Annual Report

Regional Resource Centre, Department of Telemedicine, PGIMER, Chandigarh

1st April 2018 to 31st March 2019

Department of Telemedicine, PGIMER

Prof. & Head Dr. Meenu Singh MD, FIAP, FCCP, FCAAI (Pediatrics)

Staff under RRC, NMCN, MoHFW, Govt. of India

Consultant & Coordinator	Dr. Amit Agarwal	MSc, PhD
Consultant (Health informatics Unit)	Dr. Anil Chauhan	MSc, PhD
Consultant (**Health informatics Unit**)	Dr Nishant Jaiswal	MBBS
Associate Consultant	Mr. Pankaj Pant	MSc
Telemed. Infra. and Net. Admn.	Mr. Munish Kumar	BA
Content Developer	Mr. Suresh Bhatt	BA

Background:

The Department of Telemedicine at the institute is a pioneer in providing both basic telemedicine facilities as well as a highly specialized quality service to the people of this region i.e. Chandigarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Uttar Pradesh, Uttaranchal and Rajasthan. It is connected to 24 district hospitals and 3 medical colleges of Punjab for providing Tele Consultations.

Tele Education - Post Graduate Institute of Rohtak, SGPGI Lucknow, AIIMS Delhi, AIIMS Bhubneshwar, Jaslok Hospital Mumbai, DMC Ludhiana, Fortis hospital Mohali, PIMS Jalandhar, GMC Trivandrum, IGMC Shimla, Dr. RPGMC Tanda and many other medical colleges and hospitals are connected for interactive sessions.

National Institute of Telemedicine (NIT) at PGIMER Chandigarh

As per the office order no. **Endst. No. PGI-MA-2016/F-017/9474 on dated- 26-11-2016** it was decided to setting up a **National Institute of Telemedicine** (As Approved by the Governing Body vide Agenda item No. B-3 on dated 13.10.2015) capable of providing graduate and Post Graduate level courses online and act as a country wide class room for medical education and medical research activities, tele conferencing and tele consultation, under the aegis of National Knowledge Network.

Regional Resource Centre (under National Medical College Network)

Our Centre had been designated as Regional Resource Centre (under NMCN) of North India in 2013. PGIMER is the Nodal centre of the North zone for the national knowledge network and is connected to the medical colleges of J&K, Himachal Pradesh, Chandigarh, Punjab and Haryana. Following hospitals are coming under RRC, PGIMER, Chandigarh.

1. Dr. Rajendra Prasad Govt. Medical College, Tanda, Himachal Pradesh
2. Indira Gandhi Government Medical College, IGMC, Shimla, Himachal Pradesh
3. Postgraduate Institute of Medical Sciences, PGIMS, Rohtak, Haryana
4. Government Medical College, Jammu, Jammu & Kashmir
5. Government Medical College, Jammu & Kashmir
6. Guru Govind Singh Medical College, Faridkot, Punjab
7. Govt. Medical College and Hospital, Amritsar, Punjab

Main Activities:

- Through NKN connectivity
    - I. Tele education
    - II. Tele consultation
    - III. Tele evidence
- Through ISRO connectivity
    - I. Tele education
    - II. Tele consultation
- Evidence Based Health Informatics & Health Technology Assessment Unit

Tele-education through NKN connectivity:

S.NO.	Sessions Name	No of sessions in the year 2018-19
1.	Clinic pathological conferences (Staff and Student CPC's)	45
2.	Pediatrics sessions with AIIMS, New Delhi (Pediatrics Pulmonogy and PICU)	29
3.	General surgery Rounds	41
4.	Genetics Sessions with SGPGI, Lucknow	4
5.	Hepatology Sessions (ECHO Project)	4
6.	Pediatrics Evidence based sessions (ECHO Project)	8

All the sessions are being webcast and recorded through NMCN portal: www.nmcn.in

Tele consultations through NKN connectivity via eSanjeevani Software:

Department of Telemedicine is providing the on line consultation through **e-sanjeevani** programme developed by the C-DAC Mohali to the 24 District hospitals and 3 Govt. medical colleges of Punjab.

Details of Tele Consultations (e-Sanjeevani)

Under the project the department has given break up wise consultation to the various specialties and super-specialties during the year 2018-19 under Punjab Project, e-Sanjeevani.

Department	e Sanjeevani	Percentage
Internal Medicine	164	12.37
Obs. & Gynaecology	149	11.24
Dermatology	122	9.20
Orthopedics	122	9.20

Dental	113	8.52
Pediatrics	110	8.30
Opthalmology	98	7.39
Cytology	96	7.24
ENT	87	6.56
Anaesthesia	81	6.11
Psychiatry	56	4.22
Surgery	53	4.00
Pulmonary Medicine	21	1.58
Hepatology	13	0.98
Cardiology	12	0.90
Neurology	11	0.83
Endocrinology	5	0.37
Plastic Surgery	5	0.37
Transfusion Medicine	2	0.15
Neurosurgery	2	0.15
Urology	0	0.00
Gastroenterology	0	0.00
Paed.surgery	0	0.00
Pathology	0	0.00
Nephrology	0	0.00
Haematology	0	0.00
Forensic Medicine	0	0.00
Total	**1325**	**100**

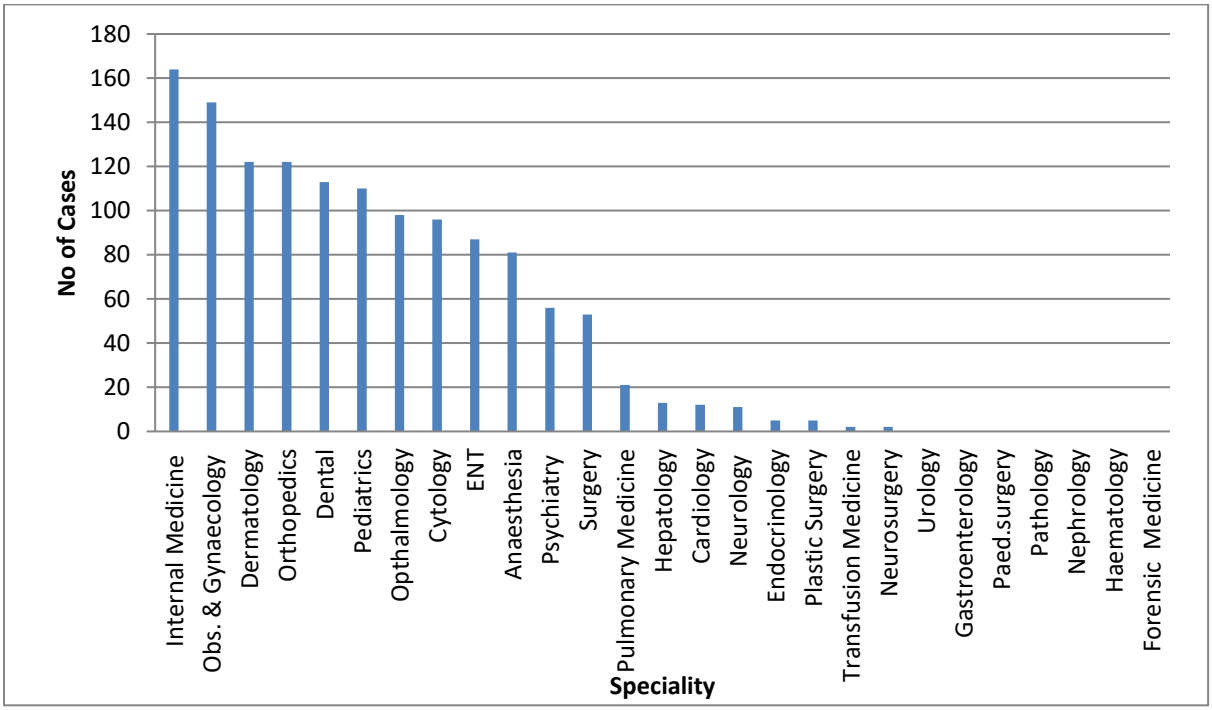


Figure 1: Bar Chart representation of Tele consultations (e –Sanjeevani)

