

# Child-resistant blister packs for aspirin, paracetamol and iron to be brought in

BLISTER packs of paracetamol, aspirin and iron preparations will have to conform to the British Standard for non-reclosable packaging from next year.

Under proposals from the Medicines Control Agency, all packaging for solid dosage forms of aspirin and paracetamol will have to comply with BS8404, which was introduced at the end of 2001 (*PJ*, 19 January, p48). In addition, preparations containing more than 24mg of elemental iron per unit dose and liquid paracetamol preparations will also have to meet requirements for child-resistant packaging. BS8404 sets out what defines child resistance. It is up to manufacturers to decide how to meet this.

Speaking during a visit to Great Ormond Street Children's Hospital, London, on 26 November, Lord Hunt, Parliamentary Under-Secretary of State for Health, said: "Most parents realise the potential danger and take adequate precautions with medicines in the home. While the first line of defence must always be to keep medicines out of the sight and reach of children, child-resistant packaging represents an important additional safeguard."

The Committee on Safety of Medicines has recommended that iron preparations should also meet the new standard because they can be toxic to young children in small quantities. As few as six tablets may contain



*New packs should appear from the middle of 2003*

enough iron to cause death in a one-year-old child. And, because they are commonly taken by mothers following child birth, they are more likely to be found in homes with toddlers.

The British Standards Institution has recommended that the use of child-resistant closures should be confined to those products that are potentially hazardous, since if they were used in other circumstances there would be confusion over the degree of hazard posed by the product. Once new regula-

tions are in place, probably from the middle of next year, it will be an offence to supply these paracetamol, aspirin or iron products outside hospitals without such packaging unless a customer makes a request in person for non-child-resistant closures. Products already on the market will be able to be sold until their shelf-life expires.

The Proprietary Association of Great Britain said that its members would be consulting with the MCA to find a workable and effective way of bringing in new packaging. The PAgB said that accidental poisoning incidents involving children have declined markedly over the past two decades as the use of blister packs has increased. The overall number of incidents fell from around 61,000 in 1982 to around 41,000 in 1998, and the number involving children under five years fell by more than half. Only one child fatality from iron ingestion has been reported in the past decade and no deaths due to aspirin or paracetamol.

Following the announcement by Lord Hunt, the MCA issued consultation letter MLX 291 on draft Medicines (Child Safety) Regulations 2003. Copies of the letter can be found through the *PJ Online* links page ([www.pjonline.com/links](http://www.pjonline.com/links)). The consultation period runs until 18 February 2003.

## Increase in fatal ADRs in children

ANTICONVULSANTS are associated with most of the suspected fatal adverse drug reactions (ADRs) in children reported through the Medicines Control Agency yellow card scheme, British researchers say.

They examined all ADRs with a suspected fatal outcome that were reported through the scheme between 1964 and December 2000, excluding vaccines and overdoses. In all, there were 43,755 ADRs, 331 of which had a fatal outcome (*Archives of Disease in Childhood* 2002;87:462).

Anticonvulsants were associated with 65 of these deaths, particularly sodium valproate, which was mentioned in almost half of cases (31). The newer anticonvulsants, such as vigabatrin (Sabril) and lamotrigine (Lamictal), were associated with 20 deaths, cytotoxic drugs with 34 and antibiotics with 29. Liver failure was the most commonly noted ADR with a fatal outcome in 50 of the 331 cases.

The researchers found that the number of overall adverse drug reaction and deaths reported in the past 10 years had increased compared with previous decades. There were 28,197 ADRs and 151 associated deaths from 1991–2000, compared with 10,562 ADRs and 92 deaths from 1981–90, and 4,601 ADRs and 64 deaths from

1971–80. However, they warn that the number of deaths is likely to be an underestimate, since ADRs are known to be under-reported.

The researchers also point out that the yellow card scheme only detects signals of drug safety and does not assess causality, which can only be determined properly through prospective studies. They conclude that the overall benefit of medication to children is likely to be far greater than the risk, but that doctors need to be more aware of guidelines that recommend avoiding medicines in certain high-risk groups.

