



ULTRASONOGRAPHY (USG) TAT
(TURNAROUND TIME) IN KIMS
(SUNSHINE):
OPTIMIZING EFFICIENCY AND PATIENT CARE

To help evaluate the TAT for general USG investigations in the hospital for improved efficiency and enhanced patient care

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INTRODUCTION

- Ultrasound (USG) is a non-invasive imaging technique that uses sound waves to create images of the body's internal structures.
- USG is a commonly used diagnostic tool in hospitals.
- Ultrasound examinations are valuable in evaluation of both emergent, life threatening patients that have injuries that are not apparent on the initial physical examination as well as for routine examinations, all of which need to be as timely as possible.

SUMMARY OF THE PROJECT

- USG (Tests, pre-requisites, average time and doctors)
- Sample collection
- Gender specificity
- Objectives
- Observations
- Suggestions

OBJECTIVES

- To evaluate the TAT for general USG investigations in our hospital for improved efficiency and enhanced patient care.
- To identify factors that may affect TAT.
- To make recommendations to improve TAT.

OVERVIEW OF USG TAT

- The turnaround time (TAT) for USG in this study was measured from the time of patient arrival till the time of patient check out from ULS 1 and ULS 2.
- Importance: Efficient USG TAT is crucial for timely diagnosis, treatment, and patient satisfaction
- The USG tests are inclusive of:
 - USG KUB
 - USB Abdomen
 - TVS
 - Follicular study
 - Venous Doppler
 - Sonomammography
 - U/S small parts
 - TIFFA

GENERAL FACTORS INFLUENCING TAT

- Appointment time: Giving appointments when the staff/ doctors are occupied
- Patient Volume
- Urgency and Prioritization
- Staffing and Workforce
- Equipment Availability and Functionality
- Image Acquisition and Quality
- Interpretation and Reporting
- Workflow Efficiency
- Technical Support and IT Infrastructure
- External Factors
- Quality Control Measures

GENERAL CHALLENGES IN ACHIEVING OPTIMAL USG TAT

- Workload and Resource Allocation
- Equipment Availability and Maintenance
- Technical glitches and lags
- Image Acquisition and Quality
- Interpretation and Reporting
- Communication and Coordination
- Workflow Efficiency and Process Optimization
- Resource Constraints and Financial Considerations

BENEFITS OF OPTIMIZED USG TAT

- Timely diagnosis and treatment
- Enhanced patient satisfaction
- Improved workflow and productivity
- Reduced patient wait times
- Efficient resource utilization
- Improved Patient Outcomes
- Streamlined Workflow and Resource Utilization
- Better Resource Planning
- Increased Productivity
- Cost Savings
- Enhanced Referring Physician Collaboration
- Compliance with Regulatory Standards
- Enhanced Reputation and Competitive Advantage

STRATEGIES FOR IMPROVING USG TAT

- Streamline Scheduling and Appointment Management
- Standardize Protocols and Workflows
- Optimize Worklists and Prioritization
- Enhance Communication and Collaboration
- Invest in Technology and Equipment
- Staffing and Training Optimization
- Quality Control and Image Review
- Utilize Teleultrasound or Remote Interpretation
- Data Analysis and Performance Monitoring
- Continuous Quality Improvement

METHODS

- A retrospective study was conducted to evaluate TAT and WT for general USG investigations in our hospital.
- Data was collected from the hospital's electronic medical record system and on ground evaluation.
- The data was analyzed using descriptive statistics.
- Data analysis was by Ms Excel and the results were tabulated and graphically presented.

OBSERVATIONS

Delay in arrival

Delays due to server

TVS and other female related tests in ULS I

When shifted from ULS2 to ULS I, time slot remains the same for two patients. (Preference given to the urgency level)

