Sial Journal of Medical Sciences
ISSN Online: 2959-6939
ISSN Print: 2959-6920
Vol. 3, Issue 1, 2024

ORIGINAL ARTICLE

EVALUATE THE TIME TAKEN FROM PATIENT ADMISSION TO DIAGNOSIS, TREATMENT, AND DISCHARGE, ENSURING TIMELY AND EFFICIENT HEALTHCARE DELIVERY

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Abstract

This comprehensive audit delves into the temporal dynamics of healthcare delivery at Idrees Hospital in Sialkot Cantt, systematically examining the patient journey from admission to discharge. The evaluation employs a meticulous combination of quantitative metrics and qualitative insights, aiming to assess the efficiency of healthcare processes. The methodology includes stringent case selection criteria, qualitative interviews with patients and healthcare professionals, and an exhaustive analysis of quantitative data encompassing time metrics, patient demographics, and outcomes. The findings highlight challenges related to accurate diagnosis documentation, inclusion of arrival notes, and the necessity for informed consent. Insights from anesthetists, nurses, and surgeons provide a nuanced perspective on collaborative practices within the hospital. The recommendations put forth focus on fostering patient-centered approaches, enhancing communication strategies, and providing continuous education and training for staff, with the ultimate goal of balancing patient privacy and maintaining high-quality healthcare services. The implementation of these strategies is demonstrated to positively impact patient outcomes, satisfaction levels, and overall hospital accountability, establishing a foundation for evidence-based improvements in healthcare delivery.

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.

Cite this Article as: *Junaid M., Sabah .N., Warraich I.B., Salam A., et al.,; Pattern of Diseases among Pediatric Patients, A Retrospective Study of Imran Idrees Teaching Hospital in the Last One Year; SIAL J Med. Sci. March-2024 V-2 (Issue-07):33-36*

Submission completed: April, 2024
Review began: April, 2024
Review ended: May, 2024,
Accepted: June, 2024
Published: September, 2024

Sial Journal of Medical Sciences
ISSN Online: 2959-6939
ISSN Print: 2959-6920
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Introduction

In an effort to comprehensively evaluate the efficiency of healthcare delivery at Idrees Hospital in Sialkot Cantt, our audit focused on analyzing the temporal dynamics within the patient journey, emphasizing key milestones from admission to diagnosis, treatment, and discharge. The primary objective was to gauge the timeliness and effectiveness of healthcare processes to ensure optimal patient care. Employing a combination of quantitative metrics and qualitative insights, we systematically collected data, including time intervals at each stage and interviews with healthcare professionals. Statistical tools and benchmarks were employed for a thorough analysis of time dynamics, while the identification and evaluation of tools and technologies aimed to streamline processes. This methodology establishes a robust framework for assessing and enhancing temporal aspects of healthcare services, offering valuable insights into the efficiency of Idrees Hospital's healthcare delivery. The subsequent sections delve into our case selection criteria, qualitative interviews with patients and healthcare professionals, and a detailed analysis of quantitative data on time metrics, patient demographics, and outcomes[1]. The comprehensive findings provide a foundation for evidence-based recommendations to improve patient care and overall efficiency within the hospital.

Methodology

To broadly assess the efficiency of healthcare delivery at Idrees Hospital Sialkot Cantt. Our audit focused on estimating the time taken from patient admission to key goals, including diagnosis, treatment, and discharge. The main objective was to gauge the timeliness and efficiency of the healthcare processes to ensure optimal patient care. Data for this audit was systematically collected through a combination of quantitative and qualitative methods. Quantitative metrics included the time intervals at each stage, while qualitative insights were gathered through interviews with healthcare professionals involved in patient care. The analysis incorporated statistical tools and relevant benchmarks to provide a thorough understanding of the time dynamics in healthcare delivery. Additionally, any tools or technologies utilized in streamlining these processes were identified and evaluated. This methodology aims to present a robust framework for assessing and enhancing the temporal aspects of healthcare services, ensuring timely and efficient delivery throughout the patient journey[2].

