ORIGINAL ARTICLE

HOW TO EVALUATE THE EFFICIENT HEALTHCARE DELIVERY SYSTEM IN A TERTIARY CARE HOSPITAL WITH REFERENCE TO SURGICAL DEPARTMENT

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ABSTRACT

Objectives; In an effort to comprehensively evaluate the efficiency of healthcare delivery at Idrees Hospital in Sialkot Cantt.

Methodology; we used, case selection, qualitative interview, time matrix, patient demography and quantitative assessment in our methodology of the staff and patients of Idrees Hospital, Sialkot.

In a 150-bed tertiary care hospital, we observed 90 cases. The final dataset included information from 28 people in 50 distinct cases. The sample included 3 surgical assistants, 10 other health aid observers, 10 (18.37%) nurses, 2 (18.37%) anesthetists, and 3 (44.3%) surgeons.

Results; Results from the quantitative data showed that in 88.8% of patients mode of admission was mentioned correctly, in 90% of patients' diagnosis were properly mentioned. While in 98.889% of the patients' daily progress notes were present. However, in 88% percent of the patients' arrival notes were written and in 96% informed consent was taken.

Conclusion

The mode of admission, proper informed consent, daily progress notes and the overall improvement in these aspects positively impacts patient outcomes and satisfaction.

Keywords; Healthcare Efficiency, Temporal Dynamics, Patient Journey, Case Selection, Qualitative Interviews, Quantitative Analysis, Patient Privacy, Informed Consent, Communication Strategies, Patient Outcomes, Hospital Management, Healthcare Quality, Medical Ethics.

Introduction

An audit requires the following seven steps[1];

1. Planning
2. Notification
3. Opening meeting
4. Field work
5. Drafting of report
6. Management Response

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7. Review of audit report/ publication.

The most common audit is random audit which is commonly used in healthcare auditing process[2]. The examples of audit are as follows[3];

a. Medication
b. Safety
c. Infection control
d. Patient satisfaction
e. Adherence to clinical guidelines
f. Efficiency of healthcare process

However, these are following three main types of audit[4];

1. External audit
2. Internal audit
3. Internal service revenue audit

Whenever, we think regarding the conducting of an audit, we should follow these four important steps[5];

1. Selecting a topic
2. Agreeing standards of best practice (audit criteria)
3. Collecting data
4. Analyzing data against standards

However clinical audit is a way to find out if healthcare is being provided in line with standards and lets' care providers and patients know that this service is doing well and where there could be improvements[6].

Methodology

In a 150-bed tertiary care hospital, we observed 90 cases. The final dataset included information from 28 people in 50 distinct cases. The sample included 3 surgical assistants,10 other health aid observers, 10 (18.37%) nurses, 2 (18.37%) anesthetists, and 3 (44.3%) surgeons.

To understand how well Idrees Hospital Sialkot, Cantt delivers healthcare efficiently and accurately, an audit was prepared to monitor. The major milestone was to share how effectively and quickly healthcare services were provided to make sure that patient care remains the best in every possible way. The data for this audit was collected by using both numbers and insights from interviews with healthcare professionals who care for patients. It was also measured how many times each step took using numbers, and a lot of opinions were gathered from healthcare workers in this process. This investigation used math tools and comparisons with standards to understand how time works in healthcare delivery. It was also checked and identified that any tool or technology that was used whether it made these processes better. This method helped us to create a strong plan to see and improve how good healthcare happens and also make sure it's timely and effective for every patient tenure.

Qualitative Interviews

We talked directly with patients to hear about their experiences with healthcare during this phase. It was made by us that their identities were kept private and listened carefully to what they had to say. The major milestone was to understand, firsthand how quickly and efficiently healthcare services were provided to our patients. In these open and private conversations, patients usually shared their experiences starting from when they were admitted to the hospital and when their treatment began, and when they were discharged. It was focused on that how much time healthcare staff spent at different stages.

Patient Demographics:

Demographic information, including age, gender, mode of admission, daily progress report, nursing report, arrival, outcome, diagnosis mentioned, and consent mentioned, were compiled to assess if there are variations in the healthcare delivery process based on patient characteristics.