Number of consultations given to different Punjab Hospitals

Civil Hospital, Mohali	19
Civil Hospital, Ropar	32
Civil Hospital, Kapurthala	12
Civil Hospital, Hoshiarpur	2
Civil Hospital, Ferozpur	44
Civil Hospital, Bathinda	169
Civil Hospital, Mansa	79
Civil Hospital, Moga	68
Civil Hospital, Sangrur	35
Civil Hospital, Ludhiana	149
Civil Hospital, Gurdaspur	62
Civil Hospital, Nawasahar	102
Civil Hospital, Muktsar	85
Civil Hospital, Jalandhar	92
Civil Hospital, Fatehgarh Sahib	54

Civil Hospital, Patiala	50
Civil Hospital, Ajnala	136
Civil Hospital, Dasua	52
Civil Hospital, Pathankot	2
Civil Hospital, Amritsar	1
Civil Hospital, Barnala	74
Civil Hospital, Tarantaran	6
Total	1325

Tele evidence through Video conferencing

Telemedicine centre is continuing providing video Conferencing facilities for the doctors of PGIMER, for giving evidence in District Courts of Punjab and Haryana and this is proving very useful in saving valuable time of the doctors. Already **1654 sessions** have been conducted successfully during the year.

PGIMER ISRO LINKAGE

PGI is having telemedicine facility with 111 medical institutes all over India via satellite connectivity provided by ISRO, Bengaluru. Regular transmissions on specialized clinical topics form ISRO Ahmedabad are being held and are being attended by the faculty of PGIMER.

Transmission of Clinical Lectures

We are continuing with the transmission of clinical lectures on Monday, Tuesday and Thursday from 8 A.M to 9 A.M to all the three medical colleges of Punjab which started on 20 January 2014, and it is benefitting the faculty there. A total of **73** clinical lectures were transmitted during the year 2018-19.

Live transmission of Session

This Centre is also facilitating the live transmission of various sessions being held in our institute. We have successfully transmitted 102 sessions to all over the India.

Interactive Sessions

Interactive session between Department of Pediatric medicine of PGIMER and AIIMS, New Delhi has been transmitted every Monday and Interaction between the Pediatric Genetics of PGIMER and SGPGI, Lucknow on every Tuesday. Teaching sessions regarding Hepatitis C awareness have been transmitted through zoom software with district hospitals of Punjab by Department of Hepatology twice in a month.

Clinical-Pathological Conferences

Telemedicine Centre is transmitting the educational CPCs to the various medical colleges connected. A total number of **28 CPCs** were transmitted from April 2018 to March 2019. Different educational sessions of various departments have also been transmitted to the connected centers.

Zoom Class for North East Region

Project ECHO (Extension for Community Healthcare Outcomes) is an innovative model of healthcare education. ECHO uses widely available video conferencing technology to leverage specialty knowledge that may only exist in an academic medical center to empower community primary care clinicians. By way of ongoing telementoring, participating clinicians develop expertise in various fields and the model could be well adapted for online mentoring towards capacity building in the field of Evidence Based Medicine. This proposal aims at capacity building in the North Eastern region in the field of Evidence Based Child Health (Principles and Application) using the online mentoring platforms like ECHO model. Various modules has been conducted under this capacity which includes. A total of 8 interactive sessions transmitted to North East region under this project. These sessions have been transmitted once in a week.

Implementation of Collab –DDS online Tele Radiology Services:

Collab DDS project was successfully launched on 16th August 2018 from MoHFW. RRC North identified the different CHC and PHC for implementation of this project in the state of Punajb, Haryana, Himachal Pradesh and J&K. DH, Faridabad in Haryana and DH, Sulah in Himachal Pradesh has been identified for the soft launch.

Till date three cases has been uploaded by the DH. Faridabad and successfully completed by the radiologist sitting at PGIMER, Chandigarh.

Launch of the eClassroom project of NMCN Scheme by Secretary (Health) on 15.01.2019 at 11.00 AM from Nirman Bhawan, New Delhi

eClass room has been established under the centrally Sponsored Scheme (cSS) of National Medical college Network (NMCN) in 50 Govt. Medical colleges are being networked. In the first phase riding over National Knowledge Network. These 50 Medical colleges under NMCN would be utilizing this infrastructure to create e-contents resources-at National level to be accessed by Medical students for anytime anywhere study. Digital Medical Lecture has been created in PGIMER (RRC-North) and 7 medical colleges under RRC North and it is ready to be utilization for remote lectures with other 50 medical colleges.

Secretary (Hearth), Government of India launched the e-classroom project of NMCN scheme on 15.01.2019 at 11.00 AM-from Nirman Bhawan, New Delhi, in the presence of Senior officials of MoHFW through video conferencing. From PGIMER end Shri A. Awasthi (Deputy Director Admn.), Prof Meenu Singh (Head, Department of Telemedicine) connected through video conferencing, Prof. Surjit Singh (Head, Department of Pediatrics), Dr Naveen Sankhayan (DMS, Advanced Pediatric Centre), Prof. Biman Saikia (Prof In Immunoathology), Dr Amit Agarwal (Consultant, RRC North, PGIMER) and Dr Anil Chauhan (Consultant, RRC North, PGIMER) has also attended the soft launch.

Launch of the eClassroom project of NMCN Scheme by Secretary (Health) on 15.01.2019 at 11.00 AM from Nirman Bhawan, New Delhi

Academic Program March, 2019
Regional Resource Centre (North Region)
PGIMER, Chandigarh

Day	Date	Time	E- Class Room Activity	Venue
Monday				E-class Room APC, Auditorium & LT-1 Nehru PGIMER
	18/03/2019	7.45-8.45 AM	Consultant talk:Anthropometrics in context of Pediatrics	
	25/03/2019	8-9 AM	Student CPC	LT-1 Nehru PGIMER
Tuesday	12/03/2019	7.45-8.45 AM	Depart' Clinical meeting Emergency/NUPE/Endo	E-class Room APC, Auditorium & LT-1 Nehru PGIMER
	19/03/2019	7.45-8.45 AM	Pulmo/PGE/Neuro	
	26/03/2019	7.45-8.45 AM	PHO/Critical Care/Neonatology	
Wednesday	13/03/2019	08- 09am	Staff CPC	LT-1 Nehru PGIMER
	20/03/2019	08-09am		
	27/03/2019	08- 09am		
Thursday	14/03/2019	7.45-8.45am		
	28/03/2019	7.45-8.45 am	Depart' Clinical meeting	LT-1 Nehru PGIMER
Saturday	09/03/ 2019	7.45-8.45 AM	Pediatric Surgery Medicine Round	E-class Room APC, Auditorium
	16/03/ 2019	7.45-8.45 AM	Journal club	
	23/03/ 2019	7.45-8.45 AM	Combined Pediatrics & Child Psychiatry Round	
	30/03/ 2019	7.45-8.45 AM	Department clinical meet Cardio/ID/OPD	

List of Hardware Installed in e-Class room

Department of Telemedicine, PGIMER

Sr. No.	Description of Item	Qty.
1	HDMI Splitter	1
2	Audio Video Matrix Switcher	1
3	HDMI Twisted Pair Transmitter	4
4	HDMI Twisted Pair Receiver	6
5	Multi format Twisted Pair Transmitter	1
6	Control Processor with touch panel and button panel	1
7	Audio/Video Input plate/console	1
8	65”HD LED Display Unit with swivel/wall/floor stand mount	2
9	55” HD LED Display Unit with swivel/wall/floor stand mount	1
10	46” HD LED Display Unit with swivel/wall/floor stand mount	1
11	Equipment Rack	1
12	HD Video Conferencing Unit with Auxiliary Camera	1
13	Projector	1
14	Large size Projection Screen(220” Diagonal/133” Diagonal)	1
15	Document Camera	1

16	Teacher Console	1
17	All-in-one Desktop	1
18	Wi-Fi Access point	1
19	24 port Network Switch	1
20	6 KVP Online UPS	1
21	Digital Signal processor (DSP)	1
22	Wall Speaker	6
23	Wireless Handheld microphone set	4
24	Wireless Lapel Microphone set	1
25	Gooseneck Microphone	1
26	Amplifier	1

RRC participation in Telemedicon 2018:

RRC, PGIMER also participated in Telemedicon 2018. Dr Amit Agarwal presented paper entitled "An intervention of telemonitoring and structured telephone support for children with bronchial asthma: a randomized controlled trial".

