

# Paediatric Orthopaedic Registry Pakistan

## 2<sup>nd</sup> Annual Report 2023 - 2024



## Preface



It is with deep honor and privilege that I pen the preface for the 2nd Annual Report of the Pediatric Orthopedic Registry Pakistan (PORP). In the ever-evolving landscape of medicine, our understanding and approach to clinical assessment and treatment continue to advance. The inception of PORP in 2021 marks a significant milestone in our endeavor to gather prospective data

on children with musculoskeletal deformities and their treatment. This initiative holds promise in enhancing the quality of care, averting disabilities, and mitigating deformities.

PORP stands as a testament to simplicity and usability. I wholeheartedly encourage all Paediatric Orthopaedic Surgeons to participate in PORP and contribute their data. By doing so, we can collectively enhance clinical practice and refine research methodologies, ultimately leading to improved treatment and prevention strategies for deformities.

I am immensely grateful for the outstanding contributions of Prof. Dr. Anisuddin Bhatti, the Founding Director of PORP, Prof. Dr. Syed Shahid Noor, Chairman of the Registry Committee at HealthRAB, and Prof. Dr. Zakiuddin Ahmed, General Secretary of HealthRAB. Prof. Dr. Anisuddin Bhatti's dedication, diligence, and expertise have surpassed my expectations, and I take this moment to express my heartfelt appreciation for his invaluable contributions. It is truly a privilege to collaborate with him.

The 2nd annual report of PORP shines a spotlight on the data pertaining to Developmental Dysplastic Hip (DDH) across the nation. Furthermore, the data on Club Foot is seamlessly integrated with the International Clubfoot registry, with aspirations to expand to encompass other musculoskeletal conditions in the long term.

I extend my heartfelt gratitude to the entire team at PORP for their incredible efforts, and I look forward to the forthcoming endeavors, with the hope that they will significantly benefit the Paediatric Orthopaedic Society and advance the field of surgery in Pakistan.

Sincerely,

Prof. Dr. Sikandar Hayat  
President, POSP

## Message



Clinical registries are essential for gathering and analyzing data on epidemiological trends and treatment outcomes. This information guides best practices, research, and future strategies. However, these registries often face sustainability challenges, highlighting the importance of ongoing support and advancement.

To maximize their impact, stakeholders must move beyond mere data collection and storage, employing modern data analytics to develop additional preventive and therapeutic approaches and contribute to research publications.

The Paediatric Orthopaedic Registry Pakistan (PORP), initiated in September 2021 under the auspices of the Paediatric Orthopaedic Society Pakistan, with academic and technical backing from the Health Research Advisory Board (HealthRAB) and research support from PharmEvo Pakistan, exemplifies this effort. PORP's development involved crafting comprehensive data collection forms utilizing cutting-edge analytic technology to ensure security, user-friendliness, and efficient data retrieval.

Acknowledgment is due to the Core Committee, especially Prof. Dr. Mehtab Pirwani and Prof. Dr. Amin Chinoy, and Steering Committee of PORP, along with Prof. Dr. Zakiuddin Ahmed and Ms. Mariam Soomro from HealthRAB, and Mr. Nauman Siddiqui from PharmEvo.

Initially focusing on Paediatric Musculoskeletal (MSK) Deformities, Developmental Dysplastic Hip (DDH), and Club Foot Deformity, which is linked to the International Clubfoot registry, PORP plans to expand to include Perthes' disease and eventually Paediatric MSK injuries. Currently, there are 26 registered participants across Pakistan, though only 13 are actively contributing and have entered 942 cases of DDH. The current report spans 31 months of data, offering insights into frequencies, distributions, and protected outcome data accessible to principal investigators for personal clinical audits, patient care improvement, and overcoming encountered difficulties and complications.

The sustained success of PORP hinges on continued support from its steering committee members and registered participants, who play a crucial role in its advancement. It is hoped that participants will continue to champion PORP and encourage others to join, thereby expanding the pool of stakeholders invested in its success.

Sincerely,

Prof. Dr. Anisuddin Bhatti  
Founding Director, PORP



## Message



I am delighted to present the 2nd Annual Report of the Paediatric Orthopaedic Registry Pakistan (PORP). This report marks a significant milestone for the Paediatric Orthopaedic Society Pakistan (POSP) and the Health Research Advisory Board (HealthRAB) who joined forces to initiate this registry in 2021.

The PORP was established with the primary objective of systematically gathering and organizing information on paediatric musculoskeletal (MSK) issues in a structured and scalable manner. The registry initially focuses on Developmental Dysplasia of the Hip (DDH) and will expand its scope to other MSK issues including Perthes, and Paediatric Fractures etc. in the near future. This report highlights the progress made by PORP since its inception and provides an insight into the registry's contribution to advancing paediatric orthopaedic research in Pakistan. It showcases the dedication and commitment of the POSP and HealthRAB teams in the successful implementation of this project. On behalf of the POSP and HealthRAB, I would like to express my heartfelt gratitude and appreciation for Prof. Dr. Anisuddin Bhatti for his outstanding leadership and unwavering commitment towards the successful implementation of this registry. I would also like to thank and congratulate all the participants who have contributed to PORP, making it a valuable resource for improving paediatric orthopaedic care in Pakistan. We look forward to the continued growth and success of this registry.

Sincerely,

Prof. Dr. Syed Shahid Noor

Chairman, Registry Committee, HealthRAB

## Message



It is with great honour that I present you the 2nd Annual Report of the Pediatric Orthopedic Registry Pakistan (PORP). This report highlights the significant progress made by the Paediatric Orthopaedic Society Pakistan (POSP) and the Health Research Advisory Board (HealthRAB) in establishing this registry. HealthRAB, a registered society, is a think tank of senior clinicians, researchers, and academicians committed to developing the health research ecosystem. HealthRAB has established several national disease registries, including the Cardiology, Orthopaedics, Gynaecology, and Diabetes registries. These registries have been instrumental in improving clinical care and developing evidence-based treatment protocols. Establishing national registries is crucial for identifying gaps in care, tracking outcomes, and ultimately improving patient outcomes. PORP is an important step forward for paediatric orthopaedic care in Pakistan and a model for other countries looking to establish similar registries. PORP plays a crucial role in systematically gathering and organizing information on paediatric musculoskeletal issues in a structured and scalable manner. This registry is an important resource for improving the quality of paediatric orthopaedic care in Pakistan. However, it is not just limited to Pakistan; I am positive that PORP will play a pivotal role in improving clinical care and developing evidence-based treatment protocols for paediatric orthopaedic conditions worldwide. A special thanks to Prof. Dr. Anisuddin Bhatti, without his support and leadership, this project would not have been possible. I would like to commend the POSP and HealthRAB teams for their dedication and hard work in establishing the PORP. Their efforts have resulted in an invaluable resource for improving the quality of paediatric orthopaedic care in Pakistan.

Sincerely,

Prof. Dr. Zakiuddin Ahmed

General Secretary, HealthRAB

## Message



I am thankful to Prof. Anisuddin Bhatti to have bestowed on me the honour of writing a message for the Paediatric Orthopaedic Registry of Pakistan. This is such an important moment in the history of Pakistan when this registry reaches its first 1000 patient enrolment.

The primary purpose of a disease registry is to collect diagnostic details on patients with specific disease or condition. We, the Medical community of Pakistan are blessed, that with the vision and leadership of our leaders, there are now many Disease Registries in Pakistan, such as a) Pakistan National Joint Registry, b) Diabetes Registry of Pakistan, c) Cardiac Registry of Pakistan, d) Stroke Registry of Pakistan, e) Spine Tango Registry of Pakistan, f) Hip Fracture Registry of Pakistan to mention a few.

