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## RESEARCH ARTICLE

### AUDIT OF ORTHOPAEDICS OPERATION NOTES: SET AGAINST ROYAL COLLEGE OF SURGEONS OF ENGLAND AS STANDARD

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#### ABSTRACT

The importance of comprehensive operation note for continuous care of the patients in post operative period is indispensable for prompt and quality care of the patients. We audit the orthopaedics operation notes in our teaching hospital against a set standard by royal college of surgeons of England for comprehensiveness and legibility. A total of 98 operation notes were retrospectively reviewed. Though some areas enjoyed good compliance with poor compliance in some area. We therefore suggest the use of a detail operative profoma notes containing the expected sections.

## INTRODUCTION

Operation notes are important medical documentation of intra operative procedures, that often serve as means of communication between the surgeons and other members of intra operative team and the other health care givers that will subsequently be involved in the continuous care of the patients during the post operative period. It also contains the post operative plan or order to be carried out during post operative period. Prompt interpretation of these notes will optimise patients' care, as well as helping in proper interpretation of patients' signs and symptoms that may be related to intra operative findings and procedures. Operation note apart from serving as a medical record it may also serve as a learning tool for surgical trainee and is the only medico legal documentation of operative procedures (Bateman *et al.*, 1999). The importance of these operation records led the British Orthopaedics Association to document that 'good record is basic tool of clinical practice' (BOA, 1999). So also the Royal College of Surgeons of England in its documentation that 'medical records are fundamental to clinical care and audit of surgical services' (RCSE, 1994). The literature review by the National Confidential Enquiry into Preoperative Death in United Kingdom (UK) revealed the inadequacy of operation notes and also as a major setback for surgical defence in medical litigation (Campling 1992).

Realisation of importance of these notes has led regulatory bodies such as Royal College of Surgeons of England (RCSE) to include a section on record keeping that detail component of complete and comprehensive operation note in a book titled 'Good surgical practice' Table 1 (RCSE 2008). The aim of this study is thus to determine the compliance of operation notes documentation against the set standard by the Royal College of Surgeons of England in our centre.

## MATERIALS AND METHODS

The study retrospectively reviewed a total of 98 orthopaedics operation notes done over 2 year period in our teaching hospital Ladoke Akintola University of Technology Teaching Hospital (LTH) Ogbomoso. LTH is a tertiary health care centre located in south western Nigeria. The hospital receives referrals from private hospitals, general hospitals and neighbouring teaching hospitals. The hospital provides primary, secondary and tertiary health care services inclusive of elective and emergency orthopaedic services. The operation notes of all the patients within the study period were retrieved from the record unit and were reviewed by one of the investigators against the set standard of RCSE as a guide, each component of the guide line were assigned a point of one when mentioned, zero when not mentioned and not applicable when not relevant and percentage of compliance of each writer and each component of the guideline were computed. Test of significance was by chi square and p value set below 0.05 for significant difference.

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## RESULTS

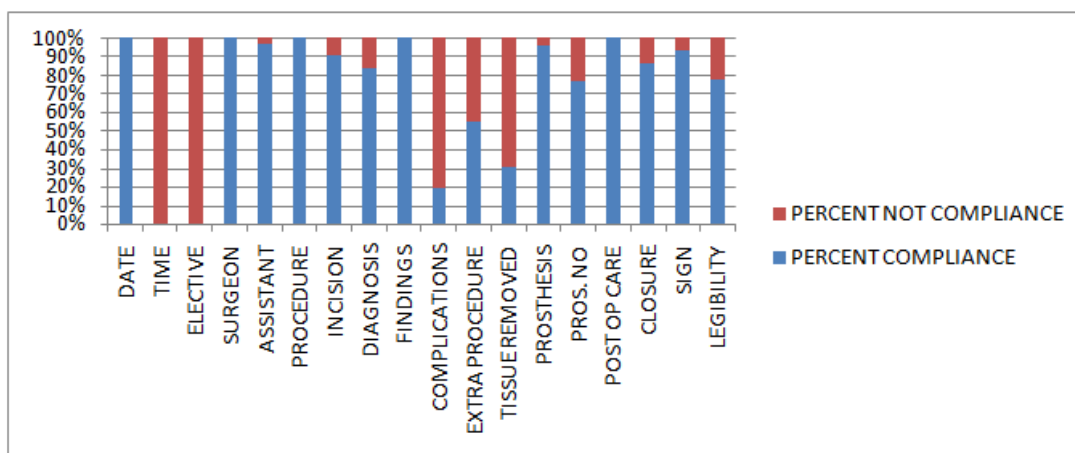
A total of 98 Orthopaedics post operative notes over 2 year period were reviewed against the set standard of RCSE. All the cases were done by consultants, however, 82(84%) of the operation notes were written by the registrars who assisted the procedures and 16 (18%) were written by consultants. None of the cases among the notes reviewed documented whether the procedure was elective or emergency. The nature of the procedures can be discerned from the review of the case notes and intra operative documentation. Compliance of 90-100 % were reached in 9 components, 70-90% in 4 components and less than 70% in 5 components Figure 2. None of the writer achieved a compliant of greater than 90% of the overall compliance. The highest level of the compliance achieved by any individual was 88.23% figure 3. No statistical significant difference between the adherences to RCSE guidelines among different cadres of doctors ( $p>0.05$ ).

