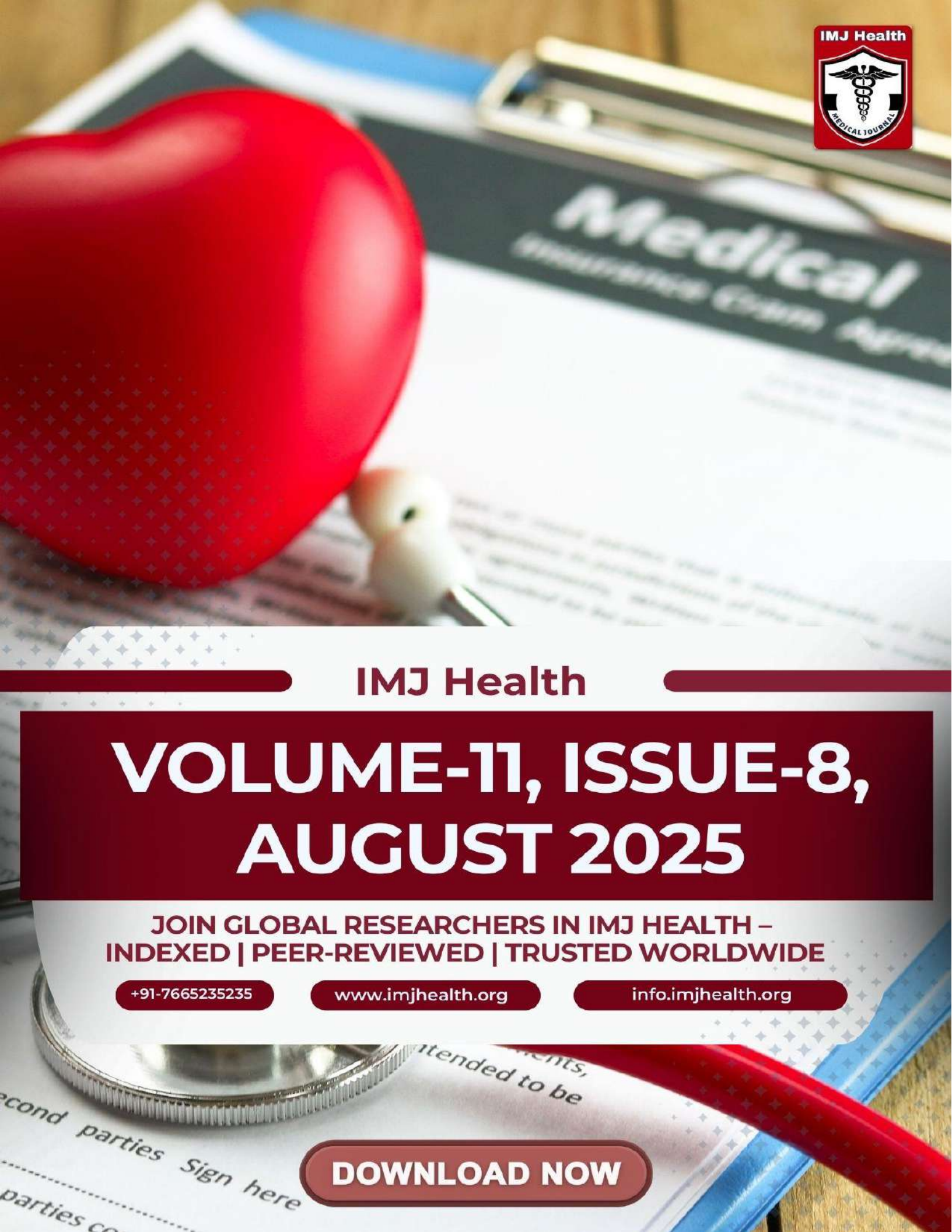
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Preface

We would like to present, with great pleasure, the inaugural volume-11, Issue-8, August 2025, of a scholarly journal, *International Multispeciality Journal of Health*. This journal is part of the AD Publications series *in the field of Medical, Health and Pharmaceutical Research Development*, and is devoted to the gamut of Medical, Health and Pharmaceutical issues, from theoretical aspects to application-dependent studies and the validation of emerging technologies.

This journal was envisioned and founded to represent the growing needs of Medical, Health and Pharmaceutical as an emerging and increasingly vital field, now widely recognized as an integral part of scientific and technical statistics investigations. Its mission is to become a voice of the Medical, Health and Pharmaceutical community, addressing researchers and practitioners in below areas

Clinical Specialty and Super-specialty Medical Science:

It includes articles related to General Medicine, General Surgery, Gynecology & Obstetrics, Pediatrics, Anesthesia, Ophthalmology, Orthopedics, Otorhinolaryngology (ENT), Physical Medicine & Rehabilitation, Dermatology & Venereology, Psychiatry, Radio Diagnosis, Cardiology Medicine, Cardiothoracic Surgery, Neurology Medicine, Neurosurgery, Pediatric Surgery, Plastic Surgery, Gastroentrology, Gastrointestinal Surgery, Pulmonary Medicine, Immunology & Immunogenetics, Transfusion Medicine (Blood Bank), Hematology, Biomedical Engineering, Biophysics, Biostatistics, Biotechnology, Health Administration, Health Planning and Management, Hospital Management, Nephrology, Urology, Endocrinology, Reproductive Biology, Radiotherapy, Oncology and Geriatric Medicine.

