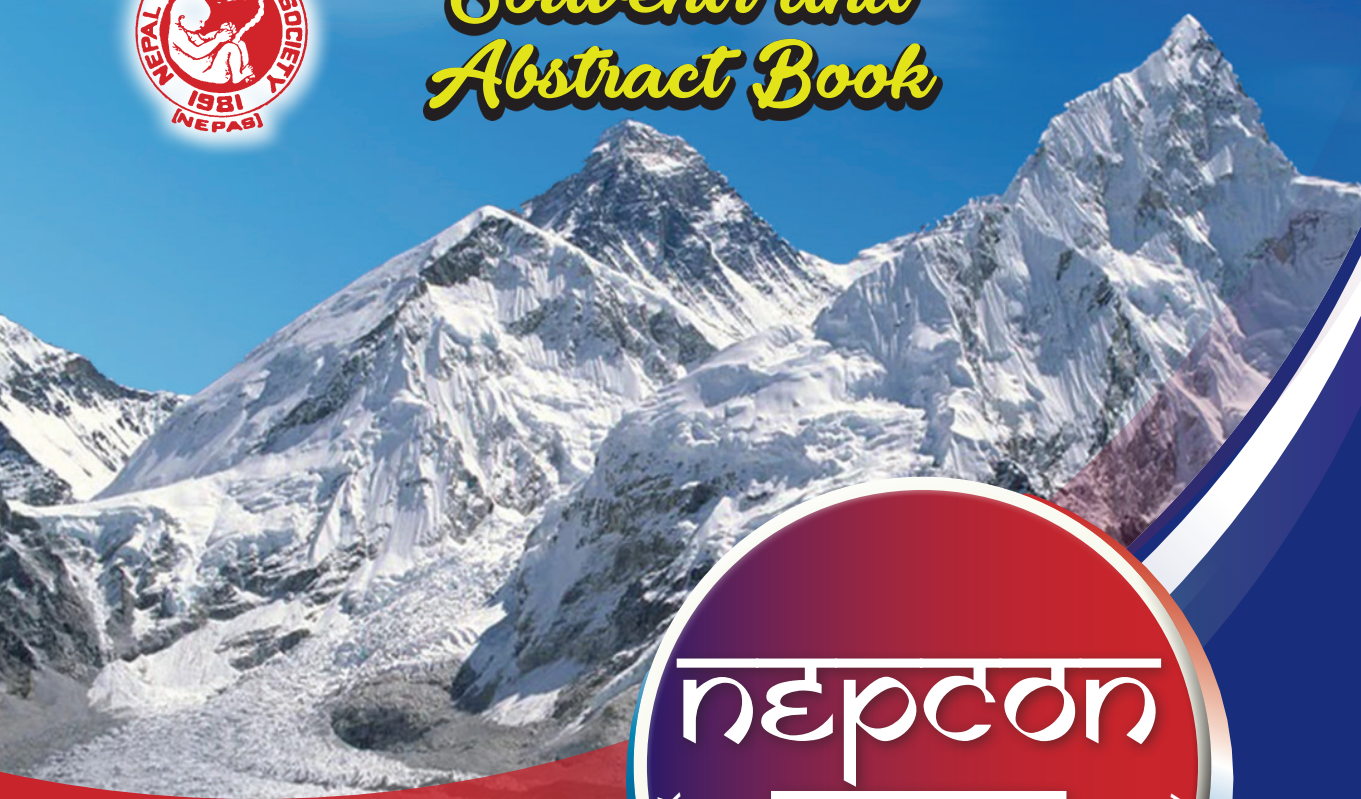
Souvenir and Abstract Book



nepcon 2025

XXIst National Conference of Nepal Paediatric Society

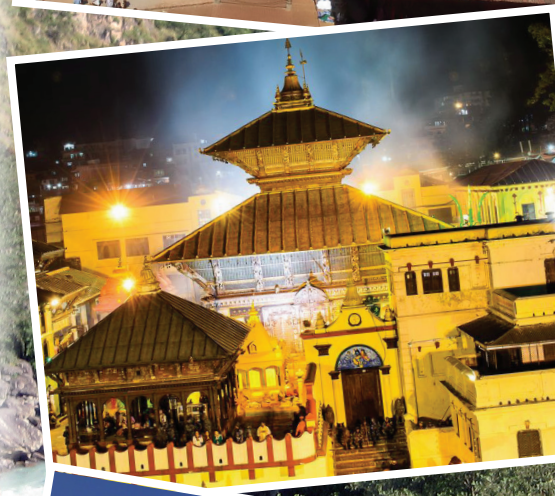
Theme: **"Climate Change and its Impact on Children: Safeguarding the Future through Specialized Care"**

MAY | 22nd | 23rd | & | 24th | 2025

(वि.सं. २०८२ जेठ ८-१०)

The Plaza Convention Centre, Pulchowk, Lalitpur, Nepal

Welcome



Nepal: A Land of Natural Beauty and Cultural Richness

Nestled in the heart of the Himalayas, Nepal is a country of extraordinary landscapes and profound cultural heritage. From the snow-capped peaks of Mount Everest to the lush plains of the Terai, Nepal's geography is as diverse as its people. Its rich history dates back thousands of years, with influences from Hindu and Buddhist civilizations that still shape its vibrant traditions today. Festivals, temples, and colorful rituals define daily life, while the warmth and hospitality of the Nepalese people leave a lasting impression on every visitor.

Nepal Paediatric Society: Advocating Child Health

The Nepal Paediatric Society (NEPAS) is a professional organization dedicated to promoting child health and the wellbeing of children across Nepal. Since its establishment, NEPAS has played a vital role in advancing paediatric care through advocacy, education, research, and collaboration. It unites paediatricians and child health professionals to address the challenges facing Nepal's children, striving for excellence in clinical practice, public health initiatives, and policy-making. Through continuous medical education and nationwide outreach, NEPAS remains at the forefront of paediatric advancement in the region.

NEPCON-2025: 21st National Paediatric Conference of Nepal

We are delighted to invite you to NEPCON-2025, the 21st National Paediatric Conference of Nepal, organized by the Nepal Paediatric Society. This prestigious biennial event brings together paediatricians, researchers, and child health experts to share knowledge, foster collaboration, and discuss the latest advancements in paediatrics. NEPCON-2025 promises a dynamic platform of scientific sessions, workshops, and networking opportunities in a vibrant and collegial atmosphere. Join us in celebrating progress and innovation in paediatric healthcare-set against the breathtaking backdrop of Nepal.

Message from the President

Dear Esteemed Guests, Colleagues, and Friends,

It is with immense pleasure and pride that I welcome you to Nepal and to NEPCON 2025, an academic extravaganza and scientific bonanza that promises to be a landmark event in the field of paediatrics. This year's conference is designed to be a vibrant platform for knowledge exchange, collaboration, and innovation—bringing together a diverse and vital group of professionals including paediatric residents, paediatric nurses, general practitioners, policymakers, and all those dedicated to the health and well-being of children in Nepal.

The program is packed with an exciting range of academic and social activities, including:

- Inspiring Orations by renowned experts,
- Plenary Sessions featuring global thought leaders,
- Guest Lectures by distinguished speakers,
- Engaging Panel Discussions on pressing paediatric issues,
- Free Paper Presentations showcasing cutting-edge research,
- A Gala Dinner to foster camaraderie and networking,
- A Cultural Show celebrating the rich heritage of Nepal.

We are confident that NEPCON 2025 will not only enrich your professional expertise but also offer a unique opportunity to experience the warmth and hospitality of Nepal.

Let us come together in this spirit of learning and collaboration to share ideas, strengthen partnerships, and work toward a healthier future for all children. Your presence and participation make this event truly special.

Thank you for being part of this extraordinary gathering. We look forward to your active involvement and wish you a memorable, meaningful, and rewarding time in Nepal.

Warm regards,

Maj. Gen. Dr. Arun Kumar Neopane (Retd.)
President (2023–25)
Nepal Paediatric Society

Message from the Organising Secretary

Dear Esteemed Colleagues,

It is with great enthusiasm that I invite you to the 21st National Conference of the Nepal Paediatric Society (XXIst NEPCON 2025), scheduled to be held from 22nd – 24th May 2025 at The Plaza Convention Centre, Lalitpur. This year's theme, *"Climate Change and Its Impact on Children: Safeguarding Future through Specialized Care,"* underscores our shared responsibility in addressing the pressing environmental challenges that affect child health.

The conference will serve as a vital platform for paediatricians, researchers, general practitioners, paediatric residents, paediatric nurses, policymakers, and all professionals involved in child health to exchange knowledge and strategies that can mitigate the impacts of climate change on children's well-being.

This three-day academic event will feature a comprehensive scientific program, including:

- Hands-on Workshops
- Thought-provoking Orations
- Insightful Plenary Sessions
- Chapter Symposiums
- Panel Discussions
- Free Paper Presentations
- Poster Exhibitions

Renowned experts from Nepal and across the globe will share their insights on paediatric healthcare advancements, fostering collaboration and innovation within our field. With around 400 participants expected, NEPCON 2025 promises to be a vibrant academic extravaganza.

We encourage you to take this opportunity to engage in stimulating discussions, present your research, and network with peers and global leaders. Your active participation will be invaluable in making this conference a resounding success.

Let us come together in Lalitpur to explore practical solutions and reaffirm our commitment to safeguarding the future of our children.

Warm regards,

Dr. Prakash Joshi
Organising Secretary, XXIst NEPCON 2025

Message from the Chief Editor

Dear Friends,

A warm welcome to NEPCON 2025 in the vibrant city of Lalitpur!

On behalf of the organizing committee, it is our great honor and joy to welcome you to the 21st National Conference of the Nepal Paediatric Society (NEPCON 2025), held at The Plaza convention center in the culturally rich city of Lalitpur.

Lalitpur, a city renowned not only for its deep-rooted traditions and artistic excellence but also for its commitment to pediatric healthcare and clinical excellence, offers the perfect setting for this gathering. As a hub of innovation and dedicated child health services, Lalitpur continues to lead in advancing pediatric care and addressing child health issues with dedication and expertise.

Its dynamic blend of history and modern progress beautifully mirrors the evolution of paediatric medicine—firmly grounded in foundational values, yet constantly advancing to meet future needs.

We encourage you to not only engage fully in the academic sessions but also to explore the essence of this historic city—visit Patan Durbar Square, a UNESCO World Heritage Site, tour the Patan Museum, savor authentic Newari cuisine, and create memories that will stay with you forever.

During NEPCON 2025, you will find:

- A wide spectrum of workshops and sessions led by distinguished experts in paediatrics.
- A valuable platform to connect with fellow professionals, paving the way for future partnerships and collaboration.
- Exhibitions highlighting cutting-edge innovations in paediatric healthcare and medical technology.
- Social gatherings and cultural activities offering moments of relaxation and deeper immersion into the local heritage.

We hope this conference becomes more than just a learning event—may it be a space for new friendships, inspiring conversations, and lasting professional bonds. Let it spark ideas, nurture your growth, and support our shared commitment to improving children's health.

Lalitpur and NEPCON 2025 welcome you wholeheartedly. We trust this experience will enrich your practice and strengthen your dedication to the well-being of every child.

With warm regards,

Dr. Prakash Jyoti Pokharel
E-Souvenir, Editor in Chief
NEPCON 2025

Message from the Managing Editor

Abstract Book is Ready !

Dear Distinguished Guests, Seniors and Colleagues,

We are thrilled to share the E-Souvenir for NEPCON 2025, marking the 21st Annual Conference of the Nepal Pediatric Society (NEPAS). Within these digital pages, you'll find a rich collection of abstracts from submitted free papers and posters, summaries of presentations by our distinguished guest speakers, outlines of thought-provoking panel discussions, and highlights from the sessions organized by our diverse sub-speciality chapters. We trust this comprehensive compilation will be a valuable companion not only throughout the conference but for all coming days as a note of reference in the knowledge of Pediatrics. We believe this E-Souvenir will not only keep you informed about the breadth of research and knowledge being shared but also facilitate meaningful connections and discussions among attendees. It's a reflection of the vibrant and dedicated community of pediatric professionals in Nepal and beyond. We encourage you to explore its contents and look forward to a stimulating and productive conference.

Nobody is perfect, there may be some errors despite tremendous efforts of our editorial team to make it flawless. We thank you from the bottom of our heart for all your contributions and want to apologise for any mistakes that are unseen by our team.

Happy reading !!!

Sincerely,

Dr. Santosh Pokhrel
drsantoshpokhrel@gmail.com
Managing Editor
E-Souvenir, NEPCON 2025

REGISTRATION FEES FOR ATTENDING NEPCON-2025

MAY | 22nd | 23rd | & | 24th | 2025

The Plaza Convention Center, Pulchowk, Lalitpur, Nepal

CAT	GROUP	UPTO 30TH APRIL	UPTO 15TH MAY	SPOT
1	NEPAS MEMBERS (>70 YEARS)	FREE	FREE	FREE
2	ALL OTHER NEPAS MEMBERS	NPR 10,000/-	NPR 12,000/-	NPR 14,000/-
3	NON NEPAS MEMBERS (PAEDIATRICIANS)	NPR 14,000/-	NPR 16,000/-	NPR 18,000/-
4	NON NEPAS MEMBERS (OTHERS)	NPR 14,000/-	NPR 16,000/-	NPR 18,000/-
5	PG & UG/MO STUDENTS/ INTERNS/NURSES	NPR 5,000/-	NPR 6,000/-	NPR 7,000/-
6	SAARC DELEGATES	$125	$150	$200
7	INTERNATIONAL DELEGATES	$250	$300	$400
8	CORPORATE REGISTRATION ***	NPR 15,000/-	NPR 18,000/-	NPR 22,000/-
9	ACCOMPANYING MEMBERS	Free entry with Lunch coupon @ 3000/-		

NOTE *:** Corporate Registration (Applies only if Registration is done by medical companies/ organization/other).

Registration for National Delegates

Registration for International Delegates

Call FOR ABSTRACTS

The NEPCON 2025 offers a unique opportunity for pediatricians, researchers, clinicians, and health care professionals to connect, learn, and grow. Held in the vibrant city of Kathmandu, Nepal, from **May 22-25, 2025**, NEPCON 2025 promises an enriching and unforgettable experience.

The Organizing Committee invites interested colleagues to submit abstracts and stand a chance to present their research papers at the conference.

Only original research abstracts are eligible. Abstracts presented at previous national or international meetings will not be considered.

Important Dates

Abstract Submission Deadline: 25 April 2025, 11:59 PM

Acceptance Notification: 30 April 2025

How to Submit Abstracts

Step 1: Register yourself by clicking in the Submit Abstract

Step 2: Submit Abstract from your profile by filling the required field.

Step 3: Receive Acceptance Notice and wait for the final acceptance notice.

Register for Submitting Abstract

Organising Committee

Maj. Gen. Dr. Arun Kumar Neopane (Retd.)
Organising Chairperson

Dr. Ram Hari Chapagain
Organising Co-Chair

Dr. Prakash Joshi
Organising Secretary

Sub Committees

Dr. Keshav Prasad Agrawal
Finance and Registration

Dr. Sangita Shakya
Hospitality and Cultural

Dr. Deepak Rajbhandari
Transport and Travel

Dr. Smriti Mathema
Scientific

Dr. Santosh Adhikari
IT and Event Management

Dr. Love Kumar Sah
Publicity

Dr. Pawana Kayastha
Reception

Dr. Sangita Puree Dhungana
Memento & Prizes

Dr. Ram Chandra Bastola
Trade and Stall

Dr. Srijana Basnet
Workshop

Dr. Santosh Pokhrel
e-Souvenir

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Dr. Nikhil Agrawal

Dr. Pragya Pradhan

Dr. Shanti Bhatta

Mr. Ashok Shrestha

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Dr. Deepak Rajbhandari

Mr. Hari Shrestha

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Dr. Ajay Dhakal

Dr. Anna Sharma

Dr. Henish Shakya

Dr. Kabita Keyal

Dr. Kishor Khatry

Dr. Luna Amatya

Dr. Saurav Khetan

Dr. Shailendra Bir Karmacharya

Dr. Shama Shakya

Dr. Uttara Gautam

Scientific

Dr. Suchita Joshi
Advisor

Prof. Dr. Sudha Basnet
Advisor

Prof. Dr. Sunil Raja Manandhar
Advisor

Dr. Smriti Mathema

Dr. Anish Joshi

Dr. Archana Nepal

Dr. Bikash Shrestha

Dr. Grishma Uprety

Dr. Neema Shrestha

Dr. Prithuja Poudyal

Dr. Sudhir Adhikari

Dr. Surabhi Aryal

IT and Event Management


Dr. Santosh Adhikari


Dr. Askal Devkota


Dr. Rajib Shrestha


Dr. Tribhuwan Bhattarai

Publicity


Dr. Love Kumar Shah


Dr. Dharmapal Ray


Dr. Kishor Khatry


Dr. Kuldip Goit


Dr. Sharadha Acharya

Reception


Dr. Pawana Kayastha


Dr. Amrit Dhungel


Dr. Mandira Shrestha


Dr. Rachana Shrestha

Memento & Prizes


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Trade and Stall

Prof. Dr. Ram Chandra Bastola

Dr. Ashok Regmi

Dr. Hari Khadka

Dr. Kiran Tiwari

Dr. Raju Shedai

Dr. Yograj Sharma

Workshop

Dr. Srijana Basnet

Dr. Anwesh Bhatta

Dr. Dilip Neupane

E-Souvenir

Dr. Santosh Pokhrel

Dr. Anoop Singh Ranahotra

Dr. Prakash Jyoti Pokharel

Dr. Shipra Chaudhary

Event Venue
The Plaza Convention Centre, Pulchowk, Lalitpur

Accommodation

Hotel Himalaya
Kupondole, Lalitpur

Square Hotel
Sanepa, Lalitpur

Vivanta Hotel
Jhamsikhel, Lalitpur

Shankar Hotel
Lazimpat, Kathmandu

Landmark Nepal
Narayanhiti, Kathmandu

Hilton Kathmandu
Naxal, Kathmandu

Hospitality Partners

NEPAL TOURISM BOARD
NTB

Nepal Tourism Board
Tourism Board of Nepal

Buddha Holidays

International Speakers

1.	Dr. Vasant Khalatkar	President-Indian Academy of Paediatrics (IAP) India
2.	Dr. Neelam Mohan	President Elect, Indian Academy of Paediatrics (IAP), India
3.	Dr. Srinivas G Kasi	Abott, India
4.	Dr. Aj Chitkara	Pfizer, India
5.	Dr. Liliia Selimzianova	Pediatric and Child Health Research Institute, Russia
6.	Dr. Irina Zelenkova	Federal State Budgetary Research Institution, Russia
7.	Prof. Dr. Manzoor Hussain	Bangladesh Paediatric Association, EC, SAPA, Bangladesh
8.	Dr. Md M Kabir	GSK, Bangladesh
9.	Dr. Susan M George	Strathclyde University, USA
10.	Dr. Hagane Shimaoka	International University of Health and Welfare, Japan
11.	Prof. Fu Yong Jiao	Shaanxi International Medical Exchange Promotion Association, China Paediatric Association
12.	Dr. Jaydeep Choudhury	Bharat Biotech, India
13.	Dr. Vikas Dua	Fortis Hospital, Delhi, India
14.	Dr. Budhi Setiawan	UNICEF, Indonesia
15.	Prof. Dr. Jonathan Darling	Vice-President, Royal College of Paediatric and Child Health, UK
16.	Prof. Dr. Sanjay Verma	Senior Paediatric Infectious Disease Specialist, PGI, Chandigarh, India

nepcon-2025

XXI[st] National Conference of Nepal Paediatric Society

Theme: "Climate Change and its Impact on Children: Safeguarding the Future through Specialized Care"

MAY | 22nd | 23rd | & | 24th | 2025 The Plaza Convention Center, Pulchowk, Lalitpur, Nepal

DAY-1 (22nd MAY, THURSDAY)

TIME	TOPIC	SPEAKER	MODERATOR
8:30-9:30 am	Registration		
9:30-10:15 am	Inaugural Ceremony		Dr. Surabhi Aryal
10:15-10:45 am	**HIGH-TEA (EAST WING)**		
10:45-11:30 am	**NEPAS ORATION**		
	Climate Change and its Impact on Children	Dr. Rameshwor Man Shrestha	Dr. Arun K Neopane
11:30-12 noon	**SYMPOSIUM-1 (Bharat Biotech Symposium)**		
	AMR in Typhoid and the Role of Vaccines	Dr. Jaydeep Choudhury	Prof. Dr. Sahisnuta Basnet
12:00 – 1:30 pm	**KEYNOTE PRESENTATIONS-1**		
12:00-12:30 pm	What is NCPR? Overview and International Collaborations	Dr. Hagane Shimaoka (Japan)	Dr. Smriti Mathema
12:30 – 1:00 pm	Diagnosis, Treatment and Research Status of Kawasaki Disease in China	Prof. Fuyong Jiao (China)	
1:00-1:30 pm	Follow-up Care of NICU Graduates	Prof. Dr. Rupa Rajbhandari Singh	
1:30-2:00 pm	**SYMPOSIA-2 (Glaxo Smith Kline Symposia)**		
	Scientific and Programmatic Updates on GSK Vaccines	Dr. Md M Kabir	Prof. Dr. Roma Bora
2:00-2:45 pm	**LUNCH (EAST WING)**		

HALL-A (GRAND BALLROOM)

TIME	TOPIC	SPEAKER	MODERATOR
2:45-3:30 PM	**PAEDIATRIC CRITICAL CARE CHAPTER (PANEL DISCUSSION)**		
	Paediatric ARDS - Diagnosis and Management: What a Paediatrician needs to know when taking care of a child admitted in a PICU	Dr. Puja Amatya Dr. Puspa Raj Awasthi Dr. Sandeep Singh Dr. Manoj K Chaudhary Dr. Sudeep KC	Dr. Sangita Basnet
3:30-4:15 pm	**PAEDIATRIC PULMONOLOGY CHAPTER**		
	The Challenges of Non-resolving Pneumonia in Children	Dr. Prashant Rijal	Dr. Binod Parajuli
	Approach to a Child with Recurrent Pneumonia	Dr. Jagat Jeevan Ghimire	
	Recent Advances in Paediatric Bronchiectasis	Dr. Amrit Ghimire	
4:15-4:45 pm	**KEYNOTE PRESENTATION-2 (HAEMATO-ONCOLOGY)**		
	Management of Eosinophilia	Dr. Anupam Sachdeva	Dr. Krishna Sagar Sharma

4:45-5:30 pm	**PAEDIATRIC HAEMATOLOGY-ONCOLOGY CHAPTER**		
	Basics of Paediatric Bone marrow Transplant - What a Paediatrician should know.	Dr. Vikas Dua (Fortis Hospital, India)	Dr. Ritu Lamichhane
	ITP - Management Updates	Dr. Shilpa Amatya	
	Shared Care in Paediatric Oncology: A Model for Resource-Limited Settings	Dr. Bishow Nath Adhikari	
HALL-B			
TIME	**TOPIC**	**SPEAKER**	**MODERATOR**
2:45-3:30 PM	**PAEDIATRIC ENDOCRINOLOGY CHAPTER**		
	Approach to a Child with Short Stature	Dr. Jyoti Agrawal	Dr. Subhana Karki
	Perspective on Diabetes and Depression: Insight from People Living with Diabetes, their Parents and Healthcare Provider.	Dr. Archana Nepal	
3:30-4:00 pm	**KEYNOTE PRESENTATION-3 (ACUTE LIVER FAILURE)**		
	Acute Liver Failure – Management : What's new now?	Dr. Neelam Mohan	Dr. Binita Gurubacharya
4:00-4:45 pm	**PAEDIATRIC GASTROENTEROLOGY & HEPATOLOGY CHAPTER**		
	From Colic to Crisis: Radiologist's Insights into Paediatric GI Imaging for Clinicians	Professor Ram Kumar Ghimire	Dr. Satyam Rimal
	Approach to Chronic Diarrhoea in Children	Dr. Dilip Neopane	
	First Line Management of Corrosive Ingestion in Children	Dr. Manoj K Chaudhary	
4:45-5:30 pm	**PAEDIATRIC NUTRITION CHAPTER**		
	Bridging Tradition and Science in Child Nutrition	Dr. Sahisnuta Basnet	Dr. Nipun Shrestha
	Paediatric Microbiome in Disease and Health	Dr. Pawana Kayastha	
	Paediatric Nutrition: Current Trends and Future Perspectives	Dr. Uttara Gautam	

TIME	EVENT	LOCATION
7:00-9:00 PM	INTERNATIONAL FACULTY DINNER (BY INVITATION ONLY)	HOTEL SQUARE

DAY-2 (23rd MAY, FRIDAY)

TIME	TOPIC	SPEAKER	MODERATOR
9:00-11:00 am	**KEYNOTE PRESENTATIONS-4**		
9:00-9:30 am	Does CPD work and how do we make it more effective?	Prof. Jonathan Darling (RCPCH, UK)	Prof. Dr. Sunil Raja Manandhar
9:30-10:00 am	Hereditary Metabolic Diseases and Respiratory System	Dr. Liliia Selimzianova (Russia)	
10:00-10:30 am	Achieving SDG and Neonatal Cardiac Issues in South Asia	Dr. Manzoor Hussain (Bangladesh)	
10:30-11:00 am	Office Practice in Paediatrics	Dr. Vasant Khalatkar (India)	
11:00-1:00 pm	**PLENARY SESSION-1**		
11:00-11:20 am	Climate and Environmental Impact to Children's Health: Protecting Vulnerable Lives at Every Stage	Dr. Budhi Setiawan (Indonesia)	Dr. Kabita Keyal
11:20-11:40 am	Insight on Paediatric Gynaecology	Prof. Dr. Ashma Rana	
11:40-12:00 noon	Multi-Sectoral Nutrition Plan (MSNP2)	Dr. Hari Krishna Banskota	
12:00-12:20 pm	Respiratory Syncytial Virus and Nepali Children: The Way Forward	Prof. Dr. Arun Sharma	
12:20-12:40 pm	Study of Knowledge Attitude and Practices of Child Protection among Health Care Professional of Nepal	Dr. Ram Hari Chapagain	
12:40-1:00 pm	Hemodynamically significant patent ductus arteriosus in preterm neonates: Current management dilemmas	Dr. Sunil Raja Manandhar	
1:00-2:00 pm	**SYMPOSIA-3 & 4 (Pfizer & Abbot)**		
1:00-1:30 pm	Role of pneumococcal vaccination in pneumococcal disease (Pfizer Symposium)	Dr. AJ Chitkara	Dr. Anna Sharma
1:30-2:00pm	Fighting the Flu: From Infection to Immunization (Abbott Symposium)	Dr. Srinivas G. Kasi	
2:00-2:45 pm	**LUNCH (EAST WING)**		

