NEWS

Black women in US have lower survival rates from breast cancer than white women.
Dobson, R.

Smoking bans reduce heart attack admissions.
Dobson, R.

Portraits aim to highlight women’s contribution to surgery.
Eaton, L.

NICE recommendations have had little effect on multiple sclerosis services five years on.
Hitchen, L.

Junior doctors’ desire to practise falls in first year of training.
Kmietowicz, Z.

Senior doctors’ desire to practise falls in first year of training.
Kmietowicz, Z.

Internet crawler uses unconventional information sources to track infectious disease outbreaks.
Mayor, S.

Internet crawler uses unconventional information sources to track infectious disease outbreaks.
Mayor, S.

Bethlem seeks home for collection of art by psychiatric patients.
Moore, W.

Publishing data on patient survival does not deter surgeons from taking difficult cases.
O’Dowd, A.

WHO European region commits to new health charter.
Richards, T.

WHO launches guide to safer surgery.
Roehr, B.

German watchdog investigates drug company’s online education courses.
Stafford, N.

Legitimise Sydney’s injecting centre, says departing director.
Sweet, M.

Pfizer stops funding medical education provided by profit making companies.
Tanne, J.H.

German soap opera has thinly veiled references to branded drugs, regulator says.
Tuffs, A.

Is the food crisis eclipsing the importance of water?
Watts, G.

Project seeks to improve dancers’ health.
Wise, J.

Lords committee comes down against presumed consent for organ donation.
Yadav, S.

UN warns of millions at risk of starvation in drought stricken Ethiopia, Somalia, and Afghanistan.
Zarocostas, J.

ANALYSIS

A fairly happy birthday.
Delamothe, T.

Globalisation of anti-doping: the reverse side of the medal.
Kayser, B., and Aaron C T Smith.

A friend in need: why friendship matters in medicine.
Loxterkamp, D.

RESEARCH

Secular decline in mortality from coronary heart disease in adults with diabetes mellitus: cohort study.
Dale, A.C., Lars J Vatten, Tom Ivar Nilsen, Kristian Midthjell, and Rune Wiseth.

Alternative approaches to endoscopic ablation for benign enlargement of the prostate: systematic review of randomised controlled trials.
Lourenco, T., Robert Pickard, Luke Vale, Adrian Grant, Cynthia Fraser, Graeme MacLennan, James N’Dow, and the Benign Prostatic Enlargement team.

Multiple vaccinations, health, and recall bias within UK armed forces deployed to Iraq: cohort study.
Murphy, D., Matthew Hotopf, and Simon Wessely.

Positive and negative affect and risk of coronary heart disease: Whitehall II prospective cohort study.
Nabi, H., Mika Kivimaki, Roberto de Vogli, Michael G Marmot, and Archana Singh-Manoux.
**NEWS**


Black women in the United States are less likely to survive breast cancer than white women, regardless of the stage at which the cancer is diagnosed, a study has found. The biggest disparities were in women aged under 40 who were diagnosed as having stage one or unstaged disease. They were twice as likely to die as white women diagnosed at the same stage (Journal of Surgical Research 2008 Jun 23; doi: 10.1016/j.jss.2008.05.020). Black women were less likely to have had surgical excision of their breast cancer and less likely to have radiation therapy. “A better understanding of the patient, physician, tumour, and treatment factors contributing to the disparity in survival outcomes between black and white women may lead to interventions that reduce racial disparities in breast cancer survival,” say the authors.


Bans on smoking substantially reduce hospital admissions for heart attacks, research has shown. On the first anniversary of the ban on public smoking in England, a report shows that smoke-free laws worldwide reduce admissions by almost one fifth (Preventive Medicine 2008 Jun 18; doi: 10.1016/j.ypmed.2008.06.007). This meta-analysis of published studies shows that the effects were immediate. “The fact that many studies from so many locations around the world provide consistent findings of a substantial drop in acute myocardial infarction associated with the implementation of smoke-free laws increases the confidence that smoke-free policies have immediate and substantial benefits in terms of reducing acute myocardial infarctions,” says the author, Stanton Glantz, professor of medicine at the University of California.


