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Original article

A RETROSPECTIVE CLINICAL AUDIT: USE OF ABBREVIATIONS IN WRITTEN INFORMED CONSENT OF ANAESTHESIA FOR ELECTIVE ONCOSURGERIES
(ACRONYMS IN ANAESTHESIA CONSENT)

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Summary

Introduction *Consent form, an important legal document, is proof of communication between patient and doctor. The consent is an important process to be followed before procedure. We observed abbreviations in the anaesthesia consent forms which may result in improper understanding and communication when consenting patients for elective surgeries under anesthesia.* ***Methods*** *For assessment of the quality of consent for patients, a pre-interventional audit was performed retrospectively by review of 50 anaesthesia forms for consent in our oncology center during August of 2023 for elective oncological procedures under anaesthesia. Information was collected exclusively through our institutional systems of medical record department. The data were analyzed and subsequently, a training session (in-person) was scheduled during September 2023 to highlight the value of written informed consent and to avoid abbreviations in the document. The post-interventional audit was done for during October 2023 that also included 50 anaesthesia forms for consent. The analysis of the results was performed and compared with pre-interventional results of audit.* ***Results*** *The usage of abbreviations was 44% in pre-intervention audit. It reduced to 16 % in the post-intervention audit (P value-0.0001). The abbreviations used were DM, LV, MI, PTCA, EF, STO and COPD. The most commonly used abbreviations were DM and LV in audit and DM in re-audit.* ***Conclusion*** *A straightforward educational training intervention can improve consent quality and safety of patients and prevents likely medico-legal repercussions for institutions and persons as well involved in providing healthcare.*

Key words: *Acronyms; Consent for Anaesthesia; Cancer surgery*

Introduction

Informed written consent is of paramount importance during perioperative care period because it is a legal and ethical requirement which must be obtained by all healthcare professionals including doctor and nurse during preoperative period[1]. Nowadays, there are more concerns from the medical community about inadequate and improper documentation and practices for consent before surgeries[2]. These may result in increased cost and mental stress for all, including the healthcare provider, the institution and the patient as well. The usage of short forms is misleading and carries risk of sending a change in meaning with change in circumstances which in turn may decrease the effectiveness of communication[3].

Therefore, simple language should be used for a good understanding of the procedure mainly for written informed consent for anaesthesia.

Our study aimed to look for different abbreviations used in anesthesia consent and preventive measures to be taken to reduce their usages.

For addressing these issues, healthcare institutes should give priority to scheduling and implementing proper consent processes which can protect patient rights and reduce risks related to consenting.

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Objectives

The primary objective was to compare the number of short forms observed in consent forms for anesthesia for elective oncological surgical procedures under anaesthesia between preintervention audit and postintervention re-audit.

Secondary objectives were to compare the different abbreviations used and the designation of the doctor responsible for filling out the consent form.

Methodology

In this study, patient consent forms for anaesthesia were reviewed for usage of different abbreviations with counts. Our institutional standard anaesthesia consent forms were followed for audit and re-audit as well. Our institute is exclusively for oncological patients. We hypothesized that use of short forms was not allowed in the consent forms. Instead, those abbreviations should be specified in full forms to be acceptable. Our institutional approval was obtained and after that, a list of all patients operated on for elective oncological operative procedures during August of 2023 was obtained from medical record departments and all procedures done without anaesthesia or under local anaesthesia and as emergency cases were excluded. A random selection of 50 consent forms, obtained from the list, was made. Randomization was done using a computer-generated number system. Replacement with another, randomly selected set of case notes was done for those reviewed cases which did not fulfil the criteria for inclusion. A review of a total of 50 anaesthesia consent forms was done and the results obtained were depicted in Table 1.

As this audit is mainly related to assessment of forms, not requiring the collection or analysis of patient clinical data, institutional ethical committee approval was not obtained for getting informed consent from patients before starting the audit, but ethical approval was obtained seeking permission for publication of this article. The review of the consent forms was performed by faculties of the anaesthesia department with consideration of the following variables:

- The number of abbreviations found
- Type of abbreviations used
- The language of consent forms used: Hindi or Gujarati
- The designation of the doctor responsible for filling out the consent form

Excel sheets were used for collection and entry of data. An educational training session (in-person) was scheduled immediately during next month. The results obtained during the first cycle were highlighted during a training session during September of 2023 in the presence of faculties and residents of the anaesthesiology department of our institute. We insisted that the usage of full forms in consent forms instead of abbreviations is of paramount importance. After intervention, a re-audit was done for the consent forms of the 50 elective oncosurgeries performed under anaesthesia in our hospital after one month.

