

A STUDY ON AVERAGE LENGTH OF STAY FOR PATIENTS UNDERGOING UROLOGICAL SURGERY

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Mukesh Kumar Dudi

Under the Supervision and Guidance of

Dr. Alok Kumar Mathur

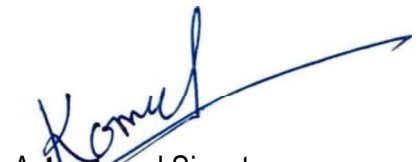
2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Mukesh Kumar Dudi** ,has successfully completed his three months internship as a trainee with us in department of quality at PIMS Hospital, from 15.03.2025 to15.06.2025.

During this period, he was engaged in various departments, where he demonstrated sincerity, professionalism, and a keen interest in learning.

We appreciate his contribution and wish his all the best in future professional endeavors.



Authorized Signatory
Dr. Komal Dashora
(Head Operations Quality)
PIMS Hospital Umarda Udaipur
313015(Raj.)

Quality Manager
Pacific Institute of Medical Sciences
Umarda, Udaipur

CERTIFICATE

This is to certify that dissertation titled “**A Study on the average Length of Stay for patients undergoing urological surgery**” is a record of the research work undertaken by **Mr. Mukesh Kumar Dudi** in partial fulfilment of the requirements for the award of the degree of MBA Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and ^{his} ~~her~~ approach to the research study has been sincere, scientific, and analytical.

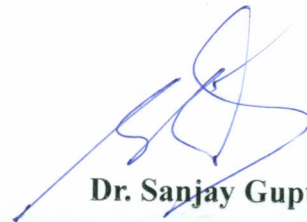
A red ink signature, appearing to be 'Alok Mathur', written in a stylized, cursive script.

Dr. Alok Mathur

Faculty Guide

IIHMR University, Jaipur

Date: 19/06/2025

A blue ink signature, appearing to be 'Sanjay Gupta', written in a stylized, cursive script.

Dr. Sanjay Gupta

School Dean

IIHMR University, Jaipur

Date: 19/06/2025

DECLARATION

I hereby declare that this dissertation titled **A Study on The Average Length of Stay for Patients Undergoing Urological Surgery in Pacific Institute of Medical Science Hospital, Udaipur** bona fide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Mr. Mukesh Kumar Dudi

Date: 02.07.2025

Abstract

One important measure of healthcare effectiveness, resource use, and postoperative management quality is the average length of stay (LOS) for patients having urological surgery. The purpose of this study was to assess the LOS and related variables in patients who were hospitalized to the Pacific Institute of Medical Sciences (PIMS), Udaipur, for urological procedures. For three months (March–June 2025), a retrospective, descriptive, facility-based study approach was used. Purposive sampling was used to choose 102 patients in total who satisfied certain inclusion requirements. To keep the statistics consistent, patients younger than 12 and those with serious comorbidities were not included.

Secondary data were collected from bed head tickets and the Medical Record Department (MRD), including variables such as demographic details, diagnosis, mode of payment, pre-operative and post-operative stay durations. Data analysis was performed using Microsoft Excel and SPSS for statistical testing, including ANOVA and Chi-square tests to evaluate associations between LOS and various independent variables.

The average total LOS was found to be 4.16 days, with a mean pre-operative stay of 1.98 days and a post-operative stay of 2.18 days. The longest total LOS was observed in the 31–45 years age group (5.0 days), while male patients had a slightly higher LOS (4.19 days) compared to females (4.08 days), though differences were not statistically significant ($p = 0.5719$). Notably, beneficiaries under government public health schemes experienced longer LOS, likely due to delays in procedural approvals and documentation. The most common diagnoses were post-procedural aftercare (24.5%), ureteric calculi (22.5%), and renal calculi (15.7%).

The study concludes that while the average LOS remains within acceptable limits, targeted interventions—such as improving discharge protocols, reducing administrative delays, and enhancing perioperative care through ERAS guidelines—could further reduce hospital stays and optimize healthcare delivery. The findings offer evidence-based recommendations to improve hospital planning, patient throughput, and policy implementation in the urological surgery department.

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OVERVIEW OF PACIFIC MEDICAL HOSPITAL

Pacific Medical Hospital, located in Udaipur, Rajasthan, is a premier healthcare facility attached to the Pacific Medical College. It is a multi-specialty hospital that serves as both a treatment center for patients and a training ground for future medical professionals. With a mission to provide affordable, quality healthcare to the community, the hospital is equipped with modern infrastructure and advanced medical technology.

With more than 900 beds, the hospital provides a broad variety of medical and surgical treatments in a number of areas, such as psychiatry, ENT, dermatology, pediatrics, orthopedics, obstetrics & gynecology, general medicine, and surgery. In order to provide 24-hour medical help, it also has critical care units such as the ICU, NICU, PICU, and a 24-hour emergency department.

Pacific Medical Hospital features modular operation theaters, a fully functional diagnostic laboratory, radiology services including CT scan, MRI, and ultrasound, as well as a licensed blood bank and in-house pharmacy. Super-specialty services such as Cardiology, Nephrology, and Urology are also available.

Committed to community health, the hospital regularly conducts medical camps, awareness drives, and outreach programs in rural and urban areas. With a focus on patient-centric care, hygiene, and professionalism, Pacific Medical Hospital has established itself as a trusted healthcare provider in the region, delivering compassionate and comprehensive medical services.

Hospital Services Offered

Pacific Medical Hospital provides a variety of medical services, such as:

1. General and Specialized Medical Services

- Medical Services, Both General and Specialized Pediatrics, obstetrics and gynecology, orthopedics, dermatology, psychiatry, ENT (ear, nose, and throat), ophthalmology, general medicine, and surgery.

