

# data remember

## improving the quality of patient-based information in the NHS

### Patient-based information is vital to the NHS...

- for planning and performance management
- to keep patients informed
- for clinical governance

### ...and will become even more important in the future.

- to meet the needs of changing clinical practice
- for the appraisal and revalidation of hospital doctors
- to create electronic patient records

### Steps have been taken to improve the quality of information...

- trusts receive feedback on the validity and completeness of their data sets
- Hospital Episode Statistics are produced sooner and more frequently

### ...and many trusts are paying attention to quality issues.

- 75 per cent make use of external feedback

- 62 per cent make use of comparative information
- 44 per cent have made a start on data accreditation

### But further improvement is urgently required...

- most trusts could improve their basic processes
- responsibilities within trusts are often fragmented
- new commissioning and performance management structures make greater demands
- organisational changes may destabilise existing arrangements

### ...so trusts need to take action to drive quality up.

- making use of the information that exists
- involving all board members and ensuring that responsibility is shared
- training and developing staff to make use of information

- keeping systems up to date
- finding opportunities to link data across clinical and administrative systems

### Primary care trusts will play a key supporting role...

- including minimum data standards in service agreements
- requiring trusts to provide good-quality data to the NHS-Wide Clearing Service
- taking care of their own patient-based information

### ...and national bodies can do more to help.

- updating definitions and standards and keeping them up to date
- ensuring that all national data collection systems are appropriately linked
- keeping progress under review

## Patient-based information and its uses

1. Information is vital to the NHS. Complex health services can only be provided to the patients who need them at the time they need them if those managing and delivering the services have access to reliable, well-structured information. Clinicians, managers and researchers all depend on good-quality information to do their jobs. Patients need to know about the care that they can expect to receive. And the public is entitled to be fully and accurately informed about the performance of an organisation that spends 15 per cent of the Government's annual budget.

2. NHS trusts collect data on each patient's journey through secondary care, generally through a Patient Administration System (PAS). These data are reported monthly through the NHS-Wide Clearing Service

(NWCS), which is managed by the NHS Information Authority (NHSIA), and are consolidated nationally in the form of Hospital Episode Statistics (HES).

3. Patient-based data have many different uses. In the first place, they are used by the Department of Health to monitor healthcare activity, to help to identify trends and to inform decisions on investment and the allocation of resources at national level. The Department also uses HES data to manage the performance of NHS trusts, through the Performance Assessment Framework (PAF). The same data are used by epidemiologists and those contributing to the development of national service frameworks; and, locally, by health authorities and primary care trusts (PCTs) to guide

their decisions on the commissioning of health services and by trusts for their own internal management and planning purposes.

4. HES data also provide a good starting point for the measurement of clinical performance. It is likely that increasing reliance will be placed on them in future for clinical management and clinical audit purposes, as well as by the Commission for Health Improvement (CHI) which is responsible for reviewing clinical governance arrangements across the NHS. And from 2002, they are expected to be used as a key element of the annual consultant appraisals which will provide the evidence for doctors' five-yearly applications for revalidation by the General Medical Council.

## Information quality

5. Auditors appointed by the Commission have recently carried out a 'light-touch' review of arrangements for managing systems for producing data in 279 secondary care trusts, concentrating in this first phase largely on arrangements

to produce administrative, rather than clinical, data. The second phase will be undertaken in 2002.

