



Full Length Research Article

AUDIT OF SURGICAL OPERATION NOTES IN A TEACHING HOSPITAL, SOUTH WESTERN NIGERIA: BASED ON ROYAL COLLEGE OF SURGEONS OF ENGLAND AS STANDARD

**Akanbi Olusola Olateju, Adeoti Moses Layi, *Oguntola Adetunji Saliu, Onilede David Adekunle,
Aderounmu Adebimpe O. Atilola and Olawale Lateef Idris**

Ladoke Akintola University of Technology Teaching Hospital Ogbomoso, Oyo State, Nigeria

ARTICLE INFO

Article History:

Received 19th December, 2015
Received in revised form
28th January, 2016
Accepted 24th February, 2016
Published online 31st March, 2016

Key Words:

Audit,
Quality,
Operation notes,
Royal college of Surgeon of England

ABSTRACT

Operation notes are important medical records that document operative procedures, intra operative findings, subsequent care and plan for the patients. The value of quality operation notes for academic, research, clinical auditing and when medical litigation arises cannot be disputed. These notes when properly documented will help to promote prompt response to care and need of patients in post operative period. This study assess the quality of operation notes in our centre by reviewing all the available operation notes over a 2 year period retrospectively against a set standard by Royal College of Surgeons of England. Our study revealed deficit in some areas of information with good compliance in other areas. We therefore recommend the use of standard operation note based proforma as aide-memoires, will help improve the quality of our operation notes.

Copyright © 2016, Akanbi Olusola Olateju et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

The patients undergoing operative procedures often require ongoing and continuous care in their post operative period, prompt and appropriate interpretation of post operative note and accompany order will in no doubt optimize their recovery and reduce complications that may arise from the procedure, this can only be achieved in a well clearly and accurately documented post operative note. The importance of this is well recognised by the General Medical Council stating that; good note keeping is an essential part of good medical practice (General Medical Council, 2001). So, also a well documented intra-operative proceedings and findings will help subsequent attending physician that is not a member of the intra-operative team to be able to anticipate in advance possible complications that may arise from the procedure and in early interpretation of patient symptoms and signs without need for unwarranted investigations that may further delay patients' optimal care. Post operative morbidity and mortality resulting from poorly written post operative order forms a significant subset of all adverse event suffered by hospitalised patients

(Australia Council for Safety and Quality in Health Care, Open Disclosure Project, 2001). Operation notes apart from serving as means of communication between the physicians, it also serve as learning notes or documents for surgical trainees and is the only medical and possible legal records of the operation and when not well documented it places the doctor at a disadvantage in medical litigation (General Medical Council, 2001, Campling *et al.*, 1992, Mathew *et al.*, 1992, Bastia BK 2006). This was further emphasized by Lefter *et al* concerning the right of patients to access their medical records in certain conditions (Lefter *et al.*, 2008). The importance of quality post operative note and order has led many regulatory bodies such as Royal College of Surgeons Of England in a book published in 2008 titled *Good Surgical Practice* to contain a section on content of comprehensive operation notes, Figure 1 (RCSE 2008). So, also was the development of a post- operative Order Format Prepared by Victorian Surgical Consultative Council (VSCC) in 2008 to re evaluate this aspect of surgical notes. Despite the importance of operation notes, less attention is paid to it in surgical training. The aim of this auditing is to determine the quality of operation notes among surgeons in south western Nigeria teaching hospital as set out by RCSE (RCSE, 2008).

***Corresponding author: Oguntola Adetunji Saliu,**
Ladoke Akintola University of Technology Teaching Hospital
Ogbomoso, Oyo State, Nigeria.

MATERIALS AND METHODS

This retrospective study was carried out at the Ladok Akintola University of Technology Teaching Hospital (LTH) Ogbomosho. LTH Ogbomosho is a tertiary health care centre that renders primary, secondary and tertiary health care services. The hospital receives referrals from primary, secondary health care centres and neighbouring tertiary hospitals. The study retrospectively reviewed all the available general surgical operation notes done in Ladok Akintola University of Technology Teaching Hospital Ogbomosho over a 2 year period by authors in the study centre and compared it against criteria as set in Royal College Of Surgeons Of England as highlighted in section 1.5 on record keeping in “Good Surgical Practice 2008” Figure 1 (RCSE, 2008). Other information recorded were status of the surgeon who wrote the operation notes and patients’ biodata. Each components of the guidelines were assigned a score of one point when present, zero when absent and no score when not applicable. The results were presented in form of tables, percentages and charts. Compliance are defined as good if fall between 90-100%, fair between 70-90% and poor if less than 70%. Test of significance was by chi square with p value of less than 0.05 as significant.

