



शरीरमाद्यं खलु धर्मसाधनम्



Child Neurology Division

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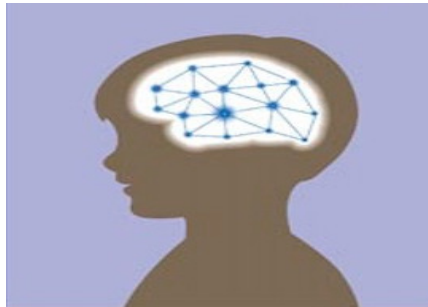
Center of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders

Funded by

AIIMS Grant in aid (supported by Ministry of Health and Family Welfare)

India Infrastructure Finance Company Limited (IIFCL) (as a part of its Corporate Social Responsibility)

Department of Pediatrics
All India Institute of Medical Sciences, New Delhi, India



A Departmental Overview

Email: pedneuroaiims@yahoo.com
Autismhelpline: autismhelp.pedsaiims@gmail.com
Website: www.pedneuroaiims.org
AIIMS web address: <http://www.aiims.edu/en.html>

Departmental Description

The Child Neurology division was established in early 1970s. It is providing leadership in the Child neurology in fields of patient care, academic, research and training at National and Regional levels. It is the first Paediatric Department in South Asia providing post-doctoral training in Child Neurology.

The Department caters to patients from all across the country. In addition, children with neurological issues from the SAARC region, and various middle east countries also seek the services of the division. Both in-patient and out-patient services are provided to these children.

The division is the front-runner in the field of research with multiple institutional and collaborative projects. The division has spear headed several research projects of the National Institute of Health, Autism Speaks, National Trust, World Health Organization, Department of Science and Technology, Indian Council of Medical Research, Department of Biotechnology, INCLEN, and All India Institute of Medical Sciences, New Delhi. Currently, it is collaborating with various institutes like IIT, NDRI, IGIB and PHFI in various research fields.

Patient Services

Broad spectrum of disorders seen

- Seizures
- Developmental delay/ Cerebral palsy
- Autism
- Other neurobehavioral disorders
- CNS infections
- CNS Autoimmune disorders
- Stroke
- Headache
- Neurocysticercosis
- Neurometabolic disorders
- Neuromuscular disorders
- Neurodermatoses







CHILDHOOD NEURODEVELOPMENTAL DISORDERS WORKSHOP 2014

CHILDHOOD NEURODEVELOPMENTAL DISORDERS WORKSHOP 2014

Jointly Organised by Ministry of Health & Family Welfare, Govt. of India
UNICEF & Department of Pediatrics, AIIMS New Delhi

Date: 1st to 3rd December 2014

INTRODUCTION:
(Prof Sheffali Gulati)

The early childhood years play pivotal role in intellectual and social-emotional development. Developmental difficulties and disorders often begin early in childhood and if unidentified or un intervened, may result in disabilities later. With decreasing mortality, there has been a potential increase in interest in neurodevelopmental impairments and disabilities in the public health agenda as we are talking about a generation that is growing up with a different set of challenges.





EMERGING TRENDS & ADVANCES IN DIAGNOSTICS & THERAPEUTICS IN PEDIATRIC NEUROLOGY



"ANYONE WHO HAS NEVER MADE A MISTAKE HAS NEVER TRIED ANYTHING NEW"
SIR ALBERT EINSTEIN

"IF I HAVE A THOUSAND IDEAS AND ONLY ONE TURNS OUT TO BE GOOD, I AM SATISFIED"
SIR ALFRED NOBEL

"Genius Shines Despite All Odds"

Child Neurology Division
Centre of Excellence & Advanced Research in Childhood Neurodevelopmental Disorders
Department of Pediatrics, All India Institute of Medical Sciences, New Delhi
7th-9th September, 2018

Specialty Clinics

The department conducts OPD and in addition runs special clinics to facilitate diagnosis and management of patients. These include:

Day	Clinic	Room No	Timings
Monday	Development Clinic	4,5	2:00 PM onwards
	Neurocysticercosis Clinic	11	2:00 PM onwards
Tuesday	Pediatrics OPD	4,5,14	09:00 AM onwards
Wednesday	Pediatric Neurology Clinic	3,4, 5	2:00 PM onwards
Thursday	Autism Clinic	12,13 Room D	09:00 AM onwards
Friday	Pediatrics OPD	4, 5, 14	09:00 AM onwards
	Neuromuscular Disorder Clinic	3, 4	02:00 PM onwards

The care of these patients is supported by the following facilities in the institution:

- Ophthalmology facilities at Rajendra Prasad Centre
- ENT services
- Orthopaedic services
- Child psychologist
- Physical and medical rehabilitation services providing physical and occupational therapy in addition to aid in form of splints, CIMT etc.
- Genetic services
- Dietary services – Ketogenic diet, Modified Atkins diet and Low Glycemic Index Therapy Diet are provided for drug resistant epilepsy

Laboratory Services

EEG

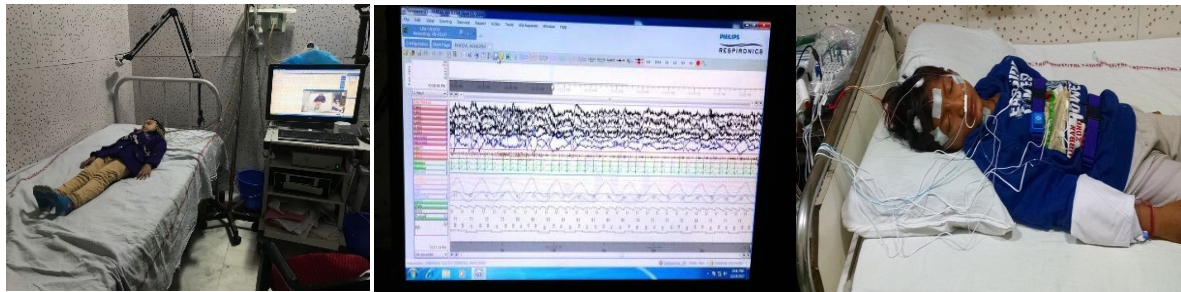
Routine EEG: is done in Room no 12 in Paediatric OPD. The appointment is given after the child has been seen in Paediatric Neurology division.

Ambulatory EEG: Is done bedside when indicated for in-patients who cannot be shifted to EEG room. Two portable combined EEG and EPS machines have been installed recently.

Video-EEG: is performed in C5 ward video EEG laboratory. Long-term video EEG is performed in special circumstances

Polysomnography (PSG) lab

Polysomnography is performed in sleep laboratory in C5 ward.



TMS (Transcranial Magnetic Stimulation) Therapy

TMS Machine: A state of art TMS Machine has been recently installed which is being used for children with Epilepsy and Hemiplegia as a therapeutic tool and planned for various research activities.



Electrophysiology (EPS) studies

The EPS machine is in room no 3057 in dept of Pediatrics where NCS, RNST, Sympathetic skin response and needle EMG are routinely performed on non OPD days. In addition, in collaboration with Eye and ENT Deptt OAE , BERA and VEP are also done.

Recently ambulatory EPS machines have been installed and bedside point of care EPS studies are also done as and when needed in ICU, HDU and C5 ward.

Laboratory services

Biopsies

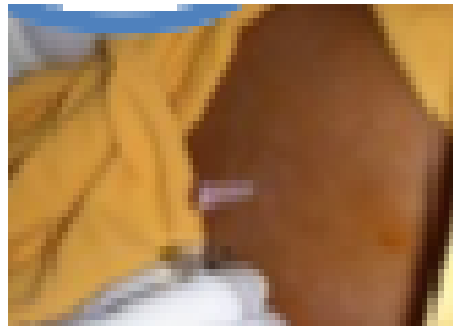
Skin, muscle and nerve biopsies are done in C5 ward as a day care procedure by Pediatric Neurology residents on Tuesday and Friday. The appointments for the same are given on OPD basis. The patients are then suggested to collect the report of biopsy from the Pathology department and then follow up in the OPD.



Intracranial pressure monitoring for admitted patients is also being carried out in collaboration with Pediatric Critical Care team and Neurosurgeons.