Abstract

An intervention of telemonitoring and structured telephone support for children with bronchial asthma: a randomized controlled trial

Amit Agarwal[1], Manvi Singh[1], Meenu Singh[1, 2], Nishant Jaiswal[1], Anil Chauhan[1], Pankaj Pant1

[1]Department of Telemedicine, Postgraduate Institute of Medical Education and Research, Chandigarh, India

[2]Department of Pediatrics, Postgraduate Institute of Medical Education and Research, Chandigarh, India

Introduction: Asthma is a chronic health disorder affecting a substantial proportion of children and adults worldwide. The use of technology in facilitating monitoring and follow up can be useful for the better control of asthma. The aim of our study was to evaluate the effect of telemonitoring and structured telephone support as an intervention in the home management of bronchial asthma in children and to study the effect of the intervention on quality of life in children with bronchial asthma.

Methods: This study was conducted on 68 asthmatic children. Children in the intervention group were doing daily PEFR at home, received a home visit by e-health worker related to telemedicine department and had the facility to contact health professional through telephone calls.

Results: During the study period of 6 months, the mean of rescue therapy of group-I (intervention) and group–II (control) were 4.90 and 3.22 respectively. Intervention and control group had a significant difference in the number of times rescue therapy was used, p-value <0.0001. Although the intervention group had slightly more emergency room visits, mean for group-I (intervention) was 1.06 and for group-II (control) was 1.00. There was no significant difference between the two (p-value of 0.540).

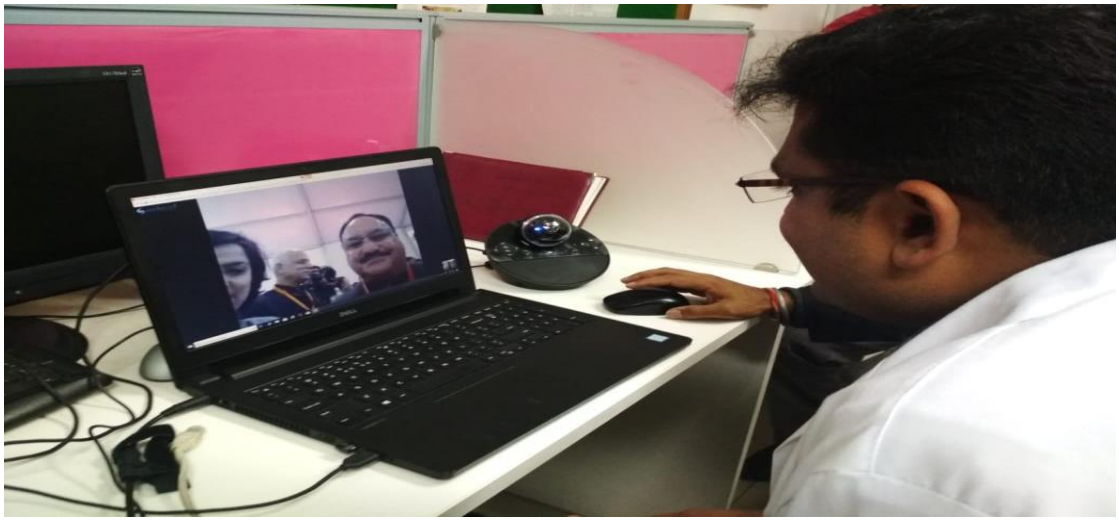
Both the groups showed improvement in the quality of life at the end of the study over the period of 6 months with no significant difference, the p-value being 0.975(>0.05).

Conclusion: The randomized controlled trial showed that telemonitoring and structured telephone support is as effective as conventional OPD based care in improving quality of life and preventing severe exacerbations leading to emergency room visits in children with moderate persistent asthma.

Keywords: Asthma, PEFR, Telemonitoring

MPharm students of ASBASJSM College of Pharmacy, Bela , Ropar visited Telemedicine and attended a lecture on Tele Pharmacy

Visit of Foreign Delegates (Ghana, Namibia, Nigeria, Japan, USA, South Korea, Phillipines, Egypt) to Regional Resource centre, PGIMER, Chandigarh



Hon'ble Union Health Minister Shri JP Nadda interact with the Consultant from NHSRC, MoHFE, New Delhi

Evidence Based Health Informatics & Health Technology Assessment Unit

- **Main activities**

साक्ष्य आधारित चिकित्सा
SAKSHYA ADHARIT CHIKITSA
PGI ICMR ONLINE TRAINING
HEALTH INFORMATICS & EVIDENCE BASED MEDICINE

An advanced Centre for Evidence Based Child Health was established under the Department of Pediatrics, Advanced Pediatric Centre, PGIMER, Chandigarh under the egis if ICMR with Dr. Meenu Singh as the Principal Investigator in May 2012. The Centre was established to conduct the systematic reviews to answer the specific research question to improve the child health and to build capacity in Evidence Based Child Health through organizing workshop and short courses. The Evidence Based Medicine Centre has also launched the online course **"Sakshya Adharit Chikitsha"** on 27th July 2017.

AIM

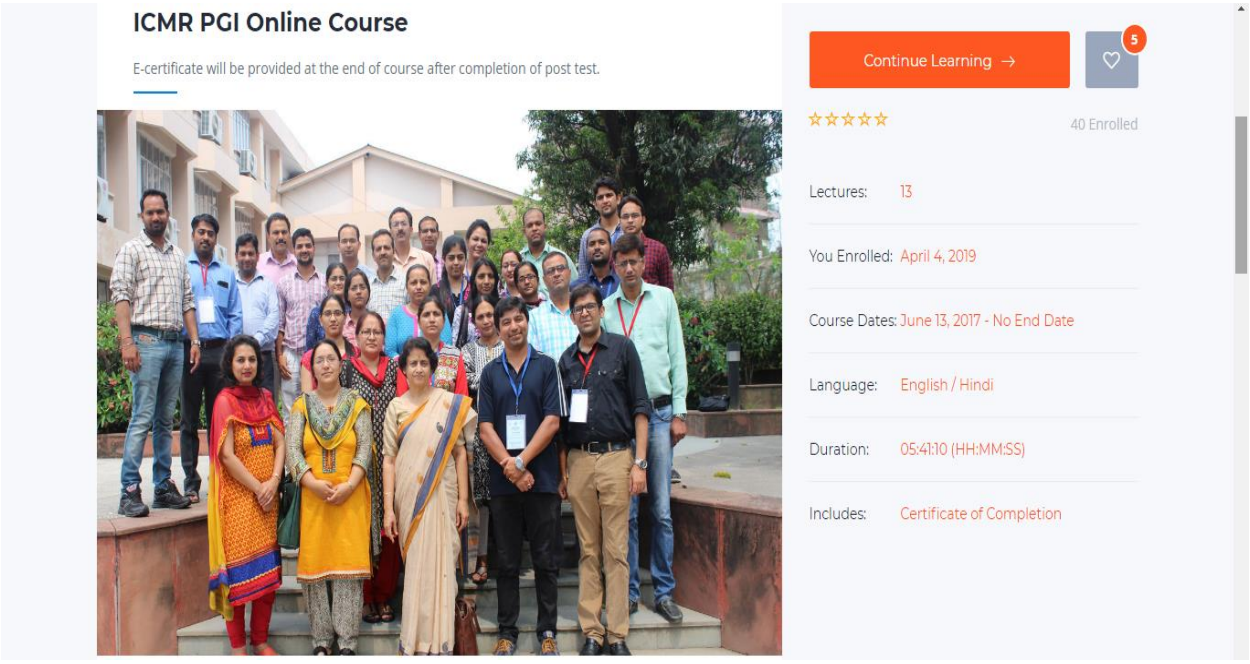
The main aim of this course is to familiarize course participants with evidence based medicine (EBM) basics to help incorporate evidence from systematic reviews into practice.