"The use of propofol in the critically ill child and sodium valproate in young children under the age of three years, with developmental delay or polypharmacy, are examples where we hope further deaths might be avoided," they say.

In an accompanying editorial (*ibid*, p466), Dr Harvey Marcovitch, editor of *Archives of Disease in Childhood*, stresses that parents need not be alarmed by the study findings, and reiterates that causality has not been proven. But he agrees more research is needed: "We echo [the researchers'] call for more risk-benefit analyses of medicines used by children, particularly newer anticonvulsants."

## Depo-Provera vials to end shortages

PHARMACIA says that it is experiencing supply problems with Depo-Provera (medroxyprogesterone acetate) pre-filled syringes. Until the situation is rectified, the company is introducing Depo-Provera vials, which are expected to be available from mid-December (*PJ*, 23 November, p739).

The stock shortage follows a review of Pharmacia's manufacturing facilities during which production ceased at the company's site at Puurs, Belgium, where Depo-Provera pre-filled syringes were manufactured. A decision was made to revalidate the manufacturing process for suspensions in syringes at the site and resumption of routine production was delayed. A date for reintroducing the pre-filled syringes has not been set by Pharmacia.

### IN THIS ISSUE

#### Public autopsies

John Fallon, a pharmacist, attended the public autopsy held in east London last week. He describes the experience on p789.

## Pharmacists' prescribing training to start in spring



Lord Hunt (right) talks with Tony West, chief pharmacist for Guy's and St Thomas' Hospital Trust, during a visit to an anticoagulant clinic last week

TRAINING for pharmacists to become supplementary prescribers will start in the spring of 2003, the Department of Health announced last week.

Regulations to permit pharmacist prescribing should be laid before Parliament ahead of its Christmas recess.

Lord Hunt, Parliamentary Under-Secretary of State for Health, visited an anticoagulant clinic at Guy's Hospital, London, on 21 November to mark the official go ahead for pharmacist prescribing and an extension of nurse prescribing (*Pf*, 23 November, p731). He said: "Staff will undergo comprehensive training before

becoming supplementary prescribers. We aim to have up to 1,000 pharmacists and up to 10,000 nurses trained by the end of 2004." He said that further guidance will be issued in the new year. *The Journal* will take a closer look at the issue at that time.

According to the Department of Health, patients with asthma, diabetes, coronary heart disease and high blood pressure are likely to be among the first to benefit with quicker access to medicines. These patients will be able to have their medicines' doses, frequencies and formulations adjusted within limits set down in a written clinical management plan.

## LPS consultations must be genuine

PRIMARY care trusts are required to carry out proper consultations over proposals for local pharmaceutical services pilots, the Department of Health has said. This was confirmed at a meeting between Departmental officials and representatives of the Pharmaceutical Services Negotiating Committee at which evidence and examples of a lack of consultation and of inadequate procedures were given by the PSNC.

Mike King, the PSNC's head of professional development said: "We set out the concerns and anxieties of contractors denied the right to be heard on an issue which could affect their business and livelihood. We were given an undertaking by the Department that the approval process involves a thorough and rigorous scrutiny of LPS applications. Any instances of inadequate consultation or less than thorough impact assessments would lead to proposals being turned down and sent back to the PCT."

Mr King is now asking contractors and local pharmaceutical committees who have evidence of inadequate consultations to send details to the PSNC by 2 December so that they can be forwarded to the Department.

## Government set to legalise some items for use by addicts

PROPOSALS to legalise the supply of water for injections, swabs, sterile bowls, spoons and sachets of citric acid to drug addicts have been put forward.

Currently, the Misuse of Drugs Act 1971 makes it illegal for anyone to supply anything other than hypodermic syringes and needles when it is to be used for the illegal preparation or administration of Controlled Drugs. A Home Office consultation letter says that pharmacists and workers involved with drug addicts and needle exchange schemes are known to supply other items to try to reduce infections.

