Expenditure on medicines is rising and continues to put pressure on budgets. Managing medicines expenditure across the whole health economy is the key to controlling costs.

Most trusts are making some progress in introducing practices which place the patient at the centre of their medicines management arrangements. Patients’ own medicines should be used wherever possible, their medication should be dispensed once only in original packs, and patients should be encouraged to self-administer while in hospital. However, the full benefits will only be achieved as part of an integrated approach with primary care.

Effective pharmacy services concentrate on deploying staff in clinical activities, rather than in the traditional areas of dispensing and procurement. Further automation of processes would help release staff into this key patient-centred role.

However, some hospital pharmacies have serious workload pressures and recruitment and retention problems which jeopardise progress.
The Audit Commission promotes the best use of public money by ensuring the proper stewardship of public finances and by helping those responsible for public services to achieve economy, efficiency and effectiveness.

The Commission was established in 1983 to appoint and regulate the external auditors of local authorities in England and Wales. In 1990 its role was extended to include the NHS. In April 2000, the Commission was given additional responsibility for carrying out best value inspections of certain local government services and functions. Today its remit covers more than 13,000 bodies which between them spend nearly £100 billion of public money annually. The Commission operates independently and derives most of its income from the fees charged to audited bodies.

Auditors are appointed from District Audit and private accountancy firms to monitor public expenditure. Auditors were first appointed in the 1840s to inspect the accounts of authorities administering the Poor Law. Audits ensured that safeguards were in place against fraud and corruption and that local rates were being used for the purposes intended. These founding principles remain as relevant today as they were 150 years ago.

Public funds need to be used wisely as well as in accordance with the law, so today’s auditors have to assess expenditure not just for probity and regularity, but also for value for money. The Commission’s value-for-money studies examine public services objectively, often from the users’ perspective. Its findings and recommendations are communicated through a wide range of publications and events.

For more information on the work of the Commission, please contact:
Sir Andrew Foster, Controller, The Audit Commission,
1 Vincent Square, London SW1P 2PN, Tel: 020 7828 1212
Website: www.audit-commission.gov.uk
Introduction and background

1. Medicines management is central to the quality of healthcare. Nearly all patients are given medication as a result of a visit to hospital – 7,000 individual doses are administered daily in a ‘typical’ hospital. In 2000/01, NHS acute hospitals spent £1.2 billion on medicines, which accounted for 4.6 per cent of total costs. In addition, hospital pharmacy staff cost £255 million. And expenditure on medicines continues to increase; between 1998/99 and 2000/01 the cost of medicines in acute hospitals rose by £260 million, an increase of 28 per cent.

2. The hospital pharmacy service underpins effective medicines management. A pharmacy department will be involved in not merely the procurement, dispensing and supply of medicines to patients but increasingly in optimising the use of medicines in delivering patient care. Moreover, pharmacy activities are not confined to hospitals; services are often provided to other NHS trusts and organisations within the local health economy. As the range of developmental clinical services provided becomes increasingly varied, so pharmacy becomes a core clinical service in any hospital’s delivery of healthcare, a prime function being to make the use of medicines safer [EXHIBIT 1].

EXHIBIT 1
Services provided by a hospital pharmacy service

Pharmacies provide a wide range of services.

[Diagram showing services provided by a hospital pharmacy service]

Source: Audit Commission
...pharmacy (is) a core clinical service in any hospital’s delivery of healthcare.

3. Over the past year, the Audit Commission has been working on a number of initiatives to raise further the profile of medicines management. In December 2001, it published *A Spoonful of Sugar* (Ref. 1), a national report on medicines management in NHS hospitals aimed at policy makers and trust boards.

4. This review is aimed primarily at chief pharmacists and presents the main findings from the national investigation of hospital pharmacy services carried out in 2001 as part of the Acute Hospital Portfolio (see back cover). Comparative data were collected from 197 out of 199 NHS acute trusts in England and Wales and have been used by local auditors to produce tailored performance assessments for each trust and recommend any necessary further audit work\(^1\). This review reports the national findings from this data collection exercise, and takes into account any amendments that have resulted from discussions between local auditors and individual trusts (EXHIBIT 2). The data and accompanying computer software will be made available to NHS trusts later this year.