On the completion of the course, participants should be competently able to:

- generate structured questions arising from clinical problems in practice
- search relevant literature, identifying systematic reviews wherever possible
- assess the quality (validity) of systematic reviews and primary research included within them
- assess the applicability of research findings in clinical practice
- effectively implement the output from above activities into clinical practice

Participants

The target participants of this course are Health professionals in a clinical setting.



We have categorized this course into 8 different modules based on various steps and procedure involved in conducting systematic reviews.

1. Introduction to evidence based medicine
2. Framing research question & searching literature
3. Statistics in EBM
4. How to conduct Systematic Reviews
5. Critical appraisal of Diagnostic test accuracy study
6. Critical appraisal of Randomized control trail (intervention)
7. How to write a protocol
8. Critical appraisal of Systematic Reviews

Till date there are 40 participants who have registered for the course from the different medical colleges and institutes. Some of them have completed their course but yet to be submitted their protocol. Every participants need to go through and complete the Pre-test questionnaire uploaded in the course before start the lectures. E-certificate will be provided at the end of course after completion of post test.

1. **Conduct of systematic reviews**

   A) Chauhan A, Sahu JK, Jaiswal N, Kumar K, Agarwal A, Kaur J, Singh S, Singh M. Prevalence of autism spectrum disorder in Indian children: A systematic review and meta-analysis. Neurol India. 2019 Jan-Feb;67(1):100-104 (Published).

   B) Chauhan A, Singh M, Jaiswal N, Agarwal A, Sahu JK, Singh M. Prevalence of cerebral palsy in Indian children: A systematic review and meta-analysis. Indian Journal of Pediatrics 2019 (Submitted)

   C) Supply demand gap in the care of small and sick neonates at district level "a systematic review"

2. **Workshops & Conference**

a. Workshop on “Professionalism in Medical Communication for Faculty” Dated 17/11/18. Venue: Lecture Theatre 1, Nehru Hospital, PGIMER, Chandigarh.

b. Workshop on “ Professionalism in Medical Communication for Residents” Dated 24/11/2018 at Lecture Theatre 1, PGIMER, Chandigarh funded by Medical Council of India

c. Conference “Evidence Based Conference” on 16-17 March, 2019 at Advanced Pediatrics Centre auditorium, PGIMER, Chandigarh

d. Workshop on “Professionalism in Medical Communication for Residents” 30th March 2019 at Advanced Pediatrics Centre, PGIMER, Chandigarh

Workshop on Professionalism in Medical Practice: Medical Communication for Residents organized on 24th November 2018.

Workshop on Professionalism in Medical Practice: Medical Communication for Faculty organized on 17th November 2018.

Systematic Reviews:

1. Prevalence of autism spectrum disorder in Indian children: A systematic review and meta-analysis.

Chauhan A[1], Sahu JK[2], Jaiswal N[1], Kumar K[1], Agarwal A[1], Kaur J[1], Singh S[1], Singh M[3].

Author information

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3.Indian Council of Medical Research Advanced Centre for Evidence Based Child Health; Department of Pediatrics, Advanced Pediatrics Centre, Postgraduate Institute of Medical Education and Research, Chandigarh, India.

Abstract

BACKGROUND:

Autism spectrum disorder (ASD) is a developmental disability and is of public health importance. It affects not only the child and the family. It also has direct and indirect cost implications on the nation that are incurred in providing health care, support for education, and rehabilitative services. There is a lack of evidence-based estimate of the population prevalence of ASD in India. Therefore, this systematic review was aimed at determining the prevalence of ASD in the Indian population.

MATERIALS AND METHODS:

We conducted a systematic review and meta-analysis of the published studies evaluating the prevalence of ASD in the community setting. A search within the published literature was conducted from different databases (PubMed, OvidSP, and EMBASE). The analysis of data was done using STATA MP12 (StataCorp, College Station, TX, USA).

RESULTS:

Four studies were included in this systematic review. Of the four included studies, one had studied both urban and rural populations, and the other three had studied the urban populations only. The study from the rural setting showed a pooled percentage prevalence of 0.11 [95% confidence interval (CI) 0.01-0.20] in children aged 1-18 years; and, four studies conducted in the urban setting showed a pooled percentage prevalence of 0.09 (95% CI 0.02-0.16) in children aged 0-15 years.

CONCLUSION:

The scarcity of high-quality population-based epidemiological studies on ASD in India highlights an urgent need to study the burden of ASD in India. The proper acquisition of data related to the prevailing burden of ASD in India would lead to a better development of rehabilitative services in our country.

KEYWORDS:

Autism; community; prevalence; screening tool

1. **Prevalence of cerebral palsy in Indian children: A systematic review and meta-analysis**

Chauhan A, Singh M, Jaiswal N, Agarwal A, Sahu JK, Singh M

Abstract:

Purpose: There is a lack of national prevalence estimates of cerebral palsy in Indian Children. Therefore, the present systematic review was aimed to determine the pooled-prevalence of cerebral palsy as no such review is available.

Methods: We searched the published literature from different databases (PubMed, Ovid SP and EMBASE) and also tried to acquire information from the unpublished literature. We screened prospective/retrospective, cross-sectional, and cohort studies of children with cerebral palsy in the Indian population. Data was extracted from the included studies and quality assessment was performed. Data was analysed using STATA MP12 (Texas, College Station).

Results: Of the 862 studies searched, 8 studies were included for quantitative analysis. Three studies conducted in rural setting showed 1.24 (95% CI 0.30 – 2.17) pooled prevalence of cerebral palsy per 1000 children with less than 9 years of age. In urban settings the pooled prevalence per 1000 children surveyed is 2.29 (95% CI 1.43 – 3.16) in children less than 19

years of age. In sub-group analysis of combined setting of rural and urban, the pooled prevalence of cerebral palsy per 1000 of cerebral palsy children surveyed is 2.91 (95% CI 2.5-3.3).

Conclusion: The prevalence of cerebral palsy in India is similar to the worldwide estimates. There is a need to re-allocate resources and revisit the implementation of the existing policies for prevention and management of cerebral palsy taking into account the existing disease burden.

Keyword: Cerebral palsy, children, systematic review, prevalence, India

3**) Supply demand gap in the care of small and sick neonates at district level "a systematic review"**

Executive Summary:

Special Care Newborn Units (SNCU) have been established in District Hospitals to provide level II newborn care. Some SNCUs are also functioning as referral unit because of non-availability of such facilities in Public Hospitals of some districts. It is a separate unit close to the labour room with 12 or more beds and managed by trained doctors, staff nurses and support staff to provide 24 x 7 services. The configuration of the SCNU at the district level should be such that it supports delivery of necessary quality services. The SCNU at the district hospital is expected to provide the services like Care at birth, including resuscitation of asphyxiated newborns, managing sick newborns (except those requiring mechanical ventilation and major surgical interventions), Post-natal care, Follow-up of high risk newborns, Referral services and Immunisation services. The unit should be in a distinct area within the healthcare facility, with controlled access and environment.

As the first step a baseline assessment of supply and demand gap was assessed. On the supply side the analysis was done on the Number of Beds, Number of Nurses/Doctors, Nurse/Bed ratio and Doctor/Bed ratio. The demand gap analysis was done on the Bed occupancy, Number of Small newborns admitted, Number of Sick newborns admitted, Neonatal Mortality data and the causes of mortality.

A detailed analysis of the available data also had done to get an idea about the efficiency, productivity and outcome of care at the facility. However, data for processes and clinical indicators were not available. A comprehensive literature search was done from 2010 to 2017

through various bibliographic databases. Along with the electronic databases we also conducted hand searching to retrieve additional information from the references of the relevant articles. We gathered Information from the authors through email for the additional information. After removing duplicates, all the articles were uploaded in Covidence software (a web-based software

platform that streamlines the production of systematic reviews) for title and abstracts screening. The abstracts which were found relevant for the review were selected for the full text reading.

A total of 20,744 articles were found out of which 5 articles on SNCU and 17 articles on NICU were selected for data extraction. The screening process and results are reported in a Preferred

Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow chart. Data extraction was done on the predesigned data extraction sheet. For the SNCUs the data was analyzed across the 12 states of India. Data from SNCUs and NICUs was analysed separately.

Most SNCUs report to have fewer beds than required with a bed occupancy rate above 100%. The doctor and Nurse patient ratio appears to be optimal. The asepsis score for each facility based on parameters like availability of running water, elbow-operated wash basin, practice of hand-washing, wearing gowns etc. was suboptimal for most facilities. Around 50% (Range 47-64%) of the total SNCU admissions were LBW (<2.5% Kg). The data from literature addressing the morbidity and mortality profile in SNCUs is old, with the latest study by Shah et al (2018) restricted to the Gujarat SNCUs.

Himachal Telemedicine Project:

Himachal Telemedicine Project is a collaborative initiative of the NHM HP, RRC, Telemedicine, PGIMER, Chandigarh and CDAC-Mohali. In this regard the first meeting was held at HP Secretariat on 6th August 2018 in the presence of Secretary health, HP, Joint Secretary eHealth MoHFW, Joint director CDAC Mohali and Nodal Officer RRC PGIMER. The decision was taken to set up Himachal telemedicine project in collaboration with PGIMER and CDAC Mohali. Further VC meetings were conducted with NHM HP, CDAC Mohali and MoHFW to initiate this project. MD NHM has submitted a proposed list of 130 health and wellness centre in the initial phase.

Minutes of the stakeholders meeting of Himachal Telemedicine Project at PGIMER Chandigarh.

Meeting held at 2:30 pm on 27/02/2019 at Department of Telemedicine, Nehru Hospital, PGIMER Chandigarh

Stakeholders:

Telemedicine PGIMER

1. Dr. Meenu Singh, Head of Department, Telemedicine
2. Dr Anil Chauhan, Consutant, RRC, Dept. of Telemedcine
3. Dr Amit Agarwal, Consultant, RRC, Dept. of Telemedicine

National Health Mission NHM, Himachal Pradesh

1. Sh. Manmohan Sharma, MD NHM
2. Dr Gagandeep Dhillon, SPO-HMIS/MCTS/E-Health/ Telemedicine
3. Sh. Devender Sen, Consultant MIS, NHM

CDAC Mohali

1. Mr Rajesh Kumar, Principal Technical Officer, CDAC

*Joint Secretary e Health, MoHFW and Mr Gurucharan Singh Consultant eHealth could not attend this meeting through VC, due to their prior engagements.

Dr. Meenu Singh welcomed all the stakeholders for this meeting. She then invited MD NHM to proceed with the status of Himachal Telemedicine project.

MD NHM told that the list of 130 PHC and sub centres has been already submitted for the initiation of first phase of this project He told that they have not yet received the guidelines for tele-medicine services in ayushman bharat-Health wellness centres (HWCs) framed by NHM, Ministry of Health & Family Welfare (MoHFW). They will be submitting the proposal as per the guidelines of NHM to MoHFW. He emphasied on the early initiation of the project in the month of April, 2019. Dr Meenu Singh told that a call centre in the department of telemedicine will be set up with the recruitment of 4-5 super specialist doctors. Mr Devender Sen briefed about the infrastructure to be installed at the spokes end (PHC/Sub centres). Intially there will be requirement of internet connection, laptop/Tab and printer in the 130 centres.

All the stakeholders discussed about Hub and Spoke model for implementation of this project. The Department of Telemedicine, PGIMER shall be acting as HUBs for providing Doctor, Specialist and Super-Specialty consultation to the spokes at HWCs (called as spokes).

Mr. Rajesh Kumar from CDAC Mohali briefed about the status of e- Sanjeevni new software. He said that that the software is 70 % ready but needs to be security certified in the next 3-4 months. He also asked the MD NHM to provide the essential drug list and the rosters of specialist at PHCs and sub centres. He then briefed about the proposed guidelines for the telemedicine services in Ayushman bharat- health and wellness centres (HWCs). MD NHM also urge to give extra incentives to the specialist at spokes end. Dr Meenu Singh & MD NHM asked CDAC to provide the software as early as possible for the launch of this project. Mr. Rajesh confirmed to start the project with level 2 and level 3 of the e Sanjeevni Software with VC as early in the month of March.

Recommendations:

1. Launch of Himachal Telemedicine project in the end of March, 2019 initialy with 50 PHCs/sub centres.
2. HP NHM will be providing the list of 50 centres and specialist having internet facility with infrastructure.
3. Workshop will be conducted about the use of e Sanjeevni software to the 50 doctors at PGIMER Chandigarh with help of CDAC mohali during the the launch of this project (March 2019 and April 2019).
4. Recruitment of 4-5 specialist doctors at call centre at Department of Telemedicine, PGIMER Chandigarh on an urgent basis.

Haryana Telemedicine

HGRA Haryana Governance Reforms Authority has proposed an expert group panel for health services in Haryana where Evidence based health informatics and HTA unit, RRC North, PGIMER is the part of Expert group for Telemedicine in Haryana.

The panel is chaired By Prof Meenu Singh (Incharge, RRC North) and Dr Nishant Jaiswal (Consultant, RRC North) is also the member of expert panel. The committee is working in collaboration with HSHRC, Haryana towards the implementation of the telemedicine services in

Haryana and also providing capacity building services in the field of telemedicine. The expert group has met thrice since inception. The setup of telemedicine in upcoming Health and wellness centres in various districts of Haryana.

National workshop & Conference

on

"Evidence Based Medicine"

16/02/2019– 17/02/2019

Venue:
eClass room, ADVANCED PEDIARICS CENTRE, PGIMER, CHANDIGRAH

Pre-conference workshop on 16th February 2019

1. Critical appraisal of RCT & systematic review (Clinical, Dental & Basic Sciences) (Venue: APC Auditorium)

Time	Topic	Speakers	Chairs & Co-Chairs
9:30-10AM	Evidence based public policy for children	Dr. Vijay Kumar	
10-10:30AM	PICO and Research Question	Dr. Meenu Singh	
11-11:30AM	Research study design	Dr. Sourabh Dutta	
11:30-12Noon	Critical appraisal of RCT	Dr. S Venkataseshan	Dr Meenu Singh
12-12:15PM	Cochrane Tools for Critical Appraisal of RCT	Dr. Nipun Verma	
12:15-1PM	Small group exercise: RCT critical Appraisal	Dr Nishant Jaiswal/ Dr Amit Agarwal/ Dr Anil Chauhan	
1 – 2PM	Lunch		
2-2:45PM	How to conduct a medical literature search	Dr. Anil Chauhan	
2:45 PM – 3:30 PM	Systematic Review: How to write a protocol	Dr. Anju Sinha	
3:45-4:15PM	Systematic Review in Medicine/Dentistry/Basic Sciences	Dr Pradnaya Kakodkar	Dr. Anju Sinha Dr. Ashima Goel
4:15-4:45PM	Small group exercise: Critical appraisal of systematic review	Dr. Manvi Singh Dr Anil Chauhan	Meenu singh
4:45-5:15 PM	REVMAN & GRADE Pro software	Dr. Nishant Jaiswal	
5:15-5:45PM	Statistics for Systematic review	Dr. Kamal Kishore	