Patient Feedback Analysis:

Quantitative data from patient satisfaction surveys was analyzed to gauge overall satisfaction levels regarding timeliness.

Qualitative Assessment:

Thematic analysis was applied to qualitative feedback from patients, extracting common themes related to timeliness, communication, and overall experiences during their hospital stay. Insights gathered from staff interviews will be analyzed to identify internal challenges affecting timeliness. Common themes and the suggested

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solutions are extracted to make recommendat-ions.

Results (Qualitative)

From Anesthetist point of view

The implementation of checklists in the preope-rative process significantly impacted the role of anesthetists and their collaboration with sur-geons at our medical facility. Before the surgical incision, anesthetists diligently utilized the checklist to fulfill their responsibilities, which primarily involved confirming patient identity and the type of surgery. This proactive approach aimed to prevent instances of wrong-person or wrong-site surgery, contributing to enhanced patient safety.

In the dynamic and fast-paced environment of the operating room (OR), anesthetists, in colla-boration with surgeons, recognized the impor-tance of assessing the risk for difficult intu-bation. However, due to time constraints and the urgency of severe diseases necessitating rapid action, this critical risk assessment was some-times overlooked, leading to complications that, unfortunately, contributed to the mortality. The absence of the comprehensive risk assessment during certain instances highlighted the need for improved practices and heightened vigilance in the OR. Notably, anesthetists acknowledged that utilizing the checklist had a positive impact on their sense of responsibility within the surgical team. This, in turn, bolstered their morale and contributed to a more collaborative and cohesive work environment.

Teamwork, facilitated by the use of checklists, played crucial role in aiding anesthetists in their responsibilities. An open communication chan-nel between team members, especially with surgeons, led to valuable suggestions that proved instrumental in saving lives. Anesthetists exp-ressed gratitude for the collective effort and acknowledged the checklist as a tool that not only streamlined processes but also fostered a sense of shared responsibility.

Despite the positive outcomes associated with the checklist utilization, anesthetists identified specific moments during surgery, such as sign-in and sign-out times, as well as the duration spent in the recovery room, where vital information might be overlooked. Recognizing these critical moments, anesthetists emphasized the impor-tance of maintaining focused attention on the patient's ongoing surgical situation to prevent potential oversights that could impact patient outcomes.

In conclusion, the implementation of checklists in the perioperative process has had a profound impact on the responsibilities and experiences of anesthetists.

From Nurses point of view

The integration of proper patient diagnosis docu-mentation in surgical files posed a challenge for nurses, despite being instructed to ensure its acc-uracy. The primary obstacle stemmed from insu-fficient information, hindering the inclusion of final diagnoses on patient files. In an interview with a nurse, it was revealed that certain mem-bers of the operating room (OR) staff exhibited sarcasm regarding this issue, creating a less-than-ideal environment for genuine convers-ations about the checklist and patient safety.

The completion of the sign-out process, con-ducted by nurses when surgeons exited the OR, faced complications. Surgeons, seemingly prior-itizing the sign-in procedure, expedited the subsequent steps, leaving nurses with inadequate time to carry out tasks appropriately. This time constraint further exacerbated the challenges faced by nurses in ensuring comprehensive and accurate documentation.

Despite these obstacles, the implementation of the checklist emerged as a valuable tool for nurses. The checklist facilitated communication and enabled nurses to pose the necessary questions vital for patient healthcare.

In conclusion, despite the difficulties faced by nurses in ensuring accurate patient diagnosis documentation and facing sarcasm from some OR staff members, the checklist emerged as a valuable ally. Its implementation not only facilitated communication but also empowered

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nurses to ask pertinent questions crucial for patient care.

From Surgeons point of view

The Surgeons expressed the perspective that in the operating room, the antibiotic prophylaxis was generally recommended for every as a preventive measure against bacterial infections. However, their rationale behind this practice was rooted in a cautious acknowledgment of the potential downsides associated with indiscri-minate antibiotic use. Surgeons were mindful of the fact that administering antibiotics to every patient undergoing surgery carried inherent risks. One significant concern was the potential development of antibiotic resistance. Surgeons were concerned because this resistance could lead to higher rates of sickness and death, as infections become harder to manage. Surgeons understood the importance of using antibiotics to prevent infections during surgery. They are careful to balance the need for infection prevention with the risks of antibiotic resistance.