A series of portraits of women surgeons by the Edinburgh based artist Jane Brettle have gone on show at the Royal College of Surgeons of England. The commissions are intended to raise awareness of the profile of women in surgery. “These inspirational women are fantastic role models which female medical students can aspire to,” said Helen Fernandes, consultant neurosurgeon and chairwoman of the college’s Women in Surgery Group. “While nearly 70% of medical school graduates are women, only 6% of surgeons are female,” she said. “This means that a lot of talented women are choosing alternative careers. Women tend to rule out surgery because they think...
it’s too difficult to be successful in a male dominated industry. But women make excellent surgeons, because they’re organised, empathetic to patients’ needs, and excellent communicators, and they tend to be well suited to carrying out the delicate procedures required in surgery.” Pictured is . . .

Hitchen, L. (2008). NICE recommendations have had little effect on multiple sclerosis services five years on. British Medical Journal, 337(7661), 734.

Nearly two thirds of patients with multiple sclerosis in England and Wales are unable to access neurological rehabilitation services, an audit shows. The Royal College of Physicians of London and the MS Trust surveyed 1300 people with the condition, 127 acute NHS hospital trusts, 140 primary care trusts and local health boards, and seven strategic health authorities and regional offices during January and February 2008. Questions were based on guidelines for managing the illness from the National Institute for Health and Clinical Excellence (NICE). Only 36% of patients with multiple sclerosis in England and 31% in Wales could access neurological rehabilitation services, the survey found. Commissioning more such services was “very limited,” the audit report said. Access to specialists was also poor: 50% of patients reported that they had to wait more than 20 weeks from referral by their GP to diagnosis. NICE recommended that the maximum wait should be . . .


A number of trainee doctors became disenchanted with practising medicine in their first year of training, known as foundation year 1, a BMA study shows. It found that the number who said they strongly wished to practise medicine nearly halved between graduation from medical school and the end of foundation year 1. The 10 year BMA cohort study is following the career paths of 435 doctors who graduated in 2006, to help with future workforce planning. The second report, published on 7 July, gives information about their work and experiences in their first foundation year of training along with their thoughts on their future careers. The study found that on completing foundation year 1 just 30% of the 397 trainees who responded to the second questionnaire said they had a very strong desire to practise medicine. When they graduated 54% of the cohort had rated their enthusiasm for a medical . . .


An automated data gathering system that crawls the internet to gather information from non-traditional sources such as online news outlets, discussion forums, and government websites is proving effective in tracking emerging infectious diseases, says a new study (PLoS Med 2008:5:e151 doi: 10.1371/journal.pmed.0050151). Researchers from the Children’s Hospital Boston and Harvard Medical School developed HealthMap as a freely accessible and automated system that monitors and organises information on emerging diseases in real time. “Web-based sources can play an important role in early event detection . . . by providing current, highly local information about outbreaks, even from areas relatively invisible to traditional global public health efforts,” they wrote.


A number of trainee doctors became disenchanted with practising medicine in their first year of training, known as foundation year 1, a BMA study shows. It found that the number who said they strongly wished to practise medicine nearly halved between graduation from medical school and the end of foundation year 1. The 10 year BMA cohort study is following the career paths of 435 doctors who graduated in 2006, to help with future workforce planning. The second report, published on 7 July, gives information about their work and experiences in their first foundation year of training along with their thoughts on their future careers. The study found that on completing foundation year 1 just 30% of the 397 trainees who responded to the second questionnaire said they had a very strong desire to practise medicine. When they graduated 54% of the cohort had rated their enthusiasm for a medical . . .

Mayo...