HALL-A (GRAND BALLROOM)

TIME	TOPIC	SPEAKER	MODERATOR
2:45-3:30 pm	**NEONATOLOGY CHAPTER (RECENT ADVANCES IN NEONATOLOGY WITH POTENTIAL CLINICAL IMPACT)**		
	Advances in Care of Preterm Babies; way forward from surviving to thriving	Dr. Anjila Ghimire	Prof. Dr. Kalpana Upadhaya Subedi
	Recent Advances in Management of Respiratory Distress in Neonates	Dr. Deepak Mishra	
	Recent Advances in Biomarkers for Diagnosis of Neonatal Sepsis	Dr. Varsha Verma	
3:30-4:00 pm	**KEYNOTE PRESENTATION-5 (NEONATOLOGY)**		
	Bridging Birth to Intact Survival : The Power of Perinatal Care	Dr. Lalan Bharti	Dr. Srijana Basnet
4:00-4:45 pm	**PAEDIATRIC NEPHROLOGY CHAPTER (PANEL DISCUSSION)**		
	Steroid Resistant Nephrotic Syndrome	Dr. Vivek Kumar Todi Dr. Bimala Baniya Dr. Firoz Anjum	Dr. Daman Raj Poudel

	Evaluating a Child with Elevated BP	Dr. Devendra Shrestha Dr. Mandira Shrestha Dr. Anand Kumar Jha	Dr Ajaya Kumar Dhakal
4:45-5:45 pm	**FREE PAPERS-1**		
4:45-5:00 pm	A Quality Improvement Initiative to improve pain management in a special newborn care unit with a special focus on infant and family centered developmental care	Dr. Sajal Twanabasu	Dr. Bikash Shrestha
5:00-5:15 pm	A Retrospective Cross sectional Study on Lepra Reaction in Children from a Leprosy Hospital in Nepal	Dr. Suveksha Shaurya Shah	
5:15-5:30 pm	Clinical Characteristics And Outcome Of Children Requiring Non-Invasive And Invasive Mechanical Ventilation At A Tertiary Care Center, Nepal	Dr. Puja Amatya	
5:30-5:45 pm	Clinical Profile Of Children Presenting With Pain Abdomen In A Tertiary Care Centre Of Nepal: A Prospective Observation Study	Dr. Dilip Neupane	
HALL-B			
TIME	**TOPIC**	**SPEAKER**	**MODERATOR**
2:45-3:30 pm	**PAEDIATRIC IMMUNIZATION CHAPTER**		
	Current Vaccine Preventable disease trends and the vaccination status in Nepal	Dr. Abhiyan Gautam	Dr. Shailendra Bir Karmacharya
	Recent Advances in Dengue Vaccine	Prof. Dr. Henish Shakya	
	NEPAS Recommendations on Immunization – a summary	Dr. Sangita Puree Dhungana	
3:30-4:00 pm	**KEYNOTE PRESENTATION-6 (IMMUNIZATION)**		
3:30-4:00 pm	Understanding Antibody Levels and Protection After Hepatitis-B Vaccination and the Need for Boosters	Prof. Dr. Sanjay Verma	Dr. Sangita Puree Dhungana
4:00-4:45 pm	**PAEDIATRIC INFECTIOUS DISEASE CHAPTER (CONGENITAL INFECTIONS)**		
	Approaching Congenital CMV Infections: Bridging the Gaps in Knowledge	Dr Dikchya Pant	Dr. Nisha Jyoti Shrestha
	Congenital Syphilis: Forgotten, but yet to Vanish!	Dr. Suchita Joshi	
4:45-6:00pm	**FREE PAPERS-2**		
4:45-5:00 pm	Mumps Outbreak: Public Burden and Awareness	Dr. Manoj K Chaudhary	Dr. Neema Shrestha
5:00-5:15 pm	Quality Indicators and Improvement measures in Paediatric Intensive care Unit	Dr. Vikash Kumar Sah	
5:15-5:30 pm	Perception of Knowledge and Attitude for Infant feeding and Immunization in Pregnant mothers	Dr. Santosh Adhikari	
5:30-5:45 pm	Gene Xpert Positivity and Its Correlation with the Tuberculin Skin Test (TST) in Children Suspected of Tuberculosis at a Tertiary Paediatric Center in Nepal	Dr. Tribhuwan Bhattarai	

TIME	EVENT	LOCATION
6:30-9.30 PM	GALA DINNER & CULTURAL PROGRAM	EAST LAWN

DAY-3 (24th MAY, SATURDAY)

TIME	TOPIC	SPEAKER	MODERATOR
9:00-10:30 AM	**KEYNOTE PRESENTATION-7**		
9:00-9:30 am	Recurring Upper Respiratory Tract Infections: Challenges and Clinical Perspectives	Dr. Irina Zelenkova (Russia)	Prof Dr. Sudha Basnet
9:30-10:00 am	Spectrum of Paediatric Rheumatic Diseases: It is much more than Arthritis	Prof Dr. Pratap Kumar Patra (India)	
10:00-10:30 am	Plasticised Poly (Vinyl Chloride) Plastic Materials and their Potential Toxicity	Dr. Susan M George (USA)	
10:30-11:45 noon	**SYMPOSIA-5 & 6 (WHO & UNICEF)**		
	"MR Elimination & Childhood Cancer" (WHO)		Dr. Grishma Upreti
10:30-10:50 am	Progress towards achieving Measles and Rubella Elimination in Nepal (WHO)	Dr. Rahul Pradhan	
10:50-11:15 am	Strengthening Childhood Cancer Care in Nepal: A Collaborative Approach to improving access to Treatment and Enhancing Survival Rates	Dr. Pushpa Raj Poudel (MoHP)	
	"The First Year Matters" (UNICEF)		
11:15-11:30 am	Transforming Newborn Health: Nepal's Every Newborn Action Plan 2023-2030, UNICEF Nepal	Ms. Chahana Singh, UNICEF Nepal	
11:30-11:45 am	Investing in Nepal's Youngest: Strategic Framework in Early Childhood Development in Nepal	Dr. Rinesh Adhikari, Family Welfare Division, DoHS	
11:45-12:45 PM	**PLENARY SESSION-2**		
11:45 - 12:05 pm	Effect of Climate Change in Children: The Triple Planetary Crisis	Dr. Meghnath Dhimal (PhD)	Dr. Moon Thapa
12:05 – 12:25 pm	Consequences of Climate Change on Respiratory Health of Nepalese children: What we need to know and do	Prof. Dr. Sudha Basnet	
12:25 – 12:45 pm	Evidence Based Guidelines for Management of Acute Gastroenteritis in Children	Prof. Dr. Manindra R. Baral	
12:45-1:45 pm	**AGM (HALL-B)**		
1:00-1:45 pm	**LUNCH (EAST WING)**		
	HALL-A (GRAND BALLROOM)		
TIME	**TOPIC**	**SPEAKER**	**MODERATOR**
1:45-2:30 pm	**PAEDIATRIC CARDIOLOGY CHAPTER**		
	Acute Rheumatic Fever and Rheumatic Heart Disease	Dr. Subash Chandra Shah	Dr. Anish Joshi
	Pulmonary Hypertension associated with Congenital Heart Disease	Dr. Pratima Yadav	
	Heart Failure in Children	Dr. Dhruba Shrestha	
2:30-3:15 pm	**PAEDIATRIC ALLERGY, IMMUNOLOGY & RHEUMATOLOGY(PAIR) CHAPTER**		
	Allergy: The New Normal: Paediatric Allergies in the Era of Climate Change	Dr. Bhumika GC	Dr. Anjali Bagaria Ghiraiya
	Immunology: Inborn Errors of Immunity/ Primary Immunodeficiencies: The Forgotten Horizon	Dr. Dharmagat Bhattarai	

3:15-4:15 pm	**FREE PAPERS-3**		
3:15-3:30 pm	Point-Of-Care Ultrasound Diagnosis Of Paediatric Pneumonia In A Low Resource Country	Dr. Prakash Thapa	Dr. Sudhir Adhikari
3:30-3:45 pm	Role of lung ultrasound score and modified bronchiolitis severity score in predicting hospital outcome in children with bronchiolitis	Dr. Biraj Parajuli	
3:45-4:00 pm	Prevalence Of Thalassemia Among Infants And Children In Madhesh Institute Of Health Sciences	Dr. Barsha Prakash	
4:00-4:15 pm	Validity of the Nepali version of the Ask Suicide-Screening Questions (ASQ) tool for identifying elevated suicidal risk in Nepali medical inpatients	Dr. Daman Raj Poudel	

HALL-B			
TIME	**TOPIC**	**SPEAKER**	**MODERATOR**
1:45-2:30 pm	**PAEDIATRIC NEUROLOGY CHAPTER**		
	Insight on Genetic Testing	Dr. Surabhi Aryal	Dr. Asim Shrestha
	Genetic Approach on Childhood Epilepsy	Dr. Prithuja Poudyal	
2:30-3:15 pm	**GROWTH, DEVELOPMENT & BEHAVIOUR PAEDIATRICS (GDBP) CHAPTER**		
	Panel Discussion: Neurodevelopmental Disorder in Children	Dr. Hem Sagar Rimal Dr. Raju Kafle Dr. Luna Bajracharya	Dr. Anil Raj Ojha
3:15-4:15 pm	**FREE PAPERS-4**		
3:15-3:30 pm	Community based Rehabilitation for Children with Neuro-disability in Ilam: A Collaborative Project	Dr. Susan M George	Dr. Love Kumar Sah
3:30-3:45 pm	Clinico-Epidemiological Profile Of Infant Cancers: Insights From a Tertiary Paediatric Center In Nepal	Dr. Bishow Nath Adhikari	
3:45-4:00 pm	Incidence, Intensive care needs and Outcome of Influenza Pneumonia in a Tertiary Care Hospital of Central Nepal: A Prospective Observational Study	Dr. Puspa Raj Awasthi	
4:00-4:15 pm	Survival Analysis of Childhood Cancer: A Hospital-Based Study At Tertiary Hospital In Nepal	Dr. Sani Sipai	

GRAND BALLROOM	
4:15-5:00 PM	**CLOSING**
4:15-4:30 pm	Closing of Scientific Sessions
4:30-5:00 pm	Valedictory Function

POSTERS (FRONT ENTRANCE)		
POSTER NUMBER	**TITLE**	**AUTHOR**
POSTER/ NEPCON/2025/01	Assessing the Cost of Illness of Respiratory Syncytial Virus (RSV) and non-RSV Acute Respiratory Infections in Nepali Children	Dr. Ram Hari Chapagain
POSTER/ NEPCON/2025/02	Knowledge Of Hand Hygiene Practice Among Undergraduate Medical Students And Its Impact On Quality Of Care A Cross-Sectional Study	Dr. Suveksha Shaurya Shah
POSTER/ NEPCON/2025/03	Prevalence of Malnutrition and Its Associated Factors Among 6 to 59 Months Children Attending Paediatric Outpatient Department In a Tertiary Care Center In Rural Nepal	Dr. Sandeep Shrestha
POSTER/ NEPCON/2025/04	Weils disease in a 14 -Year-Old male presenting with Hepatic Manifestations	Dr. Sushmita Zimba Lama
POSTER/ NEPCON/2025/05	Sialidosis: A Case Series Of Six Children With Recurrent Neu1 Mutation (C.679g>A; P.Gly227arg) From Nepal	Dr. Surabhi Aryal
POSTER/ NEPCON/2025/06	A Diagnostic Dilemma: Paediatric HIV with Negative ELISA - A Case Report	Dr. Jamuna Neupane
POSTER/ NEPCON/2025/07	Post-covid intussusception in a school-age child managed in resource limited setting: A case report	Dr. Raju Shah
POSTER/ NEPCON/2025/08	Not All Hepatitis Is Acute Viral Hepatitis, Think Langerhans Cell Histiocytosis (LCH) When Presenting As Multisystem Involvement In A Young Child: A Rare Case Report	Dr. Dhiraj Joshi
POSTER/ NEPCON/2025/09	Unmasking Hereditary Fructose Intolerance: Turning A Rare Diagnosis Into A Path For Healing	Dr. Sajjad Ahmed Khan
POSTER/ NEPCON/2025/10	Glycogen Storage Disease in Paediatric Patients: A Case Series	Dr. Sajjad Ahmed Khan
POSTER/ NEPCON/2025/11	A Delayed Diagnosis Of Primary Hypothyroidism Presented As Growth Retardation In A Child - A Case Report	Dr. Sapana Chapagain
POSTER/ NEPCON/2025/12	Portal Hypertension In A Child With Upper Gi Bleed; A Case Report	Dr. Samichhya Khanal
POSTER/ NEPCON/2025/13	Diagnosing autoimmune vs. Wilson disease in chronic liver failure is challenging; transjugular liver biopsy is key in decompensated cases	Dr. Ranjana Yadav
POSTER/ NEPCON/2025/14	The case of Paediatric Crohn's Disease: Diagnostic and Therapeutic consideration in a Young child	Dr. Amrita Sah
POSTER/ NEPCON/2025/15	Glycogen Storage Disease Type 1b: A Rare Yet Treatable Cause Of Recurrent Hypoglycemia And Infections In Children: A Case Report	Dr. Aanchal Agrawal
POSTER/ NEPCON/2025/16	Wilson 'S Disease In A 15 -Year-Old Male Presenting With Hepatic And Neurological Manifestations	Dr. Roshan Jha
POSTER/ NEPCON/2025/17	Endoscopic Removal Of The Sharp Sewing Needle In A 7 Year Old Child: A Case Report	Dr. Dilip Neupane
POSTER/ NEPCON/2025/18	Incidence, risk factors, clinic-laboratory profile and outcome of children admitted with febrile seizure in a tertiary care hospital of central Nepal	Dr. Shankar Shrestha
POSTER/ NEPCON/2025/19	Clinical characteristics and outcome between RSV related- and non-RSV related-respiratory illness among children younger than 2 years during one local respiratory illness season in Nepal	Dr. Rupesh Shrestha
POSTER/ NEPCON/2025/20	The Feasibility of the Alarm Distress Baby Scale (ADBB) and the prevalence of social withdrawal in Nepalese infants in Bhaktapur	Dr. Manjeswori Ulak

Contents

NEPAS Oration

Climate Change: The Impact on Children

Dr. Rameshwor Man Shrestha

Human health ,specially children health is profoundly affected by climate change.It is a Paediatric health emergency one-that is already shaping the lives, health and future of the children we have. It is a global concern and biggest threat of 21st century.Our environment ,our drinking water to food supplies, our shelters are supposed to concern.The reason why we are talking about climate change is we are seeing and feeling climate change happen really fast and scientists say it is going to speed up even more in the future because of faster than usual global warming.

We often picture climate change as a polar bear stranding on a melting iceberg.But the real face of the crisis is-it is a child with asthma gasping for breath in a city chocked with smoke,it is an adolescent collapsing during a heatwave,it is a farmer's family suffering from malnutrition after a year of failed crops .Moreover children are specially vulnerable to the climate toxic effects of a warming planet making them first to suffer.

Today everyone agrees that the global warming is real,mostly caused by humans,requires urgent attention and climate change is a proven science but many politicians still ignore it.There is trust deficit between the countries on climate change though climate catastrophy is alarming.

But climate change is not just only a message of doom,it is also a call for action, it is a chance to redefine our future. We ourselves have to be changed. we have to clean our mind, we have to clean our climate and we have to protect our planet.

If all the countries do honestly enable ambitions from nations to reduce emissions,if all the countries do work together for technological innovations to transition to renewable energies, if all the countries unite for stronger cooperation to address equities and ensure accountability - we certainly will be able to keep our climate clean and protect our planet.

What is NCPR? Overview and International Collaborations

Prof. Dr. Hagane Shimaoka
Japan Society of Perinatal and Neonatal Medicine
Neonatal Cardiopulmonary Resuscitation Committee

ABSTRACT

More than 2.5million babies died all over the world in a year, and about 1 million died in the very first day of life. The biggest cause of neonatal death is Prematurity (37%), second cause is Birth asphyxia (24%) in 2023. It is mentioned that world Neonatal Mortality Rate (NMR) should be decreased under 12 per 1000 birth by SDGs, but it seems to be difficult to achieve. More than 90% of asphyxiated babies will be saved by very simple skill such as Positive Pressure Ventilation, but the resuscitation skills are not disseminated enough over the clinical fields.

Since Neonatal Cardiopulmonary Resuscitation (NCPR) training program has been launched by Japan Society of Perinatal and Neonatal Medicine (JSPNM) in 2007, NCPR has been dramatically spread all over Japan. Recently, NCPR committee of JSPNM has been seeking for the opportunities to collaborate with developing countries in Asia, which need to be supported to improve their health indicators, especially NMR. We consider that the neonatal resuscitation program should fit to each context of each country so that we support to establish their own program, not export our Japanese NCPR itself. In this presentation, we would like to show NCPR overview and to share the experience of international collaborations.

KEYNOTE/NEPCON/2025/01

Diagnosis, Treatment and Research Status of Kawasaki Disease in China

Prof. Dr. Fuyong Jiao
Xi'an Jiaotong University

ABSTRACT

KD, also known as cutaneous mucosal lymph node syndrome, is one of the most common acute self-limiting vasculitis in childhood. It is mostly in children under 5 years old, with more males than females.

Kawasaki disease (KD), is an acute, self-limiting small and medium-sized vasculitis of unknown etiology, most commonly seen in infants and young children. It has become the most common acquired heart disease in children. Incomplete Kawasaki disease: For older children, a fever lasting more than 5 days with only two Kawasaki disease symptoms; or for children under 6 months old, no symptoms but a fever lasting more than 7 days, should raise the possibility of incomplete Kawasaki disease.

This report indicates that we have successfully completed the two guideline and three consensuses for the diagnosis and treatment of Kawasaki disease in Chinese children for unifying the diagnosis and treatment plan for Kawasaki disease. We can utilize eosinophil counts, new biomarkers, combinations of microRNAs, and scoring systems to assist in the diagnosis of Kawasaki disease.

In the past, the fever of Kawasaki disease had to last for more than five days. After research, we believed that incomplete Kawasaki disease can be diagnosed if the fever lasts less than five days and three to four days. Clinical research has found that the traditional Chinese medicine Salvia miltiorrhiza can alleviate and change the coronary artery damage caused by Kawasaki disease. Low-dose aspirin has the same therapeutic effect and reduces side effects such as bleeding. We hope to collaborate better with colleagues in Nepal to study the infections and neurological diseases related to KD. We also welcome colleagues of the world to China and Xi'an for cooperation.

KEYNOTE/NEPCON/2025/02

Follow Up Care of NICU Graduates

Dr. Rupa Rajbhandari Singh
Prof. Paediatrics

ABSTRACT

Advancement in neonatal care has improved the survival rate of high-risk newborns but at the same time have increased the risks of long-term morbidities like growth failure, developmental delays, and sensory impairments. Hence, all health facilities caring for sick neonates must have a well planned follow up program prepared before discharge of the neonate. It requires establishment of a skilled multidisciplinary team.

Early and comprehensive follow-up programs are essential to detect and manage these conditions, ensuring optimal growth and quality of life. The level of follow up can be based on anticipated severity of risk to neurodevelopment.

Prior to discharge, a detailed medical and neurological assessment, USGs, ROP and hearing screening should be initiated. Early intervention programme (early stimulation) must be started in the NICU once the neonate is medically stable.

Proper counseling of parents & family should be done and assess that they are able to take care of their high risk baby.

The follow up protocol should include assessment of growth, nutrition, development, vision, hearing and neurological status.

It must be emphasized to the caretakers that the follow up should continue till late adolescence, at least till school age as many cognitive problems and behavioral problems that are more common in the high-risk neonates are seen only on long term follow up so that timely specific intervention can be initiated after detection of any abnormality in the neurodevelopment of the child.

Key words: Follow-up, High risk neonate, growth, neurodevelopment.

KEYNOTE/NEPCON/2025/03

Eosinophilia: A Comprehensive Overview

Dr. Anupam Sachdeva
India

ABSTRACT

Definition

Eosinophilia refers to an elevated eosinophil count in peripheral blood, typically defined as an absolute eosinophil count (AEC) >500 cells/μL. It is further categorized as mild (AEC 500–1,500/μL), moderate (1,500–5,000/μL), and severe (>5,000/μL). Hypereosinophilia (HE) is defined as AEC >1,500/μL on two separate occasions or tissue eosinophilia associated with organ damage.

Incidence

Eosinophilia is common in tropical countries due to parasitic infections. Mild eosinophilia may be seen in up to 5% of healthy individuals. The incidence of hypereosinophilic syndrome (HES) is approximately 0.036 per 100,000 per year.

Etiology

The causes of eosinophilia are broadly categorized into reactive (secondary), clonal (primary), and idiopathic.

- Reactive: Allergic diseases (asthma, atopic dermatitis), parasitic infections (helminths like Strongyloides), drug hypersensitivity (DRESS), autoimmune disorders (e.g., EGPA, SLE), and certain GI disorders (eosinophilic esophagitis).
- Clonal: Myeloproliferative neoplasms (CEL, systemic mastocytosis), lymphoid neoplasms (e.g., T-cell lymphomas), and those with PDGFRA, PDGFRB, FGFR1 rearrangements.
- Idiopathic: No identifiable cause, fulfilling criteria for idiopathic HES.

Pathogenesis

Eosinophilia results from increased production, prolonged survival, or enhanced tissue migration of eosinophils. IL-5, along with IL-3 and GM-CSF, plays a central role in eosinophilopoiesis. Clonal proliferation is often driven by genetic abnormalities like FIP1L1-PDGFRA fusion. Tissue injury in HES occurs due to toxic granule proteins (MBP, ECP) released by activated eosinophils.

Types

- Reactive eosinophilia: Secondary to infections, allergies, autoimmune conditions.
- Clonal eosinophilia: Associated with hematologic malignancies, often presenting with additional cytogenetic/molecular features.
- Idiopathic hypereosinophilic syndrome (HES): Persistent eosinophilia with end-organ damage without an identifiable cause.

Diagnosis

Evaluation includes:

1. Clinical assessment: Travel history, atopy, drug exposure, systemic symptoms.
2. Laboratory tests: CBC with differential, IgE, vitamin B12, tryptase, renal and liver function tests.
3. Stool ova/parasite exam, ANA, ANCA.
4. Imaging: Chest X-ray, CT thorax/abdomen.
5. Bone marrow aspirate and biopsy: For morphology, immunophenotyping, cytogenetics.
6. Molecular testing: FISH or RT-PCR for FIP1L1-PDGFRA, PDGFRB, BCR-ABL.

Treatment

- Reactive eosinophilia: Treat underlying cause (antiparasitics, drug withdrawal).
- HES:
  - Corticosteroids (first-line): Prednisolone 0.5–1 mg/kg/day.
  - Imatinib: Highly effective in PDGFRA-rearranged disease.
  - Cytoreductive agents: Hydroxyurea, interferon-α.
  - Biologics: Mepolizumab (anti–IL-5), benralizumab, especially in steroid-refractory HES.

Recent Advances

- Molecular diagnostics have improved subclassification and therapeutic targeting (e.g., next-generation sequencing for myeloid/lymphoid neoplasms with eosinophilia).
- Monoclonal antibodies against IL-5 or IL-5Rα offer targeted control with reduced steroid burden.
- Development of JAK inhibitors and novel kinase inhibitors for refractory or molecularly driven cases.

Prognosis

Prognosis is variable and depends on etiology, degree of organ involvement, and response to therapy. Reactive forms generally resolve with treatment. Clonal forms may transform into acute leukemia. Cardiac involvement is the most significant predictor of poor outcome in HES.

Conclusion

Eosinophilia is a multifaceted hematologic finding necessitating a structured diagnostic and therapeutic approach. With advances in molecular diagnostics and targeted therapy, the prognosis has improved, particularly for clonal and idiopathic HES. Multidisciplinary evaluation remains key to optimizing patient outcomes.

KEYNOTE/NEPCON/2025/04

Paediatric Acute Liver Failure Management – What's New Now ?

Dr. Neelam Mohan

Senior Director & HOD- Department of Pediatric Gastroenterology, Hepatology & Liver Transplantation, Medanta, The Medicity, Gurugram (Haryana) – India -122001

President – Commonwealth Association of Pediatric Gastroenterology and Nutrition (CAPGAN)

B.C. Roy National Award from President of India, drneelam@yahoo.com

ABSTRACT

Pediatric acute liver failure (PALF) is a medical emergency and carries a significant mortality. The high mortality in PALF is attributable to multiorgan dysfunction, sepsis, cerebral edema, coagulopathy and bleeds. Viral hepatitis and metabolic liver disease are the leading causes of acute liver failure (ALF) in children. Patients with acute liver failure need intensive clinical support, often provided by the collaborative efforts of hepatologist, intensivist. Orthotropic liver transplantation (OLT) is the definitive therapeutic modality in the management of ALF if no response to medical therapy. Newer liver support devices help as bridge to liver transplantation.