The Advisory Council on the Misuse of Drugs has now said that health workers should not be placed at risk of prosecution when they supply items that have significant potential to minimise harm. It says that the law should be changed to allow the supply of ampoules of sterile water, swabs, spoons, bowls and citric acid, but not filters or tourniquets. In the case of citric acid, supply will be restricted to pharmacists and other suitably trained people because of the risk of citric burns at injection sites and other complications.

Comments can be sent to Naim Siddiqui, Communities and Law Enforcement Drugs Unit, Home Office (Room 243), 50 Queen Anne's Gate, London SW1H 9AT (e-mail [Naim.Siddiqui@homeoffice.gsi.gov.uk](mailto:Naim.Siddiqui@homeoffice.gsi.gov.uk)) by 14 February 2002. The consultation letter can be downloaded via *Pf Online* ([www.BJOnline.com/links](http://www.BJOnline.com/links)).

## Cannabis use by teenagers raises risks of mental health problems

CANNABIS use during adolescence appears to increase the risk of developing schizophrenia, depression and anxiety in later life.

In the first of three studies published in the *BMJ* (2002;325:1195), Australian researchers found that young women were over five times more likely to report depression and anxiety if they used cannabis daily (odds ratio 5.6, 95 per cent confidence interval 2.6-12). In addition, teenagers using cannabis weekly had just over twice the risk (2.3, 1.3-4.2). The researchers comment that depression and anxiety in teenagers do not predict later cannabis use, indicating that taking cannabis to overcome these is unlikely to be the reason for the association.

In the second study (*Ibid*, p1199), cannabis was associated with a dose-dependent increased risk of schizophrenia that was not explained by personality traits or use of other psychoactive drugs. The researchers analysed data from over 50,000 Swedish conscripts. After adjusting for a variety of factors, including poor social integration and cigarette smoking, they found

that those who had used cannabis on more than 50 occasions were three times more likely to develop schizophrenia than those who had never used the drug (3.1, 1.7-5.5).

Meanwhile, a prospective study of 1,000 young New Zealanders found that those who had used the drug by the time they were 15 years of age were more than four times as likely to be diagnosed with schizophrenia in adulthood than controls (odds ratio 4.5,  $P=0.035$ ). However, after adjusting the data for psychotic symptoms identified at age 11, the researchers found the risk was reduced by 31 per cent and was no longer statistically significant (*Ibid*, p1212). They say that although most young people who use cannabis in adolescence do so without harm, there is a vulnerable minority that suffer harmful outcomes. "Cannabis use among psychologically vulnerable adolescents should be strongly discouraged," they conclude.

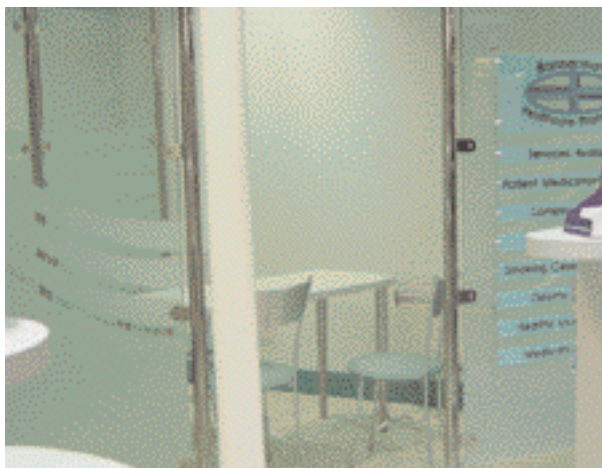
An accompanying editorial says that the dose-response relationships shown for schizophrenia and depression highlight the importance of decreasing cannabis use.

# Only half think pharmacists are in NHS

ONLY half the respondents to a Scottish Consumer Council survey think that their pharmacist is part of the National Health Service in Scotland.

The survey of 1,044 adults found that older women and those in lower socio-economic groups, both frequent users of community pharmacies, were more likely to identify their pharmacist as being part of the NHS than those aged 16–34 years, who are among the least frequent users. One action point in the Scottish pharmaceutical care strategy is to encourage community pharmacies to carry the NHS Scotland logo (P<sub>J</sub>, 9 February, p168).