A campaign to raise funds to provide a permanent new home for nearly 1000 works of art by psychiatric patients was launched in London this week. The collection, belonging to one of the world’s oldest hospitals, includes paintings by Richard Dadd and Louis Wain. The Bethlem Museum, in Beckenham, south London, holds the United Kingdom’s only dedicated psychiatric art collection. The archives date back to 1559 from the Royal Bethlem Hospital, the original Bedlam, which was founded in London in 1247. Lack of space in the museum’s 30 year old temporary building, in a poorly drained corner of the hospital site, means that only 45 of the 961 artworks can be displayed. South London and Maudsley NHS Trust, which runs Bethlem today, has committed £1m towards a new two storey building on the Beckenham site to house the archives, for which it has statutory responsibility, and provide . . .


Surgeons are taking on more high risk heart operations despite fears that publishing data on survival rates would deter them. The latest heart surgery survival rates for the United Kingdom have been published by the NHS watchdog, the Healthcare Commission, and show continuing high rates of survival as well as numbers of operations for high risk patients that have risen since figures were first published, for the year 2004-5. The commission said that it was pleased that initial fears that publishing data would deter surgeons from performing as many risky operations had proved unfounded. The statistics are published on the commission’s cardiac website, set up in 2006 when heart surgery became the first specialty to publish information on survival. The site is a joint project between the commission and the Society for Cardiothoracic Surgery in Great Britain and Ireland.


A European health charter was adopted last week by health ministers from the 53 countries of the European region of the World Health Organization, together with the WHO itself, the World Bank, Unicef, the International Organization for Migration, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria. The formal commitment to the charter was made at the end of a three day conference on health systems, health, and wealth, held in Tallinn, Estonia, on 25-27 June. The charter enshrines a commitment to strengthen the region’s health systems and make them more accountable. It also commits member states to making their health systems more responsive to people’s needs, particularly poor and vulnerable people. The charter is based on three central tenets. Firstly, investing in health systems not only improves health and social wellbeing but also helps boost economic development. Secondly, it is not acceptable for people to become impoverished by . . .


A simple checklist in operating rooms worldwide is expected to prevent millions of injuries associated with surgery and save untold numbers of lives, according to the Safe Surgery Saves Lives campaign launched by the World Health Organization, in Washington, DC, on 25 June. Major surgery is a growing component of health care, with an estimated 234 million procedures a year, or one for every 25 people. “Few of us who live a long life will do so without surgery,” said Atul Gawande, the Harvard Medical School surgeon who organised the campaign. A review of the literature found a bell curve of best to worst results in every country, with rates of complications varying from 3% to 16% and mortality rates from a fraction of a percent to 10%.


Germany’s Federal Cartel Office is investigating whether professional continuing education courses offered online by drug firms for free to doctors violates healthcare reform laws that went into effect in 2004. Hans-Jörg Freese, the Berlin based spokesman for the German Medical Association, said that the cartel office outlined its concerns to the association in a 19 page letter in February. The association and 17 regional member groups are responsible for certifying all continuing education courses, which doctors must regularly take to remain licensed to practise medicine. “They [cartel office officials] think that the [medical associations] should not be allowed to certify professional training courses that are offered by pharmaceutical companies over the internet, because those companies have ‘commercial interests,’” Mr Freese said. The two sides have had discussions since then, Mr Freese said.


The medical director of Australia’s only medically supervised injecting centre has called for it to be recognised as a legitimate health facility and for an end to its trial status. Speaking on the eve of her departure from Sydney’s Medically Supervised Injecting Centre (MSIC), Ingrid van Beek said it was time to declare the seven year trial a success. “I wholeheartedly support the ongoing rigorous evaluation and monitoring of health services to ensure their effectiveness, particularly in the illicit drugs area, as
needs can change over time, but the MSIC’s apparently endless trial status is a barrier to its integration with the rest of the public health system,” she said. “This affects continuity of care, workforce development, and staff morale, especially as the end of each trial period draws near.


Pfizer, the world’s second largest drug company, said last week that it would no longer pay profit making communication and medical education companies to provide continuing medical education courses. It will continue to pay for education prepared by non-profit organisations, academic institutions, teaching hospitals, and medical societies. Pfizer said it was making the change to avoid the appearance of having conflicts of interest, because critics had said that courses supported by the industry were not purely educational but promoted the use of specific drugs. US doctors are required to complete a certain number of hours of continuing medical education courses to keep their medical licences current. Pfizer’s press release quoted Dave Davis, vice president for continuing education and improvement at the Association of American Medical Colleges, who said...


