

# Hospital Episode Statistics (HES): Improving the quality and value of hospital data

A discussion document



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## Foreword

The development of safe and efficient patient care relies on high quality data.

In July 2010 the Academy of Medical Royal Colleges called for a review of data collection processes and a migration towards the collection of data directly from standardised, patient-focused electronic records in which the data items are recorded at the point of care.

In the white paper "Equity and excellence: Liberating the NHS"<sup>1,2</sup> the government has shown a strong commitment to ensuring that information is collected and used to secure good quality outcomes and to inform patient choice. The quality of hospital data is the responsibility of consultants, both in the way that notes are recorded and the accuracy with which patient data is coded.

The National Clinical Lead for The NHS Information Centre has reviewed the literature concerning Hospital Episode Statistics and consulted widely with the Royal Medical Colleges and Medical Directors of trusts. This report has been produced as a result of this work and the contents are fully endorsed by the Academy of Royal Medical Colleges.

Both organisations acknowledge that although the strategic vision for data collection is not yet realised, there is still much action that can be taken to improve existing processes. Clinicians must be engaged with the process of data collection and have ready access to data in cumulated formats to support quality improvement and professional development. The actions that are required to improve the quality and value of hospital statistics are also identified in this report.

Above all, this document recognises that clinicians have to take ownership of clinical data. Only then can the full potential of data be unlocked and used to make the best decisions for patients. We hope this document will provide the basis for long overdue improvements in this area and we are committed to continued collaboration to effect the necessary change.



**Professor Sir Neil Douglas**

Chairman, Academy of Medical Royal Colleges



**Dr Mark Davies**

Executive Medical Director, The NHS Information Centre for health and social care

# Executive summary

The quality of hospital data is the responsibility of consultants, both in the way that notes are recorded and in relation to the accuracy with which data on patients is coded.

The NHS, like any large organisation needs information so that resources can be managed efficiently and the quality of its services assured. In the white paper "Equity and excellence: Liberating the NHS"<sup>1,2</sup> the government has shown a strong commitment to ensuring that information is collected and used to secure good quality outcomes and to inform patient choice.

Since the Korner report<sup>3</sup> was published in 1982 there has been a commitment to collect a national set of data for management of the NHS. At the time the president of the Royal College of Physicians (RCP) indicated that it was a good thing that clinical data from every inpatient episode was to be coded and recommended that every clinician should ensure that clinical coding was as accurate as possible<sup>4</sup>.

Since the first national set of data was collected in 1989 there has been considerable evidence that the majority of clinicians have not engaged in the process. They have not been concerned about the accuracy of the data, the many ways that it is used, nor have they used the data to support their own clinical practice or service developments. Many have little or no knowledge of the large database Secondary Uses Service (SUS) into which Trusts are required to submit data from their Patient Administration Systems (PAS) or of the **Hospital Episode Statistics (HES)** database which provides a repository of data for secondary uses including:

- Public health, epidemiology, health trends and service development
- Informing governments, national and international
- Monitoring quality of health care and informing patient choice

- Linkage to other data sources such as ONS deaths, national audits and cancer register.

Serious lack of clinical engagement has been the subject of two reports by the audit commission<sup>5,6</sup> published in 2002 and 2004. A report by the RCP Informatics unit<sup>7</sup> of an attempt to engage clinicians with their data flagged a number of issues that need to be addressed including:

- No diagnostic data available in outpatient based specialities.
- No recognition that most consultants now work as part of a team.
- Failure to record clinicians undertaking procedures if not the named consultant.
- Lack of contact between clinicians and coders and Trust information departments.
- Difficulty in accessing raw data.

Clinical diagnoses including co-morbidities are coded using the International Classification of Diseases (ICD-10) and procedures are coded using Office of Population, Censuses and Surveys Classification of Surgical Operations and Procedures (OPCS-4.5). In most Trusts this task is undertaken by highly trained clinical coders who have very little contact with front line clinicians and have to work from clinical notes which are normally inadequate for this purpose in that they are not structured or standardised<sup>8,9</sup>. Consequently errors and omissions occur. Since the onset of Payment by Results (PbR) clinicians have become more aware of the financial consequences of inaccurate and incomplete clinical coding. This has led a few to work closely with clinical coders to maximise income.