The Primary purpose of the Paediatric Orthopaedic Registry of Pakistan is to collect data on the incidence of Congenital and Developmental conditions in children. The First section includes information about Developmental Dysplasia of Hip, which captures quite detailed information about the disease and its treatment and long term outcomes. The second section includes information about Idiopathic Clubfoot and is directly linked to the International Clubfoot Registry at the University of Iowa. The Third section Includes a snapshot of all the other common and not so common Congenital and Developmental Diseases of childhood.

The importance of having Disease Registries cannot be understated. They help us in describing the natural history and phenotypic diversity of diseases. They help improve case definition and indication to treat, as well as identifying strategies for risk stratification and early prediction of disease severity. They also help in evaluating the impact of preventive, diagnostic, and therapeutic strategies on individual health, health economics, and the society, and informing guideline development and policy makers.

As a member of the team who has worked on development and getting this project off the ground, I am thankful to Almighty Allah to have given us the strength and the guidance necessary to have achieved our goals. I sincerely hope that this Registry achieves all of the objectives it set out to meet, and for it to prosper and serve its purpose of helping in Preventive, Diagnostic and Therapeutic Strategies as well as helping with Health, Health economics and Society. The importance of Registries in developing guidelines and policy decisions at a national level is the ultimate desire of such a Registry, and I sincerely hope that we achieve this aim in the long term.

In the end, I would like to congratulate Prof. Anisuddin Bhatti and the whole team on this wonderful achievement.

Sincerely,  
Prof. Dr. Muhammad Amin Chinoy  
Secretary General, POSP

## List of Editors

### Prof. Dr. Anisuddin Bhatti

Founding Director, PORP



### Prof. Dr. Zakiuddin Ahmed

General Secretary, HealthRAB



### Ms. Marium Soomro

Coordinator, PORP  
Manager, HealthRAB





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## Introduction to PORP

The Paediatric Orthopaedic Society Pakistan (POSP) initiated a pilot project in November 2019 in Collaboration with Health Research Advisory Board (HealthRAB) to establish the “Paediatric Orthopaedic Registry Pakistan” (PORP).

The objective of this pilot project was to systematically gather and organize information on paediatric musculoskeletal (MSK) issues in a structured and scalable manner. The PORP serves as the primary registry for POSP and will initially focus on three common congenital/developmental MSK issues, namely DDH, Perthes and Paediatric Fractures. The registry will expand to include other MSK issues after a year or two.

This PORP shall be owned by POSP in collaboration with HealthRAB. PORP is supported by an unrestricted research grant by PharmEvo.

To ensure the smooth functioning of PORP, a steering committee and core group have been established with the responsibility of supervising the PORP operations in accordance with the agreed terms of reference.

## Aims & Objectives

- To collect, enter & retrieve data of Paediatric MSK problems, procedures carried out in order to establish data base.
- Data that can be used to improve the quality of care prevent disabilities developing among deformities.
- Data to provides actionable information to guide PORP user, for decision-making and research with overall benefit to the patients care & Disability prevention. Data that shall be strictly Password protected.
- Cumulative data retrievable by the user in CVS / PDF format for their study & research.
- The PORP may publish cumulative general demographic data for a scientific evidence, that to improve health policy.

## Steering Committee

S. No	Steering Committee Members	Role
1	Dr. Anisuddin Bhatti	Director
2	Dr. Zakiuddin Ahmed	Secretary
3	Dr. Mohammad Amin Chinoy	Member
4	Dr. Syed Shahid Noor	Member
5	Dr. Sikander Hayat	Member
6	Dr. Mehtab Ahmed Pirwani	Member
7	Dr. Javed Iqbal	Member
8	Dr. Atiq uz Zaman	Member
9	Dr. Rana Dilawez Nadeem	Member
10	Dr. Nusrat Rasheed	Member
11	Dr. Saeed Ahmed	Member
12	Dr. M. Aslam Baloch	Member
13	Ms. Marium Soomro	Coordinator

## Core Committee

S. No	Core Committee Members	Role
1	Dr. Anisuddin Bhatti	Director
2	Dr. Zakiuddin Ahmed	Secretary
3	Dr. Mehtab Ahmed Pirwani	Member
4	Dr. Rana Dilawez Nadeem	Member
5	Dr. Mohammad Amin Chinoy	Member
6	Dr. Saeed Ahmed	Member
7	Dr. Nusrat Rasheed	Member
8	Ms. Marium Soomro	Coordinator

## Participating Institutions by Province

Province	City	Participating Institutions
Balochistan	Quetta	Bolan Medical Complex Hospital
		Sheikh Khalifa Bin Zahid Medical Complex
		Tariq Hospital
KPK	Peshawar	Khyber Teaching Hospital
		Prime Teaching Hospital
Punjab	Faisalabad	Children's Hospital
	Lahore	Ghurki Trust Teaching Hospital
	Multan	Nishtar Medical College & Hospital
		Rehman Medical Center
		Benazir Bhutto Hospital
Sindh	Karachi	Ankleseria Hospital
		Bantva Hospital
		Charania Hospital
		Civil Hospital
		Health Care Hospital
		Jinnah Postgraduate Medical Center
		Kutiyana Memon Hospital
		Liaquat National Hospital
		Mehran Medical Centre
		National Institute of Child Health
		National Medical Center
		Neurospinal & Cancer Care Institute
		OMI Hospital
		Saifee Hospital
		The Indus Hospital and Health Network
		Ziauddin Hospital, Clifton Campus
		Larkana
	Sukkur	Bhatti Hospital
		Civil Hospital



## Registered Participants

S. No	Names
1	Dr. Adeel Ahmed Siddiqui
2	Dr. Anisuddin Bhatti
3	Dr. Asif Peracha
4	Dr. Atiq uz Zaman
5	Dr. Ayesha Saeed
6	Dr. Badruddin Sahito
7	Dr. Jagdesh Kumar
8	Dr. Javed Iqbal
9	Dr. M. Aslam Baloch
10	Dr. Malik Waseem Ahmed
11	Dr. Mehtab Ahmed Pirwani
12	Dr. Mohammad Amin Chinoy
13	Dr. Muhammad Jamil
14	Dr. Mansoor Ali Khan
15	Dr. Muhammad Badar uddin Zafir
16	Dr. Nadeem Baloch
17	Dr. Nusrat Rasheed
18	Dr. Pervez Ali
19	Dr. Rana Dilawez Nadeem
20	Dr. Saeed Ahmed Jadoon
21	Dr. Salik Kashif
22	Dr. Sikander Hayat
23	Dr. Syed Shahid Noor
24	Dr. Umair Nadeem
25	Dr. Zaki Idrees
26	Dr. Zamir Ahmed Soomro

## Contributors

S. No	Names
1	Dr. Amin Chinoy
2	Dr. Anisuddin Bhatti
3	Dr. Asif Paracha
4	Dr. M. Aslam Baloch
5	Dr. Atiq Uz Zaman
6	Dr. Ayesha Saeed
7	Dr. Javed Iqbal
8	Dr. Muhammad Jamil
9	Dr. Mansoor Ali Khan
10	Dr. Muhammad Badar uddin Zafir
11	Dr. Pervez Ali
12	Dr. Saeed Ahmad Jadoon
13	Dr. Umair Nadeem
14	Dr. Zamir Ahmed Soomro