Tips for Management

- Timely transfer to a higher center, preferably with LT facilities.
- Manage in a ICU/HDU setting as pre requirement
- Intubate for > grade 2 encephalopathy and Secure airway before transport.
- Look for complications and management
  - *Hepatic encephalopathy and cerebral edema*
  - *Control of hypoglycemia, dyselectrolytemia , hypoxemia, fever*
  - *Prevention of infection*
  - *Avoid FFP unless: Active bleed, INR >7 (relative indication). Avoid over-transfusion Prophylaxes to for infection and sepsis*
- Initiate CRRT for high ammonia 150 - >200 µmol/L with encephalopathy
- High Volume Therapeutic Plasma Exchange (HAV-TPE) for potential spontaneous recovery or as a bridge to liver transplant
- If patient meets criteria for liver transplant → proceed for urgent basis

Liver Transplantation for Pediatric Acute Liver Failure

With the advent and advancement of pediatric liver transplantation (LT), the survival rates for children with PALF have dramatically increased.

Outcome of LT in PALF in living related liver transplant setting of ours is high >92% while it may be inferior in West where waiting for cadaveric organ may detonate the patient. In our experience of 500 pediatric liver transplantations, ALF/Acute on chronic liver failures constituted 26.5% and etiology included viral hepatitis followed by metabolic disorders.

Does CPD Work and How do We Make it More Effective?

Prof. Dr. Jonathan Darling
RCPCH, UK

ABSTRACT

Continuing professional development is a vital part of delivering excellent healthcare, especially amidst increasing medical complexity and the explosion of knowledge, and yet it is often neglected. It is also key to us thriving and developing in our professional lives. It is relevant to all of us, whether we receive it, or deliver it. In this talk, I will explore why CPD is important, the evidence for its effectiveness, and how its changing. I will then consider how we can practically maximise its benefits, and especially the importance and power of reflection. Finally, I want us to think about wider aspects of CPD in relation to some big themes that are increasingly prominent in healthcare: leadership, patient safety, wellbeing and climate change. How do we contribute to a culture where teams work and learn together, we and our colleagues thrive in our roles, and the patients we serve get great care? All these things are linked, and CPD has a vital role to play.

KEYNOTE/NEPCON/2025/06

Hereditary Metabolic Diseases and Respiratory System

Dr. Liliia Selimzianova
Moscow, Russian Federation

ABSTRACT

Hereditary Metabolic Diseases may have multiple signs and respiratory tract involvement in these orphan pathology may be one of disease's symptoms, which manifestations are diverse and depend both on the underlying defect and may be induced by other factors, including another genetic factors (for example, peculiarity of fibrosing process), environment and unknown causes. Respiratory symptoms are not uncommon in these patients and may be the first signs of storage disease, which can help us to diagnose orphan pathology or pulmonary problems may be underestimated. Respiratory involvement may include upper airway, trachea, bronchi, pulmonary vasculature, lung parenchyma, muscles and we can observe recurrent respiratory infections, dyspnea, dry cough, bronchial obstructions, tracheobronchomalacia, tracheal obstructions, noisy breathing, sleep apnoea, interstitial lung diseases, chest deformities, decreasing chest size. It is necessary to control lung function, in some disease – computed tomography, the participation of a pulmonologist, otolaryngologist in the management of patients with this pathology. But it is Important to remember, that patients with hereditary metabolic diseases may have «usual» lung diseases, which should be diagnosed and treated. Enzyme replacement therapy (if it possible), especially if it early started, as a rule, has a positive effect on damage of respiratory system in Hereditary metabolic Diseases.

KEYNOTE/NEPCON/2025/07

Achieving SDG and Neonatal Cardiac Issues in South Asia

Prof. Dr. Manzoor Hussain
Bangladesh

ABSTRACT

There has been enormous success in prevention and control of vaccine preventable and infectious diseases in South Asian countries including Bangladesh. Now we are on the path of Sustainable Development Goals (SDG). Efforts at reducing mortality among children under 5 years of age have been the focus of significant international concern for decades that accelerated in 2000 with the Millennium Development Goals (MDG) with reduction of under-5 mortality rate by two-thirds. Afterwards, the United Nations' adopted SDG in 2015. SDG 3, which aims to end preventable deaths of newborns and children under 5 years of age. Countries are to reduce neonatal mortality to 12 per 1000 live births and under-5 mortality to 25 per 1000 live births by 2030. Whereas the rate of CHD would remain constant with 7-8 per 1000 live births. So congenital heart diseases are now emerging as one of the leading cause of neonatal and infant mortality. CHD is not preventable except those associated with Rubella infection, but many of the deaths of children suffering from CHD are preventable with proper diagnosis and treatment. Recent studies show that a high proportion of neonate with critical CHD (CCHD) experienced late or no referral to cardiac specialty center accounting for significant number of death. Because timely recognition of CCHD could improve outcomes, it is important to identify and evaluate strategies to enhance early detection. The ambition to end preventable childhood deaths will fall short if childhood heart disease is not addressed by health systems in low- and middle-income countries. In South Asian countries including Bangladesh, thus Congenital Heart Disease (CHD) needs to be addressed with priority for achieving SDG targets. Lack of awareness and absence of orientation with lapses in early identification influencing the survival of CHD in low and middle income countries. Absence of pediatric cardiac centers, presence of cardiac centers only in large cities and absence of specific health care policies are the reasons for proper service delivery and treatment. Scarcity of paediatric cardiac care in public hospitals, expense of treatment in private hospitals, presence of few cardiac centers scattered primarily in the capital city, lack of resources and trained personnel in this field and lack of awareness are the major reasons for poor survival of CHD. Unknown number of children with congenital heart disease die each year or remain maltreated or left undetected . Government should stress the need to increase the capacity of Paediatric cardiac care by establishing a proper screening and referral healthcare delivery system, build a trained paediatric cardiac workforce to diagnose and treat children with heart disease, develop a Guideline for indication & timing of intervention and adopt a National Policy for CHD and establish centers at government medical colleges. Until then, we need to increase awareness about CHD among private practitioners, neonatologists, general pediatricians and the community.

KEYNOTE/NEPCON/2025/08

Approach to Common Clinical Scenarios in Paediatric Neurology: A Case-Based Perspective

Dr. Vasant Khaltkar
India

ABSTRACT

Pediatric neurology presents a wide spectrum of diagnostic challenges that require keen clinical observation, focused history-taking, and judicious use of investigations. This presentation adopts a case-based format to highlight twenty common clinical scenarios encountered in pediatric neurological practice. Through these illustrative cases-including toe-walking in toddlers, headaches in school-aged children, progressive dystonia, developmental regression, and seizure-related presentations-we explore practical approaches to differential diagnosis, red flags, and evidence-based management strategies.

Emphasis is placed on recognizing clinical patterns that aid in the early identification of serious conditions such as Duchenne muscular dystrophy, spinal muscular atrophy, Wilson's disease, tuberous sclerosis, and autoimmune encephalitis. The importance of genetic and metabolic testing, neuroimaging, and neurophysiological studies is also underscored, along with timely therapeutic interventions that may alter disease progression.

The session is designed to provide pediatricians and trainees with actionable insights, clinical pearls, and decision-making tools that enhance diagnostic acumen in everyday clinical settings.

KEYNOTE/NEPCON/2025/09

Bridging Birth to Intact Survival: Evidence-Based Perinatal Interventions in LMICs

Dr. Lalan Bharti
India

ABSTRACT

Despite advances in neonatal care, low- and middle-income countries (LMICs) continue to shoulder a disproportionate burden of neonatal mortality, with over two million neonatal deaths and an equal number of stillbirths annually. The majority of these deaths are attributable to preventable causes such as preterm birth complications, intrapartum asphyxia, and sepsis. This presentation synthesizes current evidence and implementation strategies to optimize perinatal outcomes in resource-constrained settings.

Antenatal interventions—such as the administration of corticosteroids (ACS) as per WHO guidelines, antenatal magnesium sulfate for neuroprotection, infection screening treatment , and maternal nutritional support—are critical in mitigating preterm morbidity and mortality. Delivery room management has evolved with the scale-up of neonatal resuscitation programs (NRP, NSSK ,HBB), skin to skin contact , thermoregulation protocols, delayed cord clamping (DCC), early initiations of breast feeding,evidence-based oxygen delivery practices, all of which are essential to reducing intrapartum-related deaths.

Recent trials, including WHO ACTION and iKMC, have validated the efficacy of context-adapted strategies such as immediate Kangaroo Mother Care, demonstrating a 25% reduction in neonatal mortality when initiated soon after birth in low birth weight infants. Postnatal care protocols emphasizing antimicrobial stewardship, clean cord care, and exclusive use of mother's own milk (MOM) are integral to reducing late-onset infections and improving long-term neurodevelopmental outcomes.

The convergence of antenatal, intrapartum, and postnatal interventions—anchored in standardized, scalable care pathways—presents a powerful framework for achieving intact survival. This session highlights the imperative for evidence-informed, context-specific neonatal care strategies to close the survival gap globally.

KEYNOTE/NEPCON/2025/10

Understanding Antibody Levels and Protection After Hepatitis-B Vaccination and the Need for Boosters

Sanjay Verma, Nazakat Hussain, Amit Rawat, Vikas Suri, Vanita Suri

Post Graduate Institute of Medical Education and Research, Chandigarh

ABSTRACT

Background

Hepatitis B immunization in infancy has been part of our immunization program for many years. However, do not know what happens to these protective titers over the period when these children grow up. Do we need regular boosters to keep our protective antibody titers high, or is that not required?

Objectives

Our study aimed to determine the proportion of subjects in various age groups(children and adults) having anti-Hbs antibody levels in the seroprotective range following early infantile hepatitis-B vaccination(HBV).

Material and Methods

In this cross-sectional, observational study, apparently healthy subjects from OPDs of a tertiary care hospital in Northern India, over last one-year were enrolled after taking informed consent. Institute ethics committee clearance was obtained before enrolment. Only those subjects in specified age groups(4-6, 9-12, 16-20 years) were enrolled, who had completed vaccination during infancy, including a minimum of three doses of HB vaccine, and received no other dose of HB vaccination after infancy.

Results

A total of 79 subjects(M:F=48:31) were enrolled from three age groups. When tested for anti-HB antibodies in these subjects aged 4-6, 9-12, and 16-20 years, 82.7%, 73.7%, and 55% had antibodies in the protective range, respectively. This gradual decline with increasing age was also noticed in GMTs, which were 33.6, 20.9, and 19.9 mIU/mL, respectively. Out of the total subjects enrolled, 16(20.2%) developed a subclinical natural infection shown by the presence of anti-HBc antibodies. However, all of them were negative for HBsAg.

Discussion

Our study shows that quite a good number of subjects developed subclinical natural infection even after primary HBV in infancy. All of them were subclinical infections, which the body could clear off, as none was HBsAg positive. Despite the disappearance of anti-HBs, such immunized individuals remain protected against clinical illness and chronic HBV infection upon exposure to the virus.

Conclusions

Infants who received HBV in early infancy, when they become adults, may develop a mild infection when fresh exposure occurs to the virus; however, they remain protected against clinical illness and chronic disease. Therefore, routine boosters are not required for healthy immunocompetent adults.

Acknowledgments: PGI intramural thesis grant

KEYNOTE/NEPCON/2025/11

Recurring Upper Respiratory Tract Infections: Challenges and Clinical Perspectives

Irina Zelenkova

Pediatric and Child Health Research Institute Federal State Budgetary Research Institution, Moscow, Russia, Head of the department, izelen@mail.ru

ABSTRACT

Currrent standard approaches to managing children with recurrent upper respiratory tract diseases often fail to account for differential diagnosis and treatment of underlying pathological conditions that contribute to persistent inflammation and chronicity/. As a result, these methods have limited impact on long-term prognosis and do not sufficiently support the healthy development of the child. Our study demonstrates that addressing comorbid conditions significantly improves outcomes in upper respiratory tract diseases. Children with polymorbidity require the specialized, coordinated care - a personalized multidisciplinary approach - to prevent the development of chronic complications and mitigate the mutually aggravating effects of digestive tract disorders, allergic conditions and recurrent respiratory infections.

Therefore, developing a multidisciplinary approach for managing recurrent upper respiratory tract diseases in children using modern highly informative diagnostic methods is extremely relevant. A personalized multidisciplinary integrated approach to the diagnosis of comorbidities in children with upper respiratory tract pathology can help to make a timely diagnosis, initiate adequate therapy and achieve the best possible control over the disease.

It should be noted that none of the diagnostic methods individually provides a complete picture of the clinical picture of the upper respiratory tract. Only a comprehensive multidisciplinary approach, including a set of modern diagnostic tools, can help establish the true cause of recurrent upper respiratory tract diseases.

KEYNOTE/NEPCON/2025/12

Spectrum of Paediatric Rheumatic Diseases: It's Much More Than Arthritis

Ad. Prof. Dr. Pratap Kumar Patra
MD, DM

ABSTRACT

Pediatric rheumatological diseases (PRDs) represent a diverse group of autoimmune, inflammatory, autoinflammatory, musculoskeletal, arthritic, vasculitic, and connective tissue disorders that manifest during childhood. These conditions are largely heterogeneous, with often obscure or poorly understood etiologies, and they can affect multiple organ systems including the joints, eyes, muscles, skin, blood vessels, and internal organs.

PRDs are broadly categorized into several groups: chronic arthritis, connective tissue diseases, vasculitides, autoinflammatory syndromes, and reactive disorders. Contrary to popular belief, arthritis constitutes only a small subset of these conditions. This misconception contributes to the underdiagnosis of non-arthritic PRDs, particularly in resource-limited settings where both awareness and diagnostic capacity are lacking. In such environments, the presence of complex systemic features—especially when accompanied by subtle or atypical joint involvement—may be overlooked, leading to misdiagnosis or delayed diagnosis. A comprehensive, systems-based approach is essential. Equally important is the recognition of organ-specific PRDs, such as pediatric uveitis or central nervous system vasculitis, which may occur in isolation and require specialized attention.

In Nepal, a single pediatric rheumatologist has expanded the national PRD registry to include over 2,500 patients—an achievement that reflects similar trends across the South Asian region, including the Himalayan and Gangetic plains. To further improve the recognition and care of these diseases, clinicians must adopt a holistic view. This is particularly vital in socioeconomically constrained settings, where the burden of inflammatory and autoinflammatory diseases remains high and often unaddressed. Meaningful change begins with a shift in mindset—prioritizing a high index of suspicion and enhancing diagnostic infrastructure. Through broader awareness, multidisciplinary collaboration, and early intervention, we can improve outcomes and quality of life for children affected by PRDs.

KEYNOTE/NEPCON/2025/13

Plasticised Poly (Vinyl Chloride) Plastic Materials and their Potential Toxicity

Dr. Susan M George
Strathclyde University, UK
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ABSTRACT

Plasticised poly (Vinyl Chloride) (pPVC) is used in medical and non-medical applications. Plasticisers render the pPVC products desirable properties like flexibility and transparency. Medical use of pPVC includes blood bags, endotracheal tubes and intravenous medical tubings. The pPVC components contaminate our air, water and even the breast milk.

Di (2 ethyl hexyl) phthalate (DEHP), a widely used phthalate plasticiser, is an 'endocrine disrupting chemicals' (EDC). The harmful effect of phthalates include reproductive toxicity and carcinogenicity. PVC impaired the growth and viability of mouse and human macrophage cell lines *in vitro(*1). Research shows a strong association between the concentration of phthalate metabolites in the human samples and reduced sperm count(2). These changes are likely to have a gradual, cumulative impact on human race.

Global policy changes are being implemented to curtail the use of EDCs in pPVC materials which young children come in close contact with. More need to be done. We, as Paediatricians, have to raise awareness among the public, and to guide individual lifestyle modifications to reduce our exposure to these harmful chemicals.

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KEYNOTE/NEPCON/2025/14

Climate and Environmental Impact on Children's Health: Protecting Vulnerable Lives at Every Stage

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ABSTRACT

Climate change and environmental degradation pose significant threats to children's health globally (Clark et al., 2020). This presentation examines children's unique vulnerabilities to environmental hazards and outlines protective strategies for the Nepali context. Children have distinct physiological characteristics that increase their susceptibility to environmental harm (Etzel & Landrigan, 2024), including higher metabolic rates, developing organ systems, limited detoxification capacity, and critical "windows of vulnerability" during development (Perera & Herbstman, 2011). Environmental threats encompass climate-related hazards (extreme weather, heat stress, disease vectors) and pollution (air, water, chemicals, waste) (WHO, 2017), disproportionately affecting children in low-income countries, informal settlements, and vulnerable communities (UNICEF, 2021). UNICEF's response framework proposes five action areas: strengthening climate-resilient healthcare facilities, developing responsive primary healthcare, embedding environmental health in schools, promoting youth climate action, and mobilizing collective action. For Nepal's mountainous context, recommendations include vulnerability assessments, health facility solarization, environmental health curriculum integration, healthcare worker capacity building, youth-led initiatives, cross-sectoral collaboration, and environmental health monitoring. This multisectoral approach recognizes that protecting children from environmental hazards is both a public health imperative and a matter of intergenerational justice (UN High Commissioner for Human Rights, 2020), requiring urgent action during critical developmental windows to prevent lifelong impacts.

Key words: climate change, children's health, environmental hazards, vulnerable populations, Nepal, child-centred approach

PLENARY/NEPCON/2025/01

Insight to Paediatric Gynaecology

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ABSTRACT

It is a less captivating or rather a matter of concern, having to spot, girl child, some very little ones, seeking care either for a newly discovered problem or those that skipped attention earlier at birth or perinatal period, in the outpatient's clinic as well as in the hospital indoor, amongst women of all ages. Effort to share the comprehensive memorable experiences of attended Paediatric Gynaecological cases with fewer exception of non-gynaecological, surgical conditions, in descriptive form are incorporated within the service period of 1983 Aug -2018 June, in the Department of Obstetrics and Gynaecology, TU Teaching Hospital. Those deserving mentions are **Congenital** urogenital maldevelopment such as imperforate hymen, septate vagina mandating release of trapped hematometra or long standing mucocolpos amenable to simple surgical drainage. Whereas the more dire cases of cervicovaginal atresia in conjugation with Down's Syndrome, that required hysterectomy. Latter, also was obligated as an act of empathy in a mentally challenged adolescent. Other surgical aid executed was cliteroplasty. Whereas issues of non-development of secondary sexual character, associated with Turner Syndrome were medically dealt. **Acquired** conditions varied from sexual abuse to tactful removable of foreign bodies. Besides the treatment of inflammatory conditions of simple vulvovaginitis to intensifying tubo-oovarian abscess, approached by laparotomy with unilateral salpingo-oophorectomy. Apparently appearing trivial, though challenging were enormous cases of puberty menorrhagia, occasionally exposing cervical polyp, unbelievably. Lately encountered, are escalating number of endometriomas implicating concerns of medico-surgical therapy. Moreover, aggressive neoplasm encountered as Sarcoma Botryoides and germ cell ovarian malignancies exerted their own special attention. **In conclusion,** Paediatric Gynaecology, envisioned, as evolving essential branch, thus deserves improvised set up for offering exceptional dedicated service embroidered with tender loving care for delicate girl child, embracing ultimate privacy.

PLENARY/NEPCON/2025/02

Evolution of Nepal's Multisectoral Nutrition Plan (MSNP) and Role of Professionals

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ABSTRACT

Over the past two decades, Nepal has made remarkable strides in improving nutritional outcomes. Key indicators show substantial progress: stunting among children under five decreased from 41% in 2011 to 25% in 2022; wasting declined from 11% to 8%; and the prevalence of underweight children fell from 29% to 19%[1]. A pivotal driver behind these gains has been the implementation of the Multisectoral Nutrition Plan (MSNP), Nepal's strategic framework for addressing malnutrition through coordinated, cross-sectoral action.

The MSNP has evolved through three critical phases. MSNP-I (2013–2017) laid the foundation by establishing institutional structures and piloting programs in six districts. MSNP-II (2018–2022) scaled up implementation to 35 districts, aligning with Nepal's federal governance structure. MSNP-III (2023–2030) now aims for nationwide coverage across all 753 local governments (Palikas), with the vision of eliminating malnutrition as a barrier to human capital development and socio-economic progress.

The MSNP-III is aligned with global and national commitments, including the Scaling Up Nutrition (SUN) Movement and the Sustainable Development Goals (SDGs), as well as Nepal's own health, nutrition, and human development policies. It combines nutrition-specific and nutrition-sensitive interventions through coordinated efforts spanning health, agriculture, education, WASH (Water, Sanitation, and Hygiene), and local governance.

Despite these advances, Nepal continues to face challenges in intersectoral coordination, sustainable financing, and capacity development at both national and subnational levels. MSNP-III emphasizes a life-cycle, equity-focused, and multi-sectoral approach, promoting coordination across government tiers and sectors with an emphasis on local ownership, innovation, and climate resilience.

Realizing the full potential of the MSNP-III requires sustained engagement from professional societies, academic and research institutions. These stakeholders are instrumental in generating, translating, and applying robust evidence to inform policy, improve program implementation and drive innovation for sustaining Nepal's nutrition transformation.

PLENARY/NEPCON/2025/03

1 Nepal Demographic and Health Survey 2022

RSV Infections in Nepali Children: The Way Forward

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ABSTRACT

Child health indicators in Nepal have shown consistent improvement over the years. Improved control of major pathogens causing severe childhood pneumonia and invasive bacterial disease has significantly contributed towards this development after incorporation of pneumococcal and hemophilus influenzae vaccine in the national immunization program. Acute respiratory infections(ARI), however, remain major cause of under 5 morbidity and mortality in Nepal after decades of focused national child health intervention programs. Respiratory Syncytial Virus (RSV) is increasingly idenfied to be a major pathogen for Nepali children, particularly those under two years old among children with ARI. Recent studies highlight significant burden that RSV places on families and the healthcare system. RSV is responsible for 72.6% of severe acute respiratory infections (SARI) cases in hospitalized children in peak respiratory season. RSV infections peak between July and December and infants under 6 months of age constiute the major proportion of children hospitalized with RSV. While RSV disease predominantly occurs in young children, emerging evidence shows increasing importance of RSV infections in childhood asthma and lung disease in elderly. Economic burden of RSV care is substantial and the cost of RSV treatment can be catastrophic, with families spending up to 35.7% of their annual income on hospital expenses. Newer developments in diagnostics and management of RSV disease over the last decade have shown promise to reduce RSV disease burden and adverse outcomes upon their implementation. While these newer developments are currently out of reach of Nepali children, future developments of cost effective and low and middle income countries focused products will open avenues for introducton of these interventions in Nepal's national immunization program with support from international organizations like Gavi, the vacccine alliance. RSV interventions are expected to be cost effective for mass implementation if they are appropriately priced below US$ 5 per dose. Stronger surveillance, improved healthcare infrastructure, and preventive measures coupled with high level of advocacy from all stakeholders can significantly change RSV landscape in Nepali children.

PLENARY/NEPCON/2025/04

Study of Knowledge Attitude and Practices of Child Protection among Health Care Professional of Nepal

Dr. Ram Hari Chapagain, Dr. Santosh Adhikari, Dr. Tribhuwan Bhattarai, Dr. Jasmine Ma, Dr. Samana Sharma, Ms. Apsara Pandey Mr. Lok Raj Bhatta, Dr. Jamuna Acharya, Dr. Deepak Upadhayay

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ABSTRACT

Background

Child abuse has been recognized as an important public health, human rights, and social issue globally, regardless of economic status of country. The Constitution of Nepal 2015 has strict provisions banning all forms of abuse and violence against children, from family to community levels.

This study aims to determine the level of knowledge, attitude, and practice (KAP) of Nepalese health care professionals dedicated to child health care regarding child abuse, and identify the underlying factors influencing the level of KAP on child abuse and reporting.

Method

Health workers including pediatricians, general practitioners, medical officers, nurses, school health nurses and other paramedics involved in child health care were approached via social media or online platforms and those who provided consent for information were enrolled in the study applying purposive sampling by google forms.

Results

Among 370 participants, the majority were female (71.62%) and married (62.43%). Participants were affiliated with tertiary/central hospitals (40.33%), provincial hospitals (25.89%), and private hospitals (18.53%). The sample included doctors (43.78%), nurses (34.59%), school health nurses (18.11%), and other healthcare professionals (3.51%).

The study found that 56.22% of participants demonstrated high knowledge of child abuse, while 43.78% had low knowledge. A majority (98.65%) exhibited a positive attitude toward child protection, with only 3.51% agreeing that physical punishment is necessary. While 64.59% completely disagreed with gender-based differences in punishment, verbal punishment was more accepted. Reporting rates were low, with only 13.51% having reported a case and 12.16% documenting cases in medical records. Confidence in recognizing abuse was limited, with only 5.14% highly confident. Standardized screening tools were regularly used by 36.49% of participants. Inter professional collaboration was inconsistent, as 52.43% sometimes consulted other professionals, while 7.84% never did. Participants with training had slightly higher knowledge levels (57.98% vs. 53.03%) and reported more cases (15.87% vs. 10.49%), though these differences were not statistically significant ($p > 0.05$).

Conclusion

While knowledge and attitudes regarding child abuse and protection were relatively strong, there was a gap in practical implementation. Many healthcare professionals lacked confidence in recognizing signs of abuse, and reporting rates remained low despite legal requirements. Strengthening training programs to improve confidence in child abuse recognition and promoting the use of standardized screening tools in clinical practice can help to fill this gap. Raising awareness of reporting mechanisms, including helpline numbers and child protection services and promoting inter professional collaboration are other key area that need improvement. Bridging the gap between knowledge and action through structured interventions will be essential in enhancing child protection efforts in Nepal.

Key words: Child abuse, Child protection, KAP, Health care professionals

PLENARY/NEPCON/2025/05

Hemodynamically Significant Patent Ductus Arteriosus in Preterm Neonates: Current Management Dilemmas

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ABSTRACT

The management of hemodynamically significant patent ductus arteriosus (Hs-PDA) in preterm neonates presents a critical challenge, given its association with increased morbidity and long-term complications. The management of Hs-PDA in preterm neonates is a complex and debated topic in Neonatology. The controversies mainly revolve around the timing of intervention, the choice of treatment (medical vs. surgical), and the criteria for defining and diagnosing Hs-PDA.

Recent clinical trials have provided valuable insights into the efficacy and safety of various treatment modalities, including pharmacological interventions, such as paracetamol, indomethacin and ibuprofen, along with non-pharmacological approaches, including fluid restriction and surgical ligation.