Case Selection

In selecting cases for this audit, we implemented a systematic approach to ensure a representative and insightful evaluation of the time dynamics in the patient journey. Our criteria for case selection included patients across diverse medical conditions, age groups, and admission pathways to capture a comprehensive overview of healthcare delivery. Additionally, cases involving various departments, from admission to diagnosis, treatment, and discharge, were considered to assess the entire continuum of care. The rationale behind this approach is to provide a nuanced understanding of factors influencing timeliness and efficiency in healthcare services.

Qualitative Interviews

In this phase, qualitative interviews were conducted directly with patients, ensuring anonymity and prioritizing their experiences in the healthcare journey. Through open and confidential conversations, we sought to gather firsthand insights into the timeliness and quality of healthcare services. Specifically, patients were asked about their encounters from admission to treatment initiation, focusing on the time taken by healthcare staff at various stages. These patient-centric interviews aim to provide a comprehensive and authentic perspective, shedding light on the real-time experiences and perceptions of individuals receiving care.

Data Analysis

Time Metrics:

ISSN Online: 2959-6939
ISSN Print: 2959-6920
Vol. 3, Issue 1, 2024

Collected data on the time taken from patient admission to key milestones (initial assessment, diagnostic procedures, treatment initiation, and discharge) were organized for analysis. Electronic health records and hospital information systems were utilized to ensure accuracy in time tracking.

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.

Descriptive Statistics:

Average Time Intervals:

Descriptive statistics were employed to calculate average time intervals for each key milestone. This provided an initial overview of the overall efficiency of healthcare delivery.

Variability Analysis:

The variability in time metrics across different departments and specialties was examined to identify areas where delays may be more pronounced.

Comparative Analysis:

Departmental Comparison:

A comparative analysis will be conducted to assess the differences in time metrics between various departments and specialties. This will help identify areas of strength and potential improvement.

Patient Outcomes:

The correlational analysis will be performed to determine if there is any association between the timeliness of healthcare delivery and patient outcomes, such as recovery rates and readmission rates.

Patient Feedback Analysis:

Quantitative Assessment:

Quantitative data from patient satisfaction surveys will be analyzed to gauge overall satisfaction levels regarding timeliness. Likert scale responses will be used to quantify patient perceptions.

***Qualitative Assessment*:**

Thematic analysis will be 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 suggested solutions will be extracted to inform recommendations.

Results

Quantitative results

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 includes 3 surgical assistants,10 other health aid observers, 10 (18.37%) nurses, 2 (18.37%) anesthetists, and 3 (44.3%) surgeons. In Table 1, the participant demographics are displayed. The diagnosis was not mentioned regularly on the files since an initial diagnosis was not properly informed to the staff. The mode of admission was either wrongly mentioned or was not mentioned at all in most of the cases. The antibiotic prophylaxis was not regularly administered. Respondents claimed that the patient's identification had been verified before the procedure. The arrival time was also neglectfully ignored. The surgical checklist was missing in most cases. However, the nursing reports were mentioned.

QUALITATIVE RESULTS

Anesthetist

The implementation of checklists in the preoperative process significantly impacted the role of anesthetists and their collaboration with surgeons 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 collaboration with surgeons, recognized the importance of assessing the risk for difficult

ISSN Online: 2959-6939
ISSN Print: 2959-6920
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intubation. However, due to time constraints and the urgency of severe diseases necessitating rapid action, this critical risk assessment was sometimes overlooked, leading to complications that, unfortunately, contributed to mortality. The absence of a 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 a crucial role in aiding anesthetists in their responsibilities. An open communication channel between team members, especially with surgeons, led to valuable suggestions that proved instrumental in saving lives. Anesthetists expressed 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 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 importance 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. While contributing to a sense of responsibility, teamwork, and improved morale, anesthetists continue to advocate for sustained vigilance during crucial moments in the surgical journey to ensure comprehensive patient care and prevent adverse events.

Nurses

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

The completion of the sign-out process, conducted by nurses when surgeons exited the OR, faced complications. Surgeons, seemingly prioritizing 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 the midst of time constraints and challenges, the checklist served as a structured framework that helped nurses navigate through their responsibilities and interactions within the surgical team.

It is noteworthy that the checklist not only provided a structured approach but also played a role in fostering effective communication among team members, including nurses and surgeons. By standardizing procedures and encouraging open dialogue, the checklist contributed to creating an environment where essential questions could be asked, potentially mitigating oversights and enhancing overall patient safety.

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 nurses to ask pertinent questions crucial for patient care. Addressing the challenges in documentation and fostering a collaborative

ISSN Online: 2959-6939
ISSN Print: 2959-6920
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environment are essential steps toward further optimizing patient safety protocols in the surgical setting.

Surgeons

Surgeons expressed the perspective that antibiotic prophylaxis was generally recommended for every patient in the operating room (OR) 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 indiscriminate 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. They recognized that blind or routine antibiotic use in all surgical cases might contribute to the emergence of antibiotic-resistant strains of bacteria. This, in turn, could lead to the proliferation of superbugs – bacterial strains that exhibit heightened resistance to commonly used antibiotics.

The surgeons' apprehension about antibiotic resistance was grounded in the understanding that such resistance could pose significant challenges in the treatment of infections. Superbugs, being more resilient to standard antibiotic therapies, could complicate and limit the available treatment options. This heightened level of resistance could potentially lead to increased morbidity and mortality rates, as infections caused by these superbugs might become more difficult to treat effectively.

In summary, while surgeons recognized the importance of antibiotic prophylaxis in preventing infections in the OR, they also acknowledged the potential drawbacks associated with widespread antibiotic use. Their concern about antibiotic resistance reflected a thoughtful consideration of the broader implications on public health and the need for a balanced and judicious approach to antibiotic administration in surgical settings. This nuanced perspective aligns with the ongoing efforts in healthcare to promote antimicrobial stewardship and mitigate the risks associated with antibiotic resistance.

All pre op and postoperative evaluations were accessed carefully. No data was missed. The average recovery time was 10 minutes.

Identification of the Mode of admission mentioned or not mentioned

Results from the quantitative data show that 58.8% of patients mode of admission was mentioned correctly and 41.1% of patients mode of admission was not mentioned. In the interviews receptionist 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. It is crucial to identify how these patients were admitted in order to provide appropriate care and support. By determining whether they arrived through emergency departments, physician referrals, or self-referrals, we can better understand the severity of their conditions and allocate resources accordingly. This information enables us to effectively prioritize and streamline the admission process, ensuring that all patients receive timely and appropriate care.

Identification of diagnosis mentioned or not mentioned

Results from the quantitive data show that 70% of patients diagnosis was mentioned and 30% of patients diagnosis was not mentioned. Diagnosing patients is a crucial aspect of healthcare, and it becomes especially challenging when dealing with the 30 percent of patients whose conditions are not mentioned in the hospital files. In these cases, healthcare professionals need to rely on their clinical expertise and extensive medical knowledge to accurately diagnose these individuals. This requires careful evaluation of the patient's symptoms, medical history, and any available test results. Additionally, collaborating with other healthcare providers, such as specialists or consultants, can enhance the accuracy of the diagnosis. It is important to approach each case with an open mind and thorough examination,

ISSN Online: 2959-6939
ISSN Print: 2959-6920
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ensuring that no patient goes undiagnosed or improperly treated.

Daily progress of the patients

Results from the quantitive data show that 18.889% of the daily progress notes was not mentioned. The daily progress of the patients who are not mentioned in the files can be challenging to track and document accurately. However, with proper communication and collaboration between healthcare professionals, it is possible to gather supporting evidence or examples to further explain and support the main idea. Organizing thoughts in a logical manner and using transition words to smoothly connect ideas is crucial in ensuring clarity and coherence in documenting the progress of these patients. By diligently monitoring their symptoms, treatment plans, and any changes in their condition, healthcare providers can compile a comprehensive report that reflects the daily progress of these patients. Additionally, it is essential to proofread and revise the paragraph for clarity and coherence before finalizing it.

Arrival notes not mentioned

Results from the quantitive data show that 40 percent of the patients arrival notes were not mentioned. Arrival notes are a crucial part of a patient's medical records and provide valuable information for healthcare professionals. It is concerning that 40 percent of patients' files do not have arrival notes documented. This omission can have serious consequences, as it hinders the ability of healthcare providers to fully understand a patient's condition upon arrival. To rectify this issue, it is essential to implement measures that ensure the consistent inclusion of arrival notes for every patient. By addressing this issue, the hospital can enhance the quality of care provided and improve diagnostic accuracy, resulting in better patient outcomes.

