



**1<sup>st</sup> UHS**

# Allied Health Sciences, Nursing & Pharmacy International Conference

on

## Bridging the gaps in Healthcare: Improving Patient Care Outcomes

25<sup>th</sup> to 26<sup>th</sup> November 2016



**University of Health Sciences Lahore, Pakistan**

*Compossed by:*  
**Office of the Pro-Vice Chancellor, UHS**

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## **ABOUT UNIVERSITY OF HEALTH SCIENCES LAHORE**

University of Health Sciences Lahore is an internationally recongnized student centered research university with a mission of improvement of Health Care delivery to populace. The University regulated and coordinates the activities of medical educaiton, training & research institutions throughout the province of Punjab. It is also the provincial authority of Punjab which conducts Medical College Admission Test (MCAT) every year.

University is placed # 2 in Higher Education Commission of Pakistan's National University Ranking for 2012 and 2013 in the field of medical and health sciences.

The university offers undergraduate and postgraduate level course in medicine, pharmacy, dentistry, allied health sciences, bio-medical engineering and nursing.

University of Health Sciences, Lahore was inaugurated on October 2, 2002. Currently, there are more than 52,000 students registered and 72 institutes affiliated with the University.





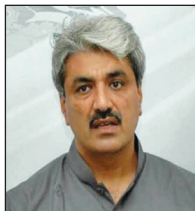
# Messages





## Khawaja Salman Rafique

Special Assistant To Chief Minister: Health



It is indeed my pleasure to congratulate University of Health Sciences, Lahore, Pakistan, for organizing 1st UHS Allied Health Sciences, Nursing and Pharmacy International Conference on “Bridging the gaps in healthcare: improving patient care outcomes” and welcome all the delegates both from within Pakistan and across the world. I am really impressed by the galaxy of scholars of international repute that the University has invited at this occasion and I welcome them all.

With the advancements in medical research, it has become much important to develop an allied health sciences council which can regulate allied health sciences professionals in line with PM&DC. Review and revision of the service structure of Allied Health Sciences according to their nomenclature is the need of current era. It should be the responsibility of the Allied Health Sciences Council(AHS) to redefine role of multidisciplinary approach amongst doctors and Allied Health Professionals for better patient care so that gaps among medicine, allied health sciences and pharmacy can be filled. Role of all discipline of allied health sciences like Biotechnology, Medical Imaging Technology, Medical Laboratory Technology, Optometry & Orthoptics, Respiratory Therapy, Cardiac Perfusion, Pulmonology, Emergency & Intensive Care Sciences, Orthotics & Prosthetic, Audiology, Operation Theatre Technology, Dental Technology, Dental Hygiene, Occupational Therapy, Speech & Language Pathology, Nutrition, Pharmacy, Nursing, Physiotherapy is tremendous in improving patient care.

International Conference on Allied Health Sciences, Nursing and Pharmacy being organized by University of Health Sciences is an initiative to bring together leading Allied health Sciences Professionals to create a culture of partnership and networking.

I hope that assembly of such an array of experts in diverse areas of allied health education facilitating workshops and sharing their scientific achievements will lead to develop energetic linkages and friendships.



## **Dr. Muhammad Ajmal Khan**

Chief Operating Officer of the Punjab  
Healthcare Commission

On behalf of the Punjab Health care Commission, I extend a warm welcome to the participants of 1st UHS Allied Health Sciences, Nursing & Pharmacy International Conference on “Bridging the gaps in Healthcare: Improving patient care outcomes” being organized by University of Health Sciences, Lahore, Pakistan from 24th to 26th November 2016.

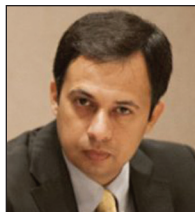
The immense scientific and technological spreads that impacted the Allied health sciences, nursing & pharmacy in recent years have created countless new opportunities for managing and treating life threatening illnesses in direct or indirect ways. Various fields of Allied Health Sciences, Pharmacy and nursing are experiencing leaps of unprecedented magnitude; this, together with advances in communication and information technologies has promoted the emergence of new techniques in overall medical education all over the world.

By convening this conference, the organizers seek to redefine role of multidisciplinary approach amongst Doctors and Allied Health Professionals for better patient care.

The organizers of this important conference deserve to be commended for their initiative to bring together prominent scholars from Allied Health Sciences, Pharmacy and Nursing across the globe under one roof for a debate on a critical aspect of healthcare delivery system.

## Najam Ahmad Shah (PAS)

Secretary, Specialized Healthcare & Medical Education



Allied Health Sciences, Pharmacy and Nursing are now often being used to refer to the limitless health professions. These professions deal with many aspects of providing diagnostic and treatment services, or operating leading-edge technologies that derive diagnostic data. Allied health professionals and the quality services they provide are needed now more than ever, as many of the allied health professions are currently experiencing significant workforce shortages. In this scenario, University of Health Sciences Lahore being a leading institution of higher learning in Pakistan specifically in terms of mobilizing awareness and interest in health professions education must take pride in organizing this 1st Allied Health Sciences, Nursing & Pharmacy International Conference on “Bridging the gaps in Healthcare: Improving patient care outcomes” from 24th to 26th November 2016. I, in my capacity of Secretary, Specialized Healthcare & Medical Education, immensely feel proud to see the motivation, commitment and courage that UHS has demonstrated in coming out so far so strongly to accept the challenge and create history in this part of the world. This is an initiative that UHS itself would cherish as gift for the development of health and higher education sector in Punjab.

The time is right to pursue a career in one of the allied health fields. I wish you the very best on an exciting journey as an allied health professional.

For this, I sincerely congratulate the visionary leadership of University of Health Sciences Lahore demonstrating confidence in intellectual capacity and in the human resource from Pakistan but more importantly integrating with emerging trends in this field by successfully bringing leading experts in the world. I trust that recommendations emanating as a result of this august gathering will go a long way to bring excellence in Allied Health Sciences, Nursing and Pharmacy in Punjab and enhance collaboration at wider level.

I welcome the participants and speakers who will be provided a unique opportunity to see this beautiful gift of nature named Lahore.



## **Ali Jan Khan**

Secretary Primary & Secondary Health Punjab

This is the exact time when we feel a dire need to ponder over and take measurable steps for securing the future of all fields of medical profession overall, with unprecedented challenges arising from the changing expectations of all stakeholders related to the patient care. I would appreciate and congratulate University of Health Sciences for becoming the first drop of rain in this context by organizing 1st Allied Health Sciences, Nursing & Pharmacy International Conference on “Bridging the gaps in Healthcare: Improving patient care outcomes” from 24th to 26th November 2016 to promote and encourage the establishment of an internationally recognized standard of training in all disciplines of Allied Health Professions’ education, nursing and pharmacy.

Drawing on discussion and debate among a wide range of stakeholders of Allied Health Sciences, Nursing and Pharmacy, this International Conference on recent challenges to the profession, would explore how a new compact between key stakeholders might be formed, and offer a way forward to bridging the gaps in healthcare delivery system for the future. Above all, it is intended to encourage further debate on this vitally important issue to Promote Evidence Based Practice and to redefine role of Multidisciplinary Approach amongst doctors and Allied Health Professionals, nurses and pharmacists for better patient care.

## **Maj Gen (R)Prof Muhammad Aslam**

Vice Chancellor, University of Health Sciences Lahore



On behalf of University of Health Sciences Lahore, I extend a warm welcome to the participants of 1st Allied Health Sciences, Nursing & Pharmacy International Conference on “Bridging the gaps in Healthcare: Improving patient care outcomes” at UHS Lahore.

By convening this Conference, our organizers seek to promote a cross-cultural dialogue, facilitate UHS contribution to the community of Allied Health Sciences, Nursing and Pharmacy into the national and international healthcare industry.

Most notable feature in these conferences organized by the University of Health Sciences Lahore (UHS) is the mobilization of a larger number of leading experts in the field of Allied Health Sciences, Nursing and Pharmacy. We all agree that sustained efforts in the field will have visible impact on health care, health care delivery and more importantly the matters related to redefining role of Multidisciplinary Approach amongst doctors and Allied Health Professionals for better patient care; to give recommendations for setting up an Allied Health Council in the line with PM&DC and to review and revision of the service structure of Allied Health Sciences according to their nomenclature by promoting Evidence Based Practice.



## **PROF. DR. JUNAID SARFRAZ KHAN**

Pro-Vice Chancellor

University of Health Sciences Lahore

University of Health Sciences Lahore in collaboration with affiliated Allied Health Sciences institutions and its faculty has organized the 1st Allied Health Sciences, Nursing & Pharmacy International Conference on “Bridging the Gaps in Healthcare: Improving patient care outcomes”. It is extremely important with respect to the challenges being faced in providing equitable healthcare delivery in the country. These challenges are not dissimilar from the one’s being faced by other developing nations or the one’s faced in the past by the more developed ones. Allied Health Sciences education and their role in health care services delivery is an emerging trend in the country and gets frequently challenged by other stakeholders within the system. The conference has been organized in a way to promote loco-regional discourse in this area in order to contextualize the importance and role of a multidisciplinary team in patient-care and optimum health care services delivery. This conference shall provide a platform for exchange of experiences and ideas across subject specialties, cultural regional and national boundaries, thus, promoting the development of a collective understanding and efficiently improving patient outcome through multidisciplinary health service delivery.

I hope that you will have an enjoyable and productive two days of conferencing and the personal links and networks established here today will lead to measurable improvement in patient-care outcomes.







1<sup>st</sup> UHS Allied Health Sciences, Nursing & Pharmacy International Conference on  
“**Bridging the gaps in Healthcare: Improving patient care outcomes**”  
at University of Health Sciences, Lahore, Pakistan  
24<sup>th</sup> to 26<sup>th</sup> November 2016

**CONFERENCE DAY-I**  
Friday, November 25, 2016

Session-I: (09:30 am – 10:30 am), November 25, 2016  
**Inaugural Session**

**Venue:** Shams Auditorium, UHS  
**Moderator:** Prof. Dr. Junaid Sarfraz Khan



**(10:30 am-11:15 am)**

**Inaugural Tea**

**&**

**Poster Presentations (PP01-PP10)**

**Venue:** Front Lawn, UHS

**Venue:** Main Rotunda, UHS

Session-II (11:15 am – 12:45 pm), November 25, 2016  
**Allied Health Sciences: Quality Assurance in Education & Care**  
Plenary Presentation *PL01*, Key Note Speech *KN01*, Panel Discussion *PD01*

**Venue:** Shams Auditorium

**Speakers:** Dr. Muhammad Ajmal Khan, Ms. Zia Batool, Prof. Shazia Maqbool,  
Dr. Rozina Karmaliani, Prof. Arif Rasheed Khawaja, Prof. Dr. Abdus  
Salam, Ms. Surraya Shehnaz, Mr. Zargham Abbas, Ms. Zainab Hassan

**Moderator:** Dr. Fareeha Shah, Vice Principal – FMH Institute of Allied Health  
Sciences, Lahore

**(12:45 pm – 02:00 pm)**



**Lunch & Juma Prayer**

**Venue:** Front Lawn, UHS

Session-III (02:00 pm – 03:30 pm), November 25, 2016

**Inter-Professional Education: Challenges and Solutions**

Plenary Presentation *PL02*, Key Note Speech *KN02*, Panel Discussion *PD02*

**Venue:** Shams Auditorium

**Speakers:** Dr. David Arthur, Dr. Muhammad Atif Khan, Ms. Yasmeen Saggu,  
Dr. Saqib Mehmood, Dr. Rasheed Anjum, Dr. Fareeha Shah, Mr.  
Muhammad Shamoan Ch., Mr. Tanzeel ur Rehman, Ms. Kianaat Afzal

**Moderator:** Ms. Sabahat Khan, Head of AHS – RLMC, Lahore

**(03:30 pm – 04:35 pm)**



**Tea**

**Venue:** Front Lawn, UHS



**Gala Dinner**

*By Registration and Invitation*

**Friday, November 25, 2016**

**(07:30 pm – 09:30 pm)**

**Venue:** University of Health Sciences, Lahore (Front Lawn)

**Note:** *Please bring your invitation card*

**CONFERENCE DAY-II**  
Saturday, November 26, 2016

Session-IV (09:00 am – 10:30 am), November 26, 2016 Parallel, Thematic, Free Oral Paper Presentations		
<b>Parallel Sessions</b>	<b>Medical Lab Technology (MLT)-I</b> Oral Presentations: <i>OP01-OP09</i> <b>Venue:</b> Workshop Room 67, UHS Lahore	<b>Medical Lab Technology (MLT)-II</b> Oral Presentations: <i>OP10-OP18</i> <b>Venue:</b> Room No.78, UHS Lahore
	<b>Medical Imaging Technology</b> Oral Presentations: <i>OP19-OP25</i> <b>Venue:</b> Room 62, UHS Lahore	<b>Nursing Forum</b> Oral Presentations: <i>OP26-OP34</i> <b>Venue:</b> Senate Hall, UHS
	<b>Speech &amp; Language Pathology</b> Oral Presentations: <i>OP35-OP42</i> <b>Venue:</b> Workshop Room 30, UHS Lahore	<b>Speech &amp; Language Pathology and Occupational Therapy</b> Oral Presentations: <i>OP43-OP49</i> <b>Venue:</b> Video Conference Room, UHS Lahore
<b>Physical Therapy</b> Oral Presentations: <i>OP50-OP60</i> <b>Venue:</b> Computer Lab (Room 33), UHS Lahore		



**Tea Break** &  
**Venue:** Front Lawn, UHS

**(10:30 am – 11:15 am)**

**Poster Presentations (PP11-PP20)**  
(3 minutes each Presenter)  
**Venue:** Main Rotunda, UHS

Session-V (11:00 am – 01:00 pm), November 26, 2016

**Defining A career path for Allied Health Professionals: Role of Academia & Government**

Plenary Presentation *PL03*, Key Note Speech *KN03*, Panel Discussion *PD03*

**Venue:** Shams Auditorium

**Speakers:** Maj Gen (R) Prof. Muhammad Aslam, Prof. Dr. Sardar Fakhar Imam, Prof. Dr. Shazia Maqbool, Dr. Fareeha Shah, Dr. Salman Shahid, Mrs. Mahnaz Nasir Khan, Dr. Riffat Javed, Ms. Marwah Minhas, Mr. Maqsood Ahmed

**Moderator:** Dr. Mansoor Ghani, UHS Lahore

Parallel Sessions	<p><b>Orthotics &amp; Prosthetics and Radiology</b></p> <p>Oral Presentations: <i>OP61-OP67</i></p> <p><b>Venue:</b></p> <p>Workshop Room 30, UHS Lahore</p>	<p><b>Dental Education , Pharmacy &amp; Nutrition</b></p> <p>Oral Presentations: <i>OP68-OP75</i></p> <p><b>Venue:</b></p> <p>Senate Hall, UHS Lahore</p>
	<p><b>Collaborative Research &amp; Misc.</b></p> <p>Oral Presentations: <i>OP76-OP84</i></p> <p><b>Venue:</b></p> <p>Video Conference Room</p>	



**Lunch & Prayer Break**  
**Venue:** Front Lawn, UHS

**(01:00 pm – 02:00 pm)**

**&**

**Poster Presentations (*PP21-PP31*)**  
 (3 minutes each Presenter)  
**Venue:** Main Rotunda, UHS

Session-VI: (02:00 pm – 03:30 pm), November 26, 2016

**Allied Health Sciences and Knowledge Exchange: Role of Industry, Universities  
& Government**

Plenary Presentation *PL03*, Key Note Speech *KN04*, Panel Discussion *PD04*

**Venue:** Shams Auditorium, UHS

**Speakers:** Prof. I.A. Naveed, Dr. Edrees Anwar, Ms. Sabahat Khan, Dr. Hafiz Muhammad Asim, Ms. Neelum Zehra, Mr. Shafqat Khanzada, Dr. Ali Yasir, Mr. Rana Shakeel, Mr. Imtiaz Saeed, Ms. Ayesha Ghouri Saeed, Ms. Rubab Zahra

**Moderator:** Dr. Edrees Anwar

Session-VII: (03:30 pm – 04:35 pm), November 26, 2016

**Closing Ceremony**

**Venue:** Shams Auditorium, UHS

**Moderator:** Prof. Dr. Junaid Sarfraz Khan, Pro-Vice Chancellor - UHS



**Closing Tea**

**(04:35 pm – 05:00 pm)**

**Venue:** Front Lawn, UHS

# Conference Program

## Registration Desk Opening Hours:

**Venue:** Main Reception UHS  
**Date:** November 25, 2016  
**Starting Time:** 08:00 a.m.

## Opening Ceremony:

**Date:** November 25, 2016  
**Time:** 09:30 am – 10:30 am  
**Venue:** Shams Auditorium

## Closing Ceremony:

**Date:** November 26, 2016  
**Time:** 03:30 pm – 04:00 pm  
**Venue:** Shams Auditorium

## Abbreviations:

PCW: Pre-conference Workshop  
PL: Plenary Presentation  
OP: Oral Presentation  
PP: Poster Presentation  
PD: Panel Discussion

## DETAILED PROGRAM

Pre-Conference Workshops, Wednesday, November 23, 2016

9:00 am to 12:00 noon	PCW01	Nutritional Assessment and Screening Ms. Shazia Zahra, Ms. Sidra Bhatti	Nutrition Department, FMH, Lahore
9:00 am to 12:30 pm	PCW02	Management of Amplification Problems of Hearing Impaired Paediatric Population in Pakistan Dr. Afzaal Alam	Alam Audiology Clinic, Shadman Colony, Lahore

Pre-Conference Workshops, Thursday, November 24, 2016

Time	Code	Titles & Facilitators	Venue
08:00 am to 03:00 pm	PCW03	Sensory Dysfunction & Sensory Integration Therapy Prof. Shazia Maqbool, Dr. Ehsanullah, Dr. Aisha Farid	Children's Hospital Lahore
9:00 am to 12:00 noon	PCW04	Nutritional Assessment and Screening Ms. Mehnaz Nasir, Ms. Hira Khan	Nutrition Department, Kinnaird College, Lahore
9:00 am to 12:00 noon	PCW05	Nutritional Assessment and Screening Ms. Memoona, Ms. Nasreen Kasur	Nutrition Department, Kinnaird College, Lahore
9:00 am to 12:00 noon	PCW05	Nutritional Assessment and Screening Ms. Sameera Mustafa, Ms. Ayesha Saeed	Lecture Hall, Nutrition Sciences Department, Block A, University of South Asia, Lahore
9:00 am to 12:00 noon	PCW06	Nutritional Assessment and Screening Ms. Shazia Zahra, Ms. Sidra Bhatti	Nutrition Department, FMH, Lahore
9:00 am to 12:00 noon	PCW07	Nutritional Assessment and Screening Ms. Syeda Fatima Abid, Ms. Nida Rehmat	Nutrition Department, Rashid Latif Medical College(RLMC), Lahore,