This abstract synthesizes findings from recent studies randomized controlled trials eg. BeNeDuctus trial, PDA Tolerate trial, highlighting advancements in understanding the pathophysiology of Hs-PDA and the impact of early diagnosis and intervention. It discusses the evolving consensus on management strategies, considering factors such as gestational age, clinical presentation, and individual risk profiles. Key lessons learned emphasize the importance of a multidisciplinary approach, personalized treatment plans, and the need for ongoing research to refine therapeutic guidelines. This overview aims to enhance clinical practice by integrating recent evidence into the management of Hs-PDA in vulnerable preterm populations.

Key words: Hs-PDA, Preterm, Recent Trials

PLENARY/NEPCON/2025/06

Impacts of Triple Planetary Crisis on Child Health

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ABSTRACT

The triple planetary crisis: climate change, air pollution and biodiversity loss matter to every child. Climate change is a public health crisis which need urgent and transformative actions. Children are one of the most vulnerable populations to the adverse impacts of climate change especially in low- and middle-income countries like Nepal. Children's physical and mental health and wellbeing are threatened by climate change through its effects on temperature, precipitation, and extreme weather; ecological disruption; displacement of population, migration and community disruption. These impacts expose and intensify existing inequities and create unprecedented intergenerational injustice affecting health, safety, and prosperity of today's children and future generations. Furthermore, these impacts disproportionately affect children, leading to higher rates of infant mortality, malnutrition, and respiratory and mental health issues. Air pollution significantly impacts children's health, increasing their risk of respiratory illnesses like asthma, bronchitis, and pneumonia, as well as long-term health issues like cardiovascular disease and developmental problems. Children are particularly vulnerable due to their developing respiratory systems and higher breathing rates compared to adults. More than 90% of the world's children breathe toxic air every day. According to 2024 State of Global Air, air pollution was linked to a total of 709,000 deaths in children under 5 years old in 2024. This represents 15 per cent of all global deaths in children under five and means that every day almost 2,000 children under five die because of health impacts linked to air pollution. Similarly, biodiversity loss negatively impacts children's health by increasing the risk of infectious diseases, exacerbating climate change effects, and disrupting essential ecosystem services. Hence, urgent and transformative actions are needed to protect children health from triple planetary crisis.

PLENARY/NEPCON/2025/07

Consequences of Climate Change on Respiratory Health of Nepalese Children: What We Need to know and Do

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ABSTRACT

Nepal, ranked one of the most vulnerable to climate change, is witnessing severe impacts on various sectors including water sources, biodiversity and health. This climate change poses several risks to the health of our vulnerable children. Key effects of climate change that include increased air pollution, shifting patterns of allergens, increased incidence of wildfires, dust storms and disasters such as floods and landslides have adverse consequences for respiratory health of children. Pneumonia continues to be the leading cause of illness and deaths and asthma and allergic disorders are on the rise amongst children. As advocates for the health and well being of children, we need to educate ourselves to understand, prevent and treat respiratory diseases Nepalese children are at risk of in the future.

PLENARY/NEPCON/2025/08

Evidence Based Guidelines for Management of Acute Gastroenteritis in Children

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ABSTRACT

According to WHO diarrhoeal diseases covers diarrhoea, gastroenteritis, dysentery and cholera. They can all including Gastroenteritis be treated as diarrhoeal diseases. Acute gastroenteritis (AGE) is characterized by the sudden onset of diarrhoea with or without vomiting. In Nepal thousands of children, die from diarrhoel diseases, due to poor health facilities, shortage of qualified heath manpower and unavailability of Rota-vaccine and free essential drug ORS. The NDHS 2022 states that diarrhoea was found to be most prevalent in children under 2 years. and occurs throughout the year with the summer and winter peaks They suffer around three episodes of diarrhea per year, withholding regular feed during episodes results in malnutrition. Viruses account 70% cases of AGE with Rota virus being the most common agent in below 2 years age. Watery stools if preceded by vomiting, could be due to rota virus infection. One is struck by powerful aroma which is recognized as 'eau-de-rotavirus' WHO guideline uses only four simple signs to start management urgently with oral rehydration to combat dehydration. They are-The Sensorium, Sunken Eyes, Thirst and Skin pinch test. Rota virus immunization should be actively promoted for prevention. Diarrhoea or Cholera is a significant health concern in Nepal and is linked to WASH (Water, Sanitation and Hygiene.) Evidence based Medicine is now practiced to avoid malpractice suits and wrath of patients party challenging medical decisions in this age of e-Medicine. Clinical practice guidelines help the Practitioners, Pediatricians and Primary care physicians, to identify best practice. Databases, clinical studies, free access to scientific journal articles (BMJ, Lancet) and access to guidelines of ESPGHAN, NICE, ICDDRB, WHO, UNICEF, Paediatric Societies of world through Internet on various web sites is readily available for update. Hypo- osmolar ORS and Zinc remains the, mainstay of treatments recommended by guidelines from WHO, National Paediatric Societies. ESPGHAN and others. Antibiotic therapy is not needed in most cases. Probiotics may help to restore gut function and duration of AGE but needs to determine the best strains and dose. New evidence indicates anti-secretory drug Racecadrotil in reduction of duration of AGE and Ondansetron orally or intravenously, for vomiting. Special Re So Mal ORS (low sodium high potassium) in malnourished children is advocated. Continuation of breast feeding and rapid return to regular feed is strongly recommended. NEPAS in the past has trained various level of health caders under NEPAS/USAID PROJECT and CB-IMCI programme. NEPAS Paediatric Gastroenterology Chapter should develop Evidence Based AGE management guideline and ask the NEPAS members and other Health Care providers treating the children, strictly follow the guideline Climate change is likely to increase AGE incidence in Nepal unless the preventive measures like health infrastructure, water supply, environmental sanitation, malnutrition is not encountered.

PLENARY/NEPCON/2025/09

Typhoid Fever: A Lingering Threat

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ABSTRACT

Typhoid and paratyphoid fever remain an important public health problem mainly in children and young adults in developing countries. The incidence rates vary significantly. Incidence is highest in South Central and Southeast Asia due to inadequate sanitation, unsafe water and food. In Dhaka, Bangladesh (1,110 per 100,000/year between 2016-2019) and India (1,279 per 100,000/year between 2012-2013). Cases in some places are reported 10 per 100,000 annually. Globally, typhoid results in approximately 110000-160000 deaths per year, with much of the burden falling on children, mainly in low-income regions.

Challenge

The major challenge in the management is antimicrobial resistance (AMR) to first-line drugs. The frequency of drug resistant *S.* typhi has been increasing since the 1960s. Nonsusceptibility to fluoroquinolones among *S.* typhi isolates peaked by 2016 in Bangladesh (98%), Pakistan (95%) and Nepal (87%). Travel associated infections are more likely to be antibiotic resistant. The emphasis should be on prevention through improved sanitation and better vaccines, like typhoid conjugate vaccines.

Transmission

The disease is transmitted via food or water contaminated by human feces. More than 100,000 organisms are usually needed to cause illness in adults. Although *Salmonella* typhi is the most common isolate, the proportion of *S.* paratyphi infections is increasing in some areas.

Epidemiology

S. typhi is the causative agent of typhoid fever. It utilizes humans as its reservoir (defined as the primary habitat where the pathogen normally resides, grows, and multiplies). While *S.* typhi possesses a limited capacity to proliferate outside a human host, it exhibits remarkable resilience and can persist for extended durations in the environment, thereby facilitating transmission. Infection signifies direct or indirect contact with an infected person. The primary mode of transmission involves the fecal-oral route, whereby *S.* typhi bacilli are shed for a prolonged duration in the feces and, to a lesser extent, with the urine of both active cases and carriers. Contaminated drinking water or food is the primary vehicle for dissemination, frequently leading to large-scale epidemics, particularly in regions with inadequate water treatment and sanitation infrastructure. Studies have demonstrated the ability of *S.* typhi to survive for weeks in water and even longer in certain foods, further compounding the risk of environmental transmission.

Complication, relapse, reinfection

Complications occur in 10–15% of patients; most of these develop during the 2nd or 3rd week of illness.

Even with appropriate treatment, the relapse rate is 5% to 10%, typically occurring two to three weeks after fever resolution. Relapses are usually milder than the initial illness, and the *Salmonella* strain responsible generally exhibits the same antibiotic susceptibility as the initial infection. Reinfection can also occur and is distinguishable from relapse through molecular typing.

Antimicrobial treatment

Enteric fever is typically treated with a single antibacterial drug. The choice and route of antibiotic depends on factors such as the severity of the illness, local resistance patterns, the feasibility of oral medications, the clinical setting, and available resources. The optimal drug and treatment duration remain uncertain.

The primary treatment options are third-generation cephalosporins or azithromycin. Carbapenems are usually reserved for suspected infections with XDR strains.

The emergence and spread of MDRST since 1989 has led to a shift in empirical therapy. Third-generation cephalosporins like ceftriaxone, or azithromycin have replaced the once first-line drugs TMP-SMX and ampicillin in children. The growing challenge of increasing resistance to cephalosporins and fluoroquinolones is a significant concern. Currently most *S. t*yphi isolates are still sensitive to ceftriaxone and to a lesser degree to ciprofloxacin, although nalidixic acid resistant isolates are common in the Indian subcontinent.

Ceftriaxone resistance is slightly on the rise, with reports of infections caused by extended-spectrum beta-lactamase (ESBL) producing *S.* typhi and *S.* paratyphi. Despite this, these strains generally remain susceptible to azithromycin, chloramphenicol, and carbapenems, with few exceptions.

MIC breakpoints for azithromycin susceptibility are not clear. Data suggest that *S.* typhi isolates with an MIC ≤16 mcg/mL typically respond well to azithromycin. The first report of azithromycin resistance in *S.* paratyphi A was documented in a traveler returning from Pakistan to Britain, few cases also have been reported from South Asia. This is believed to be mediated by R717Q/L mutations in the acrB gene.

Multidrug-resistant (MDR) strains, resistant to ampicillin, trimethoprim-sulfamethoxazole, and chloramphenicol, are widespread globally. However, their prevalence has been declining as alternative antibiotics have become more commonly used in the treatment of enteric fever.

Extensively drug-resistant (XDR) typhoid strains are those resistant to all five antibiotics: ampicillin, trimethoprim-sulfamethoxazole, chloramphenicol, fluoroquinolones, and third-generation cephalosporins. Over 5,000 cases of this XDR *S.* typhi strain were reported from Pakistan, with cases included from the United Kingdom and the United States. However, the strain remains sensitive to azithromycin and carbapenems, which are the primary treatment options.

Drug resistance

Multidrug-resistant *Salmonella* (MDR *S.* ser. Typhi) infections are found in 22% to 25% of children worldwide. Compared to non-MDR strains, MDR *S.* ser. Typhi is more often associated with severe symptoms, including fever, toxic appearance, hepatomegaly, splenomegaly, and abdominal tenderness or distention upon admission. Children with MDR infections also tend to present later in the disease course, often having received prior antibiotic treatment, and are at increased risk for complications such as dehydration, gastrointestinal bleeding, ileus, shock, myocarditis, and pneumonia.

Prevention

The holistic approach of controlling infection in animal reservoirs, preventing contaminated animal-derived foods, and improving hygiene, sanitation, and water supply. Clean water, handwashing education, and safe food handling reduce person-to-person transmission. *Salmonella* can survive if food is not cooked above 150°F (65.5°C) for at least 12 minutes. An increase in infections from an unusual serotype warrants an epidemiologic investigation to identify the source and stop outbreaks.

Key strategies include responsible antibiotic use in livestock, safe food processing, proper sewage disposal, clean water assurance, pet turtle sale bans, cosmetic inspections, and thorough medical equipment cleaning. Families with small children should avoid pet reptiles due to infection risks. Contact precautions should be taken for diapered or incontinent children until three consecutive negative stool cultures confirm clearance post-antimicrobial therapy. For drug-resistant typhoid, precautions should continue throughout hospitalization. Handwashing after defecation, during food preparation, and excluding infected individuals from food handling help limit spread. Hospitalized children with Salmonella gastroenteritis require isolation under enteric precautions until stool cultures are negative. Extraintestinal infections necessitate isolation until intestinal infection is ruled out. Neonatal *Salmonella* outbreaks should prompt source investigations, cohorting of infected infants and staff, and surveillance cultures for effective control.

Breastfeeding provides critical protection, especially in developing regions, as human milk contains secretory IgA and other defences. Case-control studies confirm its strong protective effect, reinforcing the need for healthcare providers and community programs to encourage breastfeeding.

The new, improved typhoid conjugate vaccines are available mow. In 2018 World Health Organization approved conjugated typhoid vaccines in children above 6 months of age. The vaccine has Vi polysaccharide antigen conjugated to tetanus toxoid (Vi-TT) to be given as a single injection. There are no paratyphoid fever vaccines.

Vi-conjugate Typhoid Vaccines

The limitations of typhoid polysaccharide vaccines include non-effectiveness below the age of 2 years, limited efficacy (of around 60%), T cell independent response which lacks immune memory, not boostable, and it does not protect against paratyphoid fever. Conjugation of the Vi antigen with a protein carrier is desirable as it would induce a T cell dependent immune response.

1. Vi-polysaccharide conjugate vaccine conjugated with Tetanus Toxoid (TCV-TT): Salmonella typhi Ty2 is conjugated with tetanus toxoid (TT). The manufacturer has used a dose of 25µg/0.5 mL which is the highest having been used in other trials.
2. Vi-PS Conjugate vaccine conjugated with *Pseudomonas aeruginosa* exotoxin A
3. Vi-polysaccharide conjugate vaccine conjugated with CRM197: Vi-capsular antigen is derived from *Citrobacter freundii*, which is structurally and immunologically similar to Salmonella typhi. It is a soil bacteria that lives as a commensal in animal and human intestine without causing disease in healthy people. It is non pathogenic because it is devoid of many toxins which are present in S typhi. It is licensed in India. Each 0.5mL contains Vi Polysaccharide 25 µg.

Recommendations for use: Considering the typhoid epidemiology in the country and analyzing the available data of the vaccine, ACVIP recommends the use of new conjugate vaccine at 6 months age. There is no conclusive evidence for a booster. However, considering the endemicity of typhoid

a second dose may be given at 2 years or above. Only one dose is required if started above 2 years. TCV-TT is licensed till 45 years age.

Conjugate typhoid vaccine should be given to all previously unimmunized child 4-6 weeks after recovery from typhoid fever, as immunity following typhoid disease is neither complete nor long lasting.

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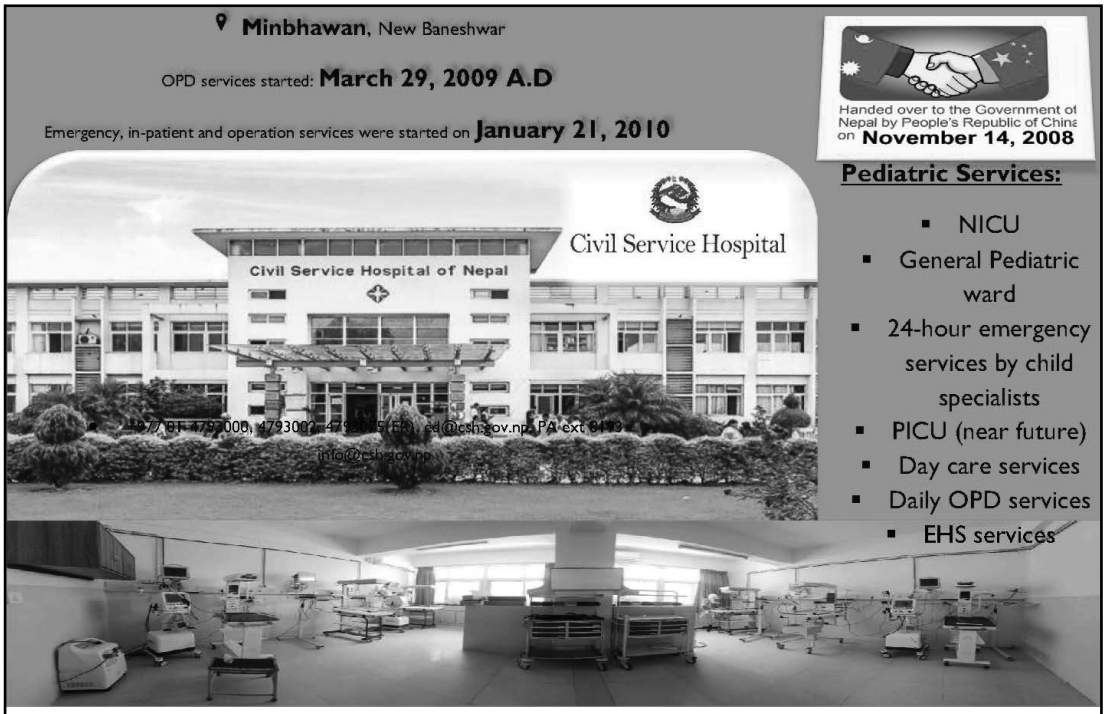
Scientific & Programmatic Updates on GSK Vaccines

Dr. Md M Kabir

NOT AVAILABLE

SYMPOSIA/NEPCON/2025/02



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Role of Pneumococcal Vaccination in Pneumococcal Disease

Dr. A J Chitkara
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ABSTRACT

Pneumococcal diseases are a major cause of morbidity and mortality, especially in under five children and developing countries. S. pneumoniae causes both invasive disease through blood or cerebrospinal fluid, resulting in bacteremia, pneumonia, septicemia, meningitis, empyema, and osteomyelitis as well as non-invasive mucosal disease viz. pneumonia, sinusitis, bronchitis, and otitis media. Immunization is considered one of the most cost-effective public health interventions for protecting children from pneumococcal disease and is being adopted increasingly across the globe especially in the low- and middle-income countries (LMIC's) in the last decade.

The introduction of PCVs into the national immunization program reflects an important policy change and needs a careful thought process while choosing a PCV based on the country specific serotype distribution, immunogenicity, vaccine effectiveness/impact, herd protection, prevalent antimicrobial resistance and logistics. This presentation aims to consolidate and present critical aspects associated with pneumococcal disease, the assessment of PCVs, offering insights and an in-depth understanding of outcomes from private healthcare perspective.

SYMPOSIA/NEPCON/2025/03

Fighting the Flu: From Infection to Immunization

Dr. Srinivas G. Kasi
Abbott Symposium

ABSTRACT

Influenza is a viral infection which predominantly affects the respiratory tract. It is an orthomyxovirus virus. There are four types of influenza viruses of which A, B and C can cause human disease, whereas D causes disease only in cattle. Influenza poses a substantial disease burden in the very young, the elderly and in those with medical comorbid conditions. During outbreaks, attack rates are highest in children and children are the reservoirs of infection during community outbreaks. Antigenic drifts are responsible for the need to have annual influenza strain recommendations. Antigenic shift gives rise to a new virus and is responsible for pandemic. There are two types of influenza vaccines, the inactivated and the live attenuated vaccines. Presently, all vaccines contain 2 A strains and 2 B strains. The vaccine should be administered at least two weeks before the onset of the peak in influenza activity. This timing may vary from geographical zone to geographical zone. Vaccine recommendations for the northern hemisphere is done in the March and for the Southern hemisphere in the month of September. The efficacy of the influenza vaccines are affected by age, presence of comorbid conditions, pre-existing immunity and most importantly, the match between the vaccine strains and the circulating strains. Vaccines play an important role in the control of influenza infections. Influenza caused by the Avian strains (H5N2) pose a big threat to humans. To overcome the shortcomings of the presently available seasonal influenza vaccines research is being done for the development of universal influenza vaccines.

SYMPOSIA/NEPCON/2025/04

Progress towards Achieving Measles and Rubella Elimination in Nepal

Dr. Rahul Pradhan
WHO Symposium

ABSTRACT

Measles and Rubella (MR) are highly infectious vaccine preventable diseases that can cause severe complications and death. In addition, measles infection causes 'immune amnesia', increasing susceptibility to many lethal diseases.[1] In 2023, there were an estimated 107,500 measles deaths globally, mostly among unvaccinated or under vaccinated children under the age of 5 years.[2] Of the total deaths averted by vaccination globally in the last 50 years, 93·7 million lives saved (60·8%) was due to measles vaccination.[3] However, the potential of immunization has not been fully realized due to inequities and sub-optimal vaccination coverage.

The WHO South-East Asia Regional Vaccine Implementation Plan 2022–2026 envisions MR elimination in the Region.[4] The WHO Regional Committee for South-East Asia endorsed the resolution on MR elimination by 2026.[5] MR elimination is a priority of the National Immunization Program of Nepal, and accordingly MR elimination roadmap 2023-2026 is being implemented. The five key strategic objectives are strengthening immunization, surveillance, laboratories, outbreak preparedness and response, and linkages.

In 2018, Nepal has already been certified as one of the six countries in WHO SEAR to control rubella. Following nation-wide MR campaign in Q1 2024, and with increasing routine immunization coverage, measles cases have decreased significantly. To achieve MR elimination, high population immunity must be achieved with >95% coverage with two doses of MR vaccine at all levels.

Pediatricians play a key role towards achieving MR elimination by supporting MR surveillance, timely reporting of all suspected cases, and advocating to achieve high routine immunization coverage with equity, including addressing rumors, vaccine hesitancy, and knowledge gaps.

SYMPOSIA/NEPCON/2025/05

1 Mina, Michael J., et al. "Measles virus infection diminishes preexisting antibodies that offer protection from other pathogens." *Science* 366.6465 (2019): 599-606.

2 WHO, Measles key facts, 14 Feb 2024, https://www.who.int/news-room/fact-sheets/detail/measles

3 Shattock, Andrew J., et al. "Contribution of vaccination to improved survival and health: modelling 50 years of the Expanded Programme on Immunization." *The Lancet* 403.10441 (2024): 2307-2316.

4 Strategic Plan for measles and rubella elimination and sustenance in the WHO South-East Asia Region: 2024–2028. New Delhi: World Health Organization, Regional Office for South-East Asia; 2024. Licence: CC BY-NC-SA 3.0 IGO.

5 World Health Organization. Regional Office for South-East Asia. (2024). MEASLES AND RUBELLA ELIMINATION WITH INTERRUPTION OF TRANSMISSION OF INDIGENOUS MEASLES AND RUBELLA VIRUS BY 2026. World Health Organization. Regional Office for South-East Asia. https://iris.who.int/handle/10665/379255

Strengthening Childhood Cancer Care in Nepal: A Collaborative Approach to Improving Access to Treatment and Enhancing Survival Rates

Dr. Kreeshna Prasad Paudel, Dr. Pushpa Raj Poudel, Dr. Gampo Dorji, Dr. Suman Panthi

ABSTRACT

Background

Nepal reports approximately 1500 new childhood cancer cases annually, with only one-third receiving treatment due to limited access to resources and essential medicines. The survival rate is around 30%, significantly lower than in high-income countries. In 2020, the Ministry launched the Global Initiative for Childhood Cancer (GICC), with support from World Health Organization and St. Jude Children's Research Hospital to strengthen childhood cancer care. Building on this success of GICC, Nepal joined the Global Platform for Access to Childhood Cancer Medicines (GPACCM) in 2022, receiving free cancer medicines.

This presentation will explore strategies to ensure sustainable access to life-saving medicines, improve healthcare access, and promote partnerships that support childhood cancer care at the national and community levels.

Objectives of the presentation

- To showcase Nepal's collaborative approach in strengthening childhood cancer care by improving access to treatment and essential medicines.
- To highlight the achievements, lessons learned, and future steps to enhance survival rates and ensure sustainable impact.

Key Messages from Presentation

- Collaborative governance is crucial to success.
- Early political engagement builds long-term commitment.
- Free access to medicines can significantly change survival outcomes.
- Sustained partner support and government ownership are essential for scale-up.

SYMPOSIA/NEPCON/2025/06

Transforming Newborn Health: Nepal's Every Newborn Action Plan 2023-2030

Ms. Chahana Singh, MPH
Health Specialist, UNICEF Nepal

ABSTRACT

Maternal and newborn healthcare is a fundamental pillar of public health, critical for safeguarding the lives and well-being of women and infants. Despite notable progress in reducing maternal and under-five mortality worldwide, neonatal mortality rates have declined at a slower pace, with preventable causes such as premature birth, birth asphyxia, infections, and complications at birth remaining prevalent. To address this, the World Health Organization introduced the Every Newborn Action Plan (ENAP) in 2014, offering a strategic framework to end preventable newborn deaths, reduce disability and stillbirths, and improve maternal outcomes globally.

In response to its own challenges with neonatal mortality and stillbirths, Nepal endorsed the Nepal Every Newborn Action Plan (NENAP) in 2016, followed by an initial Implementation Plan for 2016–2021. With major administrative reforms following the 2015 constitution, Nepal has now developed a revised **NENAP Implementation Plan 2023–2030**, aligning with global ENAP goals. This updated plan was formulated through evidence-based analysis, stakeholder consultation, and external review, and it structures its interventions across five thematic areas: preconception and antenatal care, care during labor and childbirth, postnatal and immediate newborn care, care for small and sick newborns, and beyond-survival care.

The NENAP-IP 2023–2030 aims to accelerate progress toward reducing neonatal mortality and stillbirths, contributing directly to Sustainable Development Goal 3: ensuring healthy lives and promoting well-being for all. Successful implementation of this plan will help ensure that every woman and newborn in Nepal has access to quality healthcare, enabling them to survive, thrive, and reach their full potential.