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It includes articles related to Pathology, Microbiology, Forensic Medicine and Toxicology, Community Medicine and Pharmacology.

Basic Medical Science:

It includes articles related to Anatomy, Physiology and Biochemistry.

Spiritual Health Science:

It includes articles related to Yoga, Meditation, Pranayam and Chakra-healing.

Each article in this issue provides an example of a concrete industrial application or a case study of the presented methodology to amplify the impact of the contribution. We are very thankful to everybody within

that community who supported the idea of creating a new Research with *IMJ Health*. We are certain that this issue will be followed by many others, reporting new developments in the Medical, Health and Pharmaceutical Research Science field. This issue would not have been possible without the great support of the Reviewer, Editorial Board members and also with our Advisory Board Members, and we would like to express our sincere thanks to all of them. We would also like to express our gratitude to the editorial staff of AD Publications, who supported us at every stage of the project. It is our hope that this fine collection of articles will be a valuable resource for *IMJ Health* readers and will stimulate further research into the vibrant area of Medical, Health and Pharmaceutical Research.

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Dr. Kusum Gaur working as professor Community Medicine and member of Research Review Board of Sawai Man Singh Medical College, Jaipur (Raj) India.

She has awarded with WHO Fellowship for IEC at Bangkok. She has done management course from NIHFW. She has published and present many research paper in India as well as abroad in the field of community medicine and medical education. She has developed Socio-economic Status Scale (Gaur's SES) and Spiritual Health Assessment Scale (SHAS). She is 1st author of a book entitled " Community Medicine: Practical Guide and Logbook.

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Dr. Praveen Mathur is working as Professor- Pediatric Surgery and is recipient of Commonwealth Fellowship in Pediatric Laparoscopy from Uk and fellowship award in minimal access Surgery (FMAS). He has done Clinical observer ship in the Department of Pediatric Surgery, Johns Hopkins University, Baltimore, USA. (2008). He has presented and published a number of research articles at national and international level. He is reviewer of prestigious Journal of Pediatric Surgery (JPS) and World Journal of Gastroenterology, Journal of neonatal Surgery (JNS).

Research Area: Pediatric Surgery & Laparoscopy.

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Volume-11, Issue-8, August 2025

Internal Medicine Residents' Perceptions of Fosfomycin use – a Brief Report

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Abstract—

Background: *Fosfomycin is approved by the FDA for treating uncomplicated cystitis caused by Escherichia coli and Enterococcus faecalis. However, it is often prescribed off-label for broader indications, with limited data on physician knowledge and practice patterns.*

Methods: *We surveyed residents in the Yale New Haven Internal Medicine Residency program across three teaching hospitals to assess awareness, prescribing habits, and perceived indications for fosfomycin.*

Results: *Seventy-eight residents responded (58% response rate); 89.7% were familiar with fosfomycin, and 71.4% had prescribed it. The most common indication was uncomplicated cystitis (94.3%), followed by pyelonephritis (41.4%) and prostatitis (32.9%). E. coli (71.4%) and Klebsiella pneumoniae (68.6%) were the most frequently selected organisms. Only 30% correctly identified uncomplicated cystitis as the sole FDA-approved indication, and no responses fully aligned with the approved spectrum of use.*

Conclusion: *Internal medicine trainees demonstrated significant gaps in knowledge regarding fosfomycin's approved role. Educational efforts are needed to promote judicious prescribing and preserve its effectiveness against multidrug-resistant pathogens.*

Keywords— Fosfomycin, Antibiotic stewardship, Urinary tract infection (UTI), Multidrug-resistant organisms (MDRO), Off-label prescribing, Internal medicine trainees, Extended-spectrum beta-lactamases (ESBL), Antimicrobial resistance.

I. BACKGROUND

Fosfomycin, discovered in the 1960s, is a synthetic, broad-spectrum, bactericidal antibiotic which works by inhibiting the enzyme MurA, an essential for bacterial cell wall synthesis [1]. Fosfomycin is available as an oral suspension in the United States, and the pharmacokinetics allow for one-time dosing [2], making it a good oral option, especially in the outpatient setting for treating urinary tract infections (UTI). Fosfomycin is approved by the U.S. Food and Drug Administration (FDA) to treat uncomplicated cystitis caused by *Escherichia coli (E. coli)* and *Enterococcus faecalis (E. faecalis)* in women [2].

