

**NEWSLETTER**  
**JANUARY 2024**

**NEW MEMBER INSTITUTION**



**B Borooah Cancer  
Institute, ASSAM**



**GKNM Hospital  
Coimbatore**



**AIIMS, Jodhpur**



**ABVIMS & Dr RML  
Hospital, Delhi**

**MEMBERSHIP UPDATE**

**TOTAL INPHOG Member Institutions - 47**

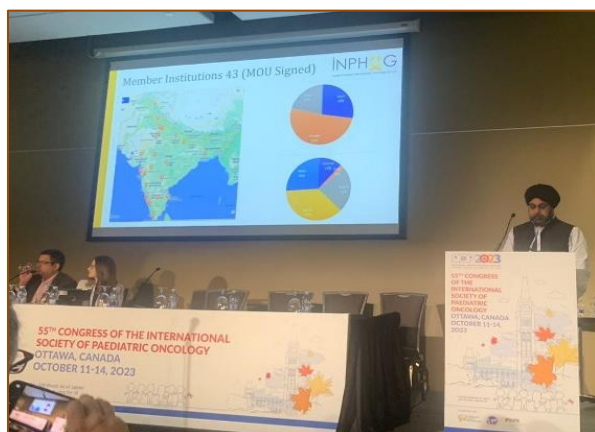
**TOTAL INPHOG Individual Delegates - 238**

161 delegates from 47 INPHOG member institutions

77 delegates from 76 institutions not members of INPHOG

INPHOG (Indian Paediatric Hematology Oncology Group) is actively participating in multiple platforms in different conferences demonstrates the organization's dedication to sharing insights, breakthroughs, and best practices in the field of pediatric cancer, as well as to contributing to worldwide conversations on enhancing clinical trials, particularly in resource-limited situations.

**INPHOG at SIOP 2023**



This year INPHOG presented at the 55<sup>th</sup> SIOP Annual Congress focusing on the Challenges and progress in conducting Pediatric oncology trials in Low and Middle-Income Countries (LMICs), with a particular emphasis on India.

## INPHOG-NB-18-01: RETROSPECTIVE SURVEY OF "REAL WORLD" OUTCOMES OF PEDIATRIC NEUROBLASTOMA IN INDIA

Vikramjit Kewar, Ramandeep Arora, Arpita Bhattacharyya, Ravish Rathi, Shruti Kakkar, Manas Kalra, Yami Krishna, Ajithi M, Anila Mahajan, Sangeta Mudaliar, Veerendra Patil, Venkatarman Nambakrishnan, Faizul Gaur, Sirisha Rani on behalf of INPHOG

### BACKGROUND

Neuroblastoma (NB) is the commonest solid tumor in young children, but single institution studies from India show a low incidence with predominantly advanced disease. We therefore conducted a retrospective multi-institution survey in India to determine the "real world" occurrence, management and outcome of pediatric NB in India.

### METHODS

Fourteen institutions across India submitted retrospective data online using a custom-designed Google form, on 1-16 to NB <15 yrs age diagnosed from 2011 to 31-12-21. Institutional Ethics Committee approval was obtained and the study was registered with the Clinical Trials Registry India (CTRI)

### DIAGNOSIS & MANAGEMENT

Patients with NB (n=322) had a median age 2.4 yrs (0-14.8 years), M:F ratio 1.4:1.1, diagnosed with Ultrasound (n=173), CT (n=193), PET CT (n=177), MRI (n=42) and MiBG (n=33). Urine VMA was tested in 106. Pathology (n=28) was favorable in 107 (37.3%), unfavorable in 187 (65.1%), and unknown in 18 (6.7%). MYCN amplification was present in 62, absent in 171 and untested in 89. Tumor location was adrenal/upper abdomen (n=206, 64%), Pelvic/retroperitoneal (n=55, 17.3%), Cerebral/thoracic (n=48, 14.9%), Brain/skull/orbit (n=8, 2.5%). Unknown (n=5, 1.5%). INRG staging was as follows: L1=57 (18%), L2=12 (4%), L3=12 (4%), L4=13 (4%), M=15 (4.7%), Opuscular myelomatous occurred in 15/322 (4.7%), and spinal cord compression in 15/322 (4.7%).

### 190 Patients with favorable biology, 50 had surgery (gross total resection=40, sub-total=10), and 43 "second look" surgery, 228 received chemotherapy, and 67 radiation. 47 underwent BMT, but only 3 received immunotherapy.

### INRG Staging


Legend:  $L1 = L2 = L3 = L4 = M$

### OUTCOMES

3-year event free survival (EFS) for L1 was 84.8% (73.3%-96%), L2=64.5% (56.3%-76.6%), M 26.4% (19.3%-33.6%) and M5 46.7% (21.4%-71.9%). Lost to follow up or absconded was counted as an event.