SYMPOSIA/NEPCON/2025/07

Investing in Nepal's Youngest: Strategic framework in Early Childhood Development in Nepal

Dr. Rinesh Adhikari

NOT AVAILABLE

SYMPOSIA/NEPCON/2025/08

Paediatric ARDS Panel Discussion

Dr. Sandip Singh, Dr. Puspraj Awasthi, Dr. Manoj Kumar Chaudhary, Dr. Sudeep KC

ABSTRACT

The importance of acute respiratory distress syndrome (ARDS) lies in the fact that this heterogenous clinical syndrome may be a final respiratory consequence of various pulmonary and nonpulmonary organ system dysfunction. Additionally, it contributes to high rates of mortality and long-term morbidity in both adults and children. ARDS was first described by Ashbaugh and colleagues in 1967 when they published a case series of 12 patients which included an 11-year-old boy and 4 adolescents. Since then, there have been several iterations of the definition and management of ARDS. In 2015, the Pediatric Acute Lung Injury Consensus Conference (PALICC) provided the first pediatric-specific definitions for acute respiratory distress syndrome, pediatric -ARDS (PARDS). Subsequently, the Second PALICC (PALICC-2) created modifications based on relevant evidence. This 2023 document also defines a less data-intense version of pARDS for low-resource settings, pertinent to the diagnosis and management of critically ill children of Nepal. No specific treatment is available for ARDS and management is supportive. However, specific mechanical ventilation approaches and ancillary treatments are crucial to decrease morbidity and mortality. At NEPCON-25, the pediatric critical care chapter will present expert panel discussion on a case based progression of pARDS from diagnosis to evidence based current therapeutic approaches. This practical approach to a child with pARDS will be helpful to pediatricians taking care of critically ill children across Nepal.

CHAPTERS/NEPCON/2025/01

The Challenges of Non-resolving Pneumonia in Children

Dr. Prashant Rijal
MD Paediatrics, Fellowship in Paediatric Pulmonology

ABSTRACT

Non-Resolving pneumonia is define as presence of persistence of clinical symptoms and signs (cough, sputum production with or without fever > 100 0 F, failure of resolution of the radiographic features by 50% in 2 weeks or completely in 4 weeks on serial chest X ray despite of antibiotics therapy for minimum of 10 days and sputum for AFB smear negative for 2 consecutive samples. With adequate empirical antibiotic treatment, a good clinical response can be seen within 3–5 days. The dilemma arises when patients have delayed resolution or persistence of radiographic infiltrates despite treatment with antibiotics ranging from 5 to 10 days. There are various infectious and noninfectious causes of non-resolving pneumonia. Knowledge about time taken for radiological resolution of pneumonia will help to avoid overtreatment. Knowledge about factors causing non-resolution and the non-infectious causes will help to undertake timely procedures to make the accurate diagnosis. A better understanding is needed for efficient management. A thorough review of the child's history, symptoms and radiographic images is essential to determine if treatment has been adequate and if any underlying conditions are present. Non-resolving pneumonia in children presents a significant challenge due to its persistent nature, potential underlying causes and the need for more detailed investigations like CT scan of chest, Flexible pediatric bronchoscopy and Broncho alveolar lavage, immunologic workup etc. Treatment of non-resolving pneumonia includes therapy for current infection and definitive therapy for underlying disease.

CHAPTERS/NEPCON/2025/02

Approach to a Child with Recurrent Pneumonia

Dr. Jagat Jeevan Ghimire
Paediatric Pulmonologist, Kanti Children Hospital
Kathmandu, Nepal

ABSTRACT

Recurrent pneumonia defined as at least two episodes of pneumonia in one year or three ever with radiological clearing in between has variable aetiology. Recurrent pneumonia occurs in fewer than one tenth of all children with pneumonia. It can result from aerodigestive problem, immunodeficiency, structural problems and disorders of mucociliary clearance. Detailed history, examination followed by radiological evaluation as CXR and CT chest as necessary forms the basis of diagnosis of recurrent pneumonia. Detailed workup as immunodeficiency workup, airway evaluation such as swallow study, reflux study, bronchoscopy and BAL are important in establishing aetiology of recurrent pneumonia. Hence a systematic and evidence based approach is important in establishing diagnosis of recurrent pneumonia in children.

CHAPTERS/NEPCON/2025/03

Management of Bronchiectasis in Children

Dr. Amrit Ghimire
MD Pediatrics, Fellowship in Paediatric Pulmonology

ABSTRACT

Introduction

Bronchiectasis in children is a chronic respiratory condition characterized by irreversible dilation of bronchi, leading to persistent cough, sputum production, and recurrent respiratory infections. Early diagnosis and comprehensive management are crucial to prevent disease progression and preserve lung function. This review explores therapeutic strategies for pediatric bronchiectasis.

The mainstay of management involves a multidisciplinary approach that includes airway clearance techniques, mucoactive agents, pulmonary rehabilitation, bronchodilators and inhaled corticosteroids tailored to individual needs and age-appropriate techniques. Regular chest physiotherapy is essential to enhance mucus clearance. Antibiotics play key roles in preventing exacerbations, eradicating pathogens, and managing acute exacerbations, which are guided by culture sensitivities and symptoms. Identifying and treating the underlying etiology-such as post infectious damage, immunodeficiency, or ciliary dyskinesia- is pivotal for long term control.

Monitoring includes regular clinical assessments, sputum cultures, lung function testing and imaging when indicated. Immunizations, including influenza and pneumococcal vaccines, play a preventive role. Nutritional support and psychological care are also integral, given the chronic nature of the disease and its impact on quality of life. Surgery and lung transplantation are reserved to severe, refractory cases after failure of medical therapies.

Conclusion

Improved awareness and early referral to specialist respiratory services have been shown to reduce morbidity and improve outcomes. The optimal management of pediatric bronchiectasis requires a multidisciplinary approach, including physiotherapy, pharmacotherapy, and vaccinations, tailored to individual needs and guided by evidence-based guidelines. Early diagnosis and consistent follow-up are key to improving long-term respiratory health and quality of life in affected children.

CHAPTERS/NEPCON/2025/04

What a Paediatrician Should Know About Bone Marrow Transplant?

Dr. Vikas Dua, Dr. Swati Bhayana, Dr. Sohini Chakrobarty, Dr. Arun Danewa, Dr. Sunisha Arora, Dr. Parminder Pal Singh, Dr. Surabhi Pokhariyal

ABSTRACT

Bone marrow transplant (BMT) or hematopoietic stem cell transplant (HPSCT) refers to administering healthy hematopoietic stem cells to patients with dysfunctional or depleted bone marrow. First explored in 1950s as the brain child of E Donnell Thomas, over the last few decades, BMTs have come a long way. The bone marrow transplant basically is a blood transfusion logistically but molecularly and immunologically is no less than a mobile reset. It works on the principal of using high dose chemotherapy, graft vs disease such as leukaemia effect and T cell regulatory function. This can be divided into autologous transplant (where patients own stem cells are transfused as a rescue after high dose chemotherapy) or allogeneic (where stem cells from alternate donor – matched sibling, matched unrelated or mismatched haploidentical parents are transfused). This is used for malignant conditions such as relapse and refractory leukaemia, lymphoma, refractory solid tumours, brain tumours and for non-malignant conditions such as thalassemia, sickle cell disease, aplastic anaemia and immunodeficiencies. A well trained and specialized team tirelessly plans starting from the human leukocyte antigens (HLA) typing and finding the suitable donor to planning an appropriate chemotherapy regimen (myeloablative regimen versus reduced intensity regimen, radiation based versus non radiation based with appropriate graft versus host disease prophylaxis, antiviral and antifungal prophylaxis and immunosuppression), administering the care and monitoring through the transplant with post transplant care such as graft versus host disease, rejection, infections due to post-transplant immunosuppression, disease relapse and vaccination. Complications include acute complications such as chemotherapy regimen toxicities, engraftment syndrome, sinusoidal obstruction syndrome, graft rejection and failure, bacterial, fungal and viral infections, acute graft versus host disease to chronic issues such as chronic graft versus host disease, idiopathic pneumonia syndrome, bronchiolitis obliterans and disease relapse. With better donor pools, lesser toxic regimens, rapid engraftments with HSCT, better outcomes and success rates reaching up to 90% in matched sibling settings, BMT has transformed the landscape of medical treatment and the miracles shine brightly as a lifesaving procedure for those with life threatening diagnosis.

CHAPTERS/NEPCON/2025/05

Updates on Paediatric ITP – An Enigmatic Challenging Disease

Dr. Shilpa Amatya

ABSTRACT

Overview/ Introduction

The management of immune thrombocytopenic purpura (ITP) in children show great variation among physicians. The aim of this talk will be to provide a brief rational overview of paediatric ITP focusing on recent management updates with an effort to clarify some of the common practical OPD dilemmas encountered while managing a child with ITP.

Learning Objectives – will include changing definitions and classifications, a practical approach to management based on ASH 2019 guidelines and some brief insights from EHA 2024. The talk will also cover interesting aspects as to when to think beyond ITP and look for red flag signs before diagnosing ITP. Common Do's and Don'ts in childhood ITP management, WHEN to treat and WHAT to treat with will be briefly discussed.

Conclusion

ITP is a diagnosis of exclusion and clinical acumen. Treatment does not alter the natural history of the disease. The goal of ITP treatment is not platelet count normalization but patient education, addressing parental anxiety and judicious use of medicines considering individual patient interests and affordability. " Don't treat the platelet count but treat the patient's symptoms if present" will be an important take home message. So join us as we learn together and brush upon important practical highlights and updates on a commonly encountered disease process – Paediatric ITP.

CHAPTERS/NEPCON/2025/06

Shared Care Model: A Solution for Pediatric Oncology in Resource-Limited Settings

Dr. Bishow Nath Adhikari
Pediatric Hematologist Oncologist,Kanti Children's Hospital.

ABSTRACT

Despite of significantly high childhood cancer survival in high income countries, rates in low and middle-income countries (LMICs) remain below 30%, largely due to limited access to specialized care. The **Shared Care Model (SCM)** addresses this gap by decentralizing treatment-connecting tertiary care centers (TCCs) with local hospitals to provide components of cancer care closer to patients' homes.

SCM functions through **referral and reverse referral systems**, with diagnosis and intensive therapy at TCCs, and maintenance or follow-up at peripheral centers. Its foundation includes **capacity building, efficient communication, standardized protocols**, and **comprehensive support services**.

In countries like **Nepal**, SCM is critical due to workforce shortages, diagnostic limitations, long travel distances, financial constraints, and high treatment abandonment. SCM enhances provider skills, improves access, ensures care continuity, and is a **cost-effective** approach to expanding pediatric oncology services.

Implementation strategies includes **hub-and-spoke networks**, **training and mentorship**, **infrastructure development**, **telemedicine and digital tools** and **patient navigation and social support**.

Benefits of SCM include better access, lower abandonment, stronger local capacity, and a more resilient health system.

Four TCCs includes **KCH, BCH, BPKMCH and PAHS**. Shared care centers are established in **Biratnagar, Pokhara, Butwal, Surkhet, Banke**, and **Dhangadi** with support from **WHO, WCC, TACC**, and **RGMT**.

Despite progress, challenges such as care variability, supply gaps, staffing issues, and weak policies persist. Moving forward, integrating SCM into national strategies and strengthening partnerships is key to achieving **sustainable, equitable pediatric cancer care**.

CHAPTERS/NEPCON/2025/07

Approach to a Child with Short Stature

Dr. Jyoti Agrawal
PT Birtacity Hospital and Research center

ABSTRACT

Growth represents an interplay of genetics, nutrition and hormones. Maximum growth occurs during infancy and puberty emphasizing the need for careful monitoring. Growth failure in children is considered who are very short, short and not growing or not growing at all. Growth chart, bone age and pubertal status should be assessed before any workup is done for short stature. Growth should be interpreted in light of parental expectations. Height age and weight age provide clue to diagnosis of growth failure. Nutritional cause of growth failure should be considered with greater effect on weight than height. Basal GH has no role in the diagnosis of GHD. GH-IGF 1 axis should be evaluated after excluding all other causes of growth failure. Growth hormone should be cautiously used after ruling out all systemic and nutritional causes. Growth hormone therapy is indicated in children with GHD, Turner syndrome, SGA without catchup, CKD and Prader Willi syndrome.

Key words: short stature, growth hormone

CHAPTERS/NEPCON/2025/08

Perspective on Diabetes and Mental Health: Insight from people living with Diabetes, their Parents and Healthcare providers

Archana Nepal, Anjum Shakya, Sulochana Joshi
Patan Academy of Health Sciences (PAHS)

ABSTRACT

Background

Type 1 diabetes affects approximately 1.21 million children and adolescents globally. Beyond physiological impacts like glycemic control and complications such as keto acidosis, it imposes profound psychological stress. Depression and diabetes distress are significant challenges, particularly in low- and middle-income countries where healthcare systems often prioritize physical care over mental health.

Objective

This study explored the lived experiences of people living with diabetes (PLWD), their parents/guardians, and healthcare providers, focusing on perceptions and experiences at the intersection of diabetes and mental health.

Methods

A qualitative, exploratory design was used. Five focus group discussions were conducted with 20 adolescents and young adults with T1DM, 18 parents/caregivers, and 12 healthcare providers. Discussions were transcribed verbatim and thematically analyzed using Braun and Clarke's method.

Results

Across discussions, participants spoke of the shock and grief that accompanied their diagnosis, describing feelings of isolation and a loss of their imagined future. Schools were often unprepared to support diabetic students, and family dynamics could either foster resilience or deepen emotional wounds. Masking emotions, withdrawing socially, declining academically, disturbed sleep, erratic sugar levels, and frequent hospitalization for mismanaged diabetes were considered important markers of early depression. Differences in perceived support and autonomy between adolescents and their parents were evident. Although healthcare providers recognized these struggles, they noted a gap between recognizing mental health needs and actual mental health service uptake.

Conclusion

The emotional battles of young people with diabetes highlight the urgent need to integrate mental health services into routine diabetes care.

CHAPTERS/NEPCON/2025/09

From Colic to Crisis – Radiologist's Insights into Paediatric GI Imaging for Clinicians

Ram K Ghimire, MD

Principal Consultant Radiologist, Nepal Mediciti Hospital, Bhainsepati, Lalitpur

ABSTRACT

Thorough history-taking and clinical evaluation form the cornerstone of diagnosing acute abdominal conditions in children. Imaging plays a pivotal role in stratifying cases—distinguishing those manageable with medical therapy from those requiring urgent surgical intervention. The judicious selection of imaging modalities is essential to accurately identify conditions ranging from benign to life-threatening. Initial investigations typically include plain chest and abdominal radiographs, abdominal ultrasonography, and fluoroscopic gastrointestinal studies. These are often sufficient to establish a diagnosis; however, in selected cases, further assessment using computed tomography (CT) or magnetic resonance imaging (MRI) may be warranted. This presentation aims to guide clinicians in selecting the most appropriate imaging techniques/investigations and recognizing key imaging features crucial for identifying a wide spectrum of pediatric gastrointestinal conditions in everyday clinical practice.

CHAPTERS/NEPCON/2025/10

Approach to Chronic Diarrhoea in a Children

Dr. Dilip Neupane

ABSTRACT

Introduction

Diarrhoea remains a significant global cause of morbidity and mortality. While acute diarrhoea is commonly infectious in origin, there is limited epidemiological data on chronic diarrhoea, which can be equally distressing. Chronic diarrhoea is defined as diarrhoea lasting more than two weeks, while acute diarrhoea resolves within two weeks. Diarrhoea persisting beyond 14 days but initially acute is termed persistent diarrhoea. A thorough clinical history and physical examination are essential for accurate classification and diagnosis.

Diagnosis and Management

Chronic diarrhoea is broadly categorized based on stool characteristics into watery, fatty, and inflammatory types. Watery diarrhoea is further divided into osmotic and secretory subtypes. Secretory diarrhoea continues despite fasting, whereas osmotic diarrhoea improves with cessation of oral intake. Fatty diarrhoea can result from either malabsorptive or maldigestive mechanisms. Malabsorptive diarrhoea is associated with mucosal damage or villous atrophy, impairing nutrient uptake, while maldigestive diarrhoea results from pancreatic enzyme deficiencies or bile acid disorders.

Inflammatory diarrhoea often presents with blood or mucus in the stool. In infants, cow's milk protein allergy is a common cause, while in older children, conditions such as food protein-induced enterocolitis syndrome (FPIES), eosinophilic gastrointestinal disorders, and inflammatory bowel disease (IBD) are more prevalent. Differentiating Crohn's disease from ulcerative colitis and abdominal tuberculosis can be challenging and often requires a multidisciplinary approach. Rare congenital diarrhoeas and enteropathies (CODEs) should also be considered in infants.

Conclusion

An algorithmic diagnostic approach based on clinical and investigative findings is essential for effective management.

CHAPTERS/NEPCON/2025/11

Corrosive Poisoning

Dr. Manoj Chaudhary
MBBS, MD, Fellowship in PICU, Pedia Expert (Gastroenterology)

ABSTRACT

Corrosive ingestion is a medical emergency. It occurs in children mostly by accident. Its prevalence is low (2.5–5%) but high morbidity and mortality with peak incidence in less than five years of age. Acids cause coagulation necrosis while alkalis cause liquefaction necrosis. Corrosive injury to GI tract depends upon amount, concentration, duration of contact and PH of the agent. Burning sensation and pain, drooling, dysphagia, difficulty in breathing are early signs and symptoms and shock, perforation of esophagus and stomach, scaring and stricture are complications of corrosive ingestion. Prompt treatment is essential to minimize tissue damage and prevent serious complications. In emergency, stabilization of the patient is most important. Airway assessment and prompt management are a priority for severe cases. Induced vomiting or attempt to neutralize the substance is contraindicated. The initial evaluation should be performed by endoscopy and graded according to the Zargar classification. Computed tomography (CT) should be used to assess injury to the esophagus as CT is noninvasive. Post-corrosive esophageal stricture is a serious complication and poorly responds to treatment. Research and development for stricture prevention are ongoing on for severe cases.

Key words: Corrosive ingestion, prompt treatment, post-corrosive esophageal stricture

CHAPTERS/NEPCON/2025/12

Bridging Tradition and Science in Child Nutrition

Dr. Sahisnuta Basnet
Nutrition Chapter, Nepal Paediatric Society

ABSTRACT

Child nutrition in Nepal sits at the intersection of rich traditional practices and evolving scientific understanding. This presentation explores how pediatricians can effectively bridge this gap to improve child health outcomes. Drawing from a video-based narrative featuring four Nepali mothers, the presentation highlights current parental beliefs and practices related to child feeding- from food choices perceived to promote or hinder growth, to the role of traditional remedies, social media influences, and trust in pediatricians.

The presentation identifies encouraging overlaps between traditional diets and WHO-recommended feeding practices, while also acknowledging challenges posed by myths, cultural taboos, and the increasing consumption of ultra-processed or “junk” foods. Nepal’s “double burden” of malnutrition- persistent undernutrition alongside rising childhood obesity also demands a careful consideration and culturally grounded approach.

This presentation emphasizes the critical role of pediatricians as translators of science into culturally meaningful language. Using tools such as IYCF counseling cards, visual aids, and analogies rooted in local context, clinicians can build trust and promote lasting behavior change. The goal is not to replace traditional knowledge but to respectfully guide its evolution with evidence-based recommendations.

Through this presentation, pediatricians are called upon to integrate nutrition counseling into routine practice, dispel misinformation compassionately, and collaborate to unify scientific and community wisdom. Ultimately, this bridge between tradition and science is vital for raising a healthier generation of children.

CHAPTERS/NEPCON/2025/13

Paediatric Microbiome in Disease and Health

Dr. Pawana Kayastha
Nutrition Chapter, Nepal Paediatric Society

ABSTRACT

The concept of probiotics emerged over 100 years ago by health-promoting properties of fermented foods containing live cultures. Nonetheless, the practice of using live or dried bacteria to restore balance in disrupted intestinal microbiota has been established for a considerable time.

According to the FAO and WHO, probiotics are defined as “live microorganisms that, when ingested in sufficient quantities through food, provide a health benefit to the host”. Prebiotic is defined as nondigestible food ingredient that benefits the host by selectively stimulating the favorable growth and/or activity of one or more indigenous probiotic bacteria.

In recent years there has been increased interest in adding probiotics and prebiotics to nutritional products to optimize intestinal microflora. Unlike adults with a stable gut flora in a healthy state, the gut colonization is different in children. The type of delivery, gestational age, neonatal risk factors, antibiotic use and breast milk exposure are multiple factors determining the quality and quantity of gut microbiota in children. The potential benefit of the administration of probiotics in children has been studied in many settings globally. They are suggested as a therapeutic or preventive option for a variety of childhood diseases.

Despite the promising role, safety of administration in seriously or chronically ill children, long-term effects of probiotics in permanent modification of gut microbiota and sustained immunomodulation are unanswered.

CHAPTERS/NEPCON/2025/14

Pediatric Nutrition: Current Trends and Future Perspectives

Dr. Uttara Gautam

ABSTRACT

Good nutrition is a fundamental right of every child and is essential for their optimal growth and development. Undernutrition, emerging overnutrition, and changing feeding practices define the current landscape of pediatric nutrition.

Globally, 22.3% of children under five are stunted, 6.8% are wasted, and 5.6% are overweight (Joint Child Malnutrition Estimates, 2023). In Nepal, 25% of children under five are stunted, 8% are wasted, 19% are underweight, and 1% are overweight, as per the Nepal Demographic and Health Survey(NDHS) 2022. The proportion of children who are stunted is highest in Karnali Province (36%), and wasting in Lumbini Province (16%). Exclusive breastfeeding has steadily declined from 66% (NDHS 2016) to 56% in 2022. Furthermore, only 43% of children aged 6–23 months were fed a minimum acceptable diet, highlighting widespread suboptimal feeding practices and the need for targeted intervention.

At the juncture of undernutrition and overnutrition, nutrient density and overall dietary patterns are key in addressing both issues. Also, voices to adopt a diet rich in plant-based foods and lower in animal-source foods for good health and environmental sustainability are increasing. Furthermore, a multisectoral approach focusing on maternal nutrition, exclusive breastfeeding, food diversity, and community-based programs is critical in the Nepalese context.

CHAPTERS/NEPCON/2025/15

Advances in Care of Extremely Preterm Babies; Way Forward from "Surviving" to "Thriving"

Dr. Anjila Ghimire
DM Neonatology Resident

ABSTRACT

Preterm birth is a leading cause of neonatal morbidity and mortality. Advances in preterm has improved survival but much has to be done in improving "intact survival." Cerebral palsy, developmental delay and behavioral disorders are common neurodevelopmental sequelae; extrauterine growth restriction, chronic lung disease, sensory impairment, surgical issues are other adversities faced by preterm babies.

Care planning for preterm babies should begin well before birth. For limits of viability comfort care can be offered. Level –III care is essential. In-utero transfer is always preferable to neonatal transport. Antenatal corticosteroids and Magnesium sulfate infusion to expectant mother are essential antenatal considerations. Delayed cord clamping for 60 seconds and thermal protection are beneficial interventions in the delivery room care. Early initiation of kangaroo care with breast milk feeding help reduce infections in the postnatal period.

Family centered developmentally supportive care has evidence proven benefits. Oxygen saturation policy, early enteral nutrition, stringent infection prevention practices and multidisciplinary team approach are crucial for improving the outcome of sick preterm babies. To support enteral nutrition, access to human milk bank is indispensable. FIGO PremPrep 5 initiative- antenatal corticosteroids, Magnesium sulfate, delayed cord clamping, breast milk feeding and Kangaroo care is feasible in our setup.

Embracing the technological advances in treatment and monitoring could help us better manage our preemies and generate our own data.

CHAPTERS/NEPCON/2025/16

Recent Advances in Management of Respiratory Distress Syndrome

Dr. Deepak Mishra
MD, DM Neonatology, Kanti Childrens' Hospital

ABSTRACT

- Delivery –T- piece works, No role of sustained inflation, higher FiO2 for PPV? better, Early CPAP continues to work
- Lung Ultrasound for identification of RDS
- Animal derived (natural) and newer synthetic protein containing surfactant recommended
- Minimally invasive surfactant therapy-LISA
- Non invasive ventillation-CPAP,NIPPV, HHHFNC, Nasal HFOV
- Interface- Nasal mask superior, 3D printing
- Closed loop FiO2 monitoring- ↑ time spent in target SpO2

CHAPTERS/NEPCON/2025/17

Recent Advancements in Biomarkers for Diagnosis of Neonatal Sepsis

Dr. Varsha Verma, Dr. Suchita Joshi
Nepal Mediciti Hospital

ABSTRACT

Neonatal sepsis remains a significant cause of morbidity and mortality among newborns globally, particularly in low resource settings. There is still need for reliable and timely diagnostic biomarkers to efficiently diagnose neonatal sepsis during the early phase, provide effective antibiotic management and to provide a useful guide for therapy during recovery.

An ideal biomarker should have excellent sensitivity, specificity as well as negative and positive predictive value. Biomarkers levels should change early in the disease course and remain altered for a period of time to provide optimal clinical management. Although sensitivity of properly obtained blood culture is excellent to detect bacterial cause of neonatal sepsis, the incubation period is too long. The normal results of other conventional biomarkers can be reassuring, but abnormal results can also be due to many inflammatory conditions in absence of neonatal sepsis.

Recent advancements in the identification of novel biomarkers have demonstrated promise in enhancing the early detection and management of neonatal sepsis. Numerous serum biomarkers such as Interleukin-6, CD64, CD11b, presepsin, serum amyloid A, lipopolysaccharide binding protein have been under study. Non- invasive biomarkers such as heart rate characteristic (HRC) monitoring in preterm infants have also been studied. Genomics, proteomics and metabolomics is an interesting future target for research. Studies have highlighted the utility of multiple biomarker panels to improve diagnostic accuracy compared to individual markers alone. Further clinical trials are essential to establish standardized protocols for their use in diverse healthcare settings.

CHAPTERS/NEPCON/2025/18

Challenges in Managing Children with Steroid Resistant Nephrotic Syndrome

Dr. Vivek Kumar Todi, Dr. Bimala Baniya, Dr. Firoz Anjum

ABSTRACT

Introduction

Nephrotic syndrome is a common pediatric kidney disease in Nepal, with edema management posing a significant challenge. Improper edema management can lead to complications like infection, acute kidney injury, and even death—many of which are preventable with a solid understanding of the disease.

Methods

A real case scenario-based problems are presented, and expert panelists discussed practical aspects of diagnostic evaluation, treatment and management of edema in children with steroid resistant nephrotic syndrome.

Results

This panel discussion covers nephrotic syndrome definitions, edema management, SRNS guidelines, and diagnostic tools to enhance pediatric nephrology care across Nepal.