We noticed that non-infectious disease specialists prescribe fosfomycin to treat various conditions outside of its FDA approved indications, including complicated cystitis, pyelonephritis, long-term UTI prophylaxis, and prostatitis. In addition, it was also used to target many other organisms such as *Klebsiella pneumoniae, Proteus mirabilis, Enterobacter cloacae complex, Pseudomonas aeruginosa,* etc. Despite a few anecdotal successful cases, no extensive data is available for off-label uses, which

begs the question of the nescience surrounding the usage of fosfomycin. This analysis aimed to assess the understanding of fosfomycin use among internal medicine trainees at a tertiary academic institution.

II. METHOD AND FINDINGS

The Yale New Haven Internal Medicine Residency program trains about 140 residents at any time. We conducted this survey at three main teaching hospitals via online and in-person questionnaire surveys among the residents (Supplementary Material 1)

We received responses from 78 participants across four training years (Table 1). Overall response rate was 58%. Of the 70 participants who had previously known about fosfomycin, 50 had prescribed the medication in both inpatient and outpatient settings. The most common clinical indication selected was uncomplicated cystitis (94.3%), followed by pyelonephritis (41.4%) and prostatitis (32.9). Eighteen participants (25.7%) selected bacteremia. *E. coli* was the most chosen pathogen (71.4%), followed by *Klebsiella pneumoniae* (68.6%). Nineteen residents selected all extended-spectrum beta-lactamases (ESBL) producing Gram-negative bacteria. Among Gram-positive organisms, *Staphylococcus aureus* was chosen at the highest rate (28.6%), followed by Coagulase-negative *Staphylococcus* (24.3%), and *E. faecalis* (22.9%) (Table 2). Twenty-one participants indicated uncomplicated cystitis as the only indication where fosfomycin should be used. No participants chose E. faecalis and E. coli by themselves as targeted pathogens. Consequently, no participant showed a response that was in accordance with the fosfomycin's approved FDA label of fosfomycin.

TABLE 1
PARTICIPANT DEMOGRAPHICS

Parameter	Subjects (n = 78)
Post graduate year, n (%)	
PGY 1	40 (51.3)
PGY 2	20 (26.6)
PGY 3	15 (19.2)
PGY 4	3 (3.9)
Training track, n (%)	
Preliminary	9 (11.5)
Primary care	6 (7.7)
Categorical	63 (80.8)
Residents who had known of fosfomycin	
Yes	70 (89.7)
No	8 (10.3)

TABLE 2
SURVEY OUTCOMES

Parameter	Subjects (n = 70)
Residents who had prescribed fosfomycin	
Yes	50 (71.4)
No	20 (28.6)
Clinical indication chosen	
Uncomplicated cystitis	66 (94.3)
Pyelonephritis	29 (41.4)
Prostatitis	23 (32.9)
UTI prophylaxis	19 (27.1)
Bacteremia	18 (25.7)
Other	0
Organism indication chosen	
Staphylococcus aureus	20 (28.6)
Coagulase negative *Staphylococcus*	17 (24.3)
Enterococcus faecalis	16 (22.9)
All Gram-positive bacteria	7 (10)
Escherichia coli	50 (71.4)
Klebsiella pneumoniae	48 (68.6)
Enterobacter spp.	16 (22.9)
Pseudomonas aeruginosa	28 (40)
All ESBL Gram-negative bacteria	19 (27.1)
All Gram-negative bacteria	10 (14.3)
Other	1 (1.4)

UTI: urinary tract infection
ESBL: extended spectrum beta-lactamases

III. DISCUSSION

Increases in drug resistance have limited oral treatment options available for lower UTIs. *E. coli* and other gram-negative organisms that harbor ESBL are often resistant to oral beta-lactams, trimethoprim-sulfamethoxazole, and fluoroquinolones [3]. Fosfomycin is a good option for uncomplicated cystitis secondary to ESBL *E. coli* and an alternative treatment option for ESBL *E. coli* prostatitis [5].

Fosfomycin can also be an acceptable alternative for salvage therapy for UTIs caused by multidrug- resistant organisms (MDRO) [4]. Fosfomycin exhibits in-vitro activity against a large number of bacteria. However, the clinical significance is unknown. It is important to recognize that many organisms, including *Pseudomonas aeruginosa*, *Morganella* species, *Proteus vulgaris* and *Staphylococcus saprophyticus* have elevated minimum inhibitory concentration (MIC) values and are unlikely to respond to fosfomycin. Clinical and Laboratory Standards Institute breakpoints are only available for *E. coli* and *E. faecalis* [5]. Fosfomycin is not recommended for treating infections outside the urinary tract, such as bacteremia, or pyelonephritis due

to its inadequate concentrations at other sites [5]. Due to the intricacy of these clinical and microbiological indications, fosfomycin should be carefully considered on a case-by-case basis, preferably in conjunction with an infectious disease consultation when used outside of its FDA approval.

