

Prepare for emergencies

Preparing for terrorism, expanding clinical pharmacy services, innovations in health services and orphan drugs were among the topics covered at the EAHP congress. Gareth Jones reports

Ten bombs exploded on commuter trains and around stations in Madrid within a three minute period on 11 March 2004. There were almost 200 fatalities and over 1,600 injuries. This event tested the ability of hospital pharmacy staff in Madrid to deal with an emergency, according to Pilar Gomis, pharmacist at the 12 de Octubre Hospital.

In a two hour period, Gregorio Maranon Hospital received 312 patients and 12 de Octubre Hospital received 190 patients. All routine surgery was postponed and 438 patients were immediately discharged from the Gregorio Maranon Hospital.

The pharmacy departments responded by ordering extra intravenous fluids, albumin, plasma expanders, blood products, central analgesics and sedatives. As the entrance to the hospital had been closed, police escorts were ordered to ensure that the drugs arrived. The requirement for written orders for drugs for wards and departments was suspended to support the quick delivery of drugs, but records were kept to maintain stock levels and to ensure that the stock could be traced if it were needed elsewhere. The main problem experienced was that many staff were not familiar with the emergency response plan.

Ana Herranz, pharmacist at the Gregorio Maranon Hospital, urged pharmacists to become involved in their organisation's disaster planning committee. Providing an overview of an emergency situation, she said that a disaster is characterised by its low probability, high impact, ambiguity and the pressure for a quick solution. When natural



Pilar Gomis: pharmacy departments should have protocols on dealing with terrorist attacks

disasters such as hurricanes occur, the timing of the crisis can often be predicted hours or days in advance, said Ms Herranz. This is less often the case with emergencies of human cause, such as terrorist attacks. It is therefore important to prepare in advance for a variety of crisis. The different types of terrorist attack might include:

- Explosions. Victims experience physical damage including shrapnel wounds, thorax injuries and burns
- Potential nuclear attacks, involving radioactive contamination or explosion. Because radiology and nuclear medicine are common to hospitals, radiation disaster preparedness policies may need merely to be updated to address the threat of nuclear terrorism.

- Biological terrorism, involving the spreading of agents such as *Bacillus anthracis*. Before preparedness planning can be effective, the agents of biological terrorism and its method of dissemination must be understood.
- Chemical terrorism, involving agents such as cyanide and nerve agents

The plans to deal with biological terrorism differ in that the beginning and end of the crisis are more difficult to define, and the evidence of injury is less obvious. A more prolonged period of intense response is required. Health care workers also require protection.

"Proactive preparedness will allow for an optimal reaction when a disaster occurs and the number of patients threatens to overwhelm the hospital's capability", said Ms Herranz. She added, "Rapid and appropriate response to a terrorism event will reduce morbidity and mortality and decrease the economic impact on the community."

Disaster plans should outline the distribution of victims among different hospitals within the area. The capability of hospitals to take care of victims is thought to be between 3 and 4 patients for every 100 beds in the hospital every hour.

A pharmacy team for dealing with a disaster should consist of a manager (who knows how to implement the emergency plan), a clinical information pharmacist (to select appropriate drugs and provide clinical advice to medical and nursing staff) and a logistics co-ordinator (to ensure that stock is available), said Ms Herranz.

Slow progress in developing orphan drugs in Europe

Orphan drug status was not introduced in Europe until 2000, although it already existed in the US, Japan, Singapore and Australia, according to Veijo Saano, National Agency for Medicines, Finland. Orphan drugs are medicinal products intended for diagnosis, prevention or treatment of life-threatening

or serious disease or disorders that are rare. EU regulations were introduced because of the lack of sponsors for developing drugs for these diseases and to ensure that patients suffering from rare diseases have an equal access to effective treatment.

Pharmaceutical companies that have obtained orphan product status for their product are entitled to a number of benefits, which provide an incentive for the company to bring an otherwise unprofitable product to the market. The company is granted 10 year exclusivity for the product in the approved indication, it receives assistance

with protocols, direct access to the centralised applications licensing procedure and a reduction in fees. The exclusivity can be removed after six years if the product is more profitable than was anticipated. EU member states can also lodge a complaint about the price after five years and the company must then account for development costs.

Dr Saano said that the Committee for Orphan Medicinal Products has offered positive opinions on 278 products (see <http://pharmacos.eudra.org/F2/register/alforphreg.htm>). This has resulted in 20 marketing authorisations.