Discussion

Albumin plays a crucial role in edema management but carries risks like heart failure and cost considerations. Managing steroid-resistant nephrotic syndrome (SRNS) requires renal biopsy, genetic testing, and early immunosuppression, with timely referral to a pediatric nephrologist being essential. When referral is not feasible, basic knowledge of biopsy and genetic testing helps establish a diagnosis, guiding prognosis and treatment. A fundamental understanding of C3 glomerulopathy (C3G) and focal segmental glomerulosclerosis (FSGS) enables primary care doctors to intervene effectively, preventing disease progression.

CHAPTERS/NEPCON/2025/19

Evaluating a Child with Elevated Blood Pressure

Dr. Devendra Shrestha, Dr. Mandira Shrestha, Dr. Anand Kumar Jha

ABSTRACT

Introduction

Blood pressure measurement is still not routinely considered in many children. It may be due to unavailability of appropriate blood pressure cuffs, inappropriate technique, or physician ignorance. Hypertension exists in children, which is mainly secondary in nature and commonly associated with certain medical conditions. Hence blood pressure measurement at routine visits and especially at-risk children is of paramount importance.

Methods

A real case scenario-based problems are presented, and expert panelists discussed at-risk children of hypertension, diagnostic evaluation of children with hypertension.

Results

Here we discuss on practical aspects of blood pressure measurement, diagnosis of hypertension, at-risk children for hypertension and diagnostic evaluation of children with hypertension.

Discussion

blood pressure measurement at routine visits and especially at-risk children is of paramount importance. Majority of children with hypertension have secondary causes and hence an appropriate diagnostic evaluation is essential.

CHAPTERS/NEPCON/2025/20

Current Vaccine Preventable Disease Trends and the Vaccination Status in Nepal

Dr. Abhiyan Gautam

NOT AVAILABLE

CHAPTERS/NEPCON/2025/21

Current Advances in Dengue Vaccine Development

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ABSTRACT

Dengue fever remains a significant global health threat, with an estimated 390 million infections annually and rising cases due to urbanization, climate change, and increased travel. The absence of specific antiviral treatments underscores the critical need for effective vaccines. Recent advancements have introduced next-generation vaccines, overcoming challenges such as antibody-dependent enhancement (ADE), which complicates vaccine safety and efficacy. The first-generation vaccine, Dengvaxia(CYD-TDV), demonstrated limitations due to increased severe disease risk in dengue-naïve individuals, restricting its use to seropositive populations . In contrast, QDENGA(TAK-003), a live-attenuated tetravalent vaccine based on a DENV-2 backbone, has shown broader applicability with 61.2% efficacy against symptomatic dengue and 84.1% against hospitalization, though data on DENV-3 and DENV-4 remain under evaluation. The World Health Organization (WHO) now recommends TAK-003 for children aged 6–16 in high-transmission areas, administered in a two-dose regimen. Emerging candidates like Butantan-DV (single-dose, 73.6% efficacy in seronegative individuals) and DengiAll (in phase 3 trials) promise improved accessibility and coverage. Novel approaches, including mRNA-based vaccines are being explored. Despite progress, challenges persist in ensuring uniform protection across all serotypes, optimizing vaccine delivery in endemic regions, and expanding safety data for vulnerable groups such as the elderly and immunocompromised. Future directions emphasize global collaboration, real-world effectiveness monitoring, and integrating vaccination with vector control strategies to mitigate dengue's escalating burden. The development of safe, universally effective vaccines remains pivotal to achieving long-term dengue control and prevention.

Key words: Dengue vaccine, TAK-003, antibody-dependent enhancement, live-attenuated vaccine, global health, serotype variability.

CHAPTERS/NEPCON/2025/22

NEPAS Recommendation for Paediatric Immunisation

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ABSTRACT

NEPAS strongly supports Nepal's National Immunization Programme and recommends considering the addition of vaccines beyond the current schedule.

Given the high prevalence of diseases like mumps, chickenpox, and hepatitis A in Nepal, supplementary vaccination efforts are warranted. Furthermore, children with specific health conditions, such as complement deficiency or nephrotic syndrome, are more susceptible to infections like meningococcal and pneumococcal disease, necessitating additional vaccines. NEPAS also advocates for incorporating booster doses for existing vaccines to ensure prolonged protection.

Expanding the immunization schedule can lead to improved health outcomes by reducing the burden of vaccine-preventable diseases, potentially lowering healthcare costs and improving quality of life. Increased vaccine coverage enhances herd immunity, protecting vulnerable individuals. While there are costs associated with adding vaccines, the long-term prevention of illness and related complications represents a cost-effective public health strategy.

By expanding the immunization schedule and addressing the needs of high-risk groups (e.g., those with immunodeficiency, renal disease, or transplants), Nepal can strengthen its healthcare system, improve public health, and contribute to global disease control initiatives.

CHAPTERS/NEPCON/2025/23

Approaching Congenital CMV Infections: Bridging Gaps in Knowledge

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ABSTRACT

Background

Global prevalence of congenital cytomegalovirus (cCMV) infection is 0.64% and has a 17–20% risk of permanent sequelae.

They can lead to neurocognitive sequelae and hearing loss. However, most infants with cCMV are asymptomatic, presenting later and may pose a challenge in diagnosis.

Guidelines regarding testing of the symptomatic neonates are clearly defined but there lies a confusion in diagnosis of neonates who present late . Implementation of screening adopted by some high income countries is also disputed due to lack of cost effectiveness data. Clinicians must have a high index of suspicion, be aware with the array of clinical features and the diagnostic approach.

European Congenital Cytomegalovirus Initiative (ECCI) recommends using CMV PCR on urine or saliva for the diagnosis of cCMV infections. Testing in infants born to mothers with suspected or confirmed primary CMV infection , neonates with suspected hearing loss at birth or presence of indicative features on prenatal ultrasonography or MRI is recommended.

Distinguishing congenital from postnatal infection relies on PCR performed on a sample collected within 3 weeks .CMV PCR on routinely collected DBS (Dried Blood Spot) is the gold standard for retrospective diagnosis of cCMV in infants more than 3 weeks of age .However this may not be feasible in settings where routine DBS is not available.

CMV serology, although more feasible than PCR ,is not recommended for screening or diagnosis in the neonatal period. A negative CMV IgG test at birth rules out cCMV, but a positive CMV IgG test cannot confirm or exclude cCMV.

Conclusion

Burden data of maternal seropositivity and prevalence of cCMV infections may provide possible evidence in deciding introduction of screening for CMV infections. A high index of suspicion along with availability of inexpensive point of care tests may aid in early diagnosis.

CHAPTERS/NEPCON/2025/24

Congenital Syphillis: Forgotten, but Yet to Vanish!

Suchita Joshi, Deen Dayalu Ghimire, Madan Kumar Timalsena, Prasanna Babu Oli, Samjhana GC, Varsha Verma

Nepal Mediciti Hospital

ABSTRACT

Syphillis is caused by Treponema pallidum, a gram negative, spirochaete bacterium. Syphillis can be transmitted via the placenta or during childbirth. Lack of awareness regarding sexually transmitted diseases, prenatal screening and inappropriate treatment can cause congenital sypphilis, which can lead to serious morbidity or mortality in the newborn.

We present and discuss two cases of congenital syphillis with very different background, presentation and outcome. Case 1 was a baby boy born at 30 weeks following premature onset of labour. Mother had not undergone screening for syphillis. The baby was born with sclerema, extensive bruises, contracture of left elbow, splenomegaly, generalised hypertonia, thrombocytopenia and raised c-reactive protein. He developed seizure soon after birth. Both mother (post natal) and baby tested positive for syphillis. Baby's CSF analysis was also in favour of neurosyphillis. The baby died at 25 hours of age.

Case 2 was also a baby boy born at 31 weeks following fetal distress and suspected fetal pleural effusion. Mother was tested negative for syphillis in the first trimester. Baby was born with features suggestive of non-immune hydrops (generalised oedema, bilateral pleural effusion, pericardial effusion, ascites), hepatomegaly, severe hyperbilirubinaemia requiring double volume exchange transfusion, thrombocytopenia and raised c reactive protein. In view of clinical presentation of the baby, Mother's serum RPR was reactive on 2nd post partum day. Baby had therapeutic drainiage of pleural fluid and IV Ceftriaxone for 10 days.

Prenatal screening for syphillis and high index of suspicion is necessary for early diagnosis and treatment of congenital syphillis.

CHAPTERS/NEPCON/2025/25

Acute Rheumatic Fever and Rheumatic Heart Disease

Dr. Subhash Chandra Shah

ABSTRACT

"The prevalence of rheumatic heart disease is still significant in Nepal, especially in rural areas. It is an important preventable cause of morbidity and mortality in children. Diagnosis of rheumatic heart disease and acute rheumatic fever is based on clinical, laboratory, and echocardiographic criteria. Diagnosis and management criteria need to be locally relevant and practical to our context for implementation at the national level. My aim of presentation is to provide a reasonable and practical format of diagnosis and management. I hope this presentation will be helpful for pediatricians to diagnose and treat acute rheumatic fever and RHD."

CHAPTERS/NEPCON/2025/26

Pulmonary Hypertension in Congenital Heart Disease

Dr. Pratima Yadav

Case 1: ACHD with pulmonary hypertension
Case 2: Cyanotic increased blood flow with pulmonary hypertension

What is pulmonary hypertension?
Epidemiology of CHD with pulmonary hypertension

Why does pulmonary hypertension occur in congenital heart disease?
Severity of pulmonary hypertension: Eisenmenger

What is Eisenmenger syndrome?
How to recognize pulmonary hypertension clinically?
History
Clinical examination
Basic investigation for PAH along with findings
Advanced investigations
When to intervene? (Time for referral of various CHDs for repair)
How to manage PAH when correction of CHD not possible?
General management
Management of Eisenmenger
Follow up
Prognosis
Recognition and management of pulmonary hypertensive crisis
Available Data of pulmonary hypertension with CHD in various institutes in Nepal

CHAPTERS/NEPCON/2025/27

Heart Failure in Children

Dr. Dhruba Shrestha

ABSTRACT

Between 1990 and 2021, the global incidence of childhood cardiovascular disease (CVD) increased by 25%, reaching approximately 1.86 million cases in 2021. The incidence rate rose from 85.45 to 92.54 per 100,000 people during this period. Notably, children aged 10–14 years experienced a 40% increase in incidence, with females showing higher rates than males. In Nepal, a systematic review from 2002 to 2022 estimated the prevalence of CHDs at 0.7%, with atrial septal defect (32.1%) and ventricular septal defect (31.1%) being the most common types. HF associated with CHD occurs in approximately 20% of all patients.

Childhood heart failure is a complex clinical syndrome reflecting the heart's inability to meet the metabolic demands of the growing body. Unlike in adults, pediatric heart failure often arises from congenital heart defects, cardiomyopathies, or acquired conditions such as myocarditis. In recent times post cardiac surgical heart failure is in rising trend as most of the children with congenital heart disease undergo surgical intervention. This presentation provides an overview of the epidemiology, pathophysiology, clinical manifestations, and diagnostic challenges unique to pediatric heart failure.

Echocardiography plays a pivotal role in the diagnosis and management of childhood heart failure. It offers non-invasive, real-time assessment of cardiac structure and function, helping to identify ventricular dysfunction, valvular abnormalities, intracardiac shunts, and pericardial effusion. Doppler techniques further aid in evaluating hemodynamic parameters and estimating pulmonary pressures, guiding both diagnosis and therapeutic decisions.

The goal is to enhance clinical recognition and promote evidence-based care to improve outcomes in children with heart failure.

CHAPTERS/NEPCON/2025/28

The New Normal: Paediatric Allergies in the Era of Climate Change

Maj. Dr. Bhumika G.C.
Paediatric Allergy, Immunology and Rheumatology (PAIR) Chapter

ABSTRACT

Climate change is redefining the impact of pediatric allergic diseases, with rising global temperatures,air pollution and adverse weather events contributing to their increased prevalence and severity. Nepalese children are affected increasingly, with all exposed to ambient air pollution levels (PM2.5 ≥ 25 μg/m³) that far exceed WHO recommendations. This exposure contributes significantly to the burden of pediatric allergic conditions including asthma,allergic rhinitis, atopic dermatitis, and food allergies.

Climate-induced changes such as rising carbon dioxide levels and higher temperatures lead to longer pollen seasons, increased potency of allergens,increased respiratory viral infections and extreme weather events like pollen storms.Studies in the United states have projected the pollen season to start earlier (up to 40 days) and become longer (upto19 days) with temperature change, and the annual total pollen emission to also increase (16–40%).These changes cause novel allergy patterns, more persistent, harder-to-control asthma symptoms,and increased emergency department visits and hospitalisations. Exposure of children during critical lung development windows may lead to altered growth and airway remodeling.

Allergic diseases are increasing in a rapidly urbanizing Nepal with their effects further exacerbated by the urban–rural healthcare disparity and inadequate environmental policies.Pediatricians must adapt clinical approaches to address this new normal with its growing challenges;emphasizing early recognition, targeted management,vigilance and counseling. They can also be the advocates for clean air, climate-resilient urban design, and integration of child health into national climate strategies.

Timely recognition of climate change as a pediatric health emergency is essential to safeguard future generations.

Key words: Climate change, Allergies, Asthma, Allergens, Children.

CHAPTERS/NEPCON/2025/29

Inborn Errors of Immunity/Primary Immunodeficiencies: The Forgotten Horizon

Dr. Dharmagat Bhattarai
MD, DM, FESID

ABSTRACT

Primary immunodeficiencies (PIDs), now more aptly termed inborn errors of immunity (IEIs), are intricate disorders arising from profound genetic defects that impair the immune system's architecture and function. These anomalies may stem from disruptions in the development, signaling, or operation of immune cells, manifesting in an astonishing spectrum of clinical presentations—ranging from recurrent infections and autoimmunity to lymphoproliferation, autoinflammation, allergies, angioedema, dysmorphic features, bone marrow failure, and even malignancies. Once a fledgling concept in the 1980s, the realm of IEIs has burgeoned into a vast and evolving frontier of immunological science. Today, it encompasses 555 distinct IEIs and 17 phenocopies. This ever-expanding knowledge base is revolutionizing our approach to diagnosis and management, ushering in an era of precision medicine and targeted therapies.

Accurate diagnosis of IEIs demands a vigilant and holistic clinical approach—one that scrutinizes a patient's full medical narrative into a coherent diagnostic tapestry. Yet, in resource-limited settings, these conditions often go unnoticed, misdiagnosed, or tragically untreated. A lack of awareness, scarcity of trained specialists, entrenched socio-economic barriers, and financial constraints continue to obstruct timely care.

In Nepal, however, a quiet revolution is underway. Against a backdrop of severe poverty, widespread illiteracy, persistent social taboos, and limited access to diagnostics and treatment, lead author (DB) has remarkably diagnosed over 500 cases of IEIs/PIDs with genetic confirmation in >250 case). Basic treatments such as antibiotic prophylaxis have been initiated for many, but access to advanced therapies remains a daunting hurdle for families grappling with economic hardship. With over 22% of Nepal's population living below the poverty line, and little governmental support to bridge the gap, countless individuals remain undiagnosed, suffering in silence. The story of IEIs in Nepal is one of resilience against odds. It is a testament to what can be achieved with knowledge, dedication, and community action—but also a stark reminder of the inequities that persist in global healthcare. The path forward demands sustained advocacy, resource mobilization, and above all, a commitment to leaving no immune disorder overlooked.

CHAPTERS/NEPCON/2025/30

Insights Into Genetic Testing in Paediatric Care

Dr. Surabhi Aryal

ABSTRACT

Background

Genetic testing has become an essential tool in modern pediatric care, enabling accurate diagnosis, guiding management, and facilitating genetic counseling. However, selecting the appropriate test and interpreting results can be challenging, particularly in low-resource settings.

Case Presentation

This presentation provides an overview of the different types of genetic tests used in pediatrics—including karyotyping, fluorescence in situ hybridization (FISH), chromosomal microarray (CMA), single gene testing, multigene panels, and whole exome sequencing (WES). Through real-world examples from a pediatric clinical genetics practice in Nepal, the utility of each test type is discussed . Key considerations such as test indications, turnaround time, diagnostic yield, cost, and accessibility are addressed. The talk also highlights the advantages and limitations of each method, and emphasizes the importance of pre- and post-test counseling.

Discussion/Conclusion

Understanding the appropriate use of genetic tests is crucial for maximizing their impact in pediatric care. While advanced genetic testing has improved diagnostic precision, careful test selection and clinical correlation remain essential. In resource-limited settings, cost-effective strategies and clinician education are key to expanding the benefits of genetic diagnostics.

Key words: Genetic testing, pediatrics, whole exome sequencing, cost-effectiveness, Nepal

CHAPTERS/NEPCON/2025/31

Genetic Approach to Childhood Epilepsy

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ABSTRACT

In children with epilepsy, genetic testing has become an integral part of contemporary clinical practice. In some disorders, epilepsy is a hallmark manifestation or the only clinical expression, while in others, epilepsy is a more variable component of the phenotype.and there is a spectrum of severity from benign self-limited epilepsy to early onset epileptic encephalopathy. The genetic testing has evolved from conventional chromosomal microarray and epilepsy gene panels to sequencing techniques in the modern genomic era for the diagnosis. The information enables families and clinicians to prepare for potential comorbidities and to plan support for the child's future on the natural progression of genetic epilepsy. The phenotypes caused by different mutations in the same gene can vary based on the function of the specific channels or receptors. Developmental and epileptic encephalopathies, the coexistence of neurodevelopmental comorbidities, early age of epilepsy onset, unexplained drug-refractory epilepsy, and positive family history are common indications for genetic evaluation. Good clinical phenotyping (epilepsy, nonepilepsy, and extra- neurological features, if any), three-generation pedigree, and family history coupled with comprehensive radiological, electrophysiology, metabolic investigations increases the pretest probability of a positive genetic test result. The highest diagnostic yield in epilepsies is with GS/trio GS at 48%, followed by ES/trio ES at 24% to 45%, MGP at 19% to 25%, and array comparative genomic hybridization/CMA at 5% to 18%.

CHAPTERS/NEPCON/2025/32

Neurodevelopmental Disorders in Children

Prof. Hem Sagar Rimal, Prof. Raju Kafle, Assistant Prof. Luna Bajracharya

ABSTRACT

Neuro developmental problem such as autism spectrum disorder (ASD) and ADHD are common. ASD is a complex neurodevelopmental condition characterized by persistent challenges in social communication and interaction, along with restricted, repetitive patterns of behavior, interests, or activities. Symptoms typically emerge in early childhood, often before the age of three, and can vary widely in type and severity.

Attention-Deficit/Hyperactivity Disorder (ADHD) is characterized by persistent patterns of inattention, hyperactivity, and impulsivity that interfere with functioning or development. Symptoms typically appear in childhood and may continue into adolescence and adulthood, though the presentation can change over time. Managing such children entails a multidisciplinary team involvement and identifying and treating such children early is vital and they lead their life to their full potential if done so.

CHAPTERS/NEPCON/2025/33

A Quality Improvement Initiative to Improve Pain Management in a Special Newborn Care Unit with a Special Focus on Infant and Family Centered Developmental Care

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ABSTRACT

Introduction

Neonates, more often preterm and sick babies undergo various painful procedures when admitted at neonatal units. Despite evidence-based guidelines for the neonatal pain management, implementation is poor. This may lead to short-term effects like cardiovascular instability, sleep disturbance along with long-term developmental, neurobehavioral issues.

This quality improvement project is planned to improve pain control interventions from baseline to 75% at level II special newborn care unit (SNCU) of Dhading hospital in 6 months from 1st of Ashoj to 30th of Falgun with special focus on infant and family centered developmental care.

Methods

QI team was formulated and problem was analyzed using fish bone diagram. IFCDC principle was emphasized. Specific non-pharmacological pain control measures were identified and implemented. Multiple Plan-Do-Study-Act (PDSA) cycles was conducted to achieve the desired result.

Result

A total of 138 babies were admitted in 6 months during which 345 procedures were performed. Neonatal pain interventions were done in 226 (65.50%) instances. Mouth pain (135, 59.73%) was the commonest pain measure performed.

Conclusion

Neonatal pain management is often overlooked. QI project can be an effective tool in improving neonatal pain interventions in a neonatal care unit.

FREE PAPER/NEPCON/2025/01

A Retrospective Cross sectional Study on Lepra Reaction in children from a Leprosy Hospital in Nepal

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Tribhuwan University

ABSTRACT

Introduction

This study aims to determine proportion of leprosy among pediatric population presenting at Lalgadh Leprosy Hospital and Service Center, to assess the number of pediatric patients with Lepra reactions, determine the category of leprosy that they fall on, the grade of disability, presence of ulcer among them, the bacterial load in skin slit smear examination through histopathology, from January 2019 to January 2024.

Methodology

Data is collected from hospital records, which is double-entered into Microsoft Excel and is exported into Statistical Package for Social Sciences (SPSS) version 20 for data analysis. Ethical approval for the study has been taken from National Health and Research Council, Kathmandu, Nepal with Ref. No.: 1076 on 18th Jan 2024

Results

Out of 4655 patients diagnosed with leprosy, 582(12.5%) were children aged 3-16 years. 260(44.7%) were female child and 322 (55.3%) were male child making male: female ratio of 1.2:1. The commonest type of leprosy was found to be paucibacillary (384) 59.2% followed by Multibacillary (234)40.2%. 25.1% of the patient developed Lepra reaction, among them 24.1% with Type 1 Lepra reaction and 1% developed Type 2 Lepra reaction. Neuritis was seen in 4.5% of total cases. Skin slit smear was positive in 37.1 % cases.

Conclusions

Nepal has achieved elimination of Leprosy as a public health problem in 2010. Still, we have seen the cases of leprosy being reported. 12.5% of pediatric leprosy cases signifies the active disease transmission in the community and the need for surveillance, early detection and treatment.

FREE PAPER/NEPCON/2025/02

Clinical Characteristics and Outcome of Children Requiring Non-Invasive and Invasive Mechanical Ventilation at a Tertiary Care Center, Nepal

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ABSTRACT

Increased burden of disease, limited resources, and lack of specialized manpower make use of mechanical ventilator (MV) challenging in Nepal. The objective of this study was to describe clinical characteristics and outcome of children requiring non-invasive (NIV) and invasive mechanical ventilation (IMV) in our setting.

This was a retrospective study done at PAHS, a tertiary care center in children aged from 0-15 years requiring NIV and IMV from April 2021 to April 2024. Data analysis was done by JASP 0.18.3.0 version. Statistical analysis was done using mean (SD) and Chi-square test. P-value of <0.05 was taken statistically significant.

Of 965 children, 413 (42.3%) required MV with mean age of 30 months (+43.7) and 174 (43.8%) were females. Of 413, 101 (24.4%) needed IMV; 312 (75.5%) needed NIV, of whom 115 (36.8%) subsequently required endotracheal intubation. Primary indication for MV was respiratory failure in 259 (63%) followed by shock in 64 (15%), and low GCS in 44 (11%). Mean durations of NIV and IMV were 44.6 hours (SD 53.4) and 31.1 hours (+61.5) respectively. Of 413, 302 (73%) survived, 71 (17%) died. The most common cause of death was septic shock in 22 (36.7%), and oncological emergencies in 15 (25%). Mortality was statistically different in children >5 years vs <5 years old (22.9% vs 13%; p=0.02) and requiring inotropes (62.9% vs 12%; p < 0.001) whereas mortality was similar in children requiring IMV for <72 hours vs >72 hours (p=0.42).

Septic shock was the leading cause of death and mortality was higher over 5 years of age and those on inotropes.

FREE PAPER/NEPCON/2025/03

Clinical Profile of Children Presenting with Pain Abdomen in a Tertiary Care Centre of Nepal: A Prospective Observation Study

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ABSTRACT

Background

Abdominal pain is a frequent complaint among children visiting the Pediatric Gastroenterology outpatient department (OPD). The causes may range from functional to organic or surgical. This prospective observational study aimed to analyze the clinical profile and underlying causes of abdominal pain in children under 16 years of age.

Objective

To determine the prevalence and etiology of abdominal pain in children and to assess the associated clinical features.

Methods

Children under 16 years presenting with abdominal pain, along with or without associated symptoms like fever, vomiting, diarrhea, or urinary complaints, were included in the study. The study was conducted at a tertiary care hospital's Pediatric Gastroenterology OPD over 2.5 months (September 16 to November 30, 2024).

Results

A total of 153 children (95 males, 58 females) were enrolled, with a mean age of 7.5 ± 4.1 years. The median duration of abdominal pain was 154 days (95% CI: 83–227). Functional constipation was the most common diagnosis, accounting for 71.2% (109/153) of cases. Other causes included acid peptic illness (9.8%), acute gastroenteritis (5.2%), and cow's milk protein allergy (CMPA, 3.3%). Less frequent causes included mesenteric adenitis (2%), appendicitis, pancreatitis, cholelithiasis, acute viral hepatitis, and subcutaneous nerve entrapment syndrome (each 0.7%).

Conclusion

A detailed clinical evaluation remains critical in identifying the cause of abdominal pain. Functional constipation is the predominant etiology and should be managed cautiously, avoiding unnecessary antibiotics and the indiscriminate use of antispasmodics, which may exacerbate symptoms.

FREE PAPER/NEPCON/2025/04

Mumps Outbreak: Public Burden and Awareness

Dr. Manoj Chaudhary, Pankaj Chaudhary, Tara Kafle, Hem Sagar Rimal

ABSTRACT

Introduction: Mumps is an acute viral infection caused by paramyxovirus family species. It is a mild childhood disease, mostly affecting children between 5-9 years of age but complications can occur. Mumps is characterized by swelling of parotid glands and nonspecific prodromal symptoms like fever, myalgia, anorexia, malaise, and headache. Mumps complications include orchitis, meningitis, encephalitis, pancreatitis, and hearing loss. Mumps is a vaccine preventable disease. Although Nepal is epidemic for mumps, mumps vaccine is not included in national schedule. Currently in eastern Nepal, mumps outbreaks confirmed. Mumps outbreak not only affects children but also their families and society. Vaccination, public awareness and knowledge about mumps, mode of transmission are helpful to control mumps transmission and outbreak.