5. The review amplifies some of the key messages in *A Spoonful of Sugar* (Ref. 1) as well as identifying specific initiatives to help to achieve change within trusts. The Audit Commission’s work also complements the Department of Health’s Medicines Performance Management Framework self-assessment process for trusts in England that was also carried out in 2001.

6. The Audit Commission has also produced a briefing on the benefits of self-administration of medicines by hospital inpatients, including examples of working pro forma from hospitals visited as part of the study. This is available on the Audit Commission website (http://www.audit-commission.gov.uk/itc/medman.shtml).

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Within some trusts with more than one main hospital, data collection forms were completed for each hospital site. Based on sites, returns were received from 215 out of 217 hospital sites.

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EXHIBIT 2

Reports by the Audit Commission and local auditors on medicines management

The national review is one of a suite of products dealing with medicines management.

<table>
<thead>
<tr>
<th>MAIN AUDIENCE</th>
<th>MAIN AIMS</th>
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<tbody>
<tr>
<td>Trust boards</td>
<td>Investigate value for money of medicines</td>
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<tr>
<td>and policymakers</td>
<td>management</td>
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<tr>
<td>Trust boards</td>
<td>Use local and national reviews to help to</td>
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<td>and chief</td>
<td>achieve change within individual trusts</td>
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<tr>
<td>pharmacists</td>
<td></td>
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<tr>
<td>Chief pharmacists</td>
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Source: Audit Commission
7. A key recommendation of *A Spoonful of Sugar* was that board level involvement in medicines management should form an integral part of their clinical governance duties (Ref. 1). The key indicators of performance in medicines management as described in this review provide a powerful means of assessing how medicines management supports the delivery of healthcare within the trust [EXHIBIT 3].

**EXHIBIT 3**

**Quality standards and targets for medicines management**

These indicators provide a good basis for measuring effective medicines management.

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Source: Audit Commission

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See p15 of Ref. 1.
8. The main sections of this review consider four areas of pharmacy service performance central to the delivery of an effective medicines management service within hospitals:

- **Staff numbers and workload:**
  - is staffing adequate for the services that should be provided?

- **Effective use of pharmacy staff:**
  - is the use of pharmacy staff cost effective and, in particular, do pharmacist and technician staff devote enough time to direct patient care?

- **Financial control:**
  - is there effective control over medicines expenditure?

- **Implementation of practice to support medicines management:**
  - has the service introduced processes in line with accepted good practice?

## Findings

### Staffing

9. Measuring the productivity of pharmacy departments is difficult because of the wide range of services provided. Pharmacy departments supply and dispense medication and also provide a patient-centred clinical care and risk management service. Assessment of performance based only on outputs can produce perverse incentives; for example, measures of the amount of medicines dispensed per patient or whole time equivalent (WTE) pharmacist might encourage increased output but at the risk of increasing costs and clinically ineffective prescribing. However, a good basis for assessing overall performance is whether there are sufficient staff with the right skills to provide the range of services underpinning effective medicines management, and that they are deployed effectively to make best use of these skills.

### Staff numbers and workload

10. Effective medicines management requires an adequate number of staff with the right skills in the pharmacy service. However, there is wide and unexplained variation between similar-sized trusts in the standardised number and type of staff in their funded establishment [EXHIBIT 4].

11. In some hospitals, staffing levels are based more on history and budgetary constraints than on an assessment of the complement and skill mix required to provide a comprehensive and effective medicines management service. This contributes to the wide and unexplained variation in the workload of pharmacy staff in similar sized hospitals [EXHIBIT 5].
EXHIBIT 4

Number of WTE pharmacists and technicians (MTOs) working on all trust-specific services

There is wide and unexplained variation in the number of pharmacists and technicians working on trust-specific services in similar types of trusts.

Note: WTE figures are based on staff in post, adjusted for locums and vacancies, working on services provided for the trust only as identified from the analysis of staff activity survey. Trust-specific services exclude services to other trusts and organisations and all licensed manufacturing and medicines production.

Source: Audit Commission

EXHIBIT 5

Workload expressed as Finished Consultant Episodes (FCE) per WTE pharmacist and MTO working on trust-specific services

There is wide and unexplained variation in the workload of pharmacy staff in similar sized hospitals.

