A Scottish prescription

Managing the use of medicines in hospitals

Key messages / Prepared for the Auditor General for Scotland

July 2005

Key messages

Background

1. The development of new medicines means that more patients can be treated for more conditions than in the past, often with better results. But the availability of these medicines means that managing medicines safely and effectively is more challenging, and costs are rising. NHS hospitals in Scotland spent £189 million on medicines in 2003/04, and this is estimated to increase to about £220 million in 2005/06.[1]

2. A complex range of factors contributes to the success of treatments with medicines (Exhibit 1), and the number of prescribers is increasing. Staff therefore need appropriate training, together with easy access to guidance and advice. Hospitals and NHS boards need to make sure there are systems in place to identify and learn from mistakes, and take steps to avoid them happening again.

3. The safe and effective use of medicines can only be achieved through the work of a wide range of professional staff and through staff engaging with patients. Key members of the team are the prescribers, those involved in safely providing the medication and those involved in administering the medicine, including the patient. Other key members of the team include planners and finance managers who, working with the professionals, can ensure that the appropriate resources are available to meet patient needs. In recent times, professional boundaries have become less defined, with the development of prescribing roles for nurses and pharmacists, the emergence of pharmacy technicians and the increasingly knowledgeable patient. The report concentrates on the role of the multidisciplinary team and details recommendations which are relevant to all disciplines.

The study

4. Our focus has been on reviewing the processes in place at local NHS board level to ensure safe and cost-effective prescribing in hospitals; the role of national bodies in supporting boards' planning through evaluating and costing new medicines and changes in the use of medicines, and the setting up of national systems to share learning from mistakes; and an examination of progress in developing hospital electronic prescribing and medicines administration systems which aim to provide better and quicker medicines information.

5. The review covered the 12 mainland NHS boards, two of which have more than one operating division. This gave a total of 15 NHS bodies. We visited acute hospitals in all mainland NHS boards and a small sample of mental health, care of the elderly and community hospitals.

6. In carrying out this study, we:

- interviewed staff at hospitals and NHS boards: this included managerial staff, senior medical staff, junior doctors, nurses and pharmacists
- collected and analysed information about pharmacy staffing
- reviewed relevant documents from the hospitals and NHS boards we visited
- interviewed staff from the Scottish Executive Health Department (SEHD) and other national bodies.

Key findings

1 Spending on medicines in hospitals is increasing as medicines become available to treat more patients. These increases in spending can be minimised by cost-effective prescribing.

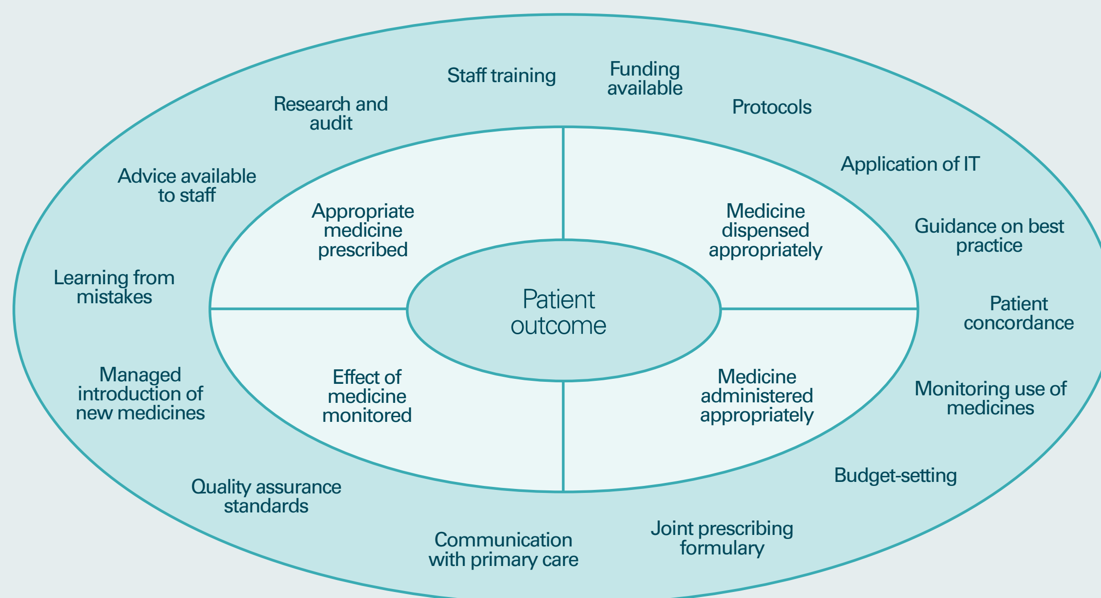
- The average spend on medicines per hospital patient is increasing faster than overall hospital spending, leading to cost pressures for NHS boards – hospitals spent 56% more on medicines in 2003/04 than in 1999/2000, while hospital running costs increased by 32% over the same time period. As spending on medicines has grown, the number of inpatients and daycase patients treated in hospitals has reduced slightly (Exhibit 2). The average spend on medicines per patient in an acute hospital has increased by 65% since 2001/02.
- Much of the increase is due to the availability of new medicines that can treat more patients, and the use of existing medicines for a wider range of conditions. Many of these new medicines are improving patient care. For example, across Scotland the number of people treated with chemotherapy increased by 20% between 1997 and 2001.[2] The establishment of the Scottish Medicines Consortium (SMC) in 2001 has led to a clearer process for dealing with new medicines.[3]