## DISCUSSION

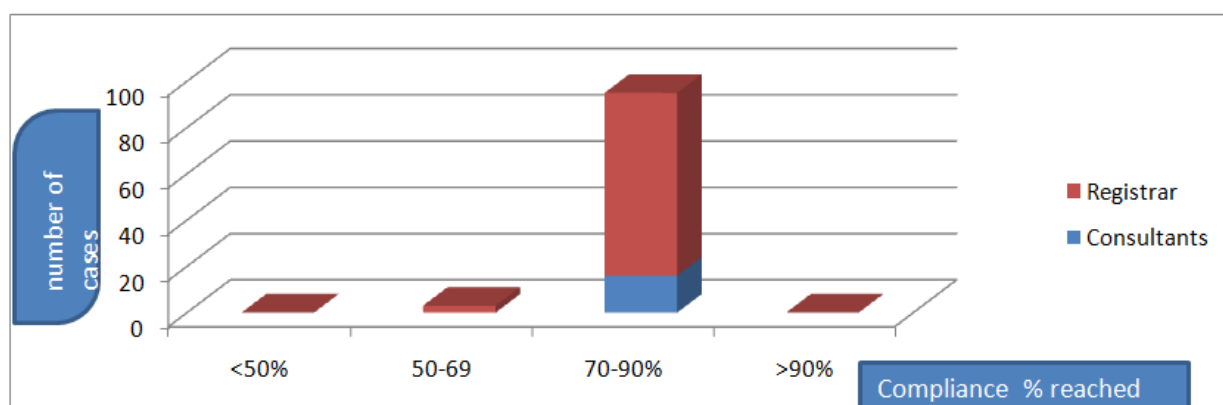
Our study compared the compliance of the components of post operative note as set by RCSE. The study shows a poor compliance in some area such as time, nature of surgery (emergency or elective), intra op complications, extra procedure and detail of tissue removed, with zero compliance in some areas such as documentation of time and whether the surgery is emergency or elective a similar occurrence in one previously published study (AK Gosh 2010). Also of note is the area of legibility with compliance of 77.53% a findings comparable to other study (AK Gosh 2010) this is a major concern as illegible notes are obviously not different from an unwritten notes and which when wrongly read may lead to wrong interpretation of writers' intentions or aim with subsequent delay in patients care and increase risk of adverse effect on the patients. The overall poor compliance with RCSE may be associated with lack of a standard post operative note proforma; these can be further justified as the areas which

**Table 1. Recommendations from Good surgical practice information to be included in operation notes**

Date and time	Extra procedure performed and reason why
Elective /emergency	Details of tissue removed added or altered
Name of operating surgeon and assistant	Identification of prosthesis used, including serial numbers of prosthesis and other implanted materials
Operative procedure carried out	Detail of closure technique
Incision	Post operative care instruction
Operative diagnosis	signature
Operative findings	Legible operative notes
Any problem/complications	



**Fig.1. Showing the information documented in percentage**



**Figure 2. Showing the frequency of spectrums of compliance reached in percentages by registrars and consultants**

enjoyed good compliance in our study were the areas that were specified in our present operation notes proforma. Previous study has shown a similar result that proforma based on RCSE as aide-memoires for documenting operation note has improved the compliance of these notes in some speciality (Bateman *et al.*, 1999; BOA, 1999; RCSE, 1994). The guide lines also stated that as part of best practice the operation notes are better written by the lead surgeon (BOA 1999), this was totally not comparable to our findings as only 16 (16.32%) of our operation notes were written by the lead surgeons. The low compliant figure obtained in some area could be attributed to poor or lack of knowledge about the RCSE guide line. No significant difference between the notes written by the consultants and registrars especially in areas of poor compliances.

### Conclusion

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.

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