Note: Trust-specific services exclude services to other trusts and organisations and all licensed manufacturing and medicines production.

Source: Audit Commission

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The category of trust is an agreed analysis by the Department of Health and Audit Commission, based on revenue and size of non-acute services.
Trusts with high or low workloads need to investigate the reasons for this. High workloads could be due to an inadequate funded establishment for the pharmacy service. Conversely, services with relatively low workloads should be able to demonstrate that their staffing complement enables the delivery of effective medicines management.

Additional pressures are placed on those services with high vacancy levels. Although these vary within regions and are more marked in specific trusts, overall vacancy levels are highest in London and the South and East of England where, on average, one in nine funded establishment posts is vacant [EXHIBIT 6]. Vacancies are not limited to one specific staff group; at 31 March 2001 national average vacancies as a percentage of funded establishment were 10.6 per cent for pharmacists, and among technicians 8 per cent for MTOs and 6 per cent for ATOs.

Vacancies are due to a number of factors, including trust location and local demography. However, high vacancy rates may also be due to the type of work and working environment within individual trusts. Staff shortages place added pressure on services in achieving an appropriate skill mix, limiting their capacity to deliver the full range of required services. There are also specific concerns for hospitals with high workloads and low vacancy rates; in such cases there may be an insufficient funded establishment to provide a full range of pharmacy services.

Although there are currently no national standards on the number of pharmacists and other staff required to deliver and support clinically effective medicines management, there must be concerns about the ability...

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EXHIBIT 6

Average vacancy rates in pharmacy services by NHS Region as a percentage of funded establishment

Vacancies are highest in London and the South and East and lowest in Wales.

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I Evidence within specific regions indicates that these vacancy rates have subsequently increased: in the London Region in March 2002, nearly one in seven establishment posts were vacant.

II MTO refers to Medical Technical Officers and ATO to Assistant Technical Officers. MTOs are the more senior technician grade.
of those trusts with high workloads per pharmacist and technician to maintain the range and quality of services. The results of individual performance reviews for trusts indicate this is a concern for an increasing number of services. Recent national hospital pharmacy vacancy surveys show that in any one year 50 to 60 per cent of hospitals have had to reduce the pharmacy services provided because of staff shortages (Ref. 2).

Effective use of pharmacy staff

16. Using pharmacy staff effectively is particularly important given the national shortages of pharmacists and technicians and the increasing range of services provided by pharmacy departments. However, ensuring that the right staff are in the right place to carry out the right activities remains a difficulty for many trusts.

17. The increase in demand for clinical pharmacy means that the role of pharmacists has moved from one focused on traditional activities supporting the distribution of medicines within the hospital to developmental clinical activities, ensuring medicines are used safely and effectively in delivering patient care. Effective use of pharmacist time varies within each type of trust, those trusts where pharmacists spend most time on developmental activities have re-engineered their processes to enable more effective use of their time [EXHIBIT 7]. Some trusts have made this transition; in others it remains a distant goal, particularly for those providing pharmacy services from a number of hospital sites.

EXHIBIT 7
Pharmacist time spent on developmental compared to traditional activities

Effective use of pharmacist time varies within each type of trust; those trusts where pharmacists spend most time on developmental activities have re-engineered their processes to enable more effective use of their time.

Note: Specialist trusts are those identified as such by the Department of Health as well as specialist orthopaedic and childrens hospitals.

The analysis shows the ratio of time spent on specific activities – so a value of two means pharmacists in that trust spend twice as much time on developmental compared to traditional activities.

Source: Audit Commission

<table>
<thead>
<tr>
<th>Time on developmental : traditional activities</th>
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<tr>
<td>Non-teaching trusts</td>
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Trusts

Traditional activities refer to procurement, stores, supply and dispensing of medicines and aseptic production within the trust. Developmental activities refer to medicines information, clinical pharmacy and training and education for pharmacy staff.
In some hospitals pharmacists spend twice as much time on clinical work than pharmacists in other hospitals.

18. There are two interlinking factors in ensuring that pharmacists maximise their time in developmental, as opposed to traditional, activities: maximising time spent on clinical activities is achieved through minimising the time spent on dispensing and supply. However, the time that pharmacists spend on clinical activities varies significantly between hospitals. The size of trust and the number of pharmacists have an impact but cannot explain why, in some hospitals, pharmacists spend twice as much of their time on clinical work – clinical pharmacy and medicines information – than pharmacists in other hospitals [EXHIBIT 8].