### CONCLUSION


NB staging and biology in India parallels high income countries, but diagnostic variance is seen (e.g. PET-CT is widely used and MiBG rarely). While low risk NB has reasonable outcomes, high-risk NB remains sub-optimal. Future Indian Pediatric Hematology/Oncology Group (INPHOG) studies will focus on standardizing protocols for low/ intermediate risk NB, and increasing access to immunotherapy for high risk NB



# Patterns of Care and Survival of Renal Tumors in Children in India

## A Retrospective Multi-Center NPHG Study (INFO-RT-18-02)

Simsha Rani S, Sandhya V, Ramandeep A\*, Vansh B et al



Background: Renal cell carcinoma (RCC) is the most common solid tumor in children. The incidence of RCC in children is 1-2% of all childhood malignancies. The majority of cases are diagnosed at an advanced stage, leading to poor survival. The aim of this study was to evaluate the patterns of care and survival of children with RCC in India.

Methods: A retrospective analysis of 100 children with RCC was conducted across 10 centers in India. The data was collected from medical records and reviewed for demographic, clinical, and treatment parameters.

Results: The median age at diagnosis was 10.5 years (range 2-15 years). The majority of cases (60%) were diagnosed at an advanced stage (stage III or IV). The most common histological type was clear cell RCC (80%). The majority of cases (70%) were treated with surgery (nephrectomy) and chemotherapy (vincristine, doxorubicin, and carboplatin).

Conclusion: The majority of children with RCC in India are diagnosed at an advanced stage, leading to poor survival. The majority of cases are treated with surgery and chemotherapy. Further studies are needed to evaluate the impact of treatment on survival.

### RESULTS: PATIENT CHARACTERISTICS

Characteristic	Number of Patients	Percentage (%)
Age (years)		
< 5	10	10.0
5-10	40	40.0
10-15	50	50.0
Gender		
Male	60	60.0
Female	40	40.0
Stage at diagnosis		
I	10	10.0
II	20	20.0
III	40	40.0
IV	30	30.0
Histological type		
Clear cell	80	80.0
Papillary	10	10.0
Chromophila	10	10.0

Table 1: Patient Characteristics. The majority of cases (80%) were clear cell RCC. The majority of cases (60%) were diagnosed at an advanced stage (stage III or IV).

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## A collaborative study for newly diagnosed childhood Hodgkin's lymphoma patients in India - **Dr Amita Mahajan**



**InPOG-LE-16-01**

The Indian Childhood Cancer Survivorship Study (C2S study): After treatment completion registry of childhood cancers – Phase 1 **Dr. Rachna Seth**

**OUR STAFF**

The funds obtained from the SIOP PARC grant, the Srinivas Cankids APML fund, and other sources have allowed us to successfully recruit our first Clinical Research Coordinators. This accomplishment signifies a significant step forward in the organization's mission. The dedicated staff is now stationed across various centers throughout the country, contributing to the advancement of clinical research and the overall goals of our organization.

Today, our company employs fifteen members in total, including one research manager, one grant manager, one communication manager, 11 clinical research coordinators, and one HR professional.



## OUR CRCs

Name	Location	Designation
Akshita Yadav	KGMU, Lucknow	Clinical Research Coordinator
Leeya George	JIPMER, Puducherry	Clinical Research Coordinator
Aditya Gaikwad	BJ Wadia Hospital, Mumbai	Clinical Research Coordinator
Sarthak Sahu	TMC, Kolkata.	Clinical Research Coordinator
Priya Saxena	APOLLO - NEW DELHI	Clinical Research Coordinator
Nichila Mary Philip	Cancer Institute, Adyar	Clinical Research Coordinator
Shikha Kumari	AIIMS Hospital, New Delhi	Clinical Research Coordinator
Keerthika	Apollo, Chennai	Clinical Research Coordinator
Nisha	Safdarjung Hospital, Delhi	Clinical Research Coordinator
Khushi	Rajiv Gandhi Cancer Institute, New Delhi	Clinical Research Coordinator
Aishwarya Siddhi	DMC Hospital, Ludhiana, Punjab	Clinical Research Coordinator

## OUR OPERATIONS TEAM





**Tanya Dhawan**

Designation – **Research Manager**  
 Email ID – **admin@inphog.org**  
 Contact Details – **9818456444**



**Navya Pillai**

Designation – **Communication Manager**  
 Email ID – **communications@inphog.org**  
 Contact Details – **95662 51714**



**Rishika Devgon**

Designation – **Research Scientist & Grant Manager**  
 Email ID – **grants@inphog.org**  
 Contact Details – **85273 70810**

<https://www.inphog.org>

## RESEARCH GRANTS

Dr Prasanth Srinivasan won the **Nai Kong and Irene Cheung Family (NKICF)** Career Development Application Award from the SIOP PARC Committee for his proposal on an INPHOG study on Pediatric high-grade mature B-cell non-Hodgkin lymphoma (NHL).

This prestigious award amounts to a total of 38,000 USD, distributed over the course of two years.

