

Future of e-pharmacy is outlined for Scotland

How e-pharmacy in Scotland will be developed was described this week by the Scottish Executive Health Department.

The emphasis has been on developing a generic infrastructure that will underpin e-applications that allow pharmacists to provide the elements that will be in the new community pharmacy contract. At the heart of this infrastructure is a Scottish Clinical Information Prescription Store, or the e-pharmacy store, which will control the encrypted messages sent between the computer systems of GP surgeries, community pharmacies and the Common Services Agency. The e-pharmacy store will be fully implemented during 2004–05. Connection of all community pharmacies to the NHSnet is an essential part of the electronic infrastructure and will be completed by March 2005.

Another part of the infrastructure required is a common drug dictionary to allow communication between GP and pharmacy computer systems and the CSA. A UK-wide drug dictionary is being developed by the Prescription Pricing Authority.

Three elements within the new community pharmacy contract that the e-pharmacy

programme supports are an acute medication service, a minor ailments service and a chronic medication service. For the acute medication service, electronic transfer of prescriptions (ETP) will be used. A GP will transmit an acute prescription electronically to the e-pharmacy store that can be pulled down by a pharmacist at the request of the patient. The next version of the GP software GPASS, to be launched next month, will include the ETP module as standard.

The minor ailments scheme currently in operation in Scotland uses a paper-based system. The next stage will be the introduction of a central patient registration system. The plan is for patient registration data and the prescriptions written by pharmacists to be transmitted to the e-pharmacy store so that it can link to a future automated payment process. The speed at which this happens depends on the pharmacy system suppliers and the Scottish Executive says that discussions with the main suppliers have been constructive. It is possible that a full electronic minor ailments service could be operated across Scotland in early 2005 with complete coverage in 2006.



Some pharmacies in Scotland are already connected to the NHSnet

The chronic medication service, which incorporates serial dispensing and pharmaceutical care model schemes, is currently being piloted using a paper system. The electronic version will involve a GP producing a special prescription transmitted via ETP to the e-pharmacy store for the pharmacist to pull down.

In hospitals, national standards for electronic prescribing and medicines administration systems have been drafted. A pilot to evaluate these standards is being developed.

Landmark ruling means all disciplinary decisions can be re-examined

Health professionals who are cleared of wrongdoing by their regulators can have their cases referred to court by the Council for the Regulation of Healthcare Professionals, a High Court judge has ruled. Another judge has rejected a CRHP appeal in the case of a nurse who was not struck off.

The first ruling means that professionals who are found not guilty of misconduct could face re-examination of their cases. Even decisions not to refer cases to disciplinary committees could be reopened in court.

Considering a CRHP appeal against a General Medical Council ruling that a doctor was not guilty of misconduct, Mr Justice Leveson ruled that the decision could be appealed under Section 29(4) of the National

Health Service Reform and Health Care Professions Act 2002. He rejected argument that the CRHP's appeal power was restricted to unduly lenient disciplinary decisions and did not extend to not guilty findings. He said: "The intention of Parliament is to provide the CRHP with the widest powers to oversee the activities of each of the regulatory bodies brought under its umbrella. With one exception, no aspect of the work of these bodies is exempt from investigation, recommendation and report and, potentially in relation to the rules of the body, direction."

Mandie Lavin, Royal Pharmaceutical Society director of legal affairs and fitness to practise, said: "What the CRHP is doing is entirely legitimate and in the public interest.

Leniency extends, not only to a finding of professional misconduct but also to an acquittal. The extent to which the CRHP could reinvestigate a case or introduce new evidence will need to be clarified."

Gordon Appelbe, secretary of the Pharmacy Law and Ethics Association, said Section 29 of the Act made it clear that the CRHP's right of appeal against disciplinary decisions in relation to pharmacy was restricted to final decisions of the Society's Statutory Committee.

In the second case, a nurse who had been cautioned, rather than struck off, after accessing pornography while on duty can remain on the nursing register. Mr Justice Collins said that the penalty was lenient, but that the test set by the Act was one of undue leniency.

Boost for hospital medicines management

Double the number of hospital trusts are set to take part in the Medicines Management Collaborative than originally planned.