Doctor shifts from ULS I when doctor in ULS 2 is busy

The software automatically appoints all patients to ULS I or ULS 2

Appointments during lunch hours

Pre requisite not fulfilled is the main reason for delays

Fixed slot duration for all the tests

Procedures placed in between appointment timings

Patients not checked in and out on time

Waiting time post patient check in

Patient queued only when physically present

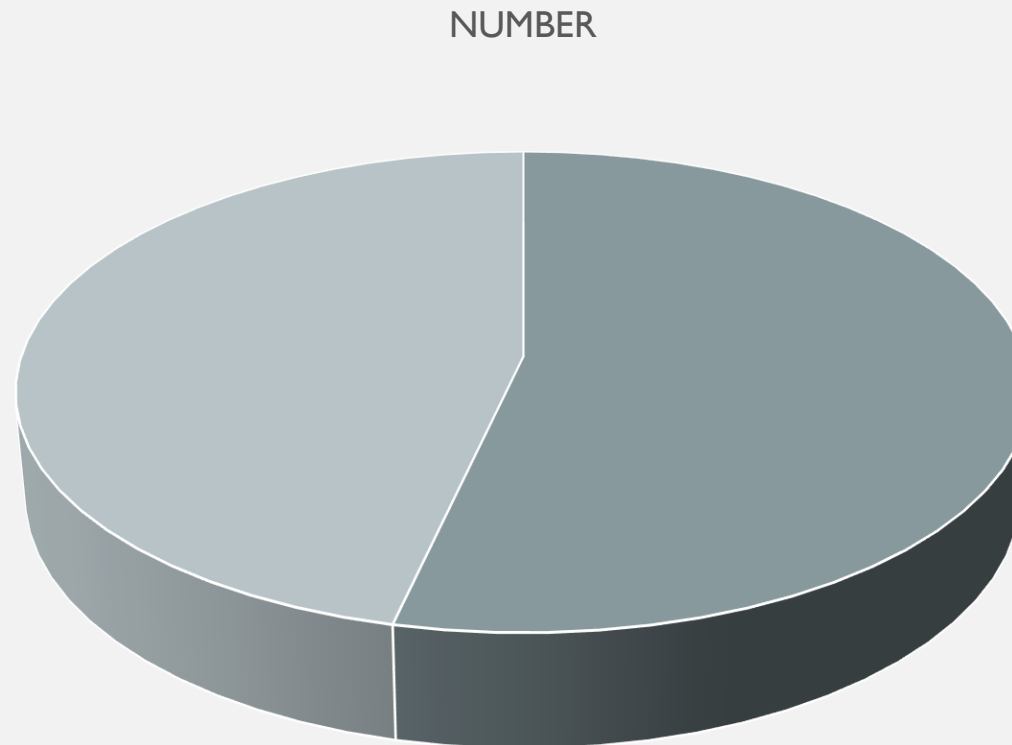
Porters delay

RECOMMENDATIONS

- Doctors on rotation during lunch hours
- Regular software evaluations
- Patient education and preparation
- Regulated slots as per the average time taken
- Quality control and staff training
- Separate room or time slot for procedures
- Patient to be queued at the time of appointment
- Equipment servicing at regular intervals

