# The Royal College of Surgeons of England

#### **AUDIT**

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## Quality of clinical case note entries: how good are we at achieving set standards?

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#### ABSTRACT

INTRODUCTION High quality entries in case notes are becoming increasingly important. Standards exist on what information entries should contain. We have compared case notes from surgical teams at the Royal Glamorgan Hospital with standards based on guidelines from The Royal College of Surgeons of England.

PATIENTS AND METHODS A total of 120 case notes, randomly selected from the department of general surgery, were reviewed.

RESULTS An 80% compliance was achieved in 25/35 standards and 100% was achieved in 6 (patient's name, date, surgeon's name and type of operation on the operation sheet and consent form signed and dated). The following fell short of 80% compliance: PAS number on every page (75%); entries timed (27%); and clinician's name (16%) and designation (27%) printed. Social history was only recorded in 73% of clerkings and family history in 33%. Results of laboratory tests were signed in 65% of notes and radiological tests were signed in 41%.

CONCLUSIONS Healthcare professionals need to be aware of, and comply with, standards. House officers should be given information about standards at departmental induction or during medical training.

#### **KEYWORDS**

Case notes – Quality – Audit

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High standards of clinical documentation are important for research, audit and medicolegal purposes. Despite advice from medical protection organisations, achieving these standards is still a problem.

Hospital trusts in Wales must demonstrate appropriate management of patient records as stipulated by the Welsh Risk Pool (WRP). Using guidelines from The Royal College of Surgeons of England<sup>1</sup> the Royal Glamorgan Hospital (RGH) has developed standards that entries in case notes must comply with. A total of 35 standards are grouped into 5 categories (Table 1). We aimed to audit whether information contained in case notes at the RGH is compliant with these standards.

#### **Patients and Methods**

A retrospective review of the notes of the first 20 patients admitted electively or as an emergency under each of the six consultants in the department of general surgery during December 2003 was performed. Details from patient

admission clerking and daily entries were entered onto a database and assessed against the standards by a single observer. Compliance of 80% was deemed acceptable. Four surgical teams at the RGH have a pre-registration house officer (PRHO), admitting patients using 'blank-paper' histories, and two have a nurse practitioner, admitting elective patients using pre-printed proformas.

None of the 12 general surgical senior house officers, PRHOs or nurse practitioners were aware of the hospital standards, and none of the teams were aware that case notes were being audited.

#### Results

A total of 120 case notes were reviewed with a mean compliance of 80% in 25 standards: 90% or more compliance was achieved in 11. Of these case notes, 97% had the patient's name on every page, 99% of entries were dated, 97% signed and 96% of notes contained a daily entry (weekdays only). Patient's presenting complaint and past

### Table 1 Case note standards **IDENTIFICATION DATA**

- Patient name on every page
- 2 PAS number on every page
- 3 Every entry should be dated
- 4 Every entry should be timed
- 5 Every entry should be signed
- Every note should have clinician's name printed

#### VERIFICATION OF DOCUMENTATION

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

#### CLINICAL CONTENT

- 9 Type of admission
- Presenting compliant 10
- 11 History of presenting compliant
- 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 was clear)

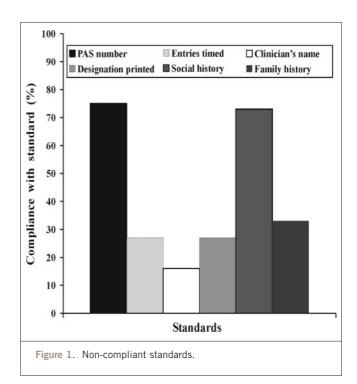
#### OPERATION SHEET INFORMATION

- Operation sheet
- 23 Patients 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/initialed?
- Are all X-ray test results signed/initialed?

medical history were recorded in 93% and a treatment plan outlined in 94%. Handwriting was legible in 97% of entries. Of operation sheets, 91% contained the name of the anaesthetist.



Full (100%) compliance was achieved in 6 operation sheet standards (patient's name, date of operation, surgeon's name, type of operation, consent form signed and dated).