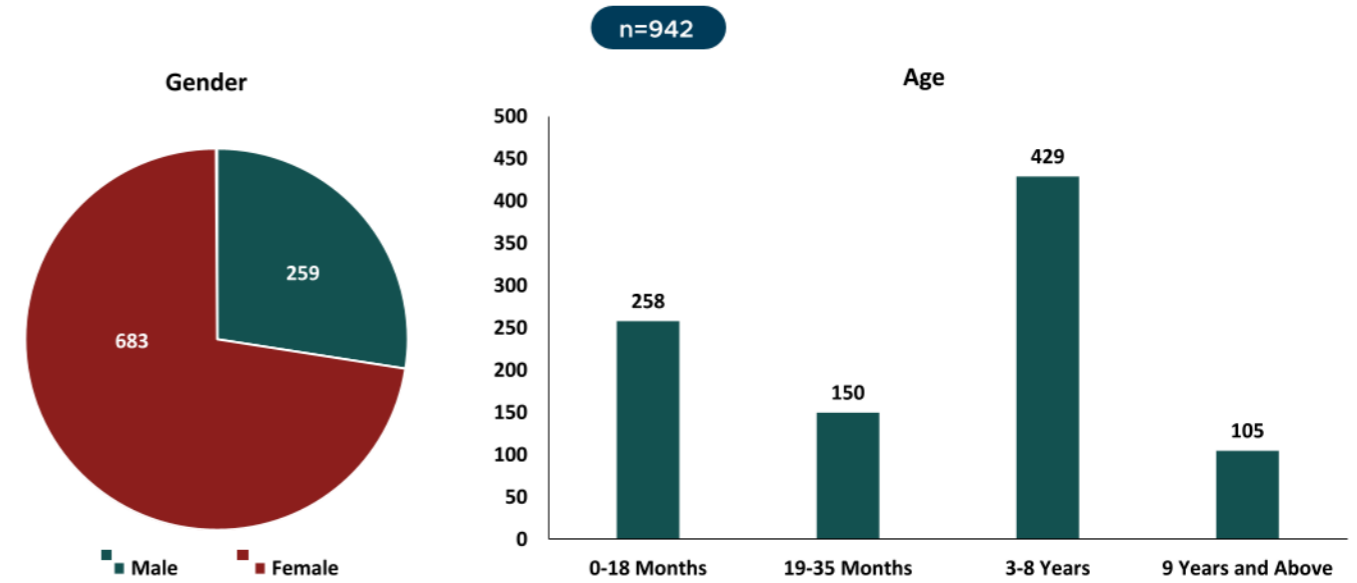
# Data Report

## 2023 - 2024

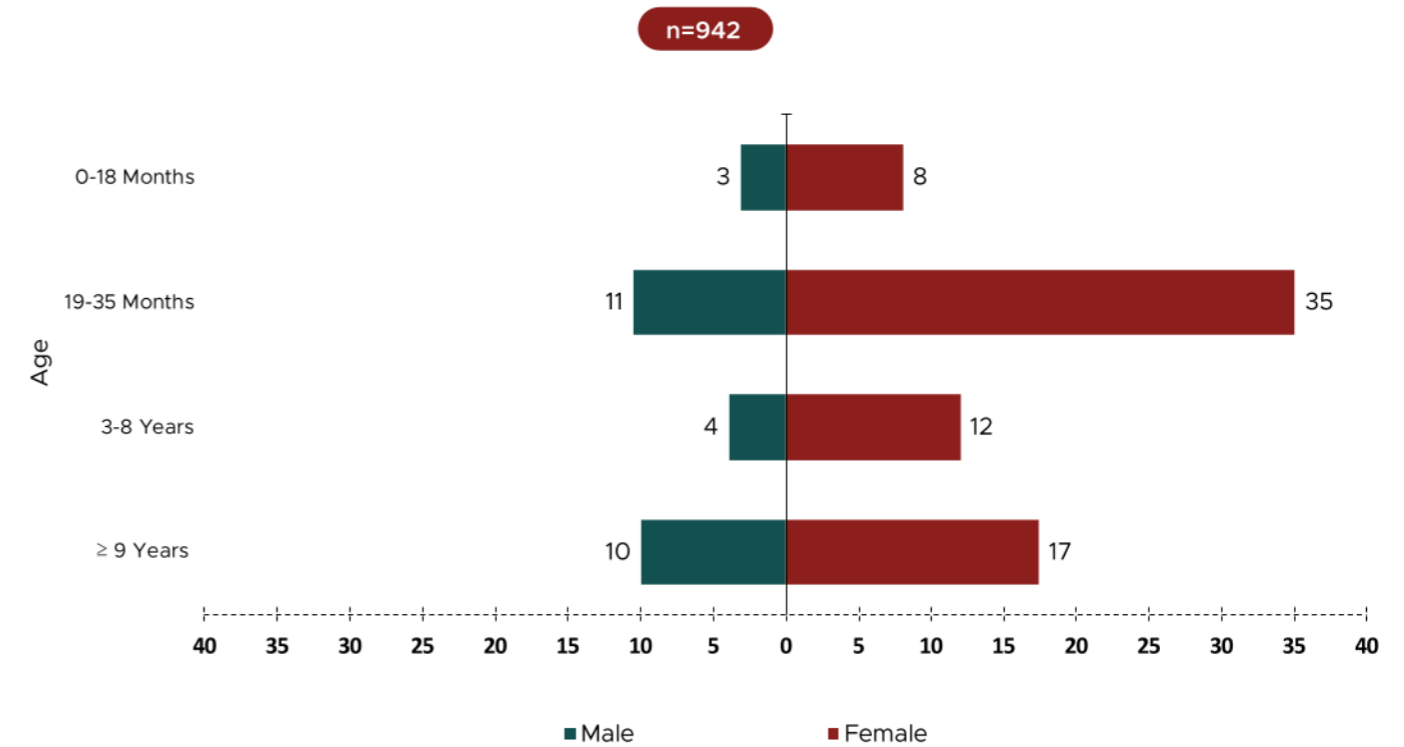
Number of Enrolled Cases : 942

### Baseline

### Age & Gender Of Respondents

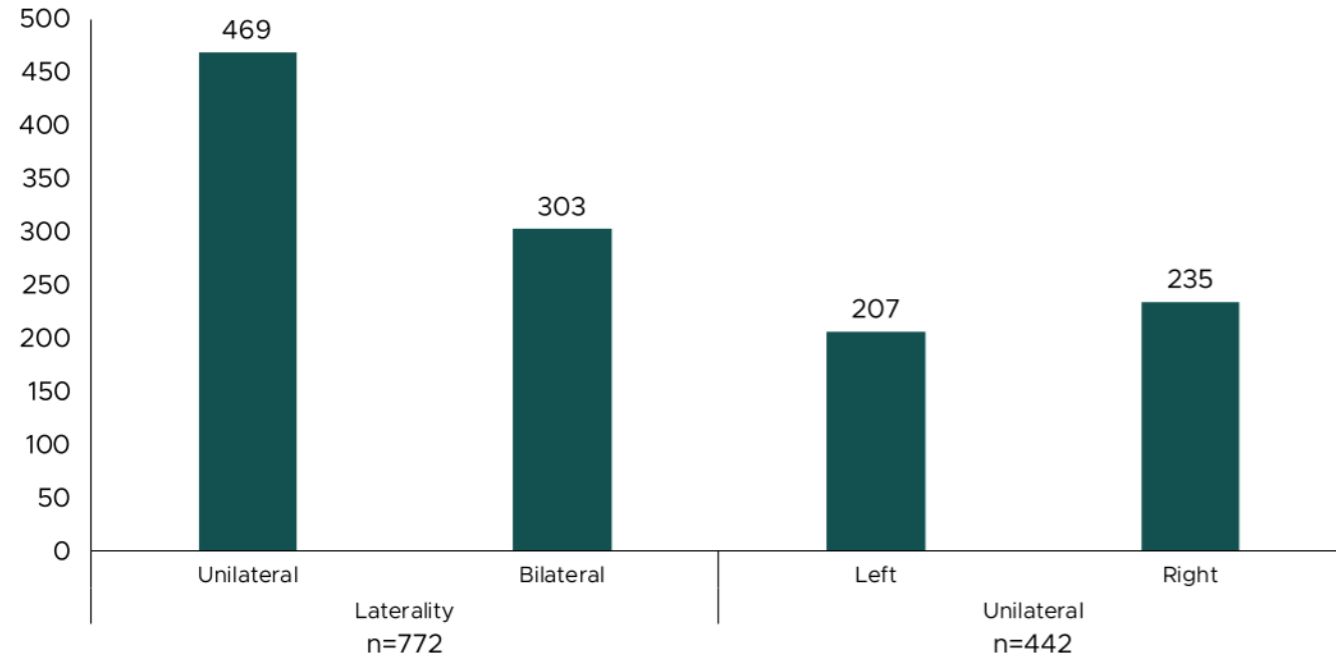