The entire month of October 2023 was allotted for the implementation of these changes. Data collection was conducted in the following month, for all elective oncological surgical procedures performed under anaesthesia during October 2023. The same variables assessed in the pre-interventional audit were used in the re-audit. A total of 50 anaesthesia consent forms were reviewed, and the results were presented in tabular format (Table 2.).

Sample size calculation was performed using G*Power version 3.1.9.2 based on the results of the pilot study. We calculated that 46 patients per group would be required, with 0.05 and 0.2 as alpha and beta error values, respectively. Accounting for a 10% dropout rate, a total of 50 patients were included in each group.

Statistics

Graph Pad Software was used for statistical analysis. Fisher's exact test was used to determine the statistical significance for the data obtained from both cycles. All data were presented as numbers and/or percentages. A p value was of less than 0.05 was considered statistically significant.

Results

Audit: Pre-intervention

In this clinical audit, anaesthesia consent forms were reviewed for 50 patients who underwent elective oncosurgical procedures under anaesthesia at our organization, during the previously mentioned

time period. The type of surgeries included are presented in Table 1.

Analysis was conducted on 50 pre-intervention anaesthesia consent forms. Of the total cases reviewed, 24 were female and 26 were male patients. We observed that all consent forms properly included all details mentioned in our institutional standard anaesthesia consent form, including patient identity with registration number, type of anaesthesia, risk and benefit of anaesthesia procedures, anaesthesia risk due to associated comorbidities, blood transfusion, postoperative ventilator consent, and tracheostomy consent when necessary.

Table 1: Anaesthesia consent forms of operative oncological procedures

Type of oncological surgery	*Audit (N=50)*	*Re-audit (N=50)*	*P-value*
Gynecology	12	10	0.8097
Gastro intestinal	11	7	0.4356
Urology	5	8	0.5536
Breast	9	12	0.6242
Thoracic	6	7	1.000
Orthopedic	7	6	0.5251

N-Numbers

However, 22 forms (44%) were filled out with the use of abbreviations. Most of the forms containing abbreviations had been completed by resident doctors (36 %) and- only few forms had been filled out by faculty. The abbreviations used were DM, LV, MI, PTCA, EF, STO, and COPD. Full forms for these abbreviations are DM (Diabetes Mellitus), LV (Left ventricle), MI (Myocardial Infarction), PTCA (Percutaneous Transluminal Coronary angioplasty), EF (Ejection Fraction), STO (Soft tissue opacity), COPD (Chronic Obstructive Pulmonary Disease). Most commonly used abbreviations were DM and LV. Details for all abbreviations used are shown in Table 2

Re-audit: Post-intervention

Analysis of all 50 anaesthesia consent forms was conducted and were compared with the pre-intervention consent forms. Among these, 27 forms belonged to female patients and 23 to male patients. Each consent form accurately recorded all details mentioned in our institutional standard anesthesia consent forms. Only 16% (N=8) of all anaesthesia consent forms were completed with the use of short forms, abbreviations or acronyms. The most common abbreviation was DM. We observed an improvement of 28% in comparison to the audit before training (P value- 0.0001). The results of both the pre-intervention audit and post-intervention re-audit are presented in Table 2.

Discussion

In this audit, we observed, identified and analyzed issues in the anaesthesia consenting process and we implemented changes to improve the consent forms for patients undergoing elective oncosurgical procedures. The results of the consenting process for similar patients were found to be significantly improved in the post-intervention re-audit cycle.

The most important finding from this audit was that the quality of informed written consent for anaesthesia can be improved greatly through a simple educational training programme. A straightforward, in-person training intervention can enhance awareness of proper implementation of informed written consent and reinforce adherence to our institutional standard anaesthesia consent form. These uncomplicated educational training sessions improve the documentation of anesthesia consent forms for oncosurgeries, thereby optimizing patient safety with quality improvement also.