19. A key factor in those trusts where clinical work forms the majority of pharmacists’ time has been the successful re-engineering of systems to minimise their involvement in supply and dispensing. In trusts that have successfully achieved this more pharmacist time is freed up to be present at and influence prescribing decisions on wards or in clinics. Such involvement by pharmacists also results in greater accuracy of subsequent prescription requests and less time consequently spent in the dispensary querying and resolving errors. Re-engineering in this manner also enables pharmacy services to control, and so better manage, the supply of medicines within the dispensary. However, in many trusts, regardless of size, pharmacists spend over one-quarter of their time on supply and dispensing, thus tying up a valuable and scarce resource when there is scope for reducing this [EXHIBIT 9].
EXHIBIT 9

Pharmacist time spent on dispensing and supply

In many services, pharmacists spend over one-quarter of their time in dispensing and supply.

Note: Pharmacy departments by size are classified as: very small – less than 15 WTE staff; small – >15 ≤40 WTE staff; medium – >40 ≤60 WTE staff; large >60 ≤100 WTE staff; very large >100 WTE staff.

Source: Audit Commission

20. More effective deployment of scarce staff resources would be achieved through the introduction of automation of dispensing as part of a wider use of technology that includes electronic prescribing. This would require significant investment: implementing automated dispensing in England and Wales would cost around £60 million\(^1\). But the cost of this investment needs to be set against the current staff costs of dispensing and supply: £30 million spent on pharmacists and £46 million on technicians in 2000/01.

21. The cost of investing in technology must also be considered in the light of the national shortage of pharmacy staff, which is unlikely to be solved in the short to medium term. Re-engineering the deployment of pharmacist time in line with good practice sites that have successfully re-engineered their processes would save 75 per cent of pharmacist time currently spent on dispensing and supply. This would release around 635 WTE pharmacists to provide clinical services, greater than the total vacancies for pharmacists identified by trusts at 31 March 2001\(^\text{II}\).

\(^1\) Based on an average cost of implementation of £300,000 at 200 hospital sites.

\(^\text{II}\) There were 419 WTE vacancies among pharmacists at 31 March 2001.
22. The benefits of automated dispensing also include more effective use of technicians (MTOs and ATOs). A recent post-implementation review of an automated dispensing system at a large trust (Ref. 3) identified a 31 per cent reduction in hours spent by technicians in the dispensary. If implemented throughout England and Wales, a reduction of 25 per cent in technician time on dispensing and supply would release around 450 WTE MTO and 220 WTE ATO staff for ward-based pharmacy work, again greater than the total technician vacancies at 31 March 2001.¹ The combined annual cost of the extra pharmacists and technicians who would be available for ward-based services would be equivalent to the implementation of automated dispensing systems in one-half of all NHS acute trusts.²

23. A key recommendation in A Spoonful of Sugar (Ref. 1) was that the Department of Health and Welsh Assembly Government should commission a specification for automated dispensary systems and consideration of using earmarked funds to introduce these systems in all trusts. Based on the figures from the national data collection there is a compelling argument for implementing automated dispensing. As well as having a payback period on initial investment of only two years, it would also release scarce staff resources to help optimise medicines use, reducing risk to patients of incorrect or ineffective use of medicines and the cost of subsequent litigation to the NHS. Automated dispensing also reduces risk in the dispensing process; in the same post-implementation review, the error rate for items dispensing dropped by 50 per cent in the first four months following introduction of the robotic dispensing system (Ref. 3). And automation of the dispensing process would help in recruitment and retention of pharmacy staff by allowing them to spend more time on services that add value to patient care.

24. Automation would also bring benefits to other staff groups within hospitals. Greater involvement of pharmacists in ward-based medicines management would release some of the time doctors currently spend on this work. Greater involvement of technicians in ward-based work would also benefit nurses by offering more ward medicine support services, given that up to 40 per cent of ward nursing time is spent in administering medicines.