Objectives: To assess social burden and the knowledge and awareness of mumps among Nepalese people.

Methodology: This was an observational, descriptive study, done in pediatric department.160 children up to the age of 14 years and their parents were enrolled in the study.

Results: All children (160;100%) developed parotid swelling while 139(86.9%) children developed fever. Complications occurred in 16(10%) children and 12(7.5%) children needed hospitalization. Average duration of disease was 7.56 days. 146(91.1%) children had to leave school.144(89.9%) parents had to expend for the treatment. 129(80.4%) parents felt psychosocial burden in the form of anxiety, tension and depression.156 (97.5%) parents had knowledge about the disease, its symptoms and called Galphula in local language. Only 52(32.5%) parents knew causative agent as viral infection. 95(59.4%) parents were aware the disease is infectious and mode of transmission through close contact 64(40%), contaminated food and water 39(24.4%) and airborne 33(20.6%). 128(80%) parents thought the disease is preventable and transmission of disease can be prevented by isolation 94 (58.8%), avoiding contaminated food and water 51(31.9%) and vaccination against mumps 11(6.87%). 155(96.9%) parents knew there is treatment of the disease. 146(91.1%) parents apply tape on the chick for the treatment of mumps. 149(93.1%) people thought that there is no vaccine against the mumps .and no one children were received mumps vaccine.

Conclusion: Mumps outbreak in eastern Nepal was social, economic and psychosocial burden to the affected children and people. Public awareness and general knowledge were good about mumps but lack of awareness about mumps vaccine.

Key words: Awareness, Burden, Mumps Outbreak.

FREE PAPER/NEPCON/2025/05

Quality Indicators and Improvement Measures in Paediatric Intensive Care Unit

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ABSTRACT

Patient safety is an integral part of pediatric Intensive care Unit (PICU). Quality indicators (QIs) are crucial to measure various aspects of quality and patient safety in PICU. These indicators should be compared to various benchmarks to analyze performance of unit. Health care services should be audited frequently and these measurable components of health care services are called Quality Indicators.

PICU care is unique and has high chances of error. There are two aspects of care delivery, they are improvement based (return to PICU within 48 hours, incidence of iatrogenic pneumothorax, adverse drug reactions) and accountability based (medications error, adherence to hand hygiene, incidence of pressure sores).

Major concern in quality improvement is availability of reliable data. Data are usually collected by voluntary reporting, direct observations, and using trigger tools or by chart reviews. These data which are collected by various methods are converted into quality indicators and presented in graphical form for better understanding. Quality improvement requires continuous effort. The Plan-Do-Study-Act (PDSA) cycle is effective tool for continuous quality improvement and requires team effort.

Quality improvement requires effort form PICU doctors, nurses, administrative & housekeeping staffs, technician and clinical pharmacists. The entire team should work together to improve patient safety. In developing countries, where availability of staffs is an issue, responsibilities can be shared among doctors and nurses. Checklist based nursing handover, morning hurdles, frequent prescription audit and monthly quality meet should be planned to ensure PDSA cycle is continued.

FREE PAPER/NEPCON/2025/06

Perception of Knowledge and Attitude for Infant Feeding and Immunization in Pregnant Mothers

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ABSTRACT

Background

Immunization and Nutritional programs are the priority one program of Nepal government. Understanding the perceptions, knowledge, and attitudes of pregnant women towards infant feeding and immunization is crucial for improving maternal and child health outcomes.

Methods and Methodology

Self-administered questionnaire was given for pregnant women to assess the perception, knowledge, and attitudes of pregnant women in their third trimester regarding infant feeding and immunization.

Result

About two third of the participants were of age group of 21-30 years with home maker. A significant majority of participants have low infant feeding knowledge (74.7%) while 56.1% had knowledge of immunization. There was positive attitude (65.2%) have positive attitude for breast feeding and immunization. Younger age and lower education were key factors linked to lower infant feeding knowledge. Age and parity were not strong predictor, with no significant differences across groups. Overall, lower education, less formal employment, and certain ethnic backgrounds were linked to reduced knowledge about immunization. Education and ethnicity show some associations, but these are less conclusive, with only education up to grade 8 showing a significantly lower AOR (0.35).

Conclusion

This study revealed a clear gap between awareness and actionable knowledge regarding infant feeding and immunization. While most participants held positive attitudes, misconceptions and limited understanding was there for exclusive breastfeeding duration, complementary feeding, and the immunization schedule. Improving early childhood health in Nepal requires more than just information; demands empowerment. Strengthening ANC services with multimedia tools, targeted education, and inclusive strategies can help bridge the knowledge-practice gap and build maternal confidence.

FREE PAPER/NEPCON/2025/07

Gene Xpert Positivity and Its Correlation with the Tuberculin Skin Test (TST) in Children Suspected of Tuberculosis at a Tertiary Pediatric Center in Nepal

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ABSTRACT

Introduction

Tuberculosis (TB) is a major global health concern, ranking among the top ten causes of death. In children, diagnosis is often challenging due to non-specific clinical features and limitations of conventional diagnostic tools. Gene Xpert MTB/RIF offers rapid and specific detection of *Mycobacterium tuberculosis* and rifampicin resistance, while the Mantoux tuberculin skin test (TST) remains widely used as an indirect indicator of infection. This study aims to explore the relationship between Gene Xpert positivity and TST results in pediatric TB suspects.

Methods

We retrospectively reviewed the records of children who underwent Gene Xpert testing at Kanti Children's Hospital over a two-year period. Data were analyzed for frequency, sex distribution, and correlation with Mantoux TST outcomes.

Results

Among 622 children evaluated, 7.4% (n=46) were Gene Xpert positive. Of the 87 TST-positive cases, only 12.6% (n=11) also tested positive on Gene Xpert. Among the 46 Gene Xpert-positive cases, 23.9% (n=11) had a positive TST, 30.4% (n=14) were TST-negative, and 45.7% (n=21) had no TST performed. Although more males underwent testing (63.7%), positivity was higher among females (58.7%).

Conclusion

There appears to be no strong correlation between Mantoux TST positivity and Gene Xpert detection of TB in children. Gene Xpert should be prioritized in the diagnostic approach for suspected pediatric TB, regardless of TST results.

Key words: Gene Xpert, Tuberculosis, Tuberculin Skin Test, Mantoux Test, Pediatrics

FREE PAPER/NEPCON/2025/08

Point-of-Care Ultrasound Diagnosis of Paediatric Pneumonia in a Low Resource Country

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ABSTRACT

Introduction

Pneumonia is the leading cause of death from infectious diseases among children under-five, accounting for 14% of such deaths in Nepal. Chest X-ray (CXR) is the standard of care for confirming clinically suspected pneumonia; however, it involves radiation exposure, high costs, and requires substantial expertise and resources. Lung ultrasound (LUS), especially using portable handheld devices, offers a safe, affordable and accessible alternative in resource limited settings. This study aimed to evaluated the accuracy of diagnosing pneumonia in children using a pocket-sized handheld ultrasound device.

Methods

A prospective, cross-sectional study was conducted from December 2023 to March 2024 at PAHS. Children aged 1 month to 15 years, admitted with diagnosis of pneumonia, were enrolled. Ten lung zones were examined using handheld LUS. Findings associated with pneumonia included shred sign, pleural effusion, air or fluid bronchograms, and interstitial abnormality. LUS results were compared to CXR findings using diagnostic accuracy metrics.

Results

A total of 150 children were enrolled; 40% female and median age 3 years (IQR ± 3.97). LUS diagnosed pneumonia in 74 (49%) children, while CXR diagnosed it in 69 (46%). Shred sign was the most common LUS finding(n=71,96%). LUS identified pneumonia in 10 children missed by CXR, while 5 cases were CXR-positive, but LUS negative. LUS demonstrated diagnostic accuracy of 90%, with sensitivity and specificity of 92.8% and 87.7%, respectively.

Conclusions

Handheld LUS demonstrated good diagnostic accuracy for childhood pneumonia. It is affordable, safe and practical for resource-limited country like Nepal.

Key words: Point-of-care Ultrasound, Pneumonia, Pediatrics

FREE PAPER/NEPCON/2025/09

Role of Lung Ultrasound Score and Modified Bronchiolitis Severity Score in Predicting Hospital Outcome in Children with Bronchiolitis

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ABSTRACT

Objectives

Bronchiolitis, a common viral lower respiratory tract infection in children under 2 years of age, responsible for 3.4 million hospital admissions annually worldwide. While clinical assessment remains the gold standard for diagnosis, utility of lung ultrasound (LUS) in assessing disease severity has gathered increasing attention. Evidence shows the utility of lung ultrasound in predicting hospital outcomes, highlighting its role as valuable adjunct in the clinical management of bronchiolitis.

Methods

This prospective cross-sectional study was conducted at the Department of Pediatrics, Chitwan Medical College, over 12 months, including 98 children diagnosed with bronchiolitis. The modified Bronchiolitis Severity Score (mBSS) and lung ultrasound score (LUS) were used to assess disease severity, categorizing patients into mild, moderate, and severe groups. Normality of data was evaluated using the Shapiro-Wilk test, with non-normally distributed variables reported as medians and interquartile ranges. Statistical significance was set at $p < 0.05$. The Kruskal-Wallis H test was used to compare median values of continuous variables (hospital stay, duration of oxygen support) across severity groups based on mBSS and LUS grading. Spearman's rank correlation was used to determine correlation coefficients, and linear regression models were developed to predict hospital outcomes.

Results

According to mBSS, 11 patients had mild bronchiolitis, 69 had moderate, and 18 had severe bronchiolitis, while the LUS score classified 12 as having mild bronchiolitis, 70 as moderate, and 16 as severe. A significant positive correlation was found between both scoring systems and hospital stay (mBSS: $r = 0.422$; LUS: $r = 0.622$; $p < 0.001$). A linear regression model was constructed to predict hospital stay.

Conclusion

LUS score and mBSS can effectively predict the severity of bronchiolitis and hospital outcomes, aiding clinicians and policymakers in resource planning and treatment management.

FREE PAPER/NEPCON/2025/10

Prevalence of Thalassemia among Infants and Children in Madhesh Institute of Health Sciences

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ABSTRACT

Background

Thalassemia, a group of genetic disorders of globin chain production, is more common in Terai region. Nepal has paucity of data and aims to find out the actual burden of hemoglobinopathies among children in Terai.

Methodology

This hospital based cross-sectional study was conducted in Madhesh Institute of health sciences, for a period of 12 months (January - December 2024), among children 6 months- 14 years with clinical features of hemolytic anemia or admitted for blood transfusion without any definitive diagnosis. Children with hemoglobin (Hb) less than 11mg/dl, mean corpuscular volume and mean corpuscular hemoglobin less than 80 femtoliter and 27 picogram respectively were enrolled and were further analyzed by hemoglobin electrophoresis with follow up at 2 months for their dependency on transfusion to further classify beta thalassemia

Result

Among 83 enrolled cases, mean age was 5.3 years with male-to-female ratio of 2:1. 79.5% cases had clinical feature of hemolytic anemia and 20.5% cases were admitted for blood transfusion without definitive diagnosis. Prevalence rate of hemolytic anemia was 1.3%. 32 (38.6%) were diagnosed with beta thalassemia by hemoglobin electrophoresis, among them β thalassemia trait was16.9%, 12% transfusion dependentβ thalassemia, 6% HbE-βthalassemia, 3.6% non-transfusion dependent β thalassemia. Muslim and Janjati were most common ethnic group (25%) diagnosed with β thalassemia.

Conclusion

This result provides a comprehensive view of burden of hemoglobinopathies like thalassemia in Madhesh and may help to bring the concern of authorities for making plan and policies to provide free health services to those children.

FREE PAPER/NEPCON/2025/11

Validity of the Nepali Version of the Ask Suicide-Screening Questions (ASQ) Tool for Identifying Elevated Suicidal Risk in Nepali Medical Inpatients

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ABSTRACT

Background

Nepal has one of the highest youth suicide rates in the world. Suicide screening is rarely performed during hospitalization, due to the lack of validated tools in local dialect. We evaluated the validity of the Nepali version of the ASQ tool in youth population in medical inpatient settings.

Methods

We conducted a cross-sectional validation study at two urban hospitals in Nepal between January and July 2022. Patients aged 10 to 24 years admitted to medical wards were recruited through convenience sampling. Patients with significant cognitive impairment, non-fluent in Nepali, or planned early discharge limiting participation were excluded. Trained nurses administered the ASQ followed by the adolescent version of Patient Health Questionnaire (PHQ -9) and completed a demographic survey. Thereafter a separate team of psychologists, blind to ASQ results, conducted a brief suicide safety assessment (BSSA) as the gold standard for suicide risk screening.

Results

All study procedures were completed by 309 [54.0% male, mean age=15.79(±4.2) years] participants and were included in analysis. In our sample, 15.9% (49/309) screened positive with ASQ and 9.7% (30/309) had clinically significant depression (PHQ-9 score≥10); 8.4% (26/309) had elevated suicide risk on the BSSA. The ASQ demonstrated good sensitivity (77%; 95% CI: 56-91), specificity (90%; 95% CI: 86-93), PPV (41%; 95% CI: 27-56) and NPV (98%; 95% CI: 95-99) against BSSA.

Conclusion

The Nepali version of ASQ is a good, brief screening tool for identifying suicidal risk. Further validation in wider populations including outpatient setting and routine implementation in clinical practice should be considered.

FREE PAPER/NEPCON/2025/12

Community Based Rehabilitation for Children with Neurodisability in Ilam- A Collaborative Project

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ABSTRACT

Ilam is a rural hilly district in Eastern region of Nepal with a total population of 2,795,34- and 26.3% of them are children below 15 Years of age (36.5% are below 20yrs). [National Population and Housing Census, Nepal. 2021 (NPHC 2021)]. Around 14.5% of children under 10 years, and 7.5-8.6% young people between the ages of 10- 20 years are reported to experience some degree of disability in Nepal (Nepal Health and Demographic Survey 2022. Ministry of Health and Population, Nepal.). In Ilam, 2.42% of total population have some form of disability. (NPHC 2021).

Our clinical experience in Ilam highlighted the challenges faced by children with disabilities and their families. These included financial, medical and socio-cultural issues, reduced access to various services, and limited community participation. We undertook research in 2014 to understand the challenges, the hopes and the expectations of these children and their families in our qualitative research, which led to a better understanding of the specific needs as well as strengths within our community. Through the initiation of a community-based therapy services and the establishment of a parent led NGO- Society for Special Children- Ilam, in Ilam district in 2014, we started raising awareness and addressing these issues. Through the committed and sustained collaborative work with the NGO, Self-help Group for Cerebral Palsy-Nepal, in Ilam from 2015, we now have a service which offers regular home-based rehabilitation for children and young people with disabilities and special needs in Ilam.

FREE PAPER/NEPCON/2025/13

Clinico-Epidemiological Profile of Infant Cancers: Insights from a Tertiary Paediatric Center in Nepal

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ABSTRACT

Background

Infant cancers comprise 10–12% of pediatric malignancies in children under 15 years and 0.05% of all cancers. They exhibit distinct clinico-pathological features and survival patterns compared to older children. This is the first study of its kind from Nepal.

Objectives

To describe the clinicodemographic profile and survival outcomes of infant cancers managed at Kanti Children's Hospital.

Methods

This retrospective analysis included 109 infants diagnosed between January 2019 and December 2023. The cohort comprised 72 males (66.1%) and 37 females (33.9%), with a mean age of 6.62 months (SD 4.18). Age at presentation was: 0–1 month (7.3%), 1–6 months (33%), and 6–12 months (59.6%). Solid tumors predominated (80.7%), with a solid-to-hematological malignancy ratio of 4.2:1. The most frequent diagnoses were retinoblastoma (28.4%), Wilms tumor (18.3%), germ cell tumors (14.7%), neuroblastoma (12.8%), and acute lymphoblastic leukemia (15.6%). Most patients (86.2%) were from rural areas. Nutritional assessment revealed normal status in 72 (66.1%), moderate acute malnutrition in 18 (16.5%), and severe acute malnutrition in 19 (17.4%) patients. Treatment was initiated in 80.7%, with upfront palliation in 3.7%. Treatment abandonment occurred in 14.7%, and treatment delays were observed in 45.9%. Treatment completion was achieved in 56.9%. At a median follow-up of 3.82 years, 2-year event-free survival (EFS) and overall survival (OS) were 79% and 70.2%, respectively. Solid tumors showed superior outcomes (OS 77%, EFS 75%) compared to hematological malignancies (OS 36%, EFS 35%).

Conclusions

Solid tumors predominated with relatively higher retinoblastoma and lower brain tumor incidences. Leukemias had the poorest outcomes, highlighting the need for multicenter prospective trials.

FREE PAPER/NEPCON/2025/14

Incidence, Intensive Care Needs and Outcome of Influenza Pneumonia In a Tertiary Care Hospital of Central Nepal: A Prospective Observational Study

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ABSTRACT

Background

Seasonal influenza is a major cause of viral pneumonia in children especially below 5 years of age with significant morbidity and mortality.

Objectives

To describe the clinical manifestations, risk factors, intensive care needs and outcome of influenza pneumonia among children admitted to pediatric ICU of Kathmandu medical college teaching hospital (KMCTH).

Methods

This prospective observational study, conducted in pediatric ICU of KMCTH over 6-month period (October 2024- March-2025). Clinical details, vaccination status, laboratory investigations, intensive care needs, treatment, and short-term outcome were recorded.

Results

64 children, 1month to 15 years with median (IQR) age of 22 (9-58) month were enrolled. None of the children had received influenza vaccine. Common clinical features were cough (98.4%), fever (92.2%), fast breathing (93.8%) and chest indrawing (60.9%). All children were subjected for influenza testing by rapid influenza diagnostic testing (RIDT) at admission. Out of all, 12 (18.75%) were positive for influenza (8 were influenza A & 4 influenza B). All the children required oxygen support- nasal prongs (4.7%), bubble CPAP (53.1%), BIPAP (26.6%), NIV (10.9%) and invasive mechanical ventilation (4.7%). Shock was present in 2 (3.1%) while ARDS was seen in 10(15.6%). 2 (16.6%) out of 12 positive cases of influenza have died and both were influenza B, while among non influenza group only 1(1.9%) mortality was seen.

Conclusion

We have seen influenza B having more severe manifestations and was associated with higher mortality.

Key words: Influenza, Pediatric ICU(PICU), Continuous Positive Airway Pressure (CPAP), Bilevel Positive Airway Pressure (BIPAP), Noninvasive ventilation (NIV), Mechanical ventilation (MV)

FREE PAPER/NEPCON/2025/15

Survival Analysis of Childhood Cancer: A Hospital-Based Study at Tertiary Hospital in Nepal

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ABSTRACT

Background

Childhood cancer is one of the non-communicable diseases with increasing burden worldwide. With newer diagnostic tools and newer treatment protocols, the survival of children has also dramatically increased in last few decades with overall survival more than 80%. In lower middle-income countries (LMICs), however, this survival rate is significantly low. Due to the lack of registry, the exact survival rate of these children cannot be accurately predicted in LMICs. Kanti Children's Hospital (KCH) is one of the government level tertiary hospitals which provide childhood cancer care. We estimate the overall survival pattern among children with cancer in KCH, with common childhood cancers.

Methods

A retrospective analysis of hospital-based data from January 2019 to 2022 December between ages 0 to 14 years was included. Kaplan-Meier Curve was used for survival analysis, considering the interval between diagnosis and death, loss to follow-up or censoring.

Results

In preliminary results, 410 cases of childhood cancer were analyzed with predominance of males (63.25%). The overall survival was 68% with Mean age of survival 3.191years (95%CI 3.013-3.369). Survival in 2019 was 61% (n=88), in 2020 was 69% (n=91), in 2021 was 76% (n=109) and in 2022 was 83% (n=122).

Conclusion

This study provides the overall survival data among children getting treated for childhood cancer at KCH. The survival of children with childhood cancer in KCH is better than other lower middle-income countries, but is lower than that of the developed countries. Survival is in increasing trend yearly.

FREE PAPER/NEPCON/2025/16

Assessing the Cost of Illness of Respiratory Syncytial Virus (RSV) and non-RSV Acute Respiratory Infections in Nepali Children

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ABSTRACT

Background

Low- and middle-income countries (LMICs) bear the greatest burden of global respiratory syncytial virus (RSV) morbidity and mortality but lack cost data to evaluate the health-economic impact of RSV burden on families, the healthcare system, and society. This study was performed to estimate the costs associated with RSV illness in Nepal.

Methods

We collected healthcare resource utilization data from children under two years of age fulfilling the World Health Organization (WHO) (severe) acute respiratory infections (S)ARI case definition at two public hospitals in Nepal prospectively over one local respiratory season (July -November 2023). We used hospital records and caregiver interviews to collect direct medical, direct non-medical, and indirect cost data to generate total per-patient costs.

Results

A total of 730 patients with a mean age of 6.8 months were included. RSV infection was confirmed in 72.6% of the inpatients (N=469/646) with SARI. The mean total cost per RSV episode was USUS$43 (95% confidence interval (CI): US$25–US$62), US$312 (95% CI: US$293–US$332), and US$664 (95% CI: US$381–US$947) for non-severe, severe, and life-threatening patients, respectively. Of the total costs, the healthcare system incurred US$16 (36.3%), US$58 (18.6%), and US$57 (8.6%) in each category of illness. Household-level costs were 1.4% (US$19) of the country's gross domestic product per capita for non-severe, 15.1% (US$200) for severe, and 35.7% (US$472) for life-threatening patients, with costs for inpatients often reaching catastrophic levels.

Conclusions

This study demonstrates a significant healthcare and economic burden of RSV illness in Nepal, highlighting the need to prioritize RSV prevention strategies. Our cost burden data can inform modelling of costs and benefits of future RSV interventions in Nepal.

Key words: RSV-ALRTI; societal costs; health system costs; household costs; LMIC; Nepal

POSTER/NEPCON/2025/01

Knowledge of Hand Hygiene Practice Among Undergraduate Medical Students and its Impact on Quality of Care a Cross-Sectional Study

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ABSTRACT

Introduction

A significant amount of time is spent by medical students in hospitals studying upon patient examining them and thereby learning medicine. Appropriate manners of hand hygiene are important to ensure that spread of infection is prevented and safety of both the examiner and the patient is guaranteed. The results of this study will aware medical students, physicians, and other healthcare professionals about the current state of knowledge and about hand hygiene practices in a university hospital.

Methodology

This is a questionnaire based descriptive cross-sectional study to assess the knowledge of hand hygiene practices among undergraduate medical students. Questionnaire was designed in an online survey platform, Google Forms. 10 self-administered questions were taken from WHO hand hygiene questionnaire for health-care workers which was used for data collection. This descriptive cross-sectional study was approved by Institutional Review Committee of B.P. Koirala Institute of Health Science (B.P.K.I.H.S) with reference number IRC/2676/023

Results

Out of 202 participants we approached ,201 agreed to participate in our survey and responded to our questionnaire. The response rate is 99.5%. Out of 201 participants, 25.7%(n=51) were from 1st year,33.2%(n=67) were from 2nd year, 9.9% (n=20) were from 3rd year, 25.7% were from final year(n=52) and 5.5 %(n=11) were from 4th year.

Conclusion

This cross-sectional study on medical students' awareness of hand hygiene reveals a deep appreciation for its significance in reducing infections linked to healthcare. It lays the groundwork for upcoming projects meant to improve hand hygiene requirements in regional medical education

POSTER/NEPCON/2025/02

Prevalence of Malnutrition and Its Associated Factors Among 6 to 59 Months Children Attending Pediatric Outpatient Department In a Tertiary Care Center In Rural Nepal

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ABSTRACT

Background

The most vulnerable group in every community is its children. Their nutritional condition is a sensitive measure of nutrition and population health. In Nepal, malnutrition affects children under five years old often and is a major cause of morbidity and mortality, accounting for over half of all child fatalities. The purpose of this study was to evaluate the prevalence of malnutrition and potential variables influencing the nutritional condition of infants aged 6 to 59 months.

Methods

This was a hospital based cross-sectional study, conducted from June 2023 to May 2024 at the Pediatrics OPD of Karnali Academy of Health Sciences (KAHS), Jumla. A total of 164 children were enrolled for this study. Anthropometric measurements were used as per WHO guidelines to asses three nutritional status: Underweight, stunting, and wasting using descriptive statistics and chi square test was applied to assess social and predisposing factors. All the data were recorded in the preformed proforma. It was then, analyzed with the help of SPSS version 16. p-value less than 0.05 was considered statistically significant.

Results

Stunting, wasting, and underweight were found in 38.4%, 39.1%, and 39.7% of the population, respectively. While wasting was fairly similar in both sexes, stunting and underweight were more common in males than in girls. Significant relationships were found for age and birth weight with shunting, frequent Illness with undernutrition and shunting.

Conclusions

The results indicated that Jumla has a high rate of malnutrition, so it is important to monitor children's nutritional condition and take appropriate action.

Key words: children; malnutrition; nutritional status

POSTER/NEPCON/2025/03

Weils Disease

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ABSTRACT

Introduction

Leptospirosis is an important zoonotic disease, severe form of disease known as weil's disease can lead to death. Presents with wide range of clinical and laboratory findings, from self-limiting infections to potentially life-threatening fatal disease.

Case presentation

14 years male presented with yellowish discoloration of generalized body, vomiting, warm to touch, passage of dark colored urine since last 2 days and increasing lethargy since last several hours. History revealed contact with water sources contaminated with animals and their urine. On examination liver and spleen was palpable. Initial laboratory study shows severe anemia, hyperbilirubinemia, increased total count, elevation of hepatic enzymes, abnormal urine examination findings and anti IgM antibody for Leptospira was positive. Patient was admitted in PICU and received supportive therapies and empirical antibiotics such as meropenem and doxycycline. Following confirmation of diagnosis, meropenem was discontinued and amoxicillin clavulanic acid was initiated whereas doxycycline was continued for 7 days. Patient responded well to treatment and was discharged after full recovery.