6. Overall, the review shows that many trusts need to improve both their overall management arrangements and their

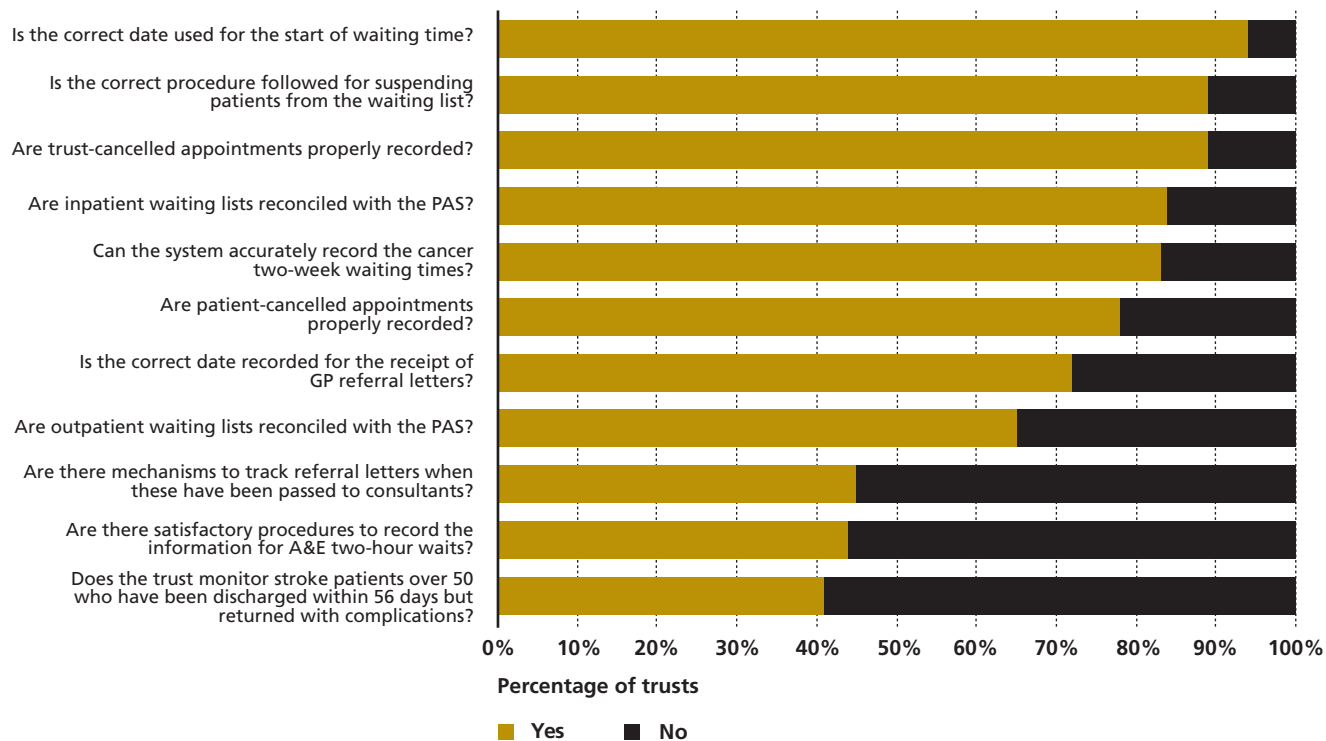
arrangements for producing specific sets of data relating to non-clinical activities that support effective patient care. While two out of every three trusts make good use of systems controls and have appropriate quality assurance

processes in place to ensure the quality of data entered in the PAS, only one in four has a fully developed data quality policy. And most trusts need to improve at least some of their basic processes [EXHIBIT 1].

EXHIBIT 1

**Arrangements to produce data on selected areas of activity supporting effective patient care**

Most trusts need to improve basic processes.



Source: Audit Commission

## What is done to improve quality

7. Feedback on data quality is available to trusts through NWCS. Most of the analysis focuses on the completeness and validity of trust data. In some regions, however, trusts and health authorities fund programmes of inspection that look also at the accuracy of coding. Data ‘cleaning’, which is undertaken by the Department of Health, can be a mixed blessing. While it helps to eliminate many of the coding errors

that can cast doubt on the credibility of the data set as a whole, it can be seen as depriving trusts of ownership of their own data.

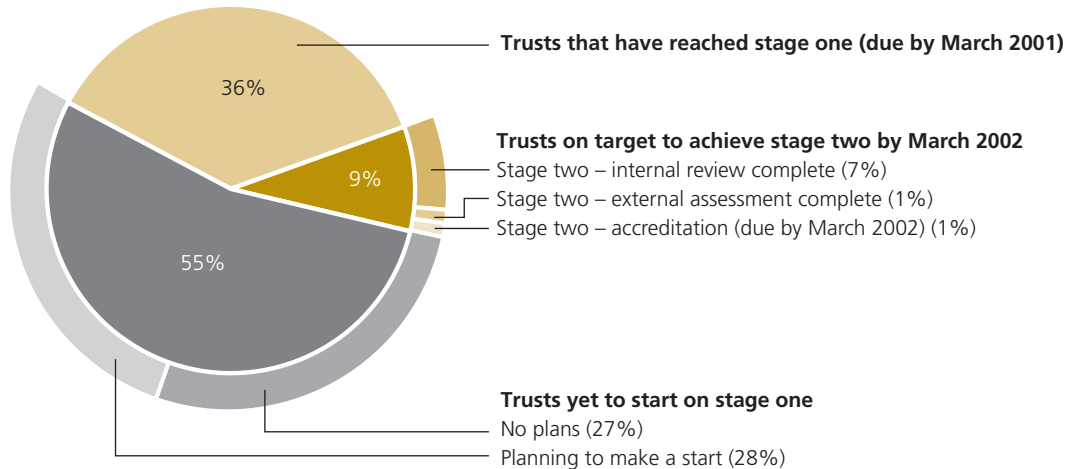
8. To encourage greater commitment to data quality at trust level, all secondary care trusts have since 2000 been required to participate in the Data Accreditation Scheme, involving a