Making the announcement at the Guild of Healthcare Pharmacists conference in Leicestershire on 26 March, Rosie Winterton, minister for health for England, said that the high quality of applications had prompted the decision to extend the initiative. Each trust will receive up to £40,000 to establish multi-disciplinary partnerships to develop ways of delivering better medicines management.

At the guild's conference, Ms Winterton

reaffirmed the Department of Health's commitment to creating the position of consultant pharmacist and announced the formation of a steering group to deliver guidance on this new role.

Other announcements included the provision of an endorsed list of unlicensed medicines, the setting up of a multi-professional steering group to advise the DoH on developing a coherent framework for a pharmacy public health strategy and a proposed consultation on skill-mix.

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The Society

Council election

Fifteen candidates are seeking election to the Society's Council this year (p427).

Listening Friends Scheme

The Listening Friends Scheme is supporting an increasing number of pharmacists with stress (p429).

Corporate governance

How the Council is implementing corporate governance within the Society (p430).

Gene therapy trials receive £10m from Government

As part of a £50m commitment to genetics services in the UK, gene therapy trials for muscular dystrophy, childhood blindness and haemophilia are to be financed from a new £4m fund allocated by the Department of Health for 2003–06.

The biggest grant — of £1.6m — will go to the Muscular Dystrophy Campaign for research at Imperial College, London, aimed at reducing the severity of the disease to a milder form, so that quality and length of life is improved for patients. A further £900,000 will go to the Institutes of Ophthalmology and Child Health, London, for research into inherited retinal disease, and £500,000 will go to Oxford BioMedica for research into haemophilia A.

A grant of £450,000 has also been made for research into the safety of retroviral vectors. This follows concerns over two cases of leukaemia linked to retroviral gene therapy for X-linked Severe Combined Immuno-deficiency Syndrome (X-SCID) reported in a French trial in 2002. No similar problems have emerged from comparable trials of retroviral gene therapy in immune disorders at Great Ormond Street Hospital, London,

Gene therapy research will benefit from extra funding

and three new patients have joined the studies this year. But all new patients put forward for the trials are now assessed on a case-by-case basis by the Gene Therapy Advisory Committee (GTAC) which oversees gene therapy research in the UK.

In its 10th annual report, published last week, GTAC reported that 13 new gene therapy trials were approved in 2003 — twice the number agreed in 2002. This brings the total number of gene therapy trials approved in the UK to 90 since the first study in 1993. Most approved studies (70 per cent) have been for cancer treatment.

“The large number of applications in 2003 suggests that the UK continues to encourage and facilitate gene therapy research within a carefully balanced regulatory framework, ensuring that the UK maintains its lead position in Europe for such work,” the report states.

□ **Genetic data system** A new genetic data system launched in the US by the National Institutes of Health and the Food and Drug Administration is expected to speed up adverse event reporting in human gene therapy trials. The web-based genetic modification clinical research information system (GeMCRIS) will include an electronic reporting tool for researchers to submit adverse event information. At a broader public level it will enable patients to find out where gene therapy trials are taking place and which diseases are being studied.

James King-Holmes/CRF/SPL

As new financial year starts, NHS structural changes take effect

Changes to the NHS in England, Wales and Scotland come into effect this month. Principal among them are a new contract for the delivery of primary care and a new contract for hospital consultants. Both changes apply throughout the UK.

Inherent in the new GP contract is a one-third increase in primary care spending over four years. GPs will be able to opt out of providing out-of-hours care, which becomes a primary care trust responsibility.

On top of the basic GP contract, GPs and others, including pharmacists, will be able to offer extra primary care services under PCT contracts.

Other changes that are specific to England

include the creation of foundation trusts and the Commission for Healthcare Audit and Inspection (CHAI) and the transfer of responsibility for prison health services from the Home Office to PCTs.

Foundation trusts will be independent public benefit corporations free to decide their own clinical priorities. They will not be subject to performance management by strategic health authorities or the Department of Health.

CHAI replaces the Commission for Health Improvement. It is expected to adopt a more vigorous approach to the inspection of NHS services and service providers than its predecessor.