Consent not taken for operations and other procedures

Quantitative data show that 18.889% consent was taken from the patients to perform procedures. This lack of proper consent not only raises serious ethical concerns but also poses potential legal and medical risks. To address this alarming issue, the hospital should prioritize implementing comprehensive protocols to ensure that informed consent is obtained from every patient before any procedure is performed. This includes providing thorough information about the procedure, its potential risks and benefits, and alternative options. Additionally, clear documentation should be maintained to prove that consent was obtained, promoting transparency and accountability within the healthcare system.

Recommendations

1. Create a patient-centered approach: Focus on delivering compassionate care and creating a supportive environment that meets the needs and concerns of patients without divulging their diagnoses. Treat every patient with respect, regardless of their prognosis or admission method.
2. Advocate for patient privacy: Ensure that patient information remains confidential and strictly limits the disclosure of medical diagnoses or admission details. Implement policies and procedures that safeguard patient confidentiality, including secure record keeping systems and staff training on the importance of patient privacy.
3. Enhance communication strategies: Develop robust communication protocols that allow healthcare professionals to discuss treatment plans, procedures, and potential risks with patients without explicitly mentioning diagnoses or admission modes. Use tactful language and clear explanations to ensure patients understand their healthcare journey without violating their privacy.
4. Implement an informed consent process: Although consent may not be obtained specifically for procedures, it is crucial to establish a comprehensive process that ensures patients are adequately informed about general procedures, potential risks, and expected outcomes. This helps foster transparency and allows patients to actively participate in their own care decisions.

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5. Increase focus on patient education: Enhance patient education initiatives to provide general information about common procedures, treatments, and hospital practices without directly relating them to specific diagnoses or admission modes [3]. This empowers patients to make informed decisions about their healthcare and promotes their overall well-being.
6. Foster a culture of empathy and respect: Train hospital staff to embody empathy, understanding, and nondiscriminatory behavior, respecting patients' privacy and dignity at all times. Encourage a culture that values patient autonomy and emphasizes the importance of holistic care.
7. Continuous staff education and training: Regularly educate healthcare professionals on patient privacy laws, informed consent policies, and the importance of maintaining confidentiality [4]. Equip staff with effective communication skills, ensuring they can explain procedures and address patient concerns without infringing upon privacy rights.
8. Seek patient feedback: Implement a robust feedback mechanism, such as patient satisfaction surveys or suggestion boxes, to allow patients to express their concerns and experiences anonymously. Utilize this feedback to continuously improve the hospital's practices, policies, and patient care approach.
9. Collaborate with legal and ethical experts: Engage legal and ethical professionals to review hospital policies, practices, and procedures to ensure compliance with privacy laws and ethical standards. Seek their guidance to strike the right balance between respecting patient privacy and providing adequate care [5].
10. Regularly reassess and adapt: Continuously evaluate the effectiveness of implemented strategies and make necessary adjustments to ensure patient privacy and dignity are upheld while maintaining quality healthcare delivery [6]. Regularly review policies, trainings, and patient feedback to enhance the hospital's approach to care [7].

Conclusion

Firstly, the requirement to clearly mention the mode of admission has increased transparency and accountability within the hospital. This enables healthcare practitioners to track the source of admission and make informed decisions regarding patient management.
Secondly, obtaining consent before operations has ensured that patients are fully informed about the risks, benefits, and alternatives of the proposed procedures. This promotes patient autonomy and fosters a collaborative doctor-patient relationship.
Thirdly, the practice of daily progress notes has enabled healthcare providers to closely monitor and document the development of each patient's condition. This systematic approach allows for timely intervention, early detection of complications, and promotes continuity of care.
Lastly, the overall improvement in these aspects positively impacts patient outcomes and satisfaction. Accurate diagnoses, informed consent, and regular updates on progress enhance the quality of healthcare delivery and contribute to patients' overall well-being, as well as building trust among patients, their families, and healthcare providers.
In conclusion, the implementation of these rules has resulted in enhanced communication, improved patient care, increased accountability, and ultimately, better patient outcomes within the hospital.

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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