During the initial audit cycle, 54% of the reviewed consent forms for orthopedic surgical procedures contained abbreviations, with DVT and PE being the most frequently encountered. The use of abbreviations instead of their full forms resulted

Table 2: Type of variable and data collection for audit and re-audit

Variables	*Audit (N=50)*	*Re-Audit (N=50)*	*P-value*
Hindi/Gujarati	20/30	18/32	-
Number of abbreviations	22 (44%)	8 (16%)	0.0001
Type of abbreviations used			
DM	8	5	0.5536
LV	5	1	0.2044
MI	3	0	0.2424
PTCA	1	0	1.000
EF	1	1	1.000
STO	2	0	0.4949
COPD	2	1	1.000
Abbreviations used by Resident	18	6	0.0091
Abbreviations used by Faculty	4	2	0.6777

DM (Diabetes Mellitus), LV (Left ventricle), MI (Myocardial Infarction), PTCA (Percutaneous Transluminal Coronary angioplasty), EF (Ejection Fraction), STO (Soft tissue opacity), COPD (Chronic Obstructive Pulmonary Disease)
N: Number

in the risk of possible misinterpretation. A decline in the usage of acronyms from 54% in the initial audit to 22% in the post-interventional re-audit was observed, indicating an improvement in the consent process[3].

Increasing education and awareness among anaesthetists regarding the consenting process can improve documentation of consent in anaesthetic records, while monitoring and assessment of compliance with standards can lead to improved practice[4].

Our institutional audit has found that by regular review of our practice and presenting results, we can achieve significant improvements in a short period of time without the use of additional institutional resources or increasing financial burden.

When improper information is provided in the consent forms, it adversely modifies the appropriateness of the informed consent, thereby creating ethical and legal challenges to accurately informed consent[5].

The practice of conducting training sessions, such as seminars, to educate healthcare providers on obtaining valid and proper consent is not considered a novel approach. The Agency for Healthcare Research and Quality has also emphasized the importance of promoting awareness of appropriate consenting standards among healthcare providers to ensure that informed consent is legally valid. Additionally, they suggest involvement of health literacy experts in informed consent training and developing elaborate plans for recognizing and addressing liability concerns. These approaches are facilitated by well-supported institutional standards, which make their implementation practical and straightforward.

Other methods can also be used to improve the consenting process. These methods may include obtaining written feedback from the attending members to confirm the implementation of changes and improve compliance in completing consent forms. Additionally, a generic email can also be sent to all medical professionals, discouraging the usage of abbreviations and encouraging colleagues to report errors if they identify any. Similar methods were utilized by authors who conducted a pilot study on the use of abbreviations for orthopedic surgery consenting process[3].

Short forms were more often found during the initial pre-interventional audit. In consent forms, these abbreviations are commonly used to save time and space when documenting patients' consent forms and other medical records[7].

The primary aim of informed consent should be to explain the suggested procedure without using abbreviations that may be unfamiliar to patients, ensuring that the patients can make an informed decision regarding their consent to the planned treatment.

In most cases, consent for patients scheduled for low- and moderate-risk procedures is performed by resident doctors, while consent for high-risk patients is done by faculty members. The turnover of non-consultant hospital doctors is on the higher side within tertiary and teaching institutions. The monotony of resident doctors, who are responsible for sequentially consenting, admitting, and addressing the required pre-operative needs of a large number of patients for a planned list, often leads to them using abbreviations to expedite the consent process. This was identified as the key reason behind using abbreviations by most doctors who were a part of this clinical audit[2]. Similar observations were made in our institute's audit cycle; however, a significant improvement was observed following the intervention.

Although guidelines recommend that consent forms should be transparent, concise, and without abbreviations, standardization of consent forms still poses a challenge[8, 9]. Standardized forms are comfortable as these are easy to read and understand, and are of paramount importance to ensure consistency of documentation with uniform practice[10].

Our institute uses a standard anaesthesia consent form for operative procedures performed under anaesthesia. The form is available in Hindi and Gujarati, and it is explained to patients and their relatives in a language they understand.

Limitations

This study included a small sample size of planned group of patients, with a narrow spectrum of interventional assessment and change observed. Additionally, similar discrepancies may be present in emergency cases, which were excluded in this audit cycle.

Another limitation of the present study is the fact that, even after the training and the re-audit cycle, a 16% rate of abbreviations used was found. This indicates that the training did not reach all of the anaesthesiology department staff for whom it was intended.

Conclusion

We concluded that a simple educational training programme for doctors, emphasizing the importance of the consent process for elective oncological surgeries under anaesthesia, can improve the documentation in anaesthesia consent form. Our audit findings, which included a pre-training audit, suggested changes during training, and a re-audit to check the implementation of these suggestions, demonstrate an improvement in the results.

As the turnover of non-consultant hospital doctors is on the higher side within tertiary and teaching institutions, regular training programmes on informed consent can help in maintaining better standards for informed anaesthesia consent in patients scheduled for elective oncosurgeries under anesthesia

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