Overall, the survey found a high use of community pharmacy services with 36 per cent reporting that they had visited a pharmacy at least once a month in the past 12 months and a further 47 per cent saying they visited one every three months or more. Women were most likely to be frequent visitors with 46 per cent going once a month or more compared with 25 per cent of men. Around two-thirds of respondents regularly use the same pharmacy. Again, older women and those in lower socio-economic classes were most likely to use the same pharmacy all the time.



*Consultation areas are being introduced in some Scottish pharmacies like this model pharmacy in Glasgow. Scots are divided over whether they can talk to a pharmacist in private*

Infrequent users were most likely to use different pharmacies. Most respondents found the location of their pharmacy convenient.

When it came to approaching a pharmacist for medical advice, a majority said that they would feel comfortable or very comfortable in doing so and 43 per cent said that they had done so in the past year. However, there was a lack of agreement about whether it is possible to talk to a pharmacist in private, with 40 per cent agreeing and 33

per cent disagreeing. Younger pharmacy users were more likely than older users to be concerned about confidentiality.

Looking at other services that could be provided through pharmacies, support was given for authorising repeat prescriptions (61 per cent), carrying out health checks such as blood pressure measurements (41), running smoking cessation clinics (37) and reviewing medication (26). Asked which other health professionals could provide services through pharmacy premises, respondents suggested chiropodists, nurses, physiotherapists and health visitors. Little support was given for non-health-related services such as social work.

Graeme Millar, chairman of the Scottish Consumer Council and himself a pharmacist, says in a preface to the survey's results: "Our research provides a baseline, and in future years it will be interesting to see how successful pharmacists have been in widening access to their services, and developing their services to meet the needs of the communities they serve."

Copies of the survey results can be found through the P<sub>J</sub> Online links page ([www.pjonline.com/links](http://www.pjonline.com/links)).

## Scottish control of entry rules may differ after OFT

RULES governing the control of entry to pharmaceutical contracts in Scotland may differ from those in England and Wales after the Office of Fair Trading makes its report, bodies representing pharmacy contractors in Scotland believe.

Bob Cuddihy, Scottish public affairs executive for the Scottish Pharmaceutical Federation, told *The Journal* that the OFT report will be studied by Scottish Health Ministers after its publication. They will then decide whether to amend the NHS (Pharmaceutical Services) (Scotland) Regulations 1995. Mr Cuddihy commented: "I would be surprised if the OFT's proposals are implemented in Scotland if they do not fit in with the Scottish health plan." The SPF and the Scottish Pharmaceutical General Council recently sent a

joint briefing to Members of the Scottish Parliament on the background to the OFT inquiry and its possible effects.

The two bodies say that the current regulations should be retained in order to maintain the National Health Service's community pharmacy network. They say that removing control of entry could mean that health boards are no longer able to plan and manage the number of dispensing pharmacies in their areas. They add: "The 'patient interest' is different to the 'consumer interest' or the 'public interest' because patients are often less mobile and value local, convenient services."

A spokeswoman for the OFT said that the pharmacy report is still expected to be published before the end of the year.

## Prescribing advice course goes online

THE Centre for Postgraduate Pharmacy Education has put its prescribing advice course online. The course is based on the print version published earlier this year.

Pharmacists can access the course materials and receive assessments through the CPPE website ([www.cppe.man.ac.uk](http://www.cppe.man.ac.uk)). It has nine modules, two covering giving prescribing advice to general practitioners and interpreting prescribing reports and seven on specific disease areas. Pharmacists who register for the course will be able to submit multiple-choice assessments for immediate marking. Records of achievement can then be printed.

## Ban on anorectics overturned in court

A EUROPEAN Commission ban on anorectic drugs has been overturned by the European Court of Justice.

The commission withdrew the licences for products containing a number of amphetamine-like drugs in March 2000 on safety grounds (P<sub>J</sub>, 15 April 2000, p572). Later in the year the court ordered that the licences be reinstated pending a full ruling on applications by their manufacturers.

Now the court has ruled that the licences be reinstated because the ban was based on scientific evidence that had been taken into account when the licences were originally granted.