1. Date and time
2. Elective /emergency
3. Name of operating surgeon and assistant
4. 55(32.74%) cases were emergencies
5. Incision
6. Operative diagnosis
7. Operative findings
8. Any problem/complications
9. Details of tissue removed added or altered
10. Extra procedure performed and reason why
11. Identification of prosthesis used, including serial numbers of prosthesis and other implanted materials
12. Operative procedure carried out
13. Detail of closure technique
14. Post operative care instruction
15. Signature
16. Legible operative notes

Figure 1. Recommendations from “Good surgical practice” information to be included in operation notes [RCSE, 2008]

RESULTS

A total of 168 general surgical operation notes were reviewed. One hundred and eleven (66.07%) of the cases were performed by consultants however, but only 24 (14.28%) notes were written by them (p <0.001) as shown in Figure 2.

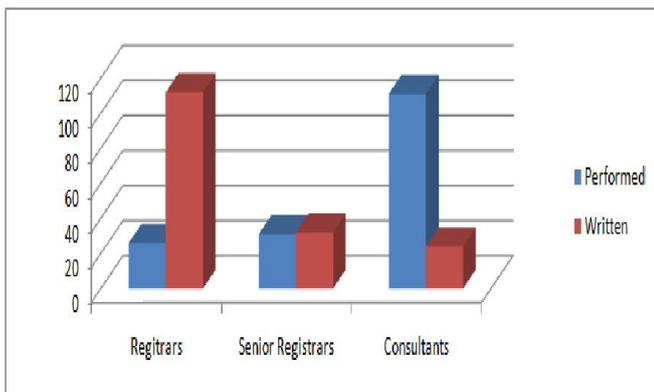


Figure 2. Comparing the lead surgeons against writers among different cadre of doctors

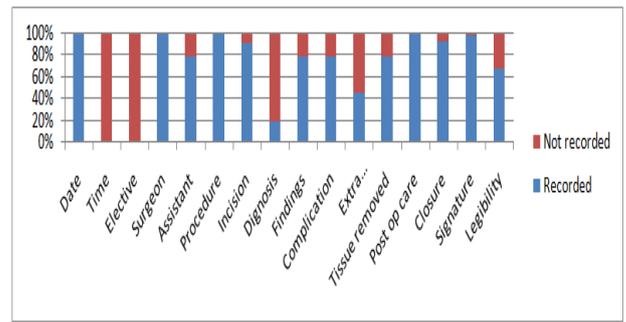


Figure 3. showing the percentages of information recorded and not recorded in the operation notes

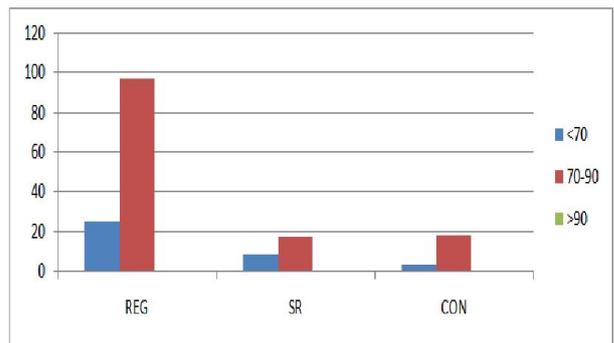


Figure 4. Showing distribution of percent compliance achieved among different cadre of doctors

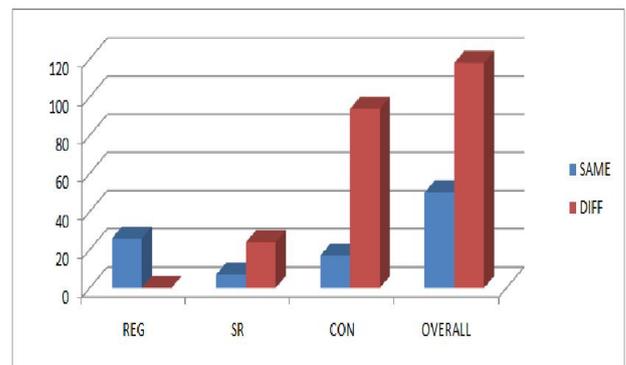


Figure 5. Comparing concordances between the lead surgeons and writer among different cadres

One hundred and thirteen (67.2%) cases were electives while, 55 (32.74%) cases were emergencies however, none of the writers documented this component. Compliance of greater than 90%, 70-90%, and less than 70% were achieved in 7 (43.75%), 4 (25%) and 5 (31.25%), components respectively (Figure 3). None of the notes achieved up to 90% overall compliance, with highest compliance of 87.5% achieved in 11 (6.54%) operation notes.

Figure 4 is showing the frequency of the percentage compliance among notes written by consultants, Senior Registrars and Registrars. Most of the operation notes were not written by the lead surgeons. This finding is more prevalent among consultant cadres (Figure 5).

DISCUSSION

The primary purpose of medical records is to allow identification and ongoing care of the patients, for this to be fulfilled it must be legible, comprehensive and easily accessible when needed in order to allow prompt response to patients care and needs. Post operative notes serve this purpose for patients that underwent operative procedures. Our study revealed that, our operation notes enjoy good compliance in some areas such as; date, surgeon, procedure, incision, closure which enjoy compliance between 90 to 100%. The study showed a fair compliance in some other areas such as; assistant(s), finding(s) and tissue removed with poor compliance in; diagnosis, extra procedure, legibility. A zero compliance was noted in area of documentation of timing of the surgery, nature of the surgery; whether elective or emergency.