three-stage review of data quality. Stages two and three require the involvement of an approved external assessor to provide an independent view. But only 45 per cent of trusts have yet completed stage one (for which the deadline was March 2001), and very few are on target to meet the Department of Health’s March 2002 deadline for stage two [EXHIBIT 2].

EXHIBIT 2

### Progress with data accreditation

Few trusts are on target to meet the deadline for stage two.



Source: Audit Commission

9. Another initiative to encourage trusts to improve data quality has been the introduction of a data quality 'sign-up' process. Chief executives of trusts have for the last two years been required to sign an annual declaration that the data

sent to NWCS are fit for Department of Health purposes – including performance rating and the compilation of performance indicators. This requirement has undoubtedly led to many trust boards formalising responsibilities

for data quality. But the processes through which data are certified as fit for purpose are not always rigorous, and there is no requirement for the trust board as a whole to accept ownership of the data.

## Why quality must improve further

10. There are a number of reasons why the quality of patient-based information needs to become a higher priority. The first reason is the increasing need for clinical, as well as administrative, data to be collected in a systematic way. Models of care are changing very rapidly. Patients' needs can no longer usefully be defined – if they ever could – in terms of single episodes of treatment within a single specialty at a particular trust. Information, like the patient, will increasingly need to follow inter-disciplinary care pathways. At the same time, clinical networks, which exist outside the formal organisational structure of trusts, are becoming increasingly important. So different people will be making use of data in different settings, with different assumptions.

11. The development of clinical audit and clinical governance will also demand better quality data. Clinical teams will be required to keep their practice under continuous review, and their ability to do this – and to satisfy CHI that proper systems of clinical governance are in place – will depend on their access to information. Some clinicians have managed in the past without becoming involved with complex information systems. But there is now a growing demand from clinicians for access (including on-line access) to central databases, coupled with pressure to make nationally-held data both more robust and more accessible.

12. On top of all this, the Government's health information strategy looks forward to the

development of comprehensive patient records. The first stage is to be an electronic patient record (EPR) containing a full history of a patient's experience within a secondary care trust. The Department of Health currently expects 35 per cent of acute trusts to have EPRs in place by March 2003, and all of them by 2005. If these targets are to be achieved and reliable EPRs produced, the quality of patient-based data will need to improve – in some trusts very rapidly.

13. The drive for better quality data will also receive considerable impetus from the changes in the organisational structure of the NHS. The commissioning role will move between April and October 2002 from fewer than 100 health authorities to more than 300 PCTs.

Not only will these smaller units need to familiarise themselves with the data sets produced by trusts, but they will also be much more sensitive to small errors in the data, and will demand greater accuracy.

**14.** These structural changes will raise expectations of data quality and produce pressure to improve.

At the same time, they will bring new dangers. PCTs may have difficulty maintaining the quality of the data they produce as healthcare providers; mergers and re-configurations may result in a loss of data quality as organisations attempt to combine different systems and (sometimes) different

ways of defining the same procedures; and the new strategic health authorities may not have the resources to exercise the sort of oversight that regional offices have provided in the past. Against this background, sustained and concerted effort will be needed to bring about improvements.

## Action required

**15.** Trusts' action plans should aim to create a trust-wide commitment to data quality, focusing on four areas:

- making use of patient-based information;
- involving board members;
- training and developing staff; and
- keeping systems up to date.

### Using the information

**16.** Information that is used is likely to improve. There would be a greater incentive for all those involved to produce reliable data if data from the PAS were used both in corporate decision-making and in the performance management of those whose performance these data purport to measure. One

reason for the traditionally low involvement of clinicians in performance management has been that performance indicators and the information systems through which they are produced have been seen as focused on measuring efficiency rather than the quality of care. With the development of an appraisal system for hospital doctors based on standards of practice, that need no longer be the case.