2. Advanced Diagnostics

- Fully equipped pathology lab
- Radiology services: ultrasound, CT, MRI, and X-ray

- Biochemistry and microbiology labs

3. Surgical Facilities

- Modular operation theatres
- Emergency and trauma surgery
- Laparoscopic and minimally invasive surgeries

4. Emergency and Critical Care

- 24x7 Emergency Services
- Intensive Care Units (ICU, NICU, PICU)
- Ambulance services

5. Super Specialties (Available in Select Departments)

- Cardiology
- Nephrology and Dialysis unit
- Neurology
- Urology

6. Pharmacy and Blood Bank

- In-house pharmacy functioning round the clock
- Licensed blood bank facility

Mission

To provide quality medical education and healthcare services by nurturing compassionate, skilled, and ethical healthcare professionals. PMCH is committed to excellence in teaching, clinical practice, and research, while addressing the health needs of the community with integrity and dedication.

Vision

To be a center of excellence in medical education, research, and patient care, recognized nationally and globally. PMCH envisions creating healthcare leaders who improve lives through innovation, empathy, and service to humanity.

Core Values

1. Excellence
 - Striving for the highest standards in education, clinical care, and research.
2. Compassion
 - Treating every patient and student with kindness, empathy, and respect.
3. Integrity
 - Upholding ethical principles in all aspects of education and healthcare.
4. Innovation
 - Encouraging research and adoption of new medical technologies and practices.
5. Community Service
 - Promoting health and wellness through outreach programs and preventive care.
6. Lifelong Learning
 - Fostering continuous improvement and professional development among students and faculty.
7. Collaboration
 - Working as a team within the institution and with external healthcare and academic partners.

THE AVERAGE LENGTH OF STAY FOR PATIENTS UNDERGOING UROLOGICAL SURGERY IS EXAMINED

INTRODUCTION

In the healthcare industry, it is essential to comprehend that the best practices currently used for perioperative and postoperative care have proven to be a crucial component of the standard of treatment for patients with urology. In the field of all adult urologic surgery, postoperative care optimization has significantly improved over time. For providing the best possible postoperative care, which always entails reducing the length of stays in a way that ensures the patient does not experience any postoperative complications, as well as the clinicians' participation in maximizing postoperative recovery and addressing patients' postsurgical concerns. According to the general observations made in the field of urologic treatment and management, there are several fields (such as urologists, nurses, and anesthesiologists) that can address the wide range of issues that urologic providers frequently deal with when caring for postoperative patients (Smith et al., 2018).

The evolution of postoperative care in recent years may have been more influenced by the adoption which has strongly highlighted the overall research significance on the standardization of the aspects for the postoperative care.

According to following sets of evidence, hospitalization following surgery has become a major concern. Clinicians and healthcare experts are currently working to reduce postoperative stays in relation to the actual time period that typically occurs. Additionally, the ERAS protocols indicated that by gathering and using the best evidence-based medicine, it may be possible to further improve the surgical outcomes for patients. But putting the resources together seems like a big task, and it's essential for examining the whole duration according to the kind of urologic issues as well (MeInyk et al., 2011).

By evaluating the clinical complications, surgical modality, and health status of the urologic patients, the current study seeks to ascertain the average postoperative stays among these patients. The statistical results are presented in the results and discussion chapter once the investigation is complete. It is important for determining the postoperative concerns, which include several relevant topics that are analysed by the researchers and then compiled to produce a standardized set of advice for the best care possible.

In order to maximize the postoperative results for adult patients, the following suggestions were made, which focused on three main areas:

1. Hospital-related factors
2. Change or release
3. Monitoring and follow-up

For postoperative patients who typically require an extended hospital stay, it is essential that the surgical care team is well-informed about the clinical indications that necessitate ongoing postoperative monitoring. This includes the use of continuous cardiac monitoring (CCM) and continuous pulse oximetry to ensure patient safety and early detection of potential complications. Although wireless telemetry devices offer the benefit of enabling extended clinical monitoring without confining patients to high-acuity care units, they often fall short in providing comprehensive data when used outside of centralized or remote monitoring stations. In contrast, technologies such as continuous pulse oximetry and CCM are generally confined to intermediate care units or specific hospital zones due to equipment limitations and the need for specialized staffing. This geographic restriction poses a challenge in expanding access to continuous monitoring across all levels of care, highlighting the importance of appropriate patient triage and the need for technological advancements that support wider deployment of these critical monitoring tools. The current investigation's objective is to determine the average length of stay after urologic surgery.

1. To evaluate how well Enhanced Recovery After Surgery (ERAS) procedures are being implemented in terms of standardizing postoperative care and lowering complications.
2. To evaluate the availability and utilization of postoperative monitoring tools, such as continuous cardiac monitoring (CCM) and pulse oximetry, across various hospital settings.
3. To identify key in-hospital considerations, discharge transition practices, and follow-up strategies that contribute to optimal postoperative care.
4. To develop recommendations for improving postoperative care protocols based on evidence gathered from clinical observations and outcomes.

REVIEW OF LITERATURE

<u>AUTHOR</u>	<u>KEY FINDINGS</u>	<u>FOCUS AREA</u>
Council of the EU (2006)	Healthcare performance and resource efficiency	Emphasizes universal access and efficiency with minimal resources.
WHO (2011)	Healthcare expenditures	Acute hospitals account for significant expenditure; need for optimizing length of stay (LOS).
McKee (2004)	Bed number reduction in hospitals	Reducing bed count linked with sustainability and performance optimization.
Lim et al. (2006)	Delays in discharge	Longer LOS associated with higher risks and system inefficiencies.
NHS (2008)	LOS optimization	Reduced LOS frees up hospital capacity and improves resource utilization.
PWC (2008)	Healthcare waste classification	Waste classified as operational, clinical, and behavioral—drives up costs and LOS.
Garg et al. (2012)	Predictive analytics in healthcare	AI-driven models help in resource planning and LOS prediction.
Lim & Tongkumchum (2009)	LOS analysis in terminal cases	Dying patients have different LOS patterns; planning is essential.
Shea et al. (2011)	Electronic physician alerts	Automated messages to physicians can reduce LOS.

Rodziewicz & Hipskind (2019)	Medical error and prolonged hospitalization	Hospital-acquired infections and errors increase when patients stay longer than needed.
Clarke (1996)	Evaluation of LOS reduction	Purpose of LOS reduction should align with cost-benefit and patient care goals.

AIM & OBJECTIVES

AIM OF THE STUDY

To perform a retrospective study at Pacific Institute of Medical Science in order to ascertain the typical duration of stay for patients undergoing Uro-surgery.

OBJECTIVES OF THE STUDY

- To examine the relationship between length of stay and demographic data.
- To determine the health-seeking behaviour based on length of stay and payment method.
- To investigate the typical length of stay for patients undergoing different Uro-surgical operations.

MATERIALS AND METHODS

Study Design – Descriptive study, Retrospective, Hospital Based, Facility Based

Study Place – Uro-surgery department of PIMS Udaipur.

Study Duration – 3 months (March & June 2025)

Study Population – Patients admitted for Uro-surgical procedures in PIMS, Udaipur fulfilling inclusion and exclusion criteria.

Inclusion Criteria:

All the patients admitted for Uro-surgical procedures having clinical, radiological evidence of urological ailments.

Exclusion Criteria:

- i) Age group below 12 yrs are excluded from study
- ii) Patients with any co-morbidity are excluded from study.

Sampling Method – Purposive sampling, Duration based study.

Sample Size – Total 102 numbers of cases have been recorded in the study.

Data was collected from bed head tickets and medical record department (Secondary Data). Demographic data, various diagnosis, mode of payment, pre-operative stay, post-operative stay and total duration of stay were analyzed by using excel sheet and statistical software SPSS.

OBSERVATIONS & RESULTS

Table 1 Age Group & Sex wise distribution of cases

S. No.	Age Groups & Gender	Number of Patients	percentage
1.	13-30 years	20	19.61
2.	31-45 years	25	24.51
3.	46-60 years	29	28.43
4.	Above 60 years	28	27.45
	Total	102	100.00
1.	Male	77	75.49
2.	Female	25	24.51

In our study, majority of cases 28.43% belongs to age group of 46-60 years followed by age group of above 60 years patients (27.45%). Our study population shows that number of cases increases with age which might be due to increasing prevalence of urological problems as age increases.

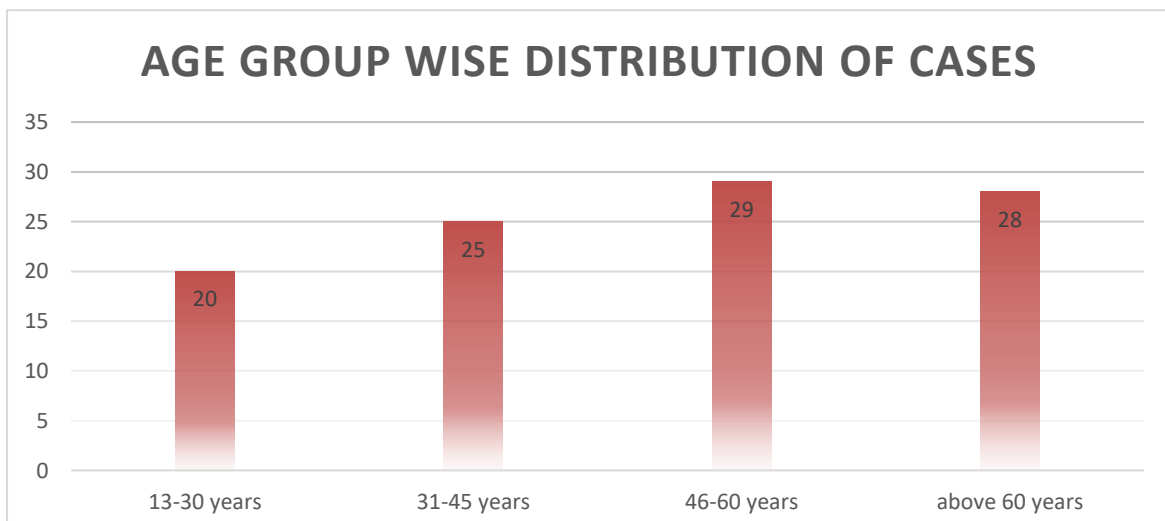


Figure 1. Age Group wise based distribution of the cases

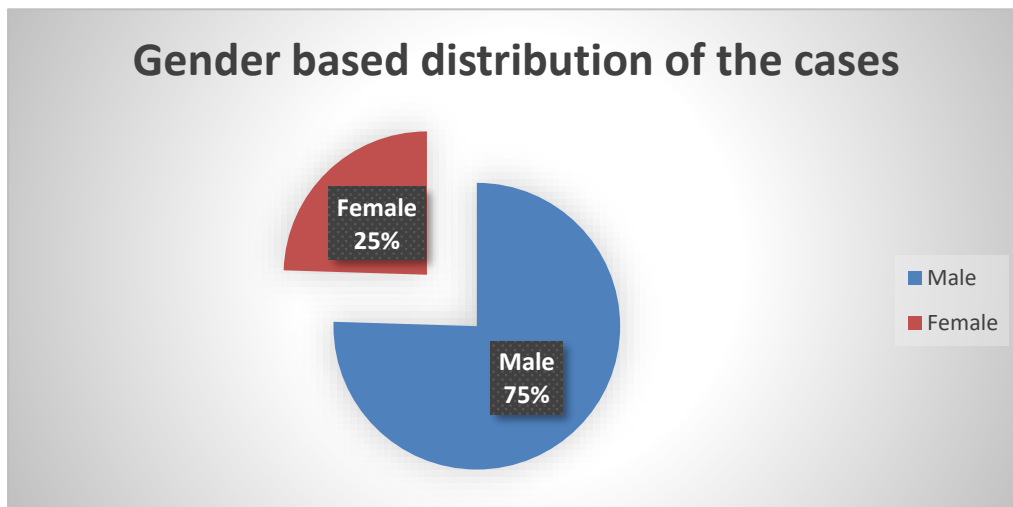


Figure 2. Gender based distribution of the cases

In our study, majority of the cases 77(75.5%) are from male category remaining 25(24.5%) are female. Among the total of 102 patients, the majority of them were found to be males who were predominantly being under urologic surgery.

Table 2 Distribution of cases according to mode of payment

S. No.	Mode of Payment	Number of Patients	Percentage
1.	Self -Payment	15	14.71
2.	Govt Employees schemes	23	22.55
3.	Private Insurance	12	11.76
4.	Govt Public Schemes	52	50.98
	Total	102	100.00

In our study, we divided all patients in four different categories according to various modes of payment. Self-payment included patients paying by out of their pocket. Government employee schemes included beneficiaries of Rajasthan government

health scheme, central government health scheme etc. Government public schemes included Chiranjivi yojana, Bhamashah Yojna and health camps. Private insured included patients getting third party assurance by any private Mediciclaim policy either purchased by self or by company.

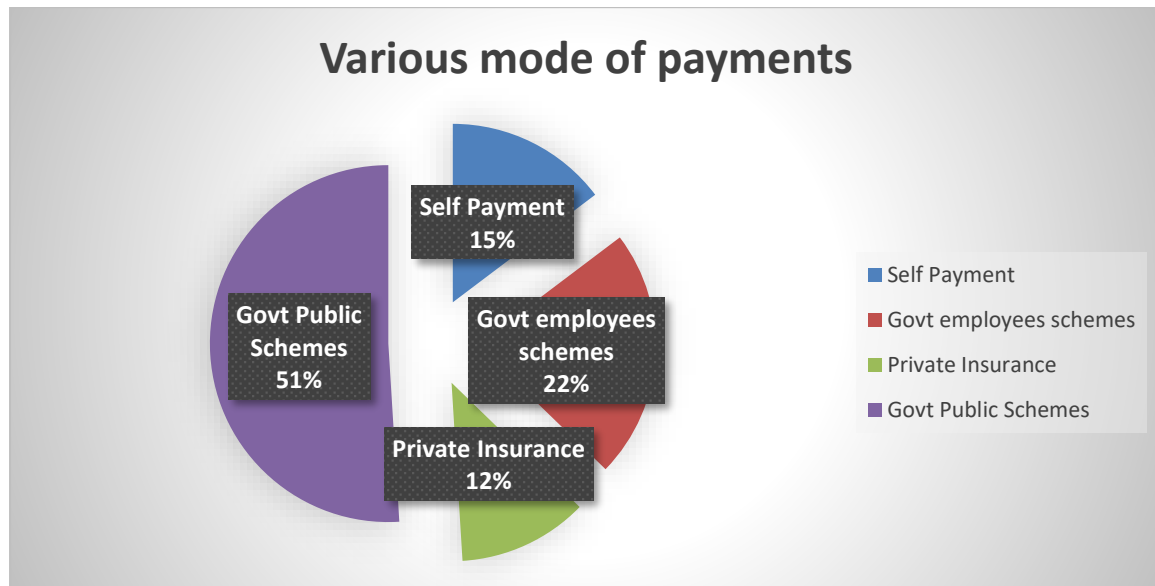


Figure 3. Distribution of cases according to mode of payment

Our study has majority of beneficiaries of government health schemes (50.89%) followed by government employees health schemes (22.55%), self-payment (14.71%) and private insured (11.76%) respectively.

Table 3 Various Diagnosis

With regards to the diagnosis type concerned with the urologic complications and the site involved the following table presented an overall frequency distribution of the patient on the basis of the diagnosis type concerned.

S.No.	Various diagnosis	Numbers	Percentage
1.	calculus in bladder	9	8.8
2.	calculus of Ureter	1	1.0
3.	calculus of kidney	16	15.7
4.	calculus of kidney with calculus of ureter	1	1.0
5.	calculus of ureter	23	22.5
6.	calculus of urethra	1	1.0
7.	Chronic kidney disease, unspecified	2	2.0
8.	Encounter for other post-procedural aftercare	25	24.5
9.	Enlarged prostate	5	4.9
10.	Hydrocele, unspecified	1	1.0
11.	hydronephrosis with ureteropelvic junction obstruction	1	1.0
12.	hypospadias, penile	1	1.0
13.	Malignant neoplasm of vagina	4	3.9
14.	obstructive and reflex uropathy, unspecified	1	1.0
15.	post-traumatic urethral structure	1	1.0
16.	Unethral structure, unspecified	8	7.8
17.	unrinary tract infection, site not specified	1	1.0

18.	unspecified abnormal pain	1	1.0
	Total	102	100.0

From the findings observed in the table it could be inferred that the above table describe the diagnosis of the patients, here majority of the cases 25(24.5%) are diagnosed with Encounter for other post procedural aftercare followed that calculus of ureter 23(22.5%) and calculus of kidney 16(15.7%).

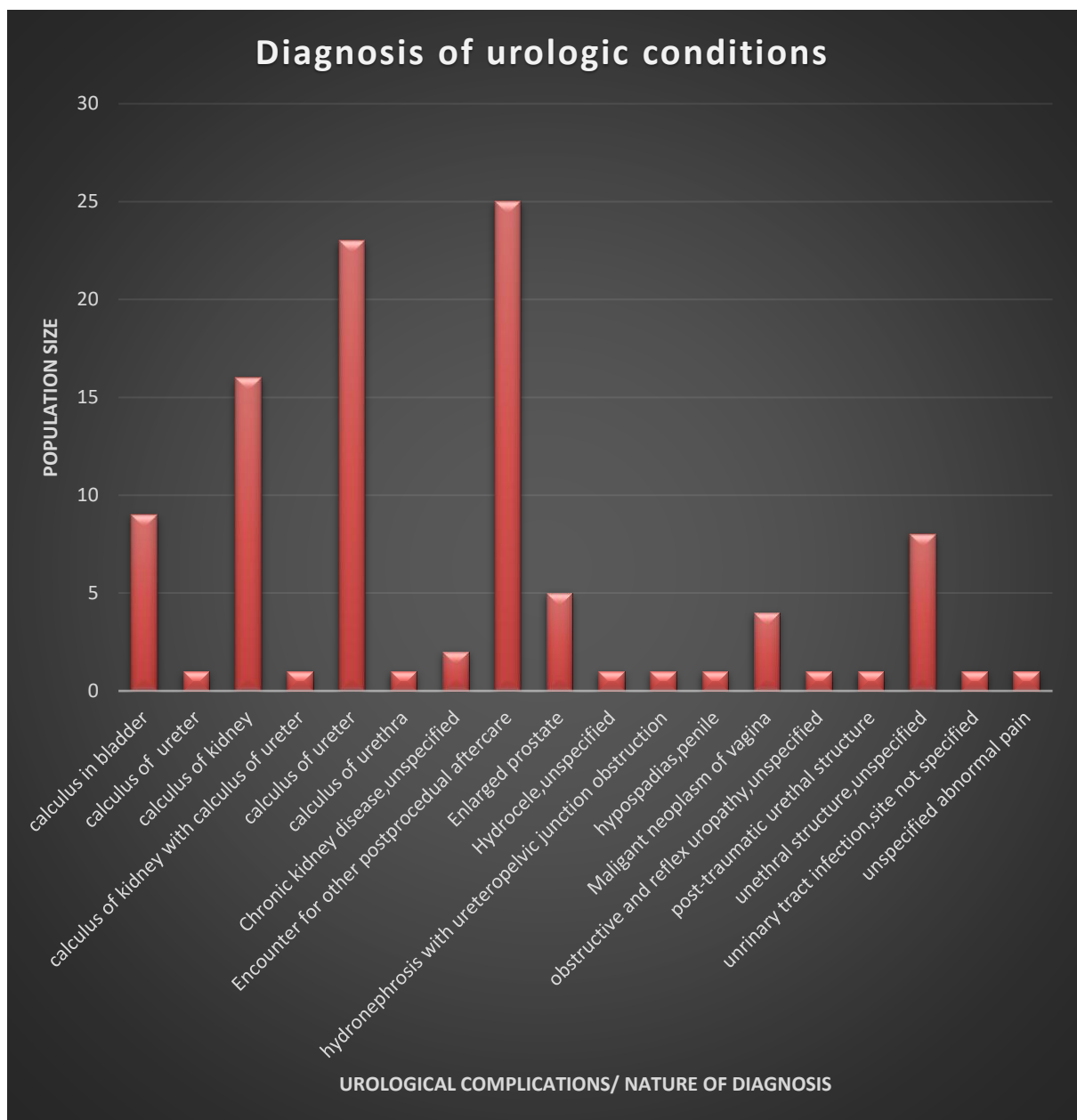


Figure 4. Distribution of cases according to various diagnosis

Table 4 Association of Age Groups with average length of stay

S. No.	Age Groups	Number of Patients (n)	Average Pre-op LOS (in days)	Average Post-op LOS (in days)	Average Total LOS (in days)	p value
1.	13-30 years	20	1.65	1.8	3.45	0.4016
2.	31-45 years	25	2.16	2.84	5	
3.	46-60 years	29	2.21	2	4.21	
4.	> 60 years	28	1.82	2.07	3.88	
5.	Total	102	1.98	2.18	4.16	0.0576
	F value		0.513	1.950	1.757	
	P value		0.674	0.127	0.160	

In our study average length of stay in pre-operative period was 1.98 days, in post-operative period was 2.18 days and average total duration of stay was 4.16 days. However this difference is not statistically significant. (p value 0.0576)

Our study shows that patients in age group of 46-60 years have largest pre-operative average length of stay that is 2.21 days. While it is highest in age group of 31-45 years (2.84 days) in case of post-operative average length of stay. Total average length of stay (5.0 days) was highest in 31-45 years age group.

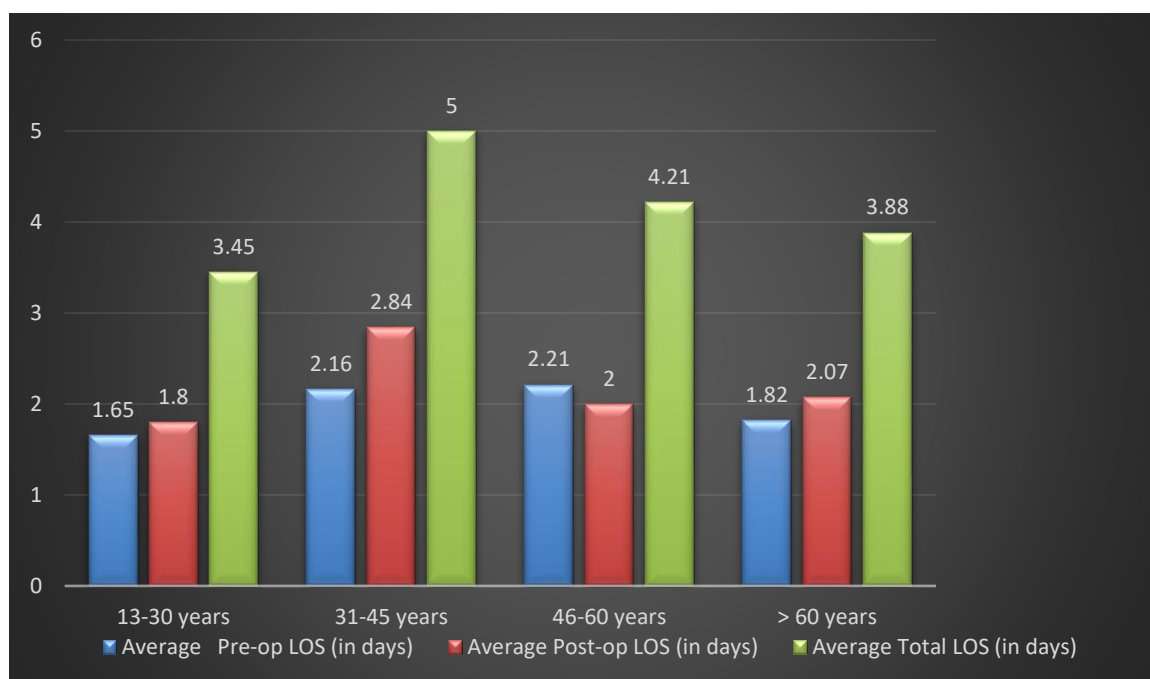


Figure 5 Association of Age Groups with average length of stay

Table 5 Association of Gender with average length of stay

S. No.	Gender	Number of Patients (n)	Average Pre-op LOS (in days)	Average Post-op LOS (in days)	Average Total LOS (in days)	p value
1.	Male	77	1.96	2.23	4.19	0.5719
2.	Female	25	2.04	2.04	4.08	
	Total	102	1.98	2.18	4.16	

Our study shows that average pre-operative average length of stay in male patients was 1.96 days, little lesser than in female (2.04 days). On other hand average post-operative average length of stay in male patients was higher 2.23 days in compare to

female (2.04 days). Overall average length of stay was higher in male (4.19 days) in compare to females (4.08 days). However, this difference is not statistically significant (p value = 0.5719)

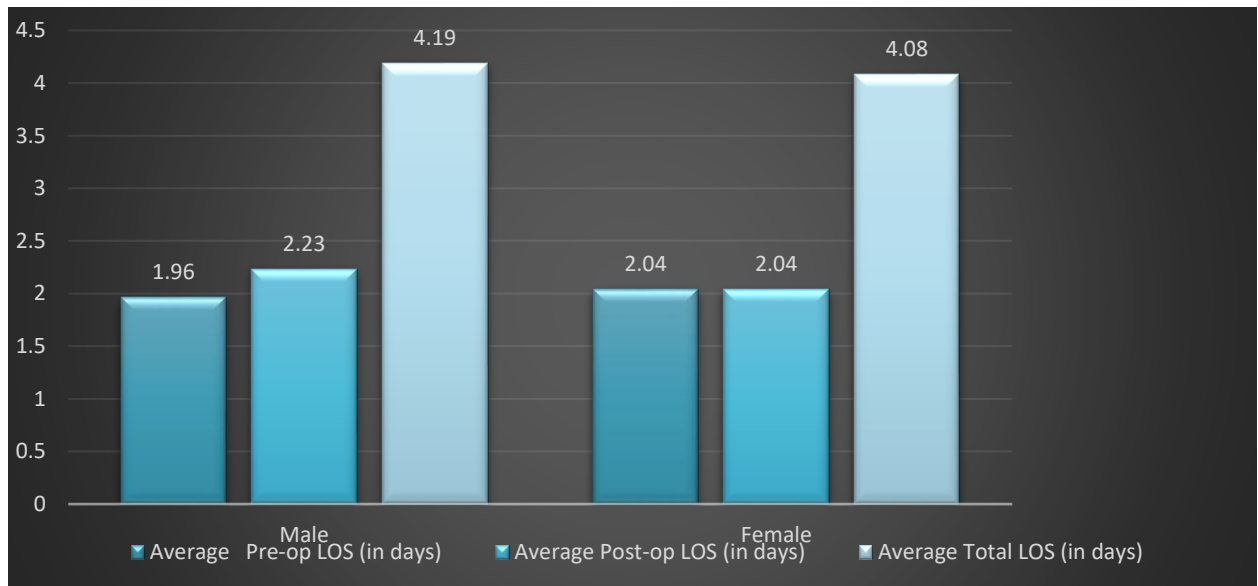


Figure 6 Association of Gender with average length of stay

Table 6 Association according to various modes of payment with average length of stay

S. No.	modes of payment	Number of Patients (n)	Average Pre-op LOS (in days)	Average Post-op LOS (in days)	Average Total LOS (in days)	p value
1.	Self-payment	15	1.33	1.67	3.0	

2.	Govt employee schemes	23	1.74	1.83	3.57
3.	Govt public schemes	52	2.38	2.44	4.82
4.	Private insurance	12	1.5	2.42	3.92
	Total	102	1.98	2.18	4.16

Our study shows that average before operative and after operative median length of stay was higher in beneficiaries of government public schemes i.e. 2.38 days and 2.44 days respectively while this figure was lowest in self-payment patients i.e. 1.33 days and 1.67 days respectively. (p value = 0.5719).

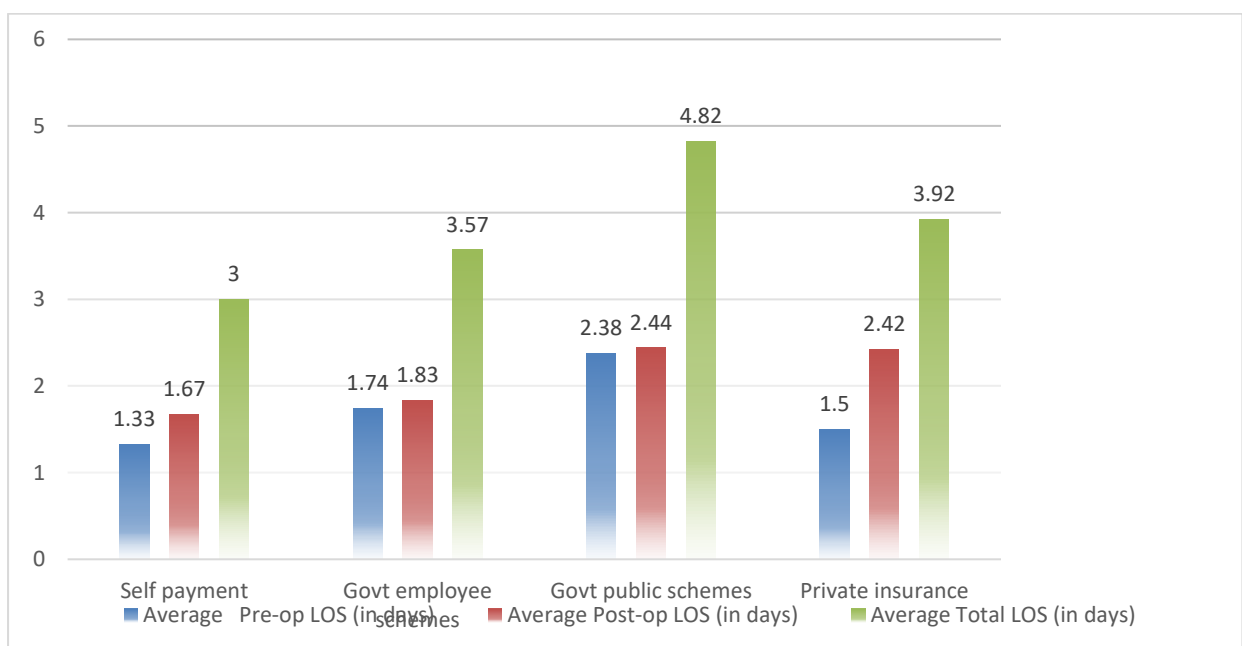


Figure 7 Association according to various modes of payment with average length of stay

Table 7 Comparison of pre-op, post-op and total length of stay

S. No.	Days of stay	Pre-op patients (numbers)	Post-op patients (numbers)	Total LOS patients (numbers)	Chi square value	Chi square critical value
1.	0-2 days	76	69	26	63.09	9.49 df = 4
2.	3-6 days	23	31	60		
3.	>6 days	3	2	16		

Our study shows that majority of patients (76) have less than two days before surgery and less than two days after surgery (69). Chi This table's square value, 63.09, is more than the crucial number, 9.4. We would assert that there is a correlation between the row and column variables and reject the null hypothesis.

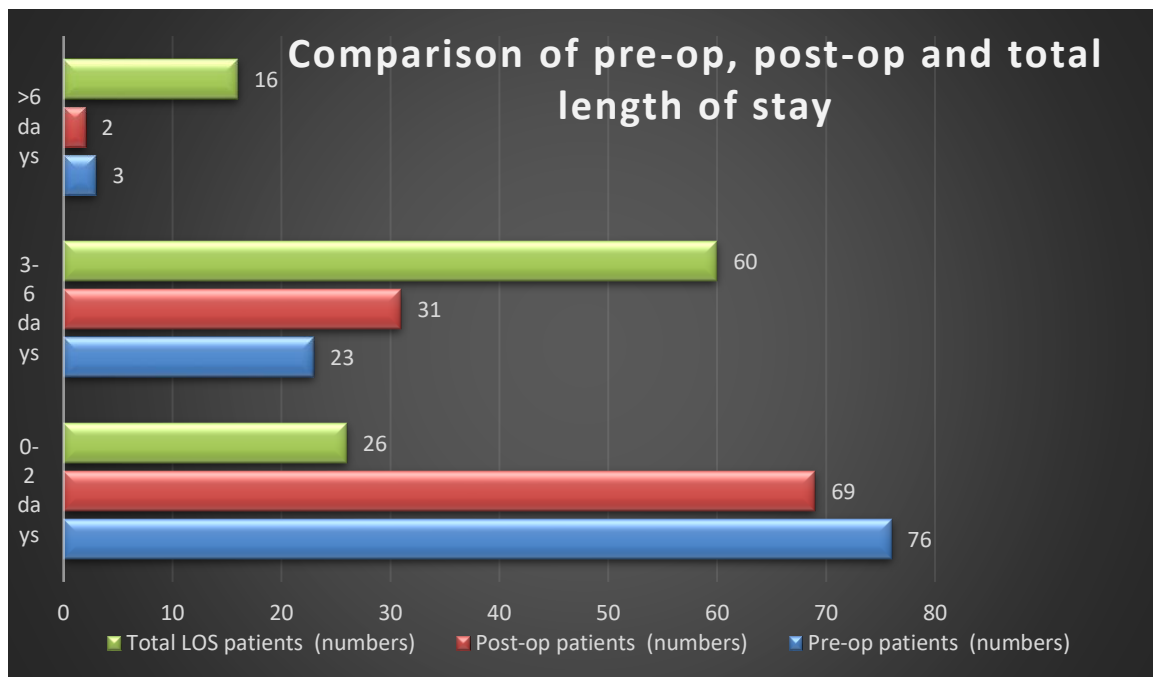


Figure 8 Comparison of pre-op, post-op and total length of stay

Total number of days where patients admitted was calculated that 27(26.5%) of the patients admitted 4 days before operation, 19(18.6%) of the patients admitted for 3 days before the operation date and minimum one cases admitted before days and 11 days before the operation date.

Number of dates admitted in the hospital after the operation was calculated that 32(31.4%) of the cases are stayed 3 days, 25(24.5%) of the cases stayed 2 days, 19(18.6%) of the cases stays 4 days and remaining cases stays even one day.

From determining the average length of stay on the above participant was observed to be 3.725 days.

DISCUSSION

1. Demographic data

- In our study, majority of cases 28.43% belongs to age group of 46–60 year, then the age group over 60 year patients (27.45%). Our study population shows that number of cases increases with age which might be due to increasing prevalence of urological problems as age increases.
- Our study shows that patients in age group of 46-60 years have largest pre-operative 2.21 days is the average duration of stay. However, in the case of post-operative average length of stay, it is largest in the age range of 31–45 years (2.84 days). The age group of 31–45 years had the longest average stay (5.0 days).
- In our study, majority of the cases 77(75.5%) are from male category remaining 25(24.5%) are female. Among the total of 102 patients, the majority of them were found to be males who were predominantly being under urologic surgery. It may be due to high prevalence of urological problems in males in compare to females.

Our study shows that average pre-operative Male patients stayed an average of 1.96 days, which was slightly less than that of female patients (2.04 days). On other hand average post-operative average length of stay in male patients was higher 2.23 days in compare to female (2.04 days). Overall average length of stay was higher in male (4.19 days) in compare to females (4.08 days). However this difference is not statistically.

- significant (p value = 0.5719)

2. Various diagnosis

- From the findings observed in the table it could be inferred that the above table describes the diagnosis of the patients, here majority of the cases 25(24.5%) are diagnosed with Encounter for other post procedural aftercare followed that calculus of ureter 23(22.5%) and calculus of kidney 16(15.7%).

3. Modes of payment

- In our study, we divided all patients in four different categories according to various modes of payment. Self- payment included patients paying by out of their pocket. Government employee schemes included beneficiaries of Central government health program and Rajasthan government health program etc. Government public schemes included chiranjivi yojana, bhamashah yojna and health camps. Private insured included patients getting third party assurance by any private mediclaim policy either purchased by self or by company.
- Our study has majority of beneficiaries of government health schemes (50.89%) followed by government employees health schemes (22.55%), self- payment (14.71%) and private insured (11.76%) respectively.

Socio economic status-Policy covered were used by the cases analyzed that 52(51.0%) are used Chiranjeevi Yojana followed that 20(19.6%) of the cases used Rajasthan Government Health scheme (RGHS) and the remaining cases used Bajaj Allianz General INS.CO.LTD, Employee

- State Insurance coorporation (ESIC), Ex-servicemen contributory Health scheme, PMCH IP patient, MD India Health Services (TPA) Private limited, paramount health services (PTA) PVT.LTD, Raksha TPA, Religare Health Insurance company limited, Star health & Allied INS.CO.LTD and VipulMedcorp. Here it noticed that 6(5.9%) of the cases used cash for the operation.
- Our study shows that Average length of stay both before and after surgery was higher in beneficiaries of government public schemes i.e. 2.38 days and 2.44 days respectively while this figure was lowest in self-payment patients i.e. 1.33 days and 1.67 days respectively. (p value = 0.5719). It may be due to prolonged waiting time in approvals due to large number of patients state wise. Self-payment patients do not having any obligation to wait for any approvals.

4. Duration of length of stay

- Our study shows that majority of patients (76) have less than two days prior to surgery and, likewise, fewer than two days following surgery (69). We would declare that there is a correlation between the row and column variables and reject the null hypothesis.
- Total number of days where patients admitted was calculated that 27(26.5%) of the patients admitted 4 days before operation, 19(18.6%) of the patients admitted for 3 days before the operation date and minimum one cases admitted before days and 11 days before the operation date.
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calculated that 32(31.4%) of the cases are stayed 3 days, 25(24.5%) of the cases stayed 2 days, 19(18.6%) of the cases stays 4 days and remaining cases stays even one day.

- From determining the average length of stay on the above participant was observed to be 3.725 days.

FINDINGS

Average LOS

- Pre-operative LOS: 1.98 days
- Post-operative LOS: 2.18 days
- Total LOS: 4.16 days

Highest LOS by Age

- Total LOS highest in 31–45 years age group (5.0 days)

Gender Analysis

- Males had slightly higher LOS (4.19 days) than females (4.08 days); not statistically significant.

Diagnosis Distribution

- Most common: Post-procedural aftercare (24.5%), Ureteric calculi (22.5%), Renal calculi (15.7%)

Payment Mode & LOS

- Govt Public Schemes: Highest LOS (4.82 days)
- Self-payment: Lowest LOS (3.0 days)

LOS Trends

- 76 patients had ≤ 2 days pre-op stay
- 69 had ≤ 2 days post-op stay

CONCLUSION

In our study average length of stay in pre-operative period was 1.98 days, in post-operative period was 2.18 days and average total duration of stay was 4.16 days. However this difference is not statistically significant. (p value 0.0576).

This thesis examines hospital stay of patient in the facilities involved, two closely related metrics that influence the length of stays for patients undergoing urologic surgery. Hospital LOS management has grown to be a significant concern in cost savings and control. According to Lanzarone et al. (2010), McDermott and Stock (2007), and Ramiarina et al. (2008), a determination based on the pertinent factors which hide structures could help with the planning discharge related to urologic surgery and further facilitate the overall allocation of resources related to urologic surgery in general study.

- The median length of stay of post-operative patients at Pacific Medical College and Hospital is prolonged to around 3.725 days beyond the recommended days for the postoperative stay of urologic patients.
- On a gender based observation it was observed that majority of the cases 77(75.5%) are from male category remaining 25(24.5%) are female

Based on the urologic diagnosis on the complications among the participants. From the findings of the study, the majority of the cases 25(24.5%) are diagnosed with Encounter for other post procedural aftercare followed that calculus of ureter 23(22.5%) and calculus of kidney 16(15.7%).

- With regards to the socioeconomic status of the policy covered from the different private and public organizations for the study it could be observed that Socio economic status-Policy covered were used by the cases analyzed that 52(51.0%) are used Chiranjeevi Yojana followed that 20(19.6%) of the cases used Rajasthan Government Health scheme(RGHS) and the remaining cases used Bajaj Allianz General INS.CO.LTD, Employee State Insurance coorporation (ESIC), Ex-servicemen contributory Health scheme, PMCH IP patient, MD India Health Services (TPA) Private limited, paramount health services (PTA) PVT.LTD, Raksha TPA, Religare Health Insurance company limited, Star health & Allied INS.CO.LTD and VipulMedcorp. Here it noticed that 6(5.9%) of the cases used cash for the operation.
- Total number of days where patients admitted was calculated that 27(26.5%) of the patients admitted 4 days before operation, 19(18.6%) of the patients admitted for 3 days before the operation date and minimum one cases admitted before days and 11 days before the operation date.

RECOMMENDATIONS

1. Strengthen Preoperative Assessment Protocols

- Implement **Pre-Admission Clinics** for early diagnostic testing, anesthetic clearance, and patient education to reduce pre-op LOS.
- Use **electronic alerts** to flag delays in pre-op investigations.

2. Digitize and Integrate Scheme Approvals

- Collaborate with government bodies to implement **e-health cards** with instant approvals.
- Introduce a "**green channel**" for patients with complete documentation to bypass long queues.

3. Implement ERAS (Enhanced Recovery After Surgery) Protocols

- Standardize care pathways for each urological surgery to reduce variation and improve outcomes.
- Train staff in nutrition, early mobilization, and pain management techniques essential for ERAS success.

4. Develop a Real-Time LOS Monitoring Dashboard

- Hospital management should implement a dashboard that:

- Tracks LOS by patient, ward, diagnosis
- Flags outliers exceeding standard LOS
- Notifies concerned departments to expedite action

5. Strengthen Discharge Planning

- Initiate discharge planning on **Day 1 of admission**.
- Assign **dedicated case managers** for government scheme patients to fast-track discharge processes.

6. Post-Discharge Follow-Up and Teleconsultation

- To reduce unnecessary post-op stays, encourage **teleconsultation for stable patients**.
- Set up a **urology follow-up helpline** or app for common queries and medication guidance.

7. Train Staff on Clinical Pathways

- Conduct regular workshops on **urological surgery care pathways**, ensuring everyone—from interns to surgeons—is aligned with protocols.
- Include patient-centric modules focusing on reducing anxiety and improving post-op compliance.

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