Conclusion

Leptospirosis prevalent in our part of world and Weil's disease can be fatal but early recognition and treatment can avoid complications and death.

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POSTER/NEPCON/2025/04

Sialidosis: A Case Series of Six Children with Recurrent Neu1 Mutation (C.679G>A; P.GLY227ARG) from Nepal

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ABSTRACT

Background

Sialidosis is a rare autosomal recessive lysosomal storage disorder caused by biallelic pathogenic variants in the NEU1 gene resulting in neuraminidase deficiency leading to accumulation of sialylated oligosaccharides and glycopeptides in lysosomes. Clinical features include progressive neurodegeneration, myoclonic seizures, visual and hearing impairment, coarse facial features, cherry-red macular spots, dysostosis multiplex, and organomegaly. Due to the rarity of the condition and the unavailability of enzyme assays in low-resource settings like Nepal, diagnosis is often delayed or missed.

Case Presentation

We describe six children from unrelated, non-consanguineous families who presented to our center over a span of two years with varying symptoms including developmental delay, myoclonic seizures, visual and hearing impairment and coarse facial features. Cherry-red macular spots were observed in three children on fundus examination. Radiographs revealed dysostosis multiplex in all six cases. Whole exome sequencing confirmed the same homozygous NEU1 variant c.679G>A (p.Gly227Arg) in all six children.

Discussion/Conclusion

This case series highlights a recurrent NEU1 variant (c.679G>A; p.Gly227Arg) in six Nepalese children with Sialidosis suggesting a possible founder effect or regional mutation hotspot. Despite the absence of consanguinity, the presence of the same homozygous variant across unrelated families underscores the importance of considering carrier screening and targeted mutation analysis in high-risk populations. Early clinical suspicion based on a constellation of symptoms, followed by genetic confirmation, is critical for timely diagnosis and counseling. Integration of prenatal testing and family counseling can help prevent recurrence and reduce disease burden.

Key words: Sialidosis, NEU1 mutation, Lysosomal storage disorder, Cherry-red spot

POSTER/NEPCON/2025/05

A Diagnostic Dilemma: Pediatric HIV with Negative ELISA - A Case Report

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ABSTRACT

Background

Pediatric HIV (human immunodeficiency virus) often presents with nonspecific clinical symptoms making diagnosis challenging specially in young children due to limitations in routine testing such as ELISA (enzyme linked immune-sorbent assay) and restricted access to advanced diagnostic tools.

Case report

We report a case of a 27-month female who presented with recurrent fever, loose stool, oral ulcer, cough, progressive weight loss and developmental regression. Clinical examination revealed loss of eye contact, social interaction and ambulation. The child appeared depressed and lethargic, wasted with signs of oral and pharyngeal candidiasis, dermatosis, alopecia, crackles on chest. Despite undergoing ELISA testing for HIV for three times, all results were negative. A pivotal moment in diagnosis occurred when the child's mother was found to be HIV positive during a follow-up visit. Subsequent DNA PCR (polymerase chain reaction) testing of the child confirmed HIV-1 infection.

Conclusion

This case highlights the potential for false negative ELISA results in infants and young children due to an immature immune system. In scenarios with high clinical suspicion of HIV, confirmatory testing using PCR should be pursued regardless of initial negative screening outcomes

Key words: pediatric HIV, ELISA, PCR

POSTER/NEPCON/2025/06

Post-Covid Intussusception in a School-Age Child Managed in Resource Limited Setting: A Case Report

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ABSTRACT

Introduction

Infants often have intestinal blockage due to intussusception. Even while it's frequently associated with young children, especially those under two, it's crucial to recognize that it also occurs in older age groups. This case report focuses on a 9-year-old child who tested positive for SARS-CoV-2, and on her unique case of ileocolic intussusception.

Case presentation

After recovering from COVID-19, the 9-year-old patient had lower right abdominal pain, fever, and vomiting for two days. Tenderness over the right iliac fossa suggests ileocolic intussusception. The diagnosis was validated by ultrasonography, which showed a Target sign. The unusual presentation implied a possible connection between the recent viral infection and the beginning of intussusception. Under sonographic guidance, the pneumatic reduction was accomplished, emphasizing the significance of prompt intervention.

Clinical Discussion

This discourse focuses on the documented increased permeability of the gastrointestinal wall in cases of SARS-CoV-2 infections, which can cause mesenteric lymphadenopathy and act as triggers for intussusception. The presence of ileocolic intussusception is detected by abdominal ultrasonography and abdominal radiography. It highlights the efficacy and safety of pneumatic reduction techniques. Delays in diagnosis and radiologic reduction associated with intussusception can raise the risk of surgical intervention and even death.

Conclusion

The case study suggests a link between intussusception and COVID-19. Therefore, when treating post-COVID-19 patients exhibiting symptoms including fever, vomiting, abdominal pain, and other gastrointestinal manifestations, medical professionals are urged to take into account the potential for intussusception and other gastrointestinal problems.

Key words: COVID-19, intussusception, child, gastrointestinal manifestations

POSTER/NEPCON/2025/07

Not All Hepatitis is Acute Viral Hepatitis, Think Langerhans Cell Histiocytosis (Lch) When Presenting As Multisystem Involvement in a Young Child: A Rare Case Report

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ABSTRACT

Langerhans-cell Histiocytosis is the most common histiocytic disorder, encompasses conditions characterized by aberrant function and differentiation or proliferation of cells of the mononuclear phagocyte system.

We are reporting a case of 26 Months, female who presented with yellowish discoloration of sclera and skin along with the high colored urine and gradual distention of the abdomen for 1 Month and maculopapular rash all over the body for 22 days. She was initially treated in another center as a case of Infective Hepatitis and was referred to our center upon worsening of the condition. And upon examination, there were seborrheic dermatitis and skin lesion of erythematous vesicopustules with crusts, plaques and nodules. Abdominal examination showed palpable liver of 10cm, with spleen tip palpable. Laboratory evaluation showed hemolytic anemia, conjugated hyperbilirubinemia, transaminitis with preserved synthetic function. With all the history, clinical examination and laboratory reports, LCH was suspected and skin biopsy was done which showed histiocytic cells with features suggestive of LCH. Subsequently, CD1a and S-100 IHC was done which showed both positive.

Langerhans cell histiocytosis must be considered as a differential diagnosis in cases presenting with features of Infective Hepatitis along with the multisystem involvement. Through this case report we want to highlight that the not all hepatitis is acute viral hepatitis and we have to think out of the box when something is not fitting in the disease. So, careful systemic evaluation of the cases with liver, spleen, skin and bone marrow involvement can lead to rare diagnosis like LCH.

POSTER/NEPCON/2025/08

Unmasking Hereditary Fructose Intolerance: Turning a Rare Diagnosis into a Path for Healing

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ABSTRACT

Background

Hereditary Fructose Intolerance (HFI) is a rare autosomal recessive disorder caused by aldolase B deficiency, leading to fructose-1-phosphate accumulation and liver toxicity. Early diagnosis and strict dietary avoidance of fructose, sucrose, and sorbitol are essential for favorable outcomes.

Case Presentation

A 2-year-8-month-old girl presented with progressive abdominal distension, vomiting after sugary food intake, lethargy, and decreased activity over several weeks. Physical examination revealed hepatomegaly without jaundice or ascites. Laboratory findings showed hypoglycemia (glucose: 50 mg/dL), elevated liver enzymes (SGPT: 95 U/L, SGOT: 120 U/L), and hypertriglyceridemia. Abdominal ultrasound confirmed hepatomegaly with steatosis. Liver biopsy revealed macro vesicular steatosis, chronic inflammation, early portal fibrosis, and bile ductular proliferation—indicative of metabolic liver injury. The correlation of symptoms with fructose ingestion, along with histological and biochemical findings, supported a clinical diagnosis of HFI. Genetic testing and enzyme assays were unavailable. Management included complete elimination of fructose, sucrose, and sorbitol, supplementation with vitamins D and E, and uncooked corn starch for glucose maintenance. The patient showed significant clinical, biochemical, and developmental improvement within months. One year later, she remained symptom-free with normal growth and liver function.

Discussion

HFI often presents in early childhood with nonspecific symptoms; early diagnosis is critical to prevent liver damage and growth delays.

Conclusion

In children with unexplained vomiting, hepatomegaly, and hypoglycemia linked to dietary intake, HFI should be considered. Early dietary management yields excellent outcomes.

Key words: Hereditary Fructose Intolerance, Pediatric Liver Disease, Hypoglycemia, Hepatic Steatosis, Metabolic Disorder

POSTER/NEPCON/2025/09

Glycogen Storage Disease in Pediatric Patients: A Case Series

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ABSTRACT

Background

Glycogen Storage Disease (GSD) encompasses rare inherited metabolic disorders caused by enzyme deficiencies affecting glycogen metabolism.

Case Presentation

Case 1: A 4-year-old boy presented with abdominal pain, frequent stools, and progressive abdominal distension. Hepatomegaly was noted, and labs revealed hypoglycemia (glucose 52 mg/dL), dyslipidemia, and low vitamin D. Abdominal ultrasound confirmed fatty liver. He was diagnosed with GSD and managed with corn starch therapy, vitamin D, and QRS 20 mg.

Case 2: An 11-month-old girl, the first-born of twins, presented with abdominal distension. Labs showed hypoglycemia (58 mg/dL), hypertriglyceridemia, and elevated liver enzymes. Liver biopsy confirmed GSD. Her twin, though asymptomatic, showed similar findings and was also diagnosed. Both were started on corn starch and vitamin D, with close monitoring planned.

Case 3: A 2-year-old girl from Nepal had progressive abdominal swelling. Exam showed hepatomegaly (6 cm), and labs revealed hypoglycemia (55 mg/dL), marked hypertriglyceridemia (802 mg/dL), elevated liver enzymes, and low vitamin D. Liver biopsy confirmed GSD Type III. Management included corn starch feeds, vitamin supplements, and close follow-up.

Discussion

All cases shared hepatomegaly, hypoglycemia, and dyslipidemia, with liver biopsies confirming GSD pathology in two. Corn starch therapy helped stabilize glucose, though metabolic imbalances persisted, highlighting the chronic nature of GSD.

Conclusion

GSD should be suspected in children with hepatomegaly and hypoglycemia. Early diagnosis and individualized dietary management are essential to prevent long-term liver and metabolic complications.

Key words: Glycogen Storage Disease, Hypoglycemia, Hepatomegaly, Dyslipidemia, Pediatric Metabolic Disorder, Corn Starch Therapy

POSTER/NEPCON/2025/10

A Delayed Diagnosis of Primary Hypothyroidism Presented as Growth Retardation in a Child - A Case Report

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ABSTRACT

Introduction

Hypothyroidism can present as subtle and nonspecific symptoms, often leading to delayed diagnosis and early identification is crucial to prevent complication in growth, development and overall health of child and adolescence. This case highlights a delayed diagnosis of primary hypothyroidism in a 13 years old male to emphasize the clinical presentation and effective management.

Case Report

We report a case of 13 years male with complain of delayed linear growth, fatigue, poor academic performance and constipation. Clinical evaluation revealed coarse facies, dry skin, brittle hair, pot belly and disproportionate short stature with increase in upper segment to lower segment ratio for his age. Laboratory investigations showed elevated thyroid stimulating hormone (TSH) with decrease free thyroxine (fT4) consistent with primary hypothyroidism. Radiographic assessment revealed a delayed bone age of 2 to 3 years. The patient was initiated on levothyroxine therapy and kept on regular follow-up.

Conclusion

This case highlights the importance of early recognition of hypothyroidism in children to prevent complications related to growth and cognitive development. Timely diagnosis and appropriate management can lead to full recovery of signs and symptoms.

Key words: primary hypothyroidism, thyroid stimulating hormone, short stature

POSTER/NEPCON/2025/11

Portal Hypertension in a Child With Upper GI Bleed; A Case Report

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ABSTRACT

In the developing world, extrahepatic portal venous obstruction (EHPVO) is a major cause of pediatric portal hypertension (54%) and is responsible for majority of pediatric upper GI (gastrointestinal) bleeding (68-84%). We are reporting a case of 5 years, male who presented with black colored stool. The child was pre-term delivery and was admitted to NICU (neonatal intensive care unit). History of umbilical vein catheterization during this period. At 3.5 years of age he developed melena and was managed conservatively at a tertiary center. Splenomegaly was noted, confirmed by CT (computed tomography) abdomen. However, UGIE (upper gastrointestinal endoscopy) was not done. He experienced second episode of melena prior to presenting to our center. Ultrasound showed splenomegaly. MRPV (Magnetic Resonance Porto Venography) showed dilated portal vein with portal cavernoma. UGIE showed 3 large esophageal varices with fundal varix GOV2F1 (Type 2 gastroesophageal varix) for which endoscopy banding was done and propranolol was started. Clinical improvement was noted following intervention. Shunt surgery was planned for definitive management. Portal hypertension must be considered as a differential diagnosis in children presenting with UGI bleed and isolated splenomegaly. So, UGIE should be done to look for varices. Octreotide and pantoprazole should be started initially in all cases of UGI bleed where we can titrate the drugs based on the endoscopy findings. This case report sheds light on the impact of early diagnosis and management of the portal HTN (hypertension). Timely intervention plays a crucial role in improving quality of life and preventing long term complications.

POSTER/NEPCON/2025/12

Diagnosing Autoimmune VS. Wilson Disease in Chronic Liver Failure is Challenging; Trans Jugular Liver Biopsy is Key in Decompensated Cases

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ABSTRACT

Diagnosing autoimmune vs. Wilson disease in chronic liver failure is challenging; trans jugular liver biopsy is key in decompensated cases.

Case Report

We present a case of a 7-year-old developmentally normal, well-nourished girl, born to non-consanguineous parents, who developed jaundice, coagulopathy, abdominal distension, and anasarca over four weeks. A diagnosis of acute-on-chronic liver failure was made. Notably, there was a history of complementary and alternative medicine (CAM) use preceding symptom onset. Abdominal ultrasound showed a heterogeneous liver echotexture. Autoimmune hepatitis (AIH) and Wilson disease were considered as differential diagnoses.

Laboratory findings revealed elevated conjugated bilirubin (21.4/9.4 mg/dL) and transaminitis (SGPT/SGOT: 384/254 IU/L). AIH workup showed a strongly positive LKM antibody (3+), mildly elevated IgG (1.1× normal), and negative viral hepatitis markers (HBV, HCV). GGT and direct Coombs test were normal, while thyroid function and celiac serology were unremarkable. The simplified AIH score was 6, suggesting probable AIH.

For Wilson disease, serum ceruloplasmin was low, but 24-hour urinary copper was normal, and no Kayser-Fleischer rings were observed. The Leipzig score was 3, indicating possible Wilson disease. Due to coagulopathy, a trans jugular liver biopsy (TJLB) was performed. Upper GI endoscopy revealed no esophageal varices but showed mild portal hypertensive gastropathy.

Given diagnostic uncertainty, the patient was started on D-penicillamine and corticosteroids, with plans to adjust treatment based on histology. The family was counselled about the need for whole exome sequencing to confirm Wilson disease and the possible future need for liver transplantation.

This case underscores the diagnostic complexity between AIH and Wilson disease, highlighting the role of TJLB in guiding treatment in decompensated liver disease.

Key words: Autoimmune hepatitis, pediatric liver failure, portal hypertension

POSTER/NEPCON/2025/13

The Case of Pediatric Crohn's Disease: Diagnostic and Therapeutic Consideration in a Young Child

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ABSTRACT

Background

Crohn's disease, a chronic inflammatory bowel disease (IBD), is increasingly affecting children worldwide, posing challenges to growth and development. Early diagnosis is particularly difficult in low-resource settings, where limited access to diagnostic tools can delay treatment and worsen outcomes. This case report underscores the importance of timely recognition and management to improve pediatric Crohn's disease outcomes.

Case Presentation

A 13-year-old male presented with a four-month history of large bowel diarrhea (8–10 episodes/day), tenesmus, blood and mucus in stool, abdominal pain, anorexia, and a 7 kg weight loss. Examination revealed pallor and hypogastric tenderness. Laboratory tests showed elevated CRP, ESR, and fecal calprotectin (>800 µg/g). Stool microscopy revealed blood, mucus, and E. Histolytica cysts. Colonoscopy revealed deep, patchy ulcers and friable mucosa in the rectosigmoid colon. Biopsy showed non-caseating granulomas, aphthoid ulcers, and crypt abscesses. Upper GI endoscopy was normal. MR Enterography revealed symmetrical thickening of the rectum and sigmoid colon with minimal ascites, consistent with active inflammation. The Pediatric Crohn's Disease Activity Index (PCDAI) was 50, indicating moderate-to-severe disease.

The patient received induction therapy with prednisolone (1 mg/kg/day), followed by azathioprine (2 mg/kg/day) for maintenance. Nutritional support and dietary modifications were also provided. After two months, clinical improvement was significant, with a PCDAI reduction to 12, indicating a favorable response.

Conclusion

This case highlights the critical role of early diagnosis and a comprehensive, multimodal treatment strategy in managing pediatric Crohn's disease, especially in resource-limited settings.

POSTER/NEPCON/2025/14

Glycogen Storage Disease Type 1B: A Rare Yet Treatable Cause of Recurrent Hypoglycemia and Infections In Children: A Case Report

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ABSTRACT

Glycogen Storage Disease Type 1b (GSD 1b) is a rare autosomal recessive metabolic disorder of glycogen metabolism. It is caused by mutations in the SLC37A4 gene, leading to a deficiency of the glucose-6-phosphate translocase enzyme, which is responsible for transporting glucose-6-phosphate into the endoplasmic reticulum.

We report the case of an 11-month boy who presented with progressive abdominal distension for two months, poor weight gain and early morning fussiness with history of hypoglycemia at 4 months of age. Developmental history revealed delayed motor milestones. On examination, he had pallor, chubby cheeks, soft massive hepatomegaly and mild splenomegaly. Laboratory evaluation showed anemia, persistent neutropenia, hypoglycemia, elevated transaminases, hypertriglyceridemia, hyperuricemia and hyperlactatemia. Abdominal ultrasonography revealed hepatomegaly with increased hepatic echotexture. Liver biopsy demonstrated micro and macrovascular steatosis without fibrosis. Whole exome sequencing identified a homozygous pathogenic variant in the SLC37A4 gene confirming the diagnosis of GSD 1b. The child was managed with uncooked cornstarch every 3–4 hours and nutritional supplementation along with allopurinol. He is showing gradual improvement in glycemic control and weight gain and is being followed up regularly.

Early recognition of GSD 1b is essential to prevent life-threatening metabolic complications and recurrent infections. In resource-limited settings like Nepal, where access to genetic testing is scarce and metabolic disorders are often underrecognized, a high index of suspicion is vital. This case highlights the importance of considering GSD 1b in infants with recurrent hypoglycemia and neutropenia and underscores the positive impact of timely diagnosis and nutritional management on clinical outcomes.

POSTER/NEPCON/2025/15

Wilson 's Disease in a 15 -Year-Old Male Presenting with Hepatic and Neurological Manifestations

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ABSTRACT

Background

Wilson's disease (WD), caused by ATP7B gene mutations, impairs copper metabolism leading to multi-organ copper accumulation. Clinical manifestations vary from asymptomatic liver disease to severe hepatic and neurological involvement, necessitating early diagnosis to prevent irreversible damage.

Case Presentation

A 15-year-old male with declining academic performance presented with 6 months of abdominal pain, distension, involuntary movements, and poor weight gain. Family history included sibling death from acute-on-chronic liver failure and paternal suicide. Examination revealed Kayser-Fleischer rings, hepatosplenomegaly, dystonia, and dysphonia. Investigations showed pancytopenia (Hb 8.2 g/dL), hypoalbuminemia (3.1 g/dL), low ceruloplasmin (11 mg/dL), and normal urinary copper (28.7 µg/24h). Liver imaging demonstrated irregular contours and splenomegaly (18.2 cm), while brain MRI revealed T2/FLAIR hyperintensities in basal ganglia and midbrain. WD was confirmed (Leipzig score ≥4). Esophageal varices were banded.

Management and Outcome

Treatment included D-penicillamine (10 mg/kg/day), pyridoxine, propranolol, and a low-copper diet. Family screening was advised. Long-term monitoring will assess treatment response and potential liver transplantation.

Conclusion

This case underscores WD's diverse manifestations and the importance of early multidisciplinary evaluation. Familial history highlights the need for genetic counseling and screening in at-risk relatives.
Keywords: Wilson's disease, copper metabolism disorder, chronic liver disease, Kayser-Fleischer rings, D-penicillamine.

POSTER/NEPCON/2025/16

Clinical Profile of Children Presenting With Pain Abdomen in a Tertiary Care Centre of Nepal: A Prospective Observation Study

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ABSTRACT

Background

Abdominal pain is a frequent complaint among children visiting the Pediatric Gastroenterology outpatient department (OPD). The causes may range from functional to organic or surgical. This prospective observational study aimed to analyze the clinical profile and underlying causes of abdominal pain in children under 16 years of age.

Objective

To determine the prevalence and etiology of abdominal pain in children and to assess the associated clinical features.

Methods

Children under 16 years presenting with abdominal pain, along with or without associated symptoms like fever, vomiting, diarrhea, or urinary complaints, were included in the study. The study was conducted at a tertiary care hospital's Pediatric Gastroenterology OPD over 2.5 months (September 16 to November 30, 2024).

Results

A total of 153 children (95 males, 58 females) were enrolled, with a mean age of 7.5 ± 4.1 years. The median duration of abdominal pain was 154 days (95% CI: 83–227). Functional constipation was the most common diagnosis, accounting for 71.2% (109/153) of cases. Other causes included acid peptic illness (9.8%), acute gastroenteritis (5.2%), and cow's milk protein allergy (CMPA, 3.3%). Less frequent causes included mesenteric adenitis (2%), appendicitis, pancreatitis, cholelithiasis, acute viral hepatitis, and subcutaneous nerve entrapment syndrome (each 0.7%).

Conclusion

A detailed clinical evaluation remains critical in identifying the cause of abdominal pain. Functional constipation is the predominant etiology and should be managed cautiously, avoiding unnecessary antibiotics and the indiscriminate use of antispasmodics, which may exacerbate symptoms.

POSTER/NEPCON/2025/17

Incidence, Risk Factors, Clinic-Laboratory Profile and Outcome of Children Admitted with Febrile Seizure in a Tertiary Care Hospital of Central Nepal

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ABSTRACT

Background

Febrile seizures (FS) are one of the most common neurological events in children under five, occurring during febrile illness in the absence of central nervous system infection or metabolic disorders. In Nepal, limited research exists on their full spectrum, risk factors, clinical presentation, and outcomes in the context of a tertiary care setting.

Objectives

To describe the demographic characteristics, clinical presentation, risk factors, and outcomes of FS among children admitted in Kathmandu medical college teaching hospital (KMCTH).

Methods

This retrospective cross-sectional study was conducted in the pediatric ICU and ward of KMCTH (October 2024 to March 2025). Clinical details, laboratory investigations, intensive care needs, treatment, and short-term outcome of children (6-60 months) were recorded through the patient records and discharge summaries.

Results

Cohort of 58 children had median (IQR) age of 23 months (12-37). 36 (62.1%) were male. All had fever, 15(25.9%) had cough, 8(13.8%) vomiting and 9(15.5%) altered sensorium. 48 (82.8%) had normal development. All were immunized as per national immunization schedule. Family history of FS was in 8(13.8%), past history of FS in 18(31%),19(32.8%) had past hospitalization for FS. 32(55.2%) had complex FS. Median (IQR) duration of PICU stay was 2(1-3) days. Past hospitalization and hyponatremia were associated with complex FS and multiple seizure episodes.

Conclusion

Our cohort showed male predominance and more than half had complex FS. Prior hospitalization and hyponatremia were key risk factors for complex FS. Though most cases are self-limiting, with excellent short-term outcomes, prospective cohort studies are needed to see the long-term outcomes.

POSTER/NEPCON/2025/18

Clinical Characteristics and Outcome between RSV Related- and Non-RSV related-Respiratory Illness Among Children Younger than 2 Years During One Local Respiratory Illness Season in Nepal

Rupesh Shrestha, Arun Kumar Sharma, Ram Hari Chapagain, Prakash Joshi, Neele Rave, Louis Bont

Tribhuvan University Teaching Hospital

ABSTRACT

Background

Respiratory syncytial virus is the leading cause of lower respiratory tract illness in young children. Majority of global RSV burden is said to affect children lower-middle-income countries. Moreover, RSV-associated morbidity and mortality is likely to increase. This study aims to compare the characteristics of RSV positive children younger than 2 years fulfilling extended severe acute respiratory infection (eSARI) criteria with that of RSV negative children.

Methods

This prospective observational study was performed over one season from July to November, 2023. Children aged between 4 days and 2 years who meets the WHO eSARI definition visiting two pediatric hospitals were enrolled. RSV infection was confirmed within 72 hours of visit via a molecular point-of-care test. Clinical data were extracted from admission charts and direct caregiver interview parental questionnaire.

Results

We included 730 patients with a mean age of 6.8 months and Male: Female ratio of 1.6:1. RSV infection was confirmed in 72.6% cases. Incidence of prematurity was higher among RSV negative children (9.7% vs 6.2%). Oxygen saturation at presentation was similar in both the groups. Higher proportion of children in RSV group (28% vs 17) required non-invasive ventilatory support. Twelve (1.6%) children died during the study period. Case fatality ratio was significantly lower (16.6%) among RSV positive patients compared to non-RSV group (86.3%). However, duration of oxygen therapy and hospital stay were similar in both the groups.

Conclusion

RSV is highly prevalent among infants with SARI requiring hospitalization. However, the case fatality ratio due to RSV appears significantly lower.

POSTER/NEPCON/2025/19

The Feasibility of the Alarm Distress Baby Scale (ADBB) and the Prevalence of Social Withdrawal in Nepalese Infants in Bhaktapur

Dr. Manjeswori Ulak

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POSTER/NEPCON/2025/20

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