Our results raised concerns about the insufficient understanding of fosfomycin usage among internal medicine residents at our institution. The most noteworthy findings were related to the medication's off-label usage, Gram-positive coverage and extra urinary tract indications. In this era of increasing antibiotic resistance and infections secondary to MDRO, judicial use of fosfomycin is crucial so that it remains a viable option for treating patients with ESBL *E. coli* urinary tract infections. We hope that this work will serve as a foundation for future educational opportunities for the next generation of healthcare professionals on the accurate usage of this unique antibiotic. Furthermore, this study could be expanded to include other medical and surgical specialties and different levels of practitioners.

IV. STUDY QUESTIONNAIRE

Please circle your answers:

Your Initials:

A. Post graduate year PGY1 PGY2 PGY3 PGY4 PGY5 Other (please specify)

B. Internal Medicine Track

1. Traditional/Categorical
2. Preliminary
3. Primary care
4. Other (please specify)

C. Have you heard of fosfomycin?

1. Yes
2. No (please skip D, E and F)

D. Have you prescribed fosfomycin.

1. Yes
2. No

E. When do you think we should use fosfomycin (indications)? Select all that apply.

1. Uncomplicated cystitis	4. Recurrent UTI prophylaxis
2. Pyelonephritis	5. Bacteremia
3. Prostatitis	6. Other (please describe)

F. Which organisms can you treat with fosfomycin? Select all that apply.

1. *Staphylococcus aureus*	7. *Enterobacter cloacae complex*
2. Coagulase negative *Staphylococcus*	8. *Pseudomonas aeruginosa*
3. *Enterococcus faecalis*	9. All ESBL Gram-negative bacteria
4. All Gram- positive bacteria	10. All Gram- negative bacteria
5. *E. coli*	11. Other (please describe)
6. *Klebsiella pneumoniae*	

V. CONCLUSION

This study highlights notable gaps in knowledge regarding fosfomycin use among internal medicine residents, particularly in relation to its limited FDA-approved indication and lack of established efficacy for non-urinary tract infections or Gram-positive organisms. The frequent selection of off-label uses, including pyelonephritis, bacteremia, and broad Gram-negative or Gram-positive coverage, underscores the risk of inappropriate prescribing. Given the increasing prevalence of multidrug-resistant organisms and the importance of preserving oral treatment options, fosfomycin should be used judiciously and primarily within its approved indications. Educational interventions aimed at improving awareness of antimicrobial stewardship principles are essential to ensure responsible prescribing practices. Future research should expand these assessments across other specialties and healthcare settings to better inform strategies that safeguard the clinical utility of Fosfomycin.

AUTHOR DECLARATION

Human Ethics and Consent to Participate declarations: not applicable

IRB approval: This survey study does not require review by IRB.

Competing interests: The authors have declared that no competing interests exist.

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Contributors:

TL – contributed to preparing and distributing surveys, statistical analysis, literature review, writing of the manuscript and processing of suggestions by co-authors in the subsequent drafts.

DBN – contributed to statistical analysis, edits of manuscript.

TB – contributed to preparing surveys, literature review, edits of manuscript.

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Assessment of Patient Satisfaction towards Radiological Services at A Tertiary Care Hospital in Rajasthan: A Cross-Sectional Study

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Abstract—

Introduction: *Patient satisfaction has emerged as a critical quality indicator, directly influencing patient compliance, treatment outcomes, and overall perception of healthcare services. The aim of this research was to evaluate patient satisfaction with the Radiological services provided at tertiary care Hospital in Rajasthan.*

Methodology: *This cross-sectional study was conducted sto assess patient satisfaction with radiological services in the radiology department of a tertiary care hospital located in Rajasthan from 1st December 2021 to 28th February 2022 among 400 patients who underwent radiological procedures, including MRI, CT scan, ultrasound, and X-ray using a predesigned questionnaire.*

Results: *Among the 400 participants in the study, 52% were female and maximum 68% were of the age group 18–45 years. Education level of maximum participants was higher secondary education (31.5%), followed by graduation (27%). Most frequently availed service was USG (29%) followed by X-ray (26%), MRI (24.75%) and CT scan (20.25%). 81.75% reported healthcare facility accessible. Waiting time for procedures was 15 minutes (40.25%), 15–30 minutes (19.75%) and more than 1 hour (24.25%). 64.5% were satisfied with comfort of waiting chairs while 35.5% were dissatisfied. Staff was courteous (20%) and very courteous (65%). 76% satisfied and 5% very satisfied with cleanliness and hygiene, though 9% expressed dissatisfaction. Procedure was clearly explained among 72%. 62% were satisfied, 3% were very satisfied with privacy and comfort during procedures. 44.5% showed dissatisfaction with turnaround time for reports. Most patients (90%) confirmed receiving instructions during the examination. Overall satisfaction with services was among 72.25% including 19.5% very satisfied and 52.75% satisfied, 15.25% neutral while 12.25% dissatisfied and 0.25% were very dissatisfied.*

Conclusion: *Addressing waiting times and report turnaround times is crucial for enhancing patient satisfaction and ensuring patient-centered care.*

Keywords— Patient Satisfaction, Radiology, Radiological Services, Diagnostic Imaging, MRI, CT Scan, Ultrasound, X-Ray, Tertiary Care Hospital, Rajasthan.