However a recent report from the Audit Commission<sup>10</sup> on PbR has shown in general that coded data is still a poor reflection of clinical practice, and that many clinicians remain uninterested.

Data quality is also a patient safety issue as inaccurate data can lead to errors.

There is now an urgent need for clinicians to engage with national data because it will be used to assess the quality of clinical services and will be available in a patient anonymised format on public websites such as NHS Choices<sup>11</sup>, for all to see. Metrics and indicators of clinical quality will increasingly be published for individual, named consultants, in line with government policies on patient choice of consultant-led team<sup>12</sup> and “transparency” of detailed data on public services<sup>13</sup>. Furthermore appraisal and re-validation will require evidence of clinical practice (amount and quality). In most cases HES data will be the only source available but at present it is not of sufficient depth or quality for this purpose<sup>14</sup>.

**In order to maximise the clinical benefits of HES or any centrally held dataset, there is an important discussion required within Trusts and Colleges regarding the importance of:**

- Clinician access to raw data
- Recording clinical terms
- Outpatient coding
- Clinicians working in teams (only consultant in charge is currently recorded)
- Diagnoses present on admission
- Enhanced data linkage including primary care

In the meantime clinicians should accept that ensuring the quality of coded data is their responsibility<sup>4</sup>. To discharge this responsibility they need to make sure that all clinical notes whether paper or electronic are structured and standardised<sup>13,9,14</sup>. Regular meetings with clinical

coders and validation of the raw data using Trust informatics departments or third party informatics providers are required.

Teaching juniors good note keeping and the importance of clinical coding is a responsibility that all consultants should accept. A review of a consultant’s workload, either as an individual or as part of a team should become an essential part of the appraisal process whenever suitable data exists.

It is accepted that the weaknesses in the current processes for collection of HES data cannot be fully rectified without radical change in this process. These weaknesses include the limitations of the data collected from a clinical perspective, the use of statistical classifications for coding rather than a clinical terminology, and the very fact that a parallel process is used to extract data from non standardised, largely unstructured paper records. The Academy of Medical Royal Colleges called for a review of this process and a migration towards the collection of data directly from standardised, patient-focused electronic records in which the data items are recorded at the point of care<sup>15</sup>. This view is supported by The NHS Information Centre. Both the Academy and The NHS Information Centre recognise that much action can be taken to improve the existing process while this strategic vision is achieved.

# Introduction

The publication of the Operating Framework for 2010<sup>16</sup> and the Next Stage Review<sup>17</sup> re-affirmed a strong commitment to improving the quality of patient care, which is to be driven forward through informatics.

The Darzi message “You cannot be sure to improve what you cannot measure”<sup>17</sup> has been re-affirmed by the new coalition government and the Secretary of State for Health, Andrew Lansley, has indicated a commitment to monitoring outcomes in particular<sup>2</sup>. The recently published government white paper<sup>1</sup> “Liberating the NHS” has information at its heart, indeed one section is devoted to “an information revolution”. Therefore the use of data to monitor quality continues to play a central role in improving the NHS.

The role of The NHS Information Centre (The NHS IC) will continue to develop in line with government proposals in the White Paper and the publication and consultation exercise around the new NHS information strategy.

Early indications suggest that The NHS IC’s responsibilities will include:

- A secure national repository for health and social care data.
- Production of official health and social care statistics to support public accountability.
- Collection and quality assurance of health and social care data from Trusts and other frontline organisations.
- Supplying anonymised linked data to commissioners, providers, academics and third party suppliers.



# Hospital Episode Statistics (HES)

Since the late 1980s, following the Korner report<sup>4</sup>, the NHS has collected comprehensive datasets from patient administration systems in secondary care across England. Trusts are required to submit an “Admitted Patient Care Commissioning Dataset” into the Secondary Uses Service (SUS), the single, comprehensive repository for healthcare data run by The NHS Information Centre. There are also outpatient and accident and emergency medicine datasets, but these do not currently include diagnostic information. The data is validated and cleaned and then transferred into the Hospital Episode Statistics database. The ability to assign activity to an individual consultant using a specific consultant identifier was added in 1998.

Currently the data is used for a variety of reasons both nationally and internationally including:

- Planning services
- Public health, epidemiology and monitoring health trends
- Audit and research
- Commissioning
- Benchmarking services
- Monitoring quality (clinical indicators, mortality ratios, HSMR & Quality Accounts)
- Market research (Foundation Trusts and private sector providers)
- Payment by results (PbR assurance portal – National Benchmarker)
- Regulation
- Parliamentary questions
- Consultant workload
- Providing information to public and patients (NHS Choices)
- Links to other databases (e.g. National Clinical Audits, Patient Reported Outcome Measures (PROMS), Cancer registry and Office of National Statistics deaths data).



The Audit Commission in their report Data Remember<sup>5</sup> commented that;

*“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 and timely 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.”*

The Audit Commission had serious concerns about data quality which they outlined in their report in 2002<sup>5</sup>. As a result of the recommendations they made there was some improvement by their subsequent report in 2004<sup>6</sup>, although they commented that there was still much to be done and the pace of change was too slow. One area of particular concern in 2002<sup>4</sup> was the quality of clinical coding with the worst 10% of Trusts providing invalid codes in more than 20% of cases.

One of the reasons for the problems with data quality is cited as follows:

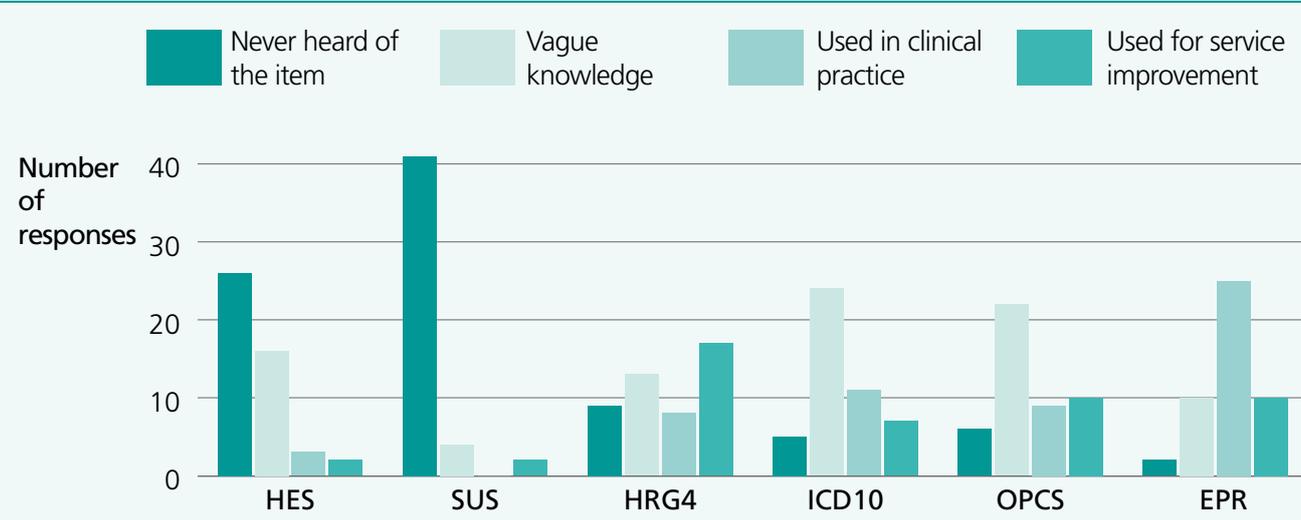
*“Another problem with current information systems is that they yield no immediate benefits for those who use them. In many trusts, it is difficult to extract even the trust’s own performance data from the PAS, and structured comparative information only becomes available to the trust once data have made their way through the NWCS to the HES, and gone through the lengthy processes required there. A further disincentive is provided by the complicated extract and messaging processes required, which can only be used by trained staff (who do not exist in all trusts).”*

Another problem highlighted by the audit commission in 2004<sup>6</sup> related to the finding that only 8% of clinicians in their survey answered yes to the question “Are you involved in the validation of the clinical coded data?”

A small survey of 49 consultants conducted at the University Hospital of North Staffordshire (55% with management responsibility) in 2009 suggests that this situation has not changed.

**Survey of 49 consultants from University Hospital of North Staffordshire**

**Q: Do you use any of the following?**



## Clinical Terms

One of the recommendations in the 2002<sup>5</sup> audit report was the implementation of SNOMED-CT (Systematized NOMenclature of MEDicine - Clinical Terms), in fact it was almost an expectation. SNOMED-CT is a systematically organised computer processable collection of medical terminology covering most areas of clinical information such as diseases, findings, procedures, micro-organisms, pharmaceuticals etc. It allows a consistent way to index, store, retrieve, and aggregate clinical data across specialities and sites of care. It also helps to organise the content of medical records, reducing the variability in the way that data is captured, encoded and used for the clinical care of patients. In simple terms this means that clinicians can choose diagnostic and procedure terms with which they are familiar and potentially ICD10 and OPCS coding could be largely generated automatically. Nomenclatures such as SNOMED-CT are required to capture information at the point of care and classifications such as ICD10 and OPCS are needed to aggregate the data.

SNOMED-CT is centred on unique clinical concepts each of which have an unambiguous fully specified name, a preferred term and any number of synonyms. The fully specified name is effectively a short definition and this can be linked to a number of other concepts either in a hierarchical way, such that childhood asthma is a son of asthma or in a categorical way such that asthma is a clinical finding. Some concepts may fit within more than one category, for example, blood glucose could be a test or a measurement and when recorded using SNOMED-CT this difference will always be clear. Clinicians using SNOMED-CT do not require an understanding of the underlying structure; its purpose is to ensure that records can be compared between organisations and even between countries.

Unfortunately SNOMED-CT is not yet widely implemented in secondary care. A few Trusts have been able to implement SNOMED-CT in selected clinical areas, but currently these are local solutions and not part of any national data collection. SNOMED requires the implementation of electronic

patient records for the full potential to be realised. It contains a vast number of terms and specialities still need to decide which terms best describe current practice and develop clinical standards for the recording of these terms. Subsets of SNOMED-CT will certainly be required so that juniors can rapidly and accurately locate the preferred terms for common conditions and procedures. Mapping SNOMED-CT onto ICD10 and OPCS is an ongoing task. The World Health Organisation (WHO) who are in the process of developing ICD11 for publication by 2014<sup>18</sup>, has announced collaboration with SNOMED-CT which will allow internationally agreed data linkages to be created between terms and codes. This development is open to online contributions through the ICD update platform, so that users including clinicians can help to shape the future.

The advantages of retaining clinical terms as part of the national data repository are as follows:

- Clinicians are much more interested in terms than clinical codes, though a means of grouping terms for clinical indicators, payment and analysis purposes will always be necessary.
- It creates an imperative for cross mapping of terms to ICD and OPCS which will make clinical coding much more consistent.
- It is difficult to judge the accuracy and consistency of clinical coding without a record of clinical terms. Audits which involve pulling case notes are expensive and limited in scope.
- Valid national comparisons of clinical practice using terms will be made possible.
- Networks such as cancer will be able to agree the concepts and terms that are important to them for consistent monitoring of disease activity, treatment and outcomes.
- The ongoing demand for National Datasets and National Audits arising because clinicians cannot access the detail of the information they require from OPCS and ICD10 will be diminished.

- Point of care risk scoring and concepts such as unexpected returns to theatre, and unplanned intensive care admissions can be developed.
- Clinicians will mainly analyse clinical terms, but when they need to use aggregated data they will view HES data as valid and clinically relevant.

In summary, one of the reasons for poor data quality is clinical disengagement. Poor quality data leads to lack of confidence in the data, mistrust and rejection. Consequently there is further neglect of the process, the situation does not improve and clinicians disengage further. This is termed the vicious cycle of poor data quality<sup>19</sup>.

Recently the Audit Commission have been undertaking a national clinical coding audit program and have published a PbR data assurance framework<sup>10</sup>. One of the findings is as follows:

The majority of factors leading to coding inaccuracy *“relate to the need for wider clinician involvement to improve the standard of records and other source documentation, validate codes and give direction on identifying and coding co-morbidities.”*

One of the conclusions relating to inaccuracy of HRGs derived from clinical codes is that clinician involvement is not systematic, with one result being deficiencies for PbR purposes in the information recorded in case notes. The table below representing a large acute trust shows that in some cases considerable percentage error in coding may have little effect on remuneration. Although the Audit Commission points out the dangers of inaccurate records and data, the minimal impact on payments is a disincentive to Trusts to improve accuracy. The impact of poor data quality on clinical outcome indicators – to be used for payment, informing patient choice of consultant team and revalidation – may provide a greater incentive.

Some Trusts have implemented much closer working between clinicians and coders (such as coders attending ward rounds) and this has resulted in improvement which is to be commended as good practice.

#### Results of the Audit Commission’s national clinical coding audit in selected specialties in a large NHS Trust

Area Audited	Primary Diagnoses Incorrect (%)	Secondary Diagnoses Incorrect (%)	Primary Procedures Incorrect (%)	Secondary Procedures Incorrect (%)	HRGs Incorrect (%)	Net Monetary Change (%)
Theme - 110 : Trauma & Orthopaedics	20	24.9	19.1	12.4	10	0.5
Specialty - 502 : Gynaecology	8	19.7	12.4	12.5	1	0
HRG Chapter - L : Urinary Tract and Male Reproductive System	12.9	25.4	14.3	35.5	11.4	1.7
HRG - F36 : Large Intestinal Disorders >69	3.3	28.3	27.3	7.1	20	-9.7
Overall	12.7	24.4	15.9	15.3	7.3	-0.1

# Clinical Engagement

Although the HES data set is primarily an administrative rather than a clinical dataset it has been recognised by the Royal College of Physicians (RCP) that clinical disengagement with NHS data is extremely unhelpful, particularly as the data is used in many clinically important ways as indicated in the list above. Consequently the RCP, in collaboration with the Department of Health, set up the iLab project<sup>19</sup>. The aim was to access, analyse and present data from the central data repositories to a number of physicians. The project required clinicians to attend centres in Swansea or London to discuss their requirements and data with an information analyst and a clinician. Although HES data, was not originally intended to be used for audit or revalidation, one of the aims of the iLab project was to determine whether the data could be used for these purposes. When clinicians were shown their data, many were surprised at its usefulness and potential value in providing feedback on their own practice and that of the unit in which they work.

The findings and recommendation from this piece of work entitled "Engaging clinicians in improving data quality in the NHS"<sup>7</sup> was published by the RCP in 2006.

It confirmed from a survey of 1300 members that 80% of physicians had little or no communication with hospital information and coding departments. Through the 50 consultants who attended the iLab, many discrepancies were found in the data some of which were due to local practices/mistakes within the Trust and could be dealt with accordingly. Unfortunately the data could not be used to analyse or monitor clinical working practices on a national or regional basis because of the complexities of multi-professional care. For example, a consultant may mainly contribute to the care of patients under other consultants; this work would not be recognised. Many consultants work as part of a team with shared responsibility, so that the name above the bed is arbitrary. 20% of the consultants who took part had little or no activity because most of their work was outpatients based. On the other

hand the data did have the potential to be used by clinicians as part of the appraisal process where the clinical directors have an understanding of the job plans and local arrangements both of which affect the interpretation of the results.

Positive benefits of the iLab project in relation to the NHS IC clinical strategy were the following findings<sup>7</sup> in those who participated:

- A higher awareness of the data collection process.
- A greater appreciation of the usefulness of the data.
- A greater willingness to contribute to the data collection/validation process at a local level.
- A greater likelihood of monitoring the quality of data held in their name.
- A greater likelihood of changing their practice concerning the collection/validation of data in the future.

The bottom line conclusion<sup>7</sup> from this piece of work was as follows:

***"Clinical engagement in data collation can be increased if consultants are given the support they need to use data effectively to meet their individual professional needs."***

The next phase of the iLab project was to determine whether clinicians could obtain useful data through their Trust information departments. This study was conducted in Wales with 14 Trusts participating<sup>20</sup>. The objectives included:

- establishing local lines of communication between clinical, coding and information staff.
- supporting local staff in the analysis and presentation of data to clinical staff
- improving the quality of coded information across Wales

A lot of effort went into setting up meetings, providing training and workshops but there was often limited engagement from hospital information departments, whose focus was on meeting the corporate demands of their organisation and the Department of Health, rather than clinical data. Although a methodology for undertaking a large number of standard analyses was provided by the RCP<sup>21</sup>, these were not undertaken. The project concluded that with present drivers, engagement of information departments to meet the needs of clinicians will continue to be difficult.

There have been a number of attempts to provide clinicians with HES data. These include HESonline, Consultant Episode Statistics, iLab, Clinical Comparators (Pilot for Gastro-enterologists only) and Consultant Team Summary Report (Surgical pilot). None of these are currently supported and where there is a working interface the data is not refreshed except for HESonline which does provide some large tables of information and more detail in specific areas such as Patient Reported Outcomes

Measures (PROMS). There are also 3rd party suppliers such as Dr Foster Intelligence (DFI) to which many Trusts subscribe. This is used primarily for monitoring of mortality, length of stay, day case and re-admission rates across a basket of 56 predefined diagnoses and procedures and for market analysis. It can also be used to provide clinicians with a view of their workload in sufficient detail for checking data quality. A new version of the PPM tool is in the beta stage of production and this allows consultants or groups of consultants to examine the diagnoses attributed to them and cross tabulate the results against other patient characteristics such as age groups or length of stay. There is also the facility to drill down into greater patient detail. CHKS provide a similar service using data held by the Trust to whom they are providing the service.

Below is an example of a table that might be created showing a subset of common paediatric codes arising from acute episodes in the last financial year.

**A count of finished consultant episodes where the main speciality was Paediatrics, who had an overnight stay, separated by age groups for selected diagnoses at a large acute trust in 2008-09.**

Diagnosis Code	Diagnosis	Age Groupings (Years)			
		<2	2-5	6-16	>16
A083	Other viral enteritis	74	0	0	0
A084	Viral intestinal infection, unspecified	58	44	19	0
B349	Viral infection, unspecified	150	51	31	*
C910	Acute lymphoblastic leukaemia	0	14	13	0
J039	Acute tonsillitis, unspecified	41	31	12	0
J069	Acute upper respiratory infection, unspecified	175	66	15	*
J219	Acute bronchiolitis, unspecified	209	*	*	0
J22X	Unspecified acute lower respiratory infection	73	43	16	0
J459	Asthma, unspecified	17	80	81	*
K529	Noninfective gastroenteritis and colitis, unspecified	62	31	12	0
R062	Wheezing	123	72	6	0

Source: Hospital Episode Statistics (HES), The NHS Information Centre for health and social care. \* = 5 or < 5 cases.

Another aspect of engaging clinicians relates to the linkage of HES data to other clinical databases. These include ONS for mortality, disease registries (e.g. cancer, joint), PROMS, national clinical audits, specialist databases and research databases. Where this has been done successfully, it has brought huge benefit in terms of the richness of the data and added value to the original data source. However these linkages can be costly and difficult to set up.

Another important clinical use of HES relates to monitoring patient safety, an issue that is high on the government agenda and features in the recently published outcome framework<sup>2</sup>. Attempts have been made to use HES to monitor patient safety<sup>22</sup>, but HES does not have a “present on admission” diagnostic flag which makes it difficult to differentiate between hospital and community acquired pressure sore for example<sup>23</sup>. Apparently the American Medicare system has now added this facility<sup>23</sup>.



# Meeting the Clinical Agenda

SUS and HES were not set up primarily to support the needs of the clinicians although Douglas Black<sup>4</sup> did express the view following the publication of the Korner report that clinicians would want to ensure the accuracy of the coded data. The main reasons clinicians would wish to use national sources of data include the following:

- Clinical audit, quality assurance and patient safety
- Assessment of workload and efficiency (clinical directors)
- Recognition of work done (e.g. community paediatricians)
- Ensuring appropriate payment
- Service development
- Research
- Appraisal and re-validation.

The prospect of requiring independent evidence for re-validation has provided an impetus for the colleges to renew their efforts to use the HES dataset and reconnect clinicians with their data pending the implementation of electronic patient records, which should seamlessly collect all the relevant clinical data at the point of patient contact.

Initial discussion with the Royal College of Physicians, Royal College of Surgeons, Royal College of Anaesthetists, Royal College of Obstetricians and Gynaecologists and the Royal College of Paediatrics & Child Health indicates that there are two pressing concerns. Firstly the need to adopt consistent standards for note keeping and data collection pending electronic records as illustrated by two reports published by the Academy of Medical Royal Colleges<sup>8,9</sup>.

Secondly, there is a requirement to improve data quality (accuracy and completeness), so that its value can be extended to help the clinical community. This will also improve the reliability of the data for secondary use.

**We have identified seven key issues for further discussion to help find feasible solutions.**

1. Providing clinicians with access to their raw data for the purposes of review and validation.
2. Recording of clinical terms (SNOMED) in addition to ICD10 and OPCS for detailed audit, analysis and validation of codes used.
3. Capture of diagnostic and procedure information in outpatients.
4. Capture clinicians, including non consultant career grade doctors, undertaking medical or surgical activities in addition to the consultant in charge so as to represent the current way in which senior clinicians work in teams.
5. A diagnosis present on admission flag to differentiate between events such as a broken leg, a pressure sore and acquisition of MRSA occurring prior to or during a hospital stay .
6. Easier and more cost effective linkage of other databases to HES.
7. Linking primary and secondary care records.

Solving the above is not going to be easy, especially in the current financial climate.

Questions arise as to what facilities and data collection should be undertaken locally and what should be provided by the NHS IC or 3rd party suppliers. For example, should the NHS IC surface raw data for clinicians as part of their quality assurance role, should this be done by Trusts with their limited IT resource, or should clinicians be encouraged to use 3rd party suppliers such as DFI or CHKS? Trusts may wish to use these providers, especially when they already subscribe. Should clinical terms be part of the national dataset or be confined to Trust systems and if the latter will clinicians be given access to analyse this rich source of clinically useful data? How feasible is it for Trusts to collect outpatient coded data? Certainly it would need to be clinician led rather than requiring

another army of clinical coders. This may be feasible if the appropriate information can be lifted automatically from the clinic letter. The utilisation of GP systems for hospital outpatients might provide a simple solution. HES is currently being reprocured and this will provide an opportunity to ensure that HES is able to accommodate change rather than creating a barrier to progress. Easier data linkage would be particularly useful. With the publication of the Liberating the NHS: An Information Revolution<sup>14</sup>, it is important that these issues are raised so that they can be included in future plans.

Irrespective of progress on the above issues, there is a need for frontline clinical staff to engage in the data collection process in order to improve data quality. This requires a campaign to improve awareness of the data that is being collected and the actual and potential uses of the data. Furthermore easily accessible training is required for staff of all levels of seniority. It will also be important to expose medical students to these issues during the course of their training.

## Next steps

The NHS Information Centre will:

- Consult front line clinical staff on the seven key issues and priorities for improvement. You can fill in the online survey at: <https://www.surveymonkey.com/s/Nat-HES-Survey>
- Publish a feasibility report on the seven key issues
- Design programs of work to engage all the necessary stakeholders to make change happen – the priority for The NHS IC National Clinical Lead.

The NHS Information Centre and the Academy of Royal Colleges will work together to:

- Ensure the outcomes of the survey and feasibility report are used to inform the future development of HES.



# Vision for the Future

The Academy of Medical Royal Colleges has set out a vision for the future<sup>15</sup>, which sets out three major goals to be achieved within the next 10 years.

1. Developments in electronic patient records should be centred on the patient rather than diversely focused on diseases, interventions or contexts.
2. Structured data capture should be standardised to ensure interoperability of records from a clinical perspective.
3. Such records should be the source of data for secondary uses, replacing the current recording and coding processes which are no longer fit for purpose.

The Academy regards the following practices as no longer acceptable:

- The use of unstructured paper records as the primary source of data.
- Coding in statistical classifications (ICD-10 and OPCS-4) rather than using clinical terminology (SNOMED-CT).
- The submission of central returns without clinical validation.

The Academy calls for a strategy for change which represents a major change agenda for information systems, processes and practitioners. Significant investment and determination is required but the benefits are compelling.

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