A dispute has arisen in Germany over accusations of surreptitious advertising of prescription drugs in a television soap opera set in a hospital. The German Council of Public Relations has accused the makers of the drama of failing to make adequate changes to certain episodes, after they admitted accepting payments in return for mentioning specific products. The amended programmes were broadcast again recently on regional television channels. The council says that although drug names have been eradicated or changed to fictional ones, the original storylines were kept, and thus the audience could still identify the products. The television company says that the changes were sufficient. The popular soap opera, “In Aller Freundschaft” (“In All Friendship”), is made by a production company owned by the east German television station MDR, itself part of the association of federal state television stations, ARD...


When the G8 group of developed nations meet on 7 July for the opening day of their 2008 summit in Hokkaido Toyako the international charity Water Aid will be among the many lobbying groups eager to scrutinise the final recommendations. Created to overcome poverty by enabling more of the world’s poorest people to get access to safe water and sanitation, Water Aid sees these two necessities as a neglected component of efforts at improving the lot of people in developing countries. Too often water is taken for granted, says Barbara Frost, the charity’s chief executive. Global water availability remains grim. Roughly a sixth of the world’s population—1.1 billion people—still has no access to clean water. In Africa 40 billion working hours are taken up every year in fetching and carrying it. In rural areas of the continent...


A new research project aims to discover why dancers have such a high rate of injuries and to examine ways to keep them fit and healthy. Matthew Wyon, reader in performance science at the University of Wolverhampton, said, “Dancers have a huge injury occurrence: 80% of dancers incur at least one injury a year that affects their ability to perform.” In comparison, he said, footballers or rugby players have an injury rate of 20%. “And dance isn’t even a contact sport. We need to look proper at why this is.” The dancers’ health pilot scheme has been devised by Dance UK in partnership with the Olympic Medical Institute, the University of Wolverhampton, and the Laban, a contemporary dance training centre in London. The Jerwood Charitable Foundation has committed the first £8 to the £500 000 scheme.


A proposed European Commission directive on organ donation must be flexible enough to allow for clinical judgment and for patients to be able to make an informed choice, a report by the House of Lords European Union Committee says. The report, while supporting the European Commission’s proposal to introduce a directive on the quality and safety of organ donation and transplantation, says that the commission must not impose requirements beyond those that are clinically justifiable. It comes down against the idea of presumed consent, under which everyone is considered to have consented to their organs being used after death unless they have opted out of the scheme by signing a register. Such a system already exists in Spain, where it has been credited with greatly increasing the number of available organs.


The United Nations has warned that millions of people face life threatening shortages of food, aggravated by the global food price crisis, in drought stricken Ethiopia, Somalia, and Afghanistan. Emergency humanitarian aid is desperately needed to avert another calamity.
the UN says. John Holmes, the UN’s emergency relief coordinator, said that 4.6 million people are in need of help in Ethiopia, including 75,000 children suffering from acute malnutrition. “Urgent intervention” was needed to save their lives, he said. Sir John, who also heads the UN’s task force on the food crisis, said that 2.6 million people were in “desperate need” of humanitarian assistance in Somalia, currently affected by drought and conflict. He said that “there was a dramatic deterioration of the situation.”

ANALYSIS


This week the NHS celebrates its 60th birthday. It should be its most benign anniversary in recent memory. Satisfaction levels are high, and the British public now rates the economy, crime, and race relations as more important problems than the NHS. Increasing satisfaction with the NHS probably explains why the numbers of people buying private medical insurance have been falling since 2002. Last year the service made a surplus of at least £22bn and is expected to make a further surplus this year.4 Productivity in hospitals is finally going up, and the NHS is now the third most popular employer for UK graduates, after the BBC and Apple.6 Politically, it’s hard to detect any major difference between the policies of the Labour or Conservative parties towards the NHS, both of whom are falling over each other to be regarded as the natural custodians of the . . .