9:00 am to 12:00 noon	PCW08	Nutritional Assessment and Screening Dr. Syeed Jawad Hussain, Ms. Nizwa	Saleem Auditorium, University of Faisalabad (UOF) Faisalabad
9:00 am to 12:00 noon	PCW09	Nutritional Assessment and Screening Dr. Masood Butt, Mr. Aamir Shehzad	University of Agriculture (UAF) Faisalabad
9:00 am to 12:00 noon	PCW10	Nutritional Assessment and Screening Prof. Dr. Nighat Bhatti, Dr. Huma Ambreen	Committee Room, Govt. College for Women, Faisalabad
9:00 am to 12:00 noon	PCW11	Nutritional Assessment and Screening Mrs. Musarat Bhatti, Ms. Sadaf Sajid	Conference Hall, OPD building, fourth floor, CMH, Rawalpindi
9:00 am to 12:00 noon	PCW12	Porcelain Fused to Metal Crown Dr. Muhammad Afzal	University of Health Sciences, Lahore
9:00 am to 12:00 noon	PCW13	Operation Theater Administration ( Changing the Paradigm) Prof. Dr. Muhammad Saleem	Children's Hospital Lahore
9:00 am to 12:00 noon	PCW14	Role of pharmacist in health care delivery Dr. Sattar Bakhsh Awan	Yusra Medical and Dental College, Islamabad
9:00 am to 12:00 noon	PCW15	Advanced applications of MRI Dr. Amber Goraya	Children's Hospital Lahore
9:00 am to 12:00 noon	PCW16	Hearing Loss in Children "Screening & Its Management" Dr. Nadeem Mukhtar	University of Health Sciences, Lahore



9:00 am to 12:00 noon	PCW17	Diagnostic Musculoskeletal Ultrasound Dr. Atif Gopang	Lahore Medical & Dental College, Lahore
9:00 am to 12:00 noon	PCW18	MYOCARDIAL IMAGING (SPECT) Dr. Numair Younis	University of Health Sciences, Lahore
9:00 am to 12:00 noon	PCW19	Quality Rehabilitation for transtibial amputee Prof. Zia Ur Rehman, Dr. Mehmood Ahmad	University of Health Sciences, Lahore
09:00 am to 04:00 pm	PCW20	Hands-on workshop on Flow Cytometry Dr. Nadeem Afzal	Room no. 30. University of Health Sciences, Lahore
10:00 am to 3:00 pm	PCW21	Applications of Medical Bio- Technology (Hands on Training on HPLC and PCR) Dr. Robina Tabassum, Dr. Irfan Ali	Auditorium, Faisalabad Institute of Research Sciences & Technology (FIRST), Faisalabad FMH, Lahore
02:00 pm to 05:00 pm	PCW22	Expanding Practice through Inter- Professional Education” Dr. David Arthur	Video Conference Room, University of Health Sciences
02:00 pm to 05:00 pm	PCW23	Thorax Spine Assessment and Treatment Dr. Sohail Saleem	OSPE Room, 4 <sup>th</sup> Floor, FMH Lahore
3 days NRP Course will be facilitated by Dr. Naveed Sheikh in the Room No. 65, UHS from 09:00 am to 03:00 pm			



## Conference Day-I

Friday, November 25, 2016

### Session I, II & III

<b>Session-I: Inaugural Session</b> November 25, 2016, 09:30 am – 10:30 am	
<b>Venue:</b> Shams Auditorium, UHS <b>Moderator:</b> Prof. Dr. Junaid Sarfraz Khan	
Time	Program
09:25 am	All participants to be seated
09:30 am	Arrival of the Chief Guest and Guest of Honor
09:30 am	Recitation of the Holy Quran
09:35 am	Orientation of the objectives of the conference by the Pro-Vice Chancellor UHS
09:40 am	Welcome address by the Vice Chancellor
09:50 am	Address by the Guest of Honour
10:05 am	Address by the Chief Guest
10:25 am	Souvenir Distribution



**Tea Break & Networking**  
**Venue:** Front Lawn, UHS

**10:30 am-11:15 am**

&

**Poster Presentations**  
 (PP01-PP10)  
**Venue:** Main Rotunda, UHS

<b>Poster Presentations</b> November 25, 2016, 10:30 am-11:15 am	
<b>Venue:</b> Main Rotunda, UHS <b>Judges:</b> Dr. Asad Zaheer, Registrar, UHS Lahore Dr. Saqib Mehmood, HOD, AHS Department , UHS Lahore <b>Moderator:</b> Dr. Nadia Naseem, UHS Lahore	
Code	Topics & Presenters
PP01	Frequency of associated congenital heart defects in down syndrome in children hospital and institute of child health Lahore. Nuzhat Mukhtar, Hyder SN.
PP02	Frequency of atrial septal defects onechocardiography in children hospital and institute of child health Lahore. Khalid A, Hyder SN.
PP03	Biphasic & Triphasic Computed Tomography (CT) scan in focal tumoral liver lesions Waseem Zafar, Zain Zulfiqar, Najam Ud Din, Sohail Murad
PP04	Current Indication In Trauma For Cause Of Amputation Amir Shahzad, Liaquat Ali Malik and Hamid Husain
PP05	Frequency Of Celiac Disease In Patients With B-Thalassemia Major Hira Ali, Farhana Shahzad, Mariam Zameer, Saba Aziz - Statistical analysis, Shanila Farooq Khan
PP06	Combined Role Of Mammography and Ultrasonography In The Detection Of Breast Lump Shakeela Rasheed, Abid Ali Qureshi, Saba Aziz.
PP07	Frequency Of Left Ventricle Diastolic Dysfunction In Asypmtomatic Type-II Diabetic Patients Maham Nasir, Syed Najam Hyder
PP08	Relationship between left ventricular ejection fraction & perfusion defect by gated spect myocardial perfusion scan of coronary artery diseased patients. Nauman Tayyab, Numair Younis, Abubaker Shahid, Hamid Naseer, Ahmad Qureshy, Syed Waqar Haider, Saba Aziz
PP09	Evaluate The Frequency Of Normality And Abnormality In Pediatric and Adult Patients Presentating With Seizures On MRI Asma Nisar, Saira Bilal, Saba Aziz
PP10	Frequency Of Causes Of Primary Postpartum Heamorrhage Arfa Aamir
Certificate Distribution to Oral Presenters	

<b>Session-II</b> <b>Allied Health Sciences: Quality Assurance in Education &amp; Care</b> November 25, 2016 (11:15 am – 12:45 pm)			
<b>Venue:</b> Shams Auditorium, UHS <b>Co-Chair:</b> Dr. Muhammad Ajmal Khan, Chief Operating Officer Punjab Healthcare Commission, Ms. Zia Batool, DG (QA) Punjab Higher Education Commission <b>Moderator:</b> Dr. Fareeha Shah, Vice Principal – FMH Institute of Allied Health Sciences, Lahore			
Time	Code	Topic	Speaker/s
11:15 am	PL01	Plenary Presentation	Prof. Dr. Shazia Maqbool
11:45 am	KN01	Key Note Speech	Dr. Rozina Karmaliani
12:10 pm	PD01	Panel Discussion	Dr. Muhammad Ajmal Khan Ms. Zia Batool Prof. Shazia Maqbool Prof. Arif Rasheed Khawaja Prof. Dr. Abdus Salam Dr. Rozina Karmaliani Ms. Surraya Shehnaz Mr. Zargham Abbas Ms. Zainab Hassan
Questions & Answers			

**12:45 pm – 02:00 pm**



**Lunch & Juma Prayer**

**Venue:** Front Lawn, UHS

**Session-III**  
**Inter-Professional Education: Challenges and Solutions**

November 25, 2016 (02:00 pm – 03:30 pm)

**Venue:** Shams Auditorium, UHS

**Co-Chair:** Dr. Muhammad Atif Khan, HOD & Lead MSK & Orthopedics,  
 Physiotherapist Al-Mafraq Hospital, Abu Dhabi

Dr. David Arthur, Dean, AKU-SONAM

**Moderator:** Ms. Sabahat Khan, Head of AHS – RLMC, Lahore

Time	Code	Topic	Speaker/s
02:00 pm	PL02	Plenary Presentation	Dr. Muhammad Atif Khan
02:30 pm	KN02	Key Note Speech	Dr. David Arthur
02:55 pm	PD02	Panel Discussion	Dr. David Arthur Dr. Muhammad Atif Khan Dr. Yasmeen Saggu Dr. Saqib Mehmood Dr. Rasheed Anjum Dr. Fareeha Shah Mr. Muhammad Shamoon Ch. Mr. Tanzeel ur Rehman Ms. Kianaat Afzal
<b>Questions &amp; Answers</b>			

**03:30 pm – 04:00 pm**



**Tea**

**Venue:** Front Lawn, UHS



**Gala Dinner**

*By Registration and Invitation*

Friday, November 25, 2016

**(07:30 pm – 09:30 pm)**

**Venue:** University of Health Sciences, Lahore (Front Lawn)

***Note:** Please bring your invitation card*

## Conference Day-II

Saturday, November 26, 2016

### Session

IV, V, VI, VII

#### Session-IV (09:00 am – 10:30 am)

Parallel, Thematic, Free Paper oral Presentations

Session-IV: Parallel Oral Presentations		
November 26, 2016, 09:00 am – 10:30 am		
Medical Lab Technology (MLT)-I		
<b>Venue:</b> Workshop Room 67, UHS Lahore		
<b>Judges:</b> Dr. Saqib Mehmood, HoD, AHS Deptt. UHS, Lahore		
Dr. Hassan Ijaz, CH & ICH, Lahore		
<b>Moderator:</b> Ms. Humera Javed, CH & ICH, Lahore		
Time	Code	Topics & Presenters
09:00 am	OP01	Silent killers: Transfusion Transmissible Infections-TTI, among asymptomatic population of Pakistan” Muhammad Saeed, Aamir Hanif, Farhan Rasheed
09:10 am	OP02	Expressions of CD Markers (Immunophenotyping by flow cytometry) among pediatric population reported at CH&ICH Faiza Khan
09:20 am	OP03	Bacterial Profile And Antimicrobial Susceptibility Pattern Of Isolates From Tracheal Secretions Sadaf Younus, Aizza Zaffar, Muhammad Zubair, Hassan Ejaz, Humera Javiad
09:30 am	OP04	Prevalence Of Anti-Thyroid Antibodies In Patients Of HCV Genotype 3a Sana Temuri, Nadeem Afzal
09:40 am	OP05	Frequency of Antineutrophil Cytoplasmic Antibody in Glomerulonephritis Patients Maria Arif, Nadeem Afzal, Aizaz Mand, Waqas Sami, Khursheed Javaid, Sarwar Abbas, Sarah Karim
09:50 am	OP06	SOCS3 mRNA expression and polymorphisms as pre-treatment predictor of response to HCV genotype 3a IFN-based treatment Rabia Aslam, Nadeem Afzal, Syed Mohsin Raza, Bushra Mubarak, Saba Khaliq

10:00 am	OP07	A Comparative Study Of Quality Of Life Among Male And Female Tuberculosis Patients Amna Mumtaz, Sadaf Afreen, Zia -UR- Rehman Farooqi
10:10 am	OP08	Correlation of Glycated hemoglobin (HbA1c) and Dyslipidemia in Type-2 Diabetes Mellitus Maqsood Ahmad, Iqra Ijaz, Nadia Rasheed, Muhammad Saeed, Sumbla Ghaznavi
10:20 am	OP09	Urinary Excretion And Renal Clearance Of Metformin After Its Oral Administration In Male Diabetic Patients Madiha Mumtaz
<b>Certificate distribution to oral presenters</b>		

**Session-IV: Parallel Oral Presentations**

November 26, 2016, 09:00 am – 10:30 am

**Medical Lab Technology (MLT)-II****Venue:** Room No.78, UHS**Judges:** Prof. Asim Mumtaz, Prof. of Pathology, Central Park Medical College,  
Lahore, Dr. Tayyaba Ijaz, Mayo Hospital, Lahore**Moderator:** Dr. Ghayur Ahmad, UHS Lahore

Time	Code	Topics & Presenters
09:00 am	OP10	Assessment of Oxidative Stress In Normal Individuals And Diabetic Patients With Ischemic Heart Disease Madiha Mumtaz
09:10 am	OP11	Immunocytochemical Markers (BER-EP 4, MOC- 31, Calretinin and HBME-1)in the Differential Diagnosis of Reactive Mesothelial Cells and Adenocarcinoma Cells in Effusion Cytology Faiza Shabbir, Prof. A.H. Nagi
09:20 am	OP12	Significance of C-Reactive Protein And Albumin In Chronic Kidney Disease Patients Shanila Farooq Khan, Farhana Shazad, Mariam Zameer , Saba Aziz, Hira Ali
09:30 am	OP13	Frequency Of Diabetes Mellitus Among Chronic Liver Disease Patients At Tertiary Care Hospital Lahore Anum Basharat, Muhammad Saeed, Iqbal javai, Mehak sajjad, Farhan Rasheed, Ambreen Anwar
09:40 am	OP14	GENE XPERT: A New Tool For The Rapid Detection Of Rifampicin Resistance In Mycobacterium Tuberculosis Muhammad Saeed , Shagufta Iram, Shahida Hussain, Adeel Ahmed, Mamoon Akbar, Maleeha Aslam
09:50 am	OP15	ABO blood group based distribution of HCV genotyping Hafiz Ahmar Ansari Muhammad Saeed, Fouzia Ashraf, Muzammil Saim, Farhan Rasheed, Ambreen Anwar
10:00 am	OP16	Confederacy of abo alleles with ischemic heart disease in Pakistan: An angiographic study Muhammad Saeed, Farhan Rasheed, Maqsood Ahmad
10:10 am	OP17	Hepatoprotective evaluation of Polyherbal formulation I against Paracetamol induced hepatotoxicity in rabbits. Shoaib Rana
10:20 am	OP18	CYP2C9 Polymorphism in Warfarin Therapy Patients Faiza Yasmeen
<b>Certificate distribution to oral presenters</b>		



**Session-IV: Parallel Oral Presentations**

November 26, 2016, 09:00 am – 10:30 am

**Medical Imaging Technology (MIT)**

Venue: Room 62, UHS

Judges: Dr Ayesha Anjum, CH &amp; ICH, Lahore

Dr. Amber Goraya, CH &amp; ICH, Lahore

Moderator: Dr. Shah Jahan, UHS Lahore

Time	Code	Topics & Presenters
09:00 am	OP19	Practice-Based Assessment In Medical Imaging: A Practical Approach Sadaqat Ali, Amna Sadaqat
09:10 am	OP20	Frequency of congenital heart defects detected on fetal echocardiography in high risk mothers in children's hospital and institute of child health, Lahore Maryam Iftikhar, Syed Najam Hyder, Saba Aziz
09:20 am	OP21	The factors causing left atrial appendage clot formation in patients of rheumatic mitral stenosis Ayesha Waheed
09:40 am	OP22	Doppler Analysis Of Umbilical Artery And Middle Cerebral Artery In Patients With Oligohydramnios In Third Trimester of Pregnancy Muhammad Sohaib Shahid, Zareen, Fatima, Sajid Shaheen Malik, Maryam Shahzad, Ambreen Tarar
09:50 am	OP23	Short Term Effect of Bisphosphonates Therapy On Bone Scan In Cancer Patients Wasim Akram, Numair Younis, Hamid Nasir, Abu Bakar Shahid, Saba Aziz
10:00 am	OP24	Experiences of the Breast Cancer Patients Undergoing Radiotherapy at a Public Hospital Peshawar Pakistan Gulzar Habibullah
10:10 am	OP25	Umbilical Artery Doppler Waveform Indices in 3Rd Trimester of Pregnancy Muhammad Yousaf
Certificate distribution to oral presenters		

**Session-IV: Parallel Oral Presentations**

November 26, 2016, 09:00 am – 10:30 am

**Nursing Forum****Venue:** Senate Hall, UHS**Judges:** Dr. Yasmeen Saggu, Ms. Nazia Ilyas**Moderator:** Ms. Samina Kausar, UHS Lahore

Time	Code	Topics & Presenters
09:00 am	OP26	Knowledge & preventive practices related to breast cancer among nurses of Lahore. Robina Kousar, Hajira Sarwer, Kousar Perveen
09:10 am	OP27	The Impact of Extrinsic Motivation on Nurse's Job Satisfaction: A Case of Services Hospital, Lahore, Pakistan Iram Majeed, Kousar Perveen, Muhammad Afzal
09:20 am	OP28	The Impact of Workplace Bullying on Nurses' Turnover Intention: Moderating Role of Leader's Dark Triad of Personality Ali Waqas, Muhammad Afzal, Shazma Ahmad Khan
09:30 am	OP29	Angiotensinogen gene Met235Thr and Thr174Met polymorphisms in patients with Pre-eclampsia Shamaila Habiba, Maryam Zafara, Ali Ammarb, Osheen Sajjada, Saqib Mahmood
09:40 am	OP30	Rate of Infection In Indirect Inguinalg Hernia Vs Hydrocele in Male Children Iqra Perveen
09:50 am	OP31	Knowledge of Nurses on The Management of Dengue Fever In Tertiary Care Hospitals of Lahore and Rawalpindi Kamran Munawar
10:00 am	OP32	Quality Of Life (QOL) Among Pakistani Women With Breast Cancer Undergoing Chemotherapy Mohammad Yousaf
10:10 am	OP33	Association of child's nutritional status with Immunization and mother's Nutritional knowledge. Farah Batool
10:20 am	OP34	Evaluation of Nursing Care Plans Implementation In Nursing Practice At Central Park Teaching Hospital and Bhatti International Teaching Hospital Lahore; Nurses' Perspective Ejaz Fatima
<b>Certificate distribution to oral presenters</b>		

**Session-IV: Parallel Oral Presentations**

November 26, 2016, 09:00 am – 10:30 am

**Speech & Language Pathology****Venue:** Workshop Room 30, UHS Lahore**Judges:** Ms. Humaira Idrees**Moderator:** Ms. Maryam

Time	Code	Topics & Presenters
09:00 am	OP35	Influence Of Gender On Self-Esteem Of Individuals With Hemiparetic Cerebral Palsy Mariam Farooq, Shazia Maqbool, Ehsaan Ullah, Mehboob Ahmed, Fareeha Latif
09:10 am	OP36	Frequency Of Dysarthria In Types Of Cerebral Palsy Beenish Kanwal, Shazia Maqbool, Humera Idrees
09:20 am	OP37	Frequency Of Communication Problems In Children With ASD Shaista Tariq, Shazia Maqbool, Arifa Hafeez
09:30 am	OP38	Effectiveness of linguistic base approach and traditional articulation Therapy to improve articulation among children (8-12years) with moderate to severe hearing loss Atia ur-Rehman, Muhammad Sikander Ghayas Khan, Munawer Ahmed Malik
09:40 am	OP39	Awareness of General Population about Speech and Language Pathology in Punjab Sadia Tahira
09:50 am	OP40	Awareness and attitude toward Evidence based practice (EBP) amongst allied health professionals Rabia Azmat
10:00 am	OP41	Is Excess screen based media use a predictor of ASD (Autism Spectrum Disorder) and its severity? Mehboob
10:10 am	OP42	Gross and fine motors functional impairments in children with cerebral palsy; a cross-sectional study Ramma Inam-ul-haq
<b>Certificate distribution to oral presenters</b>		