## OUR NEW COLLABORATOR



INPHOG and APAR HEALTH (<https://aparhealth.co.in/>) hereby agree to collaborate on Delivering training for newly appointed INPHOG Clinical Research Coordinators. AHS helps us to build research capacity in INPHOG member institutions that are treating children with cancer and blood disorders in India.

## WE ARE NOW ACTIVE ON EVERY SOCIAL MEDIA PLATFORMS



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<https://twitter.com/INPHOG>



<https://www.inphog.org>



<https://www.linkedin.com/in/inphog/>



Subcommittee	Provisional Registration (3)	Full Registration (2)	Recruitment Ongoing (11)	Recruitment Complete (17)
ALL			InPOG-ALL-19-02	InPOG-ALL-15-01
AML			INPHOG-AML-23-02	InPOG-AML-16-01
Ch Myelop Dis				InPOG-CML-16-01
HL			InPOG-HL-19-03	InPOG-HL-15-01 InPOG-HL-17-02
NHL				InPOG-NHL-16-01
Histiocytosis				InPOG-HIST-17-01 InPOG-HIST-19-03
CNS				
Neuroblastoma		InPOG-NB-18-02		InPOG-NB-18-01
Retinoblastoma			InPOG-RB-17-01	
Renal				InPOG-WT-18-02
Liver				
Osteosarcoma		INPHOG-OST-23-01		
PNET			InPOG-PNET-19-02	InPOG-PNET-16-01
Soft Tissue Sarcoma				
Germ Cell Tumours			INPHOG-GCT-22-01	
Rare, Epithelial			InPOG-RARE-17-02 InPOG-RARE-17-01	
HSCT	InPOG-SCT-20-02			
				InPOG-ACC-16-01
Access to Care				InPOG-ACC-16-02 InPOG-ACC-16-03 InPOG-ACC-20-04
Supportive Care	INPHOG-SUPP-23-04		INPHOG-SUPP-22-03	
Epidemiology			InPOG-EPI-20-02	InPHOG-EPI-22-03
Late Effects			InPOG-LE-16-01	
Palliative Care				InPOG-PALL-18-01
Cancer Genetics				
Hbpathy/RBC	INPHOG-RBC-22-01			
Plat & Coag				
BM Failure				

## INPHOG Studies - Recruitment Complete (17)

### InPOG-HL-15-01

#### A collaborative study for newly diagnosed childhood Hodgkin's lymphoma patients in India

<b>Principal Investigator</b>	Prof Jagdish Chandra
<b>Registered with INPHOG</b>	June 2015
<b>CTRI Registration</b>	CTRI/2016/03/010916
<b>Patients recruited</b>	410
<b>Recruitment Closed</b>	February 2018
<b>Centers study open in</b>	27 centers

#### Publications

- Arora RS, Mahajan A, Dinand V, Kalra M, Jain S, Taluja A, Mandal P, Chandra J. InPOG-HL-15-01 - Challenges and Lessons Learnt in Setting up the First Collaborative Multicentre Prospective Clinical Trial in Childhood Cancer in India. *Pediatric Hematology Oncology J* 2020. Oct 1;5(4):166-70.
- Mahajan A, Singh M, Bakhshi S, Jain S, Seth R, Verma N, Kumar A, Radhakrishnan V, Mandal P, Kapoor G, Arora RS, Dinand V, Kalra M, Sharma A, Phulkar S, Arora A, Chandra J. Treating Early-Stage Hodgkin Lymphoma in resource-limited settings: InPOG-HL-15-01 Experience. *Pediatric Blood & Cancer*. 2021 Jul 22: e29219.
- Jain S, Bakhshi S, Seth R, Verma N, Singh M, Mahajan A, Radhakrishnan V, Mandal P, Arora RS, Dinand V, Kalra M, Sharma A, Chandra J. Risk-based and response adapted radiation therapy for children and adolescents with newly diagnosed advanced Hodgkin lymphoma treated with ABVD chemotherapy: A report from the Indian Pediatric Oncology Group study InPOG-HL-15-01. *Leuk Lymphoma* 2021 Dec 9:1-8
- Mahajan A, Bakhshi S, Singh M, Seth R, Verma N, Jain S, Radhakrishnan V, Mandal P, Arora RS, Dinand V, Kalra M, Kapoor G, Sajid M, Kumar R, Mallick S, Taluja A, Chandra J. Empirical antitubercular treatment for lymphadenopathy: Are we missing lymphoma? *Indian J Pediatr*. 2022 Jun 23.
- Mahajan A, Bakhshi S, Seth R, Verma N, Mandal P, Singh M, Jain S, Radhakrishnan V, Kanvinde S, Arora RS, Dinand V, Kalra M, Taluja A, Mallick S, Kumar R, Chandra J. Hodgkin lymphoma in children under 5 years: Do they behave differently? *J Pediatr Hematol Oncol*. 2022 May 1;44(4):186-190.
- Kalra M, Bakshi S, Singh M, Seth R, Verma N, Jain S, Radhakrishnan V, Mandal P, Mahajan A, Arora RS, Dinand V, Kapoor G, Sajid M, Kumar R, Taluja A, Mallick S, Chandra J. Response assessment with Positron Emission Tomography-Computed tomography as compared with contrast-enhanced computed tomography in Childhood Hodgkin Lymphoma can reduce the need for radiotherapy in low- and middle-income countries. *Pediatr Blood cancer* 2022; e 30091.
- Banwait DK, Arora PR, Mahajan A, Dinand V, Jain S, Kalra M, Chandra J, Arora RS. Barriers to Accessing Fertility Preservation in Adolescents with Hodgkin Lymphoma in India. *Pediatr Hematol Oncol*. 2023 Jun 2:1-6.