Inauguration program at 6:00 PM onwards

2. Literature Searching (Dr. Tulsi Das Library, PGIMER)

Time	Topic	Speakers
9 -10 AM	Developing search strategy (PICO)	Mrs. Neelima Chadha
10-11 AM	EBSCO-CINHAL/ EDS/DYNAMED	Mr.Chandersekhar/ Mr. Ritesh
11:30 AM-12:30 PM	PUBMED Search	Mrs. Jyotsna/ Mrs. Neelima
12:30 -1:30 PM	OVID MEDLINE	Mr. Pankaj Jain
1:30 -2 PM	LUNCH	
2-2:30 PM	Research to publication for Doctors and Institute (BMJ)	Mr. Shiker Srivastava
3 – 4 PM	Hands-on Training	Mrs. Kiran/ Mrs. Jyotsna

3. Evidence Based Nursing (Venue: NINE)

Time	Topic	Speakers
9-9:30 AM	Introduction to EBN	Dr S Ghai
9:30-10 AM	Formulating research question	Dr M Dandapani
10-10:30 AM	Identifying research articles	Dr Bhavneet Bharti
10:30-11 AM	Systematic review	Dr JL Mathew
11-11:30 AM	Basic components of statistics in EBP	Dr K Kishore
11:30-12 Noon	Critically appraising the evidence	Dr Nusrat Shafiq
12-12:30 PM	How to publish systematic review	Dr Sukhpal Kaur
12:30-1:30 PM	Group exercise on critically appraising the evidence	Dr Manju Dhandapanni
1:30-2PM	Lunch	

National CME on Evidence Based Pediatric Pulmonary Diseases: 17th February 2019 (Day Two)
APC Auditorium

Time	Topic	Speakers	Chairs & co-chairs
	9:30-10AM	Tea	
9:30-10AM	Introduction	Dr Meenu Singh	
	Acute Respiratory Infections		
10-10:20AM	Acute respiratory infections : Epidemiology & Diagnosis	Dr Joseph Mathew	Dr Kuldeep Singh Dr Neeraj Kumar Dr. Sourabh Dutta
10:20-10:40AM	Treatment & management of respiratory viral infections	Dr Shally Awasthi	

Time	Topic	Speakers	Chairs & co-chairs
	Asthma & ABPA		
10:45-10:55AM	Clinical Case Presentation	Dr. Amit Agarwal	Dr Meenu Singh Dr. Puneet Aulakh Dr. Kanaram Jat
10:55-11:20AM	Omalizumab for Asthma & ABPA	Dr Ruby Pawankar	
11:20-11:45AM	Noisy Breathing in children	Dr S Nagabhushan	
11:45-12:10PM	Pediatric Asthma: Recent advances	Dr Krishan Chugh	
12:10-12:35PM	Management of early wheezing	Dr. Mandeep Kaur Walia	
12:35-1 PM	: Recent advances in ABPA	Dr. Kanaram Jat	

1-2 PM Lunch

	Pediatric Tuberculosis		
2-2:10PM	Clinical case presentation	Dr. Seema Shrama	Dr. Sunil Sethi Dr. Ashwini Sood
2:10-2:35PM	Recent changes in the guidelines of TB management	Dr. BS Sharma	
2:35-3 PM	Gene xpert for pulmonary & extra pulmonary TB	Dr. Joseph Mathew	
	3-3:30PM	Tea	
	Vaccines for respiratory diseases		
3:30-3:55 PM	Current status of RSV vaccine	Dr Rashmi Ranjan Das	Dr Sadhbhavna Pandit
3:55-4:20PM	Pneumococcal vaccine: which one to choose	Dr. Nishant Jaiswal	Dr. Bhavneet Bharti
4:20-4:45 PM	Flu vaccine to give or not to give	Dr. Subhabrata Sarkar	
4:45-5 PM		Valedictory	

LIST OF SPEAKER

1. Dr. Vijay Kumar
2. Dr. Meenu Singh
3. Dr. Sourabh Dutta
4. Dr. S Venkataseshan
5. Dr. NipunVerma
6. Dr. Anil Chauhan
7. Dr. Amit Agarwal
8. Dr. Anju Sinha
9. Dr. PradanyaKakodkar
10. Dr. Manvi Singh
11. Dr. Kamal Kishore
12. Dr. Joseph Mathew
13. Dr. ShallyAwasthi
14. Dr. S Nagabhushan
15. Dr. Kishan Chug
16. Dr. MandeepWalia
17. Dr. KamaramJat
18. Dr. B S Sharma
19. Dr. Subhabratra Sarkar
20. Dr. Seema Sharma

LIST OF PARTICIPANTS

1. Dr. RonikaPaika
2. Dr. Jyoti
3. Dr. SehrBrar
4. Dr. Akashdeep
5. Ms. Ria Nangia
6. Dr. Amanpreet Kaur
7. Dr. Madhu Chopra
8. Dr. Hema Rani
9. Dr. Gurpreet Kaur
10. Dr. Deepti Mehta
11. Dr. Kajal Rehal
12. Dr. Kunjan
13. Dr. Meenakshi Malik
14. Dr. Vivek Singh Malik
15. Dr. ParthaSarathi Das
16. Dr. Ganesh Yadgiri
17. Dr. Sameer Tiwari
18. Dr. GujjariLohitha
19. Dr. SumathiPoleboina
20. Dr. ShubhangiKansal
21. Dr. JyotiKundu
22. Dr. CharuGuleria
23. Dr. Surajit Chakraborty
24. Dr. Himanshu Joshi
25. Mrs. Athira S
26. Mrs. V Sravya
27. Mr. GeetankKanboj
28. Mrs. RuchiSinghal
29. Dr. KalyanPulleddula
30. Mrs. Ann Joy
31. Mr. Karan Kumar
32. Dr. Paramvir Kaur
33. Dr. Aditi Sharma
34. Dr. Deepanjan Bhattacharya
35. Dr. O. P Goyal
36. Dr. Manish Kumar
37. Dr. Parminder Singh Pehal
38. Dr. Malika Goel
39. Dr. Geetika Singh
40. Dr. T Sasikumar
41. Dr. Kunwarravijeet Singh

42.Dr. Arjun Kumar
43.Dr. AkhleshRajpoot
44.Dr. Greeshma GR
45.Dr. AbhilashSeregatta
46.Dr. Paritosh Joshi
47.Dr. Anwesha Chakraborty
48.Dr. Sarita Dogra
49.Dr. Ankita Sharma
50.Dr. Meenakshi Malik
51.Dr. Ijas Hassan
52.Dr. Vichithra M
53.Dr. NeerajVerma
54.Dr. Janavi
55.Dr. Harmanjeet Kaur
56.Mr. Adarsh
57.Dr. Surya Saini
58.Dr. Hitesh Chander(Mittal)
59.Dr. AbhinandanSood
60.Dr. Indu Sen Mohini
61.Dr. Priyanka Dhawan
62.Dr. Ambika Sharma
63.Dr. Vamshi Krishna
64.Dr. Yashvita Joshi
65.Dr. Amrit Kaur
66.Dr. Prabhakaran
67.Dr. LaxmiMakam
68.Dr. Seema Sharma
69.Dr. HimanshiGoyal
70.Dr. Moon
71.Dr. Parthkapil
72.Dr. Jatin Arora
73.Dr. Dharamjeet Singh
74.Dr. Shreya Singh
75.Dr. Sampan Attri
76.Dr. Ramalingaswara
77.Dr. Prity
78.Dr. Molby C M
79.Dr. Prerna Saini
80.Dr. Harjeet Kaur
81.Dr. Amarepreet Kaur
82.Dr. Karan Prakash
83.Dr. Kritika
84.Dr. Cynthia Thakur

85.Dr. Saurabh Gupta
86.Dr. KumarPushkar
87.Dr. Prabhu
88.Dr. Vijai William
89.Dr. SunitaGolechla

PROCEEDINGS

Day 1st 16th Feb.