In Scotland, NHS trusts will be abolished and control of hospital services returned to health boards, which now include local authority representatives as part of a move to join up health and social care.

No structural changes are being made to the NHS in Wales this month, but steps to reduce waiting lists are being taken.

Patients who have been on a waiting list for more than 18 months are to be offered the opportunity to be treated at a hospital in England, under the “second offer initiative”.

There will also be a new Health Care Inspectorate Wales, with a remit similar to that of CHAI in England.

NHS to run conflict training

Courses in conflict resolution for pharmacists and other NHS staff were started this week by the NHS Security Management Service.

Jim Gee, chief executive of the NHS SMS, said: “Conflict resolution training allows those on the front-line to protect themselves and their colleagues without resorting to physical restraint.”

Community pharmacists will be able to arrange course attendance through their local pharmaceutical committees. An SMS spokesman said that details of how this will be done are still being worked out, but that community pharmacists may be expected to pay for the £30 course themselves.

Modernisation agency to be disbanded from next year

Modernisation is now so deeply embedded in the NHS that the NHS Modernisation Agency is to be abolished next year and replaced by a much smaller central organisation.

The new organisation, to cover England, will take over in April 2005 and is expected to have only 150 staff, compared to the 760 currently employed by the modernisation agency. The plan is to transfer the superfluous staff and associated resources into local NHS organisations in order to strengthen local efforts to improve services.

Ministers have told the modernisation agency to work with primary care trusts, NHS trusts, strategic health authorities and

other stakeholders over the coming three months to develop an implementation plan.

Beth Taylor, specialist principal pharmacist at Southwark PCT and a member of the NHS Modernisation Board, said: “The majority of the work will shift over the next six months to local agencies. The message for pharmacists is to ensure that they are properly linked into local work, such as that on chronic disease management, through their local pharmaceutical committees and PCT pharmacy leads.”

The modernisation board is to continue to advise the Secretary of State for Health, John Reid.

Convenience of pharmacy behind move to self-care

Convenience in health care is what the British public is looking for, latest research from Mintel shows. And it seems that this has translated to a small shift towards self-care and greater use of pharmacies.

The research involved over 2,000 adults and one of the main messages to emerge was that, contrary to popular belief, most adults (80 per cent) feel they have enough spare time. "We are spending more and more money on time-saving products and services," explained Peter Ayton, chief statistician at Mintel. "We now even look to save time with health care by going straight to the pharmacist," he added.

John D'Arcy, chief executive of the National Pharmaceutical Association, said he was intrigued to read that people do not feel over-stressed and over-worked. "It's an interesting survey." He added: "It is confirming a lot of what we thought about pharmacy and the move to self-medication."

The research revealed that the percentage of consumers who ask their doctor for advice on ailments has declined from 52.3 per cent in 1993 to 50.5 per cent in 2003. In parallel with this, the proportion seeking advice from a pharmacist has increased from 38.8 per cent to 40.3 per cent.

"This trend of asking the pharmacist has been driven by a combination of changing consumer attitudes and government policy," the report states. It also points out that many



Ask your pharmacist campaign has encouraged move to self-care

GP practices have introduced fixed appointment times. "Many view this as inconvenient and therefore look for a more instant solution."

Mr D'Arcy was pleased that the research highlighted the success of the "Ask your pharmacist" campaign. "The NPA has worked hard to get that message into Department of Health thinking so it is good to see it mentioned in an independent survey." He added that it was particularly good to see that consumers were using pharmacists as their number one source for dealing with a health care professional. "This suggests con-

sumers are becoming more empowered." The report recognises that ready accessibility and convenience is the reason behind this, he added.

The research also shows that there has been a 70 per cent growth in the value of the over-the-counter medicines market over the past 10 years. However, a spokesman for the Proprietary Association of Great Britain said the research suggested that people who are not going to the doctor are more likely to take nothing than to buy an OTC medicine. "In general, the British population still doesn't appear to rush to treat every minor ailment. Fifty per cent of illnesses are not treated and two thirds of people who don't go to the doctor just wait for the problem to go away." He added: "The research is timely and it will restart discussions about what we can do to make people aware of just what OTC medicines are available and what they can do to look after their own health."