### InPOG NHL-16-01

#### A Retrospective Multi-Centric Study of Contemporary Epidemiology & Outcome of Childhood B-NHL in India

<b>Principal Investigator</b>	Dr Amita Trehan
<b>Registered with INPHOG</b>	October 2016
<b>CTRI Registration</b>	No

<b>Patients recruited</b>	323
<b>Recruitment Closed</b>	April 2018
<b>Centers study open in</b>	09 centers

### Publications

- Rahiman EA, Bakhshi S, Deepam Pushpam, Ramamoorthy J, Das A, Ghara N, Kalra M, Kapoor G, Meena JP, Siddaigarhi S, Thulkar S, Sharma MC, Srinivasan R, Trehan A. Outcome and prognostic factors in childhood B non-Hodgkin lymphoma from India: Report by the Indian Pediatric Oncology Group (InPOG-NHL-16-01 study). *Pediatr Hematol Oncol.* 2022 Jan 3:1-15.

#### InPOG-ACC-16-01

### Multi-site Prospective Study to Determine Household Out-of-Pocket Expenditure Incurred by Families of Children Newly Diagnosed with Cancer in India (HOPE Study)

<b>Principal Investigator</b>	Dr Ramandeep Singh Arora
<b>Registered with INPHOG</b>	August 2016
<b>CTRI Registration</b>	CTRI/2016/11/007492
<b>Patients recruited</b>	402
<b>Recruitment Closed</b>	November 2017
<b>Centers study open in</b>	15 centers

#### InPOG-ACC-16-03

### Exploring Barriers and Enablers to Accessing Care for Childhood Cancers in India: A Multicenter Qualitative Study

<b>Principal Investigator</b>	Dr Ramandeep Singh Arora
<b>Registered with INPHOG</b>	May 2017
<b>CTRI Registration</b>	No
<b>Patients recruited</b>	34 patients + 27 healthcare
<b>Recruitment Closed</b>	January 2018
<b>Centers study open in</b>	7 centers

### Publications

- Faruqui N, Joshi R, Martiniuk A, Lowe J, Arora R, Anis H, Kalra M, Bakhshi S, Mishra A, Santa A, Sinha S, Siddaiahgari S, Seth R, Bernays S. A health care labyrinth: perspectives of caregivers on the journey to accessing timely cancer diagnosis and treatment for children in India. *BMC Public Health.* 2019 Dec;19(1):1613.
- Faruqui N, Bernays S, Martiniuk A, Abimbola S, Arora R, Lowe J, Denburg A, Joshi R, Access to care for childhood cancers in India: perspectives of health care providers and the implications for Universal Health Coverage. *BMC Public Health* 2020 Dec;20(1):1-1.

#### InPOG-PNET-16-01

### Evaluation of clinicopathological characteristics, prognostic factors, and treatment outcomes in patients with PNET of Kidney: An InPOG study

<b>Principal Investigator</b>	Dr Bivas Biswas
<b>Registered with INPHOG</b>	June 2016
<b>CTRI Registration</b>	No
<b>Patients recruited</b>	40
<b>Recruitment Closed</b>	August 2018
<b>Centers study open in</b>	2 centers



**InPOG-CML-16-01****Study of treatment and outcome of chronic myeloid leukemia in children and adolescents in India**

<b>Principal Investigator</b>	Prof Deepak Bansal
<b>Registered with INPHOG</b>	Feb 2018
<b>CTRI Registration</b>	No
<b>Patients recruited</b>	171
<b>Recruitment Closed</b>	January 2019
<b>Centers study open in</b>	9 centers

**InPOG-AML-16-01****Randomized Phase III Study Comparing DA (3+7) Versus ADE as Induction Chemotherapy in Children with Acute Myeloid Leukemia**

<b>Principal Investigator</b>	Dr Venkatraman Radhakrishnan
<b>Registered with INPHOG</b>	April 2016
<b>CTRI Registration</b>	CTRI/2014/11/005202
<b>Patients recruited</b>	150
<b>Recruitment Closed</b>	Nov 2019
<b>Centers study open in</b>	5 centers

