



**PAKISTAN NATIONAL JOINT REGISTRY**  
**10<sup>TH</sup> ANNUAL  
REPORT**  
**2023**

Pakistan National Joint Registry  
10<sup>th</sup> Annual Report

**2014-2023**

The Registry Of The Decade In Pakistan.

***Theme: Healthcare Innovations in Pakistan,***

By The People Of Pakistan, For The People Of Pakistan.

Pakistan Arthroplasty Society (PAS)  
Pakistan National Joint Registry (PNJR)  
[www.arthroplasty.org.pk](http://www.arthroplasty.org.pk)  
[www.pasnjr.org](http://www.pasnjr.org)



رَبِّ اجْعَلْ هَذَا بَلَدًا آمِنًا

MY LORD, MAKE THIS LAND PEACEFUL

اے میرے پروردگار! اس جگہ کو آمن والا بنا دے

QURAN (2:126)



# Partners of PAS



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## First CABG in Pakistan

Pakistan's first woman open-heart surgeon Dr Sohaila Mohsin Ali (first row, centre) performed the first heart bypass surgery at University Hospital in Karachi in November 1994.



# Foreword



Dear esteemed colleagues,

It is with great pleasure that I extend my sincerest gratitude to all members of our esteemed orthopaedic faculty for your dedication and commitment to advancing the field of orthopaedics. I am thrilled by the fact that PNJR has completed 10 years. It is a testament to our collective efforts in enhancing patient care, promoting research, and fostering collaboration within our institution.

This report represents the culmination of tireless work from a talented team of clinicians, researchers, and support staff. Through meticulous data collection and analysis, we will gain invaluable insights into joint replacement outcomes, patient satisfaction, and surgical techniques, further solidifying our position as leaders in orthopaedic excellence.

I commend the efforts of Professor Syed Shahid Noor who has taken a leap with an untiring effort for this project to consolidate. I also appreciate each and every one of this team for your unwavering dedication to improving the lives of our patients and for your contributions to this remarkable achievement. Your passion, expertise, and commitment to excellence continue to inspire us all.

As we reflect on the achievements highlighted in this report, let us also look ahead with optimism and determination. Together, we will continue to push the boundaries of innovation, elevate the standard of care, and make meaningful strides towards a healthier, more vibrant future for all.

Thank you for your ongoing support and dedication to our shared mission.

Warm regards,

**Prof Khalid Masood Gondal**

President

College of Physicians and Surgeons Pakistan (CPSP)



## Ventilator Made in Pakistan

Alsons Technologies, a company with a century-long history, began as watchmakers before expanding into strategic equipment for missile technology. In response to the global shortage of ventilators caused by the COVID-19 pandemic, they developed ALNNOVENT, an electro-mechanical ICU ventilator. Designed, developed, and manufactured by the Alsons Group in Pakistan, this ventilator is a critical life-saving device for modern ICUs, offering a range of monitoring parameters and modes at an affordable cost.

# Message



Dear Esteemed Fellows,

It is with great pleasure and pride that I extend my warmest greetings to each of you on the occasion of the 10th Report of the National Joint Registry. As we celebrate this significant milestone, we reflect on a decade of remarkable achievements, advancements, and impactful contributions to orthopaedic care in our nation.

Over the past ten years, the National Joint Registry has served as a beacon of excellence, facilitating the collection of invaluable data, fostering collaboration among healthcare professionals, and promoting evidence-based practices in joint arthroplasty. Through your dedication, hard work, and commitment to excellence, we have witnessed substantial improvements in patient outcomes, surgical techniques, and quality of care.

As we embark on the next phase of our journey, let us reaffirm our commitment to innovation, education, and patient-centric care. Let us continue to leverage the insights gained from the Pakistan National Joint Registry to drive further advancements in orthopaedic surgery, enhance patient satisfaction, and address the evolving needs of our society.

I extend my heartfelt gratitude to each member of the Pakistan Arthroplasty Society for your unwavering dedication, passion, and contributions to the field of joint arthroplasty. Together, we have achieved remarkable success, and I am confident that the next decade will bring even greater accomplishments and advancements.

Congratulations once again on this momentous occasion, and may we continue to work together towards a future where every individual has access to safe, effective, and compassionate orthopaedic care.

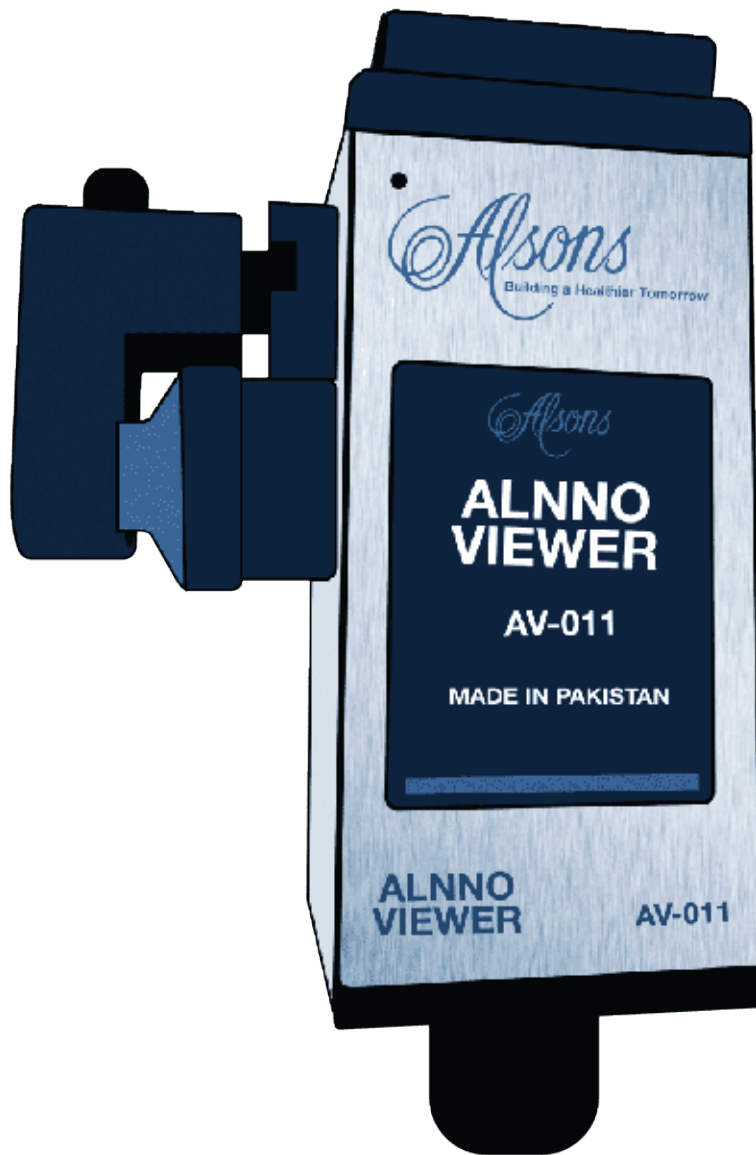
Warm regards,

**Prof Muhammad Amin Chinoy**

President

Pakistan Arthroplasty Society (PAS)





## HFNO/CPAP Device Made in Pakistan

A life sustaining device is made in accordance with design and specification of the UCL Ventura, a UK qualified sophisticated HFNO/CPAP device. ALNNO-VENTURA is manufactured under license and instructions from UCL Institute of Healthcare Engineering. The device was developed with reinforce from the PEC, Ministry of science and Technology and Government of Pakistan. It holds the distinction of being the first locally manufactured respiratory device to be approved for medical use by the DRAP. This is also developed by Also a technology during COVID

# Message



Dear Members of the Pakistan Arthroplasty Society,

As we mark the completion of a decade of the National Joint Registry, I am filled with immense pride and gratitude for the journey we have undertaken together. Over the past ten years, our commitment to advancing orthopaedic care in Pakistan has been unwavering, and the National Joint Registry stands as a testament to our collective dedication and perseverance.

In the face of unprecedented challenges, particularly during the COVID-19 pandemic, our resolve has been tested like never before. Yet, despite the obstacles and uncertainties, we have continued to forge ahead, adapting to new circumstances and finding innovative ways to fulfil our mission. From disruptions in elective surgeries to navigating supply chain issues, the pandemic has presented numerous challenges for the orthopaedic community. However, through our resilience and collective efforts, we have remained steadfast in our commitment to providing the highest quality of care to our patients.

Looking ahead, as we embark on our journey, let us draw inspiration from the successes of the past decade and reaffirm our commitment to excellence in orthopaedic care. Together, we will continue to leverage the insights gained from the National Joint Registry to drive improvements in patient outcomes, enhance surgical techniques, and shape the future of arthroplasty in Pakistan.

I extend my heartfelt appreciation to each and every one of you for your dedication, passion, and contributions to the success of the National Joint Registry. It is through our collective efforts that we have achieved this milestone, and I am confident that together, we will continue to make strides towards excellence in orthopaedic care for many years to come.

With warm regards,

**Prof Maj G (Rt) Dr Sohail Hafeez**

Past President

Pakistan Arthroplasty Society (PAS)



## **Pakistan's First Affordable and Bloodless Dialysis Machines**

Over eight million patients globally lack access to dialysis, a costly and invasive procedure essential for those with kidney disease. In Pakistan, many dialysis patients face high costs and inadequate medical infrastructure. Byonyks, led by CEO Farrukh Usman and in collaboration with Pakistan's Ministry of Information, Technology, and Telecommunication, developed the country's first bloodless, risk-free dialysis machine. This innovative technology allows patients to perform dialysis at home without blood extraction or supervision, reducing the risk of life-threatening infections. Pakistan is now the fifth country to produce such technology, following the United States, Germany, Japan, France, and China.



# Message



It is with great pleasure that I, on behalf of the Health Research Advisory Board, welcome you to this milestone publication commemorating the 10-year anniversary of the Pakistan National Joint Registry (PNJR). This momentous occasion marks a decade of dedication, collaboration, and progress in advancing the field of orthopaedic care in Pakistan.

Established in 2014, the PNJR has been at the forefront of promoting evidence-based practice, improving patient outcomes, and enhancing the quality of joint replacement surgeries across the country. Over the past decade, our registry has grown to become a robust and reliable source of data, providing valuable insights into the trends, challenges, and successes of joint replacement procedures in Pakistan.

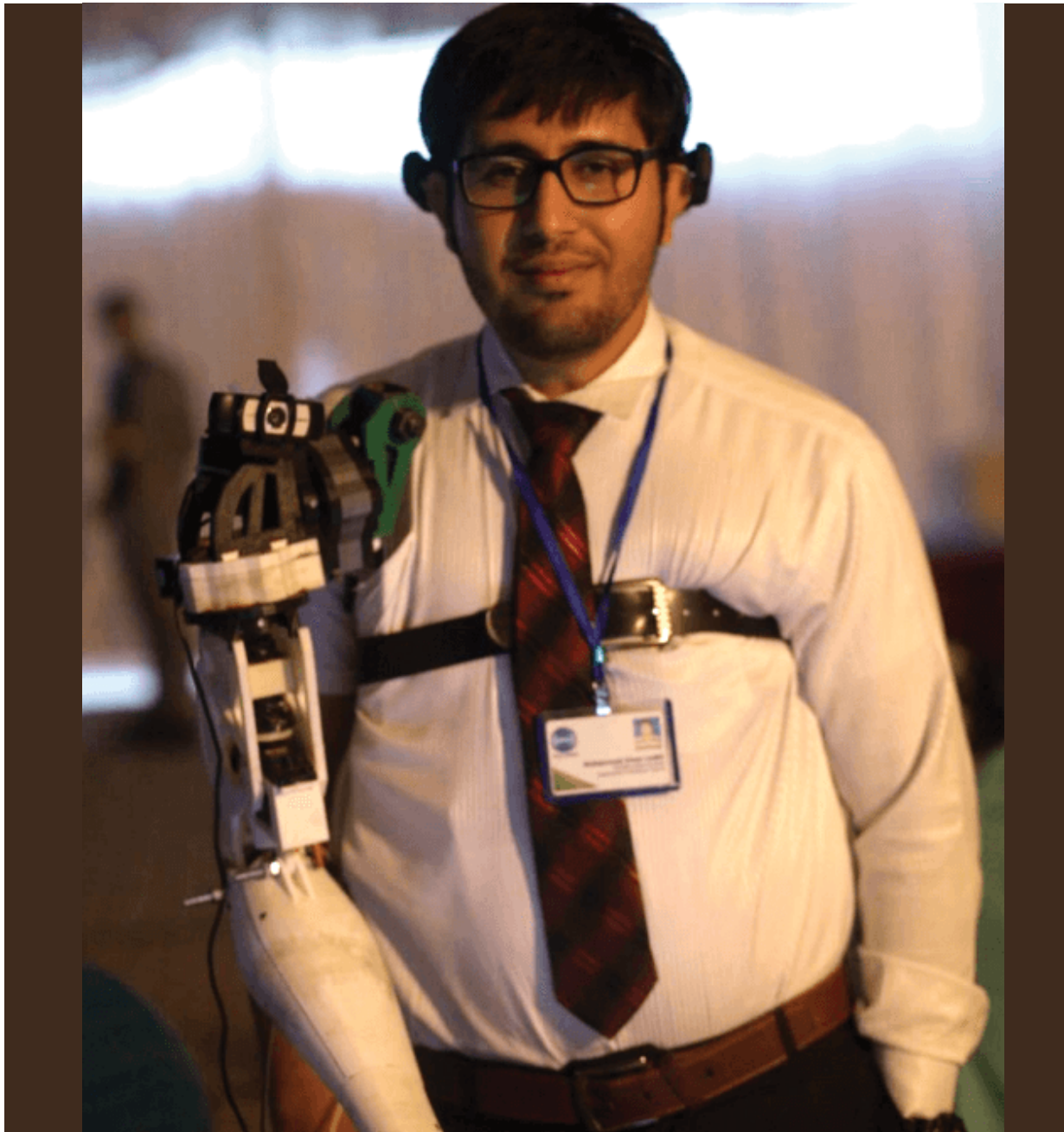
This publication celebrates the achievements of the PNJR and highlights the contributions of our dedicated team members, partners, and stakeholders who have worked tirelessly to make this vision a reality. It also showcases the impact of our work on the lives of thousands of patients who have undergone joint replacement surgeries, regaining their mobility, and rediscovering their quality of life.

As we reflect on our journey, we acknowledge the challenges we have faced and the lessons we have learned. We also look forward to the future, with a renewed commitment to innovation, excellence, and patient-centred care. We are proud to be part of this journey, shaping the future of orthopaedic care in Pakistan, and we invite you to join us in this celebration of our 10-year anniversary.

Sincerely,

**Prof Dr Abdul Gaffar Billoo**

Chairman  
Health Research Advisory Board (HRAB)



## Brain Controlled Bionic Arm

Pakistani software engineers Muhammad Umer Tariq, Muhammad Umar Lodhi, and Umair Ahmed have invented a thought-controlled bionic arm using Brain-Computer Interfaces (BCI). This arm integrates image processing, machine learning, artificial intelligence, networking, mechatronics, and hardware development. It uses non-invasive active electrodes on the head to sense brain signals, enhancing the typically low accuracy of non-invasive BCIs through advanced techniques. The system avoids internal brain surgery and can be easily installed on individuals missing an arm from the shoulder joint. The bionic arm features nine joint movements, including those of the shoulder, bicep, elbow, wrist, and individual fingers.

# Message



The Pakistan National Joint Registry (PNJR), is the first national healthcare registry in Pakistan, was launched on February 15, 2014, by the Pakistan Arthroplasty Society (PAS) and the Health Research Advisory Board (HRAB) at the College of Physicians and Surgeons of Pakistan in Karachi. Celebrating its tenth anniversary, the PNJR has marked a significant milestone, achieved by few countries globally.

The PNJR faced numerous challenges, including establishing a consensus among arthroplasty surgeons, developing a comprehensive data collection tool, ensuring data confidentiality, and creating appropriate software. Funding and training data operators were also significant hurdles. Despite these obstacles, the PNJR produced its first report in 2015, which received international acclaim at the 4th International Society of Arthroplasty Registries (ISAR) in Sweden as the only joint registry in South Asia meeting international standards.

Over the past decade, the PNJR has expanded, with an increasing number of investigators and participating hospitals, enriching its database and fostering collaboration within the orthopaedic community. The registry has received official accreditation from ISAR, the Network of Orthopaedic Registry in Europe (NORE), and the European Arthroplasty Registry (EAR).

Looking forward, the PNJR aims to continue leveraging data-driven insights to improve patient outcomes and advance orthopaedic care in Pakistan. The commitment of healthcare professionals, researchers, and patients has been crucial to its success. The PNJR's tenth report emphasizes the resilience and dedication of Pakistan's orthopaedic community, highlighting significant progress and the importance of collaboration and data-driven approaches in enhancing patient care and outcomes.

Sincerely,

## **Prof Syed Shahid Noor MD, FRCS (Tr & Orth)**

Founder President, Pakistan Arthroplasty Society.  
Founder Director, Pakistan National Joint Registry.  
Founder Principal, Liaquat National Medical College.  
President, Asia Pacific Hip Society (2021-2023)  
President, Pakistan Orthopaedic Association (2017-2018)



## Portable Medical MRI

Hyperfine is an initiative of a Pakistani-American Radiologist, Engineer, Serial Entrepreneur, and Healthcare professional, Dr. Khan Siddiqui. Although the portable MRI machine's weight is around 635 Kgs, it is almost negligible compared to the 4,500 Kgs of a typical 1.5T MRI machine. A 3T MRI scanner weighs even more at 7,500 Kgs. What makes this MRI scanner portable is the wheel array at its bottom. Anyone can maneuver the machine through the wheel array without having to push 635 Kgs from room to room. Besides, Lucy's point-of-care MRI – as the portable device is known – will consume 35-times less power than the traditional MRI scanner.

# PNJR Editor Committee

## 1 | **Prof Syed Shahid Noor**

MBBS, FRCS(Eng), FRCS(Edin), FRCS(Tr&Orth)  
Patron, Pakistan Arthroplasty Society (PAS)  
Director, Pakistan National Joint Registry  
Head of Dept, Ortopedics,  
Liaquat National Hospital and Medical College, Karachi

## 2 | **Prof Muhammad Amin Chinoy**

MBBS, FRCS  
President, Pakistan Arthroplasty Society (PAS)  
National Coordinator, PNJR  
Head of Department of Orthopaedics, The Indus Hospital, Karachi.

## 3 | **Dr Muhammad Kazim Rahim Najjad**

MBBS, FCPS (Orth), FRCS(Glas)  
Treasurer, Pakistan Arthroplasty Society (PAS)  
Associate Professor, Department of Orthopaedics  
Liaquat National Hospital and Medical College Karachi.

## 4 | **Dr Nasir Ahmed**

MBBS, FCPS (Orth)  
Joint Secretary Sindh, Pakistan Arthroplasty Society (PAS)  
Assistant Professor, Department of Orthopaedics  
Liaquat National Hospital and Medical College Karachi.

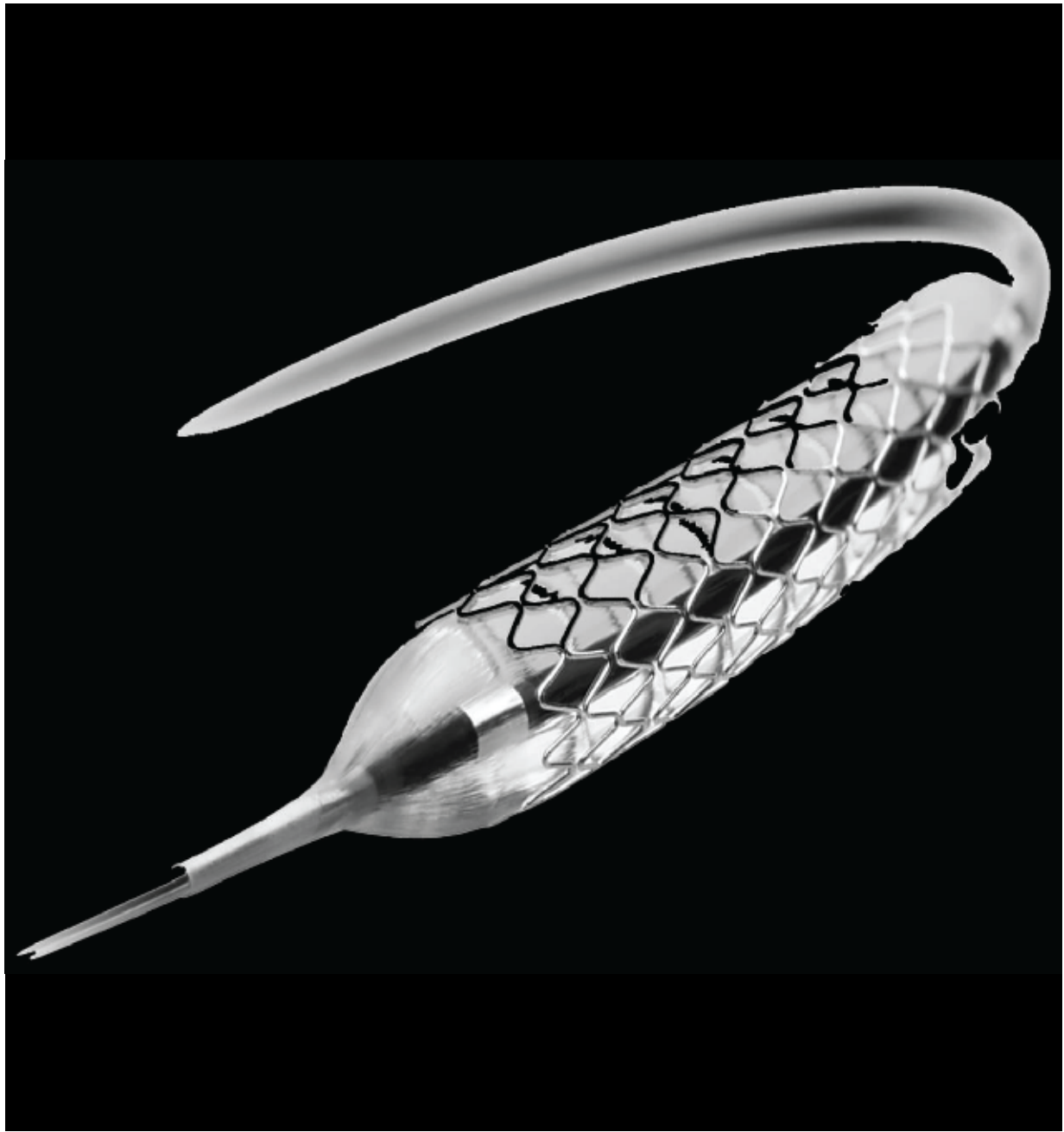
## 5 | **Dr Twahir Kalekhan Dina**

MBBS, MRCS (Edin), FCPS (Orth)  
Senior Registrar, Department of Orthopaedics  
Liaquat National Hospital and Medical College, Karachi.

## 6 | **Dr Arsalan Ghazi**

MBBS, FCPS (Orth)  
Senior Registrar, Department of Orthopaedics  
Liaquat National Hospital and Medical College, Karachi.





## **NUST's Cardiac Stents Production**

Biomedical Engineering Department at the National University of Sciences and Technology (NUST), Islamabad, finally developed cardiac stents in 2020. Dr. Murtaza Najabat Ali worked on this project individually for 11 years and with his team for another 3. The locally produced stents were tested extensively compared to their international counterparts and be at par with the imported stents' clinical performance.

# PNJR Steering Committee



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Director PNJR

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National Coordinator PNJR

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**Dr Nasir Ahmed**

Regional Coordinator PNJR (Sindh)

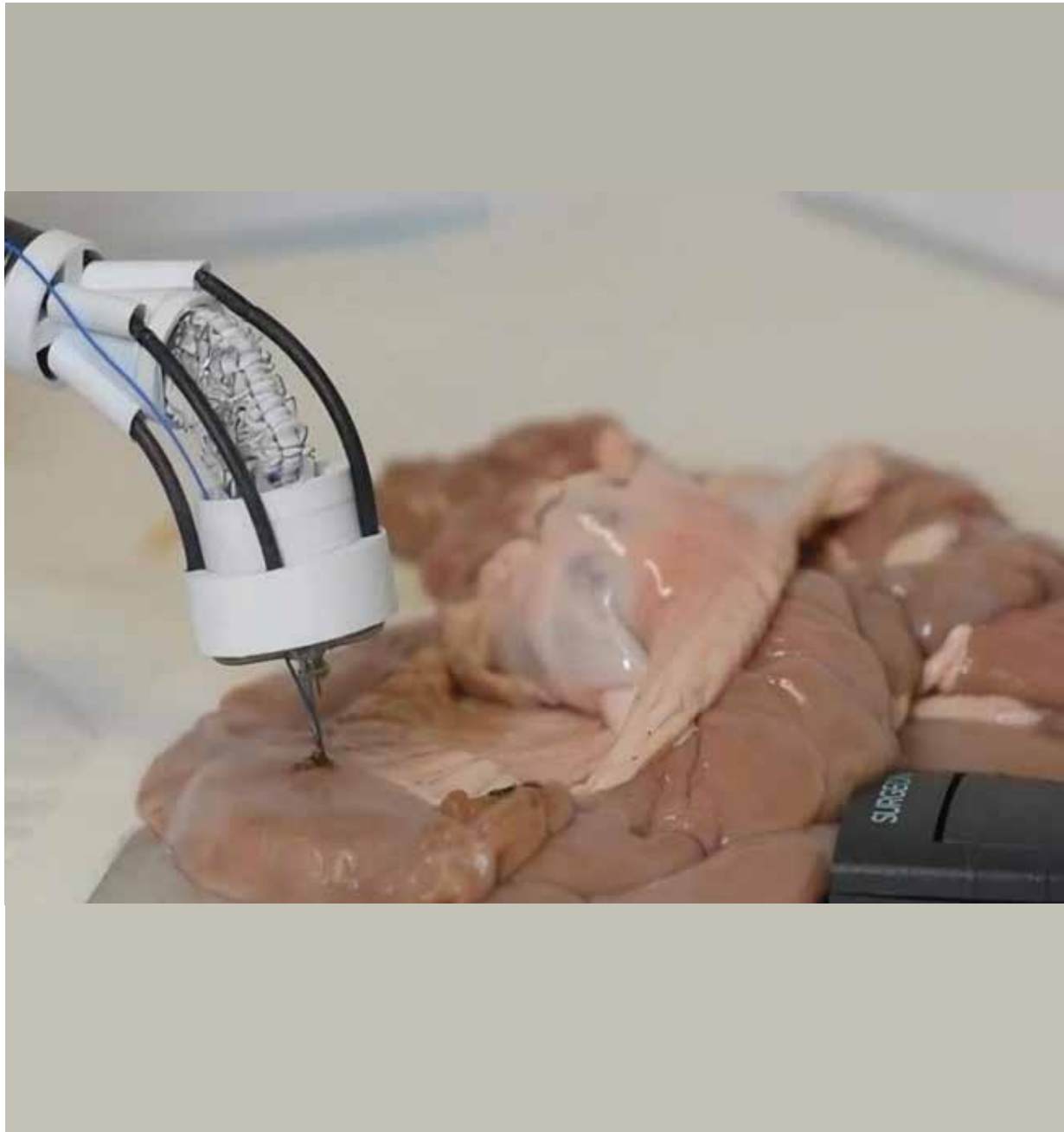
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Regional Coordinator PNJR (Balochistan)

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### **3D Bioprinting for thr Future**

AKUH's Center for Regenerative Medicine and Stem Cell Research is at the forefront of using this system. Dr Sharin Rajput, Assistant Professor at the centre, explained that the bioprinter, akin to a conventional printer, distinguishes itself by containing biological material, including bioink and cells.