25. Better use of staff time would improve the ability of pharmacy services to manage demand and allow pharmacy staff to spend more time with patients. This would help in identifying patients’ existing medication regimes and in educating and counselling them about the best use of their medicines, both during their stay in hospital and when they leave hospital. Some patients already have good access to pharmacy staff, particularly in teaching hospitals and those providing specialist services as well as those with well-staffed departments. However, in many hospitals the available time per patient is less than ten minutes [EXHIBIT 10].

¹ There were 314 MTO and 125 ATO WTE vacancies at 31 March 2001.
² Based on a scenario of an average cost of implementation of £300,000. Assuming an average cost of £400,000 this would be equivalent to implementation in 85 trusts.
Pharmacists in teaching and specialist trusts spend more time with patients than in non-teaching trusts.

Note: Specialist trusts are those identified as such by the Department of Health as well as specialist orthopaedic and children’s hospitals. Average times for each of the groups were just under ten minutes for non-teaching trusts, 13 minutes for teaching trusts and 12 minutes for specialist trusts.

Source: Audit Commission

26. The ability to deploy staff effectively will depend in part on the number of staff and their respective skills. The size of department is not directly linked to how effectively staff are deployed; larger departments do not necessarily perform more effectively. However, many chief pharmacists reported that smaller pharmacy departments often only delivered an effective service because of staff working significantly longer than their contracted hours and under constant pressure. This cannot be a viable long-term alternative to adequate staffing levels.

Financial control

Procurement

27. Comparing the effectiveness of pharmacy services with other hospital departments is difficult, but one area where it can be done is procurement. Analysis of procurement practice as part of the Acute Hospital Portfolio national review of Procurement and Supply (Ref. 5) shows many pharmacy departments perform well in the planning and control of procurement and the uptake of technology to improve links with suppliers and so drive down process costs. Medicines and therapeutics committees have also fulfilled the role of product selection groups in ensuring that clinical knowledge is well-represented in purchasing decisions for medicines. Pharmacy departments also perform significantly better in these areas than pathology, catering, estates and facilities and indeed supplies departments in their trusts. As part of the need for greater integration of procurement within trusts, many pharmacy departments offer examples of good practice and demonstrate the importance of ensuring professional involvement and expertise in purchasing decisions.

I Based on the time spent on direct patient contact per Finished Consultant Episode by clinical pharmacists working a 39-hour week for 45 weeks a year (five weeks annual and holiday leave, one week study leave and one week sick leave).
Expenditure on medicines continues to outstrip budgets.

Expenditure on medicines

28. Most trusts have experienced significant increases in expenditure on medicines in recent years. For most, this increase has not been matched by a proportionate rise in budgets [EXHIBIT 11]. Where actual medicines expenditure consistently outstrips budgets, financial control becomes increasingly difficult. This is a particular concern at many of the trusts with the highest average overspends where the level of overspend has been increasing year-on-year.

EXHIBIT 11
Average annual overspend by trusts on their medicines budgets over the period 1998/99 – 2000/01

Expenditure on medicines continues to outstrip budgets.

Source: Audit Commission

29. The impact for hospitals could be significant; if medicines expenditure and resulting overspends continue to increase at current rates, by 2004 there would be a £126 million mismatch between budgeted and actual expenditure, equivalent to an annual overspend of over £800,000 at a large acute trust.

30. Analysis by British National Formulary (BNF) chapter headings may indicate, among other factors, significant increases in expenditure on anti-psychotic medicines in psychiatric treatments, greater use and changes in prescribing of the more powerful antibiotics and antimicrobials and cancer medicines, and greater use of medicines instead of invasive procedures in the treatment of cardiovascular diseases. Large increases in expenditure on these medicines have occurred in the majority of trusts and have not been confined to teaching hospitals and specialist trusts. For a large acute hospital with annual expenditure on medicines of £5.5 million, spending on these four categories of medicine alone has increased by nearly £700,000 between 1998/99 and 2000/01 [EXHIBIT 12].
EXHIBIT 12
Increase in medicines expenditure by selected British National Formulary chapters over the period 1998/99–2000/01

There have been large increases in expenditure on medicines of the cardiovascular system, for the treatment of infections, medicines of the central nervous system and medicines for the treatment of malignant disease and immunosuppression.

31. Effective financial control is in part achieved by pharmacists influencing clinicians at the point when prescribing decisions are made. As A Spoonful of Sugar (Ref. 1) demonstrated, the introduction of a greater ward-based pharmacy service results in more cost-effective use of medicines, which will more than cover increased staff costs (Ref. 5).