Results (Quantitative)

Whether the Mode of admission mentioned or not mentioned /Time Constraint/ Load of Patients

Results from the quantitative data showed that in 88.8% of patients mode of admission was men-tioned correctly. In the interviews, receptionists reported that their job of mentioning mode of admission could not be followed all the time due to time constraints and increased load of patients. On the other hand doctors and nurses mentioned that they made sure to mention mode of admission on the files. By determining whether they arrived through emergency depart-ments, physician referrals, or self-referrals, This information enabled us to effectively prioritize and streamline the admission process, ensuring that all patients receive timely and appropriate care.

Whether the diagnosis was mentioned or not mentioned

Quantitative data presented that in 90% of patients' diagnosis were written.

Whether daily progress of the patients was mentioned or not

Results from the quantitative data expressed that in 98% of the patients' daily progress notes were present.

Whether arrival notes were mentioned

Results from the quantitative data revealed that in 88% percent of the patients arrival notes were properly written.

Informed Consent

Quantitative data expressed that in 96% of cases informed consent was taken from the patients.

Discussion

The retrospective audit was conducted in the Medical "C" Unit of Government Lady Reading Hospital Peshawar from 1st January 2005 to 31st December 2005. Out of 3944 patients admitted during 2005, 200 case notes were randomly selected and subjected to audit. The clinical notes were broadly analysed for documentation of six parameters.

Each parameter's documentation was to be graded as very good, good, average, poor, or not documented. The researcher found that personal bio-data was documented good in 194 (97%) cases; history and examination were good in 22 (11%) cases; diagnosis was very good in 48 (24%) cases; Investigation were documented very good in 18 (9%) cases and good in 134 (67%) cases; Progress notes were good in 156 (78%) cases and treatment was documented good in 186 (93%) cases. In 82 (41%) charts, one or more of the six selected items were not documented at all. Investigations were not written in 20%, progress notes in 12%, history and examination in 9%, diagnosis in 6%, treatment in 3% and bio-data in 1% of the case notes. Data of our study is comparable with this study.

Our study revealed that results from the quantitative data showed that in 88.8% of patients' mode of admission was mentioned

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correctly. Quantitative data revealed that in 90% of patients' diagnosis was mentioned. Results from the quantitative data expressed that in 98% of the patients' daily progress notes were mentioned. However, quantitative data showed that in 88% percent of the patients arrival notes were mentioned. While in 96% patients consent was taken from the patients.

Recommendations

1. Create a patient-centered approach: Focus on creating a supportive environment that meets the needs and concerns of patients. Treat every patient with respect, regardless of their prognosis or admission method.

2. Advocate for patient privacy: Ensure that patient information remains confidential.

3. Enhance communication strategies: Develop good communication protocols that allow healthcare professionals to discuss treatment plans, procedures, and potential risks with patients.

4. Implement an informed consent process: It is crucial to establish a comprehensive process that ensures patients are adequately informed about general procedures, potential risks, and expected outcomes.

5. Increase focus on patient education: Enhance patient education initiatives to provide general information about common procedures, treatments, and hospital practices.

6. Foster a culture of empathy and respect: Train hospital staff to embody empathy, understanding, and nondiscriminatory behavior.

7. Continuous education of staff and training: Regular education of healthcare professionals on patient privacy laws, informed consent policies, and the importance of maintaining confidentiality is necessary.[4]

8. Seek patient feedback: Implement patient satisfaction surveys or suggestion boxes, to allow patients to express their concerns and experiences anonymously to utilize this feedback to continuously improvement.

9. Collaborate with legal and ethical experts: Engage legal and ethical professionals to ensure compliance with privacy laws and ethical standards. [5, 6, 7]

Conclusion

The mode of admission, proper informed consent, daily progress notes and the overall improvement in these aspects positively impacts patient outcomes and satisfaction.

Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Authors Contribution

All authors have equally contributed to the manuscript and have approved the final manuscript to be published.

Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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