# PAS Current National Board



**Prof Syed Shahid Noor**  
Patron, PAS  
Liaquat National Hospital and  
Medical College, Karachi



**Prof Muhammad Amin Chinoy**  
President, PAS  
The Indus Hospital,  
Karachi



**Prof Maj. General Sohail Hafeez**  
Past President, PAS  
Shifa International Hospital,  
Islamabad



**Prof Maj General Suhail Amin**  
President Elect  
CMH, Rawalpindi



**Prof Muhammad Arif Khan**  
General Secretaryr, PAS  
Hayatabad Medical Complex,  
Peshawar



**Dr M. Kazim R. Najjad**  
Treasurer, PAS  
Liaquat National Hospital and  
Medical College, Karachi



**Dr Syed Imran Bukhari**  
Vice President North  
Lady Reading Hospital Medical  
Teaching Institute, Peshawar



**Dr Nasir Ahmed**  
Vice President South  
Liaquat National Hospital and  
Medical College, Karachi



**Prof Faisal Masood**  
Joint Secretary North  
King Edward Medical University,  
Lahore



**Dr Shahjahan Siyal**  
Joint Secretary South  
SMBB Medical University,  
Larkana



**Dr Israr Ahmed**  
Executive Member  
Hayatabad Medical Complex,  
Peshawar



**Dr Mehroze Zamir**  
Executive Member  
Patel Hospital,  
Karachi



**Dr Muhammad Tariq Hasni**  
Executive Member  
Sultan Tareen Healthcare Hospital,  
Quetta



**Dr Obaid Ur Rehman**  
Executive Member  
National Orthopaedic and Specialist  
Hospital, Islamabad





## Lab Diagnostic Systems Made in Pakistan

Lab Diagnostic Systems, an established company in Pakistan, manufactures a wide range of rapid testing kits. They have also developed the i-sugar glucometer, providing a reliable and affordable local option for blood sugar monitoring in Pakistan.

# PNJR Data Coordinator Committee



**Muhammad Asim**

Lead Developer and  
PNJR Application Manager  
CEO, Collage Solutions



**Yasmeen Fazal**

National Coordinator



**Ali Hyder Qureshi**

Secretary, PAS  
Supporting Team



**Dr Kamlesh**

Supporting Team  
Consultant Anaesthetist  
Surgical ICU Civil Hospital Karachi



**Naeem Khan**

Supporting Team



**Faisal Farooq**

Supporting Team and  
PNJR Graphic Expert



## Medical Furniture and Autoclave Manufacturing in Pakistan

WIN MED is a leading medical furniture manufacturer in Pakistan, providing solutions for the modern healthcare sector. They specialize in a wide range of products, including hospital beds, patient trolleys, treatment carts, and steel fabrication.

One of notable successes is the production of an automatic autoclave machine that meets international standards, which has been installed in various hospitals across the country.

PNJR 10<sup>th</sup>  
Annual  
Report

INTRODUCING  
**PART 1**



Journey of  
PAS and PNJR  
**SECTION I**

PNJR 10<sup>th</sup>  
Annual  
Report



## Broadening Partnerships with Health Registries

The Pakistan National Joint Registry (PNJR) has been a trailblazer in healthcare registry development in Pakistan, setting a high standard for others to follow. Our collaboration with the Health Registry Advisory Board (HRAB) has cemented our leadership position in the field, enabling us to partner with numerous healthcare registries over the past five years. Through these partnerships, we have introduced innovative concepts such as disease-specific registries, emphasising the importance of International Conference on Harmonization-Good Clinical Practice (ICH-GCP) guidelines in establishing and conducting health registries across the board. Moreover, we have fostered a culture of continuous improvement through regular data updates and feedback mechanisms, ensuring that our registries remain dynamic and responsive to the needs of healthcare professionals and patients alike.

As we look to the future, our next step is to establish a governing body for all healthcare-associated registries, ensuring compliance with the highest standards of data quality, security, and ethical governance. While this is a challenging task, given the voluntary nature of current registries, our partnerships with other medical fields have allowed us to set an example and inspire other registry steering committees to follow suit. We are confident that these partnerships will lead to a unified effort to create a voluntary governing body for healthcare registries in Pakistan, ultimately paving the way for a national healthcare database that can inform policy, improve patient outcomes, and enhance the quality of care.

Our vision is ambitious, but achievable. We envision a future where healthcare registries become an integral part of the healthcare landscape in Pakistan, providing valuable insights and data to inform decision-making at all levels. We see a future where these

registries become mandatory, integrated with local health authorities, and aligned with international best practices. And we are committed to making this vision a reality, demonstrating a successful model that can be replicated nationwide. We look forward to sharing our progress and successes in future PNJR annual reports, highlighting our role in igniting the spark for a national healthcare database that will transform the face of healthcare in Pakistan.

Upgrades in Data  
Collection Model to  
address Data  
Completeness  
**SECTION II**

PNJR 10<sup>th</sup>  
Annual  
Report

# Upgrades in Data Collection Model to address Data Completeness

The Pakistan National Joint Registry (PNJR) has been committed to continuous improvement, constantly refining and enhancing its processes to ensure the highest quality of data and user experience. One of the most recent and significant additions to the online Case Report Form (CRF) is the introduction of an option for entering bilateral simultaneous joint arthroplasty data. This innovative feature has streamlined the data entry process, allowing users to enter data for one side of the joint and automatically retrieving the patient's information for the second side. This saves time and reduces the likelihood of errors, making it easier for surgeons to focus on providing the best possible care for their patients.

The system's flexibility allows surgeons to modify data entries as needed, selecting the type of implant used and adjusting other variables to ensure accurate and comprehensive data collection. To ensure the integrity and reliability of the data, the PNJR team regularly monitors entries for completeness and accuracy, conducting a thorough review every three months. This rigorous quality control process helps identify and address any missing or erroneous entries, ensuring that the data is reliable and trustworthy.

To further facilitate data entry and improve the overall user experience, the PNJR has expanded its team by hiring additional data collection officers. These dedicated professionals work closely with hospitals and healthcare providers across the country, collecting paper-based CRFs and ensuring that data is entered accurately and efficiently. Our fully functional data collection teams are strategically located nationwide, enabling us to reach a wider audience and collect data from a diverse range of healthcare settings.

In addition to our data collection efforts, we also provide ongoing training and support for

Principal Investigators (PIs) and other users. Our comprehensive training program ensures that new users are proficient in using the online CRF and understand the importance of accurate and complete data entry. Our original users have become highly comfortable with the data entry process, and we continue to train new users to ensure seamless adoption and minimise any disruptions to the data collection process.

By continuously improving our processes, expanding our team, and providing ongoing training and support, we are confident that the PNJR will remain a leader in healthcare data collection and analysis, providing valuable insights and information to improve patient outcomes and advance the field of orthopaedic care.

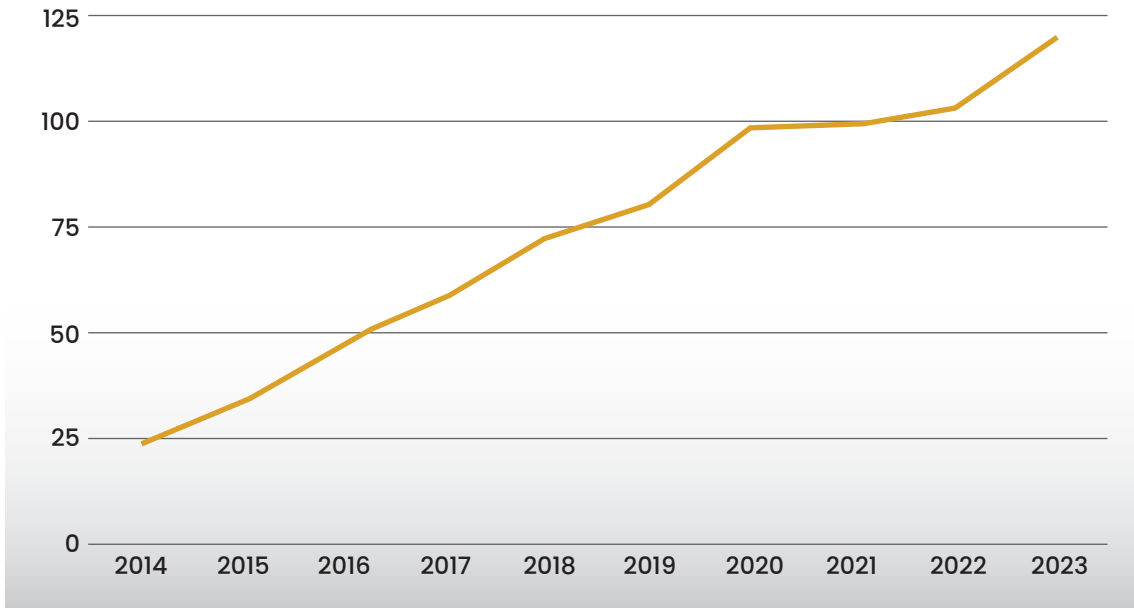
## Appendices:

1. Total Knee Arthroplasty CRF
2. Total Knee Arthroplasty Follow up Form
3. Total Hip Arthroplasty CRF
4. Total Hip Arthroplasty Follow up Form

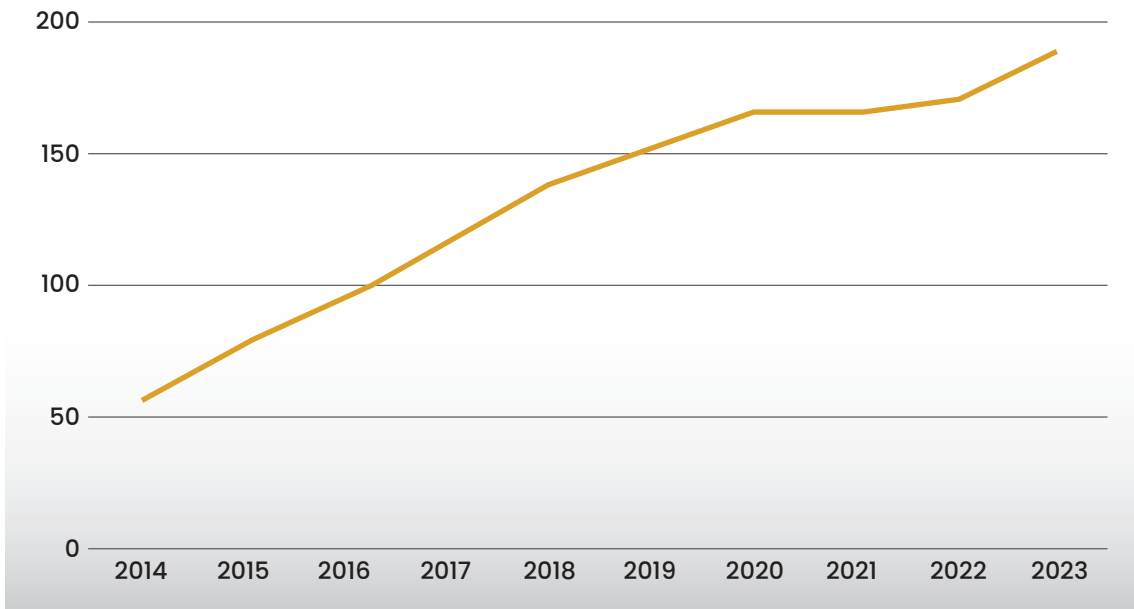


# Upgrades in the Data Collection

## Number of Hospitals in PNJR Network

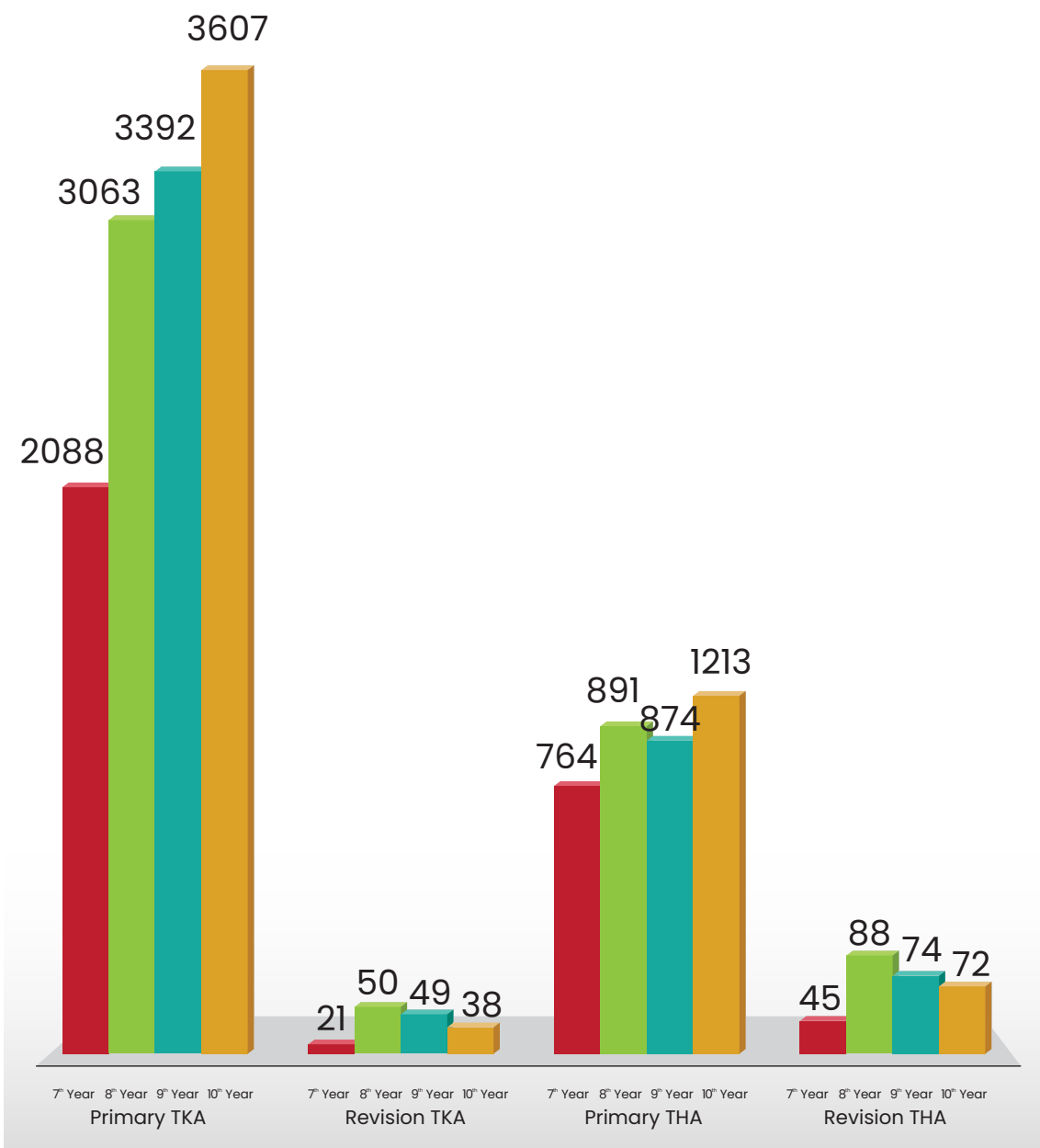


## Number of Surgeons in PNJR Network



# Upgrades in the Data Collection

## Growth in Total Number of Joints Registered



PNJR Partnership  
with HRAB  
**SECTION III**

PNJR 10<sup>th</sup>  
Annual  
Report

# PNJR Partnership with HRAB



## Health Research Advisory Board

Health Research Advisory Board (HealthRAB) a registered society is a “think tank” of senior clinicians, researchers & academicians who are committed to “Developing Health Research Ecosystem”

### Vision

Improving health globally by developing a relevant & efficient research ecosystem

### Objectives

Provide leadership for developing the health research ecosystem.


Build capacity of the human resource involved in conducting research.

Create synergy among the existing stakeholders and bring them together.

Collaborate & network locally as well as globally to initiate research activities.

Facilitate the development & implementation of research policy & strategy

### Leadership




**Chairman**  
**Prof. Dr. Abdul Gaffar Billoo**  
Professor Emeritus,  
Department of Paediatrics and Child Care.  
Aga Khan University Hospital  
Chairman, HANDS



**Vice Chairman**  
**Prof. Dr. Abdul Basit**  
Director, Baqai Institute of Diabetology  
and Endocrinology  
Professor of Medicine,  
Baqai Medical University



**General Secretary**  
**Dr. Zakiuddin Ahmed**  
Adjunct Professor, Digital Health, HSA  
Project Director,  
Riphah Institute of Healthcare  
Improvement & Safety (RIHIS)



**Finance Secretary**  
**Prof. Dr. Syed Shahid Noor**  
Founding Director, PNJR  
Founding President,  
Pakistan Arthroplasty Society  
Chairman - Registry Committee HealthRAB

# PNJR Partnership with HRAB

## Projects

National Disease Registries

International Medical Research Conference (IMRC)

Research Awards

Capacity Building Workshops

National Research Policy Document

Research Funds

Research Webinars

Research Support Service

Student Chapters

Research Reference Guide

## Board Members



**Prof. Dr. Ejaz Vohra**

Professor of Medicine,  
Director, Post Graduate Studies,  
Ziauddin University



**Prof. Dr. Zafar Mirza**

Professor of Health System &  
Population Health, School of  
Universal Health, Shifa  
Tameer-e-Millat University



**Prof. Dr. Aamer Ikram**

Ex-CEO, NIH  
Chair-Advisory Board, TEPHINET,  
& IFBA  
Executive Board, Gavi & IANPHI



**Prof. Dr. Khalid Masood**

Vice-Chancellor,  
Fatima Jinnah Medical University  
President, (CPSP)  
College of Physicians & Surgeons



**Prof. Dr. Saeed Hamid**

Professor,  
Section of Gastroenterology,  
Department of Medicine, AKUH



**Prof. Dr. M Iqbal Afridi**

Ex - Dean and Head of Psychiatry,  
JPMC  
Dean, Faculty of Psychiatry, (CPSP)  
College of Physicians & Surgeons



**Prof. Dr. Shahzad Ali Khan**

Vice Chancellor, Health Services  
Academy (HSA)  
Dean Public Health, Health Services  
Academy (HSA)



**Prof. Dr. Shabeen Naz Masood**

HOD Obstetrics and Gynaecology,  
Isra Medical University



**Mr. Ayub Shaikh**

Former Federal Secretary Health,  
MNHSRC



**Prof. Dr. Muhamamd Umar**

Vice-Chancellor,  
Rawalpindi Medical University



**Dr. Bashir Hanif**

Executive & Medical Director,  
Tabba Heart Institute



**Maj. Gen. (Rtd.) Dr. Shehla Baqai**

Dean Health Sciences & Principal,  
Bahria University Health Sciences



**Dr. Yahya Chawla**

Chairman, Burque Corp, Pvt Ltd  
Director,  
Indus Hospital & Health Network



**Dr. Shamvil Ashraf**

Executive Director-Medical Services,  
Indus Hospital & Health Network



**Prof. Dr. Zia Ul Haq**

Vice Chancellor, Khyber Medical  
University (KMU)  
Dean and Professor, Public Health  
& Social Sciences, KMU



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Annual  
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PNJR Stake  
Holders Network  
**SECTION IV**

# PNJR Stake Holders Network

The Pakistan National Joint Registry (PNJR) is grateful for the unwavering commitment and support of its valuable stakeholders, who have played a crucial role in achieving our first-year targets. We would like to acknowledge the significant contributions of the following stakeholders:

## I. Pakistan Arthroplasty Society (PAS)

The board and members of PAS have taken full ownership of the PNRJ project, providing extensive human and financial resources. PAS is the exclusive financial supporter of PNRJ, and we appreciate their dedication to this initiative.

## II. Patients

Our patients are at the heart of everything we do. Without their contributions, we would not have been able to achieve this milestone. We are grateful for their trust and participation, which will enable us to reach new heights in scientific research and benefit the masses. The PNRJ steering committee extends its sincere thanks to all patients who have contributed to this first annual report.

## III. Research/Registry Development Partners

### Metrics Research Pvt. Ltd.

Metrics Research took on the challenge of this project and provided dedicated services in protocol design, CRF development, ICF, data entry, and data analysis. Their experienced team members assisted PNRJ in every step of development and publication.

## IV. Collage Solutions

Collage Solutions brought extensive knowledge and experience in data management, EDC, eCRF, CTMS design, and development to the table. They provided expertise in developing the PNRJ registry

Database, Offering Services Such As Data Management, Data Tracking, Data Backup, And Cleaning, As Well As Complete Audit Trails, Report Generation, And Dataset Building For Sas/spss Analysis. They Also Helped Resolve Technical Site Issues And Provided Training And Support To Maintain Data Quality.

## IV. Affiliated Institutions/ Clinical Sites

Institutes Are The Backbone Of Any Clinical Research Activity. Our Registered Hospitals Have Supported Us By Providing Access To Patient Data, Logistics For Data Entry, Utilities, And The Use Of Their Valuable And Reputable Name.

## Sindh

### Karachi

1. Liaquat National Hospital & Medical College
2. The Aga Khan University and Hospital
3. The Indus Hospital
4. Institute of Orthopaedic & Surgery
5. Ziauddin University and Hospital Clifton
6. Jinnah Postgraduate Medical Centre
7. Civil Hospital, Dow University of Health Sciences
8. Abbasi Shaheed Hospital
9. Dow International Medical College, DUHS
10. Medicare Cardiac & General Hospital
11. South City Hospital
12. AO Clinic
13. Ashfaq Memorial Hospital
14. Combined Military Hospital
15. Darul Sehat Hospital
16. National Medical Center
17. Orthopaedic & Medical Institute OMI
18. Fatimiyah Hospital
19. Hamdard Hospital
20. TO Clinic
21. Hill Park General Hospital
22. Jinnah Medical & Dental Hospital
23. KPT Hospital
24. Ankle Saria Hospital

# PNJR Stake Holders Network

25. Mamji Hospital
26. Burhani Hospital
27. Memon Medical Institute Hospital
28. Neurospinal & Cancer Care Institute
29. Park Lane Hospital
30. Patel Hospital
31. PNS Shifa – Bahria University Medical & Dental College
32. Saifee Hospital
33. Karachi Adventist Hospital (7th Day Hospital)
34. Zubaida Medical Centre
35. The SNBB Truma Centre
36. Imam Clinic
37. Lyari General Hospital
38. Aiwan-e-Tijarat-o-Sanat Hospital Trust
39. Dr. Ziauddin Hospital (North)
40. Chiniot Hospital Korangi

## Hyderabad

41. Bone and Joints Hospital
42. LUMHS Hospital Jamshoro

## Larkana

43. Chandka Medical College & Shaheed Benazir Bhutto Medical Institute

## Nawabshah

44. Nawabshah Medical College & Hospital
45. Shafique Medical Center
46. Mastoi Medicare

## Sukkur

47. Bhatti Hospital
48. Sukkur Blood Bank Hospital
49. Gambat Pir Abdul Qadir Shah Jilani Institute of Medical Sciences

## Punjab

### Lahore

50. Ghurki Trust Teaching Hospital
51. King Edward Medical University (KEMU)
52. Combine Military Hospital
53. Doctors Hospital
54. Shalamar Medical College
55. Jinnah Hospital
56. Allama Iqbal Medical College
57. Lahore General Hospital
58. Sheikh Zayed Hospital
59. Shoukat Khanum Hospital
60. Services Institute of Medical Sciences (SIMS)
61. Horizon Hospital
62. Sir Ganga Ram Hospital
63. Masood Hospital
64. Govt. Nawaz Sharif Hospital
65. Family Hospital
66. Mid City Hospital Jail Road
67. National Hospital Defence Lahore
68. Services Hospital
69. Wapda Teaching Hospital
70. Wah Medical College & POF Hospital

### Islamabad / Rawalpindi

71. Shifa International Hospital
72. Quaid-e-Azam International Hospital
73. Combined Military Hospital
74. Shaheed Zulfiqar Ali Bhutto Medical University
75. Kulsum International Hospital
76. Ali Medical Centre
77. Maroof International
78. NESCOM Hospital
79. KRL Hospital
80. Benazir Bhutto Hospital
81. Capital Hospital
82. DHQ Hospital
83. Fauji Foundation Hospital
84. National Institute of Rehabilitation Medicine
85. OGDCL Medical Centre
86. Rawalpindi Medical College

# PNJR Stake Holders Network

## Multan

87. Nishtar Medical College & Hospital
88. Combined Military Hospital
89. Fatima Medical Center

## Bahawalpur

90. Bahawal Victoria Hospital
91. Cheema Hospital

## Faisalabad

92. Allied Hospital

## Gujranwala

93. Chattha Hospital
94. District Head Quarter Hospital
95. Med Care Hospital

## Sialkot

96. Combined Military Hospital

## Kharian

97. Combined Military Hospital

## Rahim Yar Khan

98. Sheikh Zayed Medical College and Hospital

## Khyber Pakhtunkhwa

### Peshawar

99. Hayatabad Medical Complex
100. Khyber Teaching Hospital
101. North West General Hospital, Hayatabad
102. Rehman Medical Institute
103. Aman Hospital, Civil Quarters

## Abbottabad

104. Ayub Medical College

## Baluchistan

### Quetta

105. Bolan Medical College
106. Doctors Hospital
107. Akram Hospital

## V Principal Investigators

Surgeons who strive hard to enter the data and keep the registry ticking are what keeps this registry alive. Following is the list of our registered investigators.

## Sindh

### Karachi

1. Prof. Syed Shahid Noor
2. Prof. Muhammad Umar
3. Prof. Zaki Idrees
4. Prof. Muhammad Amin Chinoy
5. Prof. Mansoor Ali Khan
6. Prof. Anisuddin Bhatti
7. Prof. Maratib Ali
8. Prof. Pervez Anjum
9. Prof. Intikhab Taufiq
10. Prof. Imtiaz Ahmed Hashmi
11. Prof. Syed Kamran Ahmad
12. Prof. Ghulam Mustafa Kaim Khani
13. Prof. Asif Qureshi
14. Prof. A R Jamali
15. Dr. Masood Umer
16. Dr. Riaz Hussain Lakdawala
17. Dr. Pervaiz Hashmi
18. Dr. Sharyar Noordin
19. Dr. Mujahid Jamil
20. Dr. Nasir Ahmad
21. Dr. Aslam Pervez

# PNJR Stake Holders Network

22. Dr. Imran Ali Shah
23. Dr. Sohail Rafi
24. Dr. Tashfeen Ahmed
25. Dr. M. Ather Siddiqi
26. Dr. M. Asif Peracha
27. Dr. Syed Amir Ali Shah
28. Dr. S. Ghazanfar Ali Shah
29. Dr. M. Kazim R. Najjad
30. Dr. Muhammad Sufyan
31. Dr. Arshad Qamar
32. Dr. Idrees Shah
33. Dr. Farooq Mamji
34. Dr. Iqbal Malik
35. Dr. Syed Itaata Zaidi
36. Dr. Syed Muhammad Khalid Karim
37. Dr. Lt. Col Waris Ali Shah
38. Dr. Lt. Col Syed Faraz Anwar
39. Dr. Mirza Mohsin Ali Jah
40. Dr. Jagdesh Kumar
41. Dr. Arshad Jamil
42. Dr. Akram M. Aliuddin
43. Dr. Syed Danish Ali
44. Dr. Sabih Nasar

## Hyderabad

45. Dr. Rais Parvaiz

## Larkana

46. Prof. Asadullah Mahar
47. Dr. Zamir Soomro
48. Dr. Azizullah Bhayo
49. Dr. Abdul Malik Shaikh

## Nawabshah

50. Prof. Zulfiqar Ali Mastoi
51. Dr. Saeed Samo

## Sukkur

52. Prof. Anisuddin Bhatti
53. Dr. Zulfiqar Ali Soomro
54. Dr. Sohail Jokhyo

## Punjab

### Lahore

55. Prof. Ghazanfar Ali Shah
56. Prof. Amer Aziz
57. Prof. S. Muhammad Awais
58. Prof. Abu Bakar Siddiq
59. Prof. Rana Dilawaiz Nadeem
60. Brig. Prof. Sohail Amin
61. Prof. Muhammad Abdul Wajid
62. Prof. Naeem Ahmed
63. Prof. Shahzad Javed
64. Prof. Irfan Mehboob
65. Prof. Yawar Anis
66. Prof. Shafique Ahmad Shafaq
67. Prof. Rana M. Arshad
68. Prof. Ali Raza Hashmi
69. Prof. Tahseen Riaz
70. Dr. Ahsan Shamim
71. Dr. Mian Muhammad Hanif
72. Dr. Faisal Qamar
73. Dr. Syed Kashif Mehdi
74. Dr. Sher Afgan
75. Dr. Rizwan Akram
76. Dr. Muhammad Naveed
77. Dr. Muhammad Akhtar Malik
78. Dr. Mohammad Fahim Iqbal
79. Dr. Khurram Sadat
80. Dr. Javed Iqbal
81. Dr. Ijaz Ahmad
82. Dr. Faisal Masood
83. Dr. Atiquz Zaman
84. Dr. Abdullah Shah
85. Dr. Rashid

### Islamabad / Rawalpindi

86. Prof. Maj. Gen. Sohail Hafeez
87. Prof. Khalid Aslam
88. Prof. Riaz Ahmed Shaikh
89. Prof. Nayyar Qayyum
90. Prof. Muhammad Salim
91. Brig. Dr. Syed Arsalan Haider Bukhari
92. Dr. Aamir Nabi Nur
93. Dr. Farid Ullah Khan Zimri



# PNJR Stake Holders Network

94. Dr. Irfan Masood
95. Dr. Syed Shujaat Ali Shah
96. Dr. Shaheen Iqbal
97. Dr. Sajjad Orakzai
98. Dr. Rizwan Hameed Malik
99. Dr. Riffat Mehmood
100. Dr. Nouman Maqbool
101. Dr. Moghees Ikram Ameen
102. Dr. Ali Shami
103. Dr. Ali Khokhar
104. Dr. Ali Akhter
105. Dr. Abidullah Khan Niazi
106. Dr. Obaid-ur-rehman
107. Dr. Asim Niaz Naqvi
108. Dr. Abdul Basit
109. Dr. Syed Sajid Hussain
110. Dr. Faheem Khan

## Multan

111. Dr. Khalil Ahmed Gill
112. Dr. Col. Sohail Muzammil
113. Dr. Mohammad Kamran Siddiqi
114. Dr. Muhammad Jehangir Riaz

## Bahawalpur

115. Prof. Tehseen Cheema
116. Prof. Rafiq Sabir
117. Dr. Hafiz Muhammad Akram

## Faisalabad

118. Prof. Ajmal Yasin
119. Dr. Khurram Habib

## Gujranwala

120. Dr. Hafiz Ahmad Fayyaz
121. Dr. Ahmed Masood Ghumman
122. Dr. Faisal Iqbal Chaudhry

## Sialkot

123. Dr. Shahid Munir

## Kharian

124. Dr. Nisar Ahmed

## Rahim Yar Khan

125. Prof. Muhammad Azeem
126. Dr. Abdul Rauf Chaudhry

## Khyber Pakhtunkhwa

### Peshawar

127. Prof. Zafar Durrani
128. Prof. Muhammad Arif Khan
129. Prof. Zahid Askar
130. Prof. Raja Irfan Qadir
131. Prof. Khushnood Ali Baz
132. Prof. Malik Javed
133. Prof. Ayaz Khan
134. Dr. Zeeshan Khan
135. Dr. Syed Imran Bukhari
136. Dr. Israr Ahmad
137. Dr. Ghulam Atiq
138. Dr. Awal Hakeem
139. Dr. Waseem Anwer

### Abbottabad

140. Dr. Alamzeb Khan

## Baluchistan

### Quetta

141. Prof. Qazi Masood
142. Dr. Saleh Muhammad Tareen
143. Dr. Muhammad Baksh Shahwani
144. Dr. Attiq Ur Rehman
145. Dr. M. Tariq Hasni

# PNJR Implant Suppliers





PNJR No.....

1. PATIENT DETAILS

Surname ..... Given Names .....  
 Female  Male DOB ...../...../..... Age .....  
Weight.....(Kg) Height.....(Feet) BMI.....  
Address .....  
..... Post Code .....

2. HOSPITAL & CONSULTANT DETAIL

Hospital ..... Province.....  
Consultant Surgeon.....Asst. Surgeon.....  
Date of Admission ...../...../..... Date of Operation...../...../.....  
Date of Discharge ...../...../..... Hosp Registration No.....

3. PRE OPERATIVE DEFORMITY

Varus (degree).....  Recurvatum (degree).....  
 Valgus (degree).....  Extra articular deformity  No  Yes  
 FFD (degree)..... (Specify) .....

4. PRE OPERATIVE RANGE OF MOTION

Extension (degree).....  Flexion (degree) .....

5. COMORBIDITIES

DM  Asthma  HTN  IHD  CKD  
 Previous knee surgery  Hepatitis Others .....

6. AMBULATORY STATUS

Community Ambulator  With support  Without support  
 Home Ambulator  With support  Without support  
 Non Ambulator

7. ANAESTHESIA DETAILS

ASA GRADE

1  2  3  4

8. KNEE SOCIETY SCORE

Knee Score (0 - 100) .....  
Functional Score (0 - 100) .....

TYPE OF ANAESTHESIA

General  
 Spinal  
 Epidural  
 General + Epidural  
 Spinal + Epidural

9. DIAGNOSIS AND PROCEDURE DETAIL

Primary TKA

R  L

Diagnosis

Osteoarthritis  
 Secondary Osteoarthritis  
 Rheumatoid Arthritis  
 Other Inflammatory Arthritis  
 Osteonecrosis/Avascular Necrosis  
 Tumour (Specify) .....

Revision TKA

R  L

Diagnosis

Aseptic Loosening  Tibia  Femur  
 Osteolysis  Tibia  Femur  
 Infection  
 Instability  Anteroposterior  Varus / Valgus  Multi Planar  
 Periprosthetic Fracture  
 Femur  Tibia  Patella  
 Implant Breakage  
 Femur  Tibia  Patella  
 Previous Implant Used (Specify) .....

10. SURGICAL DETAILS

INCISION

Midline (Standard)  
 Medial Parapatellar  
 MIS (midline/medial)

APPROACHES

Medial Parapatellar  
 Sub Vastus  
 Mid vastus  
 Lateral Parapatellar  
 Quadricep Snip  
 ETTO  
 Other .....

TOURNIQUET

No  Yes

DRAIN

No  Yes

BONE GRAFT

No  Yes

CEMENTING TECHNIQUE

Vacuum mixing  No  Yes  
 Pulse lavage  No  Yes  
 Application of cement on implant (pre insert)  No  Yes

11. ADVERSE INTRA OPERATIVE EVENT

No  Yes

Fracture  Nerve Injury  Patella Tendon Avulsion  
 Vascular Injury  Ligament Injury Others .....



PNJR No.....

12. THROMBOPROPHYLAXIS

CHEMICAL

NO  Yes

LMWH  Pentasaccharide  Warfarin  
 Direct Thrombin Inhibitor  Aspirin  
Other .....

MECHANICAL

NO  Yes

Foot Pump  I.T.E.D Stocking  
 Intermittent Calf Compression  
Other .....

13. ANTIBIOTIC

Generic	Route	Duration (Days)
1 .....	IV / Oral .....	.....
2 .....	IV / Oral .....	.....

14. POST-OP PAIN MANAGEMENT

PCA (days).....  Epidural (days).....  Nerve Block (days).....  
 Intra-Op Local.....  IV.....(days).....  
 IM.....(days).....  Oral.....(days).....

15. CLINICAL & RADIOLOGICAL IMAGE

Clinical Image  Radiological Image

16. IMPLANT DETAILS

IMPLANT DESIGN

CR  PS  Fixed Bearing  Mobile Bearing  
 High Flex  CCK  RHK  LPS  
 Metaphyseal Seleeve  Trabecular Metal Cone

A - FEMORAL COMPONENT

NONE  FEMORAL  STEM

Company .....  
Prosthesis Name.....  
Cat/Ref #.....  
Size .....

FEMORAL AUGMENTS (Complete details by marking boxes)  No  Yes

Distal femoral  Medial  Lateral  
 Posterior condyle  Medial  Lateral

FEMORAL CEMENT:

No  Yes

CEMENT NAME: .....

B - TIBIAL COMPONENTS

(Mark relevant box, place company labels or complete details by hand)

NONE  All POLY  BASE PLATE  INSERT  STEM

Company .....  
Prosthesis Name.....  
Cat/Ref #.....  
Size .....

TIBIAL CEMENT:  No  Yes

CEMENT NAME: .....

TIBIAL AUGMENTS  No  Yes

Step Wedge  Medial  Lateral  Full  
 Hemi Wedges  Medial  Lateral  Full  
 Screws  No  Yes Number .....

C - PATELLA COMPONENT

No  Yes

Company .....  
Prosthesis Name.....  
Cat/Ref #..... Size .....

PATELLA CEMENT:  No  Yes

CEMENT NAME: .....

17. COMPUTER ASSISTED

No  Yes

System Used .....

18. POST-OP REHABILITATION PROTOCOL

Full weight bearing  Non weight bearing

Knee Range of motion started at day .....

CPM used  No  Yes Days from \_\_\_\_ to \_\_\_\_

Completed by: ..... Date ...../...../.....

Signature: .....



Date:...../...../.....

## KNEE FOLLOW-UP FORM

### PATIENT DETAILS

PNJR No.....

Surname ..... Given Name..... CNIC #.....

Tel / Cell #..... Hospital..... Surgeon.....

Date of Surgery..... TKR (L/R)..... Hospital Reg. #.....

### FOLLOW-UP VISIT

- |                                   |                                  |                                   |                                   |
|-----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> 2 Weeks  | <input type="checkbox"/> 6 Weeks | <input type="checkbox"/> 3 Months | <input type="checkbox"/> 6 Months |
| <input type="checkbox"/> 1 Year   | <input type="checkbox"/> 5 Years | <input type="checkbox"/> 10 Years | <input type="checkbox"/> 15 Years |
| <input type="checkbox"/> 20 Years | Others.....                      |                                   |                                   |

FUNCTIONAL SCORE ( 0-100).....

KNEE SOCIETY SCORE ( 0-100).....

### COMPLICATIONS

- |   |                                    |                                 |
|---|------------------------------------|---------------------------------|
| <input type="checkbox"/> Hematoma         | <input type="checkbox"/> DVT       | <input type="checkbox"/> PE     |
| <input type="checkbox"/> Nerve Palsy      | <input type="checkbox"/> Fracture  | <input type="checkbox"/> Others |
| <input type="checkbox"/> Wound Dehiscence | <input type="checkbox"/> Infection |                                 |

Surgeon Comments.....

.....

.....

Completed by:.....

Signature: .....



PNJR No.....

1. PATIENT DETAILS

Surname ..... Given Names .....
Female Male DOB ..... Age .....
Weight.....(Kg) Height.....(Feet) BMI.....
Address .....
Post Code .....
CNIC # ..... Tel: ..... Mobile No: .....

2. HOSPITAL & CONSULTANT DETAIL

Hospital ..... Province.....
Consultant Surgeon.....Asst. Surgeon.....
Date of Admission ..... Date of Operation.....
Date of Discharge ..... Hosp Registration No.....

3. PRE OPERATIVE DEFORMITY

Fixed flexion deformity (degree) .....
Abduction deformity (degree) .....
Adduction deformity (degree) .....
Ankylosis No Yes

4. PRE OPERATIVE RANGE OF MOTION

Flexion (degree) ..... Extension (degree) .....
Abduction (degree) ..... Adduction (degree) .....
Internal Rotation (degree) ..... External Rotation (degree) .....

5. COMORBIDITIES

DM Asthma HTN IHD CKD
Previous hip surgery Hepatitis Others .....

6. AMBULATORY STATUS

Community Ambulator With support Without support
Home Ambulator With support Without support
Non Ambulator

7. HARRIS HIP SCORE

(0 - 100) .....

8. CLINICAL & RADIOLOGICAL IMAGE

Clinical Image Radiological Image

9. DIAGNOSIS AND PROCEDURE DETAIL

Primary THA

R L
Diagnosis
Osteoarthritis
Secondary Osteoarthritis
Rheumatoid Arthritis
Other Inflammatory Arthritis
Osteonecrosis/Avascular Necrosis
Tumour (Specify) .....

Revision THA

R L
Diagnosis
Osteolysis Infection
Instability Dislocation
Aseptic Loosening
Acetabulum Femur
Periprosthetic Fracture
Acetabulum Femur
Implant Breakage
Acetabulum Femur
Previous Implant Used (Specify) .....

10. ANAESTHESIA DETAILS

ASA GRADE

1 2 3 4

TYPE OF ANAESTHESIA

General Spinal Epidural
General + Epidural
Spinal + Epidural

11. SURGICAL DETAILS

POSITION

Supine
Lateral

APPROACHES

Extended Trochanteric Osteotomy
Extensile Approach
Anterior (Smith Peterson)
Anterolateral (Watson Jones)
Lateral (Hardinge)
Posterior (Southern)

INCISION

Standard
MIS

DRAIN

No Yes

BONE GRAFT

No Yes

12. ADVERSE INTRA OPERATIVE EVENT

Fracture Nerve Injury
Vascular Injury Abductor avulsion injury Others .....

13. THROMBOPROPHYLAXIS

CHEMICAL

NO Yes
LMWH Pentasaccharide Warfarin
Direct Thrombin Inhibitor Aspirin

MECHANICAL

NO Yes
Foot Pump T.E.D Stocking
Intermittent Calf Compression
Other .....



PNJR No.....

14. ANTIBIOTIC

Generic Route Duration (Days)
1 ..... I V / Oral .....
2 ..... I V / Oral .....

15. POST-OP PAIN MANAGEMENT

PCA (days) ..... Epidural (days) ..... Nerve Block (days) .....
Intra-Op Local.....(days) ..... IV .....(days) .....
IM .....(days) ..... Oral .....(days) .....

16. IMPLANT DETAILS

IMPLANT DESIGN

All Cement Hybrid Uncemented Resurfacing Dual Mobility

HEAD SIZE

22 28 32 36 Large head

BEARING SURFACE

Metal on poly Metal on crosslink poly Ceramic on poly Dual Mobility
Ceramic on ceramic Metal on metal Ceramic on crosslink poly

CEMENTED CUP

All poly Long posterior wall Constrained Dual Mobility

CEMENTED FEMORAL COMPONENT

Modularity Non modular Modular
Collar Collared Collar less
Surface Smooth Coated
Shape Straight Double tapered Flanged

CEMENTING TECHNIQUE

Vacuum mixing Cement restrictor Stem centralizer
Pulse lavage Cement gun Proximal pressurizer

UNCEMENTED CUP

Hemisphere Porous coated HA coated With spikes Dual Mobility
Double cup Jumbo cup Screw No Yes No .....

UNCEMENTED FEMORAL COMPONENT

Press fit Porous coated HA coated Plasma coated
Wagner Modular Fiber metal mesh Small stem

ACCESSORIES COMPONENT

Reconstruction ring Burch-Schnider cage
Greater trochanteric grip Cable Wire
Trabecular metal augment Others.....

A - FEMORAL HEAD COMPONENT

Company .....
Prosthesis Name.....
Cat/Ref #..... Size .....

A - FEMORAL STEM COMPONENT

Company .....
Prosthesis Name.....
Cat/Ref #..... Size .....

FEMORAL CEMENT:

NO Yes
CEMENT NAME: .....

B - ACETABULUM COMPONENTS

Company .....
Prosthesis Name.....
Cat/Ref #..... Size .....

ACETABULUM CEMENT:

NO Yes
CEMENT NAME: .....

17. COMPUTER ASSISTED

NO Yes System Used .....

18. POST-OP REHABILITAION PROTOCOL

Non weight bearing Full weight bearing Death.....

Completed by: ..... Date .....

Signature: .....





Date:...../...../.....

## HIP FOLLOW-UP FORM

### PATIENT DETAILS

PNJR No.....

Surname ..... Given Name..... CNIC #.....

Tel / Cell #..... Hospital..... Surgeon.....

Date of Surgery..... THR (L/R)..... Hospital Reg. #.....

### FOLLOW-UP VISIT

- |                                   |                                  |                                   |                                   |
|-----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> 2 Weeks  | <input type="checkbox"/> 6 Weeks | <input type="checkbox"/> 3 Months | <input type="checkbox"/> 6 Months |
| <input type="checkbox"/> 1 Year   | <input type="checkbox"/> 5 Years | <input type="checkbox"/> 10 Years | <input type="checkbox"/> 15 Years |
| <input type="checkbox"/> 20 Years | Others.....                      |                                   |                                   |

HARRIS HIP SCORE (0-100).....

### COMPLICATIONS

- |                                      |   |                                    |
|--------------------------------------|---|------------------------------------|
| <input type="checkbox"/> Hematoma    | <input type="checkbox"/> Wound Dehiscence | <input type="checkbox"/> Infection |
| <input type="checkbox"/> Dislocation | <input type="checkbox"/> DVT              | <input type="checkbox"/> PE        |
| <input type="checkbox"/> Nerve Palsy | <input type="checkbox"/> Fracture         | <input type="checkbox"/> Others    |

Surgeon Comments.....

.....

.....

Completed by:.....

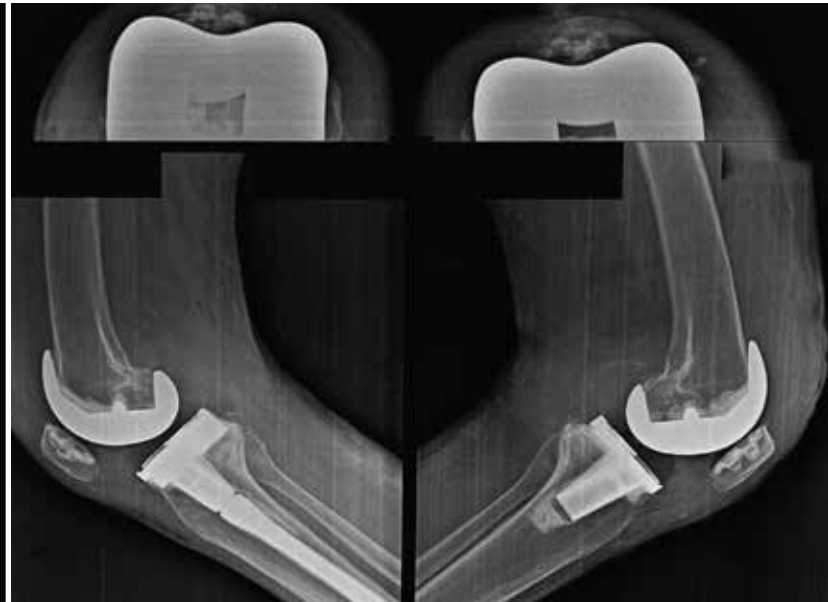
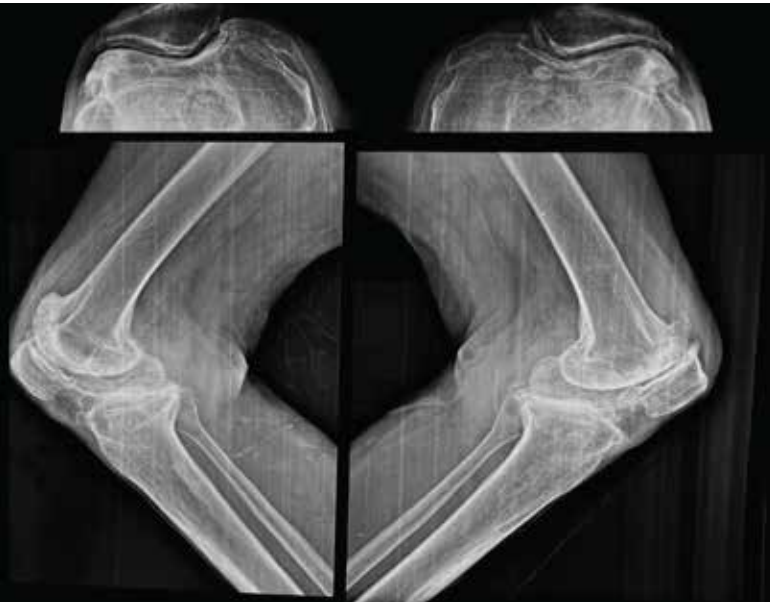
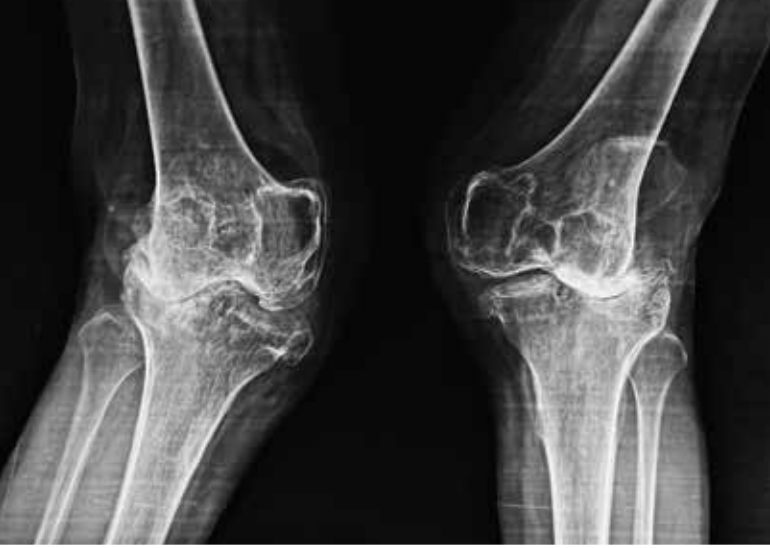
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Data Analysis and  
Reporting  
**PART 2**

PNJR 10<sup>th</sup>  
Annual  
Report

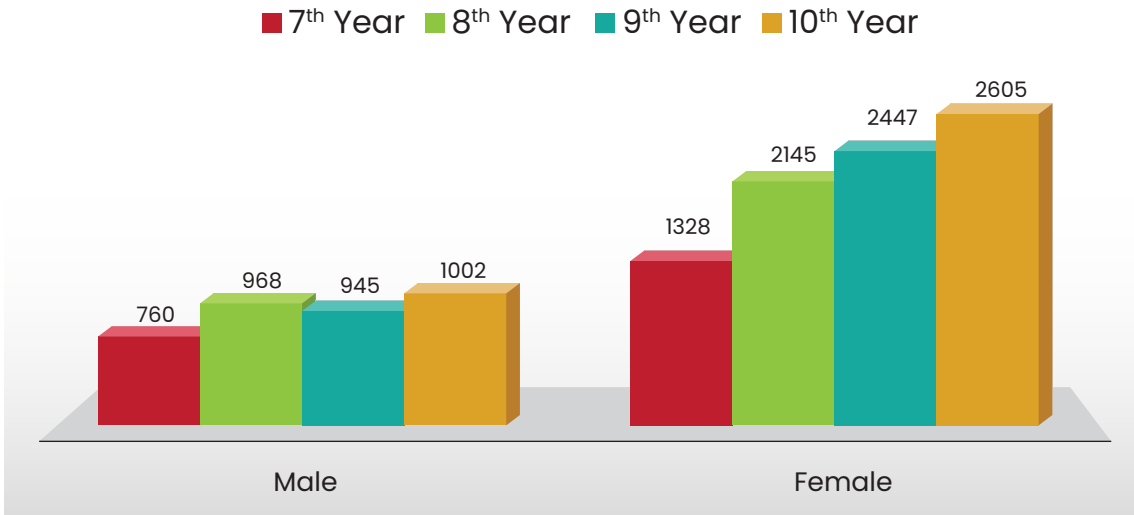
PNJR 10<sup>th</sup>  
Annual  
Report

Primary  
Total Knee  
Arthroplasty  
**SECTION I**

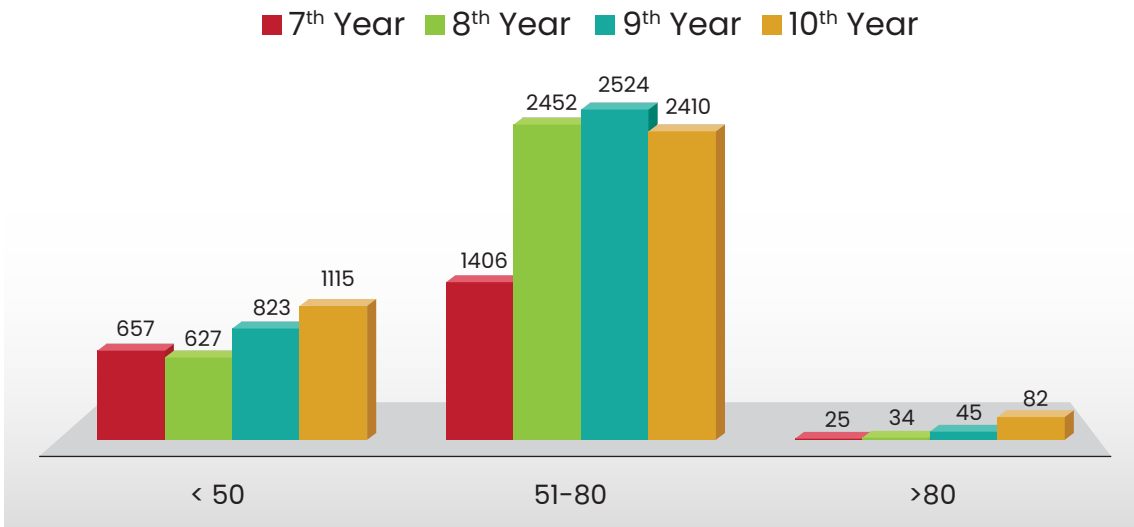


# Primary Total Knee Arthroplasty

## Gender Distribution



## Age Category

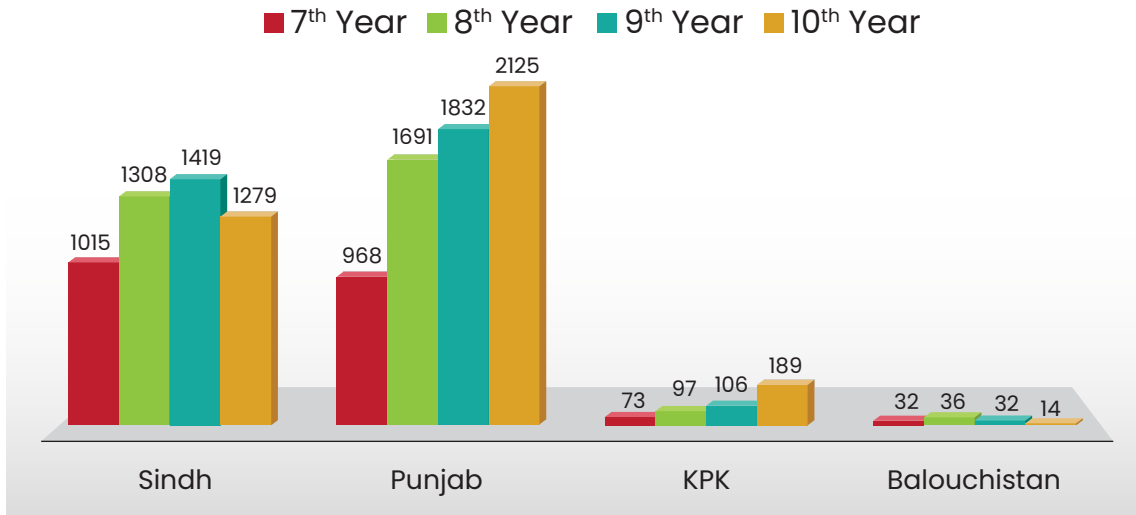




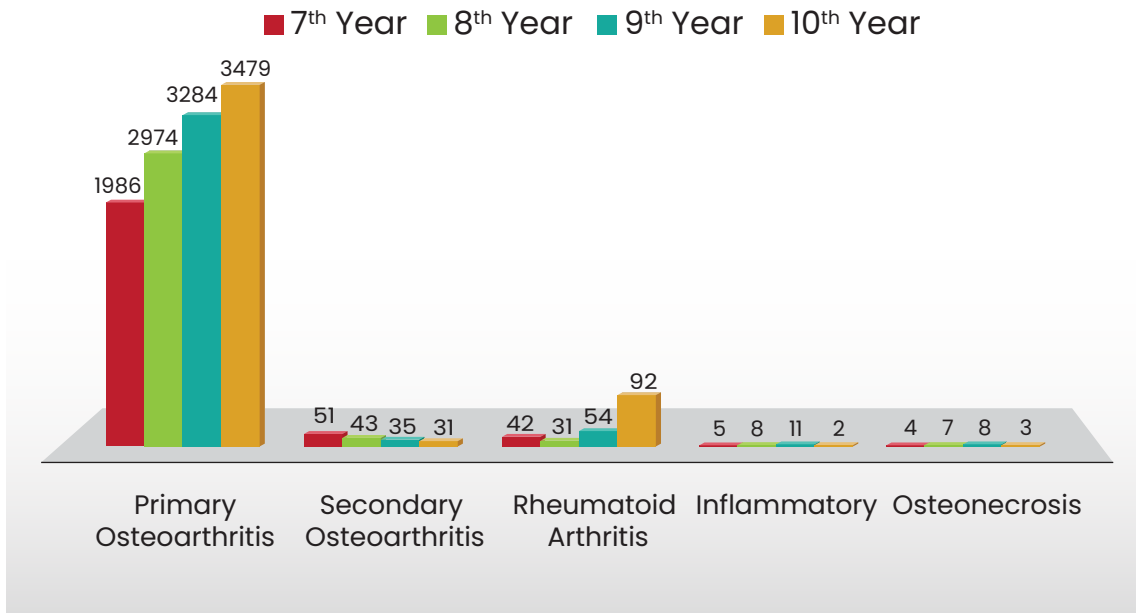


# Primary Total Knee Arthroplasty

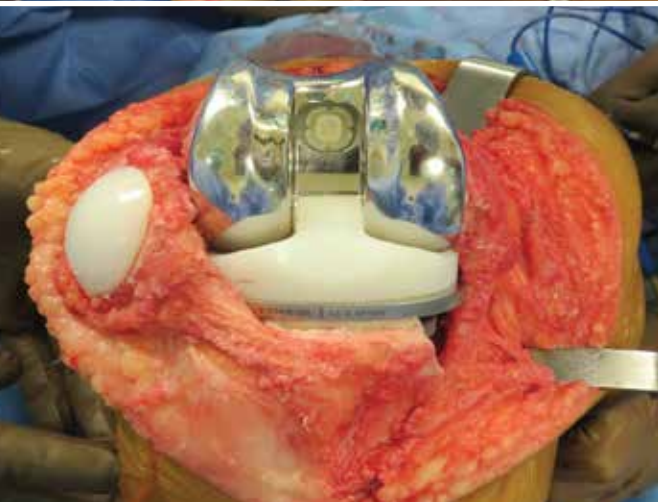
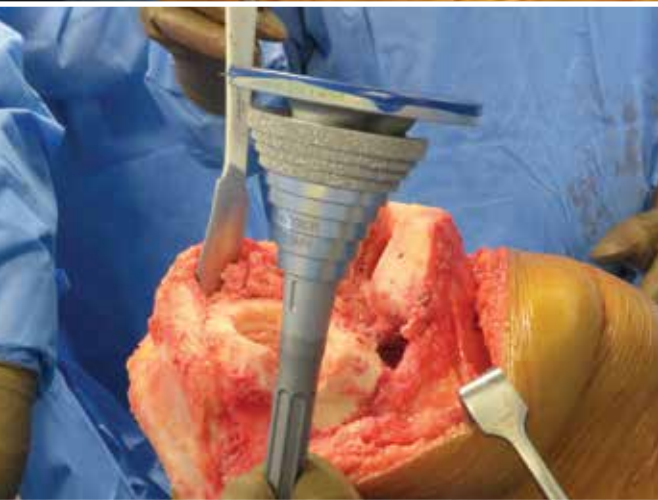
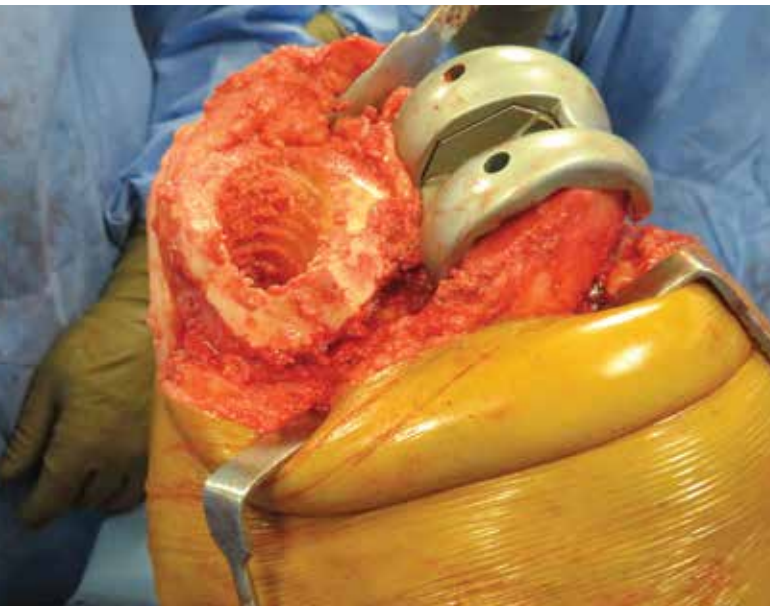
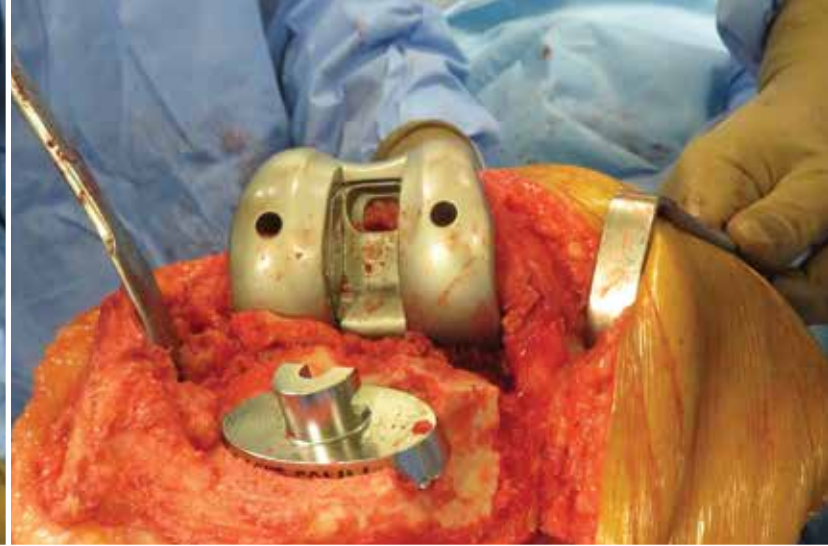
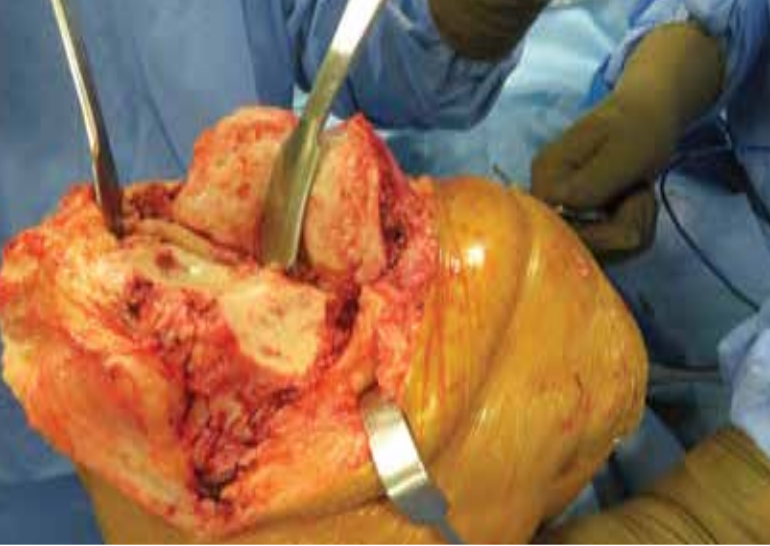
## Geographical Distribution



## Diagnosis



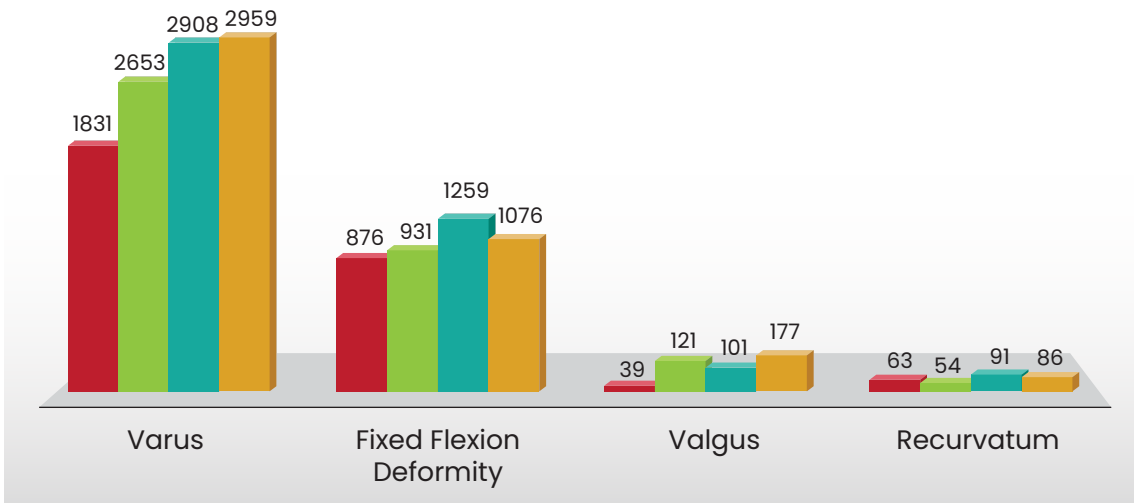




# Primary Total Knee Arthroplasty

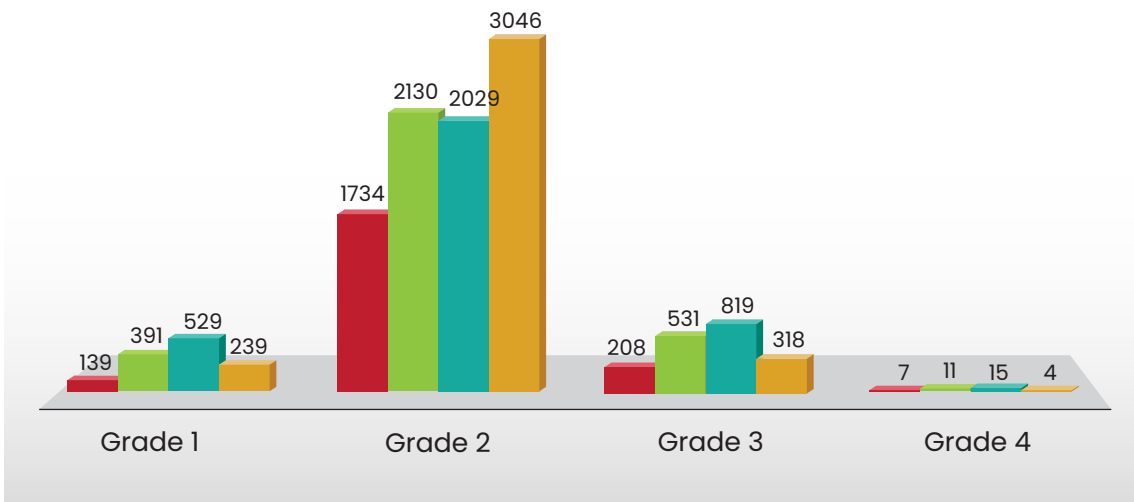
## Pre-operative deformity

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year

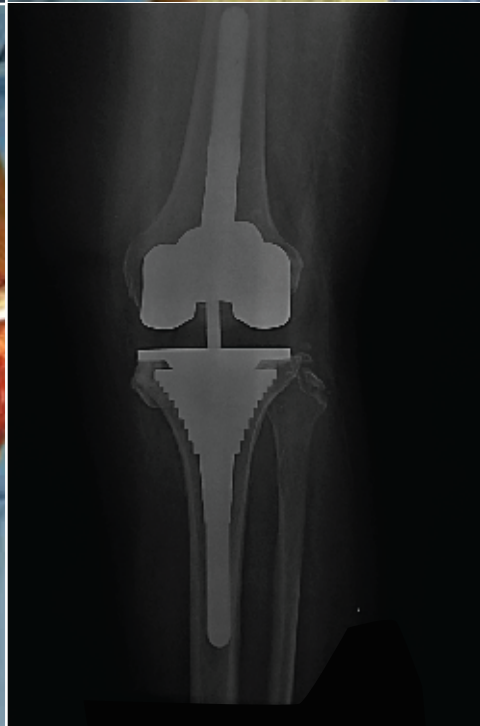
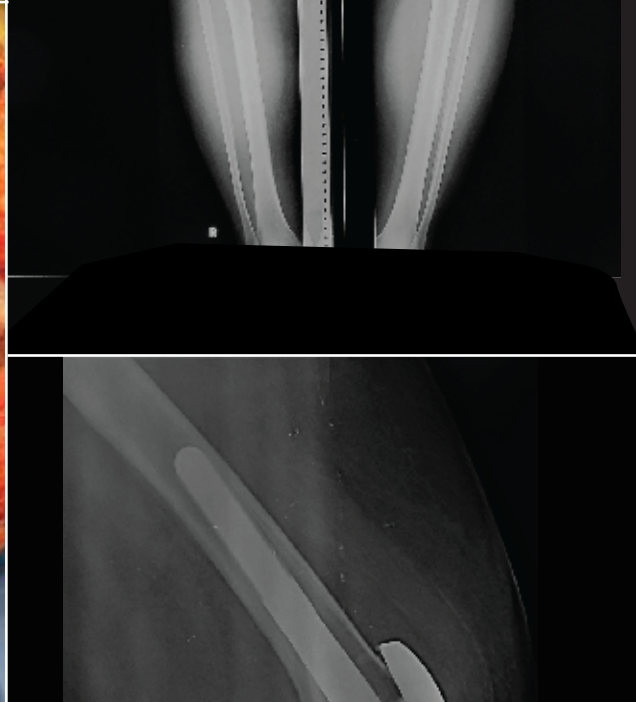
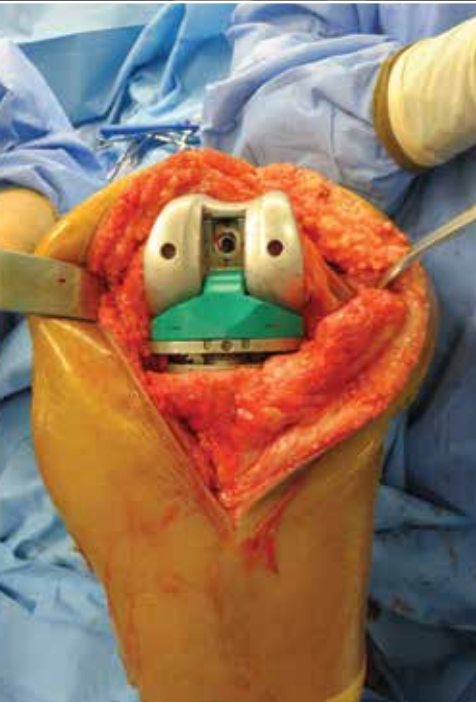


## ASA Grading

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



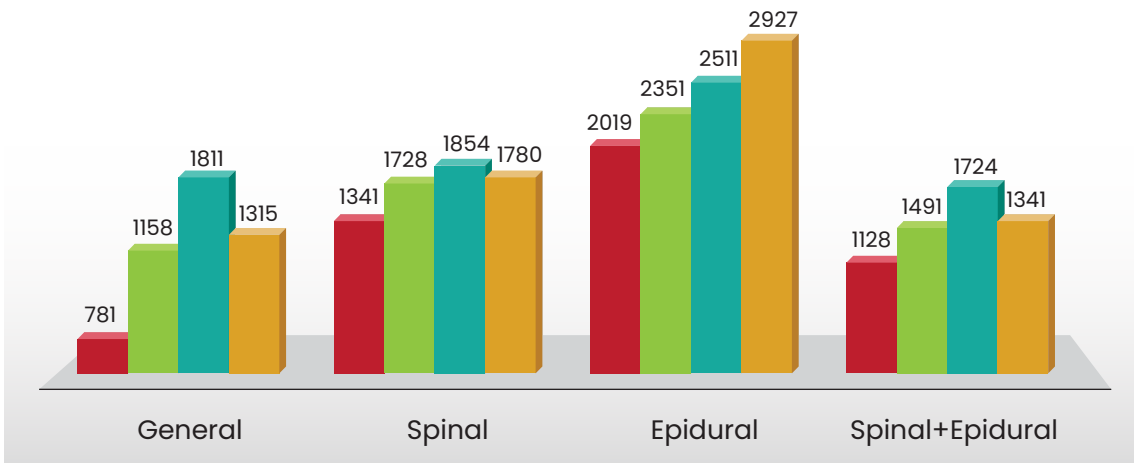




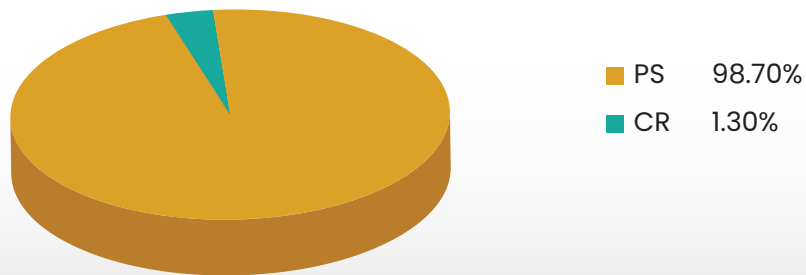
# Primary Total Knee Arthroplasty

## Anaesthesia

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



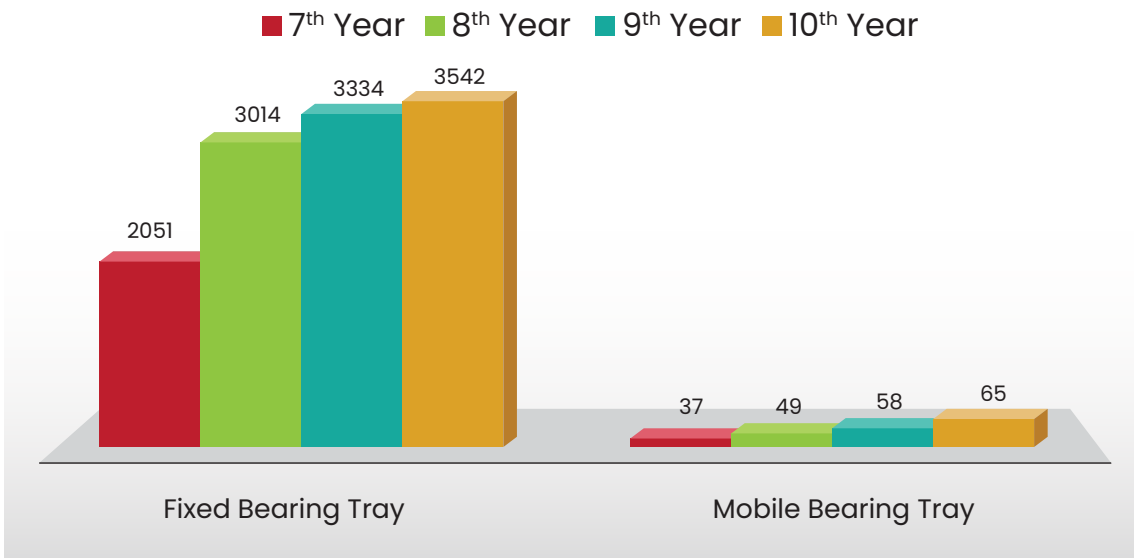
## Implant Types according to level of constraint



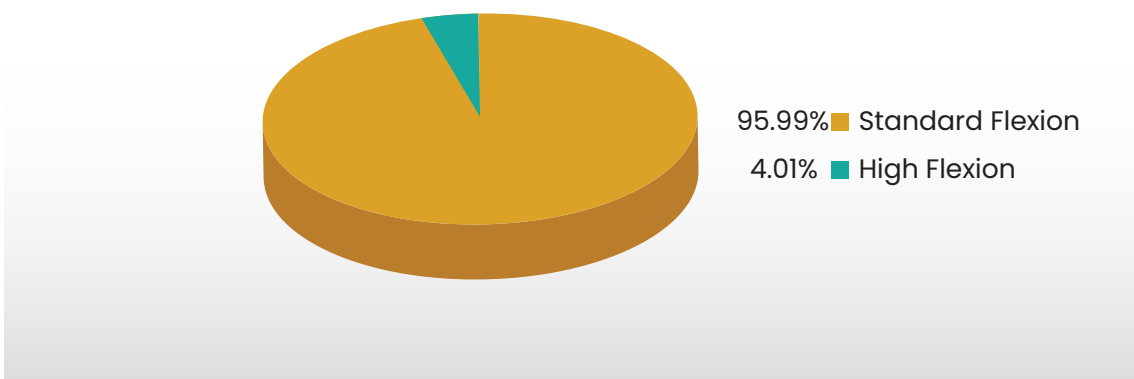


# Primary Total Knee Arthroplasty

## Implant Types according to Fixation of Tibial Insert



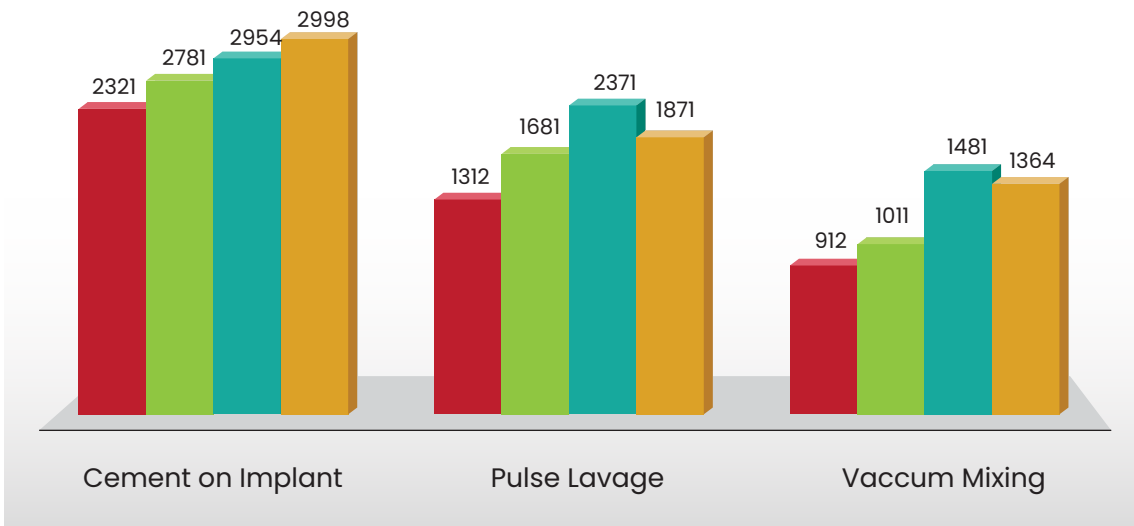
## Implant Types according to built in flexion



# Primary Total Knee Arthroplasty

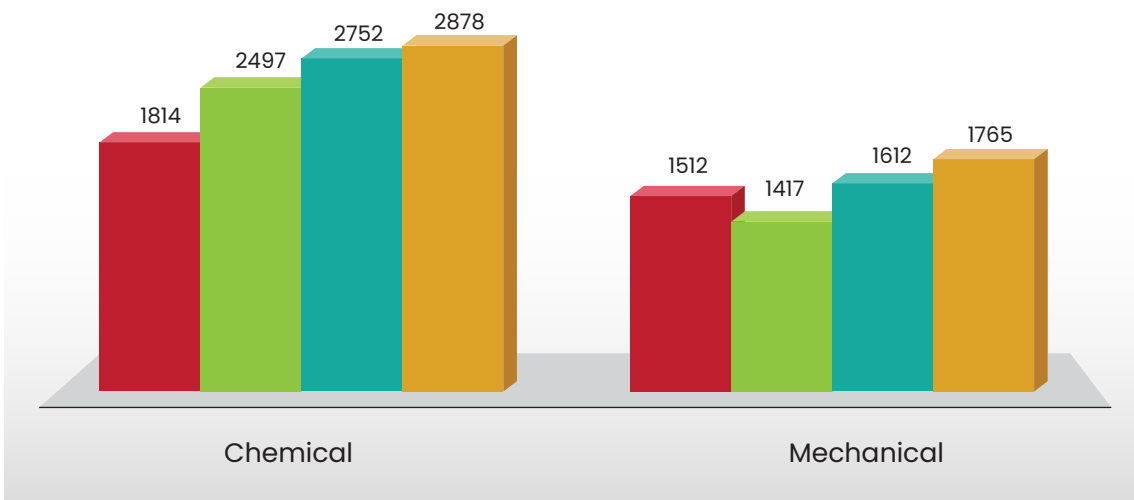
## Cementing Techniques

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



## Thromboprophylaxis

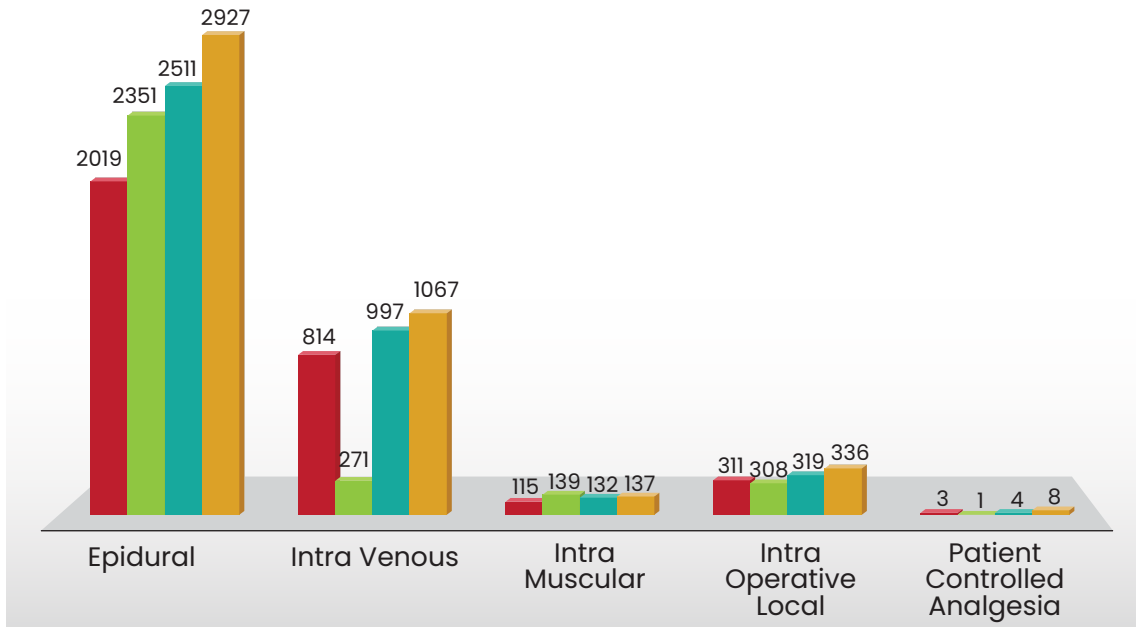
■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



# Primary Total Knee Arthroplasty

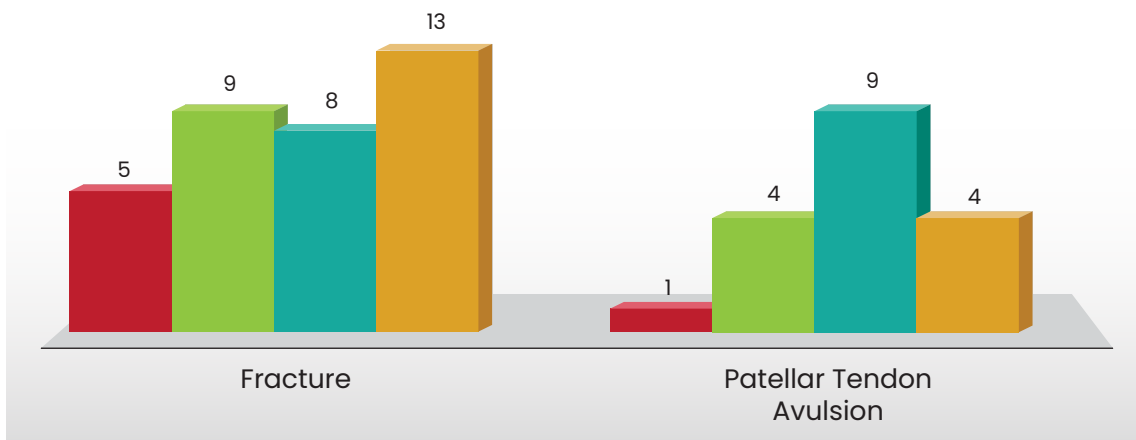
## Post operative Analgesia

7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



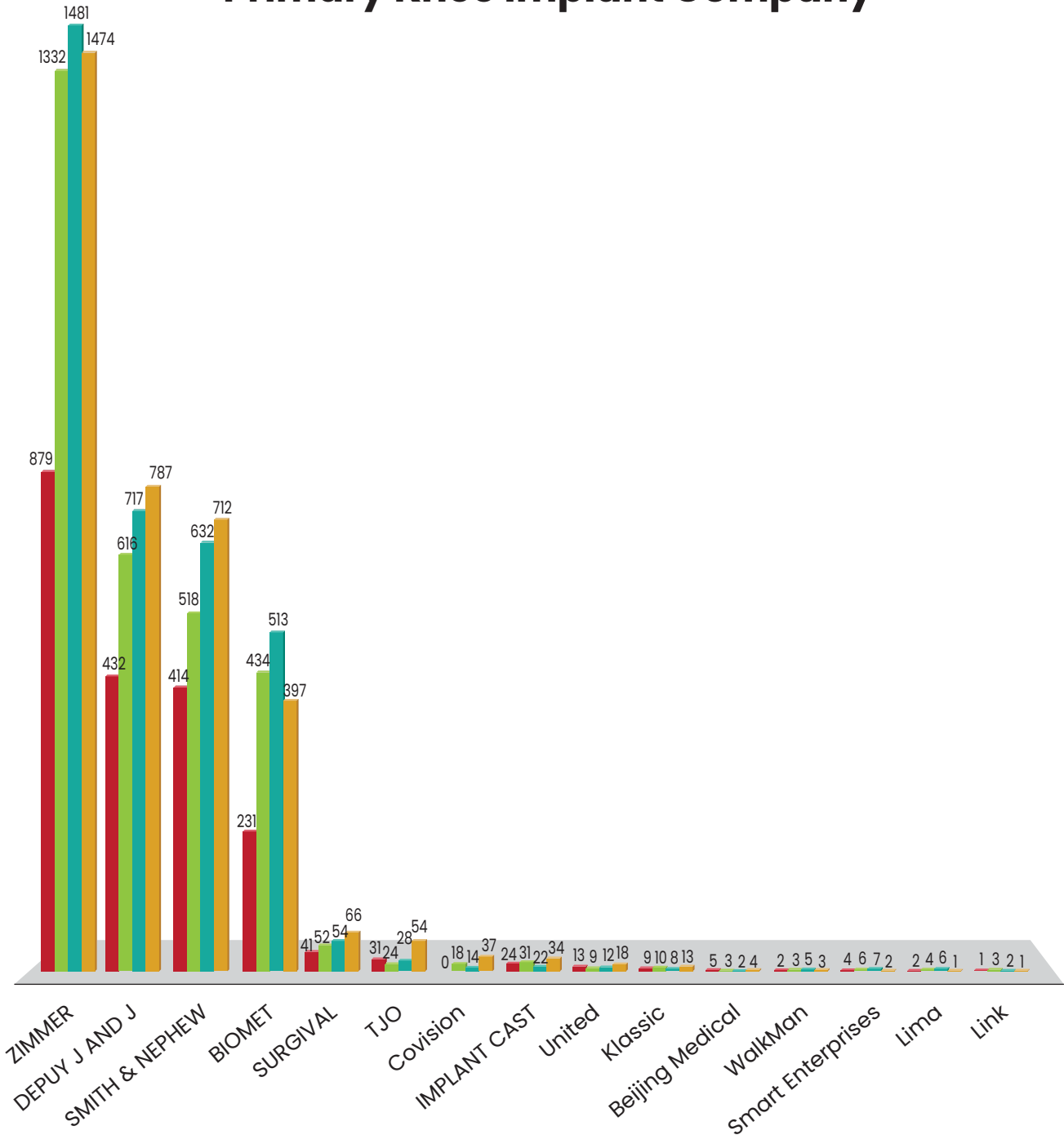
## Adverse intraoperative events

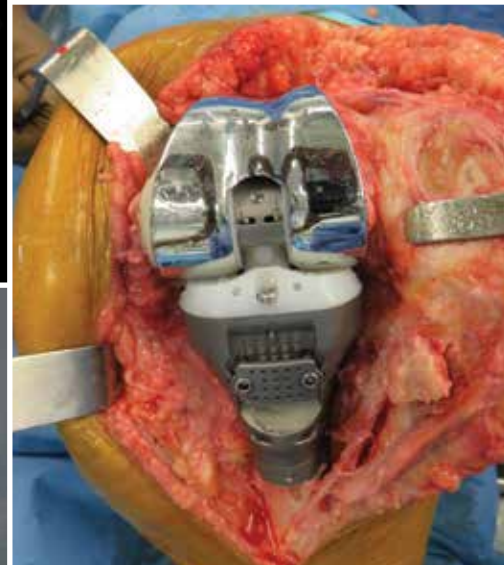
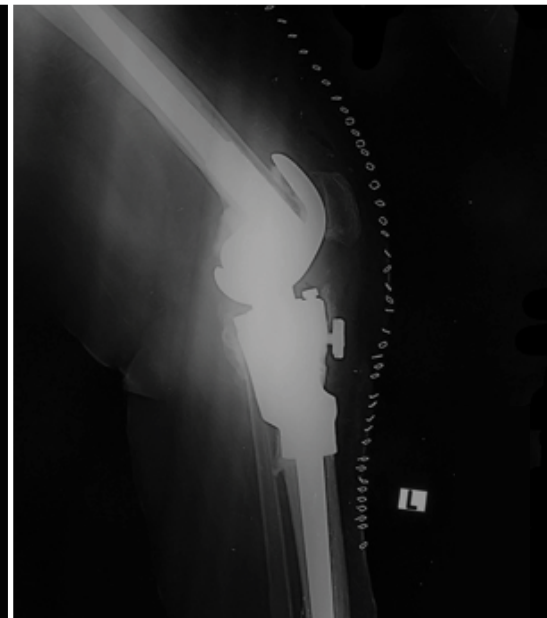
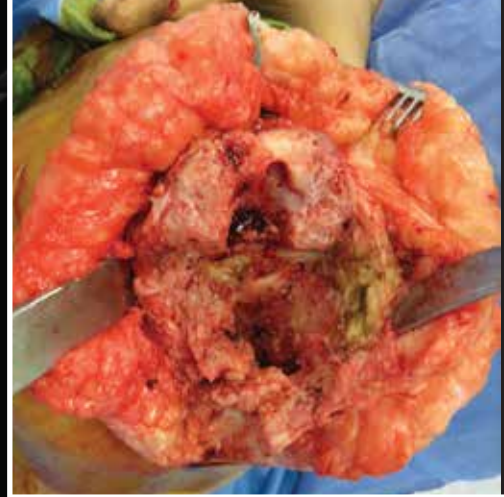
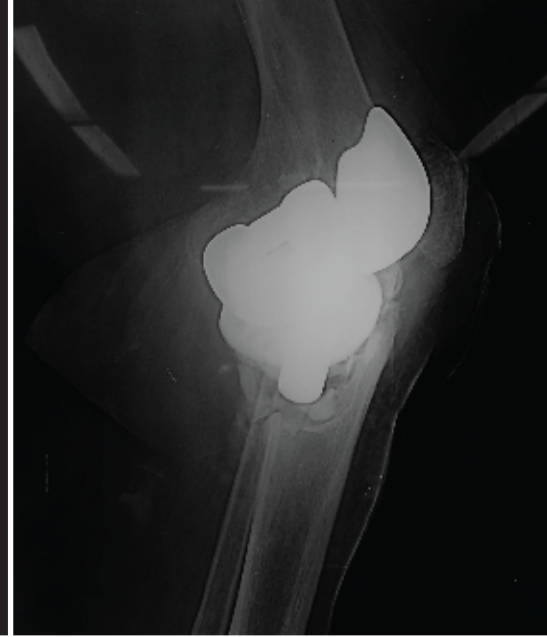
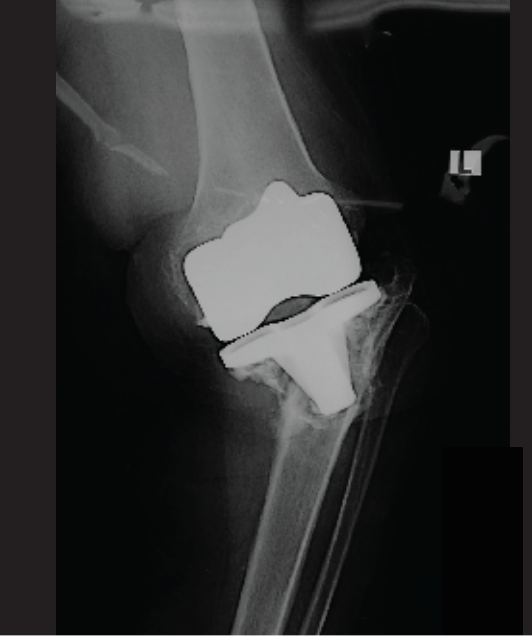
7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



# Primary Total Knee Arthroplasty

## Primary Knee Implant Company

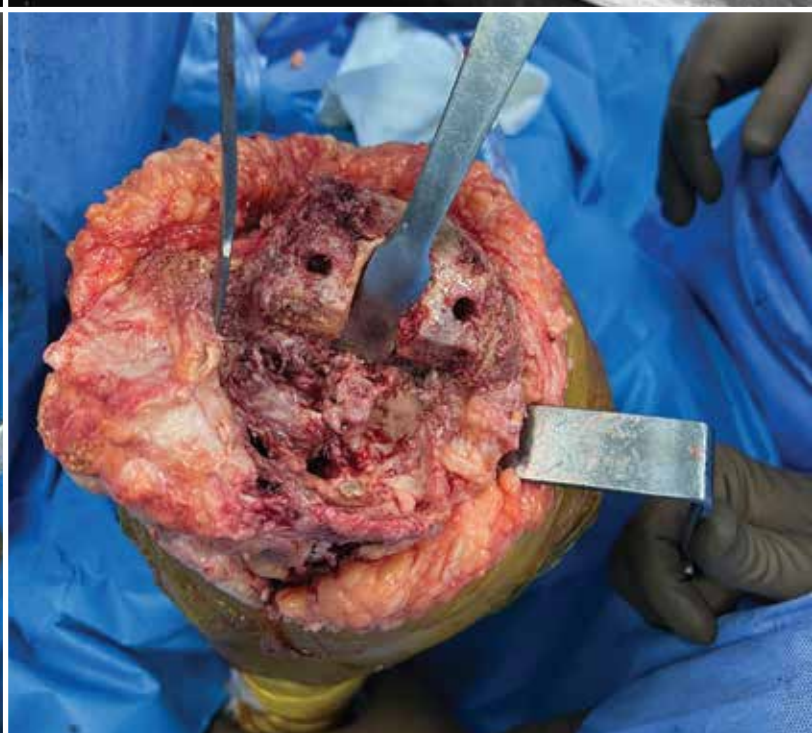




PNJR 10<sup>th</sup>  
Annual  
Report

Revision  
Total Knee  
Arthroplasty  
**SECTION II**

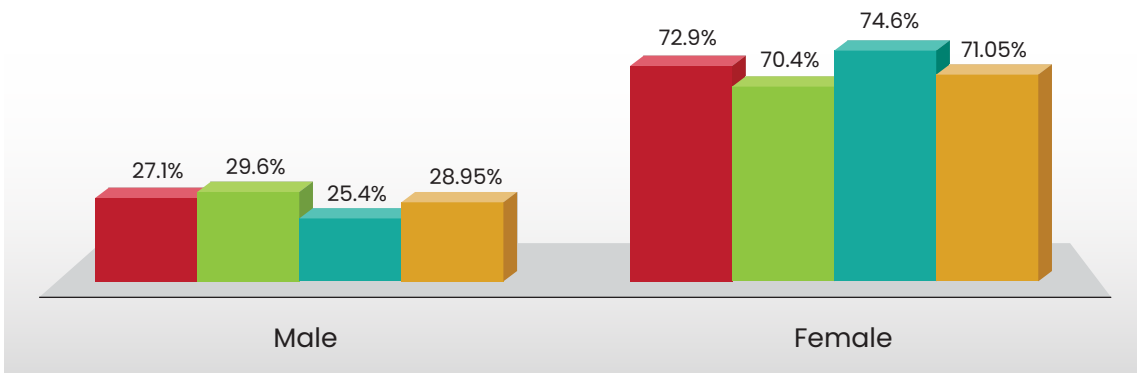




# Revision Total Knee Arthroplasty

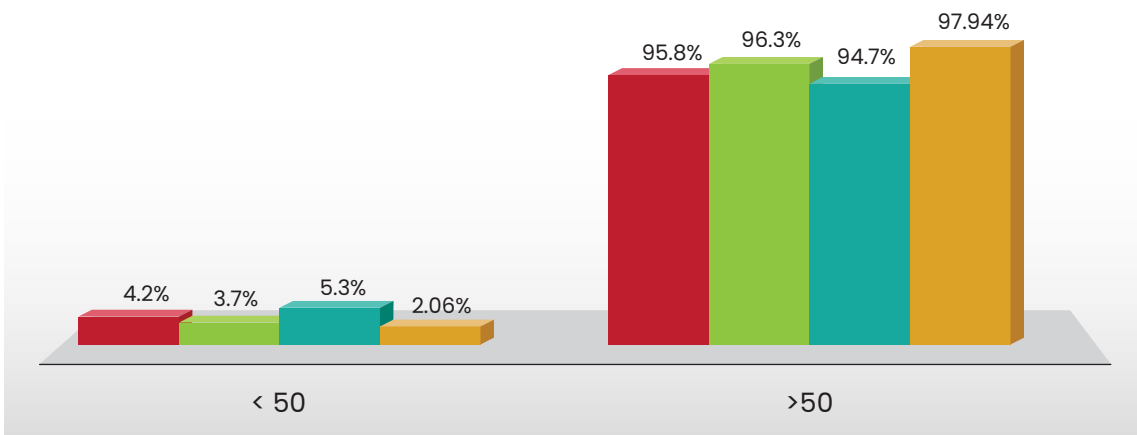
## Gender Distribution

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year

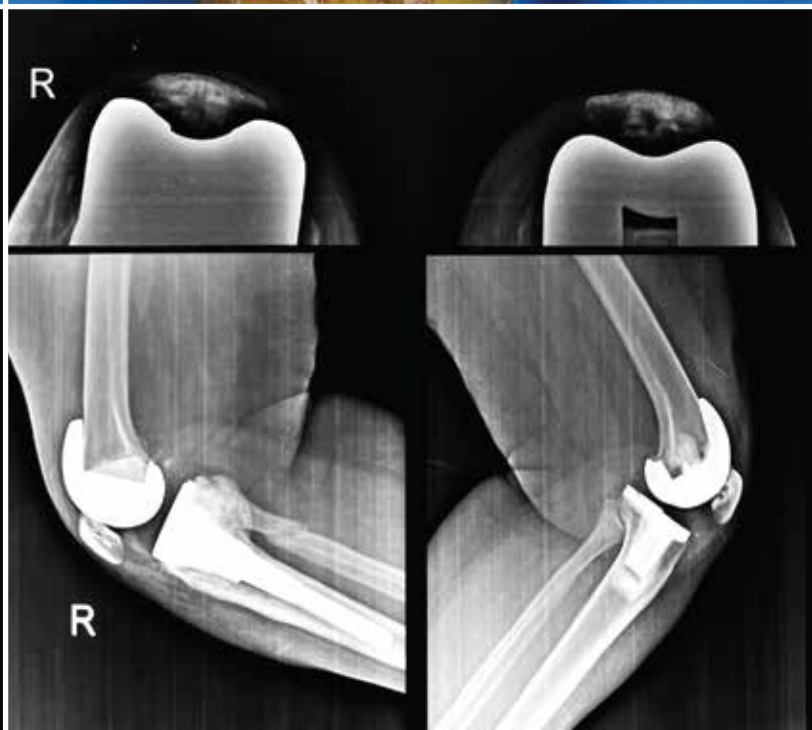
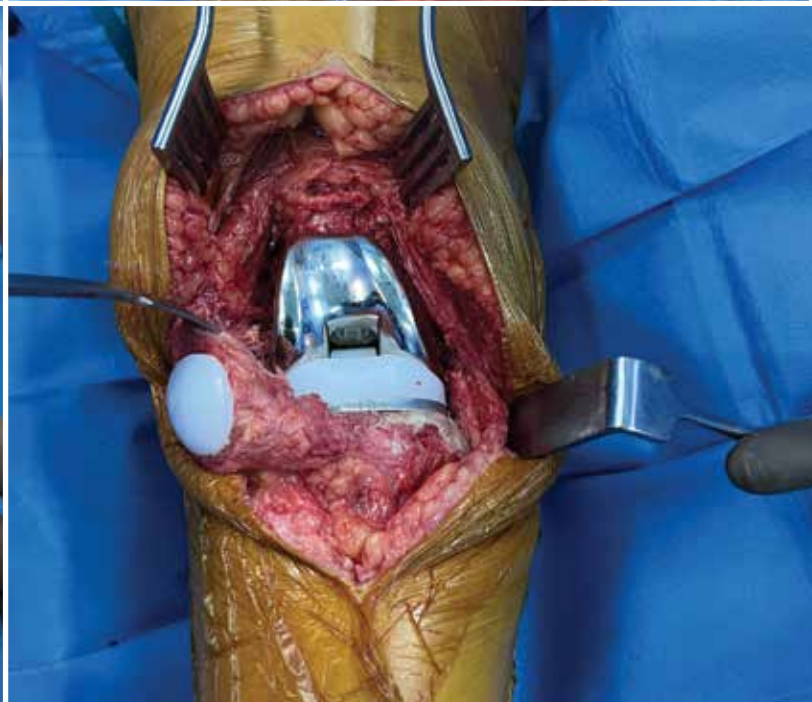
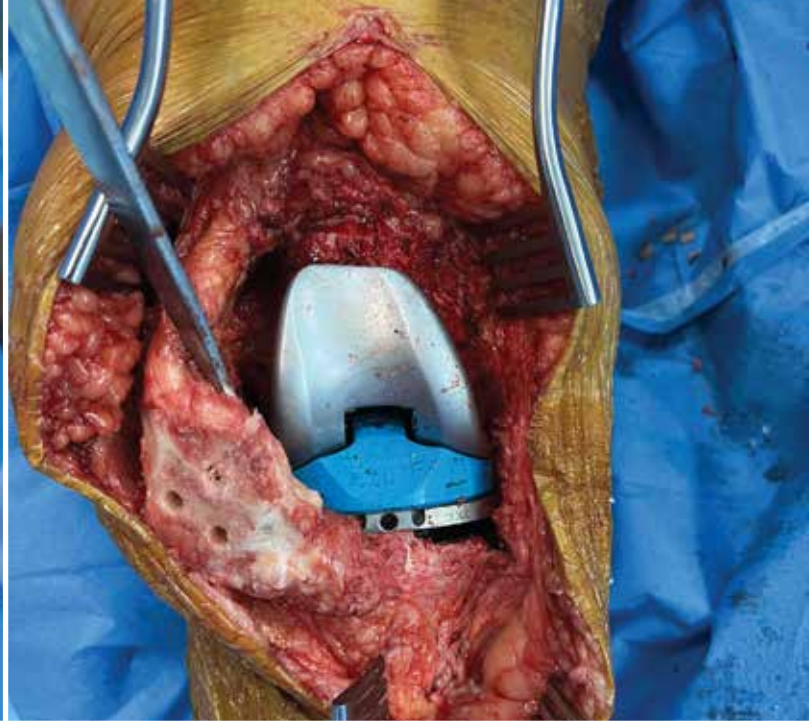


## Age Category

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



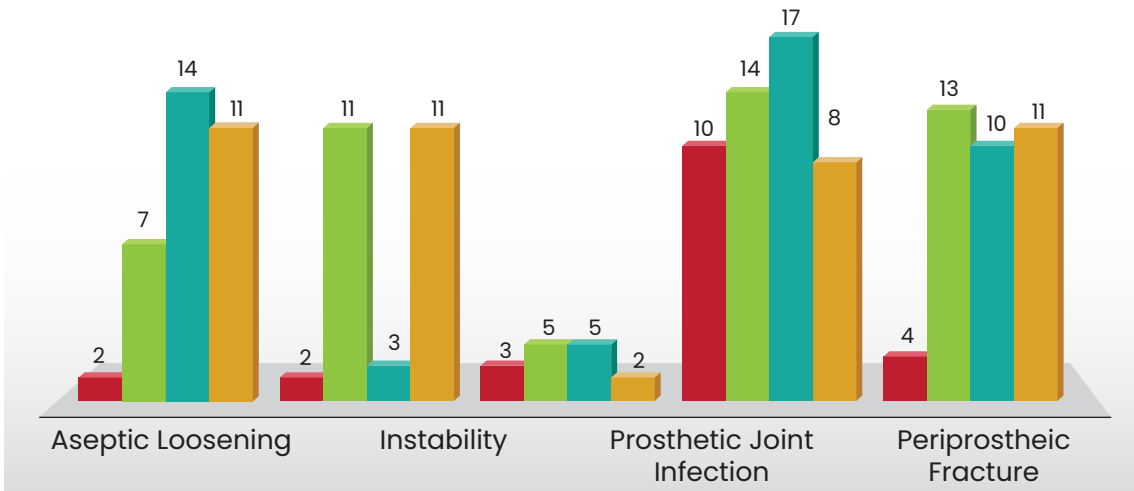




# Revision Total Knee Arthroplasty

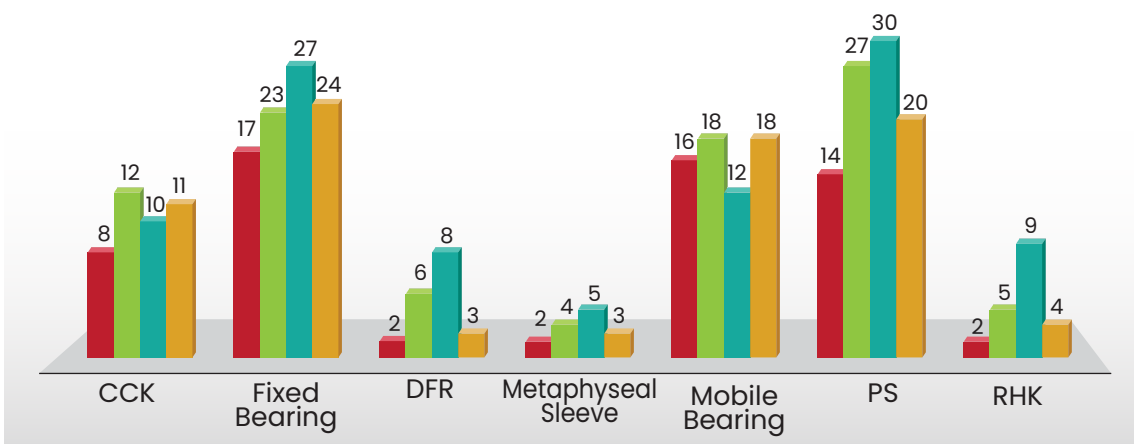
## Diagnosis

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year

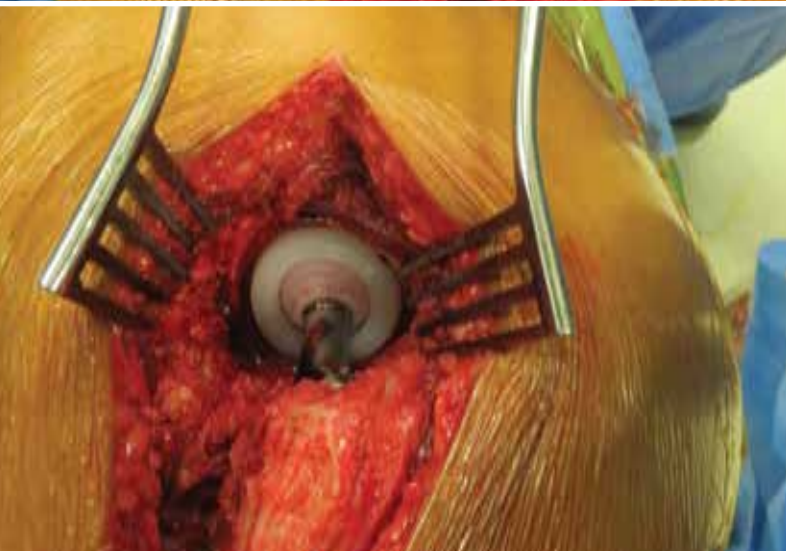
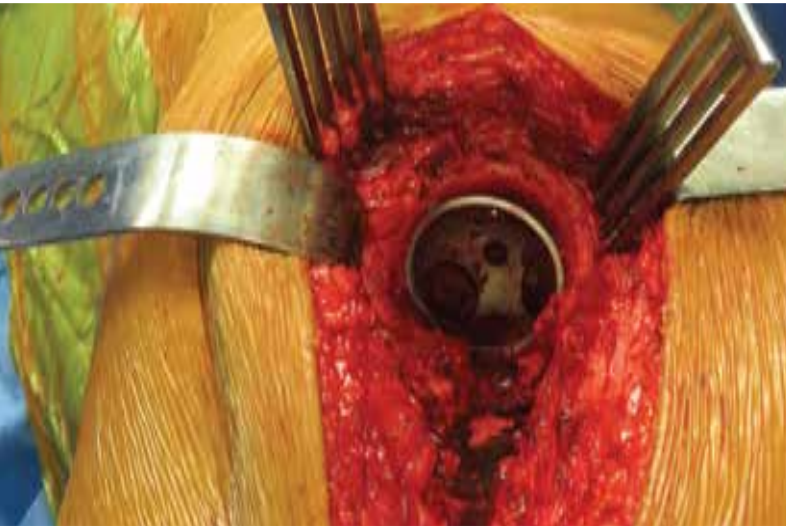
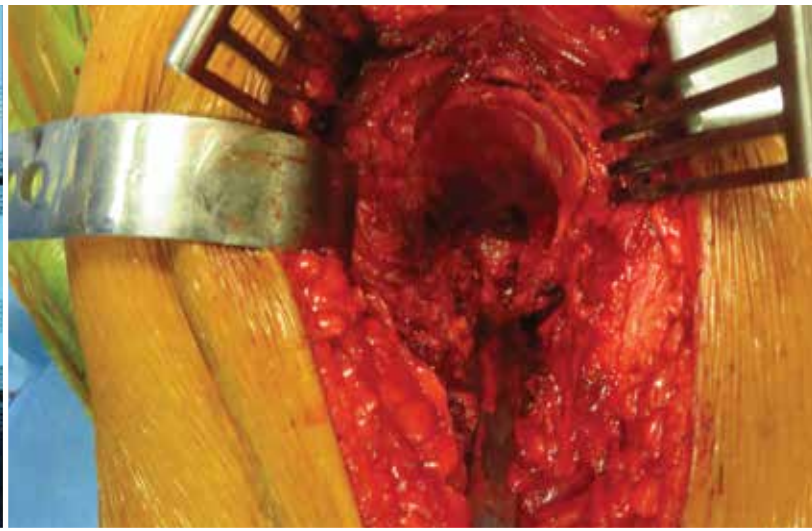
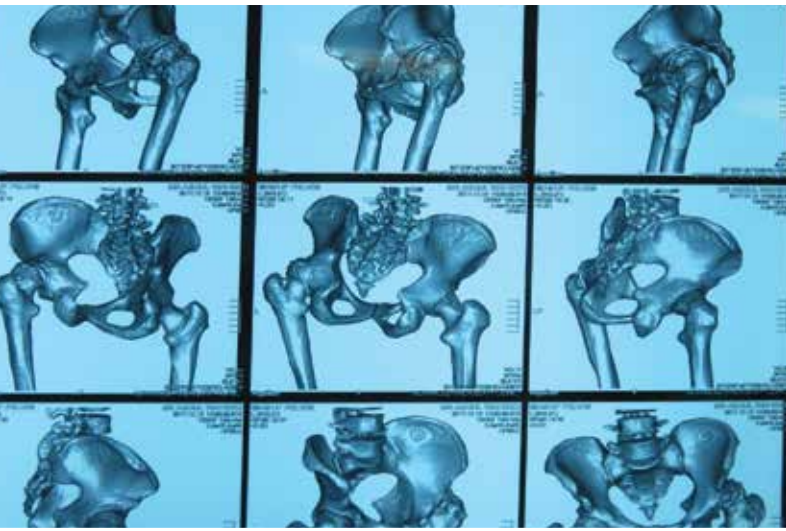
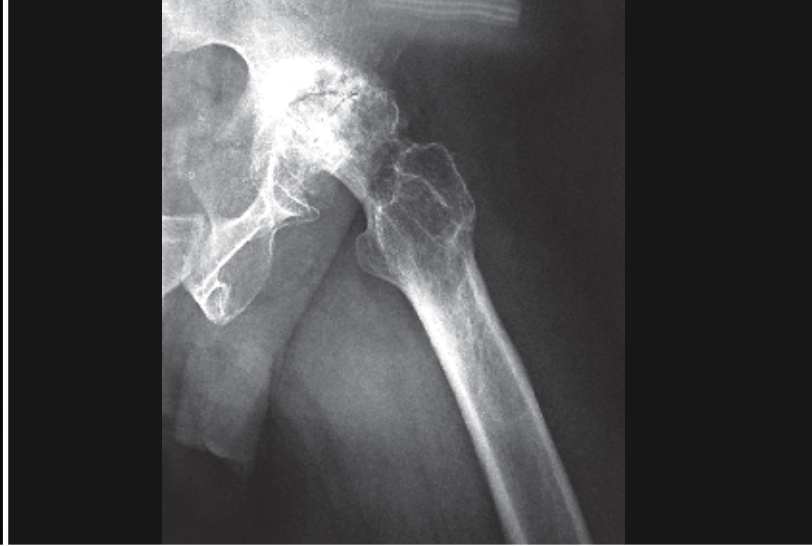


## Implant Detail

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



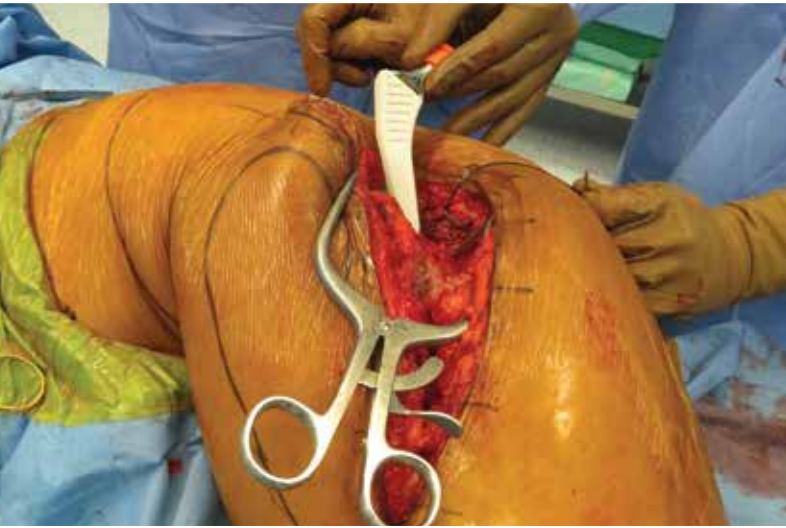




PNJR 10<sup>th</sup>  
Annual  
Report

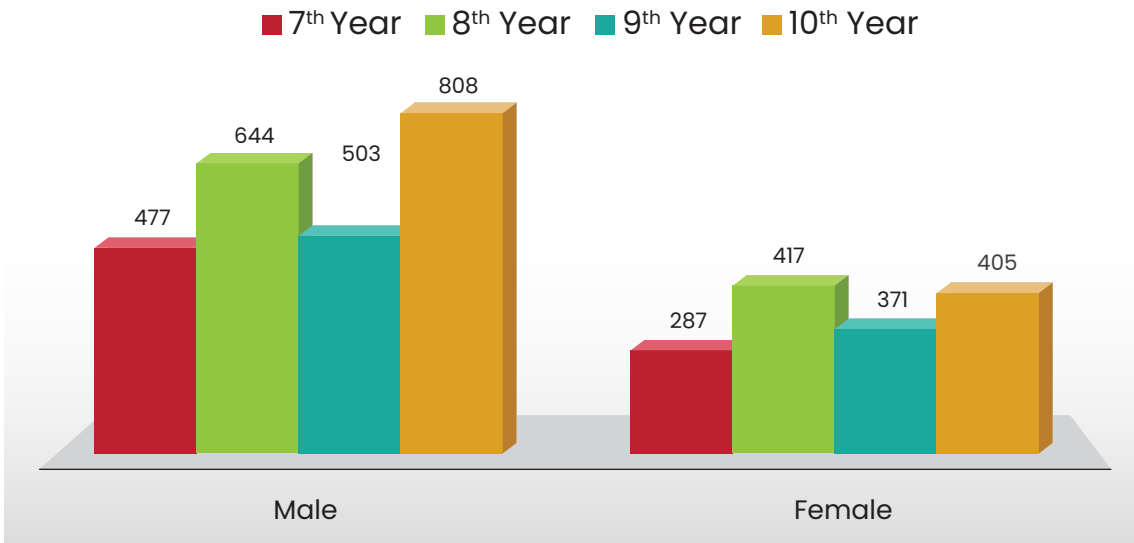
Primary  
Total Hip  
Arthroplasty  
**SECTION III**



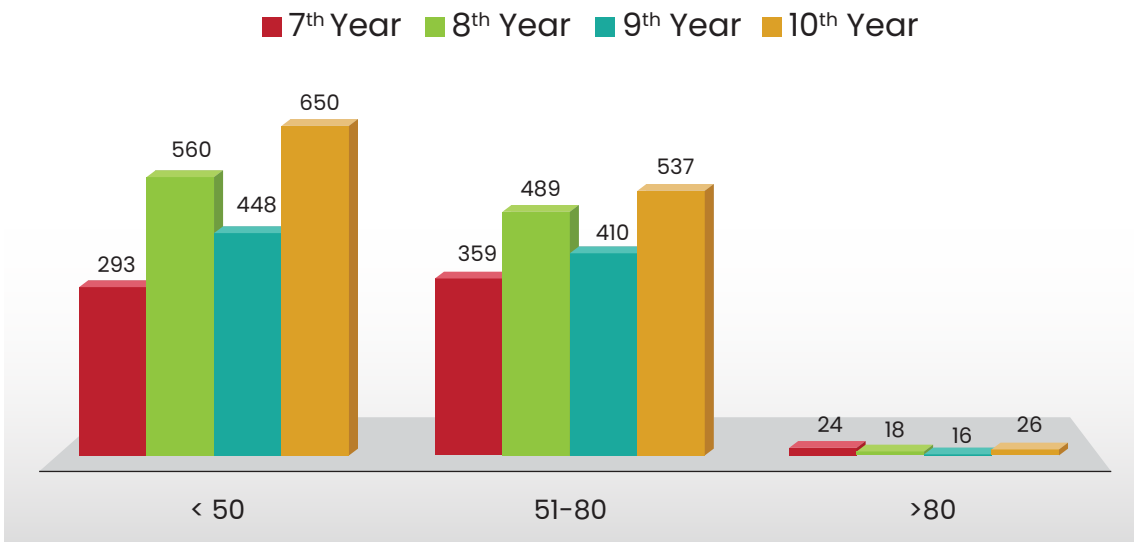


# Primary Total Hip Arthroplasty

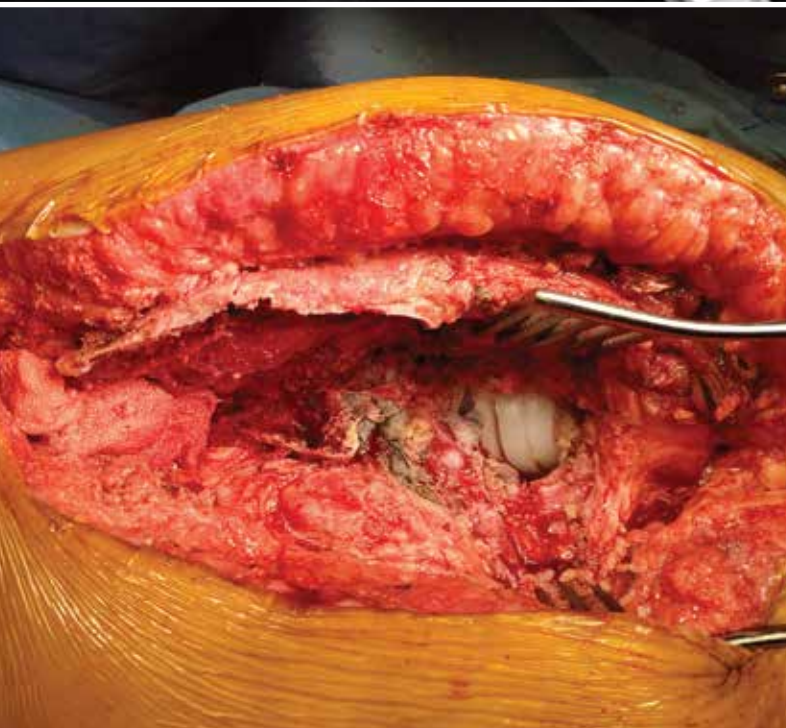
## Gender Distribution



## Age Category



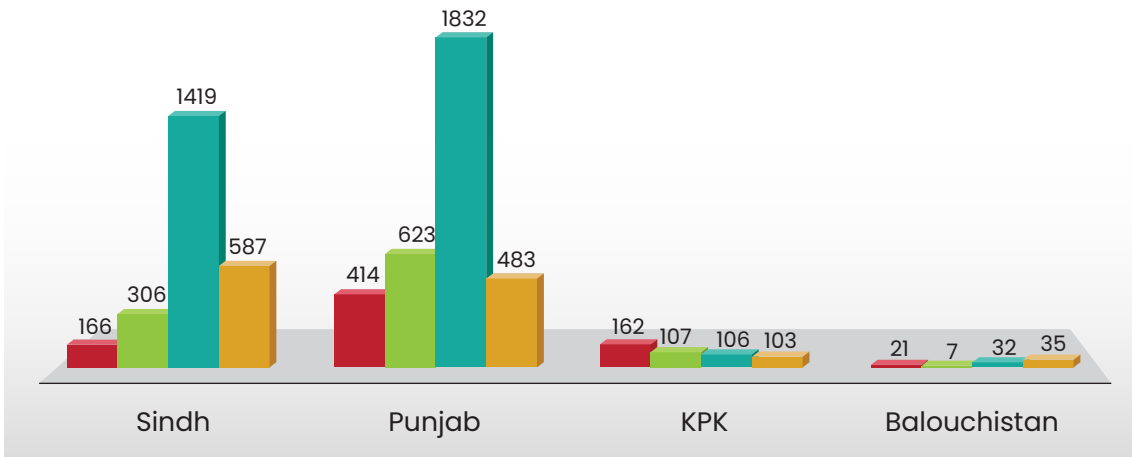




# Primary Total Hip Arthroplasty

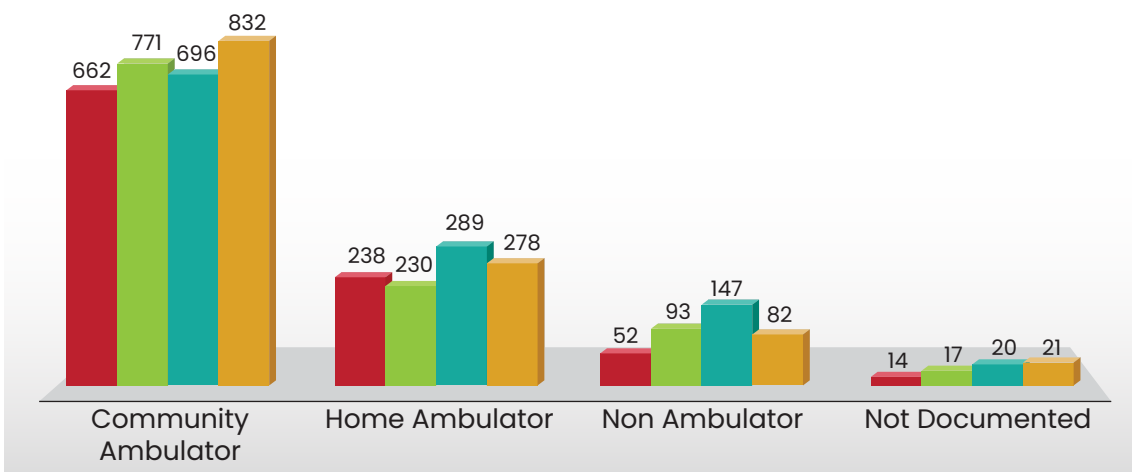
## Geographical Distribution

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year

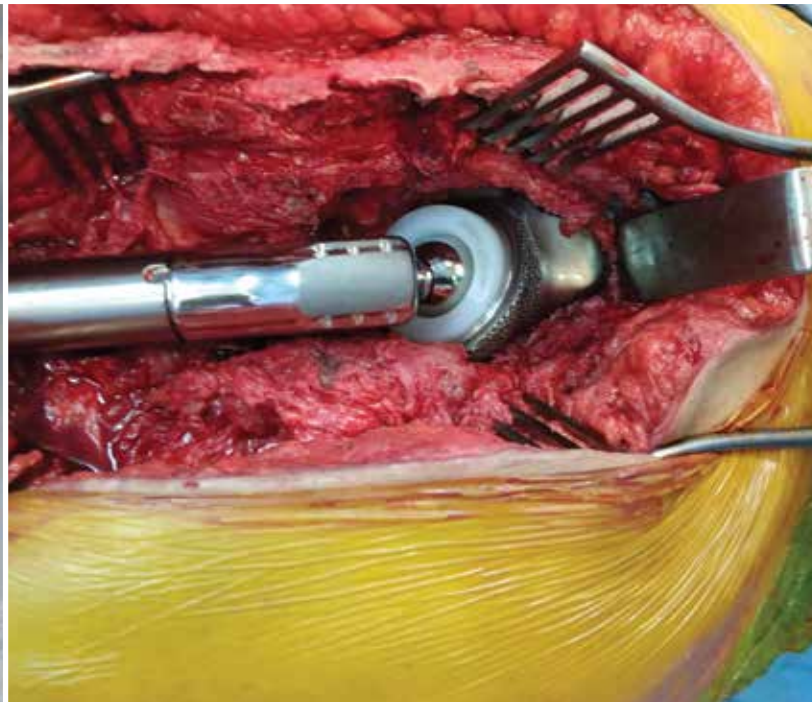
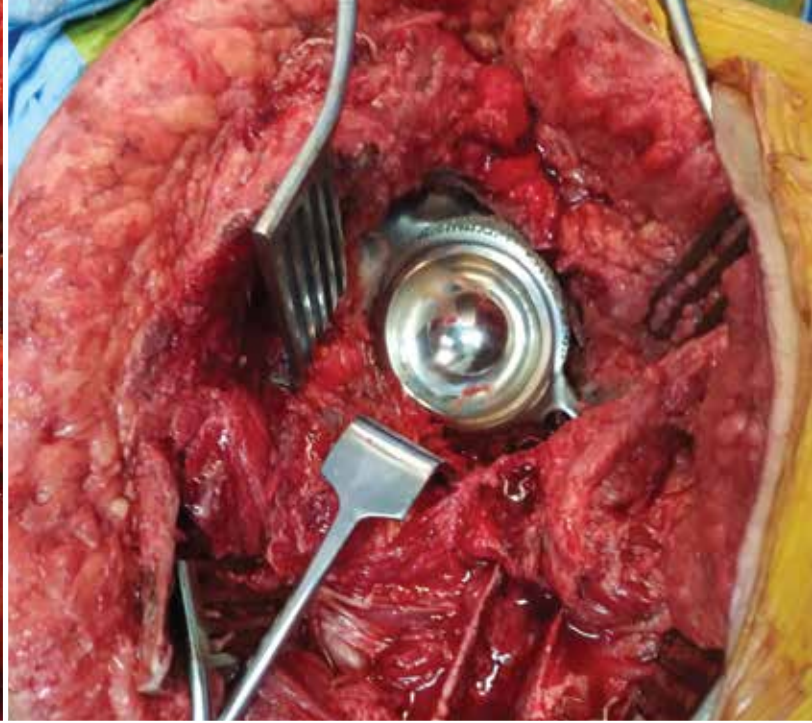
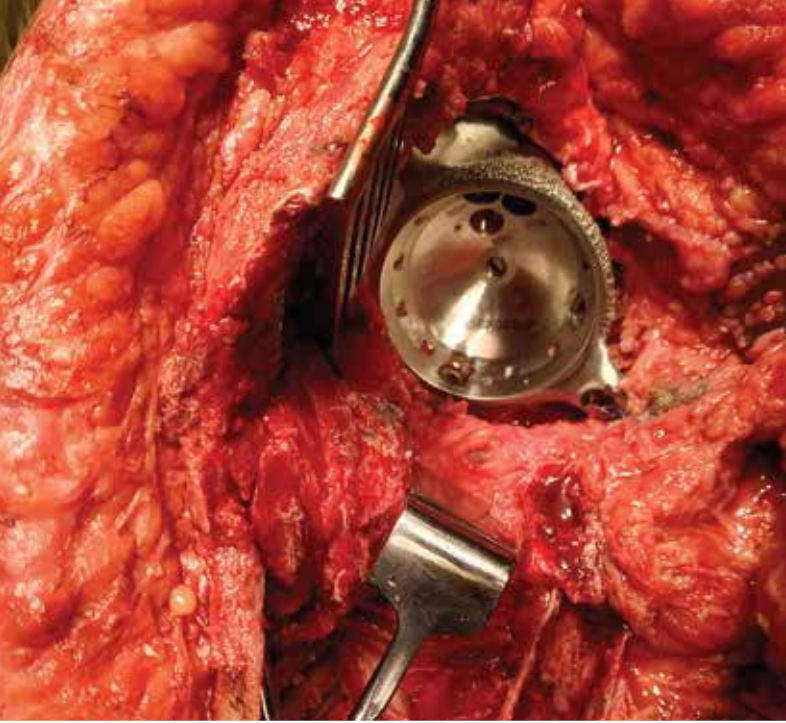


## Pre Operative Ambulatory Status

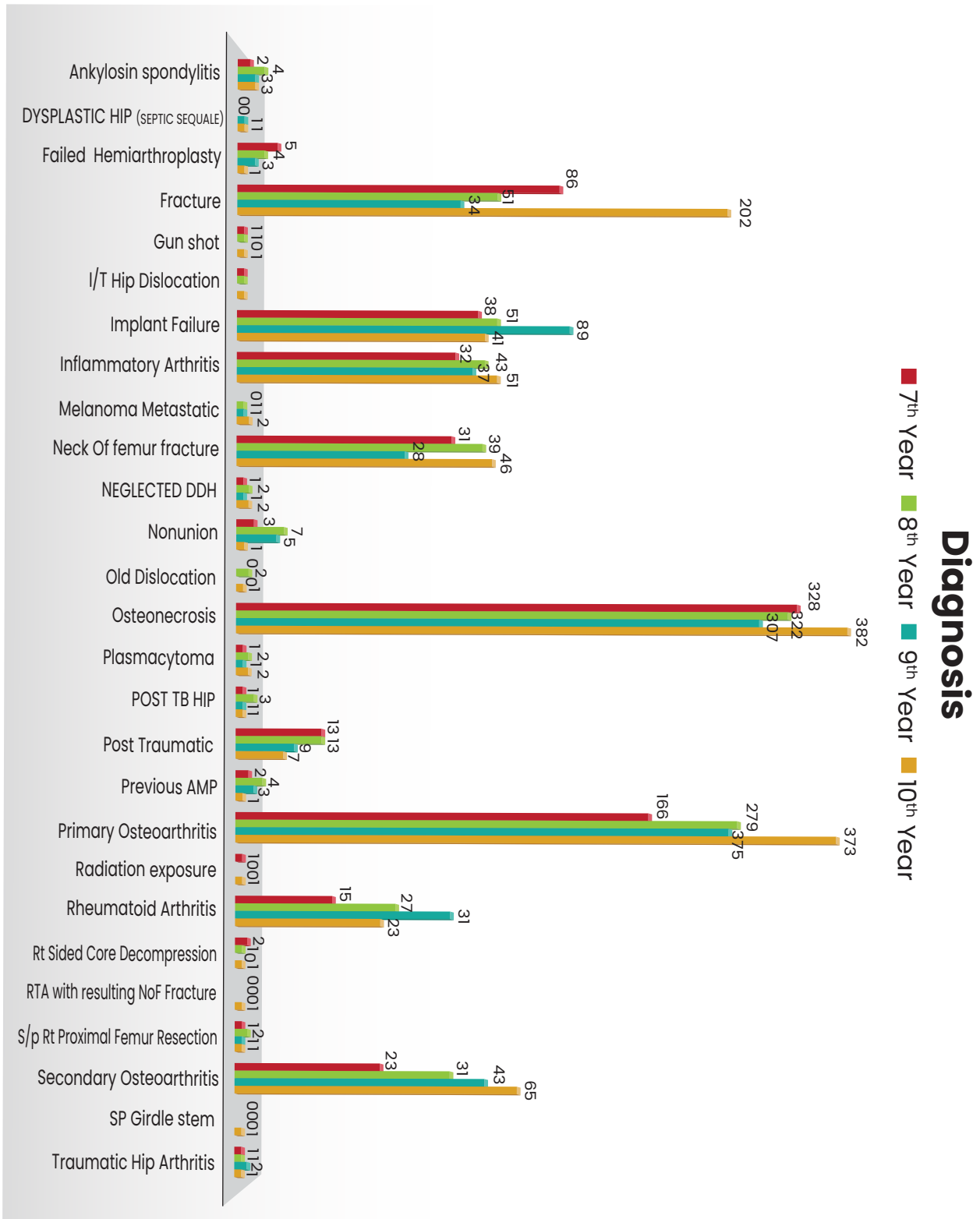
■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



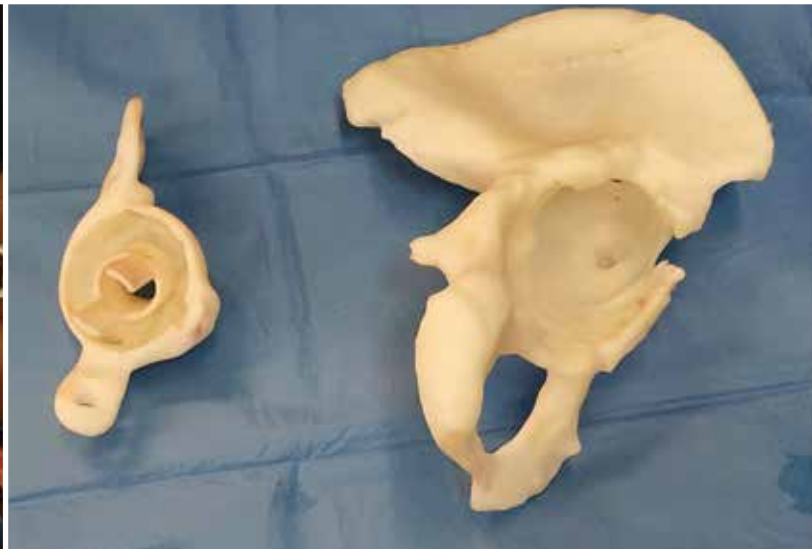
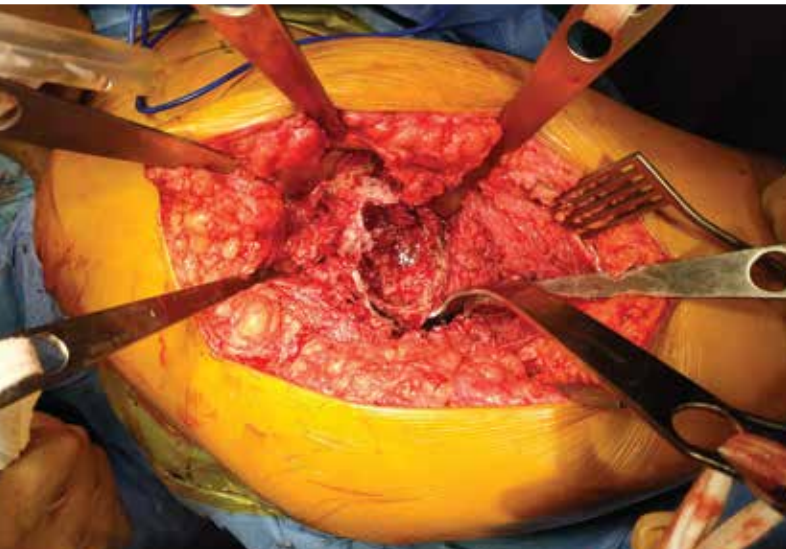




# Primary Total Hip Arthroplasty



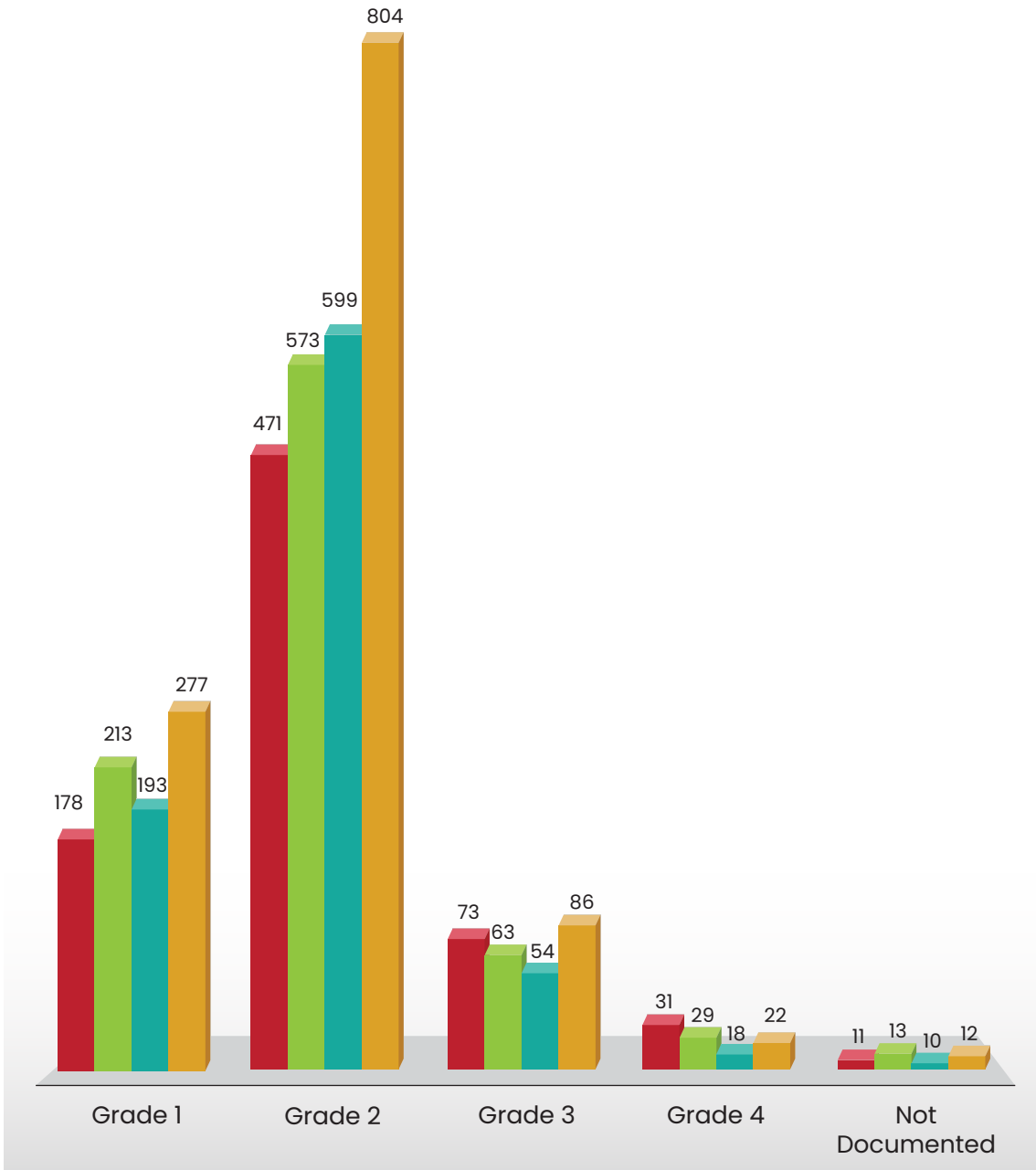




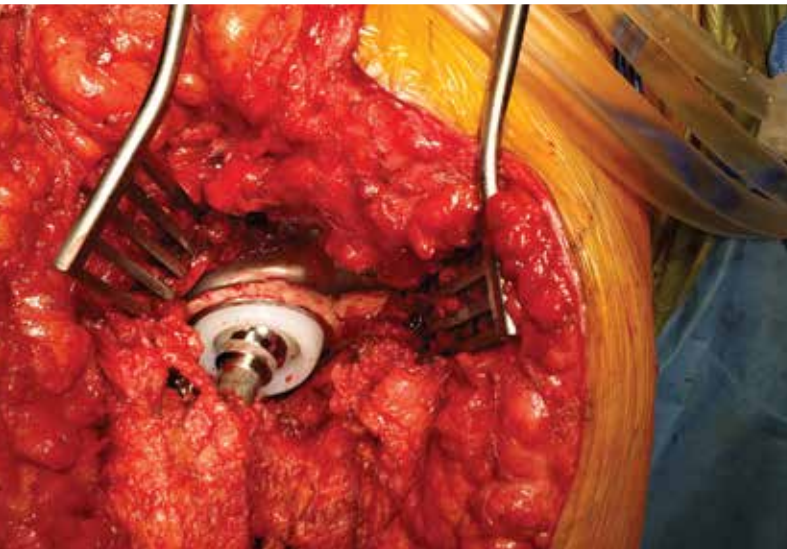
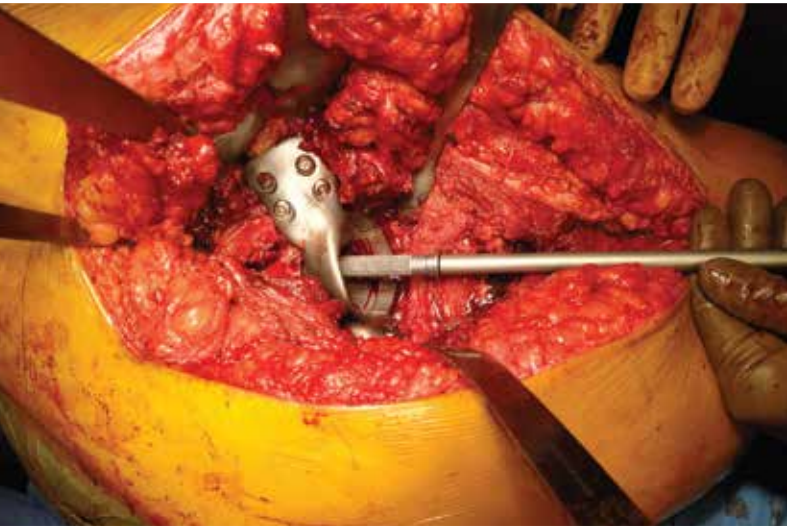
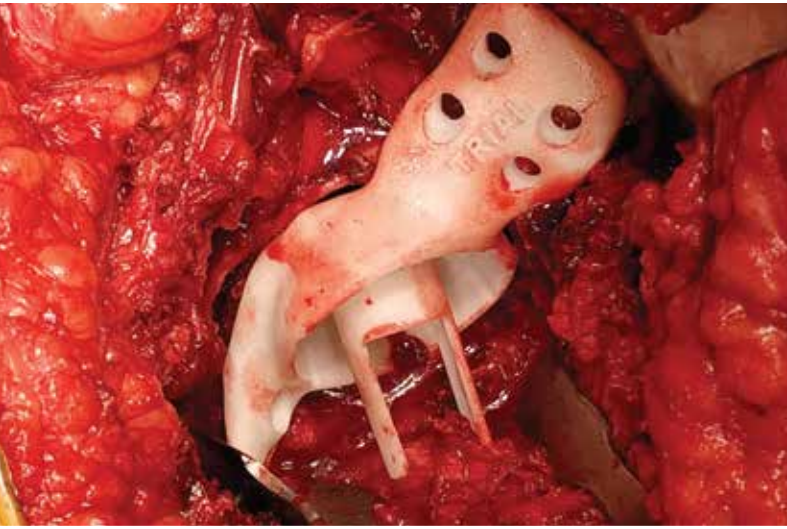
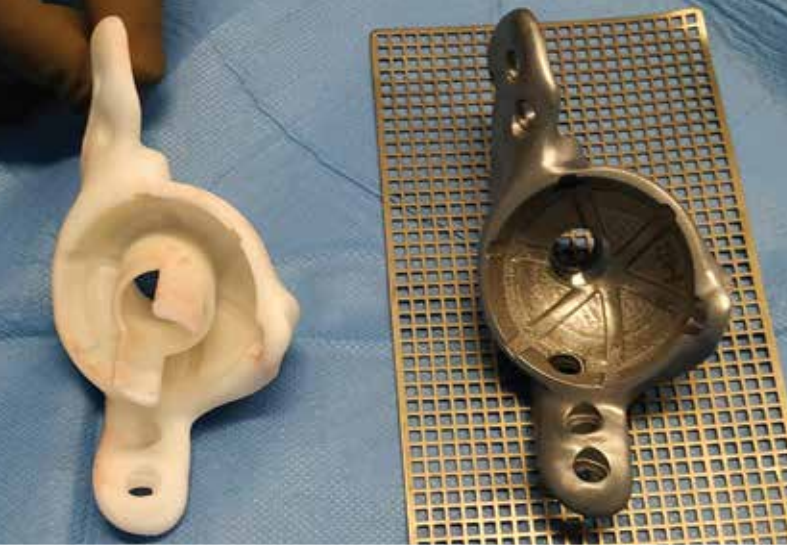
# Primary Total Hip Arthroplasty

## ASA Grading

7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



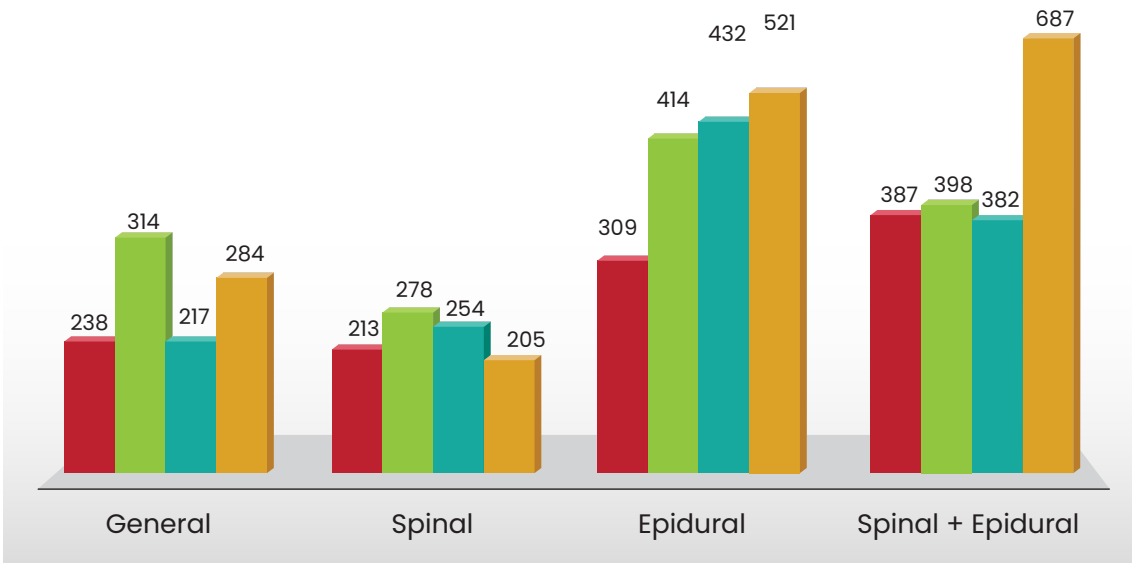




# Primary Total Hip Arthroplasty

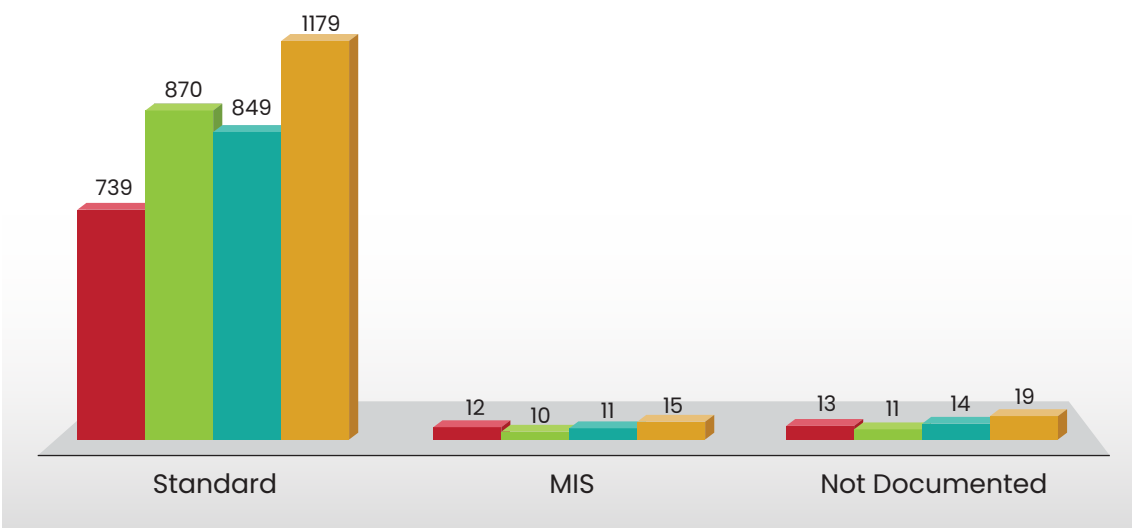
## Types of Anesthesia

7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



## Surgical Incisions

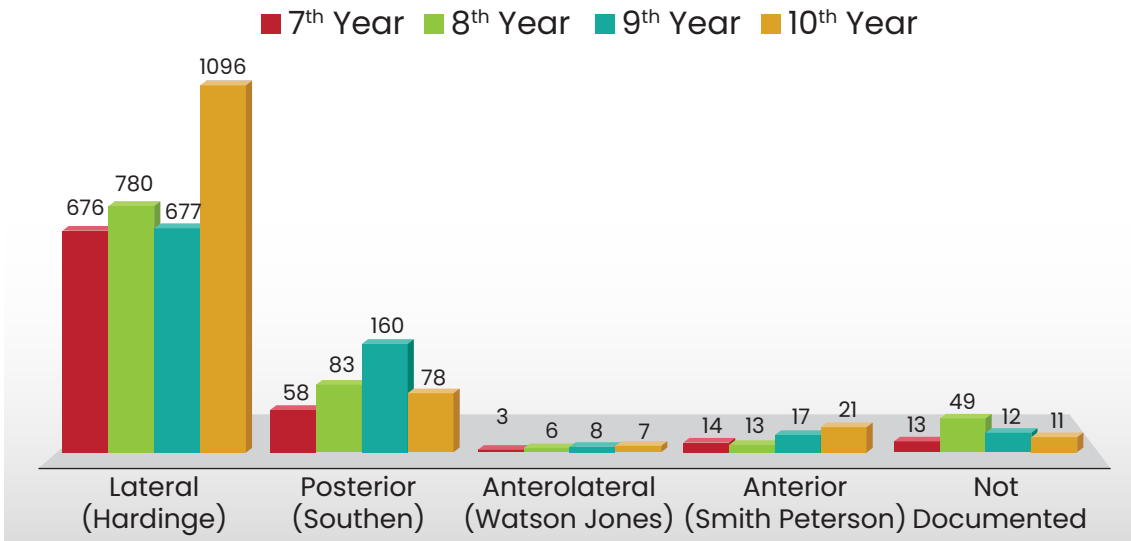
7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



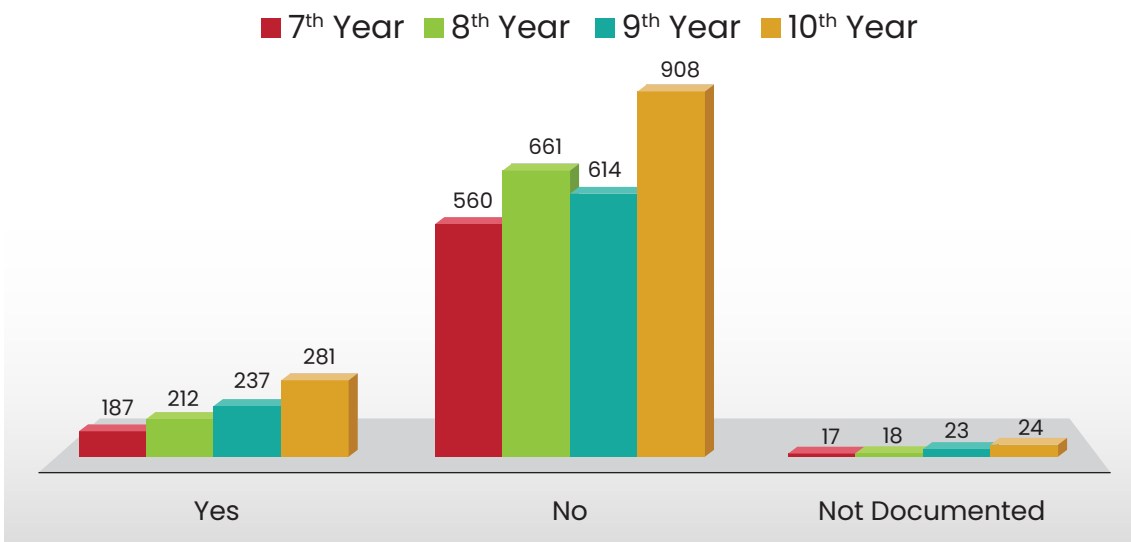


# Primary Total Hip Arthroplasty

## Surgical Approaches

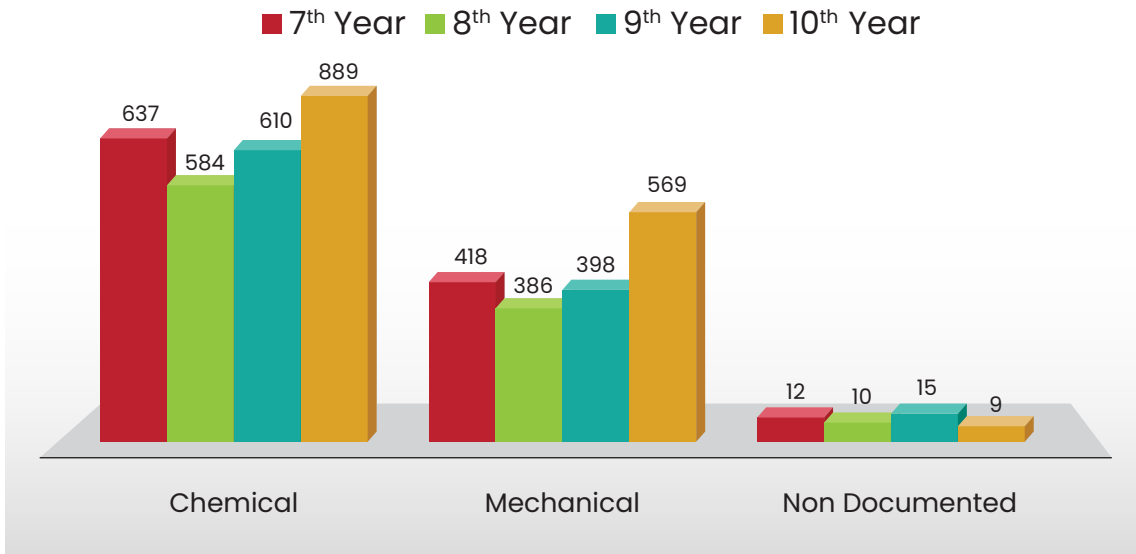


## Drain Used

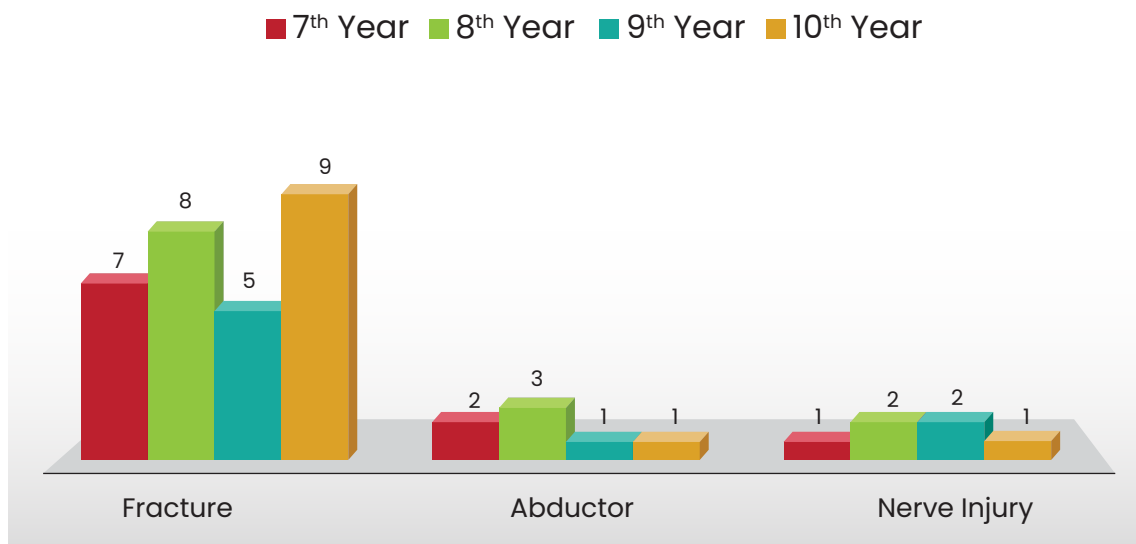


# Primary Total Hip Arthroplasty

## Thromboprophylaxis



## Adverse Intraoperative Events

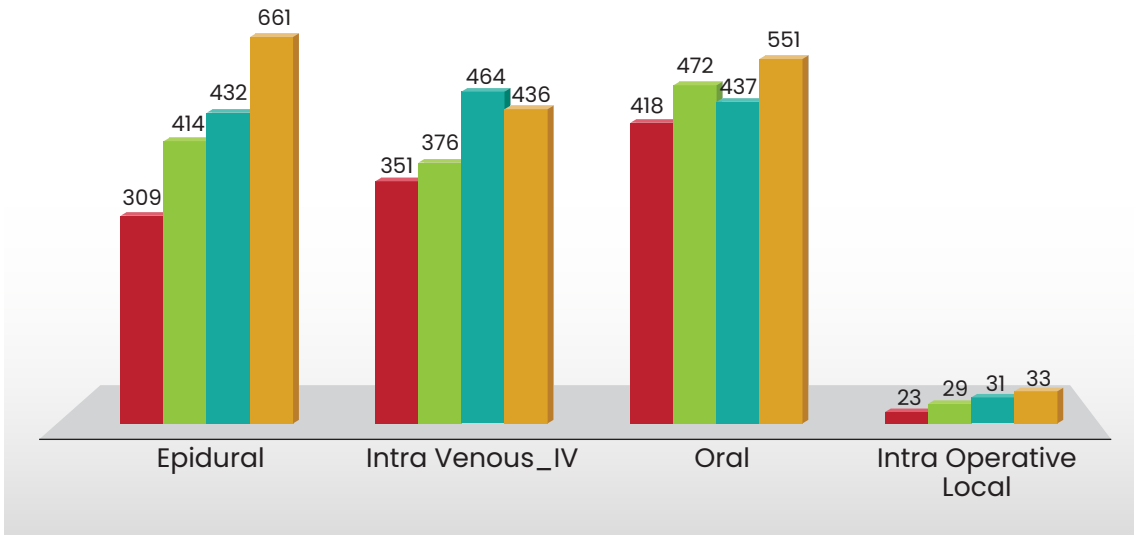




# Primary Total Hip Arthroplasty

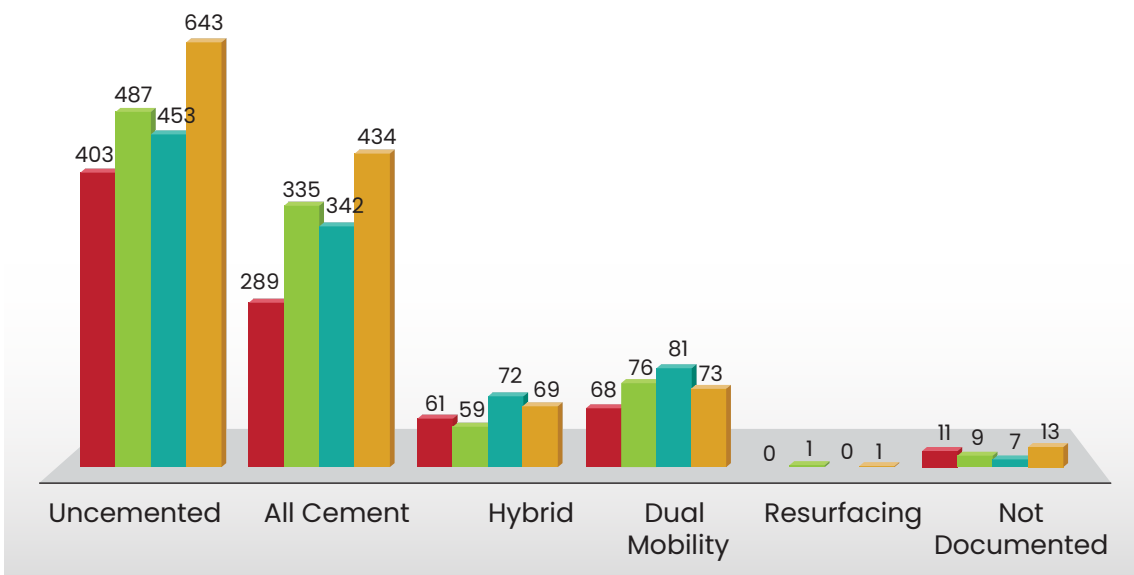
## Post operative Analgesia

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



## Implant Details

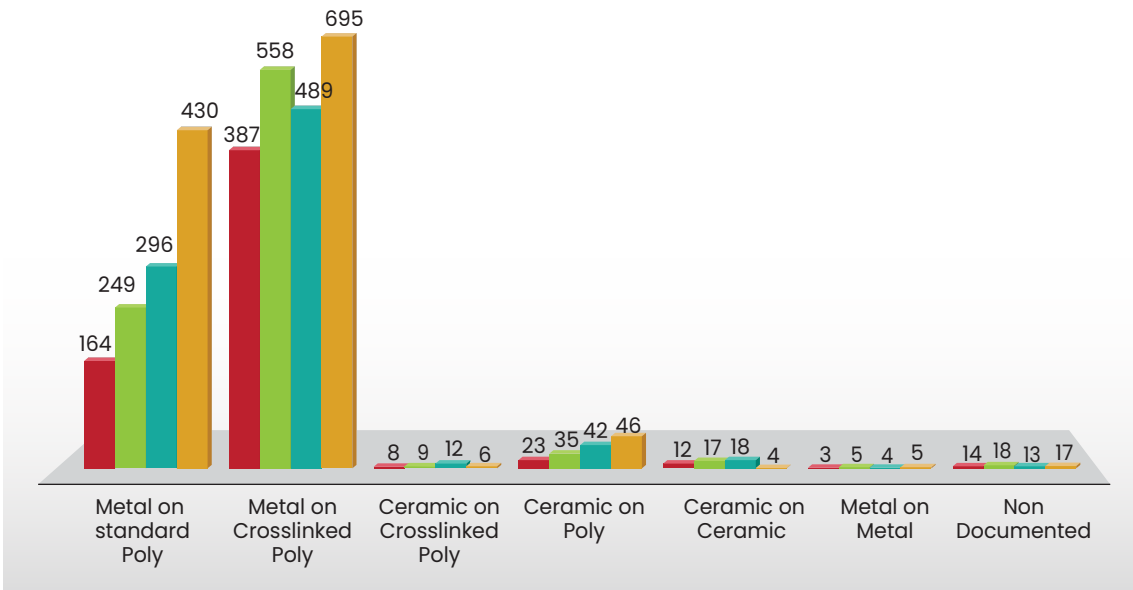
■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



# Primary Total Hip Arthroplasty

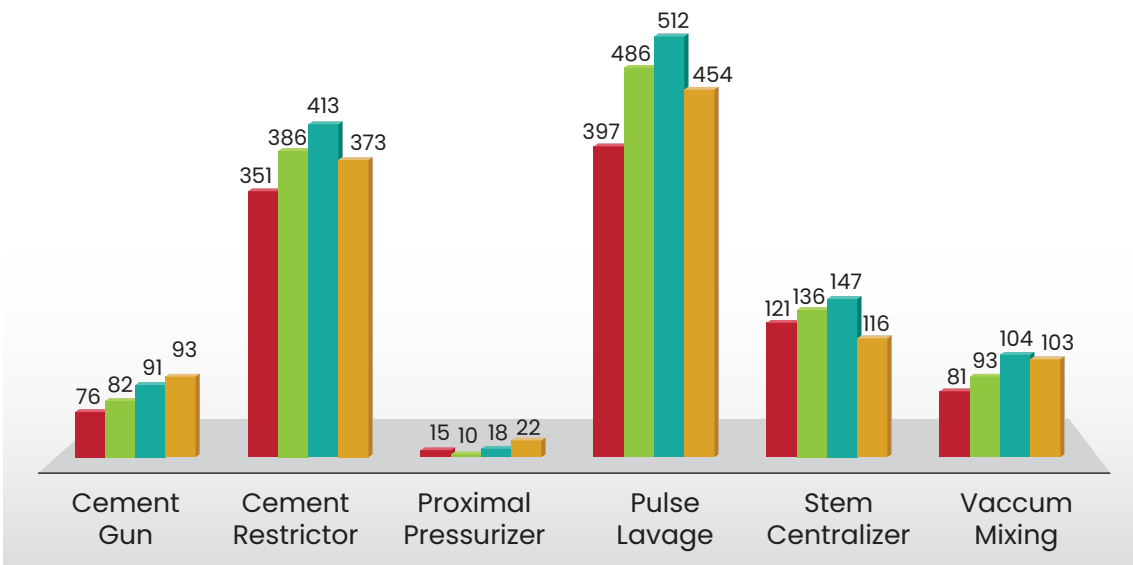
## Bearing Surfaces

7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



## Cementing Technique

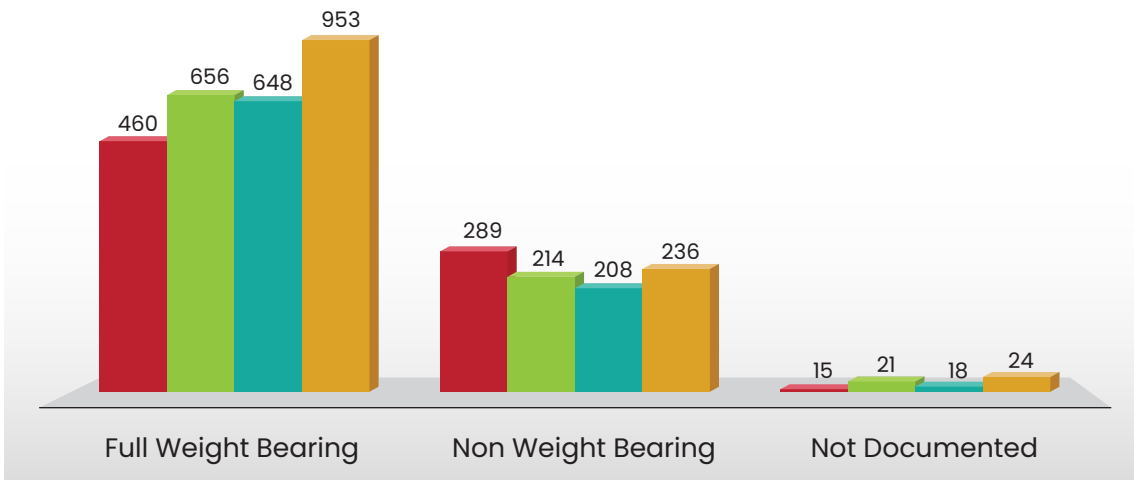
7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



# Primary Total Hip Arthroplasty

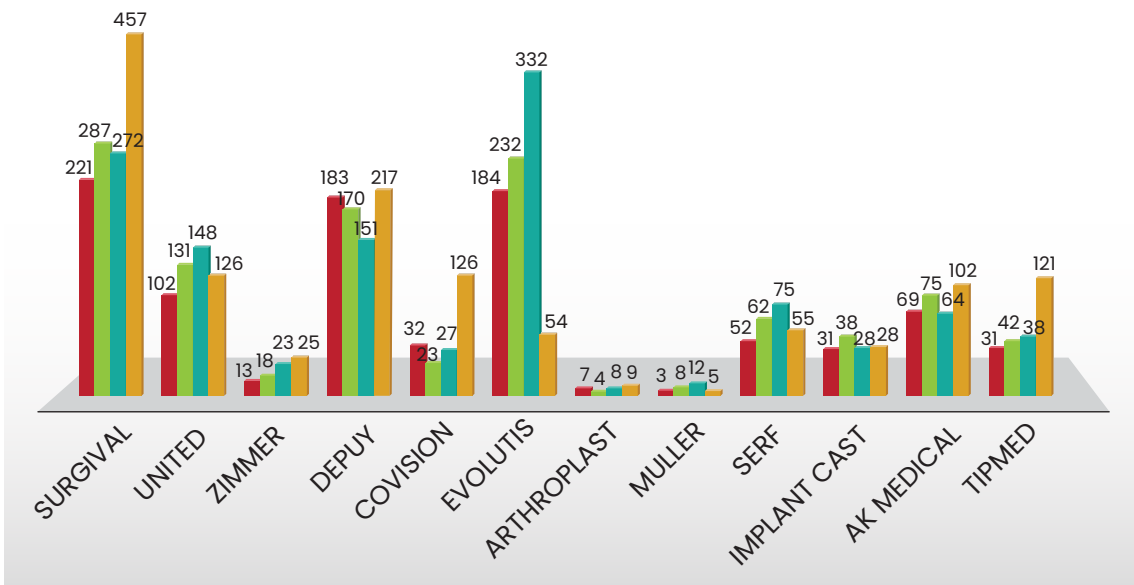
## Post Op Weight Bearing

7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



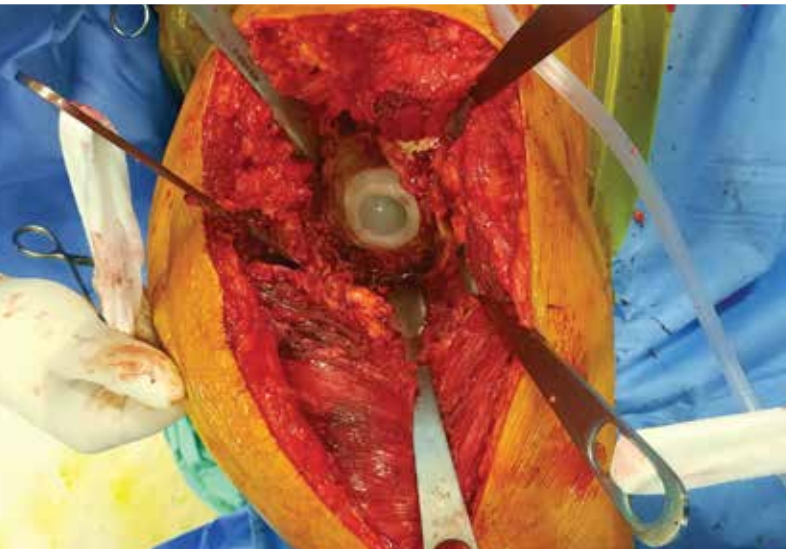
## Primary Hip Implant Vendor Data

7<sup>th</sup> Year 8<sup>th</sup> Year 9<sup>th</sup> Year 10<sup>th</sup> Year



PNJR 10<sup>th</sup>  
Annual  
Report

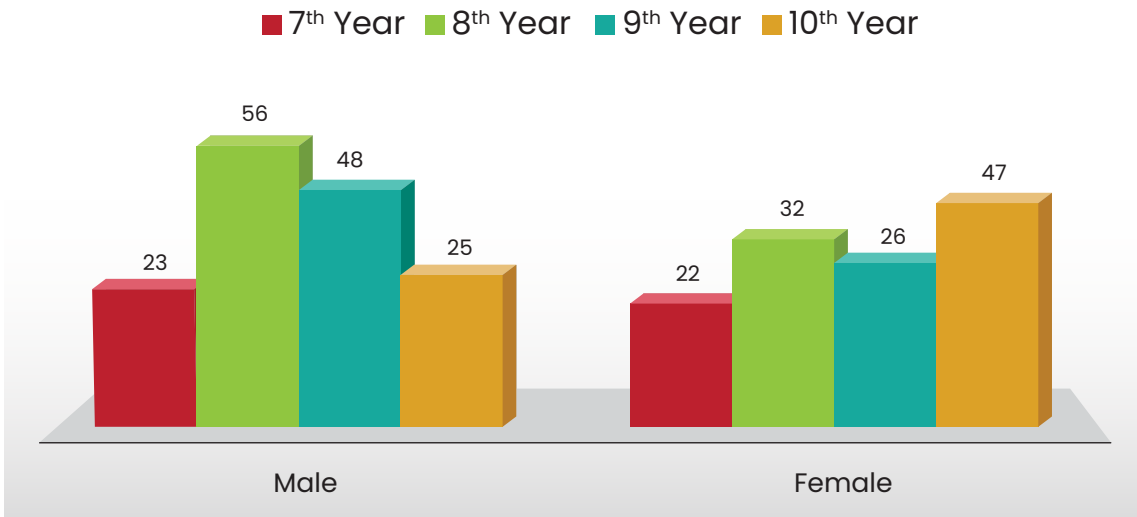
Revision  
Total Hip  
Arthroplasty  
**SECTION IV**



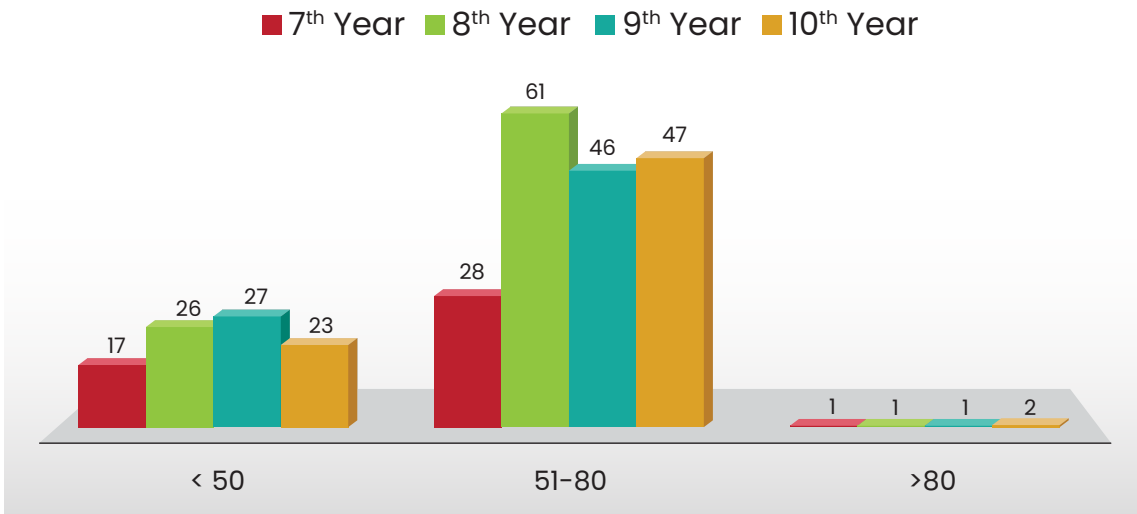


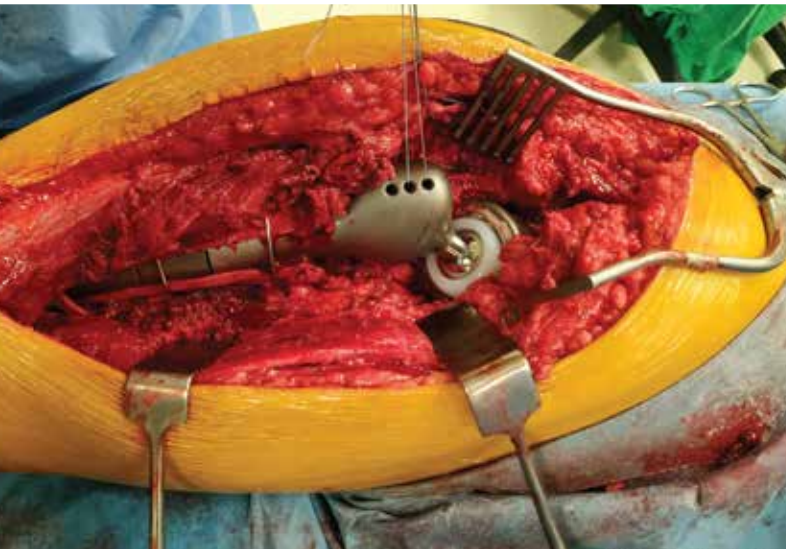
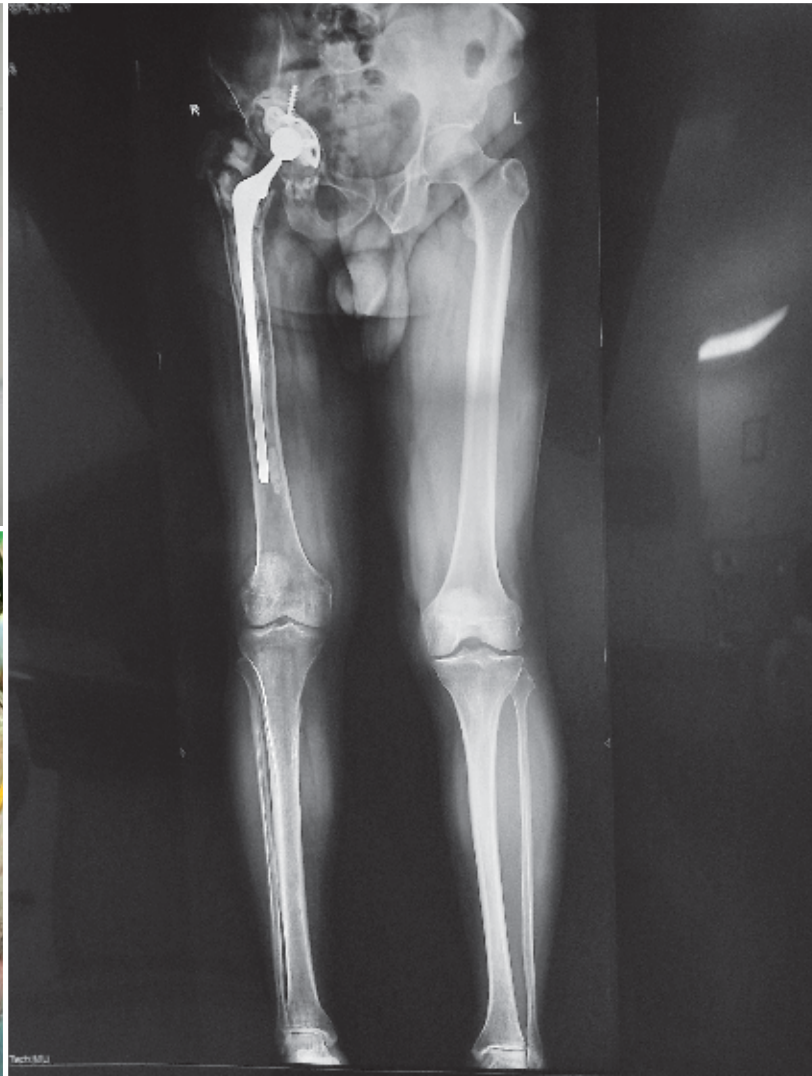
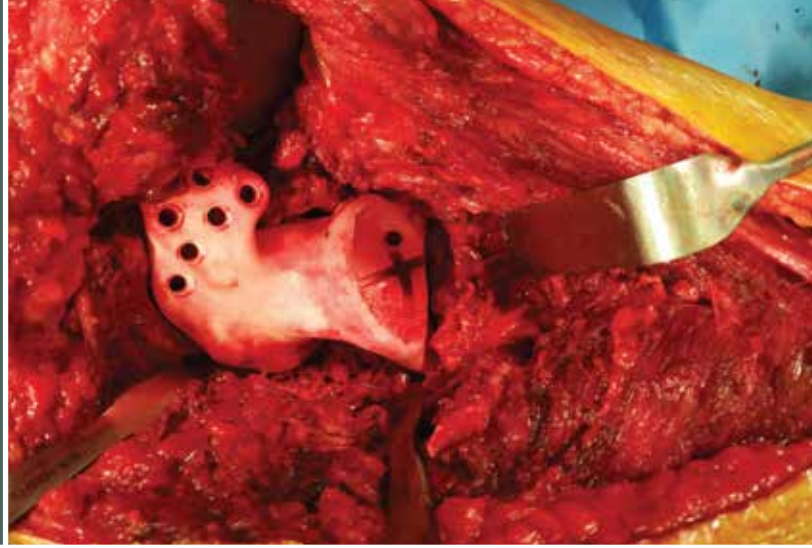
# Revision Total Hip Arthroplasty

## Gender Distribution



## Age Category

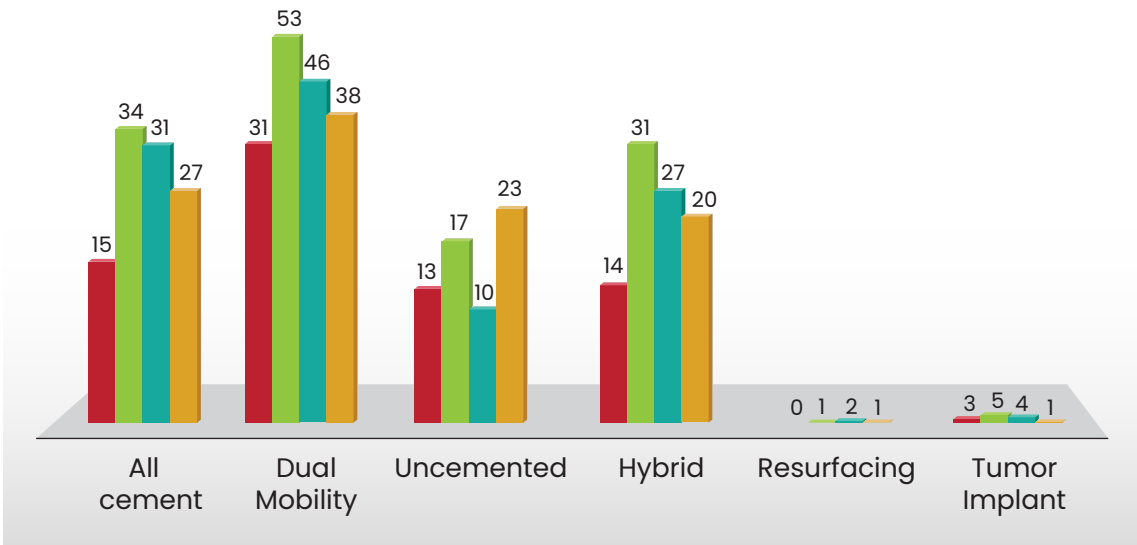




# Revision Total Hip Arthroplasty

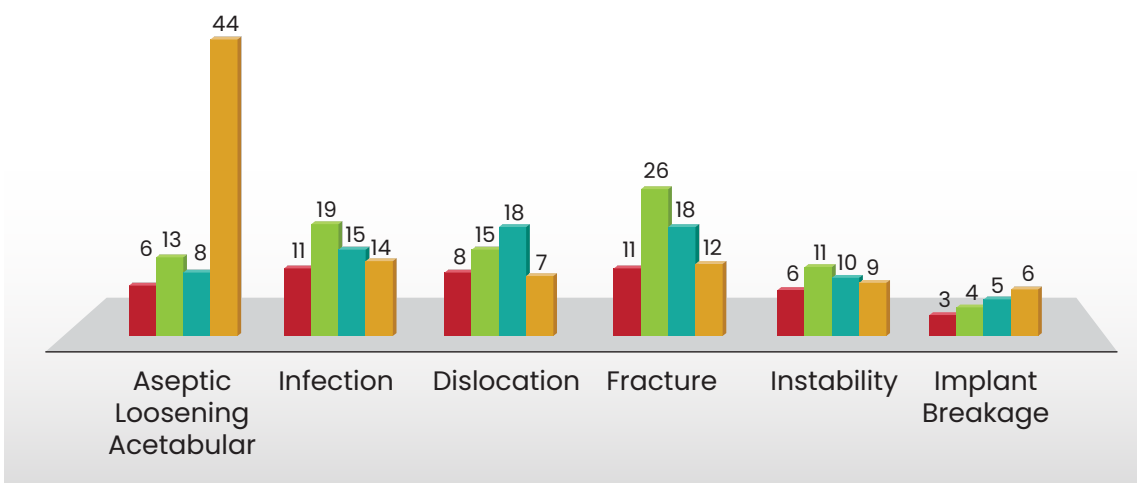
## Implant Detail

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



## Diagnosis

■ 7<sup>th</sup> Year ■ 8<sup>th</sup> Year ■ 9<sup>th</sup> Year ■ 10<sup>th</sup> Year



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Karachi



**Dr. Zohaib Nadeem**

Shifa International Hospital,  
Islamabad



**Dr. Faheem Sultan Ghori**

Indus Hospital,  
Karachi



**Dr. Nauman Abbas**

GTTH,  
Lahore



**Dr. Muhammad Yasir Pervez**

CMH,  
Rawalpindi



**Dr. Imran Shabir Mughal**

LNH & MC,  
Karachi



**Dr. Noman Shakeel Niazi**

GTTH,  
Lahore



**Dr. Irfan Muhammad Rajput**

IOS,  
Karachi

# PAS National Fellows



**Dr. Muhammad Zeeshan Aslam**  
CMH,  
Rawalpindi



**Dr. Muhammad Shehryar Zia**  
CMH,  
Rawalpindi



**Dr. Naveed Ahmed Jumani**  
Indus Hospital,  
Karachi



**Dr. Nouman Memon**  
LNH,  
Karachi



**Dr. Muhammad Bilal**  
Shifa International Hospital,  
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**Dr. Syed Wajahat Kamal**  
Indus Hospital,  
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**Dr. Sateesh Pal**  
IOS,  
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**Dr. Yasir Habib**  
Shifa International Hospital,  
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**Dr. Hisham Khan**  
CMH,  
Rawalpindi

# 1<sup>st</sup> International Pak Arthroplasty Conference

1ST – 3RD DECEMBER 2023 PEARL CONTINENTAL HOTEL, KARACHI, PAKISTAN

The 1st Pak International Arthroplasty Conference, hosted at the Pearl Continental Hotel in Karachi from 1st to 3rd Dec, 2023. It was first of its kind. It was organised by Pakistan Arthroplasty Society in collaboration with Asia Pacific Arthroplasty Society, Asia Pacific Hip Society, Asia Pacific Knee Society, Asia Pacific Orthopedic Association and Indonesia Hip and Knee Society.

The conference was a notable success, attracting delegates from all over the country. The conference featured a distinguished roster of international faculty, with several attending in person and others joining virtually. This blend of physical and virtual presence ensured a diverse exchange of knowledge and expertise.

The presence of renowned international experts provided a valuable opportunity for local practitioners to learn from the best in the field. Topics ranged from innovative surgical techniques as robotic to the latest in prosthetic technology, catering to both seasoned professionals and those new to the field.

The conference halls remained bustling with activity until late in the evening, demonstrating the high level of interest and engagement from participants. Attendees were treated to a comprehensive program that covered the latest advancements and techniques in arthroplasty. Sessions included comprehensive lectures, hot debates, interactive discussions, and free paper presentations, all designed to enhance the skills and knowledge of the participants.

The success of the Pakistan Arthroplasty Conference underscored the country's increasing stature in the global arthroplasty community and the dedication of our surgical community to learn advancing techniques.

The event not only showcased significant progress in arthroplasty but also set the stage for future collaboration globally for training and fellowship opportunities. It highlighted Pakistan's commitment to staying at the forefront of arthroplasty advancements and fostering an environment for continuous learning and development.





# 1<sup>st</sup> International Pak Arthroplasty Conference



THEME: FROM PAIN TO MOBILITY: TRANSFORMING LIFE EVERY STEP

01 - 03 December, 2023 | Pearl Continental Hotel - Karachi, Pakistan





Professor Syed Shahid Noor addressing a session



Prof Mj. G. (Rt) welcoming the delegates





Hall is full with audience even in the late hours



Very interactive discussion, Dr Kashif, PAS fellow and an arthroplasty surgeon involved in discussion



Professor Lewis PK Chan explaining the use of Robotics in arthroplasty



Professor Abu Bakar receiving life time achievement award on behalf of Professor G A Shah his mentor who established arthroplasty service in Punjab





Life time achievement award was given to Prof IH Jokhio for his perseverance in promoting arthropasty



Professor Abu Bakar receiving life time achievement award on behalf of Professor G A Shah his mentor who established arthroplasty service in Punjab





Professor M Umer has a pivotal role in establishing a successful Knee replacement service in Karachi and for that he was awarded by Pakistan Arthroplasty Society



Professor Mehmood Hafiz from Egypt receiving shield



## **Pakistan Arthroplasty Society (regd.)**

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