32. Improvements are also needed in the budget-setting process, both within trusts and within local health economies. Increases in medicines expenditure in the period 1998/99–2000/01 reflect:
- the greater use of specific medicines resulting from guidance from the
National Institute for Clinical Excellence (NICE); and
• supporting delivery of the National Service Frameworks, particularly
  for cancer, coronary heart disease and mental health services.

However, the full impact of these initiatives and the increased cost
pressures on medicines expenditure will occur in future years.

33. The need for trusts to set realistic budgets for medicines expenditure
based on identification of these and other cost pressures as part of the
annual Service and Financial Framework (SaFF) round will become even
more important in future. Involvement of the pharmacy service is
essential in horizon-scanning for future medicines cost pressures, and that
these pressures are translated into budget-setting and subsequent
budgetary control. Improvements in budget-setting will also need to
extend beyond the acute sector to cover local health economies: primary
care trusts and strategic health authorities will also have important roles
in the financial planning and control of medicines expenditure.

Implementation of practice to support medicines management

34. A Spoonful of Sugar (Ref. 1) identified a number of strategic challenges
for trusts in forming effective joint working relationships with primary
care. In particular, three key inter-related areas for joint-working
arrangements were highlighted:
• reuse of patients’ own medicines and self-administration schemes; and
• original pack dispensing.

Reuse of patients’ own medicines and self-administration schemes

35. Trusts usually ask patients to take all their medicines into hospital so
that an accurate medication record can be made. Patients’ medicines
should be checked on admission to assess the suitability of these
medicines for use whilst the patient is in hospital. This reduces waste,
improves the quality of care by reducing the risk associated with multiple
issues of the same medicine, and saves money. Self-administration of
medicines by patients during their stay in hospital allows patients greater
independence and enables them to participate more in their own care and
make decisions on their treatment in partnership with clinical staff. It
simplifies medication regimes and allows patients to practise taking
medication under supervision – a useful preparation given that nearly all
patients will continue to take medication after leaving hospital.

I The Audit Commission has produced a briefing on the benefits of self-administration of
medicines by hospital inpatients. There are also examples of working pro forma from
hospitals visited as part of the study. These are available on the Audit Commission website
36. There has been encouraging progress in securing the implementation of these processes and thus managing the effective use of medicines across local health economies [EXHIBIT 13]. The majority of trusts have procedures to reuse wherever possible all or selected medicines; and the majority of trusts have schemes in place for self-administration for some groups of patients.

37. There is also positive involvement of primary care representatives in medicines management within acute trusts. The majority of trusts reported good working relationships with primary care in their local health economy; in 79 per cent of trusts primary care representatives influenced and were fully involved in all or most decisions made on the use of medicines. And 94 per cent of trusts took into account the financial impact on primary care expenditure when considering the introduction of a new medicine or a change in the use of an existing medicine.

38. However, while these results show that many trusts have well-developed structures within their local health economy to inform decision-making on the use of medicines, progress with issues of allocating expenditure and subsequent transfer of funds between primary and acute care is more problematic. Consequently, many local health economies are not realising the benefits of reduced process and ordering costs, improvements in quality and risk reduction resulting from maximising use of original pack medicines.

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**EXHIBIT 13**

**Uptake by hospitals of initiatives for the reuse of patients’ own medicines and self-administration of medicines by patients**

Most trusts are making progress in both of these initiatives.

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*Source: Audit Commission*
Original pack dispensing

39. *A Spoonful of Sugar* (Ref. 1) recommended the immediate introduction of original pack dispensing in appropriate areas. However, relatively few trusts have maximised use of medicines in original packs [EXHIBIT 14]. Nearly 40 per cent of trusts break down medicines from larger packs for routine dispensing, a process that is both time-consuming and involves greater risk of errors, with increased risk for patients.

