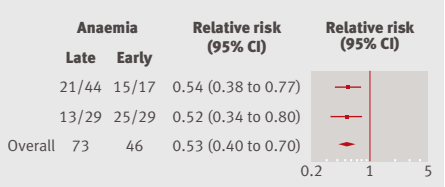
SHORT CUTS

WHAT'S NEW IN THE OTHER GENERAL JOURNALS

Alison Tonks, associate editor, *BMJ* atonks@bmj.com

Delayed cord clamping is good for healthy babies born at term

ANAEMIA AT 2-3 MONTHS AFTER LATE OR EARLY CORD CLAMPING



Adapted from JAMA 2007;297:1241-52

Midwives, obstetricians, and other birth attendants have been arguing for years about the timing of cord clamping in newborn babies. In most Western countries, the cord is clamped and cut immediately after delivery. Elsewhere, birth attendants sometimes wait for several minutes, to allow extra blood to transfuse from the placental circulation into the neonate.

Small trials and systematic reviews suggest that delayed clamping is probably in the baby's best interests, and the latest meta-analysis supports this view. Pooled analysis of 15 trials in nearly 2000 newborns showed that delayed clamping helps prevent anaemia for up to three months in term babies (relative risk 0.53, 95% CI 0.40 to 0.70). Iron stores and ferritin concentrations were significantly higher in babies whose cords were clamped at least two minutes after delivery. So was the risk of polycythaemia, although this side effect seemed harmless. No excess problems with jaundice or respiratory distress were seen in babies whose cords were clamped late.

The authors think there is now enough evidence to support a change in practice, and they suggest that birth attendants wait at least two minutes before clamping the cord of any healthy full term infant.

JAMA 2007;297:1241-52

New rule helps predict CT findings in minor head injury

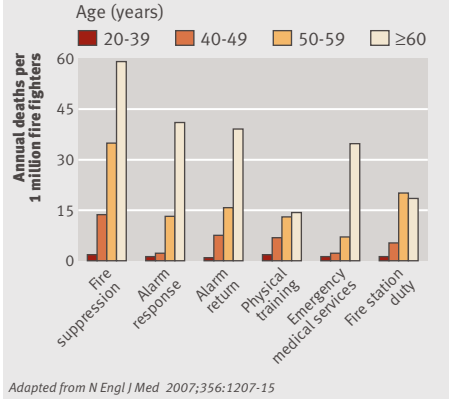
We already have two validated prediction rules for patients with minor head injury. But both are for use only in patients who have been knocked out. Researchers from the Netherlands have developed a third rule to include most patients who remain conscious. The rule predicts who is likely to have a traumatic intracranial lesion by using the presence or absence of major and minor risk factors. The 10 major risk factors include vomiting, prolonged post-traumatic amnesia, a Glasgow coma score below 15, and seizure. Minor risk factors include a fall from a height, any loss of consciousness, and contusion of the skull. Computed tomography (CT) of the head is indicated for anyone with one major or two minor risk factors.

In a cohort of 3181 Dutch patients with minor head injury, the simple version of the rule identified all those who needed neurosurgery (17/3181, 0.5%; sensitivity 100%, 95% CI 82% to 100%) and 96% of those who had any intracranial lesion. It wasn't very specific (25% specificity for intracranial lesions, 23% to 27%), but the authors estimate that it could cut the number of scans after minor head injury by almost a quarter. The new rule, which needs further validation, applies to adults with minor head injury who present with a Glasgow coma score of 13-15.

Ann Intern Med 2007;146:397-405

Working fire fighters die of heart disease, not burns or smoke inhalation

DUTY SPECIFIC RISK OF DEATH FROM HEART DISEASE IN FIRE FIGHTERS



Adapted from N Engl J Med 2007;356:1207-15

More than 1000 American fire fighters died in the line of duty during the 11 years up to 2004 (excluding the extra deaths associated with the terrorist attack on 11 September 2001). A close look at the national records showed that nearly 40% (449/1114) of them died of heart disease.

One third of the deaths from heart disease occurred while fire fighting, which takes up no more than 5% of an average fire fighter's time. The odds of dying from heart disease while fighting a fire were 10-100 times higher than those of dying the same way during non-emergency duties. Responding to alarms, returning from alarm calls, and training were also significantly riskier than non-emergency duties, but to a lesser extent than fire fighting.

Fire fighters in general have a low risk of heart disease because they tend to be young and fit. But they are clearly not immune to the well known link between physical and psychological stress and fatal heart disease, says an editorial (pp 1261-3). Exposure to hazardous chemicals, particulate pollution, and extreme heat may be other contributing factors. For all hazardous duties, the risk of death from heart disease went up dramatically with age.

N Engl J Med 2007;356:1207-15, 1261-3

Independent trial guides doctors through epilepsy treatments

Patients with newly diagnosed epilepsy and their doctors have a bewildering choice of first line drugs. Navigating through them just got slightly easier with the publication of a large trial comparing the main choices head to head. Lamotrigine emerged as the best choice for patients with partial seizures, and valproate had the most favourable profile for patients with generalised or unclassified seizures.

The results are simple and satisfying, says a linked comment (pp 970-1). The trial was completely independent of the drugs industry, had a reasonably long follow-up, and should give doctors much needed focus. Lamotrigine will soon be off patent, and valproate is already cheaper than newer alternatives, so even those who pick up the bill should be happy.

The author warns, however, that there's no such thing as "one size fits all" in epilepsy. For example, concerns exist about the safety of lamotrigine and valproate in women who might get pregnant. Valproate causes weight

gain, an important consideration for some patients, and has been linked to altered platelet counts and rare but life threatening pancreatitis. These and other considerations mean that doctors must still match the drug to the patient. But at least they now know where to start.

Lancet 2007;369:1000-15, 1016-26, 970-1

Treated port wine stains eventually darken

People who have laser treatment for port wine stains should be warned that the stain can gradually darken again after treatment. Researchers found considerable darkening, often obvious to the naked eye, in 51 patients nearly 10 years after their original five laser sessions. On average, the stains had darkened despite the extra laser sessions undertaken by most of the patients. Although the stains were better than before treatment, only 30 of the 51 patients were happy with the long term result.

Others have also reported the recurrence of port wine stains over time. But no one is sure why it happens. Theories include angiogenesis from the deep layers of the stain that remain after treatment, natural darkening with age, or neovascularisation caused by the original treatment.

Whatever the cause of recurrence, advances in laser technology may overcome it. Newer generations of pulsed dye lasers now use longer wave lengths, higher energy pulses, and cryogen spray cooling, say the researchers. Long term follow-up of patients using objective colour analysis is the best way to tell if these extras have any impact on the eventual cosmetic result.

N Engl J Med 356:1235-40

Treatment related cancers still occur 30 years after ALL

Children who recover from acute lymphoblastic leukaemia (ALL) have an increased risk of secondary cancers later in life. Myeloid leukaemias predominate in the first five years after treatment, according to a study from the United States, but these and other cancers continue to accumulate for up to 30 years, with no sign of a plateau.

The researchers looked retrospectively at 2169 children treated successfully for acute lymphoblastic leukaemia between 1962 and 1998. Over a median follow-up of 18 years, 168 (7.7%) of them developed a secondary cancer. The cumulative incidence of cancer as a first event after remission was 4% at 15 years, 5% at 20, and 11% at 30 years.

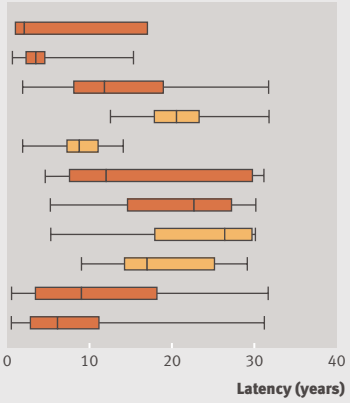
Meningiomas and basal cell carcinomas accounted for most of the late increase in incidence. But overall, acute myeloid leukaemia was the most common secondary cancer, accounting for a quarter of all cases. Tumours of the central nervous system other than meningioma were also relatively common.

Compared with the general US population, this cohort had a 13-fold increased risk of a second cancer (standardised incidence ratio 13.5, 95% CI 10.9 to 16.8). Children who had had cranial or craniospinal irradiation were particularly vulnerable to later tumours of the central nervous system.

JAMA 2007;297:1207-15

TIME FROM ACUTE LYMPHOBLASTIC LEUKAEMIA TO SECONDARY CANCER

Secondary cancer	No	Median time to secondary cancer (range)
Lymphoma	3	2.1 (1.0 to 17.0)
Myeloid	46	3.4 (0.5 to 15.3)
Central nervous system	38	11.9 (1.7 to 31.7)
Meningioma	16	20.6 (12.6 to 31.7)
Other	22	8.8 (1.7 to 14.1)
Sarcoma	6	12.1 (4.7 to 31.2)
Carcinoma	30	22.8 (5.2 to 30.2)
Basal cell	14	26.5 (5.2 to 30.2)
Other	16	17.1 (9.1 to 29.2)
Overall secondary cancer	123	9.2 (0.5 to 31.7)
Overall secondary cancer excluding meningioma and basal cell carcinoma	93	6.1 (0.5 to 31.2)



Adapted from JAMA 2007;297:1207-15

Alendronate combats skeletal side effects of antiandrogen therapy

Antiandrogen therapy may be an effective treatment for prostate cancer, but it has a detrimental effect on bone mineral density, which leads to osteoporosis and fractures. Men using gonadotrophin releasing hormone agonists, antiandrogens, or both, should be carefully assessed and may benefit from additional treatment with alendronate, write researchers. A randomised trial showed that the bisphosphonate commonly given to postmenopausal women also worked for men.

The men, who already had low bone mass, took oral alendronate 70 mg or placebo once a week for a year. All participants also took calcium and vitamin D supplements. By the end of the study men treated with alendronate had higher bone mineral density and lower bone turnover than controls. The differences were clinically and statistically significant, and they were most evident at the spine and hip. Controls continued to lose bone mineral density at the spine, femoral neck, and distal radius throughout the study.

It's still unclear whether these benefits will translate into fewer osteoporotic fractures in this vulnerable population of men. This trial was too small (n=112) and underpowered to find out.

Ann Intern Med 2007;146:416-24

New treatment for heart failure given cautious welcome

Successful new treatments for decompensated heart failure have been few and far between in recent decades, so experts have given a cautious welcome to tolvaptan, a new drug that antagonises the action of arginine vasopressin on the renal collecting ducts. In trials the drug reduced body weight in the first week of treatment and had a modest effect on breathlessness and oedema. But it did not save lives or prevent readmission to hospital in the longer term, compared with placebo (mortality at 10 months 26% in both groups). Tolvaptan did at least appear safe. There were no adverse renal effects, although 4-11% of patients reported nuisance symptoms such as thirst and dry mouth.

Most data on the new drug come from three randomised placebo controlled trials (two short term and one long term) in 4133 men and women with acutely decompensated chronic heart failure. Tolvaptan was given in addition to standard treatments including diuretics.

One commentator (pp 1374-6) suggests there's now enough evidence to support the short term use of tolvaptan when diuretics and vasodilators fail to control acute symptoms. But only in patients with the same characteristics as the trial participants—those with a history of established heart failure and reduced ejection fraction.

JAMA 2007;297:1319-31, 1332-43, 1374-6