Performance enhancement has always been an essential part of sport, but over the past few decades a strong movement against doping has emerged, in parallel with the rapid development of biomedical technology. This movement was led by the International Olympic Committee, which in 1999 formed the World Anti-Doping Agency (WADA). WADA now leads a global movement for harmonisation of anti-doping rules in elite sport, using repressive, punitive policies for transgression, and documented within the World Anti-doping Code and an annually updated list of forbidden substances and methods (www.wada-ama.org). Solicited by WADA, Unesco has proposed a convention against doping for signature by member states, adding to the pressure placed on national governments and sports federations to comply.1 This globalisation and harmonisation of anti-doping efforts is ostensibly reasonable since it is designed to enforce consistent rules throughout the elite sporting world. However, there are several compelling reasons to question current . . .


Something caught my eye in the news report of David Demuth’s untimely death—something more than the tragedy of his dying at age 58, just a week after receiving the “American Family Physician of the Year” award for 2008. Some would say small wonder—he provided check-ups for every age group, delivered babies (by caesarean section when necessary), helped out in the emergency department, attended hospital patients, and consulted for subspecialists when they needed a generalist. He made home visits to families in crisis and stood in for an elderly physician in a neighbouring town on weekends “to give him a break.” He was the team physician for York (Nebraska) area athletics, volunteered for the York County Drug Task Force and Habitat for Humanity, and raised beef cattle in his spare time. But the busy doctor left us with more than the example of his self sacrifice.

RESEARCH


Age specific mortality from coronary heart disease among adults with and without diabetes during two consecutive nine year follow-up periods. Results A total of 2623 men and 1583 women died from coronary heart disease. Mortality rates were substantially lower during the most recent follow-up period: among men aged 70-79 without diabetes, deaths per 1000 person years declined from 16.38 to 8.79 (reduction 48%, 95% confidence interval 39% to 55%) and among women aged 70-79 from 6.84 to 2.68 (62%, 52% to 70%). Among the same age group with diabetes, deaths per 1000 person years in men declined from 38.97 to 17.89 (54%, 32% to 69%) and in women from 28.15 to 11.83 (59%, 37% to 73%). The reduction was more noticeable in age groups younger than 70 at baseline, and less pronounced among people aged 80 or more. Mortality from coronary heart disease was more than twofold higher in people with than without diabetes, with a slightly stronger association in women. The difference in mortality by diabetes status remained almost unchanged from the first to the second survey. The strong general reduction in mortality rates from coronary heart disease from the first to the second follow-up period also benefited people with diabetes, but the more than twofold higher mortality from coronary heart disease associated with diabetes persisted over time.

To compare the effectiveness and risk profile of newer methods for endoscopic ablation of the prostate against the current standard of transurethral resection. We searched for randomised controlled trials of endoscopic ablative interventions that included transurethral resection of prostate as one of the treatment arms. Two reviewers independently extracted data and assessed quality. Meta-analyses of prespecified outcomes were done using fixed and random effects models and reported using relative risk or weighted mean difference. We identified 45 randomised controlled trials meeting the inclusion criteria and reporting on 3970 participants. The reports were of moderate to poor quality, with small sample sizes. None of the newer technologies resulted in significantly greater improvement in symptoms than transurethral resection at 12 months, although a trend suggested a better outcome with holmium laser enucleation (random effects weighted mean difference −0.82, 95% confidence interval 1.76 to 0.12) and worse outcome with laser vapourisation (1.49, –0.40 to 3.39). Improvements in secondary measures, such as peak urine flow rate, were consistent with change in symptoms. Blood transfusion rates were higher for transurethral resection than for the newer methods (4.8% v 0.7%) and men undergoing laser vapourisation or diathermy vapourisation were more likely to experience urinary retention (6.7% v 2.3% and 3.6% v 1.1%). Hospital stay was up to one day shorter for the newer technologies.


