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THE QUALITY OF OPERATION NOTES AFTER TRANS-URETHRAL RESECTION OF THE PROSTATE AT KILIMANJARO CHRISTIAN MEDICAL UNIVERSITY COLLEGE HOSPITAL TANZANIA

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ABSTRACT

Background: Operation notes are very vital in the practice of surgery. They are the only comprehensive account of what took place in theatre. Accurate and detailed documentation of surgical notes after Transurethral Resection of the Prostate (TURP) is vital. Yet it is usually forgotten in medical teaching. The Royal College of Surgeons of England (RCSE) safety standards are usually used as the benchmark for the assessment of operation notes.

Patients and Methods: The study was descriptive retrospective conducted at Kilimanjaro Christian Medical Centre (KCMC). All patients who underwent TURP between January and December 2017 were enrolled. The Urology theatre register was used to trace patient identities. The Files were then extracted from the registry. Operation note sheets were analysed by the research team using a structured data collection tool. Two Independent assessors(residents) were used to assess legibility. If both agreed that the notes were decipherable, then they were deemed legible. The content of the notes was assessed for Presence or absence of recorded variables. Utmost confidentiality was kept about the surgeon and the patient.

Results: A total of 251 files were assessed. Recording of date, Inpatient number, Post-Operative instructions and whether there were any intraoperative complications was at 100%. However, the time of surgery, Resection technique and Method of introduction of the resectoscope were not recorded at all. Other variables recorded were: Signature of surgeon -99.6%, Patient name-99.6%, Details of prostate chips-89%, Sheath used-81%, Circulating nurse-68%, Working element used-35%, Telescope used-12%, Type of diathermy-7%, Loop Specifications-0.8% and type of Irrigant at 0.8%. Ninety-eight percent of the

operation notes were legible. Overall 56.6% of the operation notes had recorded variables after TURP.

Conclusion: Some variables (Inpatient number, Date of operation, intraoperative complications and Postoperative instructions) were recorded at 100%. Others (Time of operation, Resection technique and method of introduction of resectoscope) were not recorded at all. Overall 56.6% of the variables were recorded and 98% of the notes were legible.

INTRODUCTION

Operation notes are very vital. They are the only comprehensive account of what took place during surgery (1). Accurate and detailed documentation of surgical notes is crucial for continuity of care, medico-legal reasons, medical research among others (2).

Historically, in 1905, Harvey Cushing attempted a surgical procedure of glaucoma. Since then a lot of metamorphosis has taken place in the world of operation note writing (3)

Despite the fact that surgery is an integral part of clinical practice, there are no formal sessions to impart clinicians to be, with this critical skill of documentation (4). The universally quoted and cherished template to which operation notes are compared with is the Royal College of Surgeons of England guideline (5). This has been validated and found easy to implement in diverse settings with the ultimate goal of ensuring patient safety.

Because surgical operations are so diverse in nature, it is usually difficult to find a standard package which encompasses individual surgical specialties. The RCSE safety practice standard has stood the test of time as the most comprehensive. This study was intended to highlight the documentation of standard operation notes after TURP.

MATERIALS AND METHODS

After identifying the files of interest, relevant data from operation note sheets was extracted by the research team using a structured data collection tool. The dependent variables included: Name of patient, Age of patient, Inpatient number, date of operation, time of operation, whether surgery was elective or emergency, surgeon's name, assistant's name, Diagnosis (Pre and postoperative), Specification of equipment used, Intraoperative findings, Irrigant used, management of resected chips, eligibility of notes and surgeons signature.

The independent variable was the current design of the operation sheet used at the department of urology. Two independent assessors (residents) were used to assess legibility. If both agreed that the notes were decipherable, then they were deemed legible. The data collected was reviewed by the research team to ensure it was cleaned of errors. It was then checked for completeness and consistency by the research team. Data was summarised using frequency tables, pie-charts and graphs.