1 Official report, Col 986, Audit Committee, 25 January 2005. Also written evidence to Audit Committee from Dr Kevin Woods, Annex C. AU/S2/05/04/3, February 2005.
2 ISD Cancer Registry Data, extracted October 2004.
3 *A strengthened role for the Scottish Medicines Consortium (SMC)*, HDL(2003)60, SEHD, November 2003.

Exhibit 1

Factors that impact on patient outcome

A complex range of factors contribute to the success of treatment with medicines.



Source: Audit Scotland

Exhibit 2

Expenditure on medicines in hospitals compared to the number of patients

The average expenditure on medicines per patient is increasing.

Source: Information and Statistics Division (ISD), NHS National Services Scotland

- Hospitals have already made significant advances in controlling spending on medicines; national, zonal and local contracts are in place to purchase medicines for hospitals, and generic medicines are routinely supplied in hospitals through national contracts. But NHS boards could do even more to promote cost-effective prescribing to keep the increase in spending to a minimum.

- Planning and budget-setting is not keeping pace with changes in the availability and use of medicines, leading to overspends by some NHS boards. Planning is more developed in cancer services, through the work of the managed clinical networks (MCNs), regional cancer networks, regional planning and the Scottish Cancer Pharmacy Group.

- National bodies, such as SMC, NHS Quality Improvement Scotland (NHS QIS), which includes the Scottish Intercollegiate Guidelines Network (SIGN), and the Medicines Utilisation Unit (MUU), have a role in providing information to NHS boards to improve planning and monitoring. Evaluations of new medicines and recommended changes in the use of medicines should, wherever possible, include an analysis of the total budget impact, covering both the cost of the medicine and also the likely impact on other areas, such as lengths of stay in hospital and staff costs.

2 The increasing range of medicines available and the increasing number of people involved in prescribing means that prescribers need easy access to guidance ...

- There are many examples of good practice, but only six NHS bodies have a broad range of guidance on best practice that prescribers need, such as joint formularies, antibiotic prescribing strategies, and guidance on the use of unlicensed medicines and those used off-label. Where NHS bodies do have guidance, the lack of good, readily accessible monitoring information means that it can be difficult for them to know whether this is being applied in practice. Many do not have education and training programmes to raise awareness and promote use of the guidance.

- NHS boards and hospitals have put a lot of work into implementing systems to record and investigate any mistakes or near misses that occur (adverse incidents), but processes for learning from mistakes and sharing this learning with staff are less well developed. The NHS in Scotland would learn more from mistakes if reporting was coordinated at a national level. This would provide a larger database and a better understanding of the underlying reasons. NHS QIS is working with NHS boards to develop a national approach.

... and advice from clinical pharmacists who work with both patients and staff.

- Prescribers, particularly new prescribers, need advice and guidance on the appropriate, safe and cost-effective use of medicines. Pharmacists have this expert knowledge and are increasingly working with prescribers and patients, providing a clinical pharmacy service. The national pharmaceutical strategy recommends that all patients receive care from a clinical pharmacist. While all NHS boards have a clinical pharmacy service, this is only available in two-thirds of hospitals. Not all specialties in these hospitals have a service.