<p align="center"><b>Session-IV: Parallel Oral Presentations</b>  November 26, 2016, 09:00 am – 10:30 am  <b>Speech &amp; Language Pathology and Occupational Therapy</b></p>		
<p><b>Venue:</b> Video Conference Room, UHS Lahore  <b>Judges:</b> Ms. Sabahat, Dr. Ehsanullah, Ms. Bushra  <b>Moderator:</b> Dr. Sidra Saleem, UHS Lahore</p>		
Time	Code	Topics & Presenters
09:00 am	OP43	Speech and Language Pathologist (SLPs) Perspective regarding Effects of Voice Exercises in Unilateral Vocal Cord Paralysis (UVCP). Anum Ashraf, Rabia Azmat, Muhammad Sikander Ghayas Khan, Fazaila Ehsaan, Tariq Manzoor
09:10 am	OP44	Development of an Urdu Language Scale for Children between the Ages of 0-6 Years Fazal Butt, Azka Azhar
09:20 am	OP45	Factor Influencing cerebral palsy parents /caregivers adherence to speech therapy intervention. Mamona Riaz, Huma Riaz, Nayyab Ifthikhar, Muhammad Sikandar Ghayas
09:30 am	OP46	Testing Orofacial abilities of Children who Stutter by using Movement, Articulation, Mandibular and Sensory awareness (MAMS) assessment procedure Iqra Naseer
09:40 am	OP47	Survey Based Analysis of The Importance Of Occupational Therapy In Acute Care Orthopedic Cases At A Tertiary Care Hospital Bakhtawar Saleem
09:50 am	OP48	Need Of Occupational Therapy As An Imperative Multidisciplinary Team Member of Rehabilitation Process in Acute Care Setting Neelum Zehra Bukhari
10:00 am	OP49.a	Occupational Therapy Psychosocial Approach Improves The Quality Of Life Of Elderly Patients In Tertiary Care Hospital Komal Khan
10:10 am	OP49.b	Perception Of Pediatricians & Allied Health Professionals In Functional Assessment Of Cerebral Palsy Children Dr. Hina Azhar, Dr. Ehsanullah, Rauf M T, Shazia Maqbool
<p align="center"><b>Certificate distribution to oral presenters</b></p>		

**Session-IV: Parallel Oral Presentations**

November 26, 2016, 09:00 am – 10:30 am

**Physical Therapy****Venue:** Computer Lab (Room 33), UHS Lahore**Judges:** Dr. Haider Darain, Director/Principal, Institute of Physical Medicine and Rehabilitation, KMU, Peshawar

Dr. Hafiz Asim, Program Coordinator, TDPT, UHS, Lahore

**Moderator:** Dr. Zahid Mehmood Bhatti, LMDC, Lahore

Time	Code	Topics & Presenters
09:00 am	OP50	Effectiveness of Physiotherapy on quality of life after Breast cancer surgery. A quasi experimental study Farah Zahid, Sarah Ehsan, Maryam Shabbir, Bilal Umar, Umair Ahmed
09:09 am	OP51	Effectiveness of Mckenzie Exercises on Low Back Pain in Females Sahar Aslam
09:17 am	OP52	Effectiveness of routine physical therapy with and without manual therapy in treatment of plantar fasciitis Imran Ghafoor, Ashfaq Ahmad, Junaid Ijaz Gondal
09:25 am	OP53	Refractive Patterns in Thalassemia Major As Compared To Normal Population Tahira Kalsoom
09:33 am	OP54	Frequency of Adolescent Idiopathic Scoliosis in Secondary School girls Amal Shakeel
09:41 am	OP55	Reflection Of Physiotherapy Leaders About Their Leadership Effectiveness Samreen
09:49 am	OP56	The Outcome Of Lower Limb Strength Training In Children With Spastic Diplegia Sharjeel Anjum
09:57 am	OP57	To Evaluate The Efficacy Of Acute Stroke Rehab Model In The Discharge Patients At The Follow Up Visit Maria Gul
10:04 am	OP58	Muscle energy technique in combination with stretching technique and stretching alone on deactivation of trigger point pain. Muhammad Tariq Shafi
10:12 am	OP59	Service Quality Of Public And Private Physical Therapy Clinics: An Empirical Study Based On Servqual Model Roohi Abbas
10: 20 am	OP60	Characteristics of an effective teacher: Perceptions of physical therapy teachers and students in Faisalabad Rafia Imtiaz
<b>Certificate distribution to oral presenters</b>		

## 10:30 am-11:15 am

### Tea Break & Networking

**Venue:** Front Lawn, UHS

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### Poster Presentations

(PP11-PP20)

**Venue:** Main Rotunda, UHS

<b>Poster Presentations</b> November 26, 2016 10:30 am-11:15 am  <b>Venue:</b> Main Rotunda, UHS <b>Judges:</b> Prof. Noor Fatima, Controller of Examinations, UHS Lahore Dr. Amina Ahmad, Department of Medical Education, UHS Lahore <b>Moderator:</b> Dr. Munir Ahmed. UHS Lahore	
Code	Topics & Presenters
PP11	Frequency Of Conventional Risk Factors Of Myocardialinfarction In Gulab Devi Chest Hospital Muhammad Usman Rafique
PP12	A comparative study of fumigation by old and new techniques. Rubab Zohra, Baila Nabila Talat, Saba Aziz
PP13	Neuregulin 3 gene intronic polymorphisms rs10883866, rs6584400, rs1937970 and rs677221 in patients with Schizophrenia Osheen Sajjad, Sumira Qambar Bokhari, Ali Ammar, Aiman Shehzad, Syed Mohsin Naqvi, Saqib Mahmood
PP14	Correlation Of TC 99m Pertechnetate And Urinary Iodine Level In Thyroid Patients Bushra Afzal, Numair Younis, Tariq Bahir, Abu Bakar Shahid, Saba Aziz
PP15	Evaluation Of Hydrocephalus With Magnetic Resonance Imaging Farwa Seemab Zafar , Abid Ali Qureshi, Ayesha Anjum , Saba Aziz
PP16	To determine the role of triphasic contrast-enhanced helical CT in the detection and characterization of hepatocellular carcinomas. Maria Rauf Khan
PP17	Is Excess screen based media use a predictor of ASD (Autism Spectrum Disorder) and its severity? Mehboob Ahmad, Shazia Maqbool
PP18	Speech Therapy– The Key To Effective Communication Janet Shanem
PP19	Role Of Allied Health Professional in Clinical Neurophysiology Tipu Sultan
PP20	Stability of FV, FVII and FVIII in post-thaw plasma units during refrigerated storage for 5 days Sumaira Khan, Irum Aftab, Ayesha Hameed, Fauzia Shafi Khan, Shahida Mohsin
<b>Certificate distribution to poster presenters</b>	

**Session-V**  
**Defining A career path for Allied Health Professionals:**  
**Role of Academia & Government**

November 26, 2016, 11:00 am – 01:00 pm

**Venue:** Shams Auditorium, UHS, Lahore

**Co-Chair:** Maj Gen (R) Prof. Muhammad Aslam, Vice Chancellor,  
 University of Health Sciences, Lahore

**Co-Chair:** Prof. Dr. Sardar Fakhar Imam, Vice Chancellor,  
 Fatima Jinnah Medical University , Lahore

**Moderator:** Dr. Mansoor Ghani, UHS, Lahore

Time	Code	Topic	Speaker/s
11:00 am	PL03	Plenary Presentation	Mrs. Mahnaz Nasir Khan
11:30 am	KN03	Key Note Speech	Dr. Fareeha Shah
11:50 am	PD03	Panel Discussion	Maj Gen (R) Prof. Muhammad Aslam Prof. Dr. Sardar Fakhar Imam Prof. Shazia Maqbool Dr. Fareeha Shah Dr. Salman Shahid Mrs. Mahnaz Nasir Khan Dr. Riffat Javed Ms. Marwah Minhas Mr. Maqsood Ahmed
<b>Questions &amp; Answers</b>			

**Session-V: Parallel Oral Presentations**

November 26, 2016, 11:00 Am – 01:00 pm

**Orthotics & Prosthetics and Radiology****Venue:** Workshop Room 30**Judges:** Dr.Zia Ur Rahman, ISPO Pakistan

Dr. Numair Younas, INMOL Hospital Lahore

**Moderator:** Dr. Rabia Anjum , UHS Lahore

Time	Code	Topics & Presenters
11:00 am	OP61	Determining the Causes Of Non-Compliance Of Foot Abduction Orthosis Amongst Relapse Idiopathic Club Foot Patients Abdul Latif Sami, Armghan Anjum
11:10 am	OP62	Effectiveness Of Prefabricated And Custom Made Insoles In Adult Acquiring Flat Foot Deformity Meveshal
11:20 am	OP63	Level of stress and its association with socio-demographic factors among students of allied health sciences at Rawalpindi Medical College Badur-un-Nisa, M. Kashif
11:30 am	OP64	Functional outcome of lateral shoe wedging with quadriceps strengthening exercises in management of medial knee osteoarthritis Nayyab Nasir
11:40 am	OP65	Ultrasonographic Findings In The Patients of Acute Hepatitis Rabia Shahid, Abid Ali Qureshi, Saba Aziz
11:50 am	OP66	Comparison Between Filtered Back Projection and Iterative Osem Reconstruction Methods on Myocardial Perfusion Thallium-201 Scan Sajeel Arif, Dr. Muhammad Ayub, Dr. Muhammad Numair Younus
12:00 noon	OP67	Comparison Between Manual & Automatic Techniques Of Measuring %LVEF On MUGA Scan In Breast Cancer Patients Zunaira Rasheed, Muhammad Numair Younis, Saba Aziz, Abubakar Shahid
<b>Certificate distribution to oral presenters</b>		



**Session-V: Parallel Oral Presentations**  
November 26, 2016, 11:00 Am – 01:00 pm  
**Dental Education , Pharmacy & Nutrition**

**Venue:** Senate Hall, UHS

**Judges:** Ms. Sahzia Zehra, Mr. Muhammad Shamnoon Ch.

**Moderator:** Dr. Sarah Ghafoor, UHS Lahore

Time	Code	Topics & Presenters
11:00 am	OP68	Dental anxiety and its associated factors among children of age 2-13 years coming to dental department of CH & ICH Sadia Khalid
11:10 am	OP69	Intercanine and Intermolar Widths In Angle Class I, II & III Malocclusions Sundas Ansar
11:20 am	OP70	Determination of Minimum Inhibitory Concentration of Various Antifungal Agents In Clinical Isolates of Candida Species Moon Ramzan, Hasan Ejaz, Aizza Zafar, Muhammad Zubair, Humera javaid, Muhammad Bilal Anwar Bhatti, Azra javed
11:30 am	OP71	Analysis of Ethnopharmacologically reported plants from Faisalabad for anticancer and antioxidant potential Faiza Nazir
11:40 am	OP72	Nutritional Status of Children And Adolescents Suffering With Down Syndrome Sameera Mustafa, Maha Omer Rao
11:50 am	OP73	Effect Of Food Insecurity During Pregnancy On Birth Weight Of Neonates: A Prospective Cohort Ayesha Saeed, Mobina Naqvi
12:00 noon	OP74	Acceptability of a modified Pakistani Diet Plan Based on therapeutic lifestyle Izzah A. Siddiqui, Mahnaz N. Khan
12:10 pm	OP75	A qualitative study expiring the role of nutrition in developmental disorders Maria Nadeem Khan
<b>Certificate distribution to oral presenters</b>		

**Session-V: Parallel Oral Presentations**  
November 26, 2016, 11:00 am – 01:00 pm  
**Collaborative Research & Misc.**

**Venue:** Video Conference Room, UHS

**Judges:** Prof . Nadeem Afzal , UHS Lahore, Dr. Fouzia Rasheed , CH & ICH Lahore

**Moderator:** Dr. Umaira Ehsan, UHS Lahore

Time	Code	Topics & Presenters
11:00 am	OP76	Asymptomatic ocular changes among long term contact lens users. Rabbia Ammer
11:10 am	OP77	Prevalence of Causative Microorganism Involved In Wound Infection in Elective Laparotomy Sofia Noor
11:20 am	OP78	Analysis of Microbial Flora From Patients Suffering From Periapical Abscess Muhammad Alamgir, Saba Shamim, Mehmood Hussain Qazi
11:30 am	OP79	Practice of Written feedback to medical students as an Instructional Strategy: The Students' Perspective Anum Fatima
11:40 am	OP80	A Comparative Study Of Depression Among Male And Female Tuberculosis Patients Nouman Faryad, Sadaf Afreen, Zia-Ur-Rehman Farooqi
11:50 am	OP81	Single Nucleotide Polymorphism of P2RY12 and CYP3A5 Genes in Clopidogrel Resistant and Non-Resistant Ischemic Heart Disease Patients Ghulam Mustafa, Nabila Akram, Shahzad Tawwab, Shabbir Hussain, Haiba Kaul, Shahida Mohsin
12:00 noon	OP82	Career Progression in Allied Health Sciences; Students' Perspective Saima Ch.
12:10 pm	OP83	"HCV to HCC" from Bench to bed Shah Jahan
12:20 pm	OP84	Allied Health Professions in Pakistan: A SWOT Analysis Muhammad Shoaib Akhtar
<b>Certificate distribution to oral presenters</b>		

**01:00 pm – 02:00 pm**

**Lunch& Prayer Break**

**Venue:** Front Lawn, UHS

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**Poster Presentations**

(PP21-PP31)

**Venue:** Main Rotunda, UHS

<b>Poster Presentations</b> November 25, 2016, 01:00 pm to 2:00 pm	
<b>Venue:</b> Main Rotunda, UHS <b>Judges:</b> Prof. Nadeem Afzal, UHS Lahore, Prof. Sibgha Zulfiqar, SZMC, Lahore <b>Moderator:</b> Dr. Saba Khaliq, UHS Lahore	
Code	Topics & Presenters
PP21	Parasitic Infestation Of The Appendix Masquerading Acute Appendix Adeel Ahmad
PP22	Blood Donation: General Perception of Pakistani Youth Maqsood Ahmad
PP23	Comparision Of Post Operative Wound Infection In Open Versus Laparoscopic Appendectomy in Pediatrics Taiba Shafique
PP24	To find the frequency of abdominal wound infection after elective laparotomy cases at The Children Hospital and The Institute of Child Health, Lahore Salma Rani
PP25	To see the prevalence of isolated cleft palate among the patients with both cleft lip and cleft palate. Neelofar Liaquat Ali
PP26	Comparision Of Post-Operative Wound Infection In Suture And Stapling For Abdominal Surgeries In Pediatrics Eimaan Meraj
PP27	The factors causing left atrial clot formation in patients of rheumatic mitral stenosis. Ayesha Bajwa
PP28	Validation of ICF-CY Shazia Maqbool
PP29	Comparison between Non-Catheterized and Catheter Associated Urinary Tract Infections Caused by Extended Spectrum B-Lactamase Producing Escherichia Coli and Klebsiella Pneumoniae Fouzia Ashraf, Shagufta Iram, Gul-e-Zar Riaz, Farhan Rasheed, Mahmood Shaukat
PP30	Homozygosity mapping of WDR62 gene in families with Autosomal Recessive Primary Microcephaly Ishrat yaseen, Faria javed, M Ikramullah, Saqib Mahmood
PP31	Cross Cultural Adaptation of of Keele STart Back Screening Tool for assessing back pain; English (Source Language) to Urdu (Target Language) Ms. Qudsia
<b>Certificate distribution to Poster presenters</b>	

**Session-VI****Allied Health Sciences and Knowledge Exchange: Role of Industry, Universities & Government**

November 26, 2016, 02:00 pm – 03:30 pm

**Venue:** Shams Auditorium, UHS**Co-Chair:** Prof. I.A. Naveed, UHS Lahore

Dr. Hafiz Muhammad Asim, UHS Lahore

**Moderator:** Dr. Edrees Anwar, UHS Lahore

Time	Code	Topic	Speaker/s
02:00 pm	PL04	Plenary Presentation	Ms. Neelum Zehra
02:15 pm	KN04	Key Note Speech	Ms. Sabahat Khan
02:30 pm	PD04	Panel Discussion	Prof. I.A. Naveed Dr. Edrees Anwar Mr. Shafqat Khanzada Mr. Rana Shakeel Dr. Ali Yasir Mr. Imtiaz Saeed Dr. Hafiz Muhammad Asim Ms. Sabahat Khan Ms. Ayesha Ghouri Ms. Rubab Zahra
<b>Questions &amp; Answers</b>			

**Session-VII**  
**Closing Ceremony**

November 26, 2016, 03:30 pm – 04:35 pm

**Venue:** Shams Auditorium, UHS

**Moderator:** Prof. Dr. Junaid Sarfraz Khan, Pro-Vice Chancellor - UHS

Time	Program
03:30 pm	Recitation of the Holy Quran
03:35 pm	Closing remarks by Vice Chancellor, UHS
03:45 pm	Address by the Guest of Honour
04:00 pm	Address by the Chief Guest
04:20 pm	Vote of thanks by Pro- Vice Chancellor, UHS
04:25 pm	Souvenir Distribution
04:30 pm	Certificate and Souvenir Distribution to the position holders of Punjab Project Professionalism (PPP).

**04:35 pm – 05:00 pm**



**Closing Tea**

**Venue:** Front Lawn, UHS





# **Plenary Presenters**





## Quality Assurance in Education & Care in Allied Health Sciences

### Prof. Dr. Shazia Maqbool



Allied health professions are health care professions distinct from nursing, medicine, and pharmacy. They work in health care teams along with doctors to make the health care system function by providing a range of diagnostic, technical, therapeutic and direct patient care and support services that are critical the patients they serve.

The World Health Organization estimates there is currently a worldwide shortage of about 2 million allied health professionals (considering all health workers aside from medical and nursing personnel) needed in order to meet global health goals. Depending on the country and local health care system, these range from Medical technologists working in diagnostics to actual one to one involvement with patient care like in Physiotherapy and Speech & Language pathology. Some allied health professions are more specialized, and so must adhere to national training and education standards and their professional scope of practice. They must prove their skills through degrees, diplomas certified credentials, and continuing education.

The health care services in Pakistan consists of two main sub-sections, divided by the types of services provided at each facility: Primary & Secondary Tertiary Services (Hospitals) providing inpatient & outpatient health services. Primary & Secondary General Services providing outpatient and inpatient services at Basic health units (BHUs) & Rural health units (RHUs) along with community services. They also provide services at facilities such as doctors' offices, outpatient clinics and clinical laboratories.

In this plenary talk, role of Allied Health professions alongside of doctors is discussed in providing care in essential preventive and treatment services in hospital and community-based care settings. Emphasis will be on how to achieve quality assurance as well as monitoring delivery of care in allied health sciences.