### Age & Gender Correlation (%)

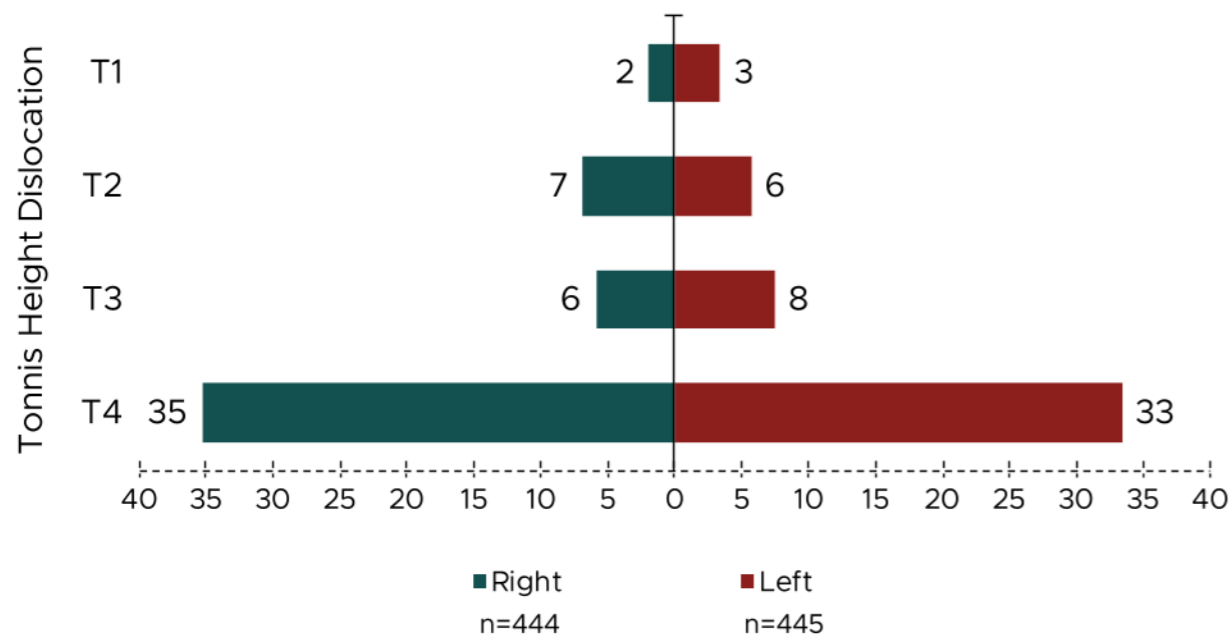




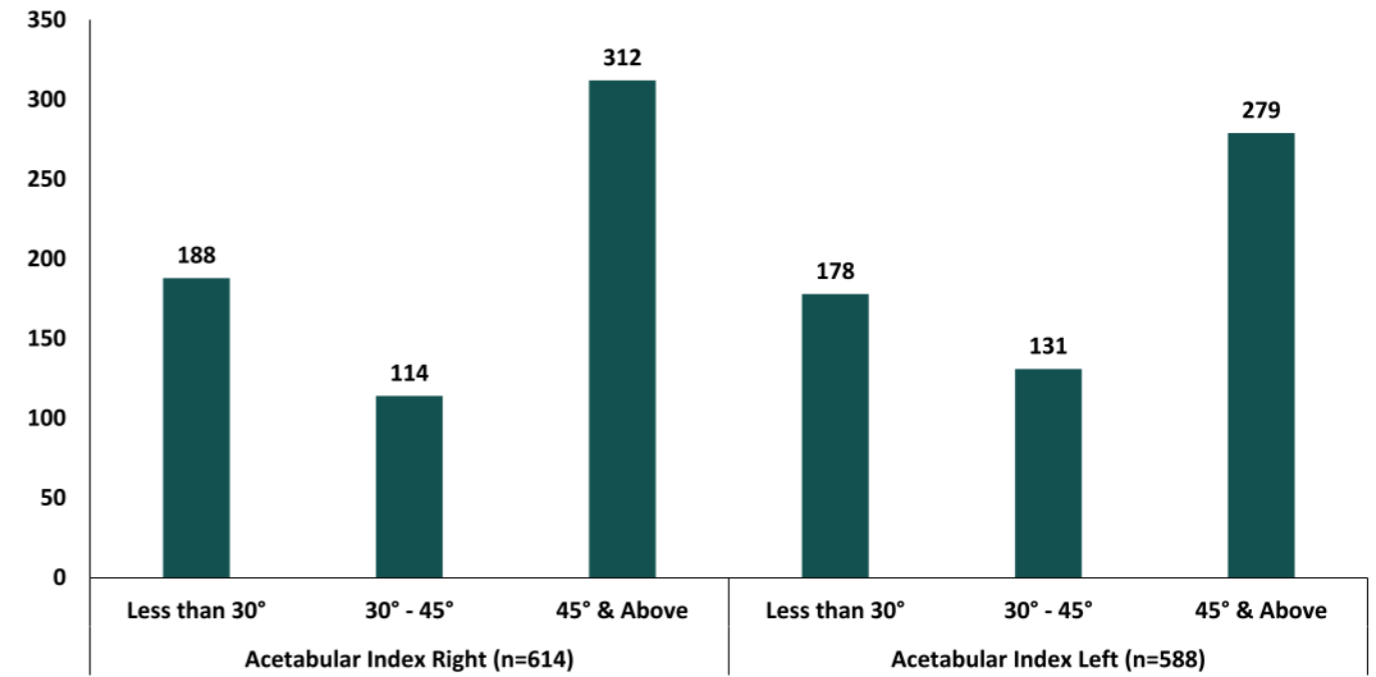
## Laterality: Unilateral & Bilateral



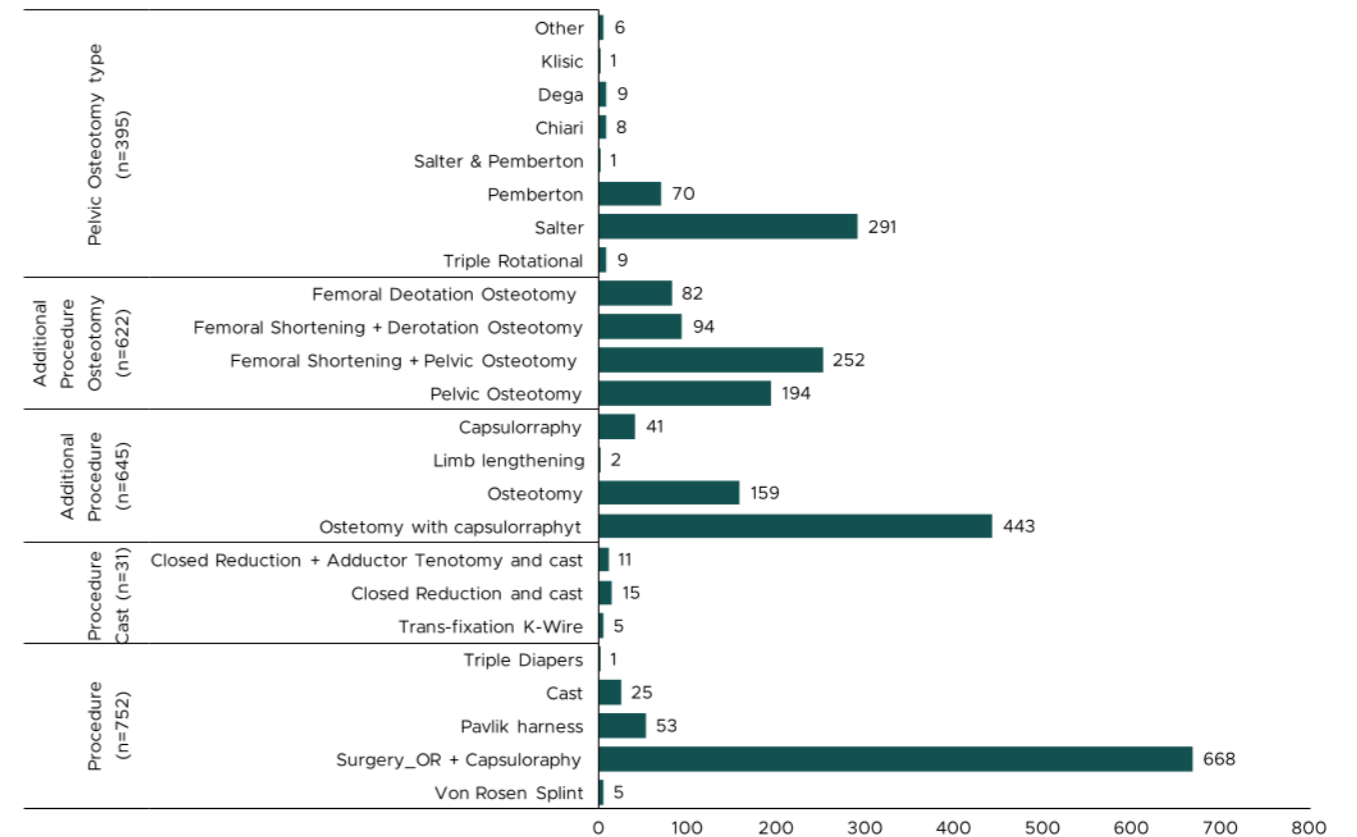
## Tonnis Height Dislocation (%)



## Acetabular Index



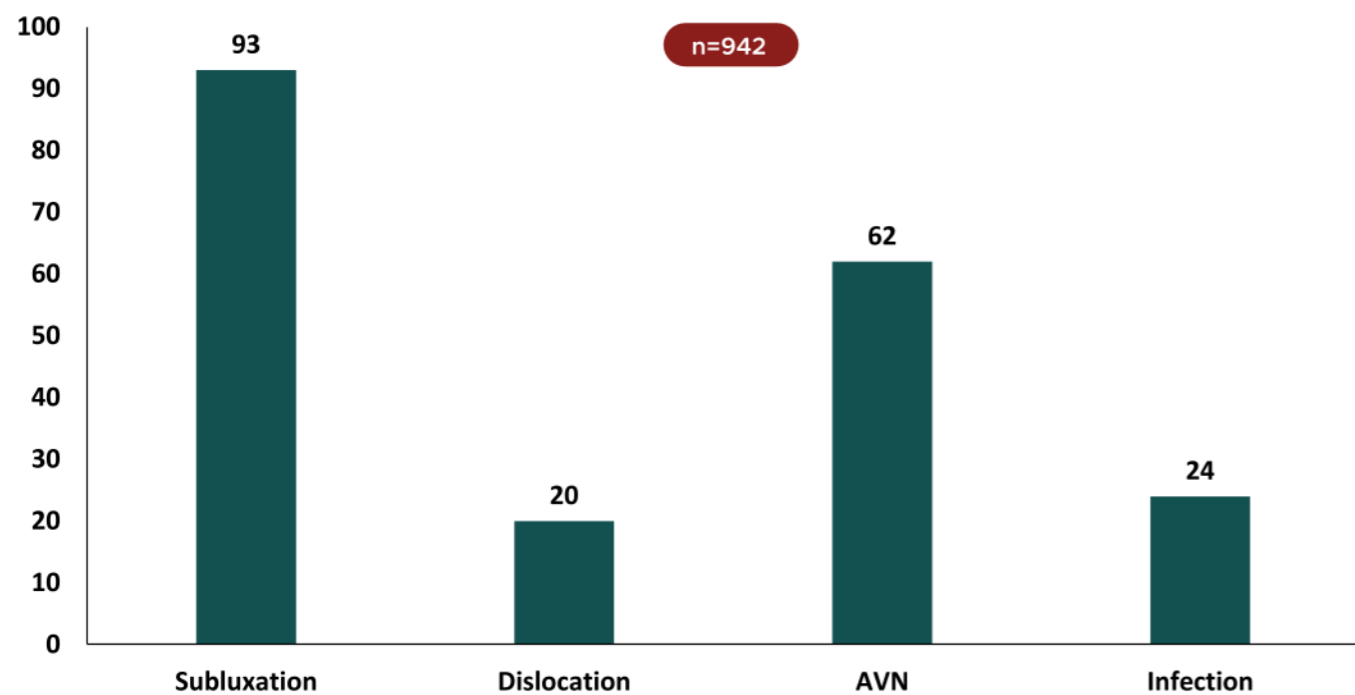
## Procedures Performed



## Follow-Up

Follow-Up Duration	N (%)
< 1 Year	827 (94)
1-3 Years	26 (3)
4-8 Years	17 (2)
> 8 Years	6 (1)
Total	876 (93%)