Pre conference workshop on 16th February 2019-04-18

Critical appraisal of RCT & Systematic Review

Regional Resource Centre initiated the National Workshop and conference on "Evidence Based Medicine" on 16thFeb, 2019 at the PGIMER, Chandigarh.

The session was started with the lecture by Dr. Vijay Kumar (Retd. Prof. & Head Community Medicine Deptt. PGI Chandigarh) on **Evidence Based Public policy for children.** He briefly explained about the **evidence-based child** welfare practices. Provides guidance to state wide agencies, counties, **public** and private organizations, and individuals on **evidence-based** practice as a method **of** achieving improved outcomes **of** safety, permanency, and well-being for **children** and families.

Dr. Vijay Kumar addressing the participants about the ***Evidence Based Public Policy for children***

Dr. Vijay Kumar

After the lecture Dr. Meenu Singh honored the guest faculty Dr. Vijay Kumar

Dr Meenu Singh (Professor, Pediatrics, PGIMER) continued the session with the lecture on **PICO and research question**. The participants from various departments attended the course. During the session she familiarised the participants with the term PICO and also discussed about systematic review in which she described, how to formulate question, how to conduct systematic review and refine the search.

Dr. Meenu Singh addressing the participants about PICO and Research question

After the lecture of Dr. Meenu Singh, a lecture on Research study design was given by Dr. Saurabh Dutta (Prof. Department of Pediatric Medicine). He briefly explained that A **research design** is the set of methods and procedures used in collecting and analyzing measures of the variables specified in the problem. The design of a study defines the study type (descriptive, correlation, semi-experimental, experimental, review, meta-analytic) and sub-type (e.g., descriptive-longitudinal , and, if applicable, data collection methods and a statistical analysis plan. A research design is a framework that has been created to find answers to research questions.

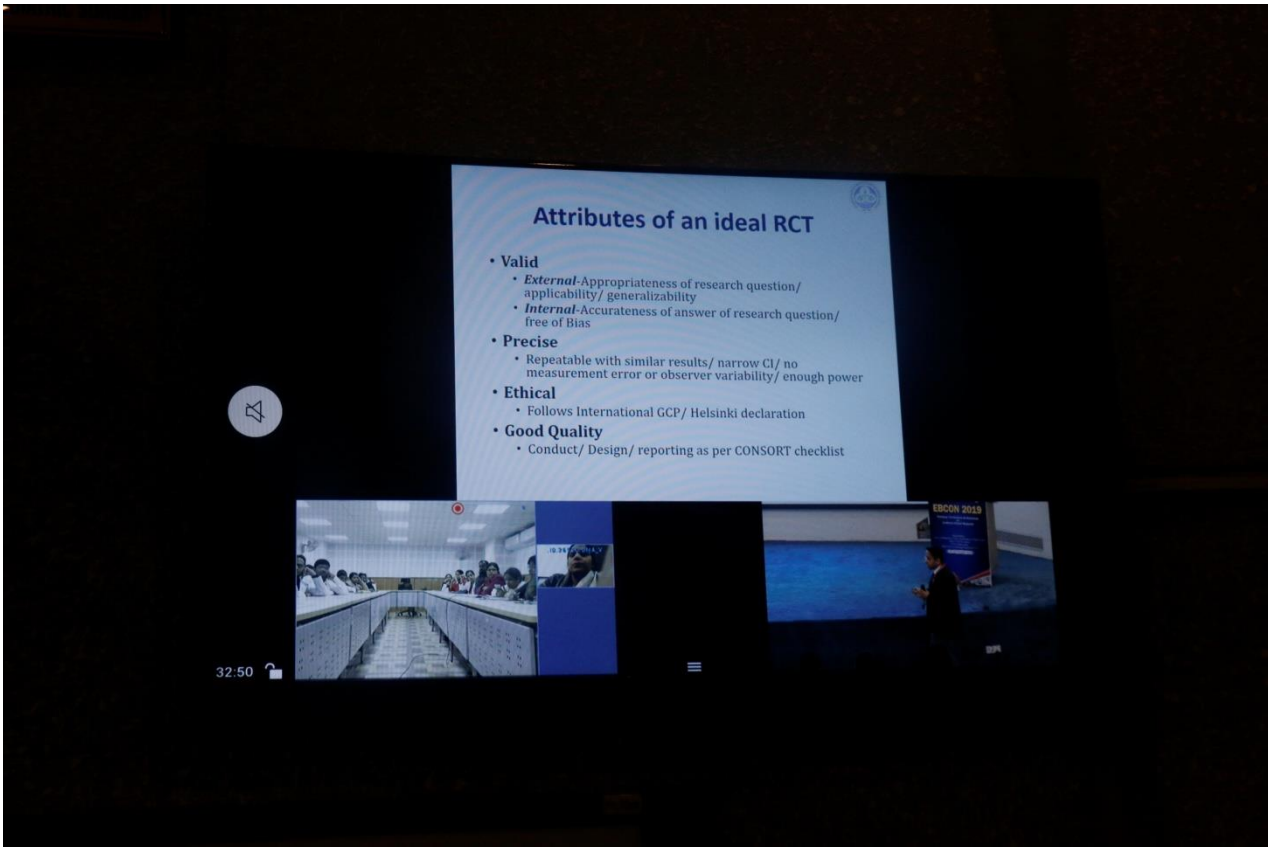
A lecture by Dr. Saurabh Dutta on Research Study Design

Dr. Venkataseshan (Assistant Professor, Department of Pediatric Medicine) continued the session by a lecture on **Critical Apprasal of RCT.** He briefly explained about Randomized controlled Trial, its design and types. He also told about the risk of bias and how to do critical appraisal. He also explained that set of eight critical appraisal tools are designed to be used when reading research, these include tools for Systematic Reviews, Randomised Controlled Trials, Cohort Studies, Case Control Studies, Economic Evaluations, Diagnostic Studies, Qualitative studies and Clinical Prediction Rule.

Dr. Venkataseshan explained the critical appraisal of RCT

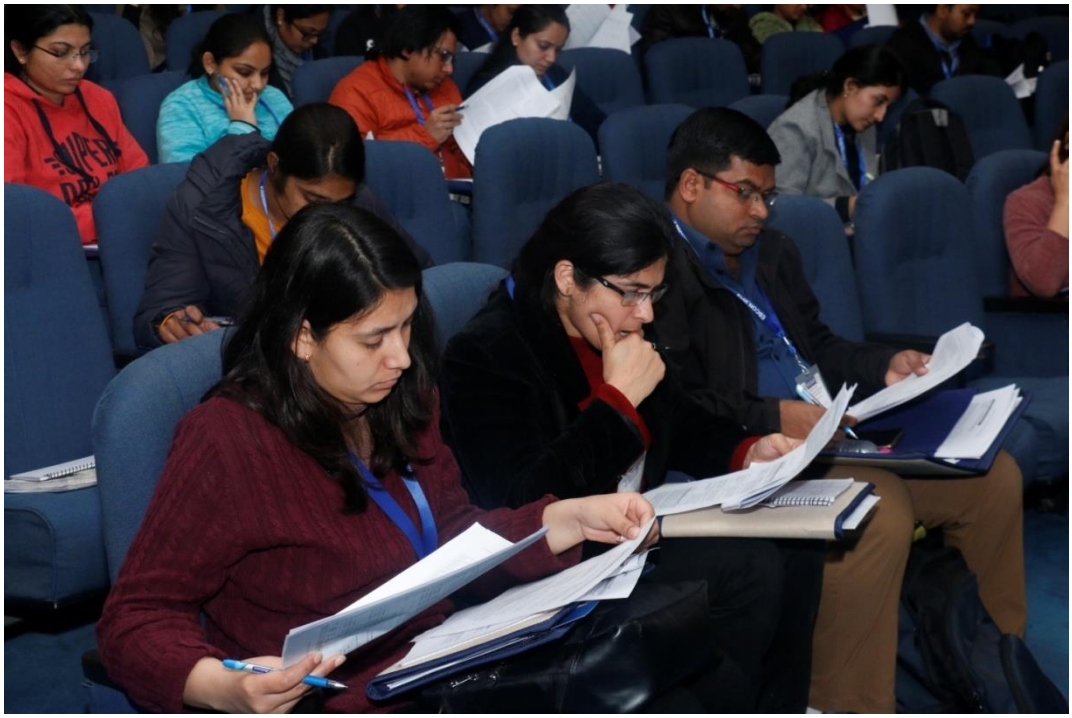
After the lecture of Dr. Venkataseshan a lecture on Cochrane tools for critical appraisal of RCT was given by Dr. Nipun Verma.