I. INTRODUCTION

Radiological services including diagnostic imaging techniques like X-ray, ultrasound, CT scans, and MRI, play a pivotal role in disease diagnosis, treatment planning, and monitoring.[1] Ensuring a positive patient experience within radiology departments is paramount for optimizing healthcare delivery and achieving patient-centered care. A high standard of care not only ensures better health outcomes but also strengthens the trust between patients and healthcare providers.[2]

Patient satisfaction has emerged as a critical quality indicator, directly influencing patient compliance, treatment outcomes, and the overall perception of healthcare services.[3] Patient satisfaction is a measure of the extent to which a patient is content with the healthcare they received from their healthcare provider.[4] It is an evaluation that reflects the perceived differences between expectations of the patient to what is actually received during the process of care.[5]

Patient satisfaction is influenced by various factors, including accessibility of the department, waiting times for procedures and reports, the comfort and cleanliness of the facilities, the behavior and communication skills of the staff, the clarity of explanations provided about procedures, and the privacy afforded to patients. Dissatisfaction in any of these areas can negatively impact the patient's overall experience and potentially lead to reduced adherence to recommended treatment plans. Further, higher patient satisfaction was found to be associated with decreased use of specialty care, hospitalization, and laboratory services.[6]

In the Indian context, where healthcare resources are often stretched and patient volumes are high, assessing and improving patient satisfaction in radiological services is particularly crucial. This study focuses on a tertiary care hospital in Rajasthan, a region with unique healthcare challenges and demographics. Understanding the specific factors that contribute to patient satisfaction within this setting can inform targeted interventions to enhance service quality and patient outcomes. By identifying areas of strength and areas needing improvement, this research aims to provide actionable recommendations for improving the delivery of radiological services and ensuring a positive patient experience. The findings can contribute to the broader effort of promoting patient-centered care and enhancing the quality of healthcare services in Rajasthan and similar settings. The aim of this research was to evaluate patient satisfaction with the Radiological services provided at tertiary care Hospital in Rajasthan.

II. METHODOLOGY

This cross-sectional study was conducted to assess patient satisfaction with radiological services in the radiology department of a tertiary care hospital located in Rajasthan, India from 1st December 2021 to 28th February 2022. The study population comprised patients who underwent radiological procedures, including MRI, CT scan, ultrasound, and X-ray at the specified hospital.

2.1 Inclusion Criteria:

- Patients aged 18 years and above.
- Patients who provided informed consent to participate in the study.
- Patients who had undergone at least one radiological procedure of MRI, CT scan, ultrasound, and X-ray at the hospital.

2.2 Exclusion Criteria:

- Patients unwilling to participate in the study.
- Patients with cognitive impairments that affected their ability to respond to the questionnaire accurately.

Sample size was calculated at 95% confidence level assuming overall satisfaction among 50% participants to take maximum variance. At a relative allowable error of 10%, minimum 400 participants were required as sample size. Notional sampling frame was used and all consecutive eligible consent giving participants were enrolled in the study. A total of 400 patients were included in the study, providing a representative sample from the available patient pool during the study period of 3 months.

Ethical approval was obtained from the institutional ethics committee before commencing the study. Informed consent was obtained from all participants before their inclusion in the study. Participants were assured of the confidentiality of their responses, and data were anonymized to protect their privacy.

A predesigned questionnaire was used to collect data at the time of exit of patient. The questionnaire consisted of two sections: [a] **Sociodemographic Information** including questions on age, gender, education level, residence (urban/rural), and the type of radiological service availed (MRI, CT scan, ultrasound, X-ray). [b] **Satisfaction Assessment** including questions assessing various aspects of the radiological services, including [1] Accessibility of the radiology department, [2] Waiting time for procedures (categorized as < 15 minutes or > 1 hour). [3] Facility and comfort of the waiting area. [4] Staff behavior (rated as courteous or very courteous). [5] Hygiene and cleanliness of the department. [6] Communication regarding the explanation of procedures. [7] Privacy and comfort during the procedure. [8] Satisfaction with the report turnaround time. [9] Instructions

given during examination. [10] Overall satisfaction with the radiological services (rated as very satisfied, satisfied, neutral, or dissatisfied).

Data thus collected were entered in Microsoft excel software and were analysed using SPSS version 23 (SPSS Inc., Chicago, IL). Quantitative data were summarized as mean and standard deviation. Qualitative data were summarized expressed as number and proportion and were analysed using chi square test. P value <0.05 was considered as statistically significant.

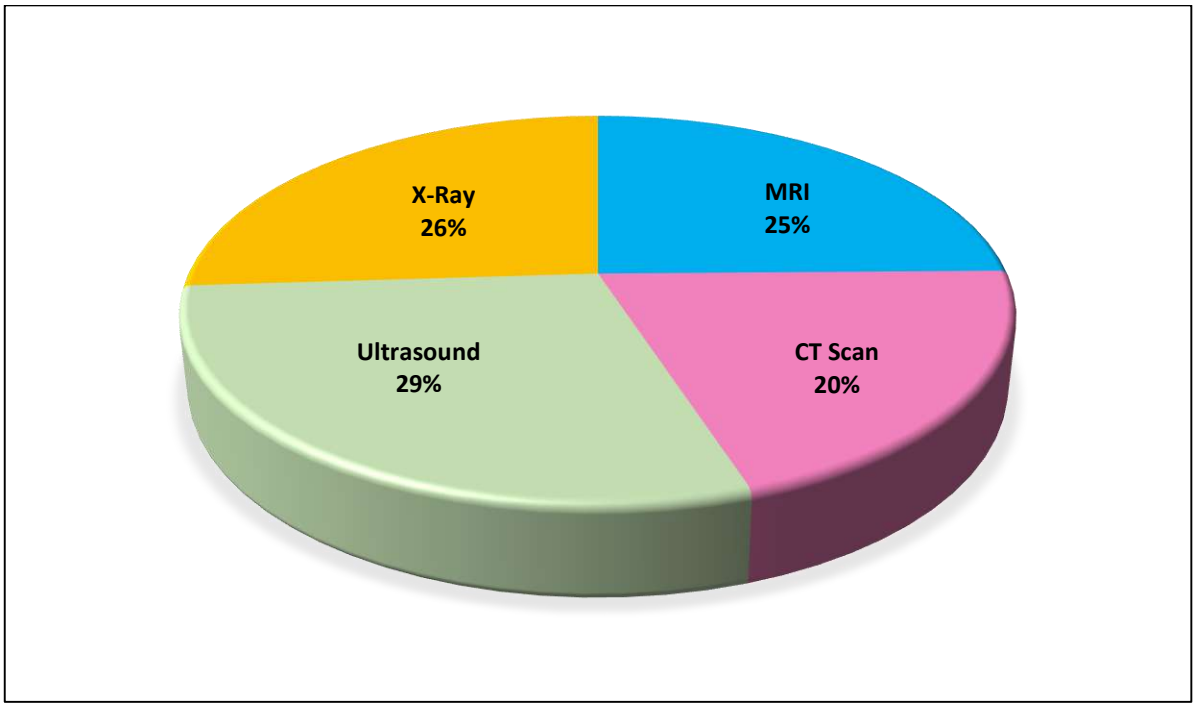
III. RESULTS

This study assessed patient satisfaction with radiological services at a tertiary care hospital in Rajasthan, with a sample size of 400 patients. The findings reveal insights into various aspects of the patient experience, including sociodemographic characteristics, accessibility, waiting times, facility comfort, staff behavior, hygiene, communication, privacy, report turnaround time, and overall satisfaction.

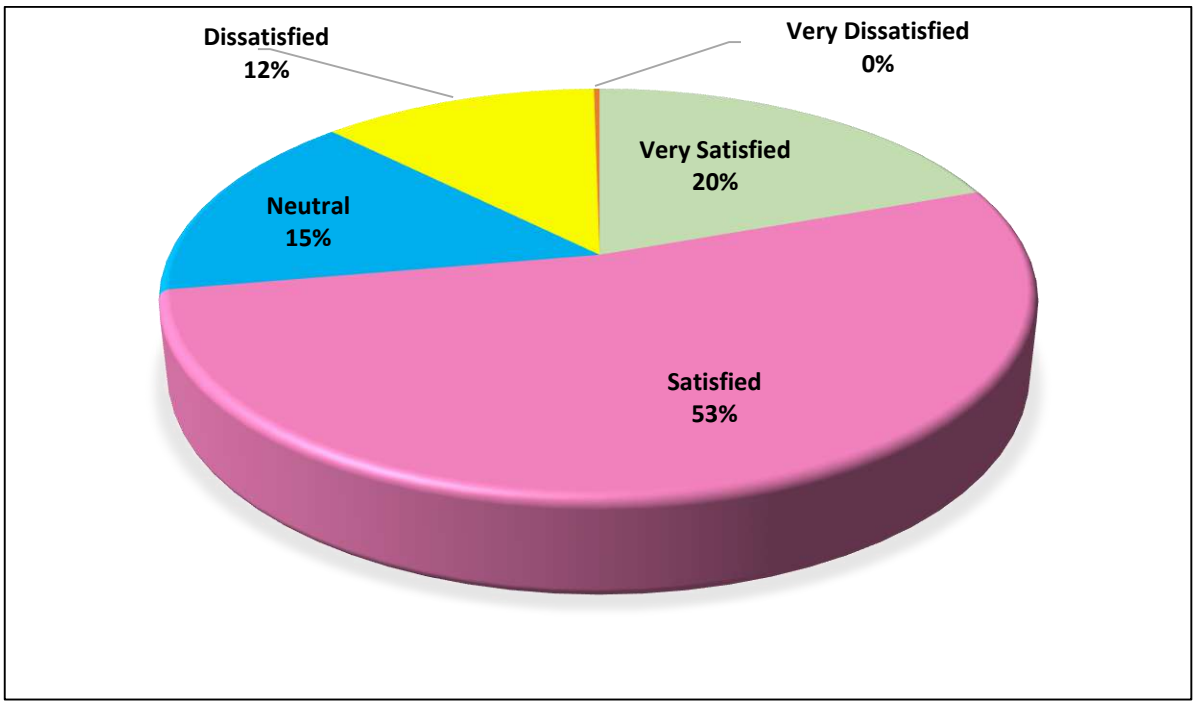
TABLE 1
SOCIODEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS (N=400)