## Types of Complications



Single complication: 174 cases  
Multiple complications: 25 cases

## Case Report Forms

## Disease Index Form



Health  
Research  
Advisory  
Board

### Paediatric Orthopaedic Registry Pakistan (PORP)

A. Demographic Data			
1	Registration/MR No	2	Visit Date
3	Consent: Informed consent taken from parents/ guardian for registry, photographs and publication <input type="checkbox"/> Yes <input type="checkbox"/> No	4	Patient Name
5	Father Name	6	DOB
7	Age <input type="checkbox"/> Week <input type="checkbox"/> Month <input type="checkbox"/> Year	8	Gender <input type="checkbox"/> Male <input type="checkbox"/> Female
9	Province <input type="checkbox"/> Sindh <input type="checkbox"/> Punjab <input type="checkbox"/> Balochistan <input type="checkbox"/> Khyber Pakhtunkhwa <input type="checkbox"/> Gilgit Baltistan <input type="checkbox"/> Azad Kashmir	10	City <input type="checkbox"/> Karachi <input type="checkbox"/> Hyderabad <input type="checkbox"/> Sukkur <input type="checkbox"/> Larkana <input type="checkbox"/> Nawabshah <input type="checkbox"/> Mirpurkhas <input type="checkbox"/> Shaikapur <input type="checkbox"/> Jacobabad <input type="checkbox"/> Khairpur <input type="checkbox"/> Lahore <input type="checkbox"/> Faisalabad <input type="checkbox"/> Islamabad <input type="checkbox"/> Rawalpindi <input type="checkbox"/> Gujranwala <input type="checkbox"/> Multan <input type="checkbox"/> Bhawalpur <input type="checkbox"/> Sargodha <input type="checkbox"/> Sialkot <input type="checkbox"/> Rahim Yar Khan <input type="checkbox"/> Quetta <input type="checkbox"/> Hub <input type="checkbox"/> Sui <input type="checkbox"/> Der Allah Yar <input type="checkbox"/> Chaman <input type="checkbox"/> Gwadar <input type="checkbox"/> Peshawar <input type="checkbox"/> Abbottabad <input type="checkbox"/> Mardan <input type="checkbox"/> Nowshera <input type="checkbox"/> Dera Ismail Khan <input type="checkbox"/> Astore <input type="checkbox"/> Bunji <input type="checkbox"/> Chilas <input type="checkbox"/> Danyor <input type="checkbox"/> Gahkuch <input type="checkbox"/> Gilgit <input type="checkbox"/> Skardu <input type="checkbox"/> Hunza <input type="checkbox"/> Muzaffarabad <input type="checkbox"/> Mirpur <input type="checkbox"/> Rawal Kot <input type="checkbox"/> Kotli <input type="checkbox"/> Dhir Kot <input type="checkbox"/> Bagh <input type="checkbox"/> Hajira <input type="checkbox"/> Bhimbar <input type="checkbox"/> Plandri <input type="checkbox"/> Chakswari <input type="checkbox"/> Other: _____
11	Hospital	12	Contact # 1
13	Contact # 2	14	Parent's NIC #
15	Email ID	16	Assessment done by
B. Disease Index: Group A			
1	Club Foot <input type="checkbox"/> Yes <input type="checkbox"/> No	2	Development Dysplastic Hip (DDH) <input type="checkbox"/> Yes <input type="checkbox"/> No
C. Disease Index: Group B			
1	Perthes <input type="checkbox"/> Yes <input type="checkbox"/> No	2	Pediatric Fractures <input type="checkbox"/> Upper limb long bones <input type="checkbox"/> Lower limb long bones
3	Epiphyseal Injuries <input type="checkbox"/> Shoulder <input type="checkbox"/> Elbow <input type="checkbox"/> Wrist	4	Pediatric Trauma Dislocation <input type="checkbox"/> Shoulder <input type="checkbox"/> Elbow <input type="checkbox"/> Hip



## Disease Index Form

Health  
Research  
Advisory  
Board

	<input type="checkbox"/> Hip-Deibet type <input type="checkbox"/> Knee <input type="checkbox"/> Ankle <input type="checkbox"/> Talus		
5	Slipped Capital Femoral Epiphysis(SCFE/SUFE)	<input type="checkbox"/> Yes <input type="checkbox"/> No	6 Coxa Vara
7	Proximal Focal Femoral deficiency (PFFD)	<input type="checkbox"/> Yes <input type="checkbox"/> No	9 Congenital Pseudo-Arthrosis (CPT)
10	Congenital Knee Dislocation (CDK)	<input type="checkbox"/> Hyperextension <input type="checkbox"/> Flexion	11 Hemimelia
12	Pes Plano Valugus	<input type="checkbox"/> Flexus <input type="checkbox"/> Rigidus	13 Pes Plano Valugus_Rigidus
14	Arthrogryposis Multiplex Congenita	<input type="checkbox"/> Yes <input type="checkbox"/> No	15 Torticollis
16	Radial Club Hand	<input type="checkbox"/> Yes <input type="checkbox"/> No	17 Osteogenesis Imperfecta (OGIP)
18	Rickets/Osteomalacia	<input type="checkbox"/> Yes <input type="checkbox"/> No	19 Genu Valgus
20	Genu Varus	<input type="checkbox"/> Yes <input type="checkbox"/> No	21 Scoliosis
22	Other	<input type="checkbox"/> Yes <input type="checkbox"/> No	23 Other, please specify

## DDH Baseline Form

Average time to enter baseline data : 2 mins

Health  
Research  
Advisory  
Board



### Paediatric Orthopaedic Registry Pakistan (PORP) DDH-Baseline Form

A. Demographic Data												
1	Registration/MR No				2	Visit Date						
3	Consent: Informed consent taken from parents/ guardian for registry, photographs and publication								<input type="checkbox"/> Yes <input type="checkbox"/> No			
4	Patient Name			5	Father Name							
6	DOB		7	Age		8	Gender		<input type="checkbox"/> Male <input type="checkbox"/> Female			
9	Province		<input type="checkbox"/> Sindh <input type="checkbox"/> Punjab <input type="checkbox"/> Balochistan <input type="checkbox"/> Khyber Pakhtunkhwa		10	City		<input type="checkbox"/> Karachi <input type="checkbox"/> Hyderabad <input type="checkbox"/> Sukkur <input type="checkbox"/> Larkana <input type="checkbox"/> Nawabshah <input type="checkbox"/> Mirpurkhas <input type="checkbox"/> Shaikapur <input type="checkbox"/> Jacobabad <input type="checkbox"/> Khairpur <input type="checkbox"/> Lahore <input type="checkbox"/> Faislabad <input type="checkbox"/> Islamabad <input type="checkbox"/> Rawalpindi <input type="checkbox"/> Gujranwala <input type="checkbox"/> Multan <input type="checkbox"/> Bhawalpur <input type="checkbox"/> Sargodha <input type="checkbox"/> Sialkot <input type="checkbox"/> Rahim Yar Khan <input type="checkbox"/> Quetta <input type="checkbox"/> Hub <input type="checkbox"/> Sui <input type="checkbox"/> Der Allah Yar <input type="checkbox"/> Chaman <input type="checkbox"/> Gwadar <input type="checkbox"/> Peshawar <input type="checkbox"/> Abbottabad <input type="checkbox"/> Mardan <input type="checkbox"/> Nowshera <input type="checkbox"/> Dera Ismail Khan <input type="checkbox"/> Other: _____				
11	Hospital		12	Contact # 1		13	Contact # 2					
14	Parent's NIC #		15	Email ID		16	Assessment done by					
17	Born at		<input type="checkbox"/> Hospital <input type="checkbox"/> Home		18	Delivery type		<input type="checkbox"/> Vertex <input type="checkbox"/> Breech	19	MSK screening done		<input type="checkbox"/> Yes <input type="checkbox"/> No
20	MSK deformity/ dislocation noticed at		<input type="checkbox"/> Birth <input type="checkbox"/> 6 months <input type="checkbox"/> 12 months <input type="checkbox"/> 18 months <input type="checkbox"/> 24 months <input type="checkbox"/> More than 24 months		21	Associated Deformities		<input type="checkbox"/> Cleft palate <input type="checkbox"/> Cleft lip <input type="checkbox"/> Club foot <input type="checkbox"/> Knee dislocation <input type="checkbox"/> Other	22	Family history of DDH/ Other MSK congenital deformity		<input type="checkbox"/> Yes <input type="checkbox"/> No
23	Medications during pregnancy			<input type="checkbox"/> Yes <input type="checkbox"/> No		24	Which medications during pregnancy					
B. DDH Characteristics												
1	Laterality			<input type="checkbox"/> Unilateral <input type="checkbox"/> Bilateral		2	Unilateral		<input type="checkbox"/> Right <input type="checkbox"/> Left			
3	Tonnis Height Dislocation Right			<input type="checkbox"/> T1 <input type="checkbox"/> T2 <input type="checkbox"/> T3 <input type="checkbox"/> T4		4	Tonnis Height Dislocation Left		<input type="checkbox"/> T1 <input type="checkbox"/> T2 <input type="checkbox"/> T3 <input type="checkbox"/> T4			
5	Acetabular Index Right			<input type="checkbox"/> Less than 30° <input type="checkbox"/> 30° - 45° <input type="checkbox"/> 45° and above		6	Acetabular Index Left		<input type="checkbox"/> Less than 30° <input type="checkbox"/> 30° - 45° <input type="checkbox"/> 45° and above			