Psychological distress, fatigue, symptoms of post-traumatic stress disorder, health perception, and multiple physical symptoms. Personnel who reported receiving two or more vaccinations on a single day were more likely to report symptoms of fatigue (adjusted risk ratio 1.17, 95% confidence interval 1.05 to 1.30), show caseness according to the general health questionnaire (1.31, 1.13 to 1.53), and have multiple physical symptoms (1.32, 1.08 to 1.60). These associations were no longer significant when number of vaccinations recorded in individuals’ medical records was used as the independent variable. Multiple vaccinations given to personnel in the UK armed forces in preparation for deployment to Iraq are not associated with adverse health consequences when vaccinations are recorded objectively from medical records. Adverse health consequences associated with self reported multiple vaccinations could be explained by recall bias.


Fatal coronary heart disease, clinically verified incident non-fatal myocardial infarction, and definite angina (n=619, mean follow-up 12.5 years). In Cox regression analysis adjusted for age, sex, ethnicity, and socioeconomic position, positive affect (hazard ratio=1.01, 95% confidence interval 0.82 to 1.24) and the balance between positive and negative affect, referred to as the affect balance score (hazard ratio=0.89, 0.73 to 1.09), were not associated with coronary heart disease. Further adjustment for behaviour related risk factors (smoking, alcohol consumption, daily fruit and vegetable intake, exercise, body mass index), biological risk factors (hypertension, blood cholesterol, diabetes), and psychological stress at work did not change these results. However, participants in the highest third of negative affect had an increased incidence of coronary events (hazard ratio=1.32, 1.09 to 1.60), and this association remained unchanged after adjustment for multiple confounders. Positive affect and affect balance did not seem to be predictive of future coronary heart disease in men and women who were free of diagnosed coronary heart disease at recruitment to the study.


Mental capacity assessed by clinical interview and the MacArthur competence assessment tool for treatment. Estimates of mental capacity were obtained on 97% (n=338) of the 350 people admitted. Of those an estimated 60% (95% confidence interval 55% to 65%) lacked mental capacity to make decisions on treatment. This proportion varied according to diagnosis, ranging from 97% (n=36) in people with mania to 4% (n=24) in people with personality disorder. Mental incapacity was common in patients admitted informally to the psychiatric wards (n=188; 39%, 32% to 46%). Incapacity and detention are closely associated under non-capacity based mental health law. Mental incapacity to make decisions on treatment is common in people admitted to psychiatric wards from the community but cannot be presumed. It is usual in those detained under the Mental Health Act and common in those admitted voluntarily.
Adjusting for cardiorespiratory fitness and other adjustment for cardiorespiratory fitness. Muscular cardiovascular disease was attenuated after further between muscular strength and death from cardiorespiratory fitness; however, the association muscular strength and death from all causes and (0.48 to 0.97). The pattern of the association between cancer were 1.0 (referent), 0.72 (0.51 to 1.00), and 0.68 (0.50 to 1.10), and 0.77 (0.47 to 1.07); and for death from cardiovascular disease were 1.0 (referent), 0.74 (0.50 to 1.10), and 0.71 (0.47 to 1.07); and for death from all causes; 12.1, 7.6, and 4.2 for cancer (all P<0.01 for linear trend). After adjusting for age, physical activity, smoking, alcohol intake, body mass index, baseline medical conditions, and family history of cardiovascular disease, hazard ratios across incremental thirds of muscular strength were 38.9, 25.9, and 26.6 for all causes; 12.1, 7.6, and 6.6 for cardiovascular disease; and 6.1, 4.9, and 4.2 for cancer (all P<0.01 for linear trend). After adjusting for age, physical activity, smoking, alcohol intake, body mass index, baseline medical conditions, and family history of cardiovascular disease, hazard ratios across incremental thirds of muscular strength for all cause mortality were 1.0 (referent), 0.72 (95% confidence interval 0.58 to 0.90), and 0.77 (0.62 to 0.96); for death from cardiovascular disease were 1.0 (referent), 0.74 (0.50 to 1.10), and 0.71 (0.47 to 1.07); and for death from cancer were 1.0 (referent), 0.72 (0.51 to 1.00), and 0.68 (0.48 to 0.97). The pattern of the association between muscular strength and death from all causes and cancer persisted after further adjustment for cardiorespiratory fitness; however, the association between muscular strength and death from cardiovascular disease was attenuated after further adjustment for cardiorespiratory fitness. Muscular strength is inversely and independently associated with death from all causes and cancer in men, even after adjusting for cardiorespiratory fitness and other potential confounders.