ICP monitoring catheter insertion



Lumbar puncture

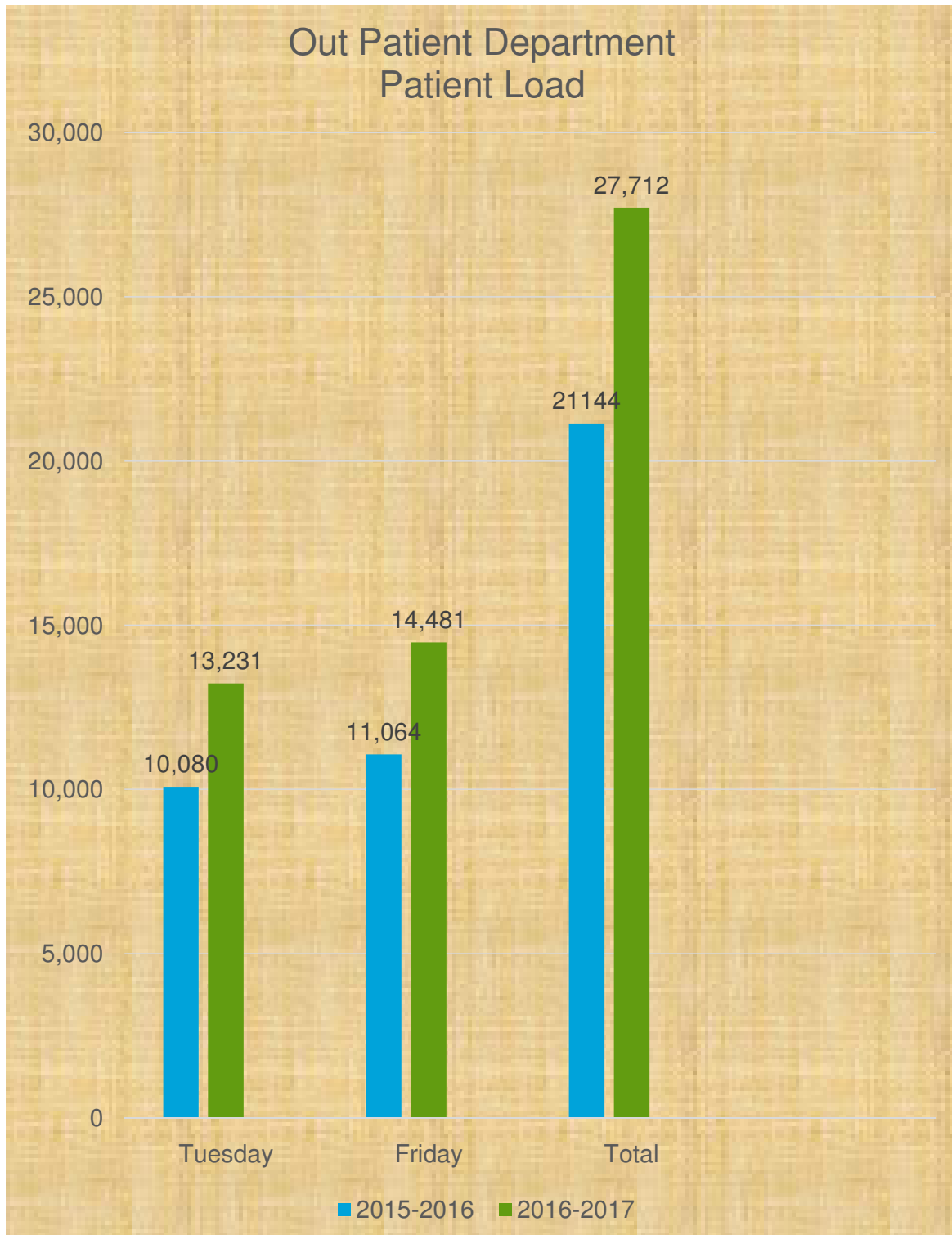
Other Day Care Procedures

Various other diagnostic tests are performed as a day care procedure. These include:

- Lumbar puncture and CSF manometry
- Blood/ CSF Lactate
- Neostigmine challenge test
- Forearm ischemic test
- Dynamometry
- Oto-acoustic emission