## **Principles of inter professional practice: A contemporary model**

### **Dr. Muhammad Atif Khan**

This conference is a great opportunity to move the field forward with an impressive group of leaders and committed innovators. My session will discuss how we as a clinical community can lead a successful transition to value in healthcare. I'm looking forward to a great conference!



## **Role of Academia and Government in Defining Careers Pathways for Allied Health Professional**

### **Mahnaz Nasir Khan**

The health care industry is one of the most diversified fields in terms of type of employments, educational backgrounds and specializations and yet the aim is the same for all, that is, improved patient outcome. Allied Health are those health Professional that are distinct from nursing medicine and pharmacy and yet contribute considerably to the patient care and outcome. Besides contributing about 60% to this field there is still lack of awareness as to what Allied Health Practitioners do and the fact that the term means little or nothing to the public at large. Definitions of Allied Health vary due to its changing nature and because certain medically related but traditionally parallel or independent occupations prefer identities independent of Allied Health like dietitians, nursing and pharmacy. Other occupations may or may not regard themselves as Allied Health, depending upon their varying circumstances, for example, nutritionists, speech-language pathologists, audiologists, public health specialists, medical research assistants, etc.



A partnership between academia and government in the public health sector has been determined through generation and translates into research aimed at patient benefit. Clinical academics are already making a demonstrable impact on the quality of care and the productivity of services. In Pakistan Allied Health is an upcoming field and requires both education and training. The Academia in this aspect are very clear and focused; they are offering vocational education that includes dietetics, speech pathologist, physical, occupational and respiratory therapy, pharmacy and physician assistance are just a few to mention. Besides, imparting quality education an internship program has also been inculcated in the curriculum so as to equip the students with hands on experience enabling them to take up changeling jobs in the health profession both at the public and private

sector.

At present the Government of Pakistan needs to play a vital role in bridging the gap between the academia and health care professionals by providing opportunities in health care settings and opening up positions for Allied Health care practitioners to work as part of the multi-disciplinary team focused at improving patient outcome.

The debate does not end here; the government will also have to establish regulatory agencies so as to keep at par all the academia while imparting quality education. These regulatory agency/agencies will be responsible for determining the minimum entrance level education and credit hours for any individual to take up an examination regarding his/her relevant field for issuance of a practicing license. This strategy will not only define but streamline the career pathways for Allied Health Professionals.

### **Allied health sciences and knowledge exchange: role of industry, university and government**

#### **Ms. Neelum Zehra**



Role development is about making impact on allied health profession. It involves promoting professional capacity to make service more homogenize and accessible. It always very challenging to work in allied health profession all over the world though it makes more than one third of the work force in the health sector.

Allied health science and knowledge exchange needs a strong bridge between health industry, universities and government in order to promote


- Team work and harmonization across the professional groups
- improve communication within and across the systems
- more appropriate skill-mix, with people working smarter within the clinical team
- evidence base practice
- Knowledge, skills and competencies
- Leadership quality
- An expended career pathway with increased job opportunity

The development of this role and joint initiative among the health industry, university and government will not only focus towards the local communities and exploration of preventive and anticipatory care within health and social care but also on the patient centered interventions and improved health outcomes.

The government can modify the health policies for early intervention of Allied health

professions to minimize the impact of ill health and promote early recovery and productive life. The health sectors must consider holistic approach towards patients and promotes the multidisciplinary team work. Universities can play main role in establishing regulatory body for introducing the standardize and modified intervention strategies and guidelines as per cultural need.

Finally this correlation will develop a synchronize pattern of work, coordination among professional and development in patient care service.



# **Keynote Speakers**



## **Allied Health Sciences Quality Assurance in Education and Care**

**Dr. Rozina Karmaliani**



## **Expanding Practice through Inter-Professional Education**

**Dr. David Aurhur**



The changes in health demographics are demanding changes in health care practices which are more flexible, and draw from several disciplines. Hence the need for evidence based practice in which health care workers from several disciplines work together to complement each others' practice, in other words interdisciplinary practice, in collaborative, interdependent practice. The challenge is how to get professionals out of their silos and how to help them to work more productively together for the common good of patients. This is best achieved while still at university where ingrained attitudes and values about roles can be shaped into more productive directions.

As roles of nurses, doctors, physiotherapists, psychologists, occupational therapists have become more blurred, their curricula need modification. Current nursing curricula need to be enhanced to address the growing number of non-communicable disorders ranging from obesity, diabetes and hypertension. The conventional hospital practice of a nurse is being dated. More flexible practitioners who can function in communities; who can deliver health education and primary health care, who understand the complexities of changing behavior; who are multiskilled in biopsychosocial interventions are needed.

A futuristic nursing curriculum contains strands which develop better interpersonal skills and develops personal and professional growth. Problem based learning with high tech simulation teaches different disciplines to work together to enhance their unique skills for more productive patient outcomes.

Innovative strategies draw on mindfulness and stress reduction, while cognitive behavioural therapy and motivational therapy are necessary to help patients change behavior. The curriculum is enhanced with complementary holistic treatments such as acupuncture, acupressure and Tui Na, in combination with traditional herbal remedies and healthy lifestyle improvements. This approach will provide more sustainable alternatives for changing lifestyle behaviour in the longer term as aging and NCDs loom as major health care challenges.

## **Defining a Career Path for Allied Health Professionals: Role of Academia & Government**

### **Dr. Fariha Shah**



Worldwide allied health professionals maintain a significant role in healthcare as key members of system. Pakistani healthcare system has been evolving along the world trends and carries goals of producing an adequate number of allied health professionals offering quality services in order to strengthen the healthcare delivery system. This goal comes with grand challenges of offering quality education at academic and healthcare institutions furnished with complete infrastructural, capital and human resources required for optimal training of these professionals as well as defining a career path for all professionals entering and progressing in allied professions to meet the ongoing challenges and requirements of evolving healthcare profession.

## **How can Knowledge exchange and collaboration between industry, universities and government improve patient –come in allied health professions**

### **Ms. Sabahat Khan**



Nowadays, healthcare increasingly focuses on improving patient care outcomes. For this purpose, medical and allied health professionals often use developments in new technology, especially IT, to aid and improve diagnosis and subsequent treatment therapies. This paper aims to discuss how industry, academic institutes and government policy maker can collaborate and facilitate the promotion of latest international trends within the local healthcare systems.



# ***Abstracts***



## INFLUENCE OF GENDER ON SELF-ESTEEM OF INDIVIDUALS WITH HEMIPARETIC CEREBRAL PALSY

Mariam Farooq, Prof. Dr. Shazia Maqbool, Dr. Mehboob Ahmed, Dr. Ehsaan Ullah,  
Ms. Fareeha Latif

**Background:** Self-esteem is a term used to reflect a person's overall valuation or judgment of his or her own worth. Self-esteem includes beliefs and emotions such as accomplishment, desolation, pride, and shame. Individuals with cerebral palsy can have low self-esteem due to perceived limitations perceived by them, their medical conditions, and the loss of bodily control.

**Objective:** This study was aimed to check the influence of gender on self-esteem of individuals with hemiparetic cerebral palsy.

**Material and Methods:** This is a cross-sectional study in which a sample of 60 patients was taken from Department of Developmental and Behavioural Paediatrics Children's Hospital & Institute of child health and Occupational Therapy Department of Pakistan Society for the Rehabilitation of Disabled (PSRD), Lahore. Duration of study was 3 months. Children having hemiparetic CP with age limit 5 to 18 years were assessed by using modified version of Rosenberg self-esteem scale to compare the groups. Analysis was done by SPSS version 17.

**Results:** Sixty (60) eligible patients (mean  $\pm$  SD of age,  $8.64 \pm 2.64$  years; 50 % female and 50% male) were assessed. (mean  $\pm$ SD of total self-esteem score,  $12.75 \pm 3.06$ ). Out of 60 patients, 31(52%) had low score on scale of self-esteem. Out of 30 males, 10 ( 33%) had low score on self-esteem while out of 30 females, 21( 70%) had low score on self-esteem. The P-value (0.004) showed significant association between self-esteem and gender. Conclusion: Females having hemiparetic CP have low self-esteem as compared to males.

**Key words:** cerebral palsy, gender, self-esteem

## PRACTICE-BASED ASSESSMENT IN MEDICAL IMAGING: A PRACTICAL APPROACH

Sadaqat Ali, Amna Sadaqat

**Background:** The aim of this study is to critically reflect on practice-based assessment (PBA) including the impact of practice-education on the quality of learning environment and assessment process. PBA is a measure of an individual's competence including knowledge, skills and attitudes against set standards of practice. An appropriate assessment

is essential to; determine competence level, facilitate learning, provide feedback and identify bad practices in order to protect the patient and the organisation.

#### **Methodology:**

The author has provided a critical reflection on his experience as an assessor of manual handling in medical imaging by adapting Rolfe's framework of reflective practice. The assessment was done in a simulated environment using competence-based formative assessment. Three learning outcomes (LO) identified to achieve the aim including:

- Critical analysis of assessment principles and concepts of validity and reliability
- Critical reflection of interpersonal skills to manage effective and comprehensive assessment
- Critical appraisal of the responsibilities, boundaries and accountability of practice educator's role in the assessment.

These LO are evaluated in the light of available literature to demonstrate a practical approach to PBA through integration of theory and practice.

#### **Findings and Conclusion:**

The study has provided a deeper understanding of; the principles of assessment, application of the concepts of validity and reliability and appropriate use of interpersonal skills. Competence-based formative assessment is appropriate methodology for assessing competence when used in simulated settings; however, its efficacy needs to be evaluated for real settings. Interpersonal skills are not only useful in recording competence but also provide good insights into reflective practice. The study also has provided profound awareness about the responsibilities and accountability as an assessor. The author feels more equipped and confident especially in adapting the appropriate procedure when getting support in dealing with not-competent decision.

**Key Words:** Practice assessment, Critical reflection, Medical imaging

### **REFRACTIVE PATTERNS IN THALASSEMIA MAJOR AS COMPARED TO NORMAL POPULATION**

Tahirah Kalsoom

**Aim & objective:** To compare the refractive patterns in thalassemia patients with age matched normal population.

**Background:** Thalassemia is a group of hemoglobinopathy caused by genetic mutations of the hemoglobin genes and requires lifelong blood transfusion due to the deficiency of red blood cells. Ophthalmologic changes might occur as a result of the disease itself or

as side effects of iron chelators and include ocular surface disorders, cataract, angioid streaks, retinal venous tortuosity, retinal toxicity, retinal pigment epithelial degeneration and mottling, optic neuropathy and decreased visual acuity. Craniofacial changes in thalassemia patients might lead to an abnormal bony orbit and subsequently might lead to distinctive ocular biometric and refractive parameters.

**Material and methods:** A cross sectional, case-control survey was done at the Eye OPD of Sir Ganga Ram Hospital. 30 patients of Thalassemia were taken from the thalassemia center of Sir Ganga Ram Hospital and 30 age matched controls were taken. Non probability convenient sampling technique was used.

**Results:** SPSS 20 version was used for analysis and it was found that Mean spherical equivalent was similar for both groups. Against the rule corneal astigmatism was prevalent in Thalassemic patients (59%) as compared to controls (37%). Lenticular astigmatism contributed to total refractive prescription in 3 % of Thalassemic population whereas corneal astigmatism contributed to 100 % astigmatic error in controls.

**Conclusion:** lenticular astigmatism was more prevalent as compared to normal populations. There was no specific pattern for simple myopia and hypermetropia.

**Key words:** Thalassemia, Lenticular Astigmatism, Refraction.

## **EFFECTIVENESS OF ROUTINE PHYSICAL THERAPY WITH AND WITHOUT MANUAL THERAPY IN TREATMENT OF PLANTAR FASCIITIS**

Imran Ghafoor, Ashfaq Ahmad, Junaid Ijaz Gondal

**Objective:** To compare the effectiveness of routine physical therapy with and without manual therapy in the treatment of plantar fasciitis.

**Background:** Plantar fasciitis (PF) is commonly known as plantar heel pain, the pain on the medial plantar side of the foot in heel area. It is the common etiology of plantar pain and constitutes nearly 15% of foot dysfunctions in Americans.

**Methods:** Referred patients of plantar fasciitis accomplished questionnaire, containing the Lower Extremity Functional Scale (LEFS), the Foot and Ankle Ability Measure (FAAM), and the Numeric Pain Rating Scale (NPRS). All the patients randomly allocated in either routine physical therapy with manual therapy (RPT-MT) or routine physical therapy (RPT) alone method. All measures taken at baseline and at 3 and 6 weeks follow up. The basic objective of treatment in term of pain and function was inspected with analysis of variance (ANOVA). There is two way interaction between groups by time.

**Result:** Sixty (60) patients (mean  $\pm$  SD of age,  $(47.42 \pm 9.1)$  years; 80% female) eligible and signed the consent form and randomized into the RPT-MT ( $n = 30$ ) and RPT ( $n = 30$ ) groups. The RPT-MT group shows clinically expressive and substantial progress than RPT group. The group differences measured in LEFS at both the 3 week  $(14.93) (0.91)$  points and 6 weeks  $(12.46) (1.00)$  follow up. The RPT-MT group also clinically substantial and expressive between group alterations over RPT group in terms of FAAM  $(13.66) (1.31)$  for 3 and 6 weeks  $(20.70) (0.914)$ .

**Conclusion:** The results of this study provide evidence that RPT-MT is a superior management approach over an RPT approach in the management of individuals with plantar fasciitis.

**Key words:** Plantar fasciitis, Manual therapy, Routine physical therapy.

## **EXPRESSIONS OF CD MAKERS IN ALL AMONG PEDIATRIC POPULTION REPORTED AT CH&ICH**

**Faiza Khan**

**Objective:** To find expressions of different CD markers in ALL among pediatric patients presenting in CH&ICH

**Materials/Methodology:** Descriptive study is done on B.M aspirates and EDTA Samples of Pediatric laeukemic suspected patients on which flow cytometry is performed in CH & ICH

**Results:** In the present study 100 patients of ALL and its subtypes were analysed. Out of which 82 cases were of B.ALL while 18 cases were T.ALL. The male to female ratio is 13:7. 64 of total cases are male while 36 are females. Out of 64 males 49 are diagnosed as B.ALL and 15 as T.ALL and out of 36 females 33 are affected from B.all while 3 are T.ALL. Of 82 B.ALL cases respective CD Markers are expressed in 48 of cases (59%) under age group less than 5 years. 25 cases (30%) are of age group b/w 5-10 years. 9 cases are seen which is total of (11%) in paed which are aged b/w 10-15 years. While from 18 cases of T.ALL 3 cases (16%) are of <5 years age paed. 8 cases (44%) are found under group of 5-10 years and 6 cases of total T.ALL patients (39%) are from age group b/w 10-15 years.

**Conclusion:** It is concluded that B.ALL sub type of Acute Lymphoblastic Leukemia are more prevalent than T.ALL in pediatric patients- it is seen that CD10, CD19, CD34, cCD79a, Anti Tdt, HLADR, cCD22 are expressed in B.ALL while CD2, cCD3, CD5, CD7, CD34, Anti Tdt are expressed in T.ALL- CD 34 & Anti Tdt are common in both subtypes of leukemia and these two markers are strongly positive for T.ALL- It is seen that out of 100

cases 64 cases are of males which is almost 2 times more than females.

**Key Words:** ALL, CD Markers, Pediatric ALL

## **FREQUENCY OF ASSOCIATED CONGENITAL HEART DEFECTS IN DOWN SYNDROME IN CHILDREN HOSPITAL AND INSTITUTE OF CHILD HEALTH LAHORE.**

Mukhtar N, Hyder SN.

**Background:** Patients with Down's syndrome are prone to have congenital heart defects. This study was conducted to evaluate the frequency of various congenital heart defects in children with Down's syndrome in Children Hospital Lahore.

**Material & Methods:** This descriptive study was conducted at the Department of Cardiology in The Children's Hospital and the Institute of Child Health, Lahore, from July to October 2015. Fifty-eight phenotypically Down syndrome children coming to the cardiology department for echocardiography, from birth to 13 years were included in this study. After detailed history and physical examination, all these patients were subjected to 2-dimensional echocardiography in addition to routine laboratory investigations.

**Results:** Congenital heart defects were found in 29 out of 58 patients (50%). Among the affected patients, 16 (55.2%) were males and 13 (44.8%) females with male to female ratio of 1.2:1. Acyanotic lesions were more common (79.31%) than cyanotic lesion (20.69%). Among the isolated lesions ventricular septal defect, patent ductus arteriosus and complete atrioventricular defects were the commonest defects (20.69%) each, followed by pulmonary atresia (6.89%), atrial septal defect, tetralogy of Fallot's, transposition of great arteries and double outlet right ventricle with ventricular septal defect (3.45%) each. Among the mixed lesions (VSD+ASD) was most common (6.89%), followed by (PDA+CoA), univentricle with atrial septal defect, and double outlet right ventricle with ventricular septal defect, patent ductus arteriosus and pulmonary atresia (3.45%) each.

**Conclusion:** Congenital heart defects are found in 50% children with Down syndrome. The commonest are ventricular septal defect, patent ductus arteriosus and complete atrioventricular septal defect in our set-up. All children with Down syndrome should have a cardiac evaluation at birth.

**Key Words:** Down syndrome, Congenital heart disease, Pulmonary atresia, Tetralogy of Fallot's, Ventricular septal defect.

## DENTAL ANXIETY AND ITS ASSOCIATED FACTORS AMONG CHILDREN OF AGE 2-13 YEARS COMING TO DENTAL DEPARTMENT OF CH & ICH

Sadia Khalid

School of Allied Health Sciences Lahore

**Background:** To determine factors of dental anxiety among children of age 2-13 years.

**Methods:** This cross-sectional study was conducted at Dental Department of Children Hospital. Total 150 patients were included in study. A Performa was developed for each patient, which was filled by matching scores given by the patient to anxiety provoked by different factors with levels of concerns set by researcher. Data was entered to SPSS 20 (statistical package for social sciences version 20) for analysis.

**Results:** From data it was revealed that high levels of dental anxiety were associated with injections which affected up to 80% of children in this study and extractions affected up to 55.3% of children. Other important factors that caused high levels of anxiety were sound of drill (48% of children), poor previous dental experience (43.3% of children) and white coat (42.7% of children). Sight of blood during dental treatment moderately affected dental anxiety (38.7% children). Probing produced low levels of dental anxiety (37.3% children). The children of age group 6-10 years are most frequently anxious of dental injection (64), extractions (46) and previous dental experience (34) than other age groups.

**Conclusion:** This study showed that most important factor affecting dental anxiety was injections followed by dental extractions, sound of drill, previous dental experience and white coat. Sight of blood moderately affected dental anxiety and low anxiety was produced by probing. The children ranging from 6-10 years had higher anxiety for different factors than other age groups included in this study. Dentists should show friendly behavior with children and should keep instruments out of sight of children.