**Publications**

- Radhakrishnan V, Bakhshi S, Kayal S, Thampy C, Batra A, Shenoy PK, Kumar H, Rajaraman S, Chaudhary S, Bisht R, Dubashi B, Ganesan TS. Two-drug versus three-drug induction chemotherapy in pediatric acute myeloid leukemia: a randomized controlled trial. Blood Cancer J. 2022 Sep 6;12(9):131. doi: 10.1038/s41408-022-00726-1. Erratum in: Blood Cancer J. 2022 Sep 27;12(9):139. PMID: 36068213; PMCID: PMC9444698

**InPOG-HIST-17-01****Indian Hemophagocytic Lymphohistiocytosis Registry (I-HLH): Establishment of nationwide prospective web-based registry for patients diagnosed with HLH**

<b>Principal Investigator</b>	Dr Mukesh Desai
<b>Registered with INPHOG</b>	July 2017
<b>CTRI Registration</b>	Not done
<b>Patients recruited</b>	20
<b>Recruitment Closed</b>	Feb 2021
<b>Centers study open in</b>	8 centers

**InPOG-ACC-16-02****Accessing Childhood Cancer ServiceS in INDIA (ACCESS INDIA)**

<b>Principal Investigator</b>	Dr Ramandeep Singh Arora
<b>Registered with INPHOG</b>	Sep 2018
<b>CTRI Registration</b>	Not done
<b>Patients recruited</b>	2850
<b>Recruitment Closed</b>	Feb 2021
<b>Centers study open in</b>	71 centers

**InPOG-ACC-20-04****The Impact of COVID-19 Pandemic on the care of children with cancer in India**

<b>Principal Investigator</b>	Dr Ramandeep Arora
<b>Registered with INPHOG</b>	May 2020
<b>CTRI Registration</b>	CTRI/2020/05/025219
<b>Patients recruited</b>	1146
<b>Recruitment Closed</b>	Feb 2021
<b>Centers study open in</b>	30 centers

**Publications**

- Sharma J, Mahajan A, Bakhshi S, Patil V, Verma N, Radhakrishnan V, Singh A, Kayal S, Seth R, Pushpam D, Arora RS. The impact of COVID-19 pandemic on access to treatment for children with cancer in India and treating center practices. Cancer. 2022 Feb 1;128(3),579-86.

**InPOG-ALL-15-01****An Indian Childhood Collaborative Leukemia Group multicentre national standardization study for newly diagnosed acute lymphoblastic leukemia**

<b>Principal Investigator</b>	Prof Vaskar Saha
<b>Registered with INPHOG</b>	July 2015
<b>CTRI Registration</b>	CTRI/2015/12/006434
<b>Patients recruited</b>	2516
<b>Recruitment Closed</b>	Aug 2022
<b>Centers study open in</b>	5 centers

**Publications**

- Das N, Banavali S, Bakhshi S, Trehan A, Radhakrishnan V, Seth R, Arora B, Narula G, Sinha S, Roy P, Gogoi MP, Chatterjee S, Abraham B, Das P, Saha V, Krishnan S. Protocol for ICiCLE-ALL-14 (InPOG-ALL-15-01): a prospective, risk stratified, randomised, multicentre, open label, controlled therapeutic trial for newly diagnosed childhood acute lymphoblastic leukaemia in India. Trials. 2022 Jan 31;23(1):102.

**InPOG-HL-17-02****Prospective Collaborative Study for Relapsed/Refractory Hodgkin Lymphoma**

<b>Principal Investigator</b>	Dr Amita Mahajan
<b>Registered with INPHOG</b>	May 2018
<b>CTRI Registration</b>	Ref/2019/03/024719
<b>Patients recruited</b>	45
<b>Recruitment Closed</b>	SEP 2023
<b>Centers study open in</b>	13 centers

**InPOG-NB-18-01****India Neuroblastoma Registration and Biology Study**

<b>Principal Investigator</b>	Dr Vikramjit Kanwar
<b>Registered with INPHOG</b>	Nov 2018
<b>CTRI Registration</b>	CTRI/2020/01/023088
<b>Patients recruited</b>	311

**Recruitment Closed**  
**Centers study open in**

**SEP 2023**  
**13 centers**

### **InPOG-EPI-20-02**

#### **Indian COVID-19 Childhood Cancer Registry**

**Principal Investigator**  
**Registered with INPHOG**  
**CTRI Registration**  
**Patients recruited**  
**Recruitment Closed**  
**Centers study open in**

**Dr Revathi Raj**  
**May 2020**  
**CTRI/2020/05/025221**  
**659**  
**JUL 2023**  
**37 centers**

### **Publications**

- Raj R, Uppuluri R, Parambil B, Dhariwal N, Totadri S, Mathew LG, Radhakrishnan V, Charan A, Yadav SP, Mahajan A, Mudaliar S. Outcomes of COVID-19 in children with cancer-Report from the Indian Pediatric Oncology Group (InPOG) COVID-19 registry in India. Pediatric Hematology Oncology Journal. 2022 Jun 1;7(2):34-7.