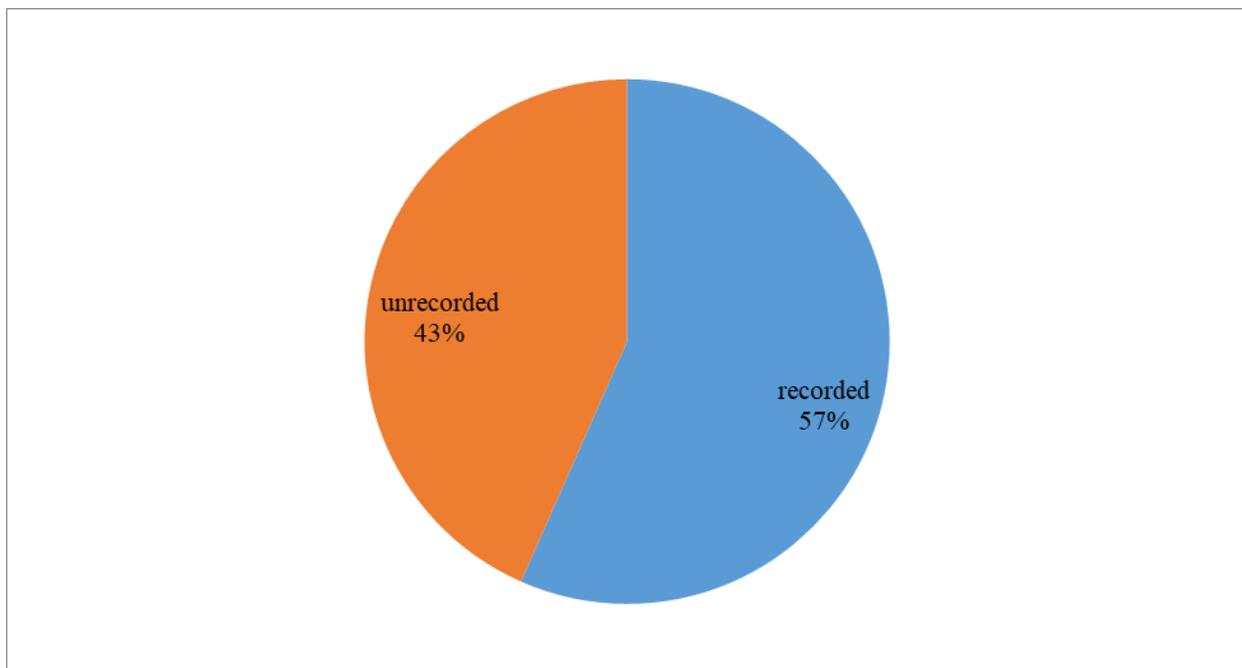
The Surgical Tool for Auditing Clinical Records (STAR) was used to assess operation note forms and a summation of all the entries was calculated. Utmost confidentiality was kept about the surgeon and the patient.

RESULTS

A total of 251 operation notes were analysed, 24 variables were assessed from each operation note sheet. Recording of Inpatient number, Date of Operation-Intra-operative complications and post-operative instructions were done at 100%. Signature/ Name of the surgeon, patient age, patient name was all recorded at 99.6%. The assistants name, pre-operative diagnosis, post-operative findings, details of chips and sheath specifications were recorded at 98%,97.6%,93%,89% and 81% respectively.

Other variables included: post-operative diagnosis, circulating nurse, working element, telescope specification, diathermy specification, elective or emergency specification, loop specification, irrigation fluid used and method of catheter insertion. These were recorded at 73%, 68%, 35%, 12%, 7%, 3%, 0.8%, 0.8% and 0.8% respectively. While a record of the time of operation, resection technique and details of resectoscope introduction were not recorded at all.

Figure 1: Proportion of variables recorded and not recorded



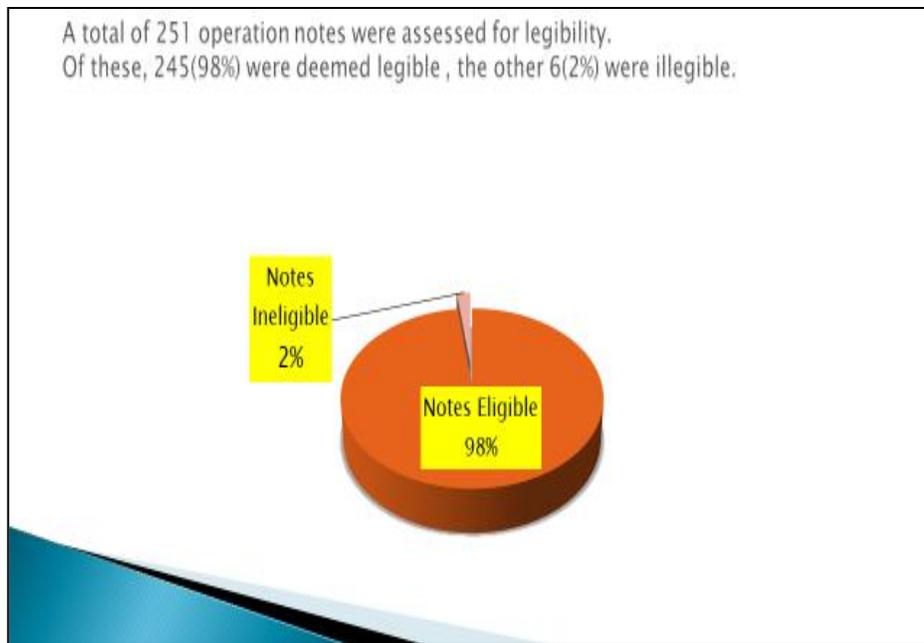


Figure 2: Operation notes

Out of the 251 operation notes files, 245 were deemed legible (98%). Using the STAR tool, Of the 24 parameters analysed per file, 3,411

variables were found done giving a compliance rate of 56.6%.