**Keywords:** Dental Anxiety, Extraction, Probing



## GROSS AND FINE MOTORS FUNCTIONAL IMPAIRMENTS IN CHILDREN WITH CEREBRAL PALSY; A CROSS-SECTIONAL STUDY

Ramma Inam, Ehsan Ullah, Shazia Maqbool, Naeem Liaqat, Fouzia Rashid, Saba Aziz,

**Background:** Gross and fine motor functional impairments are commonly found in children with cerebral palsy (CP). The greater the impairment is lesser the functional involvement of patients in activities of daily livings; however early interventions can have good prognosis. The objective of study was to assess prevalence of gross and fine motor functional impairments in children with CP.

**Methods:** This was cross sectional study conducted at Department of Developmental & Behavioural Paediatrics, The Children's Hospital and Institute of Child Health, Lahore from October, 2014 to September, 2015. In this study sample size of 100 patients was taken to assess gross and fine motor functional impairment in children with CP, using Gross Motor Functional Classification System (GMFCS) and Bimanual Fine Motor Function (BFMF) scales.

**Results:** A hospital-based study comprised 100 children with a diagnosis of CP ascertained at 2 to 8 years of age (the mean age of patients was  $4.090 \pm 1.672$  years). A total of 32 were females while 68 patients were males, GMFCS levels and BFMF levels were documented in all children. GMFCS was found at level I in 5% patients, level II in 18% patients, level III in 16% patients, level IV in 15% patients and level V in 46% patients. The corresponding percentages for BFMF were 21.7% patients, 18% patients, 15% patients, 13% patients and 33% respectively. Among Oral musculature problem drooling was most common problem (68 %). Larger proportion of gross motor functional impairment were associated with the spastic type of cerebral palsy ( $p=0.03$ ), more specifically quadriplegic cerebral palsy ( $p=0.000$ ). A larger number of patients with fine motor functional impairments were associated with spastic type of cerebral palsy ( $p=0.009$ ), more precisely quadriplegic cerebral palsy ( $p=0.000$ ). More severe GMFCS and BFMF levels correlated with larger proportions of accompanying fine and gross motor impairment.

**Conclusion:** It is concluded that quadriplegic spastic CP was the most frequent type that had the worst motor impairment hence making patients functionally dependant in activities of daily livings.

**Key words:** cerebral palsy; gross motor; fine motor; impairment.

## **FREQUENCY OF CONGENITAL HEART DEFECTS DETECTED ON FETAL ECHOCARDIOGRAPHY IN HIGH RISK MOTHERS IN CHILDREN'S HOSPITAL AND INSTITUTE OF CHILD HEALTH, LAHORE**

Maryam Iftikhar , Dr.Syed Najam Hyder , Saba Aziz

**Background:** To find out the frequency of Congenital Heart Defects detected on fetal echocardiography in high risk mothers referred in Children hospital, Lahore.

**Materials and methods:** This was a cross-sectional observational study conducted in the department of cardiology, Children hospital & institute of Child Health, Lahore from August to December 2015. The data was collected from 138 high risk pregnant mothers. Maternal and fetal high risk factors associated with congenital heart diseases both are considered in this study. Fetal echocardiography was performed in all high risk mothers.

**Results:** Out of 138 high risk mothers, 131 of were with maternal risk factors and 7 were with fetal risk factors. The detected frequency of congenital heart diseases was 6% .We found all congenital heart defects in association of maternal risk factors and there is no congenital heart defect detected in fetal risk factors. In 6% congenital heart defects, 2.174% congenital heart defects were presented with the history of gestational diabetes mellitus and 3.623% were presented with bad obstetric history, p value ( $p=0.000$ ) for bad obstetric history was significant. Out of 6% congenital heart defects, 1.449% ( $n=2$ ) were atrial septal defect (ASD) of secundum type and 1.449% ( $n=2$ ) ventricular septal defects each, 0.725% ( $n=1$ ) were complete atrio ventricular septal defect (CAVSD), 1.449% ( $n=2$ ) were septal hypertrophies and 0.725% ( $n=1$ ) pericardial effusion each. The main reason for referral of fetal echocardiography was history of previous child death of uncertain cause, but we didn't find any congenital heart defect in them.

**Conclusion:** We observed the 6% frequency of congenital heart defects in high risk mothers. With this high frequency of congenital heart defects in our population, fetal echocardiography should be included as a part of second trimester anomaly scan in all high risk mothers.

**Key words:** Frequency, congenital heart defects, maternal risk factors, fetal risk factors, fetal echocardiography.

## DETERMINATION OF MINIMUM INHIBITORY CONCENTRATION OF VARIOUS ANTIFUNGAL AGENTS IN CLINICAL ISOLATES OF CANDIDA SPECIES

Moon Ramzan, Hasan Ejaz, Aizza Zafar, Muhammad Zubair, Humera Javaid, Muhammad Bilal Anwar Bhatti, Azra Javed

**Background:** Antifungal susceptibility was determined to identify the antifungal agents for proper treatment of Candida infections.

**Objective:** To determine the frequency of different Candida species and the in vitro MIC of various antifungal agents against different Candida species in clinical samples of blood and urine.

**Methods:** The study was conducted at The Children's Hospital and The Institute of Child Health. A total no of 87 samples were collected from different wards of the hospitals. Data was collected using Proforma. The Candida Species were identified by using API Candida and in vitro susceptibility by using Sensititre YeastOne kit based on colorimetric microdilution test.

**Results:** The positive culture yielded 87 Candida species out of which 66 (75.9%) were non-albicans Candida. The most abundant specie isolated was *C. parapsilosis* 31 (35.6%) followed by *Candida albicans* 21 (24.1%). The prevalence of non-albicans Candida was higher than *Candida albicans* species from the hospitalized patients. The highest number of Candida species was isolated from blood samples 68 (78.2%). The highest number of 24 (27.6%) cases of Candida was isolated from neonatal nursery emergency. Most of Candida isolates were susceptible to all of the antifungal agents. Resistance to echinocandin and azole agents was extremely rare among Candida species. Majority of strains causing infections were susceptible to fluconazole and itraconazole. There was no resistance seen among *Candida albicans* isolates against any antifungal agent.

**Conclusion:** Overall there was good susceptibility pattern demonstrated against all antifungal agents. Majority of strains were susceptible to fluconazole that's why it can be used for treatment of Candida infections. Increasing resistance in non-albicans Candida species makes it important to properly identify the species and test the antifungal susceptibility for proper treatment to effectively control infection rate.

**Key words:** Antifungal susceptibility, Minimum Inhibitory Concentration, API Candida, Sensititre Yeast One.

## INTERCANINE AND INTERMOLAR WIDTHS IN ANGLE CLASS I, II & III MALOCCLUSIONS

Sundas Ansar

**Objective:** To evaluate the intercanine and intermolar widths among Angle Class I, II and III malocclusions.

**Material and Methods:** This cross sectional study was conducted at Dental Department of CH & ICH Lahore. Total 50 patients having Angle malocclusions were studied ranging between 10-15 years. Performa was used for each patient, which was filled out on observation by the researcher using dental casts. Data was entered to SPSS 20 (statistical package for social sciences) for analysis.

**Results:** Results showed mean maxillary intermolar widths of 45.2mm, 46.0mm, 46.02mm, 46.8mm and 44.1mm for Class I, Class II division 1, Class II division 2, Class II subdivision and Class III groups respectively. Similarly mean mandibular intermolar widths were 42.7mm, 44.09mm, 44.6mm, 43.5mm and 44.07mm for Class I, Class II division 1, Class II division 2, Class II subdivision and Class III groups respectively. ANOVA analysis showed no statistically significant difference for the intermolar widths. Mean maxillary intercanine widths were found to be 31.8mm, 32.6mm, 33.0 mm, 32.0mm and 30.7mm for Class I, Class II division 1, Class II division 2, Class II subdivision and Class III groups respectively. While mean mandibular intercanine widths were found to be 25.0mm, 26.7 mm, 27.7mm, 26.5mm and 26.0mm for the Class I, Class II division 1, Class II division 2, Class II subdivision and Class III groups respectively. There was significant difference found in the intercanine widths of maxilla and mandible among Angle's malocclusion.

**Conclusion:** Values of intermolar widths remain same irrespective of the Angle's malocclusion while intercanine width is found to be narrower in Class I and widest in Class II Division 2.

**Key Words:** Intermolar width, intercanine width, maxillary arch, mandibular arch, malocclusion.

## **BACTERIAL PROFILE AND ANTIMICROBIAL SUSCEPTIBILITY PATTERN OF ISOLATES FROM TRACHEAL SECRETIONS**

Sadaf Younus, Dr. Aizza Zaffar, Dr. Muhammad Zubair, Dr. Hassan Ejaz. and Miss Humera Javiad

**Background:** Respiratory infections in patients receiving mechanical ventilation are associated with high morbidity and mortality. Critically ill patients acquire infections during their stay in Intensive Care Unit (ICU) in different populations and clinical settings. Objective: To determine the frequency and antimicrobial susceptibility profile of bacteria isolated from tracheal secretions.

**Materials and Methods:** 100 samples of tracheal secretions were received from various wards of the hospital and processed for microbiological analysis. The organisms were identified by using various microbiological techniques. Antimicrobial susceptibility profile was determined by Kirby-Bauer disc diffusion method.

Results In total, 100 specimens 83 had positive growth with 109 isolates. The most common isolates were *Acinetobacter* spp. 31 (28.5%) followed by *Pseudomonas* spp. 28 (25.7%), *Klebsiella* spp. 20 (18.4%), *E. coli* 10 (9.2%), *Enterobacter* spp. 5 (4.6%), *Staphylococci epidermidis* 4 (3.6%), *Staphylococci aureus* 3 (2.8%), *Citrobacter* spp. 3 (2.8%), *Streptococci* spp. 3 (2.8%), *Serratia merescens* 1 (0.9%) and *Salmonella* spp.1 (0.9%). The antimicrobial sensitivity patterns of Gram negative organisms revealed that the isolates were mostly sensitive to Imipenem 49 (49.49%), while the Gram positive organisms exhibited 100% susceptibility to Linezolid and 90% susceptibility to Vancomycin.

**Conclusion:** Good infection control practices can help to control the spread of bacterial contamination among mechanically ventilated patients. Imipenem, Sulbactam/ Cefoperazone, Amikacin, Piperacillin/Tazobactam and Meropenem were found to be more effective in treating Gram negative organisms. On the other hand, Linezolid and Vancomycin exhibited good response against Gram positive organisms.

**Key Words:** Mechanical ventilation, Bacterial isolates, Antibacterial susceptibility profile. This study approved from the 'Institutional Review Board (IRB)' of The Children Hospital & ICH, Lahore.

## FREQUENCY OF ATRIAL SEPTAL DEFECTS ON ECHOCARDIOGRAPHY IN CHILDREN HOSPITAL AND INSTITUTE OF CHILD HEALTH LAHORE

Khalid A, Hyder SN.

**Background:** Patients with atrial septal defects ASD associated with a large left-to-right shunt and either symptoms or significant cardiomegaly require echocardiographic diagnosis for further treatment and surgical closer<sup>1</sup>. This study was conducted to evaluate the frequency of atrial septal defects on echocardiography in children at Children Hospital Lahore.

**Material & Methods:** This descriptive study was conducted at the Department of Cardiology in The Children's Hospital and the Institute of Child Health, Lahore, from July to October 2015. Three hundred and seventy patient coming to the cardiology department for echocardiography, from birth to 13 years were included in this study. After detailed history and physical examination, all these patients were subjected to 2-dimentional echocardiography in addition to routine laboratory investigations.

**Results:** Ostium secundum type atrail septal defects was found in 348 out of 370 patients (94.1%), patient with ostium primum was 15(4.1%) and with sinus venosus were 7(1.9%). Males were more (54.1%) as compare to female (46.8%).

**Conclusion:** Ostium secundum is more common among all atrial septal defect.

**Key Words:** Atrial septal defects, pulmonary stenosis, Congenital heart diseases

## BIPHASIC & TRIPHASIC COMPUTED TOMOGRAPHY (CT) SCAN IN FOCAL TUMORAL LIVER LESIONS

Waseem Zafar, Zain Zulfiqar, Najam Ud Din, Sohail Murad

**Objective:** To assess the diagnostic accuracy of biphasic & triphasic spiral CT in differentiating benign from malignant focal tumoral liver lesions in the patients of Gujranwala region.

**Methods:** The study was conducted in Department of Radiology of Medcare International Hospital and GINUM cancer hospital, Gujranwala from 11march 2015 to December 2015.

**Results:** Among 60 patients, 108 liver lesions (12 benign and 96 malignant) were detected with the help of different enhancement patterns. Out of these, 37(82.2%) patients had malignant while 8 (17.8%) had benign lesions. 96 (88.8%) of the total 60 cases had

malignant lesions while 12(11.1%) were diagnosed as benign lesions. Conclusion: Biphasic & Triphasic CT Scan is a good non-invasive tool in characterizing and differentiating benign from malignant liver lesions.

**Keywords:** Liver lesions, Biphasic, Triphasic-CT scan

## **THE FACTORS CAUSING LEFT ATRIAL CLOT FORMATION IN PATIENTS OF RHEUMATIC MITRAL STENOSIS**

**Ayesha Bajwa**

**Background:** Rheumatic mitral stenosis is still present in the developing world. Left atrial appendage clot is a common complication of mitral stenosis. The management differs significantly if there is presence of clot.

**Objective:** We assessed the factors responsible for left atrial appendage clot formation in patients with severe mitral stenosis through transesophageal echocardiography.

**Methods:** An observational study was conducted among 82 (73 females, mean age  $35.8 \pm 11.8$  years) patients with severe mitral stenosis who underwent transesophageal echocardiography before percutaneous transmitral commissurotomy. Patients were classified into two groups based on the presence or absence of left atrial thrombus. Group 1 consisted of 24 patients (women to men ratio 91:9) with left atrial thrombus, while group 2 consisted of 58 patients (women to men ratio 88:12) without left atrial thrombus. Transesophageal echocardiographic findings were reviewed in all patients.

**Results:** There was no significant difference between the two groups in terms of age, sex, systolic pulmonary artery pressure and mitral valve mean pressure gradient (MVMPG), there was significant difference regarding frequency of atrial fibrillation ( $P \leq 0.05$ ), left atrial size ( $P \leq 0.05$ ), mitral valve area and flow velocities ( $P \leq 0.05$ ) in group-1 patients. Similarly, atrial fibrillation was observed in 35(42.7%) patients out of which 20(83.3%) patients had thrombus in left atrial appendage.

**Conclusion:** The frequency of left atrial thrombus formation increased in patients with rheumatic mitral stenosis because of low left atrial appendage flow velocities, atrial fibrillation and smaller mitral valve area.

**Keywords:** Mitral stenosis, left atrial appendage, thrombus, echocardiography.

## **FREQUENCY OF DYSARTHRIA IN TYPES OF CEREBRAL PALSY**

Beenish Kanwal, Dr. Shazia Maqbool, Ms. Humera Idrees

**Objective:** The objective of this study is to see the frequency of dysarthria in types of cerebral palsy.

**Material and Methods:** The Study design was Cross- sectional study. The data was collected from the Department of Developmental Paediatrics, The Children's hospital and Institute of Child Health, Lahore from July 2013 to September 2013.

30 patients were analysed through questionnaire developed by the researcher, administered individually by speech and language pathologist skilled in assessing children with CP.

**Results:** From 30 patients, 20(66.7%) were in age group in 5-10 years and 10(33.3%) were in age group in of 10-15 years. Most of the patients were males 20(70%).

Out of 30 patients, the most common type of CP in which dysarthria is present is spastic quadriplegia CP 13(43.3%).

Spastic hemiplegia CP patients have dysarthria 7(23.3%) and the symptoms of dysarthria are present in 3 (10%) in athetoid CP. The intelligibility problems are 17(60.0%), articulation errors 18 (56.7%) and chewing & drooling problems (53.3%) are the most common features of dysarthria in these children.

**Conclusion:** The results of this study showed that maximum children of cerebral palsy are with dysarthria. The most common type of cerebral palsy in which dysarthria is present is spastic quadriplegia cerebral palsy. Most common symptoms of dysarthria are problems with intelligibility and articulation errors.

**Key Words:** Cerebral palsy:CP



## COMPARISON BETWEEN MANUAL & AUTOMATIC TECHNIQUES OF MEASURING %LVEF ON MUGA SCAN IN BREAST CANCER PATIENTS

Zunaira Rasheed, Dr. Muhammad Numair Younis, Miss Saba Aziz, Dr. Abubakar Shahid,

**Background:** Breast cancer is the most diagnosed malignancy among females globally. Chemotherapy is considered very effective in this disease. But its drugs have direct impact on myocardium. So the patient's cardiac function has to be assessed during chemotherapy. MUGA is gold standard for measuring %LVEF. There are two techniques of measuring LVEF on MUGA scan; computerized and manual. The purpose of this study was to compare both methods.

**Methods:** It was an observational study, conducted at INMOL. Study population included breast cancer patients undergoing chemotherapy, referred for MUGA scan in Nuclear Medicine department, INMOL. The data was collected using conservative technique through questionnaire. Sample size was 30. All the data was analyzed using SPSS version 20.

**Results:** In automatic method, computer system makes ROI on image in both phases; systole and diastole. And then software calculates %LVEF. In manual method, operator draws ROI for software %LVEF calculations. For the same data of a single patient, %LVEF is measured by both methods. Paired sample t-test was applied to compare %LVEF results of these two methods. Results showed p-value  $0.00 < 0.05$  which indicates that there is significant difference between automatic and manual measurements of MUGA scan.

**Conclusion:** Significant change was observed in the results by these two methods. Accurate data processing is very important in measuring of %LVEF on MUGA scan. Manual and automatic methods show considerable difference which may lead to change in chemotherapy dose and treatment plans. There is need to study data processing more precisely.

**Keywords:** MUGA scan, % LVEF, Manual technique, Automatic technique.

## DOPPLER ANALYSIS OF UMBILICAL ARTERY AND MIDDLE CEREBRAL ARTERY IN PATIENTS WITH OLIGOHYDRAMNIOS IN THIRD TRIMESTER OF PREGNANCY

Muhammad Sohaib Shahid

**Objective:** To analyse Doppler changes in umbilical and middle cerebral artery in patients with oligohydramnios in third trimester of pregnancy. **Material and Methods:** This was an analytical/comparative study. The duration of the study was from July 2015 to March 2016. 206 pregnant females in third trimester of pregnancy was observed in this study. Out of these, 43 were presented with oligohydramnios and remaining 163 were presented without oligohydramnios; from these 163 patients 43 patients were selected by randomization to compare the means of two equal groups. Whereas 20 patients with oligohydramnios in second trimester of pregnancy were also observed for comparison. Using color/pulsed Doppler waveforms of Umbilical artery and Middle cerebral artery was obtained and then RI, PI and S/D ratio was calculated from these waveforms. Amount of amniotic fluid was calculated by Amniotic Fluid Index (AFI). It was consider normal if AFI was greater than 5 and oligohydramnios if AFI was below 5. Data was collected in predesigned data collection sheets. It was then transferred to Excel and SPSS. Relevant tests was applied to calculate statistical significance.