### **InPOG-PALL-18-01**

#### **Patterns of End-Of-Life Care in Children with Cancer in India – A Multicentre Retrospective Study**

**Principal Investigator**  
**Registered with INPHOG**  
**CTRI Registration**  
**Patients recruited**  
**Recruitment Closed**  
**Centers study open in**

**Dr Gayatri Palat**  
**Sep 2020**  
**CTRI/2020/12/029960**  
**384**  
**JUL 2023**  
**17 centers**

### **InPOG-WT-18-02**

#### **Pattern of care and survival of renal tumors in children in India - Multi-center study**

**Principal Investigator**  
**Registered with INPHOG**  
**CTRI Registration**  
**Patients recruited**  
**Recruitment Closed**  
**Centers study open in**

**Dr Sirisharani Siddaiahgari**  
**Apr 2020**  
**CTRI/2021/01/030770**  
**443**  
**JUL 2023**  
**17 centers**

### **InPOG-HIST-19-03**

#### **Prospective Collaborative Study for Pulse Dexamethasone and Lenalidomide in Relapsed / Refractory Langerhans Cell Histiocytosis (LENDEX-LCH study)**

**Principal Investigator**  
**Registered with INPHOG**  
**CTRI Registration**  
**Patients recruited**  
**Recruitment Closed**  
**Centers study open in**

**Dr Ramya Uppuluri**  
**Aug 2019**  
**CTRI/2020/07/026937**  
**15**  
**DEC 2023**  
**07**



## INPHOG Studies - Recruitment Ongoing (11)

## InPOG-LE-16-01

**The Indian Childhood Cancer Survivorship Study (C2S study): After treatment completion registry of childhood cancers - Phase 1**

<b>Principal Investigator</b>	Dr Rachna Seth
<b>Registered with INPHOG</b>	May 2016
<b>CTRI Registration</b>	Not done
<b>Recruitment commenced</b>	June 2016
<b>Currently, patients recruited</b>	3239
<b>Target patient recruitment</b>	At least 500 (desirable 1000)
<b>Anticipated duration of recruitment</b>	5 years (Project extended till 2025)
<b>Centers study open in</b>	20 centers

- All India Institute of Medical Sciences, New Delhi
- AIIMS, Jodhpur
- Apollo Hospital, Chennai
- Banaras Hindu University, Varanasi
- Cancer Institute, Adyar Chennai
- Indraprastha Apollo Hospital, New Delhi
- Kalawati Saran Children's Hospital, New Delhi
- Kidwai Memorial Institute, Bangalore
- King George's Medical University, Lucknow
- Max Super Specialty Hospital, Patparganj, New Delhi
- Max Super Specialty Hospital, Saket, New Delhi
- MVR Cancer Centre and Research Institute - **NEW**
- Post Graduate Institute of Child Health, Noida - **NEW**
- Rainbow Children's Hospital, Hyderabad
- Rajiv Gandhi Cancer Institute, New Delhi
- Regional Cancer Centre, Thiruvananthapuram
- Safdarjung Hospital, New Delhi
- SION Hospital, Mumbai
- Tata Medical Centre, Kolkata
- Tata Memorial Hospital, Mumbai

## InPOG-RARE-17-02

**Indian Childhood Advanced Nasopharyngeal Carcinoma Study (ICANaPS)**  
**A multicenter, prospective, pilot study on the use of platinum-based chemotherapy for pediatric nasopharyngeal carcinoma and exploration of the role of plasma Epstein-Barr virus (EBV)- DNA PCR titers in predicting relapse**

<b>Principal Investigator</b>	Dr Reghu
<b>Registered with INPHOG</b>	October 2018
<b>CTRI Registration</b>	
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	2
<b>Target patient recruitment</b>	50
<b>Anticipated duration of recruitment</b>	5 years
<b>Centers study open in</b>	1

- Tata Medical Centre, Kolkata

## **InPOG-RARE-17-01**

### **Clinical Course, Pathological Spectrum and Outcomes in Paediatric Rare Tumours in India: A Multicentric Observational Study**

<b>Principal Investigator</b>	Dr Maya Prasad
<b>Registered with INPHOG</b>	July 2017
<b>CTRI Registration</b>	CTRI/2019/02/017851
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	250
<b>Target patient recruitment</b>	250
<b>Anticipated duration of recruitment</b>	5 years
<b>Centers study open in</b>	10 centers

- All India Institute of Medical Sciences, New Delhi
- Apollo Hospital, Chennai
- BJ Wadia Hospital, Mumbai
- Cancer Institute, Chennai
- Indraprastha Apollo Hospital, New Delhi
- Kasturba Medical College, Mangalore
- King George's Medical University, Lucknow
- Rainbow Children's Hospital, Hyderabad
- Tata Medical Centre, Kolkata
- Tata Medical Centre, Mumbai

## **InPOG-ALL-19-02**

### **Registry study for relapsed childhood acute lymphoblastic leukemia using protocol ALL-R1.**

<b>Principal Investigator</b>	Vaskar Saha
<b>Registered with INPHOG</b>	Jun 2019
<b>CTRI Registration</b>	CTRI/2019/10/021758
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	67
<b>Target patient recruitment</b>	220
<b>Anticipated duration of recruitment</b>	5 years
<b>Centers study open in</b>	1

- Tata Medical Centre, Kolkata

## **InPOG-RB-17-01**

### **A Prospective Collaborative Study for Newly Diagnosed Patients with Retinoblastoma**

<b>Principal Investigator</b>	Dr Santosh Honavar
<b>Registered with INPHOG</b>	Sep 2019
<b>CTRI Registration</b>	CTRI/2020/09/027846
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	1120
<b>Target patient recruitment</b>	1066
<b>Anticipated duration of recruitment</b>	3 years
<b>Centers study open in</b>	20

- AIIMS, New Delhi
- Aravind Hospital, Coimbatore
- BHU, Department of Pediatrics
- Center for Sight, Hyderabad
- GMCH Chandigarh
- HV Desai Eye Hospital Pune
- Indra Gandhi Institute of Medical Sciences, Patna
- KGMU Lucknow
- LVPI Bhuvneshwar
- MGM Eye Institute, Raipur
- MVR Cancer Center & Research Institute, Calicut
- NH Bangalore
- PGI Chandigarh
- RIO MCK Hospital Kolkata
- Sankara Eye Hospital, Bangalore
- Shroff's Charity Eye Hospital, New Delhi
- SMS Hospital, Jaipur
- SRCC Mumbai
- Sri Sankaradeva Nethrayala Hospital, Guwahati
- Susrut Eye Foundation & Research Centre. Kolkata

## InPOG-HL-19-03

**Response-adapted management of Childhood Classical Hodgkin Lymphoma (cHL) and Early Response Assessment by Positron Emission and Computerized Tomography (PET-CT) to allow Omission of Radiotherapy in Indian Children Treated with a Standard of Care Intensified Chemotherapy Regimen.**

<b>Principal Investigator</b>	Dr Gaurav Narula
<b>Registered with INPHOG</b>	Feb 2020
<b>CTRI Registration</b>	CTRI/2020/08/027495
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	207
<b>Target patient recruitment</b>	700
<b>Anticipated duration of recruitment</b>	5 years
<b>Centers study open in</b>	9

- Apollo Cancer Centre, Chennai
- Bai Jerabai Wadia Hospital, Mumbai
- Cancer Institute (W.I.A) Adyar, Chennai
- Homi Bhabha Cancer Hospital, Varanasi
- Indraprastha Apollo Hospital, Delhi
- Kasturba Medical College, Manipal
- Max Super Specialty Hospital, Saket, New Delhi- **NEW**
- Rajiv Gandhi Cancer Institute & Research center, Delhi
- Tata Memorial Hospital, Mumbai

## InPOG-PNET-19-02

**Evaluation of clinic-pathological characteristics, prognostic factors, and treatment outcomes in patients with ESFT in children and young adults.**

<b>Principal Investigator</b>	Dr Sandeep Jain
<b>Registered with INPHOG</b>	May 2021



<b>CTRI Registration</b>	Applied for
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	1200
<b>Target patient recruitment</b>	1000
<b>Anticipated duration of recruitment</b>	Not applicable - Retrospective
<b>Centers study open in</b>	09

- AIIMS, New Delhi
- Apollo Hospital, New Delhi
- KGMU, Lucknow
- Max Super Specialty Hospital, Saket, New Delhi
- MVR Cancer Centre, Kozhikode
- Post Graduate Institute, PGI Chandigarh
- Rajiv Gandhi Cancer Institute, New Delhi
- Tata Memorial Hospital, Mumbai
- Tata Medical Centre, Kolkata

### INPHOG-SUPP-22-03

**Anti-Emetic Prophylaxis for Chemotherapy-Induced Vomiting Without Dexamethasone for Children and Adolescents Receiving Highly Emetogenic Chemotherapy: Investigator-Initiated, Open-Label, Multi-Center, Non-Inferiority, Phase III Randomized Controlled Trial**

<b>Principal Investigator</b>	Dr Venkatraman Radhakrishnan
<b>Registered with INPHOG</b>	June 2022
<b>CTRI Registration</b>	CTRI/2022/08/045009
<b>Recruitment commenced</b>	No
<b>Currently, patients recruited</b>	104
<b>Target patient recruitment</b>	300
<b>Anticipated duration of recruitment</b>	3 years
<b>Centers study open in</b>	6

- AIIMS, New Delhi
- Apollo Hospital, New Delhi - **NEW**
- Cancer Institute, Chennai
- JIPMER, Puducherry
- KKCTH, Chennai - **NEW**
- Max Hospital, New Delhi - **NEW**

### INPHOG-GCT-22-01

**Integrated Clinico-pathological and treatment outcome analysis of extra-cranial malignant germ cell tumors in children and adolescents in India.**

<b>Principal Investigator</b>	Dr Sonali Mohapatra
<b>Registered with INPHOG</b>	March 2023
<b>CTRI Registration</b>	Applied For
<b>Recruitment commenced</b>	Yes
<b>Currently, patients recruited</b>	22
<b>Target patient recruitment</b>	300-400
<b>Anticipated duration of recruitment</b>	18 Months
<b>Centers study open in</b>	06

- AIIMS Bhuvneshwar
- Dayanand Medical College & Hospital, Ludhiana
- Indraprastha Apollo Hospitals, New Delhi
- MVR Cancer Centre, Kozhikode
- Rainbow Children's Hospital, Hyderabad
- SKIMs, Jammu and Kashmir

## INPHOG-EPI-22-03

### Establishing the first dedicated Population-Based Childhood Cancer Registry (PBCCR) and network of Hospital-Based Childhood Cancer Registries (HBCCRs) in India.

<b>Principal Investigator</b>	Dr Venkatraman Radhakrishnan
<b>Registered with INPHOG</b>	Sep 2022
<b>CTRI Registration</b>	CTRI/2022/06/043526
<b>Recruitment commenced</b>	Sep 2022
<b>Currently, patients recruited</b>	240
<b>Target patient recruitment</b>	1000
<b>Anticipated duration of recruitment</b>	Continuous
<b>Centers study open in</b>	17

- Apollo Specialty Hospital, Chennai
- Cancer Institute (WIA), Adyar
- Dr. Rela Hospital, Chennai
- Dr. Mehta's Hospital, Chennai
- Global Hospital, Chennai
- ICH Government Hospital. Chennai
- Kauvary Hospital, Chennai
- Kanji Kamakodi Child Trust Hospital, Chennai - **NEW**
- Rajiv Gandhi Government Hospital, Chennai
- Rainbow Children's Hospital
- Royapettah Government Hospital, Chennai
- Sankara Nethralaya Eye Hospital, Chennai
- SIMS Hospital Chennai - **NEW**
- Sri Ramachandra Medical Centre, Chennai - **NEW**
- Standely Government Hospital, Chennai - **NEW**
- Tamil Nadu Multispecialty Hospital, Chennai
- VS Hospital Chennai - **NEW**

## INPHOG-AML-23-02

### Indian Childhood Acute Promyelocytic Leukemia Study (I-CHAMPs)

<b>Principal Investigator</b>	Dr Smita Kayal
<b>Registered with INPHOG</b>	March 2023
<b>CTRI Registration</b>	Applied For
<b>Recruitment commenced</b>	Yet to start
<b>Currently, patients recruited</b>	0
<b>Target patient recruitment</b>	100-200 Annually
<b>Anticipated duration of recruitment</b>	Retrospective Registry (1 year)/ Prospective Registry (5 years)

Centers study open in 6

- AIIMS, New Delhi
- Apollo Hospital, New Delhi - **NEW**
- Dayanand Medical College & Hospital, Ludhiana- **NEW**
- JIPMER, Puducherry
- KGMU, Lucknow- **NEW**
- MVR Cancer Centre and Research Institute - **NEW**

## INPHOG Studies Granted Full Registration (2)

**InPOG-NB-18-02**

**Indian Non-high Risk Neuroblastoma Study**

Principal Investigator	Dr Vikramjit Kanwar
Registered with INPHOG	Sep 2020
CTRI Registration	
Recruitment commenced	No
Currently, patients recruited	NA
Target patient recruitment	Not specified
Anticipated duration of recruitment	Not specified
Centers study open in	No

**IMSOS OS 01/INPHOG -OST-23-01**

**Evaluation of Clinico-pathological characteristics, prognostic factors, and treatment outcomes in patients with osteosarcoma in children and adults treated in India"**

Principal Investigator	Dr Akshay Tiwari
Registered with INPHOG	OCT 2023
CTRI Registration	CTRI/2023/05/053100
Recruitment commenced	No
Currently, patients recruited	NA
Target patient recruitment	Not specified
Anticipated duration of recruitment	Not specified
Centers study open in	No

## INPHOG Studies Granted Provisional Registration

**InPOG-SCT-20-02 (P)** A multicenter collaborative study for evaluating the outcome in children with high-risk neuroblastoma undergoing autologous stem cell transplantation (NBL-ASCT). **PI - Venkateswaran V S**

**INPHOG-RBC-22-01 (P)** A Cross-sectional study of children receiving regular red cell transfusions for primary non-malignant hematological conditions excluding thalassemia and sickle cell anemia– Assessment of disease burden and clinical profile. **PI - Stalin Ramprakash**



**INPHOG-SUPP-23-04 (P)** Drug-induced Diabetes Mellitus management in children with Acute Leukemia (ALL) – A Phase-2 Open-Label Randomized Control Trial (RCT) comparing two treatment arms (Insulin alone Vs Insulin + Metformin) **Dr. Kalasekhar V.S**