All cause mortality up to 31 December 2003; muscular strength, quantified by combining one repetition maximal measures for leg and bench presses and further categorised as age specific thirds of the combined strength variable; and cardiorespiratory fitness assessed by a maximal exercise test on a treadmill. During an average follow-up of 18.9 years, 503 deaths occurred (145 cardiovascular disease, 199 cancer). Age adjusted death rates per 10 000 person years across incremental thirds of muscular strength were 38.9, 25.9, and 26.6 for all causes; 12.1, 7.6, and 6.6 for cardiovascular disease; and 6.1, 4.9, and 4.2 for cancer (all P<0.01 for linear trend). After adjusting for age, physical activity, smoking, alcohol intake, body mass index, baseline medical conditions, and family history of cardiovascular disease, hazard ratios across incremental thirds of muscular strength for all cause mortality were 1.0 (referent), 0.72 (95% confidence interval 0.58 to 0.90), and 0.77 (0.62 to 0.96); for death from cardiovascular disease were 1.0 (referent), 0.74 (0.50 to 1.10), and 0.71 (0.47 to 1.07); and for death from cancer were 1.0 (referent), 0.72 (0.51 to 1.00), and 0.68 (0.48 to 0.97). The pattern of the association between muscular strength and death from all causes and cancer persisted after further adjustment for cardiorespiratory fitness; however, the association between muscular strength and death from cardiovascular disease was attenuated after further adjustment for cardiorespiratory fitness. Muscular strength is inversely and independently associated with death from all causes and cancer in men, even after adjusting for cardiorespiratory fitness and other potential confounders.


Resting 12 lead ECG patterns showed abnormalities in 1812 (6%) participants, with the most common abnormalities (>80%) concerning innocent ECG changes. Exercise ECG showed an abnormal pattern in 1459 (4.9%) participants. Exercise ECG showed cardiac anomalies in 1227 athletes with normal findings on resting ECG. At the end of screening, 196 (0.6%) participants were considered ineligible for competitive sports. Among the 159 participants who were disqualified at the end of the screening for cardiac reasons, a consistent proportion (n=126, 79.2%) had shown innocent or negative findings on resting 12 lead ECG but clear pathological alterations during the exercise test. After adjustment for possible confounders, logistic regression analysis showed that age >30 years was significantly associated with an increased risk of disqualification for cardiac findings during exercise testing. Among people seeking to take part in
competitive sports, exercise ECG can identify those with cardiac abnormalities. Follow-up studies would show if disqualification of such people would reduce the incidence of CV events among athletes.

**CLINICAL REVIEW**


Substance misuse is one of a group of linked behaviours that has recently become more common among young people in westernised societies. This rise has paralleled increasing rates of anxiety and depressive symptoms and of deaths related to substance misuse. Substance use disorders are potentially treatable and should be managed as chronic, relapsing diseases of complex origin. This review examines the scale of these disorders among young people and how healthcare practitioners can intervene.


Breast cancer remains the second most common cause of cancer related death in women in the United Kingdom, with over 12 000 deaths a year. However, substantial progress is being made: deaths from breast cancer in the Western world have fallen by over 25% in the past two decades, reflecting substantial incidence in Great Britain has risen by 50% over the past three decades, reflecting not only changes in population demographics and environmental factors but also an increase in diagnosis as a result of screening. Over a similar time period mortality has fallen. We review here the recent advances in the prevention, screening, and treatment of breast cancer and the recent efforts to individualise treatment. The review is published in two parts; in the second part we will review advances in the systemic treatment of breast cancer and how an increasing understanding of...