**Results** In normal group, Doppler indices in umbilical artery RI  $0.50 \pm 0.12$ , PI  $0.82 \pm 0.36$ , SD ratio  $2.12 \pm 0.52$  and in Middle Cerebral artery RI  $0.79 \pm 0.15$ , PI  $1.90 \pm 0.72$ , SD ratio  $4.7 \pm 1.69$ . In oligohydramnios group Doppler indices in Umbilical artery RI  $0.59 \pm 0.28$ , PI  $1.31 \pm 1.86$ , SD ratio  $2.22 \pm 0.56$  and in Middle Cerebral artery RI  $0.74 \pm 0.14$ , PI  $1.69 \pm 0.71$ , SD ratio  $4.12 \pm 1.34$ . This sample does not cause us to reject null hypothesis. We found no statistically significant difference as means of umbilical artery and middle cerebral artery in both groups (Normal & Oligohydramnios) are same in third trimester of pregnancy. The P value of RI, PI and SD of umbilical artery in normal and oligohydramnios are  $0.06 > 0.05$ ,  $0.096 > 0.05$  and  $0.412 > 0.05$  respectively whereas RI, PI and SD in middle cerebral artery in normal and oligohydramnios are  $0.170 > 0.05$ ,  $0.196 > 0.05$  and  $0.072 > 0.05$  respectively. In patients with oligohydramnios in second trimester of pregnancy there was a significant change noted in RI and PI of umbilical artery whereas in middle cerebral artery there was significant change noted in Middle Cerebral artery PI. **Conclusions** Oligohydramnios with normal umbilical artery and middle cerebral artery Doppler indices in third trimester of pregnancy is not always associated with intrauterine growth restriction or adverse fetal outcomes. So avoiding intervention in pregnancies with oligohydramnios and normal Doppler velocimetry may decrease iatrogenic morbidity due to prematurity by as much as 26%. Whereas oligohydramnios in second trimester of pregnancy is significant and will result in abnormal Doppler indices.

## CURRENT INDICATION IN TRAUMA FOR CAUSE OF AMPUTATION

Amir Shahzad, Liaquat Ali Malik and Hamid Husain

**Objective:** In order to seek out the major cause among the cause of trauma of amputation. **Methodology:** This study was audit of data. The registered patient's record of 3268 patients was collected from the PIPOS (Pakistan Institute of Prosthetic and Orthotic Science) Rehabilitation Services Program (PRSP), Peshawar from the January 1st, 2010 to December 31st, 2012. There was inclusion of newly registered patient with the exclusion of old patient in the mentioned time period. The Data were analyzed using SPSS 17.0/MS Excel 2013 **Results:** The study was consisted of male and female ratio of 5.1 respectively and the mean age was 28.5 SD=5.0. The Data were to first analyze the common cause of amputation similarly 17.4% by Disease, 7.7 % by Congenital, and 75% by Trauma. The trauma was further assorted by nature: road Traffic accident 20%, bomb blast 37.2%, gunshot 22.6%, electric current 6.1%, shelling 2.7%, work related accident 2.6%, and mine accident 1.4%, diabetes trauma 2.8 %, burn 1.6% and others were 3%. **Conclusion:** The common cause of amputation was the trauma. In the trauma, the most frequent component was the Bomb blast and mentioned causes transform a person to an amputee of either lower or upper limb particularly the below knee amputee.

## SHORT TERM EFFECT OF BISPHOSPHONATES THERAPY ON BONE SCAN IN CANCER PATIENTS

Wasim Akram, Numair Younis, Hamid Nasir, Abu Bakar Shahid, Saba Aziz

**Background:** Aim of the study was to document the effect of bisphosphonates on bone uptake of radiopharmaceutical as seen on bone scan.

**Methods:** Data was collected from adult patients of both genders undergoing bone scan at Institute of Nuclear Medicine Department of INMOL Hospital, Lahore .Thirty patients were divided into two groups consisting of age and gender matched 15 patients each. Group A had no treatment with bisphosphonate therapy while Group B had treatment with bisphosphonate therapy.

**Results:** The mean age is 55.63 9.77 years. The mean age of the patients in Group A was (53.93 9.72) and Group B (57.33 9.85) .Male to female ratio in group A was 7(46%) and 8(54%) whereas for group B this ratio was 11(73%) and 4 (27%). The frequency of breast cancer was high in female as like prostate cancer in males. T statistics was applied on bone to background ratio of skull, pelvic bone and femur; the results showed that value were (1.64 1.37), (2.08 2.26) and (0.08 0.89) in group A while (3.55 1.93), (4.37 2.44) and (1.88 1.31) in group B. Comparison of mean and standard deviations of Post-BT with Pre-BT

groups was done calculating P values. The P value calculated two tail test was significant for all the three ratios.

**Conclusion:** Results of our study show that there is an effect of bisphosphonates on radiopharmaceutical uptake as seen on bone scans. The overall uptake tends to increase after bisphosphonates therapy.

**Keywords:** Bone Scan, Bisphosphonates, Radiopharmaceutical

## **FREQUENCY OF COMMUNICATION PROBLEMS IN CHILDREN WITH ASD**

Shaista Tariq, Prof. Dr. Shazia Maqbool, Ms. Arifa Hafeez

**Background:** Autism Spectrum disorder “ASD” is a term used to describe the individuals who demonstrate marked impairments or abnormal development in three areas of social interaction, communication (functional and or pragmatics), and range of activities and interests (i.e. restricted, repetitive, self destruction).

**Objective:** The objective of study is to find out the frequency of communication problems in children with ASD.

**Methods:** The study design was descriptive study. The data was collected from the Department of developmental Pediatrics, The Children’s hospital and the Institute of Child Health, Lahore from July 2013 to September 2013. 30 patients were analyzed through questionnaire developed by the researcher, administered individually by speech and language pathologist skilled in assessing children with ASD.

**Results:** From 30 patients, 17 (56.7%) were in the age group of 3-6 years and 13 (43.3%) were in the age group of 7-9 years. Most of the patients 23 (76.7%) were males. Out of 30 patients, 25 (83.3%) showed overreaction, 24 (80%) had unusual responses, 24 (80%) showed repetition in their speech while 21 (70%) avoided social situations. In the age group of 3-6 years, 13 (76.4%) showed unusual responses and 12 (70.5%) showed social avoidance. From the age group 7-9 years 11 (84.6%) showed unusual responses and 9 (69.2%) avoided social situations.

**Conclusion:** The results of this study showed that there is high frequency of communication and social problems of children with ASD. Difficulties are both verbal and non verbal, and communication deficits are more common in the age group of 3-6 years as compared to 7-9 years.

**Key-words:** Autism Spectrum Disorder, Communication problems.

## **SURVEY BASED ANALYSIS OF THE IMPORTANCE OF OCCUPATIONAL THERAPY IN ACUTE CARE ORTHOPEDIC CASES AT A TERTIARY CARE HOSPITAL**

Bakhtawar Saleem, Neelum Zehra

**Introduction:** Occupational therapy plays a pivotal role in the recovery and rehabilitation of patients with musculoskeletal injuries or conditions where proper movement has been affected. By working closely with the orthopedic surgeon to achieve treatment goals, the Occupational Therapist is responsible for providing ongoing rehabilitation and care of the patient. By assessing, planning, implementing and evaluating the management of the injury or condition the Occupational Therapist aims to improve the balance and function of the patients musculoskeletal system. The purpose of this study is to analyze the importance of Occupational Therapy self-care retraining through compensatory strategies and adaptive approach is beneficial for patients with various orthopedic surgeries within hospital.

**Method:** A self-designed 5 remarks questionnaire administered with 50 patients admitted in orthopedic ward. The questionnaire was administered after compensatory strategies guide to patients and home adaptations required by them post surgeries. The baseline frame of reference applied was Rehabilitative approach.

**Result:** Patients responded with total agree remarks 23 patients (0.46%) , agree remarks 18 patients (0.36%), whereas 8 patients remark neutral (0.16%) and 4 patients(0.08%) remarks disagree and satisfied with caretakers help.

**Conclusion:** The survey concluded that the occupational therapy self-care retraining through compensatory strategies and home adaptation guide convinced patients upon importance of occupational therapy for acute orthopedic cases at a tertiary care hospital.

**Keywords:** orthopedic cases, occupational therapy, tertiary hospital, acute, compensatory strategies.

## NEED OF OCCUPATIONAL THERAPY AS AN IMPERATIVE MULTIDISCIPLINARY TEAM MEMBER OF REHABILITATION PROCESS IN ACUTE CARE SETTING

Neelum Zehra Bukhari

**Introduction:** The acute care service is delivered in an environment where there are a range of challenges for occupational therapists particularly the dominance of the medical model. Its focus on curing illness does not sit easily with the professional focus of occupational therapy. A second issue arises from discharging patients following a very short hospital stay because it creates pressures for fast decision making. More recently, negative opinions of the acute care service from within the profession itself have provided further stimulus for occupational therapists to provide greater clarity of their role and to confidently rationalize their contribution to patient care. The purpose of this study is to prove the need of occupational therapy services as an important member of rehabilitation process in acute care setting.

**Method:** This study is based on trend analysis of feedback from patients admitted in five wards at Liaquat National Hospital, Karachi. The occupational therapy services were provided to address the physical and functional areas of Medicine, Neuro- Medicine, Gynecology, Neurosurgery, Orthopedic and Peds patients with care giver education and a safety discharge plan. This analysis was conducted from 5 months feedbacks of 600 patients, of which 200 from Neuro-medicine, 80 from Neurosurgery, 70 from Orthopedic, 100 from gynecology, 50 from Medicine and 100 from Peds ward.

**Findings:** out of 600 patients, 372 patient (0.62 %) strongly support the presence of occupational therapy service in acute setting, 186 patients (.31 %) agrees upon inclusion of this service in a rehabilitation package, 42 patients (.07 %) denies due to economical burden.

**Conclusion:** With global increase in disability, occupational therapy service provision in acute setting minimizes the burden of disability, enhance functional recovery, and home guide facilitates care givers. According to the findings this service should be a mandatory recommendation as part of rehabilitation team.

**Keyword:** multidisciplinary team, acute care, rehabilitation, occupational therapy

## **OCCUPATIONAL THERAPY PSYCHOSOCIAL APPROACH IMPROVES THE QUALITY OF LIFE OF ELDERLY PATIENTS IN TERTIARY CARE HOSPITAL**

Komal Khan, Bakhtawar Saleem, Neelum Zehra

**Introduction:** Recreation plays a key role in the well-being of older adults and in enhancing their quality of life. Recreational therapy or Therapeutic Recreation (TR) is a treatment service designed to restore, remediate and rehabilitate a person's level of functioning and independence in life activities, to promote health and wellness as well as reduce or eliminate the activity limitations and restrictions to participation in life situations caused by an illness or disabling condition. The purpose of this study is to promote psychosocial functioning in elderly patients using therapeutic recreational group therapy as an intervention.

**Method:** This experimental study comprised of 6 groups each contains 4 participants. All participants were male, mean age group 60-74 years. The session was conducted in male bay of Medicine ward at Liaquat National Hospital. The duration of this recreational activity was 1 hour/ 6 days a week for 1 month. Each group get 3 sessions of recreational activity.

Main Outcome Measures: Model of Human Occupation.

**Result:** Group therapy practice for 1hour session 6 days a week exhibit controlled behavioral symptoms, improved functional skills and motivation in daily life of elderly patients in tertiary care hospital. Therapeutic recreation proved to be effective in elderly population.

**Conclusion:** The study concluded that the occupational therapy recreational intervention recommended for the admitted elderly patients in the hospital setup.

**Keywords:** recreational therapy, group, therapeutic recreation, medicine.

## TO EVALUATE THE EFFICACY OF ACUTE STROKE REHAB MODEL IN THE DISCHARGE PATIENTS AT THE FOLLOW UP VISIT

Maria Gul, Occupational Therapist

**Introduction:** Occupational therapy is effective in acute stroke rehab model. Primary functional independency evaluation is required for the intervention plan. Following rehabilitation and evaluate independency level at the time of discharge. Intracerebral Hemorrhage and cerebral infarction decreased function in basic daily self-care activities.

**Purpose:** To assess the efficacy of acute stroke rehab model after discharge in occupational therapy unit to improve functionality in ADLs.

**Design:** Randomized experimental study, Patients underwent occupational therapy were measured early in stroke with Functional Independency Measure (FIM) has been followed up after 24 weeks to re-assessed their functionality in Basic Self-care activities of daily living.

**Setting:** Neurology department, Liaquat National Hospital, Karachi

**Participants:** A total of 60 cases met the inclusion criteria (30 men, 30 women; 35 with Intracerebral hemorrhage, 25 with cerebral infarction).

Main Outcome Measure: level of functionality was measured using Functional independency Measure(FIM) instrument recorded initially at admission, at time of discharge and the follow up visits.Recovery was quantified by the change in FIM total score (FIM total score). Outcome measures were total Follow Up FIM total score (FIM total score).Univariate analysis was performed.

**Result:** Patients was initially assessed through Functional independency Measure (FIM) for basic eight components of self-care i.e., feeding, grooming, dressing upper and lower body, toileting, bathing, bladder and bowel management. Further evaluation of acute stroke rehab model at the time of discharge recorded the FIM at modified independence score, whereas FIM re-evaluated 24 weeks of follow up services at Occupational Therapy unit. Initial Functional independency of 35 patients was 14.28% independent, 15 patients was 42.8% independent, and 10 patients was 57.2% independent on admission. At discharge 10 patients were 24%independent, 15 patients were 42.8% independent, 25 patients were 50% independent, 10 patients were 65% independent. After 24 weeks of follow up, 10 patients were 65% independent, 35 patients were 75% independent and 15 patients were 85% independent in all eight components Self-care basic activities.

**Conclusion:** Acute Stroke Rehab Model showed 85% independency in Functional independency measure in patients at the follow up visit.

**Keywords:** Occupational Therapy, independency, stroke, intra cranial hemorrhage, cerebral infarct.



## COMBINED ROLE OF MAMMOGRAPHY AND ULTRASONOGRAPHY IN THE DETECTION OF BREAST LUMP

Shakeela Rasheed, Abid Ali Qureshi, Saba Aziz.

**Background:** Purpose of this study is to find out the combined role of mammography and ultrasonography in the detection of breast lump.

**Methods:** It was a time based study of three months. Total 127 symptomatic patients with age range 25yrs to 80yrs were referred for mammography and ultrasonography as well. Imaging was performed at GE medical System mammography machine and Nemio, 20 Toshiba ultrasound machine. Data was analyzed using SPSS Version 20.0.

**Results:** Out of 127 patients 78% presented with pain, 63% with palpable mass, 47% with tenderness and 30% were with positive family history. On mammogram 78.7% were having normal density whereas increased density was noted in 21.3% cases. Individual %age mass detected on USG and mammography were 55.1% & 8.7% respectively, on combining 7.1% were further detected. On the basis of BI-RADS Classification 16% to 14% patients were categorized as CAT 4 & 5. Sensitivity and specificity of USG for mass detection, calcification and Lymphadenopathy was 0.81, 0.5, 0.71, 0.47, 0.84, and 0.80 respectively.

**Conclusion:** Results of our study shows that Combining of ultrasonography with mammography can reduce the %age of undiagnosed cases.

**Key words:** Breast Mass, Ultrasonography, Mammography, Sensitivity, Specificity, BI-RADS.

## FREQUENCY OF LEFT VENTRICLE DIASTOLIC DYSFUNCTION IN ASYMPTOMATIC TYPE-II DIABETIC PATIENTS

Maham Nasir , Dr. Syed Najam Hyder

**Background:** To find the frequency of left ventricle diastolic dysfunction in diabetic patients on Doppler echocardiography by measuring their early to late diastolic mitral inflow velocity (E/A ratio) and deceleration time (DT) on Pulse Wave (PW) Doppler and E' velocity on tissue volume imaging (TVI).

**Material and methods:** A sample of 97 asymptomatic patients, male and female, was taken from Department of cardiology in Punjab Institute of Cardiology and Gulab Devi Hospital, Lahore from August 2015 to October 2015 to collect data through Performa.

**Results:** Out of 97 patients, 54 (55.7%) patients presented with Grade I diastolic dysfunction, 6 (6.2%) patients presented with Grade II diastolic dysfunction and 11 (11.3%) patients presented with Grade III diastolic dysfunction. Patients with Grade I diastolic dysfunction had mean E/A ratio of 0.81, DT 209.4 ms and E' velocity 5.74 m/s. Patients with Grade II diastolic dysfunction had mean E/A ratio of 1.08, DT 128.8 ms and E' velocity 4.9 m/s. Patients with Grade III diastolic dysfunction had mean E/A ratio of 1.54, DT 155 ms and E' velocity 4.9 m/s. Diastolic dysfunction was more prevalent in patients with diabetes duration of less than 10 years (p-value 0.004).

**Conclusion:** It is concluded that Diastolic dysfunction is significantly associated with diabetes mellitus. Doppler Echocardiography being non-invasive valuable tool in diagnosing diastolic dysfunction must be done routinely for every diabetic patient to assess the cardiac function on six monthly bases along with other parameters for control of diabetes.

**Key words:** Left Ventricular Diastolic Dysfunction, Diabetes Mellitus, Deceleration Time, Pulse Wave Doppler, Tissue Volume Imaging.

## URINARY EXCRETION AND RENAL CLEARANCE OF METFORMIN AFTER ITS ORAL ADMINISTRATION IN MALE DIABETIC PATIENTS

Madiha Mumtaz

**Objective:** To examine urinary excretion and renal clearance of male diabetic patients after oral administration of 500 mg tablet of Metformin by using HPLC. For studying the pharmacokinetics of this drug plasma monitoring is important to determine diabetic patient adherence with recommended therapy.

**Background:** Metformin is an anti-diabetic agent which is used in the treatment of non-insulin-dependent diabetes mellitus (NIDDM) type 2, sold in the name of Glucophage. It is a derivative of guanidine, normally given to obese people and those having normal kidney function.

**Methods:** The study was done on male diabetic patients of elderly age. Blood glucose was checked before and 1 and 3 hours after drug administration by glucose oxidase method. Metformin was administered with the dosage amount of 500mg/patient. The urine samples were taken after the administration of drug, at the intervals of 2, 4, 6, 12 and 24 hours. Creatinine analysis was also done by kit method. The concentration of Metformin was determined by HPLC using isocratic mobile phase. The influence of pH and diuresis on renal clearance and % dose excreted is calculated by regression analysis.