### BRIEFLY

#### Phoenix expands in Glasgow

Phoenix Medical Supplies is investing £30,000 to expand its Glasgow depot. New racking and conveyor belts are being installed to allow an additional 2,000 product lines to be stocked.

#### ABPI ethics booklet

The Association of the British Pharmaceutical Industry has published a new version of its booklet on the work of research ethics committees. Copies are available from the ABPI on 020 7930 3477 ext 1466 (e-mail [mfleming@abpi.org.uk](mailto:mfleming@abpi.org.uk)).

# Fluticasone linked to adrenal crisis

INHALED corticosteroids, especially fluticasone, should be titrated to their lowest effective maintenance dose in order to reduce the likelihood of adverse events, according to the authors of a British study.

Almost 3,000 consultant paediatricians and adult endocrinologists in the United Kingdom were audited to determine how many cases of acute adrenal crisis associated with inhaled corticosteroids had occurred among asthmatic patients.

The researchers identified 28 children and five adults who met the criteria for acute adrenal crisis — until recently there had only been two such reports. All 33 patients had been prescribed between 500–2,000µg a day of inhaled corticosteroids, with fluticasone

being the drug used in 30 of the 33 cases (*Archives of Disease in Childhood* 2002;87:457).

The researchers advise caution in cases where fluticasone doses greater than 400µg a day are being used in children, or 1000µg a day in adults.

However, they warn that patients should not suddenly stop taking their treatment as this could precipitate adrenal crisis. Although the condition is much less common among patients taking beclomethasone and budesonide, the researchers say their findings support the need to titrate down doses of all inhaled corticosteroids.

Current guidelines on asthma management recommend doses of up to 1,000µg fluticasone a day for children aged five years

and over with severe asthma, but the drug is only licensed for use at doses of up to 400µg a day in children. Last year, the Medicines Control Agency highlighted the risk of adverse systemic effects associated with doses of fluticasone above 1,000µg a day (*P7*, 1 September 2001, p283).

In an accompanying editorial, Professor George Russell, Royal Aberdeen Children's Hospital, suggests that where high dose inhaled corticosteroids are thought necessary, it may be advisable to avoid fluticasone for the time being (*ibid*, p455).

Updated British Thoracic Society guidelines, expected in January, will emphasise the need to use the lowest doses of medicines necessary to control the disease.

## Pharmacists' views on pharmacogenetics sought

PHARMACISTS, along with other health care professionals and the public, have been asked for their views on ethical issues raised by the development of pharmacogenetics.

In a consultation document published last week, the Nuffield Council on Bioethics points out that genetic analysis to predict response to medicines is now theoretically feasible. However, it adds that there are a number of constraints to this personalised approach to health care. One point raised is that genetic tests will not reveal whether a patient is a responder or non-responder to a particular medicine. "Rather, tests will reveal the likelihood of responding to treatment." The council asks whether or not a patient who only has 30 per cent likelihood of responding to a particular treatment should receive it through the public health care system."

Other questions raised include: for individual therapy, should tests be available directly to patients over the counter or on the internet, or should they only be available through medical practitioners as part of a decision about the use of a prescribed medicine?

"As regards clinical practice, general practitioners, pharmacists and patients themselves will all be implicated," the report says. It adds that patients may be concerned

### Pharmacists need to know about developments

Pharmacists need to be aware of what is developing in the field of pharmacogenetics because they will be seeing more applications in practice within the next three years, Dr Edward Campion, assistant professor of medicine at Harvard Medical School, Cambridge, Massachusetts, told *The Journal*. He was speaking during a recent conference on pharmacogenetics at the Pasteur Institute in Paris.

"We are now at the interface between research and clinical practice and pharmacists will be the ones who are expected to know how gene patterns can be used to improve response to drugs and reduce toxicities," said Dr Campion. However, despite recent rapid advances, Dr Campion does not think that in the foreseeable future, everybody will have their genetic profile on a microchip. Rather, genetics will be used to provide specific answers. For example, it will provide clinicians with an extra diagnostic test where gene patterns can indicate whether or not a tumour will require aggressive treatment. It may also be able to give information about people's susceptibility to diseases.