Characteristic	Category	Frequency (n)	Percentage (%)
Age	18-30 years	152	38.0
	31-45 years	120	30.0
	46-60 years	88	22.0
	>61 years	40	10.0
Gender	Male	192	48.0
	Female	208	52.0
Education	Illiterate	25	6.25
	Primary	46	11.5
	Secondary	95	23.75
	Higher Secondary	126	31.5
	Graduate & Above	108	27
Residence	Urban	262	65.5
	Rural	138	34.5
Service Availed	MRI	99	24.75
	CT Scan	81	20.25
	Ultrasound	116	29.0
	X-Ray	104	26.0

Among the 400 individuals enrolled in the study, the majority (68%) were within the age range of 18–45 years (38% in 18-30 year age group and 30% in 31-45 year age group), followed by 22% in the 46–60 years group, and 10% aged above 60 years. The gender distribution revealed a slight female predominance, with 52% (n=208) being female and 48% (n=192) male. 31.5% of participants had completed higher secondary education, 27% were graduate & above, 23.75% had secondary education, 11.5% had attained primary-level education, and 6.25% were illiterate. Around one third participants (262 participants) were from urban areas (65.5%) and 138 participants (34.5 %) were of rural background. Most frequently availed service was ultrasonography (USG) by 116 participants (29%) followed by X-ray by 104 participants (26%), magnetic resonance imaging (MRI) by 99 participants (24.75%) and computed tomography (CT) scan by 81 participants (20.25%). [Table-1, Graph-1].



GRAPH 1: Radiological services availed by study participants



GRAPH 2: Overall satisfaction level of study participants

TABLE 2
PATIENT SATISFACTION WITH RADIOLOGICAL SERVICES (N=400)

SN	Aspect	Satisfaction Level	Frequency (n)	Percentage (%)
1	Accessibility	Easy to Locate	327	81.75
		Not easy	73	18.25
2	Waiting Time for procedure	< 15 minutes	161	40.25
		15-30 minute	79	19.75
		31-60 minute	63	15.75
		> 1 hour	97	24.25
3	Facility & Comfort of waiting chairs	Satisfied	258	64.5
		Not satisfied	142	35.5
4	Staff Behavior	Very Courteous	80	20.0
		Courteous	260	65.0
		Neutral	56	14.0
		Rude	4	1.0
		Very rude	0	0
5	Cleanliness and Hygiene	Very satisfied	20	5.0
		Satisfied	304	76.0
		Neutral	40	10.0
		Dissatisfied	28	7.0
		Very Dissatisfied	8	2.0
6	Procedure explained before test	Clearly Explained	288	72.0
		Yes, but not clearly explained	112	28.0
		No	0	0.0
7	Privacy & Comfort	Very satisfied	12	3
		Satisfied	248	62.0
		Neutral	112	28
		Dissatisfied	20	5
		Very Dissatisfied	8	2
8	Overall waiting Time for report turnaround time	Very satisfied	28	7
		Satisfied	48	12
		Neutral	166	41.5
		Dissatisfied	158	39.5
		Very Dissatisfied	20	5
9	Instructions given during examination	Yes	360	90
		No	40	10
10	Overall Satisfaction	Very Satisfied	78	19.5
		Satisfied	211	52.75
		Neutral	61	15.25
		Dissatisfied	49	12.25
		Very Dissatisfied	1	0.25

Out of 400 participants, 81.75% reported that the healthcare facility was easy to locate, indicating good accessibility, while 18.25% faced difficulty. Regarding waiting time for procedures, 40.25% were attended within 15 minutes, additional 19.75% within 15–30 minutes. However, 24.25% of patients had to wait over an hour, suggesting room for improvement in patient flow management. When asked about the comfort of waiting chairs, 64.5% were satisfied, while 35.5% expressed dissatisfaction. Staff behavior was rated positively by most participants, with 20% describing staff as very courteous and 65% as courteous; only 1% reported rude behavior. Cleanliness and hygiene were well-rated, with 76% satisfied and 5% very satisfied, though 9% expressed dissatisfaction.

In terms of communication, 72% of patients reported that the procedure was clearly explained before the test, while 28% felt the explanation lacked clarity. Regarding privacy and comfort during procedures, 62% were satisfied, 3% were very satisfied, while 7% were dissatisfied to varying degrees. The turnaround time for reports emerged as a concern, with 41.5% expressing neutrality and 44.5% dissatisfaction, indicating delays in report delivery. Most patients (90%) confirmed receiving instructions during the examination, whereas 10% did not. Overall satisfaction with services was among 72.25% including 19.5% very satisfied and 52.75% satisfied, while 12.25% reported being dissatisfied and 0.25% were very dissatisfied. 15.25% were neutral about overall satisfaction level. [Table-2, Graph-2]

IV. DISCUSSION

This study, conducted at a tertiary care hospital in Rajasthan with a sample size of 400 patients, revealed moderate to high overall patient satisfaction with radiological services. The key findings highlighted strengths in accessibility, staff behavior, hygiene, and privacy, while also identifying areas needing improvement, specifically waiting times and report turnaround time.

In this study maximum 38% were within the age range of 18–30 years similar to the study of Mishra D[2] (38.2% aged 18-30 years), while in study of Kumar V et al[7] maximum 43.9% were of 30-65 year age group. There was slight female predominance in our study (52% female) consistent with study of Kumar V et al[7] (49.2%), Adhikari M et al[8] (52.9%) and Mishra D[2] (46.3% females) while in study of Kumar CN et al[9], 79% were males while 21% were females. In our study maximum 31.5% had higher secondary education followed by 27% graduates. In study of Kumar CN et al[9], maximum 28% had secondary education followed by 22% graduates. USG was the most frequently availed service in our study (29%) followed by X-ray (26%), MRI (24.75%), CT scan (20.25%). In comparison, Kumar V et al[7] reported X ray (37%) and USG (28.8%) as most common while Mishra D[2] reported MRI (26.9%) and CT scans (25.6%) as predominant.

In our study, 81.75% reported that the healthcare facility was easy to locate, similar to the study of Adhikari M et al[8] (97%) and Kumar CN et al[9] (80.5%). 58.3% were satisfied, and 8.2% were very satisfied regarding accessibility in study of Kumar V et al[7]. Mishra D[2] in a study observed that 32.6% found services accessible and 19.6% reported very accessible services. Regarding waiting time for procedures, 40.25% were attended within 15 minutes, additional 19.75% within 15–30 minutes. However, 24.25% of patients had to wait over an hour in our study. In study of Kumar V et al[7], 61.4% were satisfied and 7.2% were very satisfied and Mishra D[2] in their study observed short waiting time (42.6%) and very short waiting times (32%), 74.5% were satisfied in study of Kumar CN et al.[9] 64.5% were satisfied with comfort of waiting chairs in our study similar to the study of Mishra D[2] (32.3% satisfied, 31.8% very satisfied).

Regarding staff behavior, similar results were obtained by various studies as ours (20% describing staff as very courteous and 65% as courteous), study of Mishra D[2] (42.1% rated staff as professional and friendly, and 35.1% very professional and friendly), study of Kumar CN et al[9] (77.5% were satisfied) and study of Adhikari M et al[8] (96% very friendly and courteous). Cleanliness and hygiene were well-rated, with 76% satisfied and 5% very satisfied similar to the study of Mishra D[2] where 41.9% found the environment clean and comfortable, 23.8% rated it as very clean and comfortable. 72% of patients reported that the procedure was clearly explained before the test in this study and similar results were observed by Kumar CN et al[9] (86.5%) and Adhikari M et al[8] (92%). Mishra D[2] in a study observed that 55.0% felt the procedure was very clearly explained, while 27.1% thought it was described somewhat clearly. Regarding privacy and comfort during procedures, 62% were satisfied, 3% were very satisfied. Similarly in study of Mishra D[2] 38.0% rated the procedure as very comfortable, while 33.6% found it comfortable. In this study, overall satisfaction with services was among 72.25% similar to the study of Mulisa T et al[11] (71.6%), Efanga SA et al[10] (94.8%). Mishra D[2] in a study observed that 43.9% were satisfied, while 31.0% were very satisfied.

The results emphasize the importance of addressing waiting times and report turnaround times to improve patient satisfaction. Potential strategies include optimizing appointment scheduling, streamlining workflows, and implementing efficient reporting systems. Enhancing communication between staff and patients is also crucial for managing expectations and addressing concerns.

V. CONCLUSION

This study provides valuable insights into patient satisfaction with radiological services in a tertiary care hospital in Rajasthan. Addressing waiting times and report turnaround times is crucial for enhancing patient satisfaction and ensuring patient-centered care. Studies with larger, more diverse samples are needed to confirm these results and explore factors influencing patient satisfaction as this study focused on a single tertiary care hospital in Rajasthan. This may limit the generalizability of the findings to other settings.

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