## DDH Baseline Form

7 Double Acetabulum		8 Previous treatment received	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
8 Previous treatment received if yes		9 Previous treatment Surgery	
<input type="checkbox"/> Pavlik Harness	<input type="checkbox"/> Von Rosen Splint	<input type="checkbox"/> OR + Capsuloraphy	<input type="checkbox"/> OR + Pelvic Osteotomy
<input type="checkbox"/> Triple Diapers	<input type="checkbox"/> Cast	<input type="checkbox"/> OR + Femoral Shortening + Pelvic Osteotomy	<input type="checkbox"/> OR + Femoral shortening
<input type="checkbox"/> Surgery		<input type="checkbox"/> Superficial	<input type="checkbox"/> Deep
10 Post operative wound infection		11 Post operative wound infection type	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
12 Post operative stiffness		13 Post operative subluxation	
<input type="checkbox"/> Mild	<input type="checkbox"/> Moderate	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Gross	<input type="checkbox"/> Ankylosis		
14 Post operative dislocation		15 Post operative Avascular Necrosis	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
C. Current Procedure Performed			
1 Surgeon		2 Assistant	
3 Date		4 Procedure	
		<input type="checkbox"/> Pavlik harness	<input type="checkbox"/> Von Rosen Splint
		<input type="checkbox"/> Triple Diapers	<input type="checkbox"/> Cast
		<input type="checkbox"/> Surgery_OR + Capsuloraphy	
5 Procedure Cast		6 Procedure Surgery OR + Capsuloraphy Approach	
<input type="checkbox"/> Closed Reduction and cast	<input type="checkbox"/> Closed Reduction + Adductor Tenotomy and cast	<input type="checkbox"/> Smith Petersen	<input type="checkbox"/> Bikini
<input type="checkbox"/> Trans-fixation K-Wire		<input type="checkbox"/> Medial	<input type="checkbox"/> Other
7 Additional Procedure		8 Additional Procedure Osteotomy	
<input type="checkbox"/> Osteotomy	<input type="checkbox"/> Osteotomy with capsulorraphy	<input type="checkbox"/> Femoral Deotation Osteotomy	<input type="checkbox"/> Pelvic Osteotomy
<input type="checkbox"/> Capsulorraphy		<input type="checkbox"/> Femoral Shortening + Pelvic Osteotomy	<input type="checkbox"/> Femoral Shortening + Derotation Osteotomy
9 Pelvic Osteotomy type		10	
<input type="checkbox"/> Salter	<input type="checkbox"/> Pemberton		
<input type="checkbox"/> Dega	<input type="checkbox"/> San Diego		
<input type="checkbox"/> Chiari	<input type="checkbox"/> Triple Rotational		
<input type="checkbox"/> Other			
10 Remarks			


## DDH Follow-up Form

Average time to enter follow-up data : 1 min

Paediatric Orthopaedic Registry Pakistan (PORP) DDH-Follow-Up Form			
A. Demographic Data			
1 MR No		2 Follow up Visit Date	
3 Patient Name		4 Father Name	
5 Hospital		6 Follow-up duration	<input type="checkbox"/> 2 weeks <input type="checkbox"/> 3 weeks <input type="checkbox"/> 4 weeks <input type="checkbox"/> 6 weeks <input type="checkbox"/> 8 weeks <input type="checkbox"/> 12 weeks <input type="checkbox"/> More than 16 weeks
7 Visit recorded by (Dr name)			
B. Observations/ Procedures			
1 Brace compliance	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	2 Brace weaning	<input type="checkbox"/> Yes <input type="checkbox"/> No
3 Brace weaning duration	<input type="checkbox"/> 4 weeks <input type="checkbox"/> 6 weeks <input type="checkbox"/> 8 weeks <input type="checkbox"/> More than 8 weeks	4 Post brace discontinuation outcome	<input type="checkbox"/> Retained <input type="checkbox"/> Subluxated <input type="checkbox"/> Dislocated <input type="checkbox"/> Femoral nerve palsy <input type="checkbox"/> AVN
5 Post operative status	<input type="checkbox"/> Febrile <input type="checkbox"/> Pain	6 Wound inspection (within 2 weeks)	<input type="checkbox"/> Yes <input type="checkbox"/> No
7 Wound inspection side	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both sides	8 Wound type	<input type="checkbox"/> Dry <input type="checkbox"/> Superficial infection <input type="checkbox"/> Dehiscence <input type="checkbox"/> Deep seated infection
8 Spica cast	<input type="checkbox"/> No cast <input type="checkbox"/> Discontinued <input type="checkbox"/> Changed <input type="checkbox"/> Repaired	9 Spica cast changed	<input type="checkbox"/> 2 weeks <input type="checkbox"/> 4 weeks <input type="checkbox"/> 6 weeks <input type="checkbox"/> 8 weeks <input type="checkbox"/> More than 12 weeks
10 Spica cast repaired	<input type="checkbox"/> 2 weeks <input type="checkbox"/> 4 weeks <input type="checkbox"/> 6 weeks <input type="checkbox"/> 8 weeks <input type="checkbox"/> More than 12 weeks	11 Spica cast discontinuation	<input type="checkbox"/> 2 weeks <input type="checkbox"/> 4 weeks <input type="checkbox"/> 6 weeks <input type="checkbox"/> 8 weeks <input type="checkbox"/> More than 12 weeks
12 Spica cast discontinuation reason	<input type="checkbox"/> Age <input type="checkbox"/> Infection <input type="checkbox"/> Completion <input type="checkbox"/> Subluxation <input type="checkbox"/> Dislocation		
C. Clinical Outcomes			
1 Clinical outcomes Mackay's clinical evaluation	<input type="checkbox"/> Excellent ( Stable painless hip, Negative trendelenburg ,Full ROM ) <input type="checkbox"/> Good (Stable painless hip, Slight limb, Slight decreased ROM) <input type="checkbox"/> Fair (Stable painless hip, Positive trendelenburg , Limited ROM or a complication) <input type="checkbox"/> Poor (Unstable hip, Painful hip, Positive trendelenburg)		
2 Bhatti functional scoring system	<input type="checkbox"/> Excellent <input type="checkbox"/> Good	<input type="checkbox"/> Fair <input type="checkbox"/> Poor	