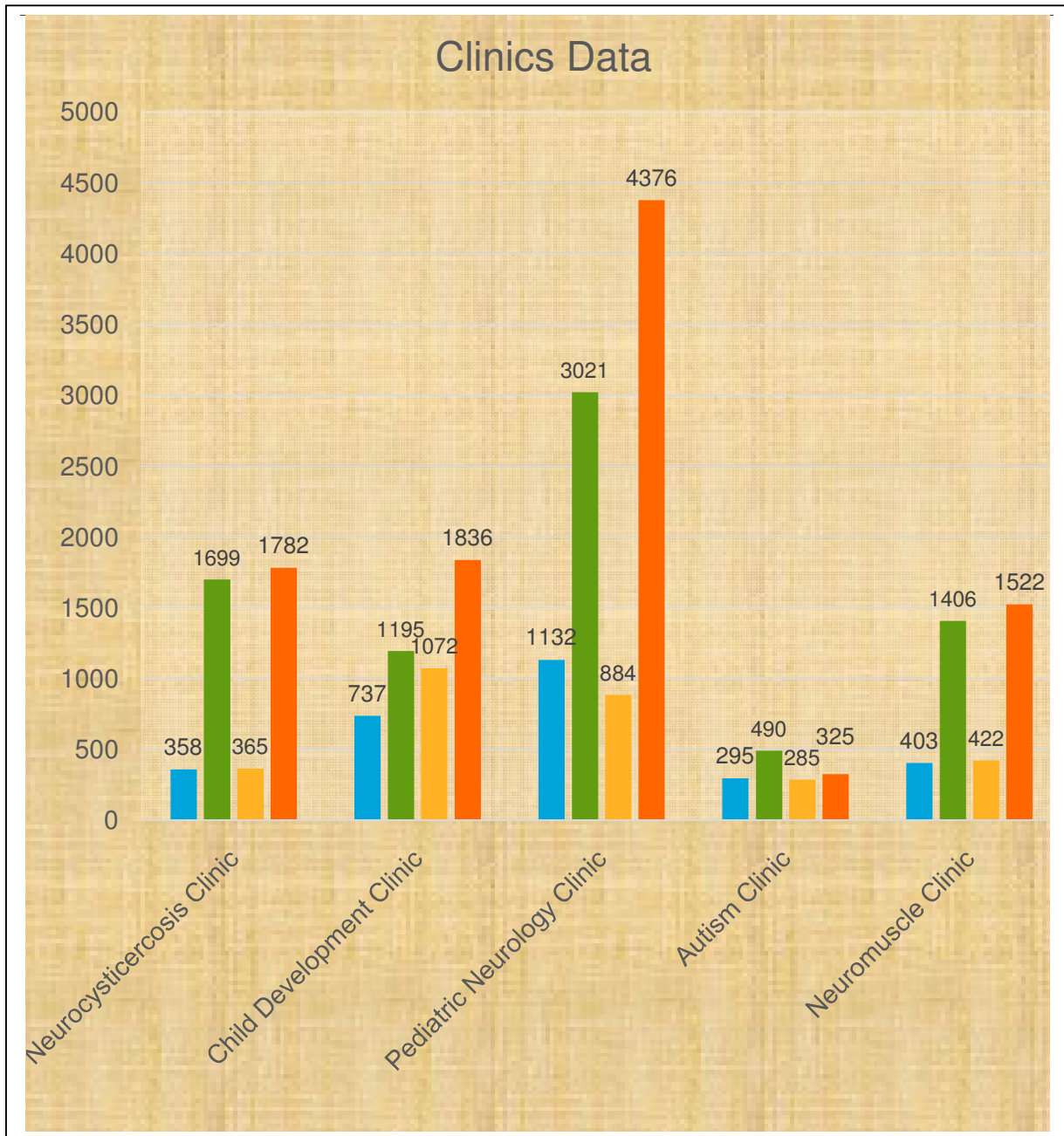
Out patient Data



Total number of OPD's from 01 Apr 2016 to 31 Mar 2017= 100

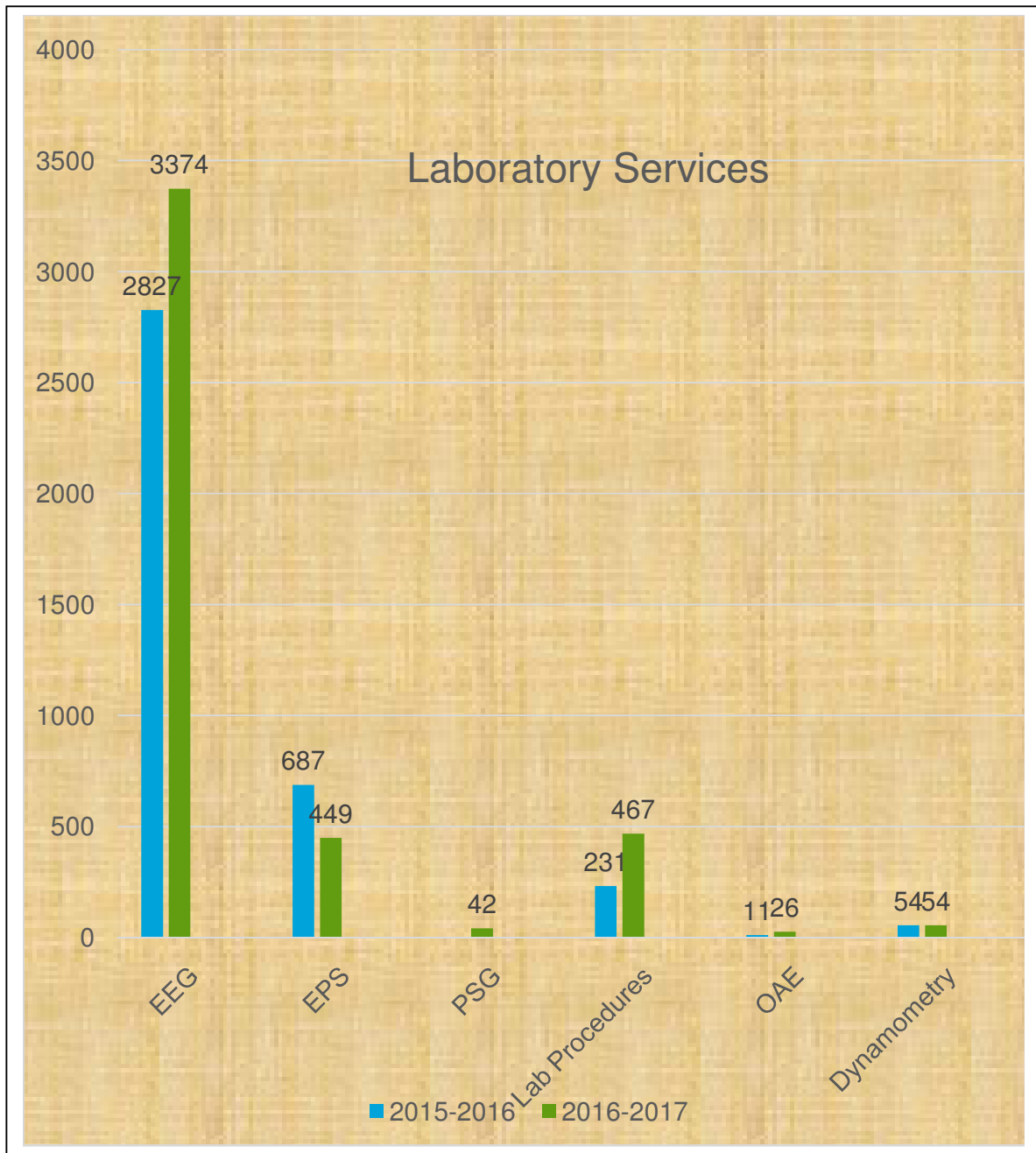
Total number of patients seen in OPD (Room no-4,5, 14) from 01 Apr 2016 to 31 Mar 2017= 27,712

Clinical Services Data



Annual Number of patients of different Speciality Clinics of Child Neurology Division in 2015-2016 and 2016-2017

Laboratory Services Data



Total number of OPDs from 01 Apr 2016 to 31 Mar 2017= 100

Total number of patients seen in OPD (Room no-4,5, 14) from 01 Apr 2016 to 31 Mar 2017= 27,712

Research Projects

Recently Completed Projects	Ongoing Projects	Ongoing MD/ DM Dissertation
<ul style="list-style-type: none"> Multi centric National study: Neuro-developmental Disabilities among children in India: An INCLEN study funded by NIH, Autism speaks, National Trust; International collaborators)[Autism, ADHD, Epilepsy; Cerebral Palsy] Model Injection Centres: A Program to improve injection practices in the country: An IndiaCLEN study; USAID RCT: Gabapentin in SMA Newborn screening; Neuro-cognitive follow up; Difficult to treat epilepsy, proteomics profiling in meningitis; heavy metals and autism; heavy metals and CP Valproate and carnitine in spinal muscular atrophy: RCT Efficacy of Ketogenic Diet, Modified Atkins Diet and Low Glycemic Index Therapy Diet among children with drug resistant epilepsy: A Randomised Non-Inferiority Trial Prevalence of neuro-cognitive abnormalities among children with HIV The effect of structured weight bearing exercise program on bone mineral density in children with cerebral palsy Developing a tool to identify the early signs of Autism Spectrum Disorder in children 1-18 months of age; an observational study Comparison of serum 25 Hydroxy vitamin D and trace elements levels between 6-18 year old ADHD and typically developing children and adolescents and their correlation with symptom severity and comorbidities: Analytical cross sectional study 	<ul style="list-style-type: none"> Blood heavy metals and quantitative EEG in children with Autism: A cross sectional study Validation and Indian Adaptation of the adapted ASQ-3 (Ages and Stages Questionnaire) as a developmental screening tool as compared to DASII in Indian children 2 to 24 months of age Telephonic follow up of epilepsy patients Ataxia Telangiectasia- Multi-centre, RCT on Intra- Erythrocyte Dexamethasone Sodium Phosphate Rett Syndrome- Multi-centric RCT on Sarizotan Health related quality of life of children (aged 3 to 12 yrs) with autism (fulfilling DSM-5 criteria) Whole Child concept for screening children with developmental difficulties (Chadis, USA) Development & validation of a scalable mobile platform for screening of developmental neuropsychiatric disorders in low-resource settings (MRC) Serum SICAMS and MMP9/TIMP-1 ratio: Potential predictors of disease activity in children with encephalopathy with electrical status in sleep (ESES) syndrome. Role of serum MMP-9 (matrix metalloproteinase-9) level as brain inflammatory marker in epileptogenesis and calcification in children with NCC. 	<ul style="list-style-type: none"> Inter-observer agreement between primary care physician and pediatric neurologist in classifying epilepsy among children aged one month to 18 years using AIIMS modified INDT EPI Tool according to ILAE 2017 Comparison of levels of Oxidative Biomarkers between children with Autism Spectrum Disorder aged 2-18 years and typically developing children Comparing the efficacy of virtual reality therapy with modified constraint induced movement therapy versus modified constraint induced movement therapy alone, for children with hemiparetic cerebral palsy aged ≥ 5-18 years- An open labeled, randomized controlled, parallel design, superiority trial Comparison between efficacy of daily and intermittent low glycemic index therapy among children with drug resistant epilepsy aged 1-15 years: a randomized controlled non-inferiority trial Developing a structured remedial intervention program for Indian school going children having Specific learning disorder with dyslexia: A longitudinal intervention study Comparison of efficacy of sensory integration therapy as an adjunct to standard care with standard care alone in improving gross motor skills in cerebral palsy children with sensory [processing abnormalities : a single blinded randomized parallel design study To generate ultrasound muscle based parameters for evaluation of hypotonia in children aged 1 month to 18 years Development and validation of a questionnaire based tool to identify sleep problems in school going children and adolescents aged 2-18 years Comparison of Efficacy of Low Glycemic Index Therapy and Modified Atkins Diet among Children with Drug Resistant Epilepsy: A Randomized Non-inferiority Trial A randomized double blind sham controlled trial of targeted low frequency repetitive Transcranial magnetic stimulation (rTMS) therapy in childhood and adolescent with focal onset refractory epilepsy Evaluation of repetitive Transcranial Magnetic Stimulation as an adjunct to modified Constraint Induced Movement Therapy in improving Upper Limb Function in Children with Hemiparetic Cerebral Palsy aged 5 – 18 years - A RCT DTI, fMRI and qEEG correlates of cognition and behaviour in children and adolescents with well controlled nonlesional epilepsy

Achievements

Faculty In-charge (Professor Sheffali Gulati)

