

Setting the records straight – a prospective audit of the quality of case notes in a surgical department

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Summary

Background. A high standard of medical record keeping is important for safe patient care and provides information for research, audit and medicolegal purposes. Standards exist on what entries should contain, but as far as we are aware these standards are not regularly used in South Africa. We compared surgical case notes at Prince Mishyeni Hospital with guidelines from the Royal College of Surgeons of England.

Patients and methods: A prospective series of 204 case notes was randomly selected and reviewed.

Results. There was an 80% compliance rate for 16/35 standards, and 100% was achieved for 8 operation sheet standards. The following fell short of 80% compliance: patient's name on every page (71%), hospital number on every page (50%), every entry timed (16%), clinician's name printed on every note (8%), clinician's designation on every entry (2%), an entry each weekday (77%), type of admission (9%), presenting complaint (61%), history of presenting complaint (65%), previous medical history (76%), drug history (47%), allergies (59%), social history (34%), family history (11%), each entry legible (65%), and anaesthetist's name (69%). Test results were signed and radiograph test results initialled in 25% and 17% of cases respectively.

Conclusion. Legal requirements, good practice, research and teaching all demand notes that are detailed and of high quality. This study shows that medical records are grossly inadequate in many respects. Better education of junior staff and regular auditing of medical records could improve this.

High standards of clinical documentation are important for research, audit and medicolegal purposes. Notes are frequently completed by junior doctors in training, who only appreciate the importance of accurate and high-quality notes much later. The need to improve medical records has been recognised for years.

We are not aware of standards used in South Africa for good medical note keeping. We used the guidelines issued by

the Royal College of Surgeons of England which we believe to be applicable to our setting. This article describes the method and results of that audit.

Methods

A prospective review of 204 surgical case notes was undertaken in the surgical department of Prince Mishyeni Memorial Hospital over a 2-month period (1 March to April 2006). The department has 240 beds. A team of 6 interns admit and clerk patients using 'blank-paper' histories. The data from the case notes were assessed against the standards (Table I) by a single observer (I.C.).

Permission was granted by the consultants, but none of the interns, medical officers and registrars was aware that the study was going on or of the set standards. All notes were selected at random.

Results

Two hundred and four case notes were reviewed; a mean compliance rate of 80% was achieved for 16/35 standards. Compliance of 90% or more was achieved for 11/35 standards. Details of the initial examination were recorded in 98% of entries and treatment plan was outlined in 97%. At slightly lower levels of compliance, 84% of entries were dated and 80% were signed.

Full compliance (100%) was achieved for 8 operation sheet standards (use of operation sheet, patient's name and hospital number, date of birth, surgeon's name, consent form signed and dated).

A number of standards fell well short of 80% compliance (18/35): daily entry (77%), past medical history (76%), patient's name on every page (71%), history of presenting complaint (65%), presenting complaint (61%), hospital number on every page (50%), clinician's name printed (8%), and time of entry (16%). Drug history scored 47%, allergies 59%, with social history only mentioned in 34%. Writing was legible in 65% of entries, with family history scoring a low 11%. Type of admission was noted in 9%, while the lowest compliance rate (2%) was with regard to the clinician's designation.

TABLE I. CASE NOTE STANDARDS

Identification data

1. Patient name on every page
2. Hospital number on every page
3. Every entry should be dated
4. Every entry should be timed
5. Every entry should be signed
6. Every note should have clinician's name printed

Verification of documentation

7. Every entry should have the clinician's designation
8. There must be an entry each weekday (Monday - Friday)

Clinical content

9. Type of admission
10. Presenting complaint
11. History of presenting complaint
12. Previous medical history
13. Drug history
14. Allergies/warnings
15. Social history
16. Family history
17. Details of initial examination
18. Working diagnosis
19. Plan of treatment/investigations
20. Was an actual diagnosis documented?
21. Was each entry legible? (e.g. 4/5 meaning 4 out of 5 were legible)

Operation sheet information

22. Operation sheet
23. Patient's name
24. Hospital number
25. Date of birth
26. Date of operation
27. Surgeon's name
28. Anaesthetist's name
29. Nurse's name
30. Type of operation
31. Consent form
32. Consent form signed
33. Consent form dated

Investigations

34. Are all test results signed/initialled?
35. Are all X-ray test results signed/initialled?

Of the operation sheets, 69% recorded the anaesthetist's name. Test results were signed and radiograph results initialled in 25% and 17% of cases respectively.