Dr Campion, who is also senior deputy editor of *The New England Journal of Medicine*, said that the *NEJM* is currently publishing a series of articles on genetics and that these will be available, free, online at [www.nejm.org](http://www.nejm.org).

about having a pharmacogenetic test and asks whether such patients will be able to refuse testing if one relevant to their treatment is available. The council also points out that genetic information derived from large groups of patients is likely to be shared by health care providers, including pharmacists. It asks: "What level of anonymity should be accorded to genetic information

and what kinds of consent should be required for the collection of samples?"

The council recently set up a working party to consider the ethics of pharmacogenetics and intends to publish a report in the autumn of 2003. The consultation document is available on the internet ([www.nuffield-bioethics.org/pharmacogenetics](http://www.nuffield-bioethics.org/pharmacogenetics)). The deadline for responses is 19 February 2003.

## Statin reduces gene-variant coronary risk

CARRIERS of a common variant in the gene encoding for the microsomal triglyceride transfer protein (MTP) have an increased risk of coronary heart disease (CHD), but this risk is reduced by statin therapy, researchers report.

Dr Helena Ledmyr, of the Karolinska Institute in Sweden, and colleagues from Glasgow and Oxford universities used data from the west of Scotland coronary prevention study (WOSCOPS) to investigate how MTP, which is involved in cholesterol metabolism, influences heart disease risk.

They showed that carriers of the variant (MTP-493T) had lower total cholesterol

levels than carriers of MTP-493G and hypothesised that carriers of the T allele would have a reduced risk of CHD. However, what they actually found was that people with this genotype who were given placebo in the trial had increased risk of CHD. "This effect was completely eliminated in the pravastatin group," Dr Ledmyr said. She concluded that the increased risk of CHD seen in carriers of MTP-493T is unrelated to cholesterol and cholesterol risk factors, but eliminated by statin therapy.

The data were presented at the American Heart Association scientific sessions held in Chicago last week.

## New BCG vaccine

A NEW BCG (tuberculosis) vaccine (BCG vaccine SSI) has been launched this week by Danish company Statens Serum Institut (see p776). The launch follows the recall of all batches of BCG vaccine manufactured by Evans Vaccines (*P7*, 5 October, p470).

The dose of BCG vaccine SSI for children aged 12 months and older is 0.1ml by intradermal injection, whereas the same dose of the Evans BCG vaccine was for children aged three months and older. Children under 12 months should be given 0.05ml of BCG vaccine SSI. A percutaneous preparation of BCG vaccine SSI for use by the multiple puncture technique has not been produced.

# Diuretics associated with an increased risk of death in acute renal failure

THE use of diuretics in critically ill patients with acute renal failure is associated with an increased risk of death, a new study shows. Diuretics were also found to be associated with non-recovery of renal function in these patients.

Researchers analysed data collected over a six-year period for 552 patients with acute renal failure. They found that 59 per cent of patients were taking diuretics at the time of assessment and 12 per cent started taking diuretics after assessment.

A total of 294 (53 per cent) of the patients died in hospital, 56 of whom recovered renal function before death. Among those who survived, 17 were dialysis dependent after discharge. The increased risk of death or non-recovery of renal function was

magnified (odds ratio 3.12, 95 per cent confidence interval, 1.14–2.76) when patients who died within the first week following assessment were excluded.

The researchers say that possible explanations for the association between diuretic use and both mortality in hospital and non-recovery of renal function include a direct toxic effect of diuretics or indirect effects either related or unrelated to renal function.

They say that although they cannot determine that diuretics are harmful, it is highly unlikely that diuretics afford patients with acute renal failure any material benefit. They conclude: "In the absence of compelling contradictory data from a randomised, blinded clinical trial, the widespread use of diuretics in critically ill

patients with acute renal failure should be discouraged." (*JAMA* 2002;288:2547.)