- Amrut Mody Unichem Prize-2015 by Indian Council of Medical Research (ICMR), New Delhi for Research in Epilepsy and Neurodevelopmental Disorders conferred in October 2017
- AIIMS Excellence Research Award 2017 by AIIMS, New Delhi for Clinical Research titled “Development of validation of AIIMS modified INCLEN diagnostic instrument for epilepsy in children aged 1month-18 years”
- Dr. S Janaki Memorial Oration by National Academy of Medical Sciences, Oct 2016
- Fellow National Academy of Medical Sciences, Oct 2016
- Sheila Wallace Award by International Child Neurology Association 2014
- Lifetime Achievement Award, Indian Academy of Pediatrics (Neurology Chapter), October 2014
- AIIMS award of excellence in Research (September 2014)
- Revised and Updated IAP Guidelines for Childhood Epilepsy, 2014, 2017
- Fellow IAP, Fellow, IMSA
- Member ICMR Task Force: IEM and Non-Polio AFP; Children in Special Circumstances
- National Advisory Board Member, Indian Rett Syndrome Foundation
- 288 publications in various indexed International & National Journals (1st/Corresponding author-181)
- International indexed: 152; Original research papers: 119(International 74)
- Assisting in editing book: 1, Section editor 1
- Chapters in book: 117
- Abstracts : 315
- Learning resource material: 52
- Impact Factor: Upto72.4, Citations: Upto141 per publication
- Citations:2169(since 2012/in last 5 years:1530)
- h-Index:25(since 2012/in last 5 years: 21)
- i10-Index:64(since 2012/in last 5 years: 50)

Innovations

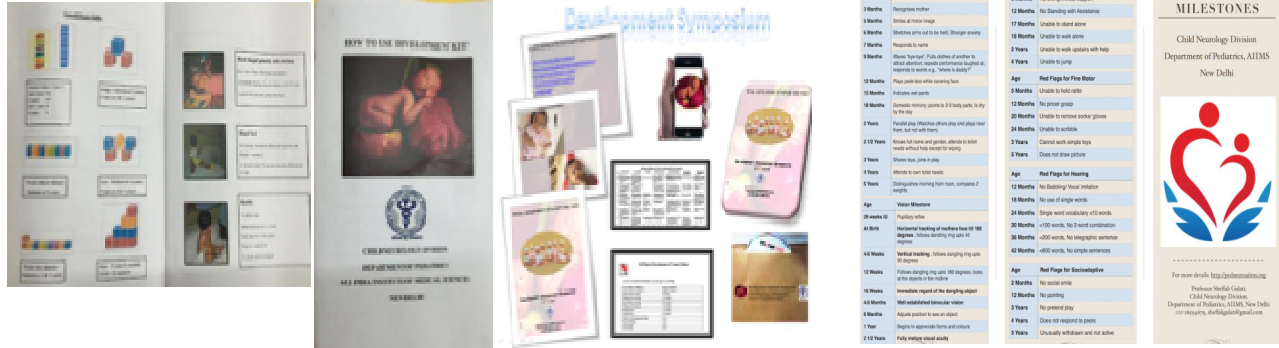
- Skin biopsy can replace muscle biopsy in diagnosing muscle dystrophies
- Telephone based consultation
- Dietary therapies
- Mobile applications for diagnosis of Epilepsy, Autism Spectrum Disorders, ADHD and NMI
- Weighted compression vest for children with autism

Training

- DM Pediatric Neurology Programme established in 2004 which is first of its kind in South East Asia
- 30 students have been awarded DM degree till date
- Holistic training including management of In-Patients and Out Patient Department, and comprehensive training in EEG, EMG, NCV, RNST, muscle and nerve biopsy
- Residents also undergo extramural posting including Neuro-ophthalmology, Speech and Audiology, Physical Medicine and Rehabilitation, Biostatistics, Genetics, Neonatology, Intensive Care, Child Psychology, Adult Neurology, and Neurosurgery. Also, the programme includes extensive exposure in Neuroradiology and Neuropathology.
- MD residents from Department of Physical Medicine and Rehabilitation and DM residents from Department of Neurology also undergo rotational posting in the division
- Till now division has been involved in the short term training of 16 National as well as International trainees (Bangladesh, Nepal, USA, Pakistan)

Specific Work Areas

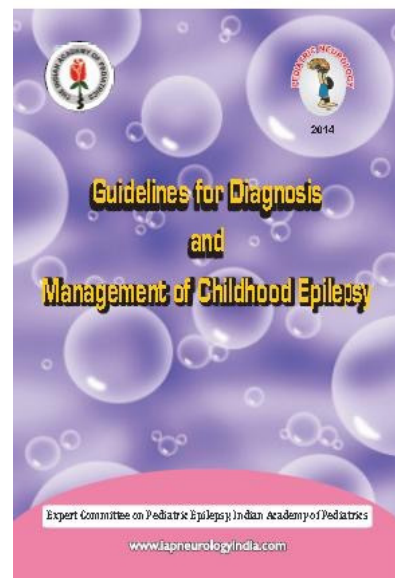
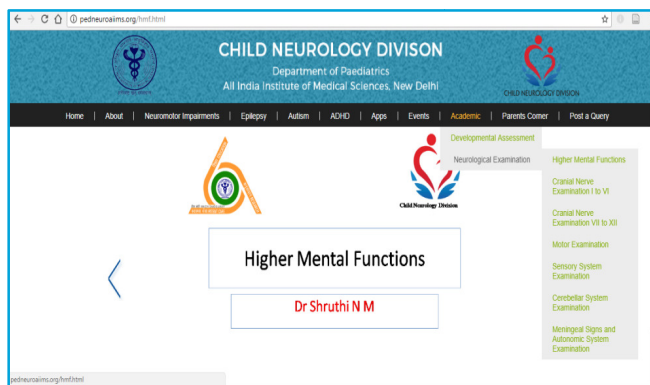
Developmental Examination



- Developmental kit collated along with a user guide
- Organized Development Examination Symposia in April 2013 and Dec 2016
- The Development Examination kit is available from room no 3056, Teaching Block, AIIMS
- Power point presentations with incorporated videos have been uploaded on developmental examination of children on www.pedneuroaiims.org

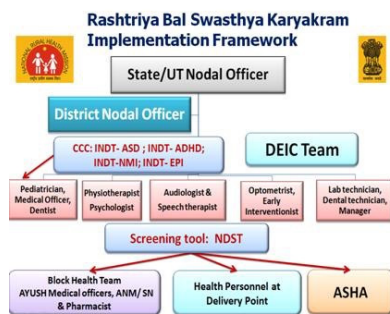
Neurological Examination

IAP Epilepsy Guidelines 2014



- Developed Resource Material including videos and power point presentations on neurological examination.
- Organized a Seminar on Neurological Examination in 2017
- Power point presentations with incorporated videos have been uploaded on neurological examination of children on www.pedneuroaiims.org
- IAP guidelines for diagnosis and management of childhood epilepsy revised and updated in 2014
- Expert for revision of IAP Epilepsy Guidelines 2017

Childhood Neurodevelopment Workshop (2014)



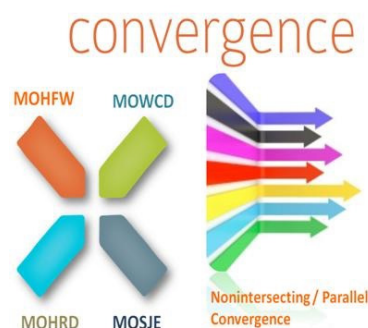
Childhood Neurodevelopmental Workshop 2014
1st-3rd Dec 2014



Childhood Neurodevelopment Workshop
1-3 Dec 2014

In Collaboration with:
UNICEF, MOHFW,

Part of team that developed this framework



Strategic framework for convergent action towards comprehensive care of children with developmental difficulties: Released by
Hon'ble Health Minister Shri J P Nadda

NDDWORKSHOP2014

Organising Secretary



Launch of Microsite

CHILDHOOD NEURODEVELOPMENTAL DISORDERS WORKSHOP 2014
Jointly Organized by Ministry of Health & Family Welfare, Govt. of India
UNICEF & Department of Pediatrics, AIIMS New Delhi

INTRODUCTION: (Prof Shefali Gulati)

The early childhood years play pivotal role in intellectual and social-emotional development. Developmental difficulties and disorders often begin early in childhood and if unidentified or un-intervened, may result in disabilities later. With decreasing mortality, there has been a potential increase in interest in neurodevelopmental impairments and disabilities in the public health scenario. As we are talking about imminent

Training Module for Autism Spectrum Disorder

Training Module for Attention Deficit Hyperactivity Disorder

Training Module for Epilepsy

Training Module for Neuromotor Impairment (Including Cerebral Palsy and Neuromuscular Disorder)

Workshop Proceedings Including Introduction to Early Intervention

Body postures and gestures
Child may appear to be 'in his/her own world'
Lack of spontaneous sharing of enjoyment and interests with other people

Poor Eye Contact (Video)

Legend: The child has a poor eye contact with the examiner

Deficits in Social Interaction
Social interaction is rarely initiated spontaneously
Signs of attachment with familiar people or even clinginess to a specific caregiver, or
Excessive familiarity with strangers due to the absence of social inhibitions and stranger anxiety

Deficits in Social Interaction
Failure to develop peer relationships appropriate to developmental level
Lack of spontaneous seeking to share enjoyment

CHILDHOOD NEURODEVELOPMENTAL DISORDERS WORKSHOP 2014
Jointly Organized by Ministry of Health & Family Welfare, Govt. of India
UNICEF & Department of Pediatrics, AIIMS New Delhi

NEURODEVELOPMENTAL DISORDER AMONG CHILDREN: AUTISM SPECTRUM DISORDER

INDT-ASD Module Autism Spectrum Disorder (ASD)

OBJECTIVES OF THE MODULE

- Overview on autism spectrum disorder
- Describe the core symptoms of Autism Spectrum Disorder (ASD)
- Various evaluation tools for ASD
- Description of INDT-ASD tool

Play: what to observe?

