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### NEWS

**Australian drugs regulator cancels registration of COX 2 inhibitor**
Burton, B.

**Audit Scotland calls for more evidence of effective care for long term illness**
Christie, B.

**US firm to advise Scottish health service on quality improvement**
Christie, B.

**Thousands of patients wait more than 26 weeks for tests, as 18 week diagnostic target looms**
Davis, A.

**Urban children healthier than rural children in developing world**
Dobson, R.

**GMC opens consultation on level of proof needed to strike off doctors**
Dyer, O.

**High Court upholds NICE decision to limit treatments for Alzheimer's disease**
Dyer, O.

**Charities say UK government must do more to help soldiers returning from battle**
Dyer, O.

**Longer ambulance journeys raise mortality in patients with life threatening conditions**
Eaton, L.

**GMC to look into higher number of complaints against overseas trained doctors**
Moszynski, P.

**Extreme weather affects half a billion people each year**
Moszynski, P.

**Move to weaken picture warnings on tobacco packets in India causes outcry**
Mudur, G.

**Skin cancer is on the increase—but incidence of lung cancer is falling**
O'Dowd, A.

**Cancer survival in UK is improving but could be better**
O'Dowd, A.

**Report highlights abuse of older people's human rights in hospitals and homes**
O'Dowd, A.

**UK heart surgeons improve patients' survival**
Reynolds, T.

**South African health minister sacked after attending AIDS conference**
Sidley, P.

**South Africa's health minister rebuffs allegations of alcoholism**
Sidley, P.

### ANALYSIS

**Potential of electronic personal health records**
Claudia Pagliari, Don Detmer, and Peter Singleton.

**Commentary: Health inequity could increase in poor countries if universal HPV vaccination is not adopted**
Franco, F.L.

**Medical education research remains the poor relation**
Mathew Todres, Anne Stephenson, and Roger Jones.

**Challenges of implementing human papillomavirus (HPV) vaccination policy**
Raffle, A.E.

### RESEARCH

**Screening versus routine practice in detection of atrial fibrillation in patients aged 65 or over: cluster randomised controlled trial**

**Screening versus routine practice in detection of atrial fibrillation in patients aged 65 or over: cluster randomised controlled trial.**

**Accuracy of diagnosing atrial fibrillation on electrocardiogram by primary care practitioners and interpretative diagnostic software: analysis of data from screening for atrial fibrillation in the elderly (SAFE) trial.**
Jonathan Mant, David A Fitzmaurice, F D Richard Hobbs, Sue Jowett, Ellen T Murray, Roger Holder, Michael Davies, Gregory Y H Lip.

**Use of intensive case management to reduce time in hospital in people with severe mental illness: systematic review and meta-regression**
Tom Burns, Jocelyn Catty, Michael Dash, Chris Roberts, Austin Lockwood, and Max Marshall.

**Probiotics for treatment of acute diarrhoea in children: randomised clinical trial of five different preparations**
Roberto Berni Canani, Pia Cirillo, Gianluca Terrin, Luisa Cesaran, Maria Immacolata Spagnuolo, Anna De Vincenzo, Fabio Albano, Annalisa Passariello, Giulio De Marco, Francesco Manguso, and Alfredo Guarino.

### CLINICAL REVIEW

**Acute respiratory distress syndrome**
Susannah K Leaver, and Timothy W Evans.
Christie, B. (2007). Audit Scotland calls for August 2006 that sales jumped. subsidised Pharmaceutical Benefits Scheme in the 200 mg dose was added to the government was on sale from November 2005, it was only after trial data available at the time. Although the drug osteoarthritis in July 2004 based on the clinical effects, including two deaths, with another two patients needing liver transplants. The Therapeutic Goods Administration approved the 200 mg and 400 mg a day doses for the treatment of osteoarthritis in July 2004 based on the clinical trial data available at the time. Although the drug was on sale from November 2005, it was only after the 200 mg dose was added to the government subsidised Pharmaceutical Benefits Scheme in August 2006 that sales jumped.

Christie, B. (2007). Audit Scotland calls for more evidence of effective care for long term illness. British Medical Journal, 335(7616), 320. Decisions on managing long term medical conditions in Scotland are being made on limited evidence of what works for patients, says a report from the public service watchdog, Audit Scotland. The report calls for better information to be provided urgently on the cost, quality, and scope of such services to ensure the best use of resources and the most appropriate service provision in the future. The report says that managing long term conditions is one of the biggest challenges facing healthcare systems worldwide. In the United Kingdom these conditions account for 80% of all GP consultations and 60% of hospital bed days. The number of people with long term conditions is expected to rise markedly over the next 20 years, in line with the ageing of the population. In examining the current management of these conditions in Scotland the watchdog looked in particular at two diseases: chronic obstructive pulmonary . . .

Christie, B. (2007). US firm to advise Scottish health service on quality improvement. British Medical Journal, 335(7616), 366. One of the world’s leading health improvement organisations, the US based Institute for Healthcare Improvement, is to work with the NHS in Scotland to improve patient safety. It is said to be the first time that an entire national healthcare system has become involved in an initiative of this kind. NHS Quality Improvement Scotland has commissioned the institute to help coordinate the Scottish Patient Safety Alliance. This will involve staff at all levels taking simple steps to tackle problems such as preventable infections or errors in prescribing. The institute is a not for profit organisation that led the successful “100 000 lives campaign,” which made important improvements to US hospitals. Participating hospitals avoided at least an estimated 122 000 unnecessary deaths during the 18 month campaign. . .

Davis, A. (2007). Thousands of patients wait more than 26 weeks for tests, as 18 week diagnostic target looms. British Medical Journal, 335(7616), 365. Despite the imminent introduction of a target of 18 weeks between referral and treatment from 2008, almost 95 000 patients in England currently wait at least 13 weeks for diagnostic tests, and 66 000 patients wait more than 26 weeks, according to figures on a Department of Health website. Audiology is one of the worst specialties, with 55 376 tests still outstanding after 26 weeks. The department wants to reduce substantially waiting times for audiological tests. It says that complex cases should be referred to ear, nose, and throat clinics and that by December 2008 treatment should start within 18 weeks. By March 2008 patients routinely referred to audiology departments should be seen within six weeks, it says . . .

Dobson, R. (2007). Urban children healthier than rural children in developing world. British Medical Journal, 335(7616), 367. One in five developing countries has higher mortality among poor urban children than among rural children, a report has said. About three quarters of stunted growth and mortality occurs in rural areas, but in some countries mortality and rates of stunting are greater in poor urban children than rural children, according to an analysis of data from 47 countries (Social Science and Medicine 2007 Aug 14 doi: 10.1016/j.socscimed.2007.06.032) “In a considerable number of countries, the urban poor actually have higher rates of stunting and mortality than their rural counterparts,” say the authors. “The findings imply that there is a need for programmes that target the urban poor, and that this is becoming more necessary as the size of the urban population grows.” . . .

Dyer, O. (2007). GMC opens consultation on level of proof needed to strike off doctors. British Medical Journal, 335(7616), 365. The General Medical Council has opened a consultation on far reaching changes that would see the abandonment in the United Kingdom of the criminal standard of proof in doctors’ fitness to practise hearings. It would be replaced by the civil law standard of “balance of probabilities.” But the medical watchdog may face an uphill battle in convincing professional organisations that the new
rules do not threaten their members. The BMA and leading medical litigation insurers have issued statements that criticise the proposals. The BMA said, “It cannot be right and fair to take away someone’s entire livelihood simply on the basis of the balance of probabilities. The BMA will oppose this in the strongest terms. The government should think again and maintain the criminal standard of proof where a decision is being made that would prevent a doctor from working.” The Medical Defence Union, which indemnifies . . .


Campaigners and drug makers failed last week in their High Court bid to overturn guidance recommending only limited coverage on the NHS of drugs to treat Alzheimer’s disease. This was the first major legal challenge to guidance issued by the National Institute for Health and Clinical Excellence (NICE), the body that recommends which drugs are available on the NHS in England and Wales. Mrs Justice Dobbs ordered NICE to amend the existing guidance, having ruled that its diagnostic criteria breached the Disability Discrimination Act and the Race Relations Act. NICE undertook to make the relevant changes within 28 days—but the core of the guidance will remain unchanged. The guidance recommends against the use of donepezil (Aricept), rivastigmine (Exelon), and galantamine (Reminyl) in patients with mild to moderate Alzheimer’s disease and against the use of memantine (Ebixa) in moderately . . .


The Royal British Legion will launch a campaign next month to urge the UK government to take better care of soldiers and their families, who are feeling the strains of repeated deployments to Iraq and Afghanistan. Several military charities and associations say that inadequate housing, a shortfall in compensation for injury, and delays in inquests into soldiers’ deaths are a breach of the “military covenant,” which guarantees fair treatment to soldiers in exchange for the sacrifice of their civilian rights. Robert Lee, a spokesman for the charity, said that the campaign will focus on inquests into soldiers’ deaths; medical surveillance of troops and their dependants; access to NHS care for discharged personnel; and care of wounded soldiers. “Battlefield care hasn’t been flagged as a major issue for us,” he said, “but the returning wounded need help with many daily activities, and right now a lot of that—too much in our . . .


Longer ambulance journeys to hospital can reduce a patient’s chance of survival, a British study has shown. Researchers looked at 10 315 cases in four English ambulance services where patients with potentially life threatening conditions other than cardiac arrest were transported to hospital. The trusts covered were Royal Berkshire, Derbyshire, Essex, and West Midlands. The results, published in the Emergency Medicine Journal, were adjusted for age, sex, clinical category, and seriousness of condition (2007;24:665-8 doi: 10.1136/emj.2007.047654). The ambulance journeys varied in straight line distance between 0 and 58 km, with a median of 5 km. In all, 644 patients died, either before reaching hospital or after arriving. Chances of survival before discharge fell as the distance increased. . . .


The General Medical Council has commissioned new research to establish why UK doctors who trained overseas seem to be disproportionately represented at its fitness to practise hearings. Figures released by the GMC last month show that of the 3086 complaints lodged against doctors in 2006 where the doctor’s country of training was known, nearly 40% referred to overseas trained doctors—roughly in proportion to their numbers in the NHS workforce—but the percentage of overseas trained doctors who were then referred to hearings was twice that among UK graduates (34% versus 16%). However, in a further 1279 complaints made about doctors the doctor’s place of training was not given. Of those 3806 inquiries, 2334 related to UK trained doctors, 1143 were “international,” 309 from the European Union, and 20 were “other European.”


In the wake of unprecedented flooding across the world, humanitarian agencies are appealing for immediate help and warning that serious planning efforts must be made to mitigate disasters, given the likelihood of increasing devastation from the effects of global warming. The International Federation of the Red Cross and Red Crescent Societies said, “Severe flooding has affected tens of millions of people around the world in recent weeks and months, including Bangladesh, China, Colombia, India, Indonesia, Nepal, Pakistan, and Sudan. From Dhaka to Khartoum, officials say they are seeing the heaviest rains in decades and, in
some cases, recent memory.” The federation estimates that 35 million people have been affected in South Asia, while a “staggering” 200 million people have been affected by the floods in China. Not only have millions of people been displaced, but it is feared that a lack of clean drinking water will result in widespread outbreaks . . .


Public health experts throughout India have decried a government plan to water down picture warnings on packets of tobacco products, calling it a serious setback to efforts to control tobacco. A tobacco control law was passed by the Indian parliament in 2003 that mandates printing a picture of a skull and crossbones on all packets of tobacco products, but it is not yet enforced. The Indian cabinet has announced that the government will amend the law to make this picture “optional.” This decision has triggered an outcry among doctors and consumer activists who have long been urging stricter measures for tobacco control. “The government appears to have buckled under pressure from the tobacco lobby,” said Bejon Misra, chief executive officer of Voice, a non-government consumer organisation in New Delhi . . .


The incidence of some cancers is rising in the United Kingdom because of people’s lifestyle choices, says Cancer Research UK. The charity has published new statistics showing steady rises in the numbers of cases of some types of cancer that are linked to excessive exposure to sun, alcohol consumption, smoking, and obesity. The number of new diagnoses of malignant melanoma—the most dangerous form of skin cancer—rose from 5783 in 1995 to 8939 in 2004, making it the fastest rising cancer in the UK. This represented an increase in incidence per 100 000 people, adjusted for age, of 43%. The incidence of oral, uterus, and kidney cancers has also risen in the 10 years to 2004, says Cancer Research UK. And it adds that around half of all cancers could be prevented if people modified their lifestyle . . .


Survival of UK patients after cancer is improving but still lags behind the European average, despite the United Kingdom spending more than other countries on cancer, different sources of data published this week show. Figures from the Office for National Statistics (ONS) show that between 1999 and 2004 survival rates for most cancers in England improved. However, two studies published in *Lancet Oncology* (doi: 10.1016/S1470-2045(07)70245-0 and doi: 10.1016/S1470-2045(07)70246-2) say that numbers of UK patients surviving at five years after diagnosis, though improving, are still below the European average and roughly the same as in countries that spend less than a third of the UK’s per capita healthcare budget . . .


Doctors, managers, and pressure groups have condemned the abuse of older people’s human rights in hospitals and care homes, after a highly critical report by peers and MPs. Urgent legal and cultural changes are needed to stop widespread abuse of older people in these settings, said politicians on the joint select committee on human rights. After investigating they concluded that older people in hospitals and care homes experienced abuse, sexual assaults, rough treatment, malnutrition, dehydration, bullying, and neglect. More than a fifth (21%) of care homes did not meet minimum standards of privacy and dignity required, they said, and the MPs criticised the Department of Health and the Ministry of Justice for failing to “provide proper leadership” and guidance about the Human Rights Act 1998 to providers of health and residential care . . .


Heart surgeons in the United Kingdom have raised the standards expected of them, figures published last week by the Healthcare Commission show. The data on survival of patients after heart surgery, issued by the independent healthcare regulator in England, cover 38 of the 39 hospitals in the UK that carry out major heart surgery (St Mary’s Hospital, London, was unable to supply the data in the format required). The figures show that 96.5% of the 35 064 patients who underwent any kind of heart surgery in the year to March 2006 survived (left the hospital alive). The commission looked in particular at survival of patients after the two most common heart operations: heart bypass and aortic valve replacement. Survival after heart bypass operations remained better than expected, said the commission. In the UK 20 773 such operations were performed between April 2005 and March 2006. Of these patients 98.4% survived, . . .

President Thabo Mbeki of South Africa last week fired his outspoken deputy minister of health, Nozizwe Madlala-Routledge. The sacking unleashed an unusually vigorous wave of support for her among opposition parties, trade unions, doctors, and AIDS activists as well as a torrent of criticism against the minister of health, Manto Tshabalala-Msimang, and the president. Ms Madlala-Routledge had flown to an AIDS conference in Madrid in June, which Mr Mbeki says she did not have permission to attend. She told a radio station after being sacked that she had been invited to address the International AIDS Vaccine Initiative (IAVI) meeting and believed she had permission to go before leaving.


South Africa’s controversial health minister, Manto Tshabalala-Msimang, is facing sustained embarrassing accusations in the media, including allegations of alcoholism, bizarre behaviour in a hospital, and an earlier episode of theft, which, it is claimed, led to her being declared a prohibited immigrant in Botswana. The allegations have been printed by South Africa’s largest and most powerful weekly newspaper, the Sunday Times, which has run the stories over the past two weeks. The most recent allegations, run under the headline “Manto: a drunk and a thief,” claimed that the minister was an alcoholic and that this was the reason for her having had to have a liver transplant in March this year, rather than the diagnosis that was made public of her having autoimmune hepatitis.


Israel’s health ministry is trying to find legal means to halt the import and sale of a fruit flavoured smokeless tobacco product from Sweden that is sucked between the gum and the upper lip for its “nicotine effect.” The product was recently allowed into Israel, apparently by the ministry of industry and trade, even though smokeless tobacco products have not been imported for 20 years—since the state comptroller wrote in his annual report that it was illegal to bring them into the country. Called Kicks in Israel and “snus” in Sweden, the tin, sold for the equivalent of $8 (£4.), contains 20 tiny teabag-like packets that are sucked for up to 30 minutes each. The importer predicted that Kicks was “going to be the hit of the summer among smokers and certainly among parents of children. [It] will reduce the smoke and smells of cigarettes in our environment and . . .


The US Food and Drug Administration needs more funding to do its job, say two articles in the New England Journal of Medicine (NEJM) related to reports of an increased cardiovascular risk associated with rosiglitazone (marketed as Avandia), used to treat type 2 diabetes. Earlier this year the FDA placed its most serious “black box” warnings on rosiglitazone, which is made by GlaxoSmithKline, and pioglitazone (Actos), made by Takeda, saying that they increased the risk of congestive heart failure (BMJ 2007;334:1237 doi: 10.1136/bmj.39244.394456.DB). Clifford Rosen, who chaired the FDA advisory committee that looked into the drug, has written a commentary in the NEJM (doi: 10:1056/NEJMp078167). “The basic plot of the rosiglitazone story quickly became obvious to the . . . committee: a new ‘wonder drug,’ approved prematurely and for the wrong reasons by a weakened and underfunded government agency subjected to pressure from industry, had . . .


The National Institute for Health and Clinical Excellence (NICE) has had to delay its final decision on two drugs for age related macular degeneration after mounting pressure from charities and healthcare professionals. NICE, which advises health authorities in England and Wales on the treatments to use on the NHS, issued preliminary guidance in June on the use of ranibizumab (marketed as Lucentis) and pegaptanib (Macugen) for the treatment of the disease. Both drugs are already available in Scotland. It argued that pegaptanib should not be used at all and that ranibizumab should be prescribed only to the one in five people with the neovascular or “wet” form of the disease and only where both eyes were affected and in the better seeing eye only. Both drugs target vascular endothelial growth factor, high concentrations of which can prompt excess blood vessel formation and fluid leakage in the eye.
ANALYSIS


Novel methods for helping patients to access and manage their personal electronic health data are emerging in the UK and internationally. Claudia Pagliari, Don Detmer, and Peter Singleton examine their potential benefits and challenges. Public demand for flexible access to health information and services is growing, encouraged by internet trends and policies promoting patient rights and empowerment.1 In parallel, unprecedented global investment in healthcare information and communication technologies has been dominated by efforts to implement electronic health records, which promise improved quality and efficiency through better maintenance and availability of patient data.2 There is considerable international interest in the potential of electronic personal health records to bridge these agendas, and NHS HealthSpace is set to become the world’s first fully national system, although its capabilities are still limited in comparison with some European and US examples. We consider the potential of electronic personal health records and factors that are likely to influence their adoption in the UK, drawing on a new report from the Nuffield Trust.3

FIGURE. Example of portal for electronic personal health records from the US


Resource rich countries such as the United Kingdom, which provide universal access to health care, already commit substantial resources to screening programmes for cervical cancer.1 It is hard to propose changes to the status quo when cervical cancer control has been so successful.2 Yet, no policymaker can ignore the pressure from the public, health providers, and drug companies calling for widescale adoption of vaccination for human papillomavirus (HPV). The danger is that women may “trade 80% protection from screening for 17% protection from vaccination.”1 3 Will the UK allow this to happen? I think not. As Raffle points out, the UK should ensure that primary prevention by HPV vaccination is integrated with secondary prevention via screening. It is likely that testing for DNA of oncogenic HPV types, which can be performed on the same sample as that used for cytology, will provide a way around the low sensitivity of Papanicolaou cytology . . .


The requirement that clinical practice should be based on the best available evidence has been paralleled by calls for medical education to become more evidence based.1 2 3 This has resulted, among other initiatives, in the establishment of the Best Evidence for Medical Education (BEME) Collaboration4 and the Campbell Collaboration, an off-shoot of the Cochrane Collaboration. The BEME initiative includes dissemination of best evidence to support medical education and the encouragement of a culture capable of nurturing more rigorous and better funded research. Evidence from the United States suggests such nurturing is much needed. In 2004, Carline analysed reports of medical education research in two major North American journals (Academic Medicine and Teaching and Learning in Medicine) and found that only a minority of studies were supported by external research grants.3 She was critical about the quality, rigour, and generalisability of most of these studies. Her concerns were echoed last . . .


Angela E Raffle argues that in countries with established cervical screening programmes, HPV vaccination of pre-adolescent girls could bring additional benefit at an affordable cost, but careful planning, adequate education, and integral evaluation will be needed. In affluent countries, cervical screening programmes are reducing deaths from cervical cancer, but screening is labour intensive and needs meticulous attention to quality to ensure benefits exceed harms.1 2 3 Vaccines against human papillomavirus (HPV) provide a new approach to preventing cervical cancer, particularly in countries with a high incidence of the disease and no or poorly developed screening programmes. In the United Kingdom, universal HPV vaccination of girls aged 12-13 will be introduced subject to an independent review of its costs and benefits. Implementation will be complex, and careful planning and education for the public, participants, . . .
RESEARCH


Objectives To assess whether screening improves the detection of atrial fibrillation (cluster randomisation) and to compare systematic and opportunistic screening.

Design Multicentred cluster randomised controlled trial, with subsidiary trial embedded within the intervention arm.

Setting 50 primary care centres in England, with further individual randomisation of patients in the intervention practices.

Participants 14 802 patients aged 65 or over in 25 intervention and 25 control practices.

Interventions Patients in intervention practices were randomly allocated to systematic screening (invitation for electrocardiography) or opportunistic screening (pulse taking and invitation for electrocardiography if the pulse was irregular). Screening took place over 12 months in each practice from October 2001 to February 2003. No active screening took place in control practices.

Main outcome measure Newly identified atrial fibrillation.

Results The detection rate of new cases of atrial fibrillation was 1.63% a year in the intervention practices and 1.04% in control practices (difference 0.59%, 95% confidence interval 0.20% to 0.98%). Systematic and opportunistic screening detected similar numbers of new cases (1.62% v 1.64%, difference 0.02%, –0.5% to 0.5%).

Conclusion Active screening for atrial fibrillation detects additional cases over current practice. The preferred method of screening in patients aged 65 or over in primary care is opportunistic pulse taking with follow-up electrocardiography.


Objective To assess the accuracy of general practitioners, practice nurses, and interpretative software in the use of different types of electrocardiogram to diagnose atrial fibrillation.

Design Prospective comparison with reference standard of assessment of electrocardiograms by two independent specialists.

Setting 49 general practices in central England. Participants 2595 patients aged 65 or over screened for atrial fibrillation as part of the screening for atrial fibrillation in the elderly (SAFE) study; 49 general practitioners and 49 practice nurses.

Interventions All electrocardiograms were read with the Biolog interpretative software, and a random sample of 12 lead, limb lead, and single lead thoracic placement electrocardiograms were assessed by general practitioners and practice nurses independently of each other and of the Biolog assessment.
Main outcome measures  Sensitivity, specificity, and positive and negative predictive values.

Results  General practitioners detected 79 out of 99 cases of atrial fibrillation on a 12 lead electrocardiogram (sensitivity 80%, 95% confidence interval 71% to 87%) and misinterpreted 114 out of 1355 cases of sinus rhythm as atrial fibrillation (specificity 92%, 90% to 93%). Practice nurses detected a similar proportion of cases of atrial fibrillation (sensitivity 77%, 67% to 85%), but had a lower specificity (85%, 83% to 87%). The interpretative software was significantly more accurate, with a specificity of 99%, but missed 36 of 215 cases of atrial fibrillation (sensitivity 83%). Combining general practitioners’ interpretation with the interpretative software led to a sensitivity of 92% and a specificity of 91%. Use of limb lead or single lead thoracic placement electrocardiograms resulted in some loss of specificity.

Conclusions  Many primary care professionals cannot accurately detect atrial fibrillation on an electrocardiogram, and interpretative software is not sufficiently accurate to circumvent this problem, even when combined with interpretation by a general practitioner. Diagnosis of atrial fibrillation in the community needs to factor in the reading of electrocardiograms by appropriately trained people.


Objective To compare the efficacy of five probiotic preparations recommended to parents in the treatment of acute diarrhoea in children. Design Randomised controlled clinical trial in collaboration with family paediatricians over 12 months.

Setting Primary care. Participants Children aged 3-36 months visiting a family paediatrician for acute diarrhoea. Intervention Children’s parents were randomly assigned to receive written instructions to purchase a specific probiotic product: oral rehydration solution (control group); Lactobacillus rhamnosus strain GG; Saccharomyces boulardii; Bacillus clausii; mix of L delbrueckii var bulgaricus, Streptococcus thermophilus, L acidophilus, and Bifidobacterium bifidum; or Enterococcus faecium SF68.

Main outcome measures Primary outcomes were duration of diarrhoea and daily number and consistency of stools. Secondary outcomes were
duration of vomiting and fever and rate of admission to hospital. Safety and tolerance were also recorded. 

Results 571 children were allocated to intervention. Median duration of diarrhoea was significantly shorter (P<0.001) in children who received L rhamnosus strain GG (78.5 hours) and the mix of four bacterial strains (70.0 hours) than in children who received oral rehydration solution alone (115.0 hours). One day after the first probiotic administration, the daily number of stools was significantly lower (P<0.001) in children who received L rhamnosus strain GG and in those who received the probiotic mix than in the other groups. The remaining preparations did not affect primary outcomes. Secondary outcomes were similar in all groups. 

Conclusions Not all commercially available probiotic preparations are effective in children with acute diarrhoea. Paediatricians should choose bacterial preparations based on effectiveness data.

CLINICAL REVIEW


Summary points
• Acute lung injury and its extreme manifestation, the acute respiratory distress syndrome, complicate a variety of serious medical and surgical conditions, not all of which affect the lung directly
• Dyspnoea is the commonest presenting symptom; clinical signs are those of pulmonary oedema
• Early admission to intensive care is needed; the precipitating illness should be identified and managed aggressively
• Protective techniques of mechanical ventilatory support reduce mortality
• Rigorous application of general supportive measures is likely to improve outcome
• Non-ventilatory adjuncts to gas exchange generally improve oxygenation but do not reduce mortality
• Although death rates are falling, long term debility in survivors is considerable

Why do I need to know about acute respiratory distress syndrome? Acute respiratory distress syndrome is the extreme manifestation of acute lung injury. Both these conditions complicate many medical and surgical conditions, not all of which affect the lung directly and are therefore encountered by clinicians working outside the critical care setting . . .