Discussion

Up-to-date medical records play a critical role in establishing the facts and case notes have been shown to be 'best evidence' in court cases, which usually occur many months or years after the patient has left hospital. Incomplete and illegible notes, along with confusing abbreviations, are a common source of weakness in a surgeon's defence. Numerous authors have demonstrated the need for constant vigilance

if standards of note keeping are to be maintained.¹ Missing data have medical, financial, managerial and medicolegal implications. If the information recorded is incomplete and imprecise, accurate audit becomes impossible. This study shows that our medical records are grossly inadequate in many respects. There is no reason to suspect that these problems are not widespread in other surgical services throughout the country.

The primary purpose of medical records is to support patient care; improving their quality may raise both patient outcomes and doctors' performance.^{2,3} Well-completed, readily accessible records are the foundation of medical audit.⁴ Inaccurate notes are sometimes the major reason why cases reach courts.⁵

Pre-printed admission proformas improve the quality of information recorded.⁶ Junior staff find them easier to use; they allow patients to be assessed faster and result in fewer tests being ordered.⁷ Filling in proformas requires less writing⁸ and the use of tickboxes may prevent problems in retrieving information caused by poor writing (up to 50% of doctors have poor to fair writing).⁹

Previous studies have ruled out work pressure among doctors as a relevant factor in adequate note keeping as nursing staff are under similar pressure yet their notes are significantly more complete. Rather we believe that the importance of regular and detailed note taking is not sufficiently stressed to doctors, especially house officers. We recommend that note taking be improved by means of regular audit of notes and discussion of guidelines with all medical staff. Accuracy in documentation needs to be encouraged during undergraduate training to develop good habits.

In the USA, the Joint Commission on Accreditation of Hospitals evaluates the quality of medical records when assessing whether a hospital should be accredited.⁹ A hospital's accreditation status influences its success in attracting junior staff, so there is an incentive to ensure the maintenance of good records.

Integrated care pathways (ICPs) are multidisciplinary care plans that outline essential steps in the care of patients with a specific clinical problem and describe the expected progress of the patient. They replace part or all of the medical record and make use of tickboxes and areas for free text. ICPs have previously been shown to improve patient outcome and have many benefits in clinical practice.¹⁰ ICPs also encourage sharing of information between disciplines and can facilitate early discharge planning.

In our setting, availability of computers is a limiting factor but they can improve the completeness of information contained in operation notes with word-processed sheets. These take as long to generate as hand-written notes, but are always legible and data can be analysed automatically.¹¹ This is an important time for the entry of data; future computer-based documentation development should incorporate similar concepts.

Innovations in medical records will enhance quality, but identifying and correcting deficiencies in established systems through audit is also beneficial. The standard of note keeping can be improved with repeated audit and presentation of results to staff.

The CRABEL score¹² is a method of grading the quality of individual case notes against a set of objective criteria, themselves derived from the guidelines published by the Royal College of Surgeons.¹³ When used repeatedly, the

score can identify areas of strength and weakness in this area. We recommend the CRABEL score as a useful tool for case-note audit combined with regular feedback to junior staff. Systematic audit can lead to improved documentation, supporting the clinical process within a busy department with benefits for patient care, clinical governance and inter-specialty communication. We also recommend that hospitals which have not done studies on the contents of this important function do so as a matter of urgency.

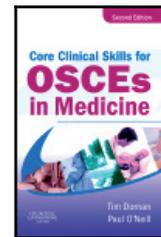
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