



QUALITY ASSESSMENT OF SURGICAL OPERATIVE NOTES IN A TEACHING INSTITUTE: AN OBSERVATIONAL STUDY

General Surgery

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ABSTRACT

Traditionally, operative notes have been written by one of the junior members of the scrubbed team, often supervised by a senior surgeon, considered as an essential part of training. Hence the chances of deficiency are expected to be more as the residents will be in a learning curve. **MATERIALS & METHODS:** It was prospective observational study. A total of 200 randomly selected patients' case records were studied focusing on the surgical operative notes. Surgical operative notes were analyzed with respect to 25 points checklist based on "Good Surgical Practice" guidelines. **CONCLUSION:** The most common missing element in the surgical operative notes was documentation of blood loss (57%) followed by details of closure technique (43.5%). There is a need for regular audit of surgical operative notes and also to periodically sensitize the surgical residents about the importance of detailed and accurate surgical operative notes.

KEYWORDS

operative notes, quality assessment, good surgical practice, audit

INTRODUCTION:

Surgery is an art and so does documentation of operative notes. Surgical operative notes are the most important component of any surgical case record. A proficient operation note describes the patient's personal details and indications for operation, details of steps of a procedure performed along with instructions for post-operative care. Documentation of intra operative events is very crucial from many aspects. First and foremost a good operative note helps in proper management of the patient during the postoperative period and even after discharge. Second, it helps the future treating doctor in properly understanding the patients' past surgical history. Last but not the least; it's a valuable piece of evidence from the medico legal point of view.

A record of the operation should be made immediately following surgery. Traditionally, operative notes have been written by one of the junior members of the scrubbed team, often supervised by a senior surgeon, considered as an essential part of training. Hence the chances of deficiency are expected to be more as the residents will be in a learning curve. Hence we want to analyze the surgical operative notes to assess the current status.

OBJECTIVES OF THE STUDY:

The objective of this study is to analyze the surgical operative notes at PES Institute of Medical Sciences and Research, Kuppam and also to compare it with the standard guidelines of "Good Surgical Practice" published by Royal College of Surgeons, England in 2014.⁴

MATERIALS & METHODS:

It was a retrospective observational study. Prior permission was obtained from the Institutional Ethics Committee (IEC). A total of 200 patients' name and hospital registration number were randomly selected from the operation theatre registry. Patients' case records were studied focusing on the surgical operative notes. Surgical operative notes were analyzed with respect to 25 points checklist based on "Good Surgical Practice" guidelines.⁴

Inclusion and Exclusion Criteria:

General surgery patients undergoing surgical procedures in the major operation theatre complex were included in the study. Patients

undergoing major general and laparoscopic surgery were included in the study. Both elective and emergency cases were included in the study. Patients undergoing minor surgical procedures were excluded from the study.

Data Analysis & Statistics:

The data were entered in Microsoft Excel and analyzed using SPSS software. Descriptive statistics was used and results were expressed as percentage.

RESULTS:

Study findings are depicted in the form of tables.

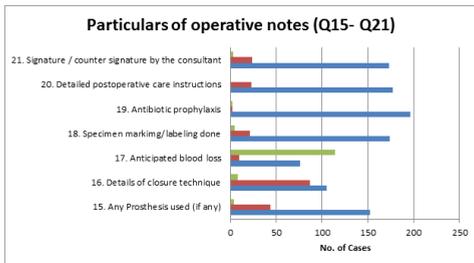
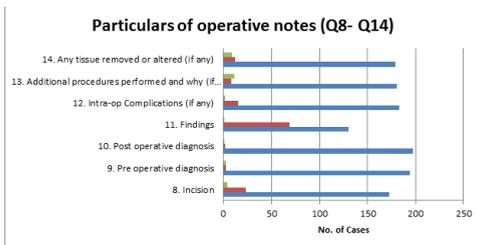
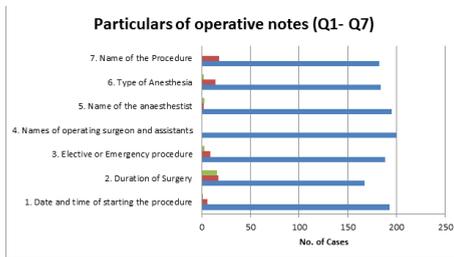
Table 1: Basic patients' details mentioned in the operative notes

Basic Details	No. of Cases	Percentage
Name of Patient	200	100.0
Age	200	100.0
Sex	200	100.0
MR No.	200	100.0

Table 2: Information status in the operative notes

Sl. No.	PARTICULARS	Complete Information n (%)	Incomplete Information n (%)	Absent (No information) n (%)
1	Date and time of starting the procedure	193 (96.5)	6 (3.0)	1 (0.5)
2	Duration of Surgery	167 (83.5)	17 (8.5)	16 (8.0)
3	Elective or Emergency procedure	188 (94.0)	9 (4.5)	3 (1.5)
4	Names of operating surgeon and assistants	200 (100.0)	0 (0)	0 (0)
5	Name of the anesthetist	195 (97.5)	2 (1.0)	3 (1.5)
6	Type of Anesthesia	184 (92.0)	14 (7.0)	2 (1.0)
7	Name of the Procedure	182(91)	18(9)	0(0)