□ **Out of hours campaign** The option for GPs to opt out of out-of-hours service provision will mean more people are confused about what to do when their GP surgery is closed, says the charity Developing Patient Partnerships. A new campaign launched by DPP will advise people on how to deal with health problems outside surgery hours. DPP research revealed that for out-of-hours advice, only 2 per cent of people visited their local pharmacy.

Pharmacy software with remote supervision capability launched

A pharmacy software system designed to improve efficiency and provide new services was launched this week. The system, called CAPA (consolidated application for pharmacy administration) is being marketed by Fusion Health, and was developed in part to facilitate the remote supervision of pharmacies.

Tariq Muhammad, managing director of Fusion Health, said: "Pharmacists have always done more than simply dispense prescriptions

and order drugs, yet this has been the only things that other pharmacy systems seem to cater for." Functions that the CAPA system offers include integrated dispensing and sales systems, and features for clinical review, instalment dispensing, recording interventions, collection and delivery, and returned prescriptions. It is also designed to improve clinical governance by recording every sale and the barcode of every dispensed medicine.

The CAPA system was used in the recent trial of remote supervision (see *PJ*, 27 March, p377). The system is able to link pharmacy branches with the head office using a secure private network. This allows a pharmacist at head office to see each transaction as it occurs.

The electronic point of sale part of CAPA prompts questions to be asked when a sale of a pharmacy-medicine is being made.

Children's BNF to be launched in May

Plans for the launch of a new British National Formulary for children's medicines (BNF-C) will be announced at the BNF conference in May (*PJ*, 20 March, p365).

The formulary will be published jointly by the British National Formulary, the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacy Group, and is being prepared in the editorial offices of the BNF.

George Rylance, consultant paediatrician at the school of clinical medical sciences (child health) at the University of Newcastle upon Tyne has been appointed chairman of the paediatric formulary committee. Ian Costello, clinical lecturer and research fellow at the centre for paediatric pharmacy research at the School of Pharmacy in London has been appointed to lead the editorial work. Pharmacists Elizabeth Nix, Sukeshi Makhecha and Claire Keith are also part of the editorial team.

Further Welsh prescription charge cuts

Prescription charges in Wales will be cut by another £1 next year. Sue Essex, finance minister, Welsh Assembly Government, has announced that from April 2005 prescription charges in Wales will be reduced from £5 to £4, at an estimated cost of £11m.

This will follow the reduction from £6 to £5 that is due to take place on 1 October (*PJ*, 1 November 2003, p606). The Welsh Assembly has pledged to abolish prescription charges by 2007.

However, not all politicians believe this target is realistic. Kirsty Williams, spokeswoman for the Welsh Liberal Democrats, told *The Journal*: "The Labour Assembly government had an opportunity to make prescriptions free for those with long-term chronic illnesses about a year ago. They have failed to do that and now these people will have to wait another three years to benefit from free prescriptions. It seems that they have bitten off more than they can chew with their rash promise to make prescriptions free for all."

Minister visits Boots in Nottingham



Health minister Rosie Winterton recently visited Boots in Nottingham: (left to right) Ghada Metias, deputy store manager, Jim Smith, chief pharmaceutical officer at the Department of Health, Digby Emson, director of professional services and pharmacy superintendent, and Jenny Colley, dispensing health care assistant

Drug trade surplus grows 15% to £3.1bn

British pharmaceutical exports in 2003 were worth £11.8bn and exceeded imports by £3.1bn. This makes pharmaceuticals one of the three pillars of the British economy, along with financial services and the oil and gas industry, according to Andrew Curl, deputy director-general of the Association of the British Pharmaceutical Industry.

Presenting the ABPI annual review for 2003, Mr Curl said that UK pharmaceutical companies spent nearly £10m a day on research and development.

But he complained that modern medicines were not well used in the UK.

"Britain is bottom of the international league table for the adoption of modern medicines. This cannot be good for patients," he said. "We adopt new medicines at 50 per cent of the rate of France, Italy and Germany. Medicines introduced in the past five years have only a 15 per cent market share."