Caroline Ashley, principal pharmacist, renal services, Royal Free Hospital, London, told *The Journal* that although it is difficult to say that the use of diuretics causes an increased risk of death and non-recoverable renal function, the study clearly raises concern about the prolonged use of diuretics in critically ill patients.

"We do know that in low doses, diuretics reduce tubular workload. It could be that in critically ill patients with poor renal function, large doses of diuretics are indeed harmful to kidneys. Alternatively, the diuretic therapy may have been continued for too long before dialysis was instigated," she said.

# Further reductions in blood pressure do not slow progression of hypertensive nephrosclerosis

ADDITIONAL reduction in blood pressure does not slow the progression of hypertensive nephrosclerosis, researchers report. However, they support recommendations that angiotensin-converting enzyme inhibitors should be considered as first-line therapy over beta-blockers and dihydropyridine calcium channel blockers in these patients.

Dr Jackson Wright, University Hospitals of Cleveland, and colleagues from the African American study of kidney disease and hypertension (AASK) study group compared the effects of three classes of antihy-

pertensives and two levels of blood pressure control on the decline in kidney function in black patients with chronic kidney disease attributed to hypertensive nephrosclerosis.

They randomly assigned 1,094 patients aged 18 to 70 years, to receive treatment with metoprolol, ramipril (Tritace) or amlodipine (Istin), and to achieve a target mean arterial pressure of either 102–107mmHg (usual) or 92mmHg or less (lower).

The researchers found that mean glomerular filtration rate (GFR) decline from baseline through four years did not

differ between the two blood pressure groups. In addition, the lower blood pressure goal did not reduce the rate of GFR decline, end-stage renal failure [dialysis or transplantation] or death when the outcomes were combined.

They say that none of the drug group comparisons showed consistent differences in GFR decline. However, ramipril was more effective than metoprolol and amlodipine in reducing the risk of the combined clinical outcome.

The study is published in *JAMA* (2002;288:2421).

## Minister launches medication review guide



Junior Health Minister David Lammy, seen here with Joanne Shaw, director of the Medicines Partnership, launched "Room for review" earlier this week. The guide was produced by the Medicines Partnership and the national collaborative medicines management services programme to help community pharmacists implement and undertake medication reviews.

## Cancer funding not enough to modernise

CANCER networks in England say that current funding arrangements will make it difficult to modernise cancer services in line with Government targets.

A CancerBACUP survey of networks revealed that half of respondents (22 out of the 34 networks in England) received less money for 2002–03 than they expected. Many said the shortfall was 25 per cent or more, making it difficult to invest in additional staff or update equipment. A quarter of respondents said allowing networks to take direct charge of their own finances would improve the services they provide.

The survey did not investigate the impact of funding drug treatments, but a spokeswoman for CancerBACUP told *The Journal*: "Respondents did comment that they felt that treatments recommended by the National Institute for Clinical Excellence had to be funded." She added that this financial pressure meant other aspects of cancer care suffered.

# Thrombolytics safe for ambulance use

A COMBINATION of tenecteplase (Metalyse) and unfractionated heparin can be given safely in ambulances, a new trial has shown.

Although the efficacy of these agents has been established, the feasibility of giving antithrombotic regimens before patients have been admitted to hospital has not been demonstrated in a multicentre randomised trial until now. The trial also assessed the use of tenecteplase plus enoxaparin (Clexane) and showed that this combination reduced ischaemic events that occur in hospital. However, it was associated with an

increased risk of major bleeding and intracranial haemorrhage compared with tenecteplase plus heparin.

Professor Lars Wallentin, Uppsala University, Sweden, who presented the trial data at the American Heart Association scientific sessions in Chicago last week, said: "There were advantages and disadvantages with the [enoxaparin plus tenecteplase] combination in the ambulance."

The incidence of intracranial haemorrhage increased from 0.97 per cent in patients treated with UFH to 2.2 per cent in patients treated with enoxaparin ( $P=0.047$ ).

"However, these were patients entirely above 75 years of age and almost entirely women," he added.

Professor Wallentin concluded that administration of thrombolytic agents in the ambulance shortens treatment delay but added that further dose finding studies in the elderly and in women were needed for the combination of enoxaparin and tenecteplase.

