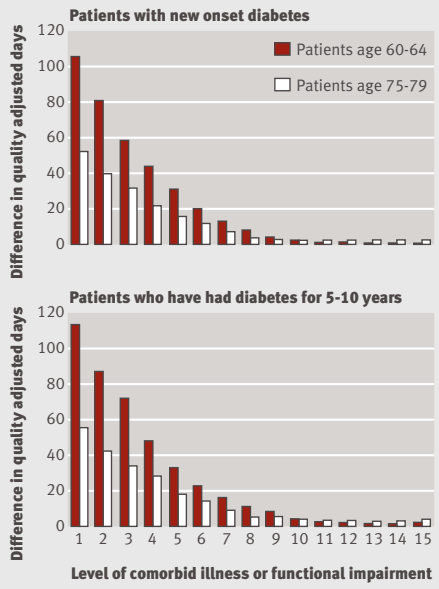
SHORT CUTS

ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS

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

Intensive control of diabetes is inappropriate for people with short life expectancy

BENEFITS OF INTENSIVE GLUCOSE CONTROL



Adapted from *Ann Intern Med* 2008;149:11-9

Older people with type 2 diabetes are often excluded from clinical trials. In the absence of data, pragmatic guidelines from the US suggest that doctors reserve intensive glucose control for older people expected to live for at least five years.

This approach sounds crude, but it probably works, say researchers. Their decision analysis found that as life expectancy decreased, so did the benefits of intensive glucose control. They estimated that older people with a life expectancy below five years would gain only 20 extra quality adjusted days of life if treated intensively to a target glycated haemoglobin of 7%. The benefits of intensive control were measured against more moderate control to a target of 7.9%.

The researchers used an existing score of comorbid illnesses and functional impairments to model life expectancy in various age groups. At every age beyond 60, the expected benefits of tighter glucose control went down as the scores went up, even in patients with longstanding diabetes. In patients aged 60-65, for example, the benefits of tighter control varied between 106 extra days for healthy people to just eight extra days for those with multiple illnesses and functional impairments. The model isn't perfect but should be a robust enough starting point for discussions about treatment between older people with diabetes and their doctors, say the authors.

Ann Intern Med 2008;149:11-9

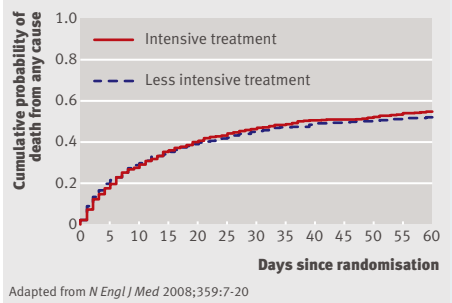
Intensive dialysis fails to improve survival after acute kidney injury

Many critically ill people develop acute renal failure and need dialysis. The optimum timing, dose, and duration isn't yet clear, but a recent large trial suggests that more isn't necessarily better. The researchers compared intensive and less intensive regimens in 1124 critically ill patients with acute kidney injury and failure of at least one other organ system or sepsis. Just over half of each group died within 60 days (53.6% (302/563) of the intensively treated group *v* 51.5% (289/561) of the less intensively treated group, odds ratio 1.09, 95% CI 0.86 to 1.4). More dialysis did not result in faster recovery of renal function or any other organ system. About one in six participants made it home without needing dialysis by day 60. Again the groups did not differ (15.7% (88/560) *v* 16.4% (92/561); P=0.75). These results may not apply to women. Three quarters of the participants were men.

Intensively treated participants had haemodialysis six days a week. Those who were haemodynamically unstable had low efficiency dialysis six times a week or continuous venovenous haemodiafiltration at a flow rate of 35 ml/kg/hour. Controls had a treatment regimen comparable to usual care—haemodialysis or low efficiency dialysis three times a week, or haemodiafiltration at a flow rate of 20 ml/kg/hour.

N Engl J Med 2008;359:7-20

CUMULATIVE PROBABILITY OF DEATH ACCORDING TO TREATMENT



Adapted from *N Engl J Med* 2008;359:7-20

Mortality from HIV has fallen dramatically in rich countries

Mortality from HIV has fallen dramatically in developed countries since highly active antiretroviral therapy became available in 1996. In one analysis, people with sexually transmitted HIV had a similar risk of death to the general population for the first five years after infection, although excess mortality persisted in the longer term. Overall, the excess mortality associated with HIV infection fell from 40.8 per 1000 person years before 1996 to 6.1 per1000 person years in 2004-6 (adjusted excess hazard ratio 0.05, 95% CI 0.03 to 0.09). In general, men had a higher mortality from HIV than women, injecting drug users had higher mortality than other exposure groups, and people infected at older ages had a higher mortality than those infected when they were younger.

The analysis included more than 16 000 people with HIV who were living in industrialised countries and knew (or could estimate reliably) their seroconversion date. All were enrolled in long running cohorts. They were diagnosed early and monitored carefully from the start of their infection. Mortality may not have fallen quite so steeply in the wider population of people infected with HIV, say the authors.

JAMA 2008;300:51-9

Follow guidelines on salmeterol, even if combined with an inhaled corticosteroid

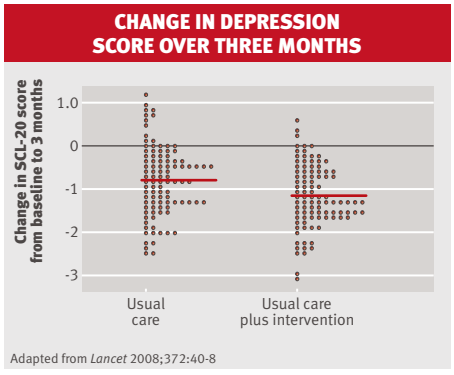
Long acting ß agonists such as salmeterol have been linked to increased risk of asthma exacerbations and even asthma related deaths. Do these safety concerns extend to people who also use an inhaled corticosteroid? One expert (p 56) warns doctors to be cautious with combination treatments too, despite an apparently reassuring meta-analysis of

66 industry sponsored trials. People given salmeterol and an inhaled steroid were no more likely to be admitted to hospital with asthma than those using an inhaled steroid alone (35 *v* 34 asthma related hospital admissions, P=0.84), although the trials weren't big enough, even when combined, to look at deaths.

These results tell us what happens under ideal conditions, to carefully chosen patients who are closely monitored and treated for just a few months, says the expert in a linked editorial. They tell us very little about the safety of combination products in the real and untidy world of clinical practice. The best doctors can do now is to stick to national guidelines, which say that long acting ß agonists, with or without steroids, shouldn't be given to people with mild asthma and shouldn't be used as first line treatment for anyone. He adds that doctors should think about long acting ß agonists in the same way as they think about insulin and warfarin—drugs that have a narrow therapeutic window and need careful monitoring.

Ann Intern Med 2008;149:33-42

Nurse led intervention works for depressed patients with cancer



Specially trained cancer nurses with no previous psychiatric experience can deliver an effective package of care to depressed people with cancer, a randomised trial has found. The nurses saw patients face to face up to 10 times over three months, teaching them about depression and how to use problem solving skills to cope with feelings of helplessness. They also helped coordinate care from primary care doctors and oncologists. The face to face sessions were followed by monthly phone calls for a further three months.

All participants had major depression, and all improved during the first three months of the trial. But patients who saw the trained nurses improved significantly more than controls given usual care. Their symptom scores fell further, and a higher proportion went into remission (29% (28/97) *v* 14% (14/99), P=0.005). A linked editorial (p 8) says the benefits were clinically relevant and persisted, unexpectedly, for 12 months. It is hard to say which individual components of the package were the most effective, however. Use of antidepressants increased in both groups. Again, the increase was steeper in those treated by the trained nurses. After three months, 69% (68/97) of the intervention group and 42% (42/99) of controls were taking therapeutic doses of antidepressants.

The authors calculate that their intervention costs £5278 (€6630; $10 494) for every quality adjusted life year gained, excluding the one-off costs of training the nurses.

Lancet 2008;372:40-8

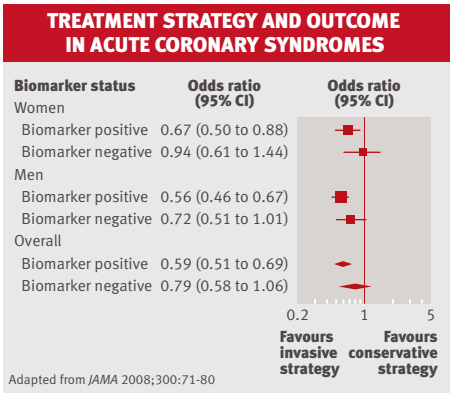
Vasopressin combination does not improve survival after cardiac arrest

Epinephrine (adrenaline) is the vasopressor of choice for cardiopulmonary resuscitation. Vasopressin has similar physiological effects and seems to work well in animal models, but trials in humans are disappointing. In the largest trial so far, vasopressin plus epinephrine worked no better than epinephrine alone during out of hospital cardiac arrests. Patients given the combination were no more likely to make it to hospital alive (20.7% (299/1442) *v* 21.3% (310/1452), relative risk of death 1.01, 95% CI 0.97 to 1.05), make it home alive (1.7% (24/1439) *v* 2.3% (33/1448), 1.01, 1.00 to 1.02), or have a good neurological outcome (37.5% (9/24) *v* 51.5% (17/33), 1.29, 0.81 to 2.06) than controls. Even carefully chosen subgroups with a better prognosis failed to benefit. The authors conclude that adding vasopressin to cardiopulmonary resuscitation protocols is probably futile.

French ambulance services from both urban and rural areas took part in the trial, which included more than 2800 people who collapsed outside hospital, usually at home. Four fifths were asystolic when the emergency doctors arrived. Doctors gave patients 1 mg epinephrine plus 40 IU of vasopressin or epinephrine alone, according to a predetermined protocol that allowed two consecutive doses of study drugs three minutes apart, followed by open label epinephrine if needed. The 9% of patients in ventricular fibrillation were randomised after three failed attempts at defibrillation.

N Engl J Med 2008;359:21-30

Invasive treatment may not work for some women with acute coronary syndrome



People with unstable angina or a heart attack without ST segment elevation are often treated invasively with an angiogram followed by revascularisation if needed. The rest are treated more conservatively with drugs. The invasive option consistently improves outcomes in men, according to a recent meta-analysis. The benefits are less consistent for women and seem to be confined to those judged to be "high risk" because of raised serum concentrations of cardiac biomarkers or ST segment deviation on an electrocardiogram.

The researchers pooled data from eight major trials comparing invasive and conservative approaches for people with acute coronary syndromes. In subgroup analyses, high risk women with raised biomarkers did significantly better after invasive treatment than after conservative treatment (odds ratio for death, heart attack, or hospital admission for acute coronary syndrome 0.67, 95% CI 0.5 to 0.88). Low risk women, however, did no better after invasive treatment and on some measures seemed to do worse (odds ratio for death or heart attack 1.35, 0.78 to 2.35), although the harms weren't statistically significant.

In these trials, a quarter of the women treated invasively had no evidence of coronary artery disease on angiography. The corresponding figure for men was only 8% (P<0.001). Perhaps that's why an invasive strategy works better for men, say the researchers.

JAMA 2008;300:71-80

Cite this as: *BMJ* 2008;337:a694