### Involving board members

**17.** Trust boards must also demonstrate that they use the available patient-based data at corporate level. HES reports – on their own, or combined with clinical or other non-PAS data – present an opportunity for the board as a whole to reflect on trust practice in

comparison with others. The Performance Assessment Toolkit made available by the NHSIA could also be used to advantage by many more trusts. Boards need to take the process of data certification as seriously as the process of signing off the annual accounts.

## Training and developing staff

18. A problem in some trusts is that too few individuals understand the data collection system, so that it is seen as a 'black box'. Auditors' reviews reveal that 90 per cent of trusts now provide some training or guidance in the use of IT systems, but data quality issues are rarely covered in any depth [EXHIBIT 3]. Trusts should ensure that staff at all levels, including managers and clinicians, are trained in the uses of information. The specialist skills of clinical coders should be recognised and developed and team roles reconsidered to enable the information contained in casenotes to be rapidly transferred into a usable form.

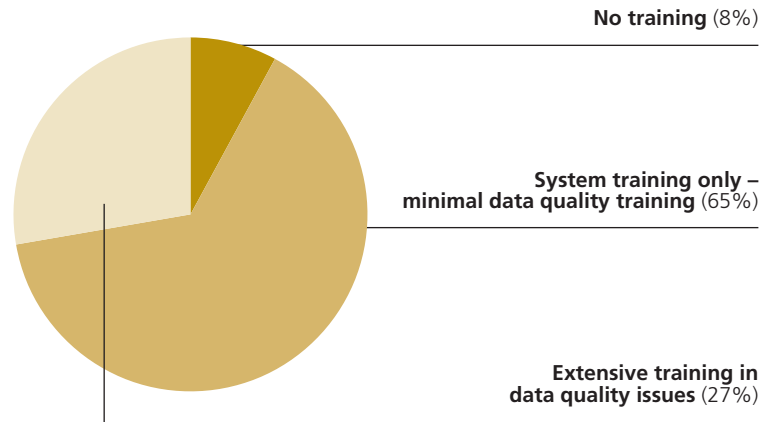
## Keeping systems up to date

19. Improving data quality is more about encouraging positive attitudes than installing the best IT systems. But old, overloaded systems can be frustrating to use, and this may encourage behaviour that can jeopardise data quality – for example, switching off internal validation checks to speed up system performance. The key is to invest on a continuous basis, rather

EXHIBIT 3

### Percentage of trusts providing training in information systems

Data quality issues are rarely covered in any depth.



Source: Audit Commission

than waiting until change is inevitable. EPRs will undoubtedly require modern systems, but that should not be an excuse for postponing necessary investment in the modernisation of the PAS, which in some trusts is already overdue.

## Action by PCTs

20. PCTs have a key role in ensuring the quality not only of the information they generate as providers but also of the commissioning data sets they receive. They should:

- incorporate minimum data quality standards in their service agreements with secondary care providers;
- require providers to provide complete, timely and accurate information to NWCS; and
- maintain the quality of systems for collecting data on their own activities as service providers.

## Action by the NHSIA

21. The first step for the NHSIA should be to ensure that the definitions in use – now some 20 years old – are brought up to date. The decision to move to new schemes both of classification coding (ICD-10 and OPCS-4) and of clinical terminologies (SNOMED-CT) provides a window of opportunity. The NHSIA and clinicians need to work together to ensure that future definitions are both robust and have general acceptance. Some non-clinical data standards also need to be clarified. And all definitions need to be updated from time to time to take account of the different ways in which data will be used – what is adequate for one purpose may be wholly inappropriate for another.

## Action by the Department of Health

22. The Department needs to help trusts and PCTs by focusing on the collection through the PAS of information that is really needed and avoiding making ad hoc requests or setting up parallel information flows. Where clinical data sets are required to support national service frameworks they should be linked in to the main data collection systems.

## Action by the Audit Commission and its appointed auditors

23. Last year's review of information management arrangements will be followed up by further work on data quality in 2002. This will look at a further 15 indicators in acute hospitals, as well as considering issues around the internal use of data and focusing more closely than has been possible in 2001 on the accuracy of clinical coding. The review, which will also cover PCTs and ambulance trusts, should provide an up-to-date picture of the further progress that has been made in this critical area.

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 If you want to know more: the full management paper, **Data Remember: Improving the quality of patient-based information in the NHS** looks at all these issues in more detail and includes background information, case studies and specific guidance.  
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 Audit Commission, **Data Remember: Improving the quality of patient-based information in the NHS** (management paper)  
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