Table 1

Distribution of variables done and not done (n=251)

Variable	Done	Not Done	Percentage Done
In-patient number	251	0	100
Date of operation	251	0	100
Intraoperative complications	251	0	100
Postoperative instructions	251	0	100
Signature/Name of surgeon	250	1	99.6
Patient age	250	1	99.6
Patient name	250	1	99.6
Assistant's name	246	5	98
Pre-operative diagnosis	245	6	97.6
Post-Operative findings	233	17	93
Details of chips	222	29	89
Sheath specification	204	47	81
Post-operative diagnosis	183	68	73
Circulating nurse	173	78	68
Working element	87	164	35
Telescope specification	30	221	12
Diathermy specification	18	233	7
Elective/Emergency	10	241	3
Loop specifications	2	249	0.8
Irrigation fluid	2	249	0.8

Catheter insertion	2	249	0.8
Time of operation	0	251	0
Resectoscope introduction	0	251	0
Resection technique	0	251	0

DISCUSSION

The dependent variables whose recording were perfectly done (100%) were; In-patient number, date of operation, intra-operative complications and the post-operative instructions. This was quite impressive compared to other studies which recorded dismal figures. Adel et al found no operation date in 59% of operation notes (6), Olaterogun et al discovered no in-patient numbers recorded in 29% of case notes (7), Singh et al found that post-operative notes were lacking in 88% of operation notes they evaluated (8).

This impressive figures in this study can be explained by the nature of the structured operation note sheet currently in use at the department. These parameters have designated areas in the sheet and they are easy to discern.

In the areas of signature of the surgeon, patient age, patient name, pre-operative diagnosis and operation findings, these were recorded at 99.6%,99.6%,99.6%,97.6% and 93 % respectively. These figures were better than those done elsewhere. Adel et al found 32% of pre-operative diagnoses and 26% of the operation findings missing (6). Aamir et al in their study recorded 70% of patient age lacking (9). The figures in our study are higher than those done elsewhere possibly because of the structured operation sheet currently in use.

Other areas such as the name of the circulating nurse, which is as equally important as the name of the surgeon and his assistant, was only recorded in 68% of cases. Aamir et al found that this was done in 99%

of their study (9). Despite the fact that this area is found in the operation note form here at the institute, the implementation of its documentation was still wanting.

The specifications of the telescope, Sheath used and type of diathermy were scored at 12%, 81% and 7% respectively. While the method of catheter insertion, Irrigant used and loop specifications all scored 0.8%. The recording of these areas could have been done better if they were in the structured operation note sheet form or part of a synoptic computer package. In the literature no such specific record could be retrieved.

Recording of whether the operation was elective or done as an emergency was found in 3%. This figure is quite low compared to studies done elsewhere. Singh et al found a compliance rate of 64% (8). Despite the fact that this area is clearly depicted in the structured operation note sheet currently in use at the department, omission of this entry may be explained by its location in the operation note form.

Very dismal performance in recording was noted in resection technique, resectoscope introduction and time of operation. These scored zero percent. Compared to other studies, this observation deserves attention for comprehensive improvement in operation note recording to be realised. Singh et al found that 64% of operation notes in their study had time of operation recorded (8). The structured operation note form currently in use does not have all these parameters and these could explain lack of their recording.

From the 251 operation notes reviewed, 241 were found legible (98%). This was better than figures found in other series. Bagaire et

al, Yaser et al and Babalola et al reported legibility figures of 70%, 66% and 15 % respectively (10,1,4). Since operation notes are a source of communication between the theatre team and other parties involved in patient care, it is desired that this figure should be ideally 100%. From the assessors' point of view, it was usually the quality of handwriting which was the issue.

CONCLUSION

The recording of particular variables after TURP was highly determined by their presence in the structured operation note form currently in use. A comprehensive record of the specification of the equipment used in TURP and the steps of procedure was not possible. Some variables such as circulating nurse and post-operative diagnosis, had low compliance in recording despite their presence in the operation note form.

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