The price of new medicines is not what stops them being used, Mr Curl suggested. "In real terms, branded medicine prices are 15 per cent lower than 10 years ago," he said. "And by 2007, medicines will have fallen from 12 per cent to 10 per cent of total NHS spending."

European medicines licensing applications start to recover

Applications for new European marketing authorisations are rising again, after nearly halving between 2001 and 2002.

There were 39 applications in 2003, compared to 31 in 2002 and 58 in 2001. The increase has been welcomed by the European Agency for the Evaluation of Medicinal Products (EMA), which had been worried about the possible public health consequences of a lack of new medicines.

The drop in 2002 applications was so great that the EMA and the European Commission launched an investigation to

find out what had happened. They concluded that it was a global issue for which drug regulators were not primarily responsible. Possible factors included company mergers, failure of new technologies to deliver on time and overemphasis on blockbuster drugs.

The figures are given in the agency's annual report for 2003, which also records an increase in pharmaceutical company requests for scientific advice from the EMA. The report says that data show the positive impact that seeking advice has on the time taken to review applications and on review outcomes.

Beware dexamethasone for lung disease of prematurity

Dexamethasone given shortly after birth to babies with extremely poor lung function has adverse effects on neuromotor and cognitive function by the time the recipients reach school age, researchers have found.

In a trial, administration of the steroid reduced the incidence of chronic lung disease in preterm infants. However, the researchers

do not recommend this regimen because of adverse effects they found subsequently. In 146 children followed up to school age, those who had received dexamethasone at birth were shorter than controls; they also had poorer motor skills and motor co-ordination, and lower IQ scores (*New England Journal of Medicine* 2004;350:1304).

News in brief

Numark reaches 1,600

Numark, a symbol (own-brand) trading group for independent pharmacies, has signed up its 1,600th member. The latest business to join the group is B. A. Whittle pharmacy at Hornsea, Yorkshire.

Amiodarone and paramedics

Amiodarone may be added to the list of medicines that ambulance paramedics can administer parenterally. Consultation on a plan to allow the use of amiodarone to treat ventricular fibrillation or pulseless ventricular tachycardia, refractory to three defibrillating shocks runs until 16 June. Comments can be sent to Anne Ryan, Medicines and Healthcare products Regulatory Agency, 16-142 Market Towers, 1 Nine Elms Lane, London SW8 5NQ (e-mail anne.ryan@mhra.gsi.gov.uk).

GPs to trade in goodwill

GPs are to be allowed to trade in the goodwill value of some services under their new NHS contract. The sale of services and the associated goodwill will apply to additional and enhanced GP services, such as cervical screening, vaccination and out-of-hours services. Sale of the goodwill of essential, or basic, services will not be allowed.

PJ Online

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Carers, Parkinson's, Alzheimer's

Links and articles for carers, and on Parkinson's and Alzheimer's diseases.
www.pjonline.com/links/carers
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Website developments

The news page (News Centre) has been further simplified. The layout of the pages in the reports and article series sections has been changed to make them clearer.
www.pjonline.com/news
www.pjonline.com/reports
www.pjonline.com/series

Veterinary pharmacy

A round up of recent articles and news items, including contact details for the Veterinary Pharmacists Group.
www.pjonline.com/sig

Most GPs are over-prescribing antidepressants

More than 80 per cent of GPs admit to over-prescribing antidepressants to patients with depression, anxiety and stress, a new survey reveals this week.

The doctors say that they are often forced to prescribe these drugs because appropriate psychological therapies or social care for mild to moderate mental health conditions are not available.

The survey, conducted by research company Dr Foster for Norwich Union Healthcare, also showed that nearly three-quarters of GPs say they prescribe more antidepressants now than they did five years ago. A quarter of GPs told researchers that more widespread availability of psychological therapies is one of the most pressing priorities for the NHS.

Celia Feetam, clinical psychiatric pharmacist and senior teaching fellow, Aston University, Birmingham, told *The Journal* that these findings were reflected by prescribing

trends. She added that although GPs may want to refer patients for psychological therapies, these are sparse in primary care and doctors have little option other than to prescribe medication. However, she hoped that the survey and forthcoming National Institute for Clinical Excellence guidelines (see Panel) would increase the impetus for more funding for psychological help from suitably trained staff.

She added that pharmacists may be able to help by making patients aware of non-pharmacological strategies for the treatment of depression and anxiety, especially if patients are not taking their prescribed medicines. Patients wanting other services

GPs want more psychological therapies to be available

should demand them from their primary care trusts, she said.

Although medication could help with biological effects, such as appetite and sleep loss, in depression caused by life events, patients often needed long-term coping skills, she explained.

Norwich Union says that its study also showed that a third of people interviewed claimed to know someone, or were themselves, suffering from a mild or moderate mental health condition. Seventeen per cent had sought help or advice from a health care professional for mild anxiety, depression or stress. The company has launched an online resource explaining mental health conditions and their therapies with a guide to health service provision by postcode or speciality (www.personalhealthmanager.co.uk).

NICE guidelines

NICE guidelines on the management of depression and the management of generalised anxiety disorder and panic disorder are at the end of their consultation periods and are due to be published in June.

The draft guidelines for depression say that, although antidepressants are recommended in moderate to severe disease, they are not advised in initial treatment of mild depression. No treatment, with reassessment within a fortnight, can also be used for patients with mild depression expected to recover with no intervention. Psychological treatment such as counselling is advocated in mild to moderate depression. The guidelines for anxiety rate the long-term efficacy of cognitive behavioural therapy better than medication or self help.

Public happy to deal with pharmacists over repeat prescriptions

Most people are happy to deal with pharmacists rather than GPs for their repeat prescriptions, a survey shows.

The survey involved 2,004 people aged 15 years or over, who were interviewed by MORI for the British Medical Association.

Responding to the statement "I would be happy to see a pharmacist instead of the GP to repeat an existing prescription" 47 per cent strongly agreed, 39 per cent tended to agree,

4 per cent neither agreed nor disagreed, 7 per cent tended to disagree and 3 per cent strongly disagreed. This is consistent with previous research carried out in 2002-03.

The survey also found that 88 per cent of people would be happy for nurses to deal with minor complaints at night rather than seeing a GP. However, the poll did not include a question about seeing a pharmacist rather than a doctor about minor ailments.

The BMA says that this highlights the public acceptance of changes to out-of-hours services which could arise through the new GP contract, which was implemented this week.

Commenting about the involvement of pharmacists, a BMA spokesman said that the association's General Practitioners Committee was keen to see a greater skill mix in the day-to-day provision of health care.

Moves to cut drugs bill would endanger patients

Attempts by the Government to cut the NHS drugs bill would endanger patients, according to Steve Dunn, chairman of the British Association of Pharmaceutical Wholesalers and group managing director of AAH Pharmaceuticals. "Any measure to reduce the drugs bill will lead to patient safety being compromised through unavailability of product," he said.

Mr Dunn was speaking at the BAPW annual dinner held in London last week. He told guests, including Jim Smith, chief pharmaceutical officer for England, that profits from generic medicines subsidised other services delivered by wholesalers. "If prof-

itability is reduced, some services will become economically unviable."

He added that wholesalers were able to contribute to the development of pharmacy policy at a national level. "Apart from generics, pharmacy will have to deal this year with the Pharmaceutical Price Regulation Scheme changes, the new contract implementation, patient packs, payment for services and the response to the Office of Fair Trading report, not to mention the growing importance of primary care trusts. Full-line wholesalers are the link between a strong pharmaceutical manufacturing industry and a strong pharmacy health care sector," he said.

Patients not told enough about medicines, say public

Most people do not believe that patients receive enough information about the treatments that are available to them, a survey of almost 2,500 people in England and Wales has revealed. Of 1,187 respondents, 45 per cent put little trust in the idea that new treatments are put into practice in the health care system. A similar proportion (43 per cent) were not confident that patients always received the right medicine, although less (34 per cent) were as sceptical about patients receiving the right dose of medicine (*Quality and Safety in Health Care* 2004;13:92).

Vaccination and diabetes not linked

Investigations into a link between childhood vaccination and type I diabetes has revealed no relation between the two.