**Results:** In this study the average values of diuresis in human male patients was  $0.0255 \pm 0.00253$  and it varied from 0.0012 to 0.0729 mL/min/kg. The pH of urine sample varied from 5 to 6 and the mean  $\pm$ SEM value was  $5.78 \pm 0.0651$ . Creatinine concentration in plasma varied from 0.6 to 1.9  $\mu\text{g/mL}$  and its mean  $\pm$ SEM value is  $1.2 \pm 0.0625$   $\mu\text{g/mL}$ . The mean  $\pm$ SEM value of urine concentration of creatinine was  $20.5 \pm 2.14$   $\mu\text{g/mL}$ , while it varied from 10.8 to 33.7  $\mu\text{g/mL}$ . Mean  $\pm$ SEM value for renal clearance of creatinine was  $0.454 \pm 0.0706$  mL/min/kg. While it varied from 0.030 to 1.348 mL/min/kg. The mean  $\pm$ SEM value of plasma concentration of metformin was  $28.8 \pm 1.78$   $\mu\text{g/mL}$  while it varied from 4.1 to 55.2  $\mu\text{g/mL}$ . Metformin concentration in urine varied from 12.7 to 122.4 while its mean  $\pm$ SEM value was  $50.5 \pm 7.009$   $\mu\text{g/mL}$ . The mean  $\pm$ SEM value of renal clearance of metformin calculated was  $0.0585 \pm 0.0127$  mL/min/kg and it ranged from 0.0062 to 0.1001 mL/min/kg body wt. The clearance ratio between endogenous creatinine and metformin varied from 0.0148 to 0.9220.

**Conclusion:** Metformin disposition is unaffected by the presence of diabetes and only slightly affected by use of different oral formulation. It has an absolute oral bioavailability of 40% to 60%, and gastrointestinal absorption was completed within 6 hour of ingestion. It was rapidly distributed following absorption and no metabolites or conjugates of metformin were identified.

**Key words:** Non-insulin-dependent diabetes mellitus (NIDDM), High Pressure Liquid Chromatography (HPLC), Metformin (Met).

## **EFFECTIVENESS OF PHYSIOTHERAPY ON QUALITY OF LIFE AFTER BREAST CANCER SURGERY. A QUASI EXPERIMENTAL STUDY**

Farah Zahid, Sarah Ehsan, Marium Shabbir, Bilal Omer, Umair Ahmad

**Background:** The practice of mastectomy for treatment and prophylaxis of breast cancer has greater than before over the preceding years. The post mastectomy problems including the involved upper extremity have intense effects on the quality of life of these patients.

**Methods:** This quasi-experimental study was accompanied at Chemotherapy department and Radiotherapy department of Inmol Hospital, Lahore. 60 post mastectomy females between the ages of 35 to 65 years were selected through purposive sampling. A directed exercise proposal was given to each patient with complete graphics, sessions and frequencies of all exercises. Data was collected using SF-36 health survey at the beginning and on a 12 weeks' interval. Wilcoxon signed rank test was used to calculate the pre-test and post-test differences in mean scores. P value of 0.05 was taken as significant. Results: The Wilcoxon signed rank test showed that the difference between pre and post-treatment Physical component summary and mental component summary were significant ( $p < 0.05$ ).

**Conclusion:** A physiotherapy program was helpful in improving quality of life in post mastectomy breast cancer patients.

**Key words:** Breast Neoplasms, exercise therapy, health surveys, mastectomy, quality of life.

## ASSESSMENT OF OXIDATIVE STRESS IN NORMAL INDIVIDUALS AND DIABETIC PATIENTS WITH ISCHEMIC HEART DISEASE

Madhia Mumtaz

**Objective:** To study the levels of oxidative stress in patients suffering from diabetes mellitus with complication of Ischemic Heart Disease and to compare them with controls. **Background:** Diabetes is one of the most widely spread syndrome in the world. Oxidative stress is a major underlying pathophysiology of diabetes. Oxidative stress occurs due to imbalance between reactive oxygen and nitrogen species, and antioxidants status. Increase in reactive species causes damage to lipoproteins, lipids, DNA and proteins which causes oxidative stress-mediated cellular injury.

**Methods:** The blood samples of diabetic patients with ischemic heart disease and of normal individuals were collected. Physiological parameters and Blood glucose, HbA1c were determined. Markers of oxidative stress i.e. total oxidant status, total antioxidant status; malondialdehyde and Vitamin C were analyzed spectrophotometrically. Vitamin E was analyzed by using HPLC.

**Results:** Age showed non-significant results having  $P=0.1525$ NS in diabetics with Ischemic heart disease and normal individuals. Body Mass Index, systolic and diastolic BP showed significant result having  $P=0.0002$ ,  $P=0.0000$  and  $P=0.0000$  respectively. Glucose profile including Fasting Blood Sugar level, Random Blood Sugar level and HbA1c showed increased values in DM-IHD patients comparative to controls and showed highly significant result with  $P<0.01$ . Total oxidant status showed a highly significant increase in values ( $P=0.0000$ ) and total antioxidant status showed a highly significant decrease ( $P=0.0005$ ). MDA showed a highly significant increase ( $P=0.0000$ ) and Vitamin C also showed a highly significant increase ( $P=0.0001$ ). Vitamin E showed a non significant and slightly decrease in values of DM-IHD patients ( $P=0.4601$ ) comparative to the normal individuals.

**Conclusion:** Increase total oxidant status, Malondialdehyde and vitamin C and decrease total antioxidant status and Vitamin E levels concluded that oxidative stress was higher in diabetic patients with complications of Ischemic Heart Disease comparative to normal individuals. Data suggested that increasing levels of peroxidation resulted in a relative deficiency of antioxidant factors. Amount of vitamin C may increase in defense of increased oxidant status, its higher concentration may lower oxidative stress but does not improve endothelial dysfunction or insulin resistance.

**Key words:** Total Oxidant Status (TOS), Total Antioxidant Status (TAS), Diabetes mellitus-Ischemic Heart Disease (DM-IHD), Non significant (NS).

## RELATIONSHIP BETWEEN LEFT VENTRICULAR EJECTION FRACTION & PERFUSION DEFECT BY GATED SPECT MYOCARDIAL PERFUSION SCAN OF CORONARY ARTERY DISEASED PATIENTS.

Nauman Tayyab, Numair Younis, Abu Bakar Shahid, Hamid Naseer, Ahmad Qureshi, Syed Waqar Haider, Saba Aziz

**Background:** Aim of the study was to find the relationship b/w left ventricular ejection fraction (LVEF) and perfusion defect (PD) by Gated SPECT Myocardial perfusion scan (MPS) in CAD patients.

**Methods:** 35 consecutive patients were referred to the INMOL hospital underwent gated SPECT-MPS b/w September to November 2011. The PD seen on MPS was categories as small, medium, large & LVEF is also categories as normal, mild, moderate & severely reduced. Out of 35, the 21 patients underwent combined stress, 4 were performed Bruce protocol, and 10 were of viability scan. The rest protocol was same in all patients.

**Results:** The correlation between the Stress PD and the Gated LVEF was  $P = 0.004$ ,  $r = -63.8$  which was significant. The correlation between the stress PD with Rest Gated LVEF & Rest PD with Rest Gated LVEF were ( $P = 0.703$ ,  $r = -21.5\%$ ), ( $P = 0.823$ ,  $r = -33.8\%$ ) respectively which were not significant.

**Conclusions:** There was inverse linear correlation between Stress PD and Stress Gated LVEF in MPS suggesting that the more intense and severe is the PD the worsen reduce is LVEF.

**Key words:** Left ventricular ejection fraction (LVEF), perfusion defect (PD), Myocardial perfusion Scan (MPS).

## KNOWLEDGE & PREVENTIVE PRACTICES RELATED TO BREAST CANCER AMONG NURSES OF LAHORE.

Robina Kausar, Hajira Sarwer, Kausar Perveen

**Background:** Breast cancer is a malignant pathology which is more prevalent among females. The number of reported cases of breast carcinoma is higher in regions of Asia-Pacific and Africa as compared to the regions of Western Hemisphere (North America and Europe) (Ahmad et al., 2006). The rate of occurrence of breast cancer is rising consistently in the Asian and African regions (Lemlem et al., 2013). Similarly, prevalence of breast cancer is at rise in Pakistan as 83,000 cases are reported and around 40,000 women are dying of it every year (Mansur, 2015).

**Objective:** To assess the knowledge and preventive practice of breast cancer among nurses.

**Methods:** A cross sectional study was carried out at different public hospitals from March 2016 to May 2016. A total of 300 nurses were requested to fill a questionnaire designed to assess the knowledge and preventive practices of the breast cancer.

**Results:** The results reveal that 37.7 % (n=113) of female nurses were agreed and 28% (n=84) nurses were strongly agreed that breast cancer is a curable disease. Most of the participants do not have the good knowledge about the breast cancer, 25 % (n=75) of nurses were unsure that a lump breast is a sign of carcinoma of breast or not, 10 % (n= 30) of nurses were strongly agreed and 26.7% (n= 80) were agreed. Related to the preventive practices, 37.7 % (n=112) of the participants were agreed, 9 % (n=27) of the nurses were strongly agreed while 35 % (105) were not sure to perform self-breast examination every month. 31.7 % (n=95) of the nurses were unsure of the information whether self-breast examination is helpful in breast cancer prevention. Further, 12.7 % (n=38) disagreed, 4.7 % (n= 12) strongly disagreed, 44% (n= 132) of the nurses were agreed to the practice and 7.3 % were strongly agreed.

**Conclusions:** The result of this study shows that there is lack of knowledge related to breast cancer among nurses of the public hospital, Lahore. Moreover, nurses are fairly not aware of preventive practice of self-breast examination and performance.

**Key words:** Knowledge, practice, breast cancer, nurses.

## UMBILICAL ARTERY DOPPLER WAVEFORM INDICES IN 3RD TRIMESTER OF PREGNANCY

Muhammad Sohaib Shahid, Zareen, Fatima, Sajid Shaheen Malik, Maryam Shahzad, Ambreen Tarar

**Background:** Doppler has revolutionized the field of obstetrics since its introduction in 1950's. It provides useful information in second half of pregnancy and can be used as screening tool in high risk pregnancies. Objective of the study was "To evaluate umbilical artery Doppler indices (S/D ratio and PI) in normal fetus in third trimester of pregnancy". Methods: A total of 100 normal singleton pregnant women were recruited in this study from the Radiology department FMH from 3 September, 2012 to 30 November, 2012. Their gestational ages were from 37 to 40 weeks. Pregnancies with fetal anomalies and abnormal fetal growth were excluded. GE 730 pro v Doppler Ultrasound was used to measure Doppler indices.

**Results:** The total of 100 Doppler indices measurements was performed. The values of S/D ratio were less than 3 and the values of PI were less than 1 from 37 to 40 weeks of gestation.

**Conclusion:** The determined Doppler indices in this study support previous studies data. This normative data could be served as a basis for the evaluation of the Umbilical artery circulation in our population.

**Keywords:** Doppler indices (S/D ratio, PI), Umbilical artery.



## EFFECTIVENESS OF MCKENZIE EXERCISES ON LOW BACK PAIN IN FEMALES

Sahar Aslam

**Background:** Low back pain is a common health as well as socioeconomic problem. Incidence of LBP has increased over last two decades in all populations. This has led to increased level of disability. The prevalence of LBP is more in females than in males. A variety of Physical therapy protocols for low back pain are practiced but the effectiveness of McKenzie exercises on women experiencing low back pain is not established in developing countries like Pakistan.

**Objectives:** The objective of this study was to find out the effectiveness of McKenzie exercises on low back pain in females in Pakistan.

**Methodology:** This quasi experimental study was conducted at Physiotherapy department of Jinnah Hospital Lahore. 48 female patients diagnosed with low back pain aged between 25 to 40 years were taken. Informed consent was taken and then demographic information was obtained. Patients were divided into two study groups. Group A was treated with McKenzie exercises and group B was not treated with McKenzie exercises. The baseline treatment for both the cases was heat therapy using hot pack. Patients were assessed through "Numeric Pain Rating Scale" and "Patient Specific Functional Scale" at the initial assessment and after a week of treatment.

**Results:** Difference in the means of baseline and after treatment pain score of McKenzie and non McKenzie groups was 0.042 which was not statistically significant ( $P\text{-value}=0.915$ ). Activity score on PSFS was improved in both McKenzie and non McKenzie groups. But the difference in the means of activity score of two groups was not statistically significant at 5% level of significance. ( $P\text{-value}=0.162$ ).

**Conclusion:** McKenzie exercise for the treatment of low back pain in females does not make any appreciable improvement in symptoms like severity of pain when compared with heat therapy alone. McKenzie exercises improve the level of functional activities but it is not statistically significant.

**Keywords:** Low back pain, McKenzie exercises, Numeric Pain Rating Scale, Patient Specific Functional Scale.

## THE IMPACT OF EXTRINSIC MOTIVATION ON NURSE'S JOB SATISFACTION: A CASE OF SERVICES HOSPITAL, LAHORE, PAKISTAN

Iram Majeed, Kousar Perveen, Muhammad Afzal

**Background:** Job satisfaction enables the organization with greater productivity. Satisfied employees at the workplace efficiently fulfill the ever-changing demand of the health care sector. Studies show that job satisfaction can be achieved through motivation (Singh, 2012). In highly demanding health care setting motivation plays a key role to keep the employee satisfied. Extrinsic motivation in the form of rewards, work environment and promotion ensures the employee's satisfaction (Jasiwal et al, 2015). Further, job satisfaction is influenced by the environment at workplace (Kreitner et al 2002). Thus, it was the need of time that the issues of health care sector employees must be considered. Therefore, main objective of the study was to investigate the impact of extrinsic motivation like rewards, work environment and promotion on nurse's job satisfaction in services hospital Lahore.

**Method:** The current study is of the descriptive cross sectional study design and the data was collected through self-administered questionnaire from staff nurses of Services hospital Lahore, Pakistan. The sample size of the current study was 200 staff nurses which were selected through simple random sampling technique. Correlation and regression was also applied for the data analysis.

**Results:** The results of the current study showed a significant positive relationship among rewards, work environment, promotion and nurse's job satisfaction. In addition, rewards and work environment has more significant and positive relationship with nurses' job satisfaction.

**Conclusion:** The current study concludes that extrinsic motivational factors increase the job satisfaction of the nurses of health care sector. However, the current study provides the insights to the policy makers of the health care sector regarding key factors for nurse's job satisfaction. Likewise, the study results will lead the health care sector to achieve the strategic objectives.

**Key word:** Job satisfaction, Extrinsic Motivation, Work Environment, Promotion etc.

## ULTRASONOGRAPHIC FINDINGS IN THE PATIENTS OF ACUTE HEPATITIS

Rabia Shahid, Abid Ali Qureshi, Saba Aziz

**Objective:** The objective of this study is to determine the ultrasonographic findings in the patients of acute hepatitis at The Children Hospital and The Institute of Child Health, Lahore .

**Materials and methods:** Total patients was 200, those who undergone abdominal ultrasounds were selected.

**Results:** Out of 200 patients hepatomegaly was present in 191 (95%) patients, altered hepatic peranchymal texture in 180 (90%) patients and stary sky appearance was seen in 35 (17.5%) patients. Gall bladder wall thickness was present in 185(92.5%) patients. Gall bladder sludge was seen in 24(12%) patients,pericholecysticoedema was present in 40 (20%) patients and ascites in 62(31%) patients.

**Conclusion:** It is concluded from the present study that out of 200 patients maximum patient's ultrasound showed hepatomegaly with altered hepatic peranchymal texture as well as gall bladder wall thickness. These were common findings in acute hepatitis. Gall bladder sludge, pericholecystic edema and ascites was not commonly seen.

**Key-words:** Ultrasound, Acute hepatitis.

## EVALUATE THE FREQUENCY OF NORMALITY AND ABNORMALITY IN PEDIATRIC AND ADULT PATIENTS PRESENTATING WITH SEIZURES ON MRI

Asma Nisar, Saira Bilal, Saba Aziz

**Material and Methods:** This cross sectional study was conducted at Radiology Department of General Hospital Lahore. A total 50 patients with seizures were evaluated on MRI between 9months-63 years. A Proforma was used for each patient, which was filled out based on demographic history, clinical presentations and MRI findings. All the collected data was entered to SPSS (statistical package for social sciences) for analysis.

**Results:** Out of 50 patients, 22(44%) patients presented showed normal MRI and 28(56%) showed abnormalities on MRI. Among them, tumor and SOL was present in 12% patients including cortical tumor 2%, haemangioblastoma 2%, and lipoma of corpus callosum 2%, meningioma 2%, mitotic lesion 2% and space occupying lesion 2%. Infectious and inflammatory diseases were present in 14% patients including encephalitis and encephalopathy 4%, cerebellar abscess 2%, REITER's disease 2%, tuberculoma 4%, and mucus retention cyst 2%. Genetic and congenital abnormalities were present in 8% patients including adrenoleucodystrophy 2%, tuberous sclerosis 2%, and cerebral hypoplasia 2% and sub ependymal grey matter heterotopias 2%. Vascular diseases were present in 18% patients including acute and chronic ischemia 2%, infarct and encephalomalacia 14% and multiple cerebral infarcts with basal ganglia sub-acute hematoma 2%. Traumatic brain injuries were present in 4% patients including fracture with aerocele and subdural collection 2% and post traumatic contusion with cerebellar atrophy 2%.

**Conclusion:** The results of this study showed that the highest frequency of disease in adults is encephalomalacia, infectious diseases like encephalitis and tuberculoma and in pediatrics is adrenoleucodystrophy, tuberous sclerosis, cerebral hypoplasia and grey matter heterotopias.

## ANALYSIS OF ETHNOPHARMACOLOGICALLY REPORTED PLANTS FROM FAISALABAD FOR ANTICANCER AND ANTIOXIDANT POTENTIAL

Faiza Nazir

**Background:** Cancer has been a major disease responsible for human deaths during last decades. Many different drugs have been utilized to control it but they have a number of side effects. This invokes the need for development of newer and safer drugs. Chemotherapy may be responsible for various side effects. In order to reduce these effects, efforts through natural therapies are in progress. It has long been discovered that the higher plants are good source for the discovery of novel anticancer drugs. The major objective of this study was the evaluation of anticarcinogenic effects of plant extracts by potato disc assay and characterization and quantification of anticancer compounds in plants extracts using different techniques.