- Can the child point to objects, when asked to?
- Does the child look in the direction of the object when pointing at it?
- Is the pointing mature or immature?
- Does the child look at an object when you say: look at that and point to it?
- Does the child ever point out objects of interest to you?

Compare Both the Children

autistic vs non autistic

Legend: boy with green t shirt has poor eye contact, is not interacting with other kids, has motor stereotypies, echolalia, infantile squeals

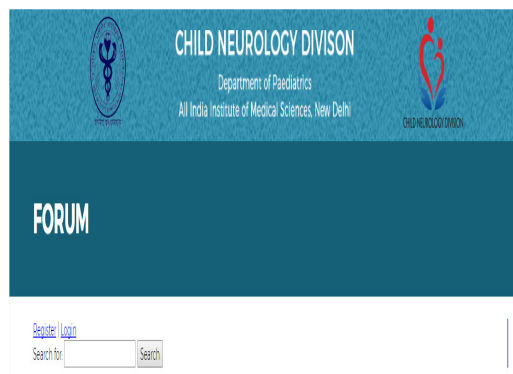
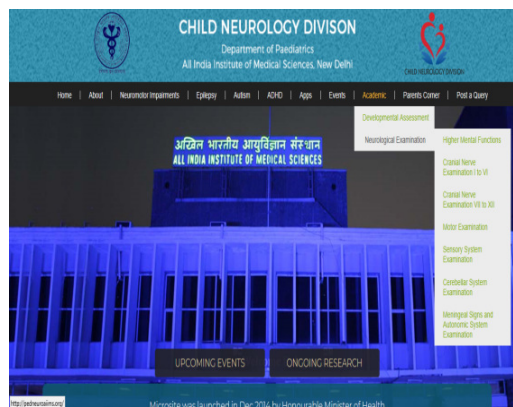
Section A3a, A3b & A3c

Section B

Legend: boy with green t shirt has poor eye contact, is not interacting with other kids, has motor stereotypies, echolalia, infantile squeals

- Microsite with training modules on various Neurodevelopmental disorders was launched by **Hon'ble Health Minister Shri JP Nadda ji**
- Framework for care of children with autism and other developmental disorders launched in collaboration with Government of India and UNICEF

New Web address: www.pedneuroaiims.org



- An interactive web-based platform for parents and health care professionals with a Post a Query.
- Updated with the current knowledge and contains training modules/ videos for health care professionals
- Training modules on Neuromotor impairments, Epilepsy Autism and ADHD.
- Academic subhead has power point presentations with incorporated videos on developmental and neurological examination
- Parent's corner has been created separately which has parent information material (English/ hindi/ bilingual) to assist caregivers in managing children with various neurodevelopment disorders.
- Parents corner also has teaching videos of Domiciliary management in Seizure, Early stimulation and Constraint Induced Movement Therapy (CIMT) for Hemiplegia.
- The Events subhead has Archives and Upcoming events is a quick guide to past and future endeavours/workshops or activities held and to be held by the Child Neurology Division.

National Conference: Neuropedicon 2018



1. Neuroinfections
2. Autoimmune Disorders
3. Cerebral Palsy & Developmental Disorders
4. Autism & Behavioral Disorders
5. Epilepsy
6. Neuromuscular Disorders

- The three day conference witnessed a plethora of Pediatric Neurologists across the globe which included leading eminent pediatric neurologists from our country
- The conference was attended by approximately 500 delegates including 132 faculty as speakers, chairpersons and panelists which were national as well as international
- The chief guest for the occasion was Dr Harsh Vardhan, Hon'ble Union minister for Science & Technology, Earth Sciences, Environment, Forests and Climate change, Govt of India Guest of Honour Shri Ashwini Kumar Choubey, Hon'ble Minister of State, Ministry of Health & Family Welfare, Govt of India

INTERNATIONAL FACULTY



Dr. Angela Vincent, Medically-Qualified Scientist and Emeritus Professor, Department of Neuroimmunology, Oxford University, UK



Dr. Biju Hameed, Research Associate, Bristol Medical School, University of Bristol, UK



Dr. Charles Newton, Kenya Medical Research Institute, Kilifi, Kenya. Cheryl and Reece Scott Professor of Psychiatry, University of Oxford, United Kingdom.



Professor Helen Cross, The Prince of Wales's Chair of Childhood Epilepsy and Head of the Developmental Neuroscience Programme, UCL-Great Ormond Street Institute of Child Health; Honorary Consultant Paediatric Neurology, Great Ormond Street Hospital for Children; NHS Foundation Trust, London and Young Epilepsy, Lingfield, UK



Dr. J. Andoni Urtizbarea (MD, MSc), Certified Paediatrician and PMR (Physical Medicine and Rehabilitation), Paris University, France. Clinical Myologist in Hendaye, south of France (Hôpital Marin, APHP), Deputy Coordinator of the French Neuromuscular Network (FILNEMUS) in Marseilles, and board member of the TREAT-NMD Alliance



Dr. Malinee Thambyayah, Consultant Paediatrician, Child Neurologist & Developmental Paediatrician, Pantai Hospital, Kuala Lumpur, Malaysia



Dr. Michael Shevell, Inaugural Harvey Guyda Chair in Pediatrics, Chair of the Department of Pediatrics, McGill Faculty of Medicine and Pediatrician-in-Chief, Montreal Children's Hospital of the McGill University Health Centre (MUHC), Canada



Dr. Ming Lim, Consultant and Reader in Paediatric Neurology, Evelina London Children's Hospital, Kings Health Partners Academic Health Science Centre, UK



Dr. Shruti Garg, Clinical Senior lecturer in Translational Child Psychiatry at the University of Manchester and Honorary Consultant in Child & Adolescent Psychiatry at the Royal Manchester Children's Hospital.

Chief Guest & Guest of Honour



Panel discussion



Guest lecture



E learning modules

E-learning modules: Child Neurology Division, Centre of Excellence & Advanced Research for Childhood Neurodevelopmental Disorders
Department of Pediatrics
All India Institute of Medical Sciences, New Delhi

Sponsored by IFCI Social Foundation (under the CSR initiative of IFCI Ltd.)

The Child Neurology Division, Centre of Excellence & Advanced Research for Childhood Neurodevelopmental Disorders at All India Institute of Medical Sciences (AIIMS), New Delhi takes great pleasure in launching the **E-learning modules** on the occasion of NeuroPedicon-18, 17-19 Sept, 2018, New Delhi, India. It is the 18th National Conference of Child Neurology Chapter of IAP and is being organized by the Division, along with the IAP Chapter, New Delhi.

The theme for the conference is "Emerging Trends Advances in Diagnostics Therapeutics in Pediatric Neurology". These three day conference deliberations are on the following six domains: Epilepsy, Central Nervous System, Autism and other Neurodevelopmental disorders, Infectious, Neuroimmunological disorders and Autism Neurodevelopmental disorders.

Keeping in sync with the theme and conference sessions, we have created E-learning modules in a simplified manner on clinically relevant topics in Child Neurology. These Childhood Neurological disorders constitute a significant proportion of consultations with Child Health Care Practitioners in Outpatient as well as Inpatient Department in various clinical practice. These E-learning modules have been conceptualized to provide a concise, crisp, evidence based and updated review on various childhood neurological disorders.

Professor Shreshth Goyal
Chair, Child Neurology Division, Coordinator, DM Pediatric Neurology Programme
Faculty in Charge, Centre of Excellence & Advanced Research in Childhood Neurodevelopmental Disorders
Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India
www.pedneurology.org

Contents

1. Childhood epilepsy Epidemiology, Aetiology	2. CNS Infections in Children Epidemiology, Aetiology	3. Neuroimmunological Disorders in Children Epidemiology, Aetiology
4. Autoimmune Disorders of Childhood Central Nervous System Epidemiology, Aetiology	5. Autism and Other Neurobehavioural Disorders Epidemiology, Aetiology	6. Central Nervous System and Other Neurodevelopmental Disorders Epidemiology, Aetiology

Contents: These E-learning modules contain power point presentations on individual disorders, grouped under six domains listed as Childhood Epilepsy, CNS Infections, Neuroimmunological Disorders, Autism and other Neurodevelopmental Disorders, Central Nervous System and other Neurodevelopmental Disorders. The information provided in these presentations have been illustrated with suitable clinical images, figures, charts, tables and videos with description, whenever required to make it self explanatory.