The 10th congress of the European Association of Hospital Pharmacists was held in Lisbon, Portugal on 16–18 March. It was attended by 1,400 delegates from 33 countries. Gareth Jones is editor, *Hospital Pharmacist*

Opportunities for pharmacists to offer new hospital services will continue to be available

Demand for hospital pharmacists will continue to increase, according to Mike Cross, director of pharmacy and medicines management, Barts and the London NHS Trust. He explained that this will happen because:

- The shortfall in outcomes of drug therapy creates the potential for new services
- Pro-active services create new demands
- Individual services become saturated
- Success of established services change perceptions and create further opportunities

Another opportunity lies in the amount of a trust budget that is spent on the time that nurses perform drug-related tasks. This is not their area of specialism or their focus, and yet Barts and the London spends over £50m annually from the total nursing budget in this area. Mr Cross suggested that some of this money could be allocated more efficiently to expanding pharmacy services. More medicines-related tasks could therefore be performed by medicines experts.

“Managing the reputation of your department or service is key to maximising

growth”, said Mr Cross. He also advised pharmacy managers to learn the skills of selling, adapt services to achieve benefits relevant to their trust and learn how to win a business case. Momentum can be maintained by seeing every problem as an opportunity, seeking out all possible sponsors and encouraging your staff to be entrepreneurial, he said.

Growth in pharmacy services at Barts and the Royal London NHS Trust over the last 35 years was initially achieved by re-deploying staff from the dispensary to the wards. The development of medicines information services helped establish pharmacists as experts in their field. The move in the 1990s to take decisions further down NHS organisations supported the development of directorate pharmacists, and future growth is likely to be provided by running clinics and becoming medicines managers.

Staffing levels at Guy’s and St Thomas’ NHS Foundation Trust have more than doubled in the past 12 years, according to chief pharmacist, Tony West, with the number of pharmacists now at 100.

The loss of Crown Immunity has meant that all manufacturing activity now has to be

licensed. More staff have therefore been required to develop and maintain the quality systems required to pass the regular inspections. The European Working Time Directive has restricted the average working week to 48 hours, which was a problem in relation to pharmacists providing an out of hours residency service.

Overall NHS spending on drugs continues to increase and additional staff have been employed to control these costs. Investing in procurement staff, formulary staff and specialist clinical staff in high-cost drug areas results in an increase in the head count, but a reduction in drug expenditure, he said.

Government initiatives such as the focus on waiting times and the need to reduce cases of methicillin resistant *Staphylococcus aureus* have provided opportunities for new roles for pharmacists. General hospital activity has also increased.

NHS workforce survey 2004

The increasing numbers of pharmacy staff employed by the NHS is covered in a news story on p125

NPfIT could lead the world in health service delivery

Health service delivery under the National Programme for IT (NPfIT) [now rebranded “Connecting for Health”] could see the UK being a world leader, according to Eve Slater, former assistant secretary for health, US Department of Health and Human Services. NPfIT could bridge the gap which is apparent in health services around the world between innovation and application.

Innovations mean that much more is now possible in health care. For example, the human genome project has resulted in new information being available to optimise therapies. In addition, there are now unprecedented levels of public and private sector funding for biomedical research, which has resulted in the availability of many life-saving drugs. Despite these examples of innovation, problems remain including:

- There is widespread inappropriate prescribing
- There is an epidemic of preventable medical errors (ie, 50,000–100,000 deaths from preventable medical errors in the US each year)
- Compliance with drug therapy remains generally poor

“I was [as assistant secretary of state] constantly reminded of the imbalance between our progress, on the one hand, and on the other, difficulties encountered in translating scientific advances to the patient,” she said.

Inappropriate drug use has caused elderly people to experience adverse reactions, resulting in over \$20bn in hospital costs in the US. There are also problems where clinically effective drugs are not being prescribed for patients who need them. For example, a survey in 2003 found that only 33 per cent of patients with coronary artery disease were being prescribed aspirin. These problems mean that despite all the developments, the full improvements in health care offered do not materialise.

Part of the reason for these problems are that we are slow to change and are all used to playing traditional roles, suggested Dr Slater. This can mean that hospitals do not have the resources to implement changes and practitioners lack the IT skills to deal with new systems. This can pose a barrier to communication with patients and prevent the pharmacist becoming fully integrated in care.

These problems could be solved by improving the information based infrastruc-

ture, suggested Dr Slater. Systems that could be implemented include:

- Electronic communication with patients
- Electronic prescribing
- Disease management programs
- Regional data sharing
- Electronic intensive care unit management programs

In addition, bar coding of drugs will, among other safety issues, enable the rapid linking of suspected adverse drug effects to prescriptions and offer better estimates of drug exposure, said Dr Slater. Implementation of bar coding is under way in the US.

Reviewing the problems in US health system, Dr Slater pointed out that less than one in five primary care physicians use electronic records. As a result, only 3 per cent of health service revenue is spent on IT, compared with 7–10 per cent for most industries. She pointed out that the UK is spending a “considerable amount of money on NPfIT”, but she thought that an electronic care record, electronic transmission of prescriptions and electronic booking would provide major benefits.