Short cuts

What's new in the other general journals

DHEA does not prevent ageing

Dehydroepiandrosterone (DHEA) is one of our body's most abundant sex steroids. The abundance declines slowly with age, however, and replacing it has become a fashionable way of maintaining eternal youth. It doesn't work, but that doesn't stop DHEA being peddled as an antiageing panacea by manufacturers happy to exploit a regulatory loophole that defines it as a food supplement rather than a drug. This loophole should be closed, writes one commentator. His Google search for DHEA returned five million hits, many from online vendors making exaggerated and unsubstantiated claims.

There is no evidence that replacing DHEA has any effect on the processes of ageing, he writes. A handful of trials have already been published, and the latest simply confirms their negative findings—physiological doses of the hormone taken for two years had no meaningful effect on body composition, physical performance, insulin sensitivity, or quality of life in elderly men or women. Its effect on bone mass was minimal and inconsistent. Physiological doses of testosterone were equally disappointing for the men.

No one should be taking either DHEA or testosterone to regain lost youth, the commentator concludes. They don't work and may not be safe. DHEA should be reclassified as a drug and properly regulated "or quackery will prevail."

N Engl J Med 2006;355:1724-6, 1647-59

Most children with acute otitis media don't need immediate antibiotics

More than half of children with acute otitis media could be safely treated with watchful waiting, according to a meta-analysis of randomised trials. Antibiotics should be reserved largely for those with otorrhoea

(21% of children, relative risk 0.52 (95% CI 0.37 to 0.73)) and those under the age of 2 years with bilateral infections (20% of children, 0.64 (0.62 to 0.8)), the two subgroups most likely to benefit. In these subgroups, children given antibiotics were significantly less likely to have pain, fever, or both between three and seven days after presentation than children given a placebo or no treatment. Antibiotics were ineffective for older children with mild disease.

The analysis included six trials and 1643 children, making it bigger and more powerful than previous subgroup analyses. A linked commentary (pp 1397-8) says the findings are straightforward and should be welcomed by primary care doctors, who see the lion's share of children with otitis media. Cutting down on antibiotics will reduce the incidence of side effects such as diarrhoea, save money, and help prevent antibiotic resistance. The only note of caution is that the analysis wasn't big enough to rule out an increase in the risk of mastoiditis among children denied antibiotics. It's simply too rare to be certain. There were no cases in any of these trials.

Lancet 2006;368:1429-35

People with sexually transmitted infections should be re-tested soon after treatment

Men and women with sexually transmitted infections should be treated, and then re-called for further tests within three months, write researchers from the US. Their study showed that up to one in five will be reinfected, and most of the reinfections (286/432, 66%) will be asymptomatic. The 2419 men and women who took part all presented to sexually transmitted disease clinics and were screened for HIV and other infections as part of a randomised trial of two different HIV tests. At baseline, 558 of them were infected with *Neisseria gonorrhoea*, *Chlamydia trachomatis*, or *Trichomonas vaginalis*. Any infection put them at increased risk of another one, particularly in the first three months after treatment (adjusted odds ratio 2.4 (95% CI 2.0-2.9)), but the high risk period persisted for at least a year. Those who reported having new sexual partners or multiple partners after their initial treatment were significantly more likely to have recurrent infections than people not reporting these behaviours.

Recall visits could be brief, write the authors, to minimise inconvenience and

encourage people to come back. Longer sessions, including sexual health counselling, should be reserved for those with further infections.

Ann Int Med 2006;145:564-72

Most adverse drug events are caused by old drugs used badly

Adverse drug events include allergic reactions, unintentional overdoses, and side effects. Each year about 700 000 US citizens or 0.24% of the population have an adverse event serious enough to need attention in a hospital emergency department, according to recent estimates. Children under 5 years old and adults aged over 65 are particularly vulnerable.

In an analysis of routine surveillance data from 63 US hospitals, adverse drug events accounted for an estimated 2.5% of emergency department visits for unintentional injury and 0.6% of visits for all causes. About a third were allergic reactions and another third were unintentional overdoses, particularly of drugs that need regular monitoring such as digoxin and warfarin. Insulin and warfarin were implicated in over a quarter of all serious events. Insulin, warfarin, and digoxin accounted for more than 40% of serious events among people aged over 65.

Efforts to reduce this substantial burden on the public health should focus first on elderly people, write the authors. They take more drugs, have more adverse events, and end up in hospital more often than people under 65. It's also clear that relatively few drugs are responsible for most adverse events. Among the top 18 in this study, seven were antibiotics. Amoxicillin alone is responsible for an estimated 30 135 visits to emergency departments each year.

JAMA 2006;296:1858-66

Below average lung function at birth is linked to asthma in childhood

It's already clear that newborn babies with worse than average lung function have an increased risk of wheeze and asthma in early childhood. To find out how long the risk persists, researchers followed a cohort of 616 healthy Norwegian babies from just after birth to 10 years old. Those with lung function at or below the median in the first few days after birth were more likely to have asthma at 10 years and more likely to have a history of asthma than children who had had lung function above the median. For some measures of lung mechanics, a reading below the median at birth was also associated with severe bronchial hyperresponsiveness (9.1% v 4.9%, $P = 0.05$) and use of inhaled corticosteroids at 10 years (5.9% v 2.4%, $P = 0.02$).

The link between relatively poor lung function in early life and asthma was unexplained by maternal smoking during pregnancy or family history of asthma or rhinoconjunctivitis. It was strongest for respiratory system compliance: a low reading was associated with double the odds of asthma (adjusted odds ratios 2.01 (95% CI 1.1 to 3.66)) or a history of asthma at age 10 (2.18 (1.39 to 3.38)).

None of the measures was good enough to be used as an early screening test for asthma, however, because positive predictive values were low, between 15% and 30%.

N Engl J Med 2006;355:1682-9

Scottish bar staff are healthier after ban on smoking in the workplace

Banning smoking in the workplace is good for everyone, but it's particularly good news for bar workers, who breathe in up to six times more secondhand smoke than other working men and women, writes an editorial (pp 1778-9). Smoking bans in the US, Ireland, Norway, and New Zealand have already provided evidence that bar staff get healthier quite fast when customers stop smoking.

The most recent objective evidence comes from Scotland, where bars, restaurants, and other confined public spaces became smoke free in March this year. In the two months that followed, bar staff in Dundee and Perth inhaled significantly less smoke (as measured by serum concentrations of cotinine), had significantly better lung function, and had significantly fewer respiratory and other symptoms than they had had immediately before the ban. Asthmatic bar workers benefited most. Their lung function improved more than that of healthy bar workers, and they reported a better asthma related quality of life. Airway inflammation also improved in this subgroup. White cell counts went down across the board (from $7.61 \times 10^9/l$ to $6.98 \times 10^9/l$ at two months, $P = 0.002$).

Although the study was small—only 77 people completed all the tests—it confirms that a smoke-free environment makes a rapid and clinically important difference to bar staff. In this study, they felt better within a month.

JAMA 2006;296:1742-8

Inducing labour increases the risk of an amniotic fluid embolism

Amniotic fluid embolism is a rare complication of labour and delivery, but it can be catastrophic. The exact incidence is unclear, however, because there is no standard diagnostic test. The latest attempt to unpick the epidemiology comes from Canada, where researchers analysed routine hospital data covering 70% of all deliveries between 1991 and 2002. They found 180 recorded cases of amniotic fluid embolism among nearly three million singleton deliveries (6.0/100 000) and five cases among nearly 34 000 multiple births (14.8/100 000, odds ratio 2.5 (95% CI 0.9 to 6.2)). Twenty four of the women with singleton pregnancies died.

Since strong uterine contractions are thought to increase the risk, these researchers were particularly interested in women who had been induced. In this cohort, medical induction was associated with nearly double the odds of an amniotic fluid embolism compared with a spontaneous labour (adjusted odds ratio 1.8 (1.3 to 2.7)). Other independent risk factors included maternal age of 35 or over (1.9

(1.4 to 2.7)), polyhydramnios, eclampsia, cervical laceration or uterine rupture, placental praevia, abruption, and caesarean delivery.

The absolute risks remain small, however. These figures suggest that there would be an extra four or five cases of amniotic fluid embolism for every 100 000 women induced.

Lancet 2006;368:1444-8

Hearts from donors with HCV antibodies are associated with shorter survival for recipients

Between 1994 and 2003, 261 US citizens received a newly transplanted heart from a donor with antibodies to hepatitis C virus (HCV). They were older and sicker than other heart transplant patients, and their operations were done in more of a hurry. The donors too were older than uninfected donors and more likely to have drunk alcohol and smoked. As expected, recipients given these "marginal" hearts died significantly sooner than other recipients in a cohort of more than 10 000 patients. But if all other things were equal, would receipt of a heart from an infected donor still reduce survival?

After a series of sophisticated analyses, researchers conclude that it would. Even after controlling for dozens of factors using a propensity score, mortality was still significantly higher during a mean follow up of four years (hazard ratio 2.10 (95% CI 1.60 to 2.75)). Patients aged ≤ 39 years seemed better protected than older patients from the mortality risks associated with an infected donor, so the current practice of giving high risk hearts to older people should probably stop. Giving them to patients who are already infected with hepatitis C virus is also problematic. In this study, hepatitis C virus infection in the recipient made no difference to the link between an infected donor and relatively poor outcome. An editorial (pp 1900-1) concludes that these hearts should be given only to people who would die soon without one.

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Alison Tonks associate editor
atonks@bmj.com