Of note is the compliance of 68.24% recorded on legibility, a similar Figure in a previous study (Ghosh, 2010). This is of importance, as illegible notes weaken doctors' stand in medical litigations (Mathew *et al.*, 2003 and Bastia, 2006), it is also is not far different from an unwritten note. When operation note is not properly read or mis-interpreted it may lead to error in patients' care with subsequent adverse effect on patients. The deficits noted in the information documented in our study further confirm that the problem is rampant and consistent with other similar study when operation notes were compared with certain standards. (Chamisa and Zulu, 2007; Ogbemudia, 2011). No significant difference in the percent compliance achieved by the consultants and the registrar in our study, similar to report from a study done in southern Nigeria (Olatoregun *et al.*, 2013).

The poor compliance in some areas of documentation in our study in reference to that of RCSE may be attributed to lack of knowledge about these guidelines and probably due lack of a standard post operative note proforma, as can be extrapolated from our results that, the areas of information documented which enjoy good compliance were the areas that are specified in our present operation notes proforma. Previous studies have shown that a proforma based aide-memoires for documenting operation notes improved the compliance of post operation notes in some speciality (Bateman, 1999 and RCSE 1994). There was also significant difference between the lead surgeon and the writer of the operation notes. Consultants led 66% of the procedures but wrote only about 14 % of the cases, as most of the procedures were written by the registrars. This is totally in contrary to best practice as the lead surgeon who performed the operation is expected to write the operation note (BOA 1999). Though in some cases the assisting registrars can be allowed to write the operation notes but this should be under the supervision of the consultant who led the procedure, this will further improve the acquisition of skill and knowledge of the trainee in writing proper post operative notes and steps involved in an operative procedures. Due to recent relative easier access to internet facility with increase patients' awareness, patients are now more enlightened and rather more suspicious of quality of care received from health care providers with subsequent inclination towards medical litigations (Bastia, 2006; I Chamisa and Zulu 2007; Saunder,

1988) thus this call for conscious effort for proper documentation of medical records. Though various reasons such as lack of knowledge of the expected standard, tiredness after a long day surgery and so on have been adduced for poor post operative notes documentation. (Olatoregun *et al.*, 2013). This however, is still not a justification for poor documentation as "good medical practice required good record keeping."

Conclusion

Significant non-compliance was found with various components of a standard operation note. A better quality operation notes can be obtained through the use of a pre-formed operation notes proforma that include each component of data point set in the guidelines, this should be encouraged by all institutions.

REFERENCES

- Australia Council for Safety and Quality in Health Care, Open Disclosure Project: When Things Go Wrong – an open approach to Adverse Events. Issues paper, pp 1-20,2001
- Bastia, B.K. 2006. Litigation suit in Otorhinolaryngology, area of concern. *Indian Journal of Otorhinolaryngology and head and neck surgery*. 58;1:370-3.
- Bateman, N.D., Carney, A.S. and Gibbin, K.P. 1999. An audit of the quality of notes in an otolaryngology unit. *J Roy Coll Surg Edin.*, 44:94-95.
- British Orthopaedic Association and British Association for Surgery of the Knee 1999. Knee Replacement: A Guide to Good Practice. London
- Campling E., Devlin H., Hoile, R. and Lunn, J. 1992. The Report of the National Confidential Enquiry into Perioperative deaths 1990. London, UK.HMSO page 11
- Chamisa, I. and Zulu, B.M.W. 2007. Setting the record right - prospective audit of quality of case notes in surgical department. *SAJS* 45; 3:92-95.
- General medical council. Good medical practice .3rd ed. London, UK.GMC; 2001
- Ghosh, A.K. 2010. An audit of orthopaedic operation notes: what are we missing? *Clinical Audit*, 2:37-40
- Lefter, L.P., Walter, S.R., Dewhurst, F. and Turner, R.W.L. 2008. An audit of operative notes: facts and way to improve. *ANZ J Journal Surg.*,78:800-2.
- Mathew, J., Baylis, C., Sakalani, A.P. and AL-Dabbagh, A.R. 2003. Quality of operative notes in a district general hospital: a time for change? *Internet J.Surg.*, 5:116-9.
- Ogbemudia, L.W. Osemwegie, 2011. Quality of operation notes following Orthopaedic Procedure in A tertiary Centre: A need for reorientation. *Ann. Biomed. Sci.*, vol 10; 2.
- Olatoregun, F.B.O., Alagoa, P.J. and Mukoro, D.G. 2013. Quality of operation notes in Niger-Delta University Teaching Hospital, Southern Nigeria. *IOSR-JDMS* 10; 3:5-8.
- Saunder, M. 1998. Problems with notes. *Journal of medical defence*, 297:1256-1259
- The Royal College of Surgeons of England 1994. Guidelines for Clinician on Medical Record and Notes.
- The Royal College of Surgeons of England 2008. Good Surgical Practice. London, UK: RCEng – Professional Standard and Regulation.