- National workforce planning for pharmacy staff is in the early stage of development. The SEHD is collecting baseline data during 2005 and intends to include projections of future needs in the national workforce plan for 2006. At the time of our fieldwork, almost half of NHS boards had vacancy rates of over 10% for pharmacists, and a third had vacancy rates of over 10% for pharmacy technicians.

- Undergraduate medical education in medicines and prescribing should be reviewed to ensure that it meets the needs of patients. NHS boards need to take steps to ensure that junior doctors are prescribing appropriately, by providing training, access to advice and support from clinical pharmacists, and easy access to guidance on medicines. This support is not always easily accessible in areas with no, or a very limited, clinical pharmacy service.

3 The SEHD and NHS boards need better information to manage and monitor the use of medicines.

- The lack of electronic data linking prescribed medicines to information about the patient makes it difficult for NHS boards to monitor cost-effectiveness and compliance with local and national guidance. IT can improve access to guidance on prescribing, reduce the risks of errors and improve reporting, monitoring and feedback on how medicines are used.

- A national hospital electronic prescribing and medicines administration (HEPMA) system would help to address many of the gaps in information about medicines used in hospitals. It takes a long time to put in place the proper infrastructure to support electronic prescribing and to develop, pilot, evaluate and refine a system. It also takes time to get staff on board, to ensure their commitment to this new way of working in order to make best use of new technology to improve patient care. Only one hospital in Scotland, Ayr Hospital, has developed and implemented a HEPMA system. This was implemented as a pilot in 1998 and is now the pilot for NHSScotland.

- The SEHD has indicated that a national framework will be developed and has asked NHS boards to stop any local developments, excluding Ayr Hospital.[4] But the SEHD has yet to develop a clear project plan and timescale to implement a national HEPMA system.

- In order to plan effectively, and ensure that patients get access to the best medicines to meet their clinical needs, NHS boards need an up-to-date understanding and awareness of medicines issues such as safety, efficacy and cost-effectiveness. Pharmacy managers have that overview but most are not represented on key decision making groups such as the senior management teams at NHS boards and operating divisions.

Looking to the future

- The national strategy for pharmaceutical care in Scotland, *The Right Medicine*, was published in 2002.[5] This covers hospital, primary care and community pharmacy services. Recommendations for the hospital service focus on having pharmacists working with patients in the wards and clinics, and ensuring that medicines are used safely. The strategy stresses the importance of changing the ways that medicines are supplied in hospital, ensuring that all patients receive care from a clinical pharmacist and extending clinical pharmacy roles. All NHS boards have plans to implement the strategy. Some have made significant progress, but it is unlikely that all NHS boards will achieve the target dates specified in the strategy.

- NHS boards will need to take account of the national strategy in continuing to develop pharmacy services. But they also need to take account of wider management issues associated with effective prescribing. The recommendations summarised overleaf, and listed in full in the main report, are aimed at helping them in this process.

4 *Hospital Electronic Prescribing and Medication Administration*, Dear Colleague letter, SEHD, 13 May 2004.
5 *The Right Medicine – A strategy for pharmaceutical care in Scotland,* SEHD, 2002.

Key recommendations

The SEHD should:

- improve workforce planning for pharmacists and pharmacy technicians
- work with universities to review education in medicines and prescribing for medical students to ensure that it meets the needs of patients
- develop a clear project plan with key milestones and timescales for procuring, developing and implementing a national HEPMA system.

NHS QIS should:

- ensure that SIGN guidelines, NHS QIS Health Technology Assessments (HTAs) and their comments on National Institute of Health and Clinical Excellence (NICE) technology appraisals that relate to medicines consider cost-effectiveness and include an assessment of the budget impact for NHSScotland
- develop a national approach to collecting data on adverse incidents, including medication incidents, to allow robust trend analysis, transferable lessons and benchmarking.

The SMC should:

- continue to develop its work on estimating the anticipated budget impact of new medicines so that NHS boards are provided with information on all anticipated costs and cost savings. NHS boards need this information to estimate the local financial impact of new medicines.

NHS boards should:

- develop joint formularies and treatment protocols that promote cost-effective prescribing and monitor their use
- ensure that horizon scanning information and monitoring information on the use of medicines is used to inform budgets for medicines
- ensure that pharmacy is represented at the senior levels of decision-making in the NHS boards and operating divisions.

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