STUDY ON USG TAT (TURNAROUND TIME) AT KIMS (SUNSHINE), SECUNDERABAD: OPTIMIZING EFFICIENCY AND PATIENT CARE

[1]Aashna Singh
[1]Student, IIHMR University

[2]Dr. Anoop Khanna
[2]Professor, IIHMR University

DOI: https://doi.org/10.52458/9788197040849.2024.eb.ch-16
Ch.Id:- IIHMR/GRF/EB/THMPG/2024/Ch-16

INTRODUCTION

The utilization of ultrasound (USG), a diagnostic imaging technique providing real-time visualization of internal structures for identifying various medical disorders, is widespread in hospitals. Ensuring optimal patient care relies on the timely access to ultrasound services and the effective management of the ultrasound process. Turnaround time (TAT), measuring the duration from a patient undergoing an ultrasound examination to receiving the results or reports, stands as a crucial element in the ultrasound procedure [1].

Due to its direct impact on the speed of diagnoses and initiation of treatment plans, USG TAT plays a vital role in patient management. Delays in TAT may lead to prolonged waiting periods, heightened patient anxiety, and potential disease progression in the absence of prompt intervention. Conversely, a shorter TAT can enhance patient satisfaction, expedite medical decisions, and elevate the overall quality of healthcare [3]. To optimize USG TAT, it is imperative to examine and address various factors influencing the duration of the ultrasound procedure. These factors encompass patient scheduling procedures, the efficiency and availability of equipment, the workload of the sonographer, the quality and quantity of acquired images, the accessibility of the radiologist, and effective communication and coordination among the medical personnel involved in the ultrasound process [2].

RESEARCH QUESTIONS

1. What is the typical turnaround time (TAT) for ultrasound services in hospital settings?
2. Which factors are responsible for prolonged TATs in ultrasound procedures?
3. In what ways does the TAT of ultrasound services impact the quality of patient care?
4. What strategies can hospitals adopt to enhance the efficiency of ultrasound services?

AIM

The examination of ultrasonography (USG) turnaround time (TAT) in hospitals centers around reducing the duration between patients undergoing ultrasound tests and receiving the corresponding results or reports. The primary objective of this study was to assess and enhance the workflow efficiency within the ultrasound department.

RESEARCH METHODOLOGY

In this approach, specific metrics related to the ultrasound (USG) process were measured, including the time interval between a patient's arrival at the radiology counter and their appointment time in the Hospital Information Management System (HIMS), as well as the time interval between the appointment time provided by the system and the actual check-in time. Quantitative measurements provided objective data that could be utilized to track progress and identify areas requiring improvement.

Healthcare organizations, by assimilating various types of collected data, could gain a better understanding of their USG turnaround time (TAT) and implement targeted adjustments to improve patient outcomes. The inclusion criteria for the study encompassed all age groups, from pediatrics to geriatrics, and included both cash and insurance patients, covering both inpatient (IP) and outpatient (OP) cases. Patients who canceled their bills and those with two tests were excluded from the study. The study approach involved using convenience sampling to determine the sample size. With a hospital boasting 350 beds, approximately 35 to 40 patients visited the radiology department daily for their USG investigations.

RESULTS & DISCUSSION

For certain types of ultrasound examinations, such as pelvic or transabdominal ultrasound, a full bladder was often necessary to capture clear and accurate images. If a patient's bladder was not adequately filled, their scheduled ultrasound examination might be delayed. Several reasons could contribute to an incomplete bladder filling: Patients might not have received sufficient instructions or

information about the necessity of having a full bladder before the ultrasound examination. Lack of awareness or understanding of the preparation instructions could result in patients not consuming the required amount of liquids before the appointment. Some patients might not drink enough fluids or have an empty bladder due to factors such as anxiety, fasting instructions, or personal preferences. Inadequate bladder filling could occur if patients consumed an insufficient number of fluids before the examination. Drinking fluids either too close to or too far in advance of an appointment could lead to incorrect bladder filling. The healthcare provider or the ultrasound department needed to specify the timing of fluid intake to achieve the desired bladder volume. Medications or medical conditions: Certain medical conditions or medications could impact urinary patterns or bladder capacity. Conditions like urinary incontinence, bladder dysfunction, or medications that increased urinary frequency or volume could hinder bladder filling.

CONCLUSION

In summary, the turnaround time (TAT) for ultrasound (USG) services in hospitals plays a crucial role in influencing patient care, operational efficiency, and overall hospital performance. Timely access to USG services is imperative for accurate diagnosis, treatment planning, and effective patient management. An examination of USG TAT in hospitals underscores the negative consequences of delays, including extended waiting periods, heightened patient anxiety, postponed initiation of treatment, and increased risk of complications. Simplifying USG TAT is vital for enhancing patient satisfaction, optimizing resource utilization, and elevating healthcare quality. Collaborative efforts from various stakeholders, including hospital administrators, radiology departments, clinicians, and support staff, are essential to successfully improve USG TAT.

REFERENCES

1. Westbrook, J. I., Georgiou, A., & Lam, M. (2009). Does computerised provider order entry reduce test turnaround times? A before-and-after study at four hospitals. In Medical Informatics in a United and Healthy Europe (pp. 527-531). IOS Press.
2. Ellison, T. L., Alharbi, M., Alkaf, M., Elimam, S., Alfaries, M., Al Nounou, R.,. & Owaidah, T. (2018). Implementation of total laboratory automation at a tertiary care hospital in Saudi Arabia: effect on turnaround time and cost efficiency. Annals of Saudi Medicine, 38(5), 352-357.
3. Uchendu, O. J., & Eze, G. I. (2013). Intralaboratory Turnaround Time (TAT) in a developing country: An audit of a histopathology department of a Nigerian Teaching Hospital. Annals of Tropical Pathology, 4(1), 41.