011, doi:10.1161/circinterventions.111.963058).

Patients who are mechanically ventilated often have dysphagia after their tube is removed. A large, retrospective, observational cohort study over three years found that the presence of more severe postextubation dysphagia was significantly associated with poorer outcomes including pneumonia, reintubation, length of stay, and hospital mortality. Longer duration of mechanical ventilation was independently associated with moderate to severe dysphagia (Critical Care 2011;15:R231, doi:10.1186/cc10472).

Adolescent girls in the United States who are perinatally infected with HIV can engage in risky sexual behaviour. Interviews with 20 girls found that most knew of the transmission risks from having sex but not all knew that anal sex was risky. They were highly motivated to prevent transmission but were challenged by a lack of skills to negotiate condom use, fear of what might happen if they refused to have sex if they deemed it unsafe, or if their HIV status was openly declared. One girl said, “I feel like I’m carrying a weapon” (AIDS Care 2011; 23:1321-8, doi:10.1080/09540 121.2010.532536).

A study in Anaesthesia found that patients who received magnesium sulphate before undergoing lumbar discectomy bled significantly less than those who received saline (190 mL v 362 mL). Bleeding times and blood counts were similar in both groups beforehand, but the activated partial thromboplastin time was prolonged in the magnesium group immediately and six hours after surgery. Heart rates and mean arterial pressure were also reduced in individuals who received magnesium compared with those who received saline (2011, doi:10.1111/j.1365-2044.2011.06898.x).

Oral or nasogastric rehydration over four hours is the management of choice for children who are moderately dehydrated with acute gastroenteritis. But what happens when rehydration is given rapidly over two hours or slowed down over 24 hours? A study in Pediatrics found no differences in efficacy and safety, but did report that although rapid rehydration in the emergency department generally reduced the need for admission, a quarter of those earlier discharges failed (2011;128:e771-e778, doi:10.1542/peds.2010-2483).

Schizophrenia has been linked with age related abnormalities, such as abnormal glucose tolerance, increased pulse pressure, and shortened cellular telomere length — suggesting an accelerated ageing process. Researchers hypothesised that this might be reflected in reduced testosterone activity, because testosterone levels drop with age. They compared testosterone levels in men with psychosis who had not taken antipsychotic drugs with matched controls. The free androgen index, as a measure of biologically active testosterone, was significantly lower in the psychosis group than in controls (Psychosomatic Medicine 2011;73:643-7, doi:10.1097/psy.0b013e318230343f).

The connection between traumatic brain injury and subsequent stroke is unclear. A population based study designed to estimate the risk of stroke in the five years after a head injury reports that a diagnosis of traumatic head injury was independently associated with 10.2 times increased risk of stroke at three months’ follow-up, 4.6 times increased risk at 12 months, and 2.3 times increased risk at five years, compared with those without head injury (Stroke 2011;42:2733-9, doi:10.1161/strokea.111.620112).