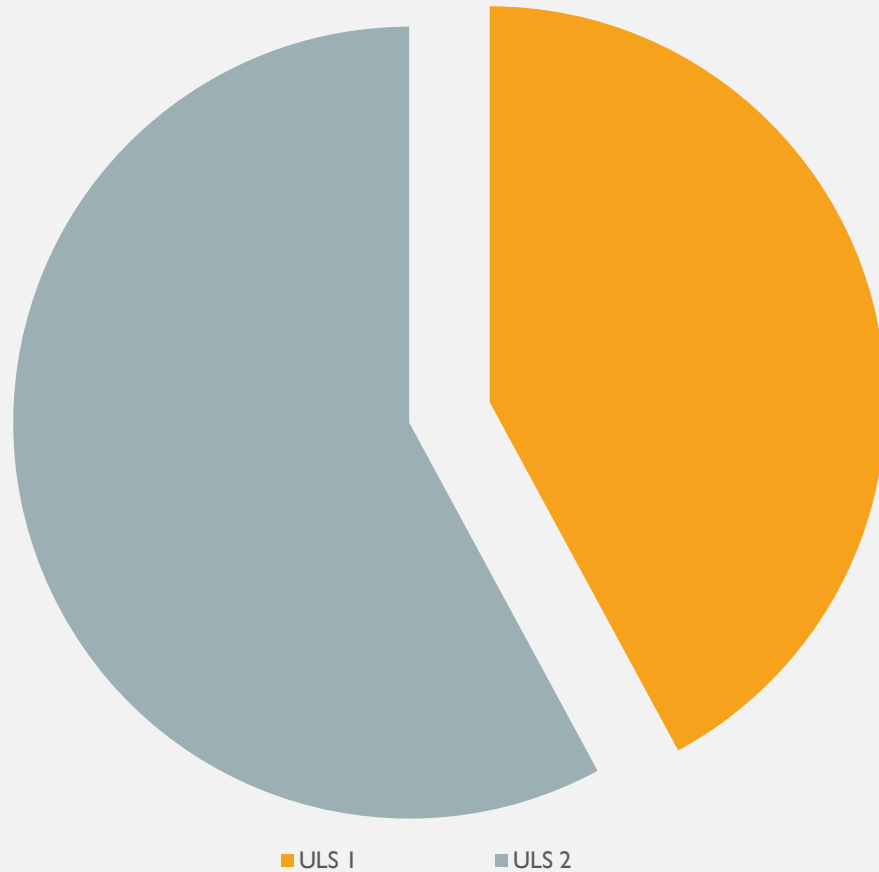
ANALYSIS AND INTERPRETATION

Bar Graph Depicting the number of males and females for USG Testing



■ MALE ■ FEMALE

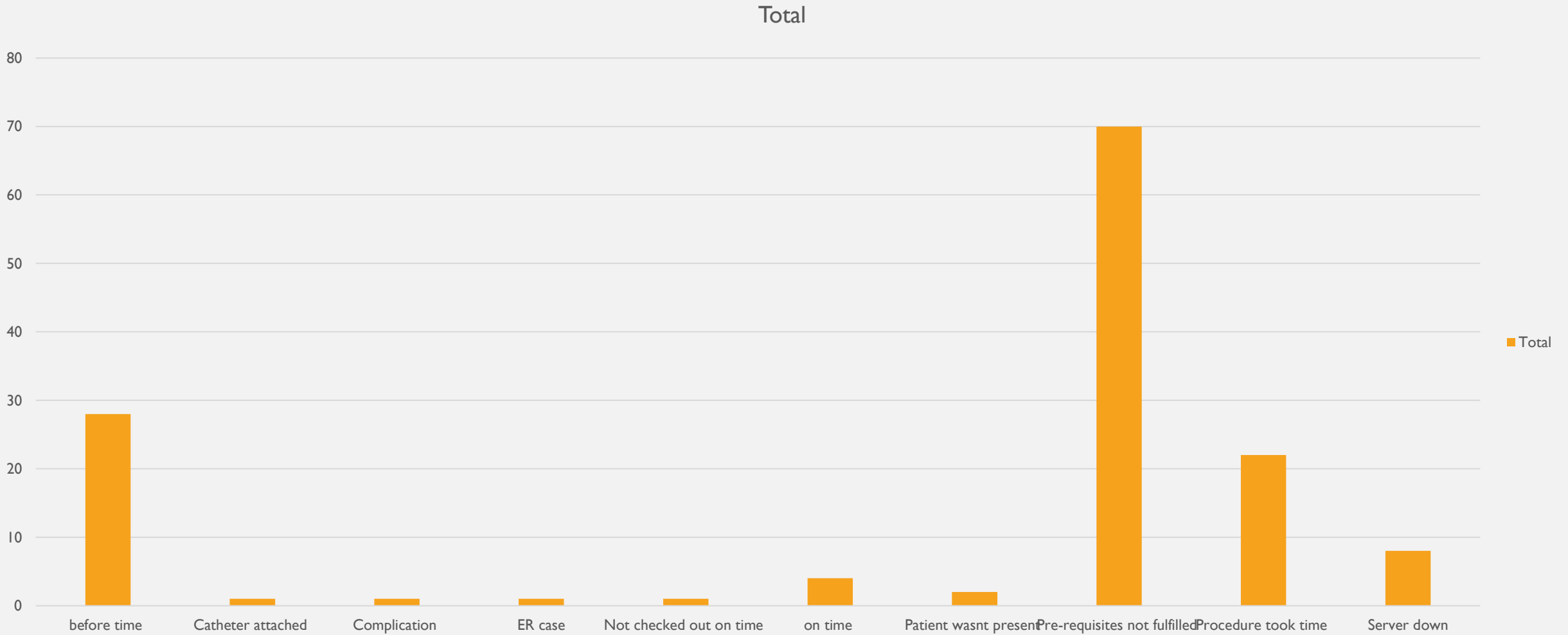
Pie Chart Showing Usage of USG Room



NEED FOR GENDER SPECIFIC USG ROOMS

Specialized Tools
Privacy and comfort
Enhanced Process
Safety precautions
Storage and Recording
Specialized Knowledge
Educating the Patient

Bar Graph Depicting the Reasons For Extended Time in USG Testing



KEY PERFORMANCE INDICATORS

- Average TAT
- Urgent TAT
- First Available Appointment
- Time from Arrival to Examination
- Examination Time
- Interpretation Time
- Result Delivery Time
- Backlog of Pending Examinations
- Patient Satisfaction

SUMMARY

- In conclusion, hospitals' ultrasound (USG) turnaround time (TAT) has an impact on patient care, efficiency, and overall hospital operations. For accurate diagnosis, treatment planning, and patient management, timely access to USG services is essential.
- The investigation of USG TAT in hospitals reveals that delays in TAT can have a negative impact on patient outcomes, such as prolonged waiting times, increased patient anxiety, delayed treatment initiation, and the possibility of complications. To improve patient satisfaction, resource utilization, and healthcare quality as a whole, USG TAT must be simplified.



THANK YOU