Compliance fell well short of 80% in a number of standards (Fig. 1). Patient Administration System (PAS) number was recorded on every page in 75% of notes and entries were timed in only 27%. Only 16% had the clinician's name printed and 27% recorded their designation. Social history was noted in 73% and family history in 33% of admission clerkings.

Of operation sheets, 69% recorded date of birth and only 4% recorded the scrub nurse's name. Of notes, 65% contained test results and 41% radiological investigations that had been signed by a doctor or nurse practitioner.

There was no difference in non-compliance by teams using pre-printed proformas compared with teams that did not.

#### Discussion

Despite lack of awareness among junior staff about standards expected in case notes, over 80% compliance was achieved in 71% (25/35) of standards. Can the quality of information contained in case notes be improved so as to reach 100% compliance in all standards?

The primary purpose of medical records is to support patient care and improving the quality of entries may raise both patient outcomes and doctors' performance.<sup>5</sup>

Pre-printed admission proformas have been reported to improve the quality of information recorded in case notes.4

Junior medical staff find them easier to use, allow patients to be assessed faster and result in fewer tests being ordered.<sup>5</sup> Filling in proformas requires less writing<sup>6</sup> and the use of tick boxes may prevent problems in retrieving information caused by poor hand writing (up to 50% of doctors have poor to fair hand writing).<sup>7</sup> Implementation of hospital guidelines may also be improved by the use of proformas.<sup>8</sup> These findings, however, are not supported by this audit, which showed no difference in compliance whether proformas were used or not.

Problem-orientated medical records (POMRs) may have a role to play. Some studies have shown they have no beneficial effect when assessing elective patients,<sup>9</sup> although doctors did find them useful in the emergency setting.<sup>10</sup>

Completeness of information contained within operation notes can be significantly improved by the use of word-processed operation sheets. These take a similar time to generate as hand-written notes, but are always legible and data can be analysed automatically.<sup>11</sup>

The onus for improving the quality of case records lies with individual healthcare professionals<sup>5</sup> to read guidelines on the information that they are expected to record in patients' notes. PRHOs need to be made aware of the standards at an early stage of their career during departmental induction or preferably whilst still at medical school.

Finally, senior review with feedback improves how well house staff document patients care.  $^{12}$ 

#### References

- The Royal College of Surgeons of England. Guidelines for Clinicians on Medical Records and Notes. London: RCSE, 1994.
- Shulkin DJ. The July phenomenon revisited: are hospital complications associated with new house staff? Am J Med Qual 1995; 10: 14–7.
- Mann R, Williams J. Standards in medical record keeping. Clin Med 2003; 3: 329–32.
- Irtiza-Ali A, Houghton CM, Raghuram A. O'Driscoll BR. Medical admissions can be made easier, quicker, better by use of a pre-printed medical admission proforma. Clin Med 2001; 1: 327.
- Wrenn K, Rodewald L, Lumb E, Slons C. The use of structured, compliant specific patient encounter forms in the emergency department. *Ann Emerg Med* 1993; 22: 805–12.
- Goodyear HM, Lloyd BW. Can admission notes be improved by using preprinted assessment sheets? Qual Health Care 1995; 4: 190–3.
- Berwick C, Winickoff DE. The truth about doctors handwriting: a prospective study. BMJ 1996; 313: 1657–8.
- Cheney C, Ramsdell JW. Effect of medical records checklists on implementation of periodic health measures. Am J Med 1987; 83: 129–36.
- Switz DM. Problem orientated medical records; evaluation and management of anaemia before/during use. Arch Intern Med 1976; 136: 1119–23.
- Wallace SA, Gullan RW, Bryne PO, Bennett J, Perez-Anila CA. Use of a proforma for head injuries in the accident and emergency department the way forward? *J Accid Emerg Med* 1994; 11: 33–42.
- O'Bichere A, Sellu D. Quality of operation notes: can simple word processors help? Ann R Coll Surg Engl 1997; 79: 204–8.
- Opila DA. The impact of feedback to medical housestaff on chart documentation and quality of care in the outpatient setting. J Gen Intern Med 1997; 12: 352–6.