The National Institute for Clinical Excellence issued guidance on the use of thrombolytic agents in the pre-hospital setting in October (*P7*, 2 November, p633).

## "Square" marks 50th charter dinner



Dr Jim Smith (left), chief pharmaceutical officer for England, Dr Soraya Dhillon, director of taught postgraduate courses, and Marshall Davies (right), President of the Royal Pharmaceutical Society, were among the guests at the 50th charter dinner.

THE London University School of Pharmacy celebrated its 50th charter dinner last week, and its 160th anniversary. According to a press release of 1952: "A Royal Charter of Incorporation has been granted to the

School of Pharmacy of the University of London, an event which marks over a century of progress in pharmaceutical education in this country." The dinner was held at the Merchant Taylors' Hall, City of London.

## "Cooling off" period no benefit in ACS

PATIENTS with acute coronary syndromes at high risk of heart attack or stroke do not benefit from extended antithrombotic treatment before angioplasty, according to data presented at the American Heart Association scientific sessions in Chicago last week.

A group of 410 patients with unstable coronary syndromes were given extended antithrombotic pre-treatment (72–120 hours) or early intervention with pre-treatment for less than six hours. All received the same antithrombotic treatment — aspirin, clopidogrel (Plavix) and heparin.

After 30 days, three deaths and 21 non-fatal myocardial infarctions had occurred in the cooling-off group, compared with no deaths and 12 myocardial infarctions in the early intervention group (relative risk 2.0, 95 per cent confidence interval, 1.01–3.94,  $P=0.04$ ). After catheterisation, 11 events (death or MI) had occurred in each group.

Study lead Dr Franz-Josef Neumann, Bad Krozingen Heart Centre, Germany, said: "This means that we cannot detect an effect of pre-treatment on risk reduction for the subsequent intervention. Pre-treatment is not needed and even increases the risk to patients."

## Drug and Therapeutics Bulletin reviews focus on bone health

A RANGE of lifestyle measures aimed at preventing osteoporotic fractures are outlined in the latest issue of the *Drug and Therapeutics Bulletin* (2002;40:83). A second *DTB* review concludes that glucosamine can bring benefits to those with osteoarthritis of the knee (*ibid*, p81).

*DTB* reviewers assessed the research evidence supporting a variety of lifestyle interventions. They conclude that measures to reduce the risk of osteoporosis should include encouraging people at risk to eat a varied diet with at least five portions of fruit and vegetables a day and an adequate intake of calcium — 700mg a day for most adults. In addition, smoking should be discouraged and alcohol intake should be moderate.

The reviewers say there is evidence to show that calcium and vitamin D supplementation can reduce fracture risk in elderly

people living in institutions and therefore should be offered to these individuals. They also say falls prevention programmes may be of benefit and that regular weight bearing exercises, such as brisk walking for 30 minutes five days a week, are essential for maintaining bone health.

Chris Martin, who runs an osteoporosis programme at his pharmacy in St David's, Pembrokeshire, told *The Journal*: "It is absolutely spot-on. This is good solid advice that we should be giving to all our patients who are at risk of osteoporosis."

In the second review, the authors looked at research comparing glucosamine with a non-steroidal anti-inflammatory drug or placebo. They note that although oral glucosamine is well absorbed from the gut, there are no clinical data to confirm that it reaches the joints, or that concentrations in

cartilage are high enough to influence formation of new cartilage. In addition, they say pharmacokinetic studies suggest that glucosamine breaks down extensively after absorption.

However, patients with osteoarthritis of the knee taking a typical daily dose of glucosamine (1,500mg glucosamine sulphate) experienced pain relief comparable to that produced by NSAIDs. They reviewers say there is little evidence to support its use as a treatment for osteoarthritis in other parts of the body.

Dr Ike Iheanacho, deputy editor of *DTB*, said: "While further trials are needed to determine the best use of glucosamine sulphate in the management of osteoarthritis, there is evidence to suggest it is as effective as NSAIDs in providing relief in patients with knee osteoarthritis."