40. Only a minority of trusts have been able to implement dispensing for discharge schemes – issuing original packs on admission or during the patient’s stay in hospital. To do this, agreement is needed within the local health economy to switch funds between primary and acute care in order to reap the financial benefit from lower medicines prices in hospitals. In effect, primary care must fund an increase in hospitals in the length of prescription of medicines (typically in using original packs by an extra 25 to 50 per cent or seven to fourteen days), set against the lower price for these medicines in acute care. Within many local health economies this is not being achieved and it is uncertain how long the financial benefit of differential pricing of medicines between primary and acute sectors will remain. With pressure increasing on medicines budgets, over one-half of hospitals and their local primary care organisations in England and Wales have not yet collectively grasped the financial opportunities, quite apart from the risk management benefits, from moving to use of original packs.

EXHIBIT 14

Uptake of the degree of use of available original pack medicines by hospitals

Relatively few trusts have maximised the use of medicines available in original packs.

*Source: Audit Commission*
41. Taking advantage of the cost benefits from original pack dispensing must happen in tandem with schemes for reuse of patients’ own medicines and patient self-administration of medicines if trusts are to reap the full benefits from this interlocking set of initiatives. Individual lockable bedside cupboards for storing medicines are a key element underpinning these initiatives. However, as of March 2001, only 44 per cent of trusts had implemented dispensing for discharge schemes for at least one-quarter of patients – schemes that rely on the use of individual patient cupboards. Without these, trusts will not reap the benefits from better medicines management and better healthcare for patients. Indeed, the modest capital investment required to provide lockers – at about £30 each – compared with the financial savings of over £130 per bed resulting from securing savings in medicines costs in the local health economy suggests a lack of accounting imagination in priority setting in some trusts.

Good practice: an integrated approach to effective medicines management

42. It is significant that those trusts identified as good practice sites in A Spoonful of Sugar (Ref. 1) are subsequently shown to perform consistently better in all the core performance measures reported in this review, both overall and against similar types of trust [EXHIBIT 15, overleaf]. Trusts with adequate staffing levels are better able to allocate staff effectively so enabling implementation of accepted practice. Senior management in these trusts regard the pharmacy service as central to effective medicines management and the clinical governance and risk management agendas. This greater influence enables a more robust involvement in realistic annual medicines budget-setting and pharmacy service staffing; consequently there is better control over medicines expenditure. These services are also better placed to gain investment to support the introduction of new services and consultant posts, reflecting the impact of the increased complexity and cost of such changes.

1 A Spoonful of Sugar cites a saving of £200,000 a year in a local health economy served by a 1,500-bed trust (Ref. 1, p35). This would result in an average annual saving per bed of £133.
Linkage of performance at good practice sites to performance indicators

Staff at good practice trusts work more effectively by embracing accepted practice and by spending more time on clinical pharmacy. These services are better-resourced with fewer beds per pharmacist and have lower overspends on medicines.

Note: Comparative groups and good practice sites are medium acute trusts (Kettering General Hospital), large acute trusts (Wirral Hospital and North Staffordshire Hospitals) and teaching trusts outside London (Salford Hospitals) respectively. Compliance with uptake of specific activities is based on the trust’s response to use of patients’ own medicines, self-administration, existence of a joint formulary, use of original packs and means of dispensing medicines.

Source: Audit Commission
43. A key factor of good practice sites is the recognition that these performance areas complement each other and that progress is best achieved where there is an integrated approach; introducing good practice linked to adequate financing and staff levels and effective staff deployment. But more resources alone are not sufficient; good practice sites also have a culture of strong leadership within the pharmacy service with the ability to demonstrate a compelling case for change behind medicines management initiatives. This translates into recognition among senior clinical staff and executive management of pharmacy, underpinning medicines management, as a core trust service.

Conclusions

44. Many trusts are working towards implementing good pharmacy practice but in others progress is impeded by lack of resources and the inability to present a compelling business case to support initiatives discussed in this review. A lack of modest investment within hospitals – for example in patients’ own lockers to enable implementation of initiatives to maximise reuse of patients’ own medicines, original pack dispensing and patient self-administration – can mean that the benefits of these initiatives are not fully realised. A lack of agreement with primary care on how to make best use of funding for medicines across local health economies also remains a key obstacle to change.

45. Progress is also impeded by staff shortages. Pharmacy departments need adequate levels of all types of staff to meet the increasing demand and range of services they are expected to provide. However, this will be difficult given the high vacancy levels in some departments. There is also evidence in some departments of ineffective deployment of staff. This leads to less time being spent on clinical activities or in direct patient care. Greater use of automation in dispensing medicines would release more pharmacists for clinical activities and enable technicians to provide more ward medicine support services.

46. There are currently significant financial pressures on pharmacy services. Expenditure on medicines within trusts is rising and continues to outstrip budgets. Realistic budget-setting within local health economies is needed if medicines expenditure is to be contained; the financial impact of NICE recommendations and use of medicines to support delivery of National Service Frameworks must be adequately reflected in future budget-setting in addition to the underlying increase in medicines expenditure.

47. The importance of using pharmacists to influence and improve cost-effective prescribing cannot be underestimated; staff costs are offset by more cost-effective use of medicines. Although reluctance or difficulties in releasing staff at some trusts to do this requires a shift of resources from non-pay to pay budgets, there is strong evidence that such a decision would be firmly grounded.
48. Effective medicines management is central to the delivery of good quality healthcare, and an effective pharmacy service underpins this. It is also central to risk management and delivery of clinical governance requirements within hospitals. Information collected as part of this review provides a basis for assessing performance; senior hospital managers must now use this information to improve the organisation of services, and hence the treatment to patients. This process should build on auditors’ individual tailored performance reports to develop a clear and regular reporting framework to executive management within the trust’s clinical, financial and risk management agendas. For trusts in England, it can be combined with the results of the Department of Health’s Medicines Performance Management Framework self-assessment returns to develop a way forward in securing improvement. Many trust pharmacy services are striving to provide good practice in a number of areas of medicines management and the Department of Health’s Collaborative Programme will also help to share and spread best practice in hospital pharmacy.

49. Monitoring individual trust performance is vital, but is assisted by comparison in a wider context. Collection of national performance management information in future years will provide a powerful means of measuring performance and progress in delivering effective medicines management, and in developing national standards for good practice in pharmacy services. This should in turn lead to establishing appropriate levels of staffing and other resources. The pharmacy profession should consider whether it could facilitate the use of performance information to help develop national standards for pharmacy services through its professional body, the Royal Pharmaceutical Society, or through the Guild of Healthcare Pharmacists.

50. However, medicines management is an organisation-wide issue and needs to be at the centre of the delivery of healthcare in hospitals. Although the Audit Commission has collected data as part of the Acute Hospital Portfolio, this currently does not form part of an annual process of monitoring performance. As part of the vision of hospital pharmacy set out in *Pharmacy in the Future* (Ref. 6) the Department of Health should look to include medicines management as an integral part of the ongoing performance management role of strategic health authorities. Medicines management should also be reflected in clinical governance reviews undertaken by the Commission for Health Improvement (CHI).
References


The Acute Hospital Portfolio is a collection of audits that are available for auditors to undertake at acute trusts, according to local priorities. They focus on key service areas or resources within the trust that are of concern to trust managers and patients. Each year the Audit Commission selects up to four topics from the Portfolio to survey across all trusts. Three main stages to the survey work are carried out in sequence on an annual cycle:

Data collection
April-July
- Emphasis on data quality
- Support from auditors

Diagnostic audit
from November
- Independent tailored review by auditors
- Takes account of local context
- Information for decision making

In-depth audit
from February
- Targeted on problem areas
- Action plan for change

The data collection and diagnostic work is the core of the survey, and each trust receives from its auditor a tailored assessment of its performance based on the data collected. In-depth audit work is then carried out at only a minority of trusts – those that demonstrably need it. This survey is repeated for each topic within four years, so that progress can be monitored both at individual trusts and nationally. A maximum of 16 topics is currently envisaged to allow coverage of all the key issues and service areas.

This review reports the results from the survey of Medicines Management. It is one of four topics in the second phase of the Portfolio. Similar reviews will also be produced for each of the other three topics this year – Medical Staffing, Procurement and Supply, Radiology – and next year – Outpatients, Bed Management, Operating Theatres, and Waits for Admission. Previous review reports have been published from the first phase of work covering Accident and Emergency, Catering, Day Surgery and Ward Staffing.

More details are available on the Acute Hospital Portfolio website (http://www.audit-commission.gov.uk/itc/acuteportfolio.shtml). The data for the first phase of four topics and the accompanying computer software are also available to NHS trusts for comparative purposes. See the website for details.