Danish researchers say that there are several reasons why the link has been proposed. First, an increase in the incidence of type I diabetes in developed countries happened at around the same time as the widespread introduction of general childhood immunisations. Second, in some mouse models certain vaccinations have induced diabetes, although in others vaccinations have prevented it. Third, there is some evidence of an association between infections and type I diabetes.

The researchers evaluated a cohort of all children born in Denmark from January 1990 to December 2000 for whom information on vacci-

nations and diabetes was available. Type I diabetes was diagnosed in 681 children out of around 740,000.

The authors say that development of type I diabetes in genetically predisposed children was not associated with vaccination. Rate ratios for the disease among children who received at least one dose of vaccine compared with unvaccinated children were *Haemophilus influenzae* type b 0.91, diphtheria, tetanus and inactivated polio 1.02, diphtheria, tetanus, acellular pertussis and inactivated polio 0.96, whole cell pertussis 1.06, measles mumps and rubella 1.14 and oral polio 1.08. There was also no evidence of any clustering of cases two to four years after immunisation with any vaccine (*New England Journal of Medicine* 2004;350:1398).

Supplements have few serious interactions

Almost half of dietary supplements taken by patients at home may have potential interactions with drugs but few are serious, new research indicates.

US pharmacists and doctors surveyed 458 outpatients at two centres. Of these, 43 per cent were taking at least one dietary supplement with a prescription medicine. Among these, 45 per cent had a potential for interaction, although most would not have been serious. However, there was a 6 per cent incidence of potentially severe interactions. Most of the potential interactions were with ginseng, garlic, *Ginkgo biloba* and co-enzyme Q10.

"We encourage all health care providers to question patients about dietary supplement use, especially because there are increasing reports of significant morbidity and mortality, with or without concomitant pharmaceutical use," they say.

They add that health care providers should consider potential drug-dietary supplement interactions regardless of their severity, because even minor interactions could affect drug therapy and patients' quality of life.

However, one author added that the small incidence of serious interactions was "encouraging news for the millions of patients currently taking prescription medications along with dietary supplements" (*Archives of Internal Medicine* 2004;164:630).

Potentially severe interactions

Supplement and drug	Interaction
Calcium and fluoroquinolone	Decreased absorption of drug (probable)
Potassium and angiotensin converting enzyme inhibitors	Hyperkalaemia (probable)
Co-enzyme Q10 and warfarin	Decreased international normalised ratio (INR) (possible)
<i>Ginkgo biloba</i> and warfarin	Increased INR (possible)
St John's wort and serotonin reuptake inhibitors	Increased serotonin levels (probable)

Alendronate gives sustained effects in osteoporosis

At the end of a 10-year study into the effects of alendronate (Fosamax) in osteoporosis, researchers have found that the drug provides sustained improvements in bone density and is well tolerated. Discontinuation of alendronate resulted in a gradual loss of its effects.

Almost 250 postmenopausal women with osteoporosis participated in the extended multicentre, randomised study. Investigators measured bone mineral density (BMD) at critical skeletal sites prone to osteoporotic fracture. Treatment with 10mg alendronate daily for 10 years produced mean increases in BMD of 13.7 per cent at the lumbar spine, 10.3 per cent at the hip trochanter, 5.4 per cent at the femoral neck and 6.7 per cent in the total hip compared with baseline. Smaller gains occurred in a group given 5mg daily.

The researchers report that safety profiles were similar during years 8 to 10 for three groups under

investigation: one had discontinued active therapy, another was taking 5mg alendronate and the third was on 10mg of the drug. The incidence of upper gastrointestinal adverse events was similar among these groups.

Although the differences were not statistically significant, the fewest vertebral fractures, least height loss and lowest rate of non-vertebral fractures occurred in the 10mg alendronate group. Fracture incidence was used as a safety measure rather than as an efficacy measure, they note.

The discontinuation of alendronate resulted in a gradual loss of effect, as measured by bone density and biochemical markers of bone remodelling.

Reporting their results in *The New England Journal of Medicine* (2004;350:1189), the authors warn that their findings should not be assumed to apply to other osteoporosis treatments because each agent may have unique characteristics.