## DDH Follow-up Form



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D. Contained Hip					
1	Contained hip (Intact shenton line, Tonnis height [T1, T2], Acetabular index <30°)	<b>Right</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Left</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	2	Contained Hip duration
				<input type="checkbox"/> Weeks <input type="checkbox"/> Months <input type="checkbox"/> Years	
E. Radiological outcomes					
1	Radiological outcomes	<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Class IV <input type="checkbox"/> Class V <input type="checkbox"/> Class VI		2	Class I: Normal
				<input type="checkbox"/> Class Ia <input type="checkbox"/> Class Ib	
3	Class Ia	<input type="checkbox"/> CE >19° (6-13 years) <input type="checkbox"/> CE >25° (14 & above years age)		4	Class Ib
				<input type="checkbox"/> CE >15°-19° (6-13 years) <input type="checkbox"/> CE >20°-25° (14 & above years age)	
5	Class II: Moderate deformity of head, femoral neck or Acetabulum	<input type="checkbox"/> Class Ia <input type="checkbox"/> Class Ib		6	Class IIa
				<input type="checkbox"/> CE >19° (6-13 years) <input type="checkbox"/> CE >25° (14 & above years age)	
7	Class IIb	<input type="checkbox"/> CE >15°-19° (6-13 years) <input type="checkbox"/> CE >20°-25° (14 & above years age)		8	Class III: Dysplasia without Subluxation
				<input type="checkbox"/> CE <15° (6-13 years) <input type="checkbox"/> CE <20° (14 & above years age)	
9	Class IV	<input type="checkbox"/> CE +/- 0° (Moderate Subluxation) <input type="checkbox"/> CE < 0° (Severe Subluxation)		10	Class V: Femoral head articulates with pseudo acetabulum
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	Class VI: Resubluxation	<input type="checkbox"/> Yes <input type="checkbox"/> No			
F. Complications					
1	Complications seen	<input type="checkbox"/> Yes <input type="checkbox"/> No		2	Complication seen at
				<input type="checkbox"/> Weeks <input type="checkbox"/> Months <input type="checkbox"/> Years	
3	Subluxation	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both sides		4	Dislocation
				<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both sides	
5	AVN	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both sides		6	Infection (Deep)
				<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both sides	
7	Stiffness	<input type="checkbox"/> Yes <input type="checkbox"/> No		8	Ankylosis
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Shortening/ Lengthening (in cms)	<input type="checkbox"/> Yes <input type="checkbox"/> No		10	Premature Capital Physeal Fusion
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	Neuro Deficit	<input type="checkbox"/> Yes <input type="checkbox"/> No		12	Neuro Deficit Type
				<input type="checkbox"/> Femoral nerve <input type="checkbox"/> Sciatic nerve	
G. Post Complication Treatment					
1	Treatment given	<input type="checkbox"/> Conservative <input type="checkbox"/> Redo surgery		2	Conservative treatment
				<input type="checkbox"/> Abduction splint <input type="checkbox"/> Reassurance and mobilization	
2	Redo Surgery	<input type="checkbox"/> OR + Capsuloraphy <input type="checkbox"/> OR + Pelvic Osteotomy		3	Pelvic Osteotomy type
				<input type="checkbox"/> Salter <input type="checkbox"/> Pemberton <input type="checkbox"/> Dega	

## DDH Follow-up Form



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		<input type="checkbox"/> OR + Femoral Shortening + Pelvic Osteotomy <input type="checkbox"/> OR + Femoral shortening		<input type="checkbox"/> San Diego <input type="checkbox"/> Chiari <input type="checkbox"/> Other	
H. Redo Treatment Outcomes					
1	Mackay's clinical score	<input type="checkbox"/> Excellent (Stable painless hip, Negative trendelenburg, Full ROM) <input type="checkbox"/> Good (Stable painless hip, Slight limb, Slight decreased ROM) <input type="checkbox"/> Fair (Stable painless hip, Positive trendelenburg, Limited ROM or a complication) <input type="checkbox"/> Poor (Unstable hip, Painful hip, Positive trendelenburg)			
2	Bhatti functional scoring system	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		3	Severin's Score
				<input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	
3	Contained	<input type="checkbox"/> Yes <input type="checkbox"/> No		4	Subluxated
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Infection	<input type="checkbox"/> Yes <input type="checkbox"/> No		6	Infection type
				<input type="checkbox"/> Superficial <input type="checkbox"/> Deep	
7	Stiffness	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Gross		8	AVN type
				<input type="checkbox"/> Salter I <input type="checkbox"/> Salter II <input type="checkbox"/> Salter III	
I. Photograph					
1	Upload Photograph	<input type="checkbox"/> Yes <input type="checkbox"/> No		2	Preoperative Anteroposterior
3	Preoperative Lateral			3	Postoperative Anteroposterior
4	Postoperative Lateral				
5	Remarks				



## Stakeholders

### Paediatric Orthopaedic Society Pakistan

Paediatric Orthopedic Society of Pakistan (POSP), is a registered non-profit Society (KAR NO. 053 of 2019-20 under Societies Act XXI of 1860) of Paediatric Orthopedic Surgeons of Pakistan, who are committed to providing quality care for children with musculoskeletal deformities through research, education, training, and advocacy.



#### Aims & Objectives

- To encourage, cultivate, propagate and popularize science of pediatric Orthopedics
- The advancement of pediatric orthopaedic surgery in Pakistan.
- The enhancement of care for children with musculoskeletal problems.
- To develop and encourage the teaching, research and education of pediatric orthopedics.
- To train professional across of country by providing opportunities & learn the latest evidence based scientific knowledge in the field of pediatric orthopedics by conducting annual/biennial conference, symposia, course, workshops & continuing educational program.

## Stakeholders

### Health Research Advisory Board





Health Research Advisory Board (HealthRAB) a registered society. It is a "think tank" of senior clinicians, researchers & academicians who are committed to the mission of HealthRAB which is to "Developing Health Research Ecosystem"



#### Vision:

Improving health globally by developing a relevant & efficient research ecosystem

#### Leadership:

 <p><b>Chairman</b> <b>Prof. Dr. Abdul Gaffar Billoo</b> Professor Emeritus, Department of Paediatrics and Child Care. Aga Khan University Hospital Chairman, HANDS</p>	 <p><b>Vice Chairman</b> <b>Prof. Dr. Abdul Basit</b> Director, Baqai Institute of Diabetology and Endocrinology Professor of Medicine, Baqai Medical University</p>
 <p><b>General Secretary</b> <b>Dr. Zakiuddin Ahmed</b> Adjunct Professor, Digital Health, HSA Project Director, Riphah Institute of Healthcare Improvement &amp; Safety (RIHIS) CEO, Digital Care</p>	 <p><b>Finance Secretary</b> <b>Prof. Dr. Syed Shahid Noor</b> HoD, Orthopaedic Surgery, Liaquat National Hospital President, Pakistan Arthroplasty Society</p>

#### Projects:

National Disease Registries	Research Funds
International Medical Research Conference (IMRC)	Research Webinars
Research Awards	National Health Research Award
Capacity Building Workshops	Student Chapters
National Research Policy Document	Research Reference Guide



## PORP Meetings



PORP Review Meeting | 7 February 2024



PORP 1st Annual Report Launch | 6 May 2023



Core Committee | 20 September 2022



Core Committee | 1 September 2022



Core Committee | 1 September 2022



PORP Inauguration | 6 July 2021

## PORP Meetings



Core Committee | 24 March 2021



Steering Committee | 18 August 2020



Steering Committee | 15 June 2020



Core Committee | 12 March 2020



Core Committee | 1 January 2020



Core Committee | 26 November 2019



## Acknowledgements



**Health  
Research  
Advisory  
Board**  
*Developing Health Research Ecosystem*

Research Support  
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*Our dream a healthier society*



# **Born with Deformity! Why to live with Disability**

**Prof. Dr. Anisuddin Bhatti**