Clarified: The viewers can also refer to the scientific articles and guidelines for further detailed information on individual topics, provided in the "Suggested Reading" at the end of each presentation.

In case of any academic or technological queries: the viewers can contact us anytime through pedneurology@aiims.edu and we will try our best to resolve your queries as soon as possible. Hence the viewers are also kindly requested to provide their valuable feedback on usefulness, content, relevance and shortcomings of this module to us, so that we can improve on various aspects, as these will be updated periodically.

We request: These E-learning modules to be academically useful both for General Duty Pediatricians and Pediatric Neurologists involved in Hospital/Outpatient Care. We sincerely hope it will surely help you in consolidating your previous knowledge and providing further clarity. It will also surely help you in keeping yourself updated on emerging trends and recent advances in diagnostics and therapeutics in various burning topics of Child Neurology.

- Panel Discussion on Acute Encephalitis Syndrome including varied etiological profile, advanced diagnostics and emerging therapeutics and public health dimension (with MoHFW, PATH and National Centre for Disease Control).
- Panel Discussion on Multisectorial Approach towards Neurodevelopmental Disorders in India (with Ministry of Health and Family Welfare, Ministry of Social Justice and Empowerment and WHO India country office).
- The conference also witnessed the launch of "A drug guide for Pediatricians : Neuropharmacopeia", published under the aegis of Indian Journal of Pediatrics which will be a ready reckoner for prescriptions and also help reduce medication errors in clinical practice
- Various posters out of the abstracts submitted for the conference were displayed during the conference based on the various sessions depending on the day and a poster tour was done by subject experts to judge and select the best poster which were felicitated at the closing ceremony
- The conference was supported by various Govt and Non Govt agencies which included various Pharmaceutical and Diagnostic companies. The Supporting agencies included IFCI Limited and IFCI Social Foundation, Department of Science and Technology, Govt of India (DST), WHO India Country Office, PATH Foundation, National Institute of Empowerment of Persons with Multiple disabilities (NIEPMD), Indian council for Medical Research (ICMR), National Skill Development Corporation of India (NSDC), Medical Council of India (MCI) and SBI

Autism Related Services and Activities

2013

- Autism helpline email (autismhelp.pedsaiims@gmail.com) was created on 22 April 2013 to answer queries and improve awareness about autism

2014



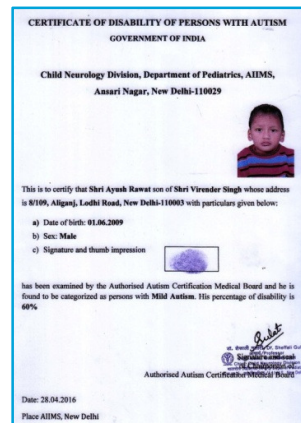
2015

- Patient information booklet and an information DVD for autism developed
- A guide was launched to aid early identification of children with autism. It also contained evidence based therapeutic guidelines for management of children with autism. This booklet also highlighted the government policies and initiatives to help these children.
- A telephone based helpline was launched: 9868399037

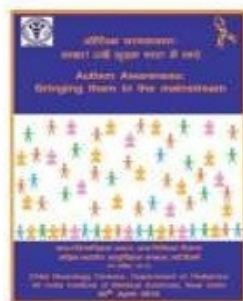


Apr 2016

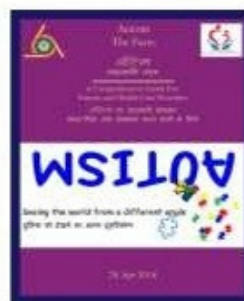
The process of certification for autism was initiated in consultation with Ministry of Social Justice & Empowerment. First certificate for Autism was given on 28-Apr-2016. In addition, a mobile application was launched for diagnosis of Autism Spectrum Disorder.



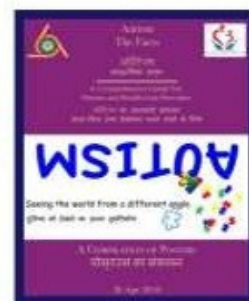
2014
Empowering the children
with autism and their



2015
Bringing them in the
mainstream



2016
Two booklets launched, one with the details about
autism and the other a compilation of posters



Aug/Sep 2016



In collaboration with The National Trust, a National Workshop for Training Master Trainers in Autism Tools was organized from 31-Aug to 02-Sep-2016. The workshop saw participation pediatricians, and clinical psychologists from across the country.

Feb 2017



- “2nd three-day Workshop for Training Master Trainers in Autism Tools-INCLN & ISAA” from 09-Feb-2017 to 11-Feb-2017 in Vigyan Bhavan, New Delhi .
- It was organized by the National Trust for the welfare of persons with Autism, Cerebral Palsy, Mental Retardation, and Multiple Disabilities, a statutory body under Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment in collaboration with Child Neurology Division, Department of Pediatrics, AIIMS, New Delhi.

Apr 2017



- A “National Conference on Autism” was organized on 3rd April, 2017 by The National Trust for the welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities under Ministry of Social Justice and Empowerment. We Co-organised this event
- The conference was inaugurated by Shri Thaawar Chand Gehlot ji, Minister of Social Justice & Empowerment.
- Organized during the World Autism Awareness month, it was an extension of the 3 days training programme on Autism in collaboration with Child Neurology Division, Department of Paediatrics, AIIMS, Delhi to train doctors on use of INCLIN and ISSA tools for issuance of Disability Certificate to persons with Autism.

Apr 2017

A Public health lecture and panel discussion on the topic “Autism from early detection to autonomy” was held in JLN auditorium on 26 April 2017



Aug 2017

- Inclusive Independence day celebrations organized by National Trust in Nehru Park on 13th August, 2017 and was inaugurated by Shri Thaawar Chand Gehlot ji Minister for Social Justice and empowerment
- Around 2500 people from all walks of life participated in the celebrations along with 500 people with intellectual and developmental disabilities.
- Child Neurology Division, AIIMS held a camp in the venue during the occasion for issuing disability certificates.



Patient Information Booklets

All the patient information booklets are available online at:

http://aiims.edu/aiims/departments/pediatrics/ped_neuro/patientedu.htm

www.pedneuroaiims.org



Mobile Applications

Childhood Epilepsy and Autism Diagnostic Tools

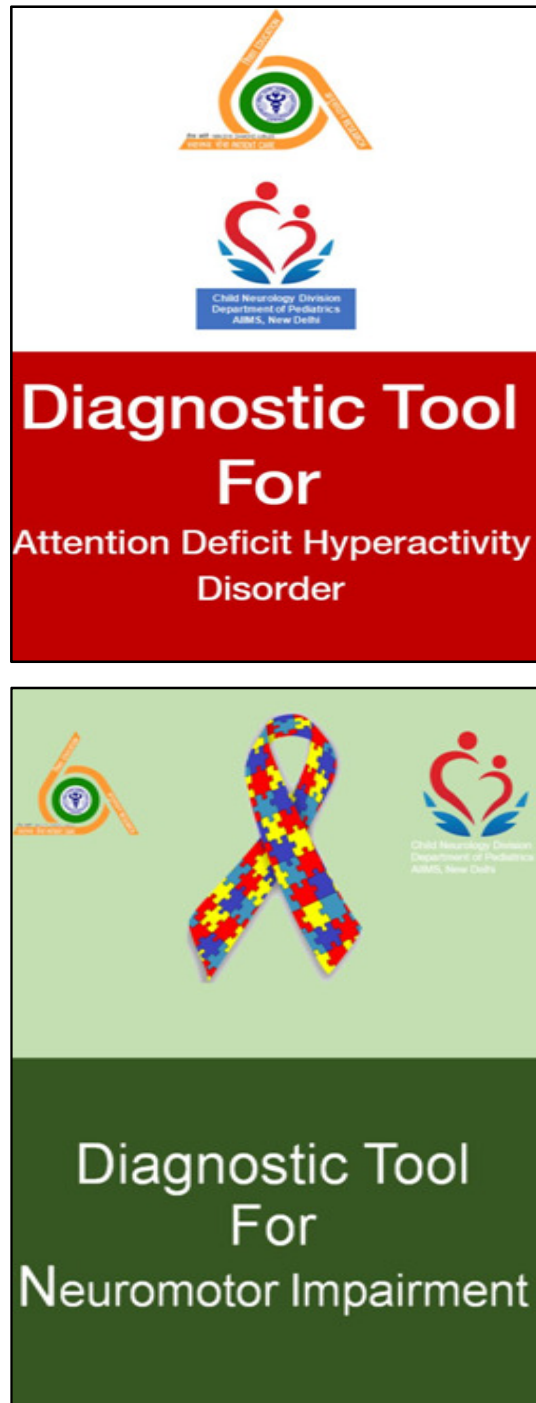
Epilepsy Diagnostic Tool	
<p>CHILDHOOD EPILEPSY DIAGNOSTIC TOOL</p> <p>AIIMS Modification of IND-T-EPI Tool</p> <p>New Tool Developed By</p> <p>Sheffali Gulati, Harsh K. Patel, Bhawana Chaturvedi, Vinod Saxena, VK Paul, HK Arora, MR Chandra</p> <p>How to use the tool: http://www.pedneuroaiims.org</p> <p>For Any Queries, please contact:</p> <p>Professor Sheffali Gulati, Department of Pediatrics, AIIMS, New Delhi.</p> <p>Email: sheffaligulati@gmail.com, sheffalig@yahoo.com, pedsneuroaiims@gmail.com</p> <p>Previous Tool Developed By INCDEN-IND Project</p> <p>Investigators: HK Arora (Principal Investigator), MR Chaturvedi (Principal Investigator), Sheffali Gulati (Principal Investigator), Vinod Saxena (Principal Investigator), VK Paul (Principal Investigator), Harsh K. Patel (Principal Investigator), Bhawana Chaturvedi (Principal Investigator), MR Chandra (Principal Investigator), and Indian Society of Child Neurology (Principal Investigator)</p> <p>Website: www.pedneuroaiims.org</p> <p>Indian Pediatric, 2014; 44(2):175-181</p> <p>Developed By: Web Outsourcing Team</p> <p>00:04 Recorded by <i>Mediagor</i></p>	<p>What was the duration between first and last episode / seizure?</p> <p><input type="radio"/> Less than 24 Hours</p> <p><input checked="" type="radio"/> More than 24 Hours</p> <p>Submit</p> <p>01:03 Recorded by <i>Mediagor</i></p>
<p>Epilepsy Diagnostic Tool</p> <p>Did your child have these episodes always accompanied by fever?</p> <p><input checked="" type="radio"/> No</p> <p><input type="radio"/> Yes</p> <p>Submit</p> <p>01:08 Recorded by <i>Mediagor</i></p>	

Autism Spectrum Disorder	
<p>Autism Spectrum Disorder</p> <p>Diagnostic Tool For Autism Spectrum Disorder</p> <p>00:04 Recorded by <i>Mediagor</i></p>	<p>AIIMS Modification of IND-T-ASD Tool</p> <p>New Tool Developed By</p> <p>Child Neurology Division Department of Pediatrics All India Institute of Medical Sciences, New Delhi</p> <p>How to use the tool: http://www.pedneuroaiims.org</p> <p>For Any Queries, please contact:</p> <p>Professor Sheffali Gulati Chief, Child Neurology Division, Department of Pediatrics, AIIMS, New Delhi. Email: sheffaligulati@gmail.com, sheffalig@yahoo.com, pedsneuroaiims@gmail.com</p> <p>Further information is available under the information and Support icons of the app.</p> <p>01:03 Recorded by <i>Mediagor</i></p>

Mobile applications available on Google Play store and iOS platform free of cost for diagnosis of Epilepsy and Autism

Mobile Applications

ADHD and Neuromotor Impairment Diagnostic Tool



Mobile applications for ADHD, and NMI are currently available in Google Play store and soon will be available in iOS also

Center of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders

The need of the hour is a state of the Art, Centre for Advanced Research and Excellence for Childhood Neurodevelopmental Disorders which can provide high quality affordable care for all sections of the society, perform high end diagnostic/ therapeutic research and act as an education/training hub.

With this background, the division envisages developing a Centre for Advanced Research and Excellence with the following envisioned thrust areas:

1. Development of a National Registry for Childhood Neurodevelopmental Disorders
2. National Knowledge and Training Center for Childhood Neurodevelopmental Disorders
3. Childhood Neurodevelopmental Disorders: Advanced Diagnostics
4. Childhood Neurodevelopmental Disorders: Advanced Therapeutics/Rehabilitation
5. Establishment of Child Neurology Helpline and Teleconsultation services

Operationalization of this Center of Excellence & Advanced Research for Childhood Neurodevelopmental Disorders has been started in Child Neurology Division, Department of pediatrics, AIIMS, New Delhi from October 2017(Funded by AIIMS Grant in aid (supported by Ministry of Health and Family Welfare) and India Infrastructure Finance Company Limited (IIFCL) As a part of its Corporate Social Responsibility (CSR); MOU signed on 1st December, 2017)



For more details, please refer to Booklet on Center of Excellence and Advanced Research For Childhood Neurodevelopmental Disorders.

Available Apps: Epilepsy and ASD tools; Apps on ADHD and NM tools will be available soon

For details, please contact:

Professor Shefali Gulati,
 Chief, Child Neurology Division,
 Coordinator, GM Pediatric Neurology Programme
 Faculty Incharge, Centre of Excellence & Advanced Research
 for Childhood Neurodevelopmental disorders
 Department of Pediatrics, AIIMS, New Delhi
 Contact: 911-25594673, Autism helpline: 9865399537
 Email: shefali@yahoo.com, pedneuroaims@yahoo.com,
 autismhelplinepedneuroaims@gmail.com
 Fax: 91-11-26588641, 26588663

Center of Excellence & Advanced Research

For Childhood Neurodevelopmental Disorders

Funded by

- AIIMS Grant in aid (supported by Ministry of Health and Family Welfare)
- India Infrastructure Finance Company Limited (IIFCL) As a part of its Corporate Social Responsibility (CSR)

**Child Neurology Division
Department of Pediatrics
AIIMS, New Delhi, India**



Launch of National Child Neurology Helpline and Tele-Consultation Services for Childhood Neurodevelopmental Disorders





CHILD NEUROLOGY DIVISION
Department of Pediatrics
All India Institute of Medical Sciences, New Delhi



An AIIMS-IIFCL Joint Initiative
**Chief Guest: Smt. Anupriya Patel, Hon'ble Minister of State,
 Ministry of Health & Family Welfare**
Date and Time: April 12th, 16:00 to 17:20
Venue: Dr. Ramalingaswami Board Room, AIIMS



Toll free Helpline

Toll free Helpline
Phone Number 1800117776
 Child Neurology Division
 Center of Excellence & Advanced Research on
 Childhood Neurodevelopmental Disorders
 Department of Pediatrics
 All India Institute of Medical Sciences
 New Delhi India







Our Toll free Number
1800 11 7776

Available 24x7, available on your phone at all times with any internet connection or through any mobile phone.

Available 24x7, available on your phone at all times with any internet connection or through any mobile phone.



National Child Neurology Helpline Services for Childhood Neurodevelopmental Disorders

An AIIMS-IIFCL Joint Initiative



Who will provide the Helpline Service?

Child Neurology Division, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi.

Who will provide the Tele-Consultation Service?

Child Neurology Division, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi.

Child Neurology Tele-Consultation Services for Childhood Neurodevelopmental Disorders

An AIIMS-IIFCL Joint Initiative



Who will provide the Tele-Consultation Service?

Child Neurology Division, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi.

Who will provide the Helpline Service?

Child Neurology Division, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi.