**Material:** The whole plants of *Tribulus terrestris*, *Carthamus oxycantha* and *Calotropis procera* were collected from Tibbi, a village of Khurianwala, Faisalabad Pakistan. The methanolic, ethanolic and aqueous extracts of these plants were prepared and investigated for their total flavonoids, total phenolic contents, antioxidant activity and anticancer potential by potato disc assay. The methanolic, ethanolic and aqueous plant extracts of *Tribulus terrestris*, *Carthamus oxycantha* and *Calotropis procera* were prepared by stirring and boiling techniques. The extracts were obtained by evaporating solvents under reduced pressure. The total phenolic contents (TPC) were determined using Folin-Ciocalteu reagents with analytical grade gallic acid as the standard. 1 mL of extract or standard solution of different concentrations were added to deionized water (10 mL) and Folin-Ciocalteu phenol reagents (1.0 mL). After 5 minutes, 20% sodium carbonate (2.0 mL) was added to the mixture and the absorbance was measured at 750 nm using a spectrophotometer. TPC were calculated using gallic acid calibration curve. The results were expressed as gallic acid equivalents (GAE) g/g of dry plant matter (Ghasemzadeh et al., 2010). The R<sup>2</sup> found for standard was R<sup>2</sup> = 0.9945. The total flavonoids present in plant samples were expressed as quercetin equivalent. Quercetin was used to make the calibration curve with standard solutions of various dilutions in distilled water. The standard solutions (0.5 mL) or extract solutions (0.5 mL of 1 mg/mL) were mixed with 1.5 mL 95% ethanol (V/V), 0.1 mL 10% aluminum chloride (m/V), 0.1 mL of 1 mol L<sup>-1</sup> potassium acetate and 2.8 mL water. The volume of 10% (m/V) aluminum chloride was substituted by the same volume of distilled water in blank. After incubation at room temperature for 30 minutes, the absorbance of the reaction mixture was measured at 415 nm. The coefficient of determination was R<sup>2</sup> = 0.9916. To determine the antioxidant activity by DPPH radical scavenging activity, aliquot (50 µL) of the plant extracts (1 mg/mL) was taken along with 2 mL of 6×10<sup>-5</sup> M methanolic solution of DPPH radical was added. Absorbance measurements commenced immediately 517 nm. The absorbance of the DPPH radical without antioxidant, i.e. the control was also

measured. All determinations were performed in triplicate. The percentage inhibition of the DPPH radical by the samples was calculated according to the formula.

$$\% \text{ inhibition} = [(AC - AS) / AC] \times 100$$

where AC is the absorbance of the control and AS is the absorbance of the plant extract sample.

The potatoes were sterilized by using sodium hypochlorite 0.1%. Cylinders were made from these potatoes by using sterile cork borer (10mm). Cylinders were cut aseptically to make discs of 0.5cm thickness. Five different concentrations of plant extracts were prepared in their respective solvents as 1µg/mL, 10 µg/mL, 100 µg/mL, 1000 µg/mL, 10,000 µg/mL. Each of these (0.5mL) solutions was then mixed with 1.5mL autoclaved distilled water and 2 mL of 48hrs old bacterial culture. 15% agar was also prepared. For positive control vincristine sulphate was used instead of plant extract solution and for negative control solution of only bacterium and water was used. Each experiment was done in triplicate and placed in incubator at 28°C for 21 days. After the completion of 21 days, the potato discs were stained with lugol's iodine and tumors were counted under stereo microscope. The area where no tumors were not formed became brown or blue, since starch of potatoes had absorbed the dye while the areas of disc possessing tumors could not be stained and thus appeared creamy white.

Following formula was used to calculate percent inhibition against tumor induction:

$$\text{Percent inhibition} = \frac{100 - \text{Number of tumors in samples}}{\text{Number of tumors in control}} \times 100$$

HPLC was performed by hydrolysis of the test samples (50 mg) of each plant extract dissolved in 24 mL methanol and was homogenized. 16mL distilled water was added followed by 10 mL of 6 M HCl. The mixture was then thermostated for 2 h at 95°C. The final solution was filtered using a 0.45 µm nylon membrane filter prior to high performance liquid chromatography (HPLC) analysis.

The separation of plant samples on gradient HPLC was performed using shim-pack CLC-ODS(C18), 25cm × 4.6mm, 5 µm column. The chromatographic separation was carried out using as mobile phase gradient : A (H<sub>2</sub>O : Acetic acid -94:6, pH = 2.27), B (Acetonitrile 100%) 0-15min = 15% B, 15-30 min = 45% B, 30-45min = 100% B with 1mL/ min flow rate using UV- visible detector at 280nm wavelength at room temperature. The identification of each compound was established by comparing the retention time and UV-Vis spectra of the peaks with those previously obtained by the injection of standards. The quantification was performed by external calibration with standards.

**Results:** When comparing the total phenolic contents of different extracts of *Tribulus terrestris*, *Carthamus oxycantha* and *Calotropis procera*, it was found that maximum phenolics were found in methanolic extract of *Carthamus oxycantha* (7.611mgGAE/g).

While aqueous extract of *Calotropis procera* contained 5.95 mg GAE/g and that in methanolic extract of *Tribulus terrestris* were 5.72 mg GAE/g had shown maximum phenolic contents. The total flavonoids found in various extract were as *Tribulus terrestris* (methanolic extract) 98.94, (ethanolic extract) 150.27, (aqueous extract) 68.11, *Carthamus oxycantha* (methanolic extract) 92.05, (ethanolic extract) 272.33 (aqueous extract) 77.83, *Calotropis procera* (methanolic extract) 36.55, (ethanolic extract) 245.77 (aqueous extract) 74.16.

The antioxidant activity (percent inhibition) measured by DPPH assay was found as *Tribulus terrestris* (methanolic extract) 30.69 (ethanolic extract) 34.67, (aqueous extract) 32.63, *Carthamus oxycantha* (methanolic extract) 23, (ethanolic extract) 15.86 (aqueous extract) 14.53, *Calotropis procera* (methanolic extract) 4.87, (ethanolic extract) 6.87, (aqueous extract) 14.73.

The anti tumor potential of methanolic extracts of selected medicinal plants presented as % inhibition with respect to various concentrations ( $\mu\text{g/mL}$ ) of plant extract was found as *Tribulus terrestris* 0 (-6.25%), 1 (6.24%), 10 (37.49%), 100 (31.24%), 1000 (-68.76%), 10000 (12.49%), *Carthamus oxycantha* 0 (-0.004%), 1 (63.99%), 10 (43.68%), 100 (40.91%), 1000 (43.91%), 10000 (29.76%), *Calotropis procera* 0 (-0.05%), 1 (57.87%), 10 (68.405), 100 (73.67%), 1000 (63.13%), 10000 (57.87%). The antitumor activity of various plant extract at different concentrations 0, 1, 10, 100, 1000, 10000 ( $\mu\text{g/mL}$ ) of ethanolic extract of *Tribulus terrestris* were found as -0.0021, 43.47, 52.17, 32.60, 28.25, 78.26 respectively. *Carthamus oxycantha* -0.005, 15.78, 52.62, 65.78, 73.68, 73.68. *Calotropis procera* -0.01, 62.85, 64.28, 67.13, 77.13, 82.85 respectively. For aqueous extract the antitumor activity (%) of *Tribulus terrestris* 30.3, 45.45, 51.51, 60.60, 63.63, *Carthamus oxycantha* -0.003, -3.22, -3.22, -6.45, -3.22, 9.67, *Calotropis procera* -0.062, 6.19, 34.33, 49.96, 71.85, 84.36 at concentrations ( $\mu\text{g/mL}$ ) 0, 1, 10, 100, 1000, 10000 respectively.

**Conclusions:** The anticancer potential (78.26%) of ethanol extract was found maximum. It had shown maximum flavonoids and antioxidant activity. Methanolic and ethanolic extracts had better antioxidant activity as compare to aqueous extract of *Carthamus oxycantha*. Its aqueous extract was found inactive against tumors. It was found from potato disc assay, spectrophotometric analysis and HPLC study of methanol, ethanol and aqueous extracts of *Calotropis procera* that aqueous extract was showing maximum anticancer potential at maximum concentration because of its phenolic contents and thus antioxidant activity.

**Keywords:** Potato disc assay, medicinal plants, antioxidant activity, flavonoids, phenolics, anticancer potential

## FREQUENCY OF CAUSES OF PRIMARY POSTPARTUM HEAMORRHAGE

Arfa Aamir

**Background:** Postpartum hemorrhage (PPH) remains a major cause of widespread maternal morbidity and mortality. It is not only a life threatening situation but also an obstetrician's nightmare. All women who carry a pregnancy beyond 20 weeks gestation are at risk of PPH.

**Objective:** The aim of this study was to determine the frequency of the common causes leading to postpartum haemorrhage.

**Methodology:** This cross sectional study was conducted at the Emergency Department of Gynaecology at Jinnah Hospital Lahore from the 1st of December 2013 till the 27th of February 2014. After reviewing the records of all patients who fulfilled the inclusion criteria, the data was retrieved regarding parity, abortion, mode of delivery (spontaneous, vaginal, instrumental, caesarean), causes (uterine atony, clotting disorders, retain products of placenta, vaginal, cervical, and uterine tear). Diagnosis of PPH and its causes were made on clinical finding. Data was entered in pre-prepared questionnaire. Descriptive statistics were used to analyze the data.

**Results:** 75 female patients were included in the study out of which 46.6% suffered from PPH due to uterine atony, 30.6% due to retained product of placenta, 9.3% patients were due to cervical tear, vaginal tear occurred in 6.66% patients, in 4% patients. PPH occur due to clotting disorder, uterine tear was responsible for PPH in 2.6% female.

**Conclusion:** PPH is serious obstetrical emergency. Uterine atony is the most frequent reason for postpartum hemorrhage while the second most common cause was retained product of placenta (RPOP) followed by cervical tear, vaginal tear, uterine tear and coagulation disorders. Hence timely identification and the management of these factors can reduce this significant yet manageable problem.

**Key words:** Post partum hemorrhage, uterine atony, retain product of placenta.



## **FREQUENCY OF CONVENTIONAL RISK FACTORS OF MYOCARDIAL INFARCTION IN GULAB DEVI CHEST HOSPITAL**

Muhammad Usman Rafique

**Background:** Acute myocardial infarction is potentially critical and the most common cardiac emergency presenting to a hospital. Having significant mortality and morbidity cardiovascular risk factors are on the rise in Pakistan. In view of the associated lower survival ischemic heart diseases thus represent an important public health problem.

**Aim & Objective:** The objective of the study was to determine the frequency of various conventional risk factors in the patients presenting with myocardial infarction, so as to guide our planning for primary and secondary prevention of this disease in our community.

**Methodology:** We studied 100 consecutive patients from 20-80 years of age presenting with MI. Their detailed history was then taken including symptoms at presentation and their risk factors were assessed with the help of history and laboratory investigations. Following common risk factors were studied namely, gender, smoking, hypertension, diabetes, hyperlipidemia, family history and obesity.

**Results:** Frequency wise risk factors were lined up as male sex (74%), smoking (70%), hypertension (62%), diabetes mellitus (60%), hyperlipidemia (44%), family history (40%) and obesity (14%). Out of these risk factors, 48% patients were presented with at least one major risk factor, 23% with two major risk factors and 29% were presented with three or more major risk factors.

**Conclusion:** Smoking, hypertension, diabetes and hyperlipidemia were the major modifiable risk factors in our patients. These require a better control. The awareness of risk factors amongst the general public is low. Thus there is an urgent need to create more and more awareness about the preventive aspects and healthier life style behaviour in our community.

**Key Words:** Ischemic heart diseases, Risk factors, Morbidity, Coronary artery disease.

## THE IMPACT OF WORKPLACE BULLYING ON NURSES' TURNOVER INTENTION: MODERATING ROLE OF LEADER'S DARK TRIAD OF PERSONALITY

Ali Waqas, Muhammad Afzal, Shazma Ahmad Khan

**Background:** In the developing countries, nurses at the workplace encounter with the harassment and other negative behaviors from the colleagues and doctors. In the same manner, senior doctors and administration of the hospitals also treat them in an inappropriate way and harass them at the workplace while taking benefit of the superiority. Therefore, nurses of public hospitals do not feel secure in such working conditions and look for better opportunities. Thus, turnover of the nurses have been consistently increasing and the hospital administration cannot overcome the demand of patient care efficiently. Furthermore, leaders with dark personality characteristic also enhance this turnover intention among the nursing staff. Thus, current study examines the relationship between workplace bullying on the nurse's turnover with the moderating role of leader's dark triad of personality.

**Methods:** The current study is of cross sectional design. The data was collected through simple random sampling from three large hospitals of Lahore, Pakistan. Self-administered questionnaires were distributed to 200 staff nurses simple randomly from which 180 were received. Reliability, validity, correlation and regression of the study variables was analyzed through SPSS 21.

**Results:** The findings of the study reveal that there exists positive relationship between workplace bullying and nurse's turnover. Further, leader's dark triad of personality in the health care sector significantly moderates this relationship.

**Conclusion:** The study depicts that nurse's turnover increases at the workplace due to the workplace bullying. In addition, leader's dark triad of personality significantly moderates the relationship between workplace bullying and turnover. Thus, healthcare sector must focus on the strategies to eliminate the bullying and unethical treatment in the workplace environment to provide the efficient patient care services. This study enables the health care administration to retain the staff and provide the better patient care to the public.

**Keywords:** Workplace bullying, turnover Intention and leader's dark triad of personality.

## A COMPARATIVE STUDY OF FUMIGATION BY OLD AND NEW TECHNIQUES

Rubab Zohra, Baila Nabila Talat, Saba Aziz

**Background:** Objective of this study was i) To evaluate the efficacy of formalin and quaternary ammonium compounds (QUAT). ii) To compare the efficacy of both agents/ techniques for operation theatre disinfection. Study design: This was an interventional, Case control study. This study was conducted at Children Hospital & Institute of Child Health Sciences, general operation theatre. Material and Method: A total of 200 samples were collected out of which 80 samples ( plates as well swabs) were collected before and after formalin fumigation and 120 samples prior and after spray fogging using QUAT based compound . The samples were cultured on blood and Mac-Conkey agar. Identification and isolation was performed in microbiology department according to bacteriological standards. Results: During fumigation by formaldehyde 34.3% samples (n=32) were pre positive while 21.9% samples were post positive on different surfaces. On the other side 47.9% samples (n=48) were pre positive while only 18.7% samples were post positive on different surfaces. Average bacterial count of air reduced from 744(21cfu/m<sup>3</sup>) to 329 (9cfu/m<sup>3</sup>) after formalin vapor and 858 (25cfu/m<sup>3</sup>) reduced to 492 (14 cfu/m<sup>3</sup>) after fogging. Conclusion: This study proves that fogging by less toxic compounds takes less time and has fewer disadvantages if we use automatic equipments having fine particle size.

**Key Word:** Fumigation, Effectiveness, Quaternary ammonium compounds, Formaldehyde  
This study approved /exempted from Institutional Ethical Review Committee or Institutional Review Board or equivalent:

## **SCHIZOPHRENIA**

Osheen Sajjad, Sumira Qambar Bokhari, Ali Ammar, Aiman Shehzad, Syed Mohsin Naqvi, Saqib Mahmood

Schizophrenia is a disease presenting with insufficiencies in thought processes, perceptions, and emotional responsiveness. The disease has an onset usually in late adolescence or early adulthood. It is diagnosed clinically by psychiatric analysis and by observing patients abnormal social behaviour. There are no laboratory tests or specific biomarkers that can be used to make a diagnosis of this disease. Schizophrenia affects approximately 1% of the people with a prevalence of 4.0 per 1,000 persons. The incidence and prevalence of schizophrenia differs across the world population and affects men and women equally although males are reported to have an earlier onset of disease and present with more severe disease process than females.

Symptoms of schizophrenia are classified into two broad groups; positive and negative symptoms. Positive symptoms include hallucinations, delusions, disorders in thoughts and behaviour that is bizarre. Negative symptoms usually include social withdrawal, loss of focused attention, loss of emotions, impaired thoughts, impaired speech and difficulty in cognition. Definite etiology of developing Schizophrenia has not been determined but a number of risk factors for developing this disease have been suggested.

## CORRELATION OF TC 99m PERTECHNETATE AND URINARY IODINE LEVEL IN THYROID PATIENTS

Bushra Afzal, Numair Yunis, Tariq Bahir, Abu Bakar Shahid, Saba Aziz

**Objective:** To correlate Tc-99m uptake and urinary iodine level in thyroid disorders..

**Materials and Methods:** The Study design was observational study. The data was collected from the Department of Nuclear Medicine INMOL Hospital Lahore during July 2013 to September 2013. 42 patients were emitted through Performa including History of patients. All patients were undergone Thyroid functioning Evaluation, Thyroid RAI uptake Scan and urinary iodine analysis. Thyroid scans were performed with Tc-99m pertechnetate. Chi square was used to measure the relation using SPSS 17.0.

**Results:** In 42 patients, the mean age with S.D was  $34 \pm 10.5$  years. Most of the patients, 83.33% were females with male to female ratio of 1:5. Out of 42, (21.6%) patients were hypothyroid, (38.1%) were euthyroid, (40%) were hyperthyroid. In 42 patients, (66.6%) showed urinary iodine deficiency. (26.2%) showed normal urinary iodine and (9.5%) showed high urinary iodine. In 42 patients, (19%) showed low uptake. (31%) patients showed normal uptake and (50%) patients showed high Tc-99m uptake. The relation was measured in these three groups. In euthyroid group, the p value was significant while the P values were found non-significant in hypothyroid and hyperthyroid groups.

**Conclusion:** The results of this study showed that there was inverse relation b/w Tc-99m uptake and urinary iodine level in Euthyroid group while no relation was found in hypothyroid and hyperthyroid groups.

**Keywords:** Tc-99m Uptake, Urinary Iodine Level, Hypothyroidism, Euthyroidism, Hyperthyroidism.

## EVALUATION OF HYDROCEPHALUS WITH MAGNETIC RESONANCE IMAGING

Farwa Seemab Zafar, Abid Ali Qureshi, Ayesha Anjum, Saba Aziz

**Background:** Hydrocephalus is a CSF related disease resulting in progressive ventricular dilatation. It is a complex disorder affecting brain physiology and causes distortion of brain substance. The objective of this study was to evaluate hydrocephalus on MRI.

**Material and Methods:** This study was completed from 1st September to 30th November 2015. 120 patients with hydrocephalus who came to radiology department of Children's Hospital, Lahore, for MRI brain scan were enrolled in the study. The data was collected from patients on a data form. The information included presenting complaints of the patient followed by findings of MRI scan.

**Results:** Of the 120 cases, 81(67.5%) were males, and 39(32.5%) were females. 69(57.5%) patients were less than 5 years, 38(31.7%) patients were between 5 years to 10 years while 13(10.8%) patients were 10 years to 15 years of age. 91(75.8%) patients had communicating hydrocephalus and 29(24.2%) had non-communicating type of hydrocephalus. Of the 120 children with hydrocephalus, the mean value of cortical mantle thickness, frontal, occipital, temporal horn's diameter were measured with mean  $\pm$  S.D as  $3.585 \pm 1.018$ ,  $1.815 \pm 2.887$ ,  $2.206 \pm 2.602$  and  $1.408 \pm 1.065$  respectively. Meningitis was the most common cause of hydrocephalus in patient's age range lies between less than 5 years and in 5 years to 10 years, while patients with age 10 years to 15 years were affected by other causes.

**Conclusion:** MRI is the single modality to support both anatomical and functional information. It plays an important role in diagnosis of type of hydrocephalus, severity of the ventricular dilatation and suspected causes of hydrocephalus.

**Keywords:** Cortical mantle thickness, Frontal horn diameter, Occipital horn diameter, Temporal horn diameter.

## **TO DETERMINE THE ROLE OF TRIPHASIC CONTRAST-ENHANCED HELICAL CT IN THE DETECTION AND CHARACTERIZATION OF HEPATOCELLULAR CARCINOMAS**

Maria Rauf Khