Why standardise the structure and content of medical records?
A guide for clinicians

This good practice guide has been produced to inform hospital doctors about current developments in medical record keeping standards for the Electronic Patient Record. It describes why standards are needed for the structure and content of medical records and how their introduction will affect our work.

The record standards, approved for all specialties by the Academy of Medical Royal Colleges, are published in “A Clinicians Guide to Record Standards - Part 2: Standards for the structure and content of medical records and communications when patients are admitted to hospital.”

The standards should be used for all hospital patient records.

The guides can be downloaded from the RCP website: www.rcplondon.ac.uk/clinical-standards/hiu/medical-records

Copies can be also ordered from the DH and NHS CFH Digital Information and Health Policy Directorate. Go to: information.connectingforhealth.nhs.uk > Digital Health Information Policy > Booklet
Why have standards for the structure and content of medical records?

The principal purpose of medical records and medical notes is to record and communicate information about patients and their care. If notes are not organised and completed properly, it can lead to frustration, debate, clinical misadventure and litigation.

Originally kept as an aide-memoire, medical records are now used not only as a comprehensive record of care but also as a source of data for hospital service activity reporting, monitoring the performance of hospitals and for audit and research. Many of the causes of inaccurate clinical coding of this secondary data are rooted in the quality of medical notes.\(^1\,2\)

The quality of medical record keeping in the UK is highly variable across the NHS.\(^3\) The layout of admission, handover and discharge proformas is very different between hospitals and clinical departments and many do not use proformas. This variability is largely because doctors learn how to take a medical history by apprenticeship rather than the application of a standard record structure. However research evidence shows that structured records have beneficial effects on doctor performance and patient outcomes.\(^4\)

The constant drive to improve the quality and safety of medical practice and hospital services and the increasing expectations and costs of medical care means the structure and content of the clinical record is becoming ever more important.\(^5\) Implementation of electronic patient records in the NHS critically increases the importance of structured records.
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What are standards for the structure and content of medical records?

Record keeping standards can be sub-divided into two categories: generic standards for good practice and specific standards to define the structure and content in specific clinical contexts.

Generic standards
Generic medical record keeping standards apply to all medical notes and address the broad requirements for clinical note keeping. Several Medical Royal Colleges and Specialist Societies and the medical defence organisations have published their own reiteration of the GMC’s requirement for good medical practice. The Health Care Commission inspections and the NHS Litigation Authority Risk Management Standards include requirements for medical record keeping.

Good Medical Practice – providing good clinical care

In providing good clinical care [doctors] must:
• keep clear, accurate and legible records, reporting the relevant clinical findings, the decisions made, the information given to patients, and any drugs prescribed or other investigation or treatment
• make records at the same time as the events you are recording or as soon as possible afterwards

www.gmc-uk.org/guidance/good_medical_practice/good_clinical_care/index.asp
Standards for structure and content
Standards are also needed so that records are structured appropriately and clinical information is recorded in the right place. Content standards apply to the format and definition of what is recorded in this structure.

Examples include:

• A unique patient identifier (NHS Number in England and Wales, CHI in Scotland) must be used in all medical records and on all communications. Use of the NHS number is increasing, particularly in general practice, but most hospitals rely partially or totally on the ‘hospital number’ as the unique Patient ID.

• Common identifiers for clinicians, researchers and organisations (such as the GMC number for doctors), both within and outside the NHS.

• Standard definitions for demographic, organisational and administrative information are contained in the NHS data dictionary www.datadictionary.nhs.uk. The Dictionary standardises the data that are extracted from the paper medical records and patient administration systems so that they can be used for central returns, in particular Hospital Episode Statistics. In England, the data dictionary now also contains a number of definitions for data used in audits. However where the same piece of information is used in more than one dataset, the definition of that data item is not always the same in the different datasets.

• Clinical information for central returns is extracted from patient records and coded in ICD-10 for diagnosis and OPCS-4 for procedures. ICD-10 and OPCS-4 are statistical classifications. These do not have the comprehensiveness, depth or flexibility needed to apply to medical records that are used by clinicians in every day practice.

• SNOMED-CT is a very comprehensive international thesaurus of coded terms that will be introduced in the NHS. However the detailed guidance on how it will be used in day-to-day electronic records is not yet fully developed.

• Disease or intervention specific datasets have been developed by specialist societies. However they frequently contain different definitions for the same clinical condition and coverage of the clinical encounter is ad hoc. With the development of the electronic patient record there is now an urgent need to standardise the structure and content of the clinical information recorded and communicated.
The Electronic Patient Record

There are two principal components to the electronic patient record programme for hospitals in England: the Summary Care Record and Detailed Care Records.

Summary Care Record (SCR)
The Summary Care Record will initially contain only basic information such as major diagnoses and procedures, current medications, adverse reactions and allergies. It is the single common set of clinical information about patients which will be accessible to all authorised health care professionals treating them anywhere in the NHS in England. It is being constructed from the data in primary care records and is currently being rolled out across the NHS.

Detailed Care Records
Over the next few years, as the Electronic Patient Record system develops, NHS organisations which normally work together in a local area – such as hospitals, clinics and GPs - will develop and begin to link and access detailed electronic records for each patient. Early adopter Trusts are currently (2008) implementing the first hospital versions of these systems while many General Practices have long established electronic record systems. It is intended that medical records will become increasingly paper free and interoperable so that the validity of the data held will be preserved between systems and locations.

Clinician and patient involvement
Structure and content standards are essential for ensuring that clinical data can be reliably stored, retrieved and shared between information systems. The standards must be based on professional consensus that reflect best clinical practice, and then implemented into information systems by the IT professionals. Patients must be involved in all stages of development. The standards should facilitate not hinder the process of writing, communicating and retrieving clinical information, so that care is safer and more efficient.

There is substantial risk if the profession does not specify what these standards are. If we do not, then implementation will reflect first the technical standards of existing computer systems (generally developed around administrative and financial requirements) and then require clinical practice to change in order to accommodate the way the computer systems have been designed to work. This would threaten the quality, safety and efficiency of clinical practice.
Standards must be based on professional consensus and reflect best clinical practice. And patients must be involved in all stages of development.
Where are we now?

Generic standards development
The Health Informatics Unit (HIU) at the Royal College of Physicians, London, reviewed standards published by the medical Royal Colleges, specialist societies, GMC and medical defence organisations, and in the research literature. Following wide consultation with the profession, 12 generic medical record standards were published in 2007 (www.library.nhs.uk/GuidelinesFinder/ViewResource.aspx?resID=270611). The generic standards apply to any patient’s medical record. Several of the standards, such as date and time of each entry, will be automatically recorded in electronic records. Others such as the frequency of record entries are designed to be flexible and pragmatic.

The Department of Health and NHS Connecting for Health have incorporated the generic standards into the Information Governance Toolkit (www.igt.connectingforhealth.nhs.uk). An audit of medical records against the standards can be used by Trusts to demonstrate compliance with NHS Litigation Authority Risk Management Standards and for inspections by the Health Care Commission. An audit tool for audit of records against the standards will be available on www.rcplondon.ac.uk/clinical-standards/hiu/medical-records during 2009.

The Generic Medical Record Keeping Standards for hospital patients are published in “A Clinician’s Guide to Record Standards – Part 2: Standards for the structure and content of medical records and communications when patients are admitted to hospital” available at www.rcplondon.ac.uk/hiu

Development of standards for structure and content
NHS Connecting for Health have funded a project co-ordinated by the Health Informatics Unit of the Royal College of Physicians, to develop medical profession-wide standards for the recording and communicating of clinical information when patients are admitted to hospital. The process of literature review, drafting, extensive consultation, redrafting and piloting (see figure) ensured that there was large scale clinical engagement and contributions by the medical Royal Colleges and specialist societies to the development of the standards. Over three thousand doctors responded to the consultation on admission record headings, and 91% agreed that there should be structured documentation across the whole NHS.
The medical Royal Colleges and specialist societies confirmed that the high-level headings for the structure of admission records and handover and discharge communications were fit for purpose within their specialty. There is some inter-specialty variation in the information that should be recorded in sub-headings. For example, the Royal College of Psychiatrists and the Royal College of Paediatrics and Child Health have stated that their specialties require information which is substantially different and additional to the proposed headings. However both Colleges confirmed that this additional information can be largely accommodated within the generic structure proposed.

In April 2008 the Academy of Medical Royal Colleges approved these standards for all medical and surgical hospital admission records and handover and discharge communications. They were then delivered to NHS Connecting for Health. These standards can also be used to structure current and new paper based record proformas.

The structure and content standards for admission records and handover and discharge communications of hospital patients are published in “A Clinician’s Guide to Record Standards – Part 2: Standards for the structure and content of medical records and communications when patients are admitted to hospital” available at www.rcplondon.ac.uk/clinical-standards/hiu/medical-records
What does it mean for me?

With this document, the Department of Health is publishing the agreed Generic Medical Record Keeping Standards and the high level structure and content standards for admission, handover and discharge. All clinical records, electronic and paper, should be structured using these headings.

Example templates for admission, handover and discharge proformas are available for download on [www.rcplondon.ac.uk/clinical-standards/hiu/medical-records](http://www.rcplondon.ac.uk/clinical-standards/hiu/medical-records) and can be used to create paper proformas that can be customised for use by individual hospitals and Trusts.
The benefits of structure and content standards

- Standardisation of content will improve safety by reducing opportunities for ambiguity or omission of data.

- Paper proformas can be developed using these standards with confidence that they are likely to reflect best practice.

- Structuring records in this way will help to improve:
  - ease and accuracy in communication of clinical information,
  - the quality and safety of clinical practice and
  - the accuracy of clinical coding.

- When junior doctors move from one hospital or department to another, they will not need to familiarise themselves with new document structures.

- Clinical information in electronic records will be recorded once, and made available when needed, thus improving efficiency and saving time.

- Implementation of new clinical information systems will be simplified, as the systems will all be built on the same professionally developed and agreed standards for clinical structure and content.

- Patients and carers were involved in the development of the standards and their considerations will become better embedded in clinical practice.

- The Royal College of General Practitioners was consulted and GPs took part in the piloting of the discharge standards. Discharge summaries based on these standards should deliver the information that they want and need.

- National audits should be easier to conduct using comparable data from across the country.

- Routine clinical data will better support research. Both prospective trials and retrospective epidemiological studies will be easier and more cost effective to carry out.

- It is likely that revalidation will include an evaluation of clinical performance with some evidence from medical notes. Structuring notes using the standards will contribute to a fair evaluation.
What is happening next?

A series of workshops around the country are developing the standards and definitions for the more detailed clinical content of admission records, and handover and discharge communications. The development of standards for outpatient records, medical continuation notes and operation and procedure notes will follow. So also will the process for nursing, midwifery and the Allied Health Professions to develop their record structure standards.

Where clinical content is developed locally, it will be necessary to ensure that it is compatible with practice across the NHS in England. This process is intended to avoid locality specific variations, errors or omissions being imposed inappropriately across the whole health service and to ensure that the views of as many practising doctors as possible are gathered. The process, called Clinical Assurance by NHS Connecting for Health, will follow the same general process as used by the RCP HIU to develop the high level headings for admission, handover and discharge. The goal is to achieve consensus so that implementation does truly reflect best practice and establishes the best possible basis for smooth adoption of the structured records by practising doctors across all hospitals and services. It is specifically not intended to limit the content and constrain innovation and development, nor is it intended to create a ‘dumbed down’ approach to medical practice.
Where can I get more information?

If you would like more information on any of these matters you can go to www.rcplondon.ac.uk/clinical-standards/hiu/medical-records and www.connectingforhealth.nhs.uk/systemsandservices/infogov
You can also contact the Royal College of Physicians Health Informatics Unit on informatics@rcplondon.ac.uk

References


NHS Connecting for Health is supporting the NHS to introduce new computer systems and services. This is known as the National Programme for IT. It will help the NHS deliver better, safer care for patients.

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