Child Neurology Division

Under the mentorship of



Professor Randeep Guleria
Director, AIIMS



Professor A K Deorari
Head of Department, Pediatrics

Faculty



Prof Sheffali Gulati
Faculty In Charge



Dr. Biswaroop



Dr. Prashant

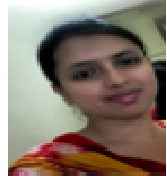
DM Residents



Dr. Aparajita



Dr. Ankita



Dr. Shruti



Dr. Prateek



Dr. Sachendra Badal



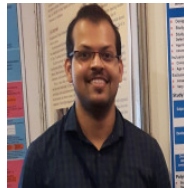
Dr. Vivek Sirolia



Dr. Prabhjot



Dr. Zulfiqar



Dr. Vaisakh Ananad



Dr. Rahul Sinha



Dr. Juhi Gupta



Dr. Sonali Singh

EEG Technicians



Mrs. Sushila



Mr. Suresh



Ms. Mable Josey



Dr. Shobha



Dr. Sanjeeda

Specialty Nurse

Child Psychologist

Project Staff



Ms. Sweta



Mr. Surender



Ms. Chetna

Secretarial Staff



Mr. Dushyant



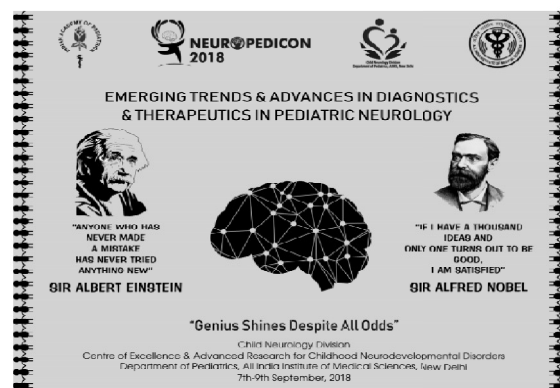
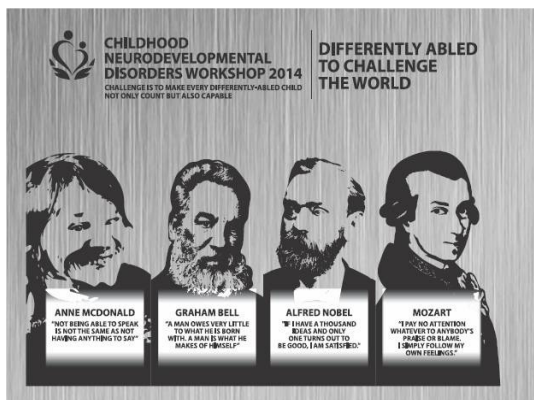
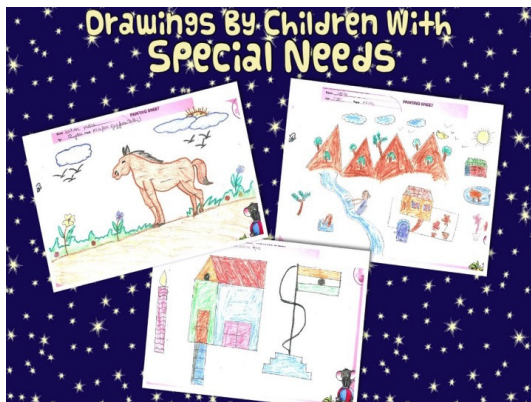
Ms. Sunaina

ALUMNI



Alumni of the Division	Year of Joining	Current Position
Dr Mahesh Kamate	Jan 2004	Professor, Child Neurology, JN Medical College , Belgavai Consultant Pediatric Neurologist, KLEs PK Hospital, Belgavi, Karnataka
Dr Anita Sharma	Jan 2004	Professor, Pediatrics & Head Child Neurology, SGT Medical College, Gurgaon
Dr Bidisha Banerjee	July 2004	Consultant , Pediatric Neurology, Manipal Hospital, Bangalore
Dr Suvasini Sharma	Jan 2006	Associate Professor, Neurology Division, Department of Pediatrics, Lady Harding Medical College and associated Kalawati Saran Children's Hospital, New Delhi
Dr Naveen Sankhyan	July 2006	Additional Professor, Head, Pediatric Neurology and Neurodevelopment Unit, Department of Pediatrics, Advanced Pediatric Center, PGIMER, Chandigarh
Dr Ravindra Arya	Jan 2007	Attending Physician, Comprehensive Epilepsy Center, Division of Neurology, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA, Assistant Professor of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, Ohio, USA
Dr Jitendra K Sahu	Jan 2007	Additional Professor, Division of Pediatric Neurology, Advanced Pediatric Center, PGIMER, Chandigarh
Dr Anita Chaudhary	Jan 2007	Professor, Pediatrics and Head Child Neurology, SGT Medical College, Gurgaon
Dr KVN Raju	July 2007	Associate Professor of Pediatric Neurology, Indira Gandhi Institute of Child Health, Bangalore

Dr Gurpreet Kochar	Jan 2008	Senior Consultant, Department of Pediatric Neurology, SPS Hospital, Ludhiana
Dr Ramesh Konanki	Dec 2008	Consultant, Pediatric Neurologist, Rainbow Children's Hospital, Hyderabad
Dr Jitendra Kumar Sahu	July 2009	Additional Professor, Division of Pediatric Neurology, Department of Pediatrics, Advanced Pediatric Center, PGIMER, Chandigarh
Dr Rachna Sehgal	July 2009	Associate Professor, Department of Pediatrics, VMMC and Safdarjung Hospital, New Delhi
Dr Biswaroop Chakrabarty	July 2009	Assistant Professor, Department of Paediatrics ,AIIMS
Dr Puneet Jain	Dec 2009	Clinical fellow-Epilepsy, Epilepsy Programme, Division of Neurology, Department of Pediatrics, The Hospital for Sick Kids, Toronto, Ontario, Canada
Dr Lakshminaryan K	Jan 2010	Consultant, Pediatric Neurologist & Epileptologist, Fortis Comprehensive Epilepsy Center, Fortis Malar Hospital, Adyar, Chennai
Dr Sangeetha Yoganathan	July 2010	Associate Professor of Pediatric Neurology, Department of Neurological Sciences, Christian Medical College, Vellore
Dr Akbar Muhammad Chettali	Jan 2011	Senior Specialist, Pediatric Neurology, Aster Child Health, Aster Medcity, Ernakulam
Dr Manoj Kumar Singh	Jan 2012	Senior Child Neurology Specialist and Associate Professor, On Foreign Assignment from VMMC and Safdarjung Hospital, New Delhi to UAE working as Child Neurologist
Dr Ankush Singh	Jan 2012	Consultant Pediatric Neurology, Lotus Hospital, Hyderabad
Dr Ajay Kumar	July 2012	Pediatric Neurologist, Child Neurology Centre, Opposite to Krishna Apartment, Boring Road, Patna
Dr Anil K Israni	Jan 2013	Consultant Pediatric Neurologist, University Hospitals of Leicester NHS trust, Leicester, UK
Dr Rachna Dubey	Jan 2013	Visiting Consultant, Medanta Hospital, Indore, Madhya Pradesh
Dr Harsh Patel	Jan 2013	Consultant, Pediatric Neurologist, Division of Pediatric Neurology, Department of Pediatrics, Zydus Hospital, Ahmedabad
Dr Jaya Shankar Kaushik	July 2013	Associate Professor, , Department of Pediatrics, Pt B D Sharma Postgraduate Institute of Medical Sciences, Rohtak, Haryana
Dr Lokesh Saini	July 2013	Assistant Professor, Division Of Pediatric Neurology, Department of Pediatrics, Advanced Pediatric Center, PGIMER, Chandigarh
Dr Ranjith Kumar Manokaran	Jan 2014	Assistant Professor, Division of Pediatric Neurology, Department of Neurology, Sri Ramachandra Medical College, Porur, Chennai
Dr Vishal Sondhi	Dec 2017	Faculty Dept of Pediatrics AFMC ,Pune
Dr Rajni Farmania	Dec 2017	Consultant, BLK Hospital, New Delhi
Dr Priyanka Madaan	June 2018	Child Neurology Division ,Department of Pediatrics , PGIMER Chandigarh
Dr Aparajita Gupta	Dec 2018	Faculty, Department of Pediatrics, Command Hospital (EC), Kolkata
Dr Ankita	Dec 2018	Child Neurology Consultant , Indore



Updated till dec 2018

Departmental website: http://aiims.edu/aiims/departments/pediatrics/ped_neuro

Email: pedneuroaiims@yahoo.com

Autism help line: autismhelp.pedsaiims@gmail.com

Website: www.pedneuroaiims.org

Mobile link: m.pedneuroaiims.org



**Center of Excellence & Advanced Research
for
Childhood Neurodevelopmental Disorders**

Child Neurology Division
Department of Pediatrics, AIIMS, New Delhi

Funded by

**AIIMS Grant in aid
(supported by Ministry of Health and Family Welfare)**

&

**India Infrastructure Finance Company Limited (IIFCL)
(as a part of its Corporate Social Responsibility (CSR))**

**Signing of Memorandum of
Understanding**

between

AIIMS and IIFCL

Date and Time: Dec 1st, 3.30 PM to 4.00 PM

Venue: Director's Committee Room, AIIMS

**Child Neurology Division
Department of Pediatrics
AIIMS, New Delhi, India**