Dr. Nipun Verma- Cochrane Tools for Critical Appraisal of RCT



Dr. Nipun Verma- Cochrane tool for critical appraisal of RCT

At 12:15 PM small group exercise on RCT critical appraisal was done by Dr. Nishant Jaiswal, Dr. Amit Agarwal and Dr. Anil Chauhan.Small group session for critical appraisal of a clinical trial was taken up and the participants were divided in groups. A published randomized controlled trial was distributed and the groups were asked to critically appraise the same according to the pre distributed checklists. Each group was then asked to present their findings and a group discussion was initiated. The groups were coordinated by Dr Nishant Jaiswal, Dr Anil Chauhan and Dr Amit Agarwal. The final discussion was moderated by Prof Meenu Singh.



Small group exercise-critical appraisal of RCT

Dr Anil Chauhan-How to conduct a medical literature search

After lunch break Dr Anil Chauhan gave a lecture on devising a search strategy and how to search various medical databases like Pubmed, Embase and Cochrane library.

Dr. Anju Sinha addressing the participants about "Systematic Review- How to write a protocol"

After the lecture of Dr. Anil Chauhan, Dr. Anju Sinha continued the session by giving a lecture on "How to write a protocol". She briefly explained the difference between systematic review and conventional review. He explained the steps involved in doing systematic review, how to formulate research question with the help of PICO, develop the search strategy and selection of studies by defining exclusion and exclusion criteria.

Dr. Pradnaya Kakodkar- Systematic review in Medicine/Dentistry/Basic Sciences

The session was followed by the lecture of Dr. Pradnaya Kakodkar on Systematic review in Medicine/Dentistry/Basic Sciences.

Dr. Manvi Singh

At 4:15PM a small group exercise on critical appraisal of systematic review was done by Dr. Manvi Singh and Dr. Anil Chauhan.

Dr. Nishant Jaiswal continued the session by giving a lecture on GRADE Methodology and applicability.

Dr. Kamal Kishore- Statistics for Systematic Review

The session was followed by the lecture of Dr. Kamal Kishore on Statistics for Systematic Review.

The workshop was followed by Inauguration ceremony. The chief guest was Prof. SK Jindal (Emeritus Professor) and guest of honour was Prof. Arvind Rajwanshi (Dean, PGIMER). E-Lamp lighting ceremony was done by Dr. Meenu Singh and other members of the workshop. After the e-lamp lighting ceremony national anthem was recited.

Inauguration ceremony

e- lamp lighting

Online course on Evidence Based Medicine was inaugurated by Dr. Arvind Rajwanshi (Dean, PGIMER).

Dr. SK Jindal

Two parallel workshops one in the library and other in National Institute of Nursing were also carried on 16th Feb. 2019.

17/02/2019

The day was started with session which was taken by Dr Meenu Singh (Professor, Pediatrics, PGIMER). The participants from various departments had attended the course. During the session she familiarised the participants with the term PICO and also discussed about systematic review in which she described, how to formulate question, how to conduct systematic review and refine the search.

Dr. Meenu Singh – Introduction to EBM

The session was continued by the lecture of Dr. Joseph Mathew on Acute Respiratory Infections, epidemiology and diagnosis. He briefly explained that Acute respiratory infection (ARI) is the leading cause of morbidity and mortality in pediatric patients worldwide and imposes an intense pressure on health care facilities.

Dr. Joseph Mathew- Acute respiratory infections, Epidemiology and Diagnosis

The session was followed by the lecture on Treatment and Management of Respiratory Viral Infections given by Dr. Shally Awasthi.

Dr. Shally Awasthi – Treatment and Management of Respiratory Viral Infections

After the lecture of Dr. Shally Awasthi Clinical case presentation was given by Dr. Amit Agarwal. Then the session was continued by the lecture of Dr. Ruby Pawankar on Omalizumab for asthma and ABPA.

Dr. S Nagabhushan- Noisy breathing in children

Dr. Nagabhushan continued the session with the lecture of Noisy breathing in children. He explained that Noisy breathing is caused by the obstruction of any of portion of the airway passages, from the nose to the lungs. The term ranges from noises of stuffiness and wheezing, to harsher screeching sounds – called stridor. Infants will have noisy breathing as they learn to breathe and swallow their saliva. Wheezing or noisy breathing induced by activity may be a sign of asthma, but also can be heard after choking on a foreign object. A suspected episode of choking and/or sudden noisy breathing with drooling could be a sign your child has swallowed an object and should be emergently seen.

In the winter season, fever, noisy breathing and a runny nose in a toddler may be bronchiolitis. If nasal saline rinses and suctioning do not improve your child's breathing, please notify your pediatrician.

Dr. Krishan Chugh- Pediatric Asthma, Recent Advances

After the lecture of Dr. Nagabhushan Dr. Krishan Chugh took the lecture on Pediatric Asthma, Recent Advances. It was followed with the lecture of Mandeep Kaur Walia on Management of early wheezing. Children who begin wheezing during early childhood are seen frequently by health care providers in primary care, in hospitals and emergency departments, and by allergists and pulmonologists.

Management of Early wheezing by Mandeep Kaur Walia

The session was followed by the lecture of Dr. Kanaram Jat on Recent Advances in ABPA.

Recent Advances in ABPA by Dr. Kanaram Jat

Dr. Seema Sharma – Clinical case presentation

Post lunch session was carried forward by the lecture of Dr. Seema Sharma. It was followed by the lecture on Recent Changes in the guidelines of TB management by Dr. BS Sharma.

After the lecture of Dr. BS Sharma, Dr. Joseph Mathew gave the lecture on Gene xpert for pulmonary and extra pulmonary TB.

Dr. Joseph Mathew- Gene x-pert for pulmonary and extra pulmonary TB

Dr. Rashmi Ranjan Das- current status of RSV vaccine

After a short tea break Dr. Rashmi Ranjan Das took the lecture on Current Status of RSV vaccine. Respiratory syncytial virus is the leading cause of serious lower respiratory disease in young children throughout the world.

Dr. Nishant Jaiswal – Pneomococcal vaccine, which one to choose

The session was continued with the lecture on Pneumococcal vaccine, which one to choose by Dr. Nishant Jaiswal. He briefly explained that the **pneumococcal** conjugate **vaccine** (PCV13) and the **pneumococcal**polysaccharide **vaccine** (PPSV23) protectagainst **pneumococcal**infections, which are caused by bacteria. The bacteria spread through person-to-person contact and can cause such serious infections as pneumonia, blood infections, and bacterial meningitis. The session was followed with the lecture of Dr. Subhabrata Sarkar on Flu vaccines.

Dr. Subhabrata Sarkar – Flu vaccine to give or not to give

Dr. Subhabrata Sarkar

The session was followed with the valedictory ceremony.

Group Photograph