8	Incision	173 (86.5)	23 (11.5)	4 (2.0)
9	Pre operative diagnosis	194 (97.0)	3 (1.5)	3 (1.5)
10	Post operative diagnosis	197 (98.5)	2 (1.0)	1 (0.5)
11	Findings	130 (65.0)	69 (34.5)	1 (0.5)
12	Intra-op Complications(if any)	183 (91.5)	15(7.5)	2(1)
13	Additional procedures performed and why(if any)	181 (90.5)	8 (4.0)	11 (5.5)
14	Any tissue removed or altered(if any)	179 (89.5)	12 (6.0)	9 (4.5)
15	Any Prosthesis used(if any)	152 (76.0)	44(22.0)	4 (2.0)
16	Details of closure technique	105 (52.5)	87 (43.5)	8 (4.0)
17	Anticipated blood loss	76 (38.0)	10 (5.0)	114 (57.0)
18	Specimen marking/labeling done (if any)	174 (87)	21 (10.5)	5(2.5)
19	Antibiotic prophylaxis	196 (98.0)	2 (1.0)	2 (1.0)
20	Detailed postoperative care instructions	177 (88.5)	23 (11.5)	0 (0)
21	Signature / counter signature by the consultant	173 (86.5)	24 (12.0)	3 (1.5)



DISCUSSION:

In our present study, patient details were mentioned in all the operative notes (100%). Surgical team members were also mentioned in all the notes (100%). These findings are far better compared to findings of Hamza AA et al where in such details were missing in more than 60% of operative notes.⁵ Anesthetist names were missing in only 2(1%) notes as compared to 86% in Hamza AA et al study.⁵ The date and time were mentioned in 96.5% of operative notes as compared to 79.1%, 4% and 36% of Hamza AA et al, Parwaiz H et al and Singh R et al studies.^{5,6,7} The duration of surgery was missing in about 16.5% of operative notes compared to 60% in the study by Cahill KC et al.⁸ Elective or emergency surgery was specified in 94% of operative notes. This was almost similar to 96.8% of Hamza AA et al findings and much better than 0%, 1% and 36% of Cahill KC et al, Parwaiz H et al and Singh R et al studies respectively.^{5,6,7,8} The type of skin incision was missing in about 13.5% of operative notes as compared to 27% in the

Hamza AA et al study.⁵ Intra operative findings were completely mentioned in 65 % of the operative notes. This was marginally less than 69% of Hamza AA et al study but very low compared to 90% in Cahill KC et al.^{5,8} Detailed mentioning of prosthesis was missing in 24% of the operative notes. Closure technique (type and suture material used) was incompletely mentioned in 43.5% of the operative notes and missing in 4% notes. But this finding is far better than 73% of Hamza AA et al study.⁵ Blood loss was not mentioned in 57% of the operative notes. Though it's a major deficit, but it is far better than 98% deficiency reported in Parwaiz H et al study.⁶ Postoperative orders were written in 86.5% of operative notes as compared to 69.4% and 88% of Hamza AA et al and Singh R et al study respectively.^{5,7} Consultant signatures were missing in 13.5% of operative notes; but much better than 52% and 22% of Hamza AA et al and Parwaiz H et al study respectively.^{5,6}

CONCLUSION:

The most common missing element in the surgical operative notes was documentation of blood loss (57%) followed by details of closure technique (43.5%). Otherwise the operative notes were legible and complete in terms of patient's data and surgical team details. There is a need for regular audit of surgical operative notes and also to periodically sensitize the surgical residents about the importance of detailed and accurate surgical operative notes.

References:

1. Painter MN. Operative reports and reimbursement. Bull Am Coll Surg. 1994; 79:6-8.
2. The Royal College of Surgeons of England. Guidelines for clinicians on medical records and notes. 1994; 1-5. Available from www.rcseng.ac.uk/publications/docs/med_records.../med_records.pdf
3. Khan MUR, Ahmed S, Shamim MS, Azhar M, Rehman S; Operative notes at surgical units of a tertiary care hospital. Journal of Surgery Pakistan (International), 2010; 15(1): 57-59.
4. The Royal College of Surgeons of England. Good Surgical Practice. Published: September 2014. Available from <https://www.rcseng.ac.uk/standards-and-research/gsp/domain-1/>
5. Hamza AA et al., Sch. J. App. Med. Sci., 2013; 1(6):668-672. Parwaiz H
6. Perera R, Creamer J, Macdonald H, Hunter I; Improving documentation in surgical operation notes. Br J Hosp Med (Lond). 2017 Feb 2; 78(2):104-107.
7. Singh R, Chauhan R, Anwar S; Improving the quality of general surgical operation notes in accordance with the Royal College of Surgeons guidelines: a prospective completed audit loop study. J Eval Clin Pract. 2012; 18(3): 578-580. Cahill KC, Burchette D, Kerin MJ, Kelly JL; Standards in Operation Notes--Is It Time to Re-Emphasise Their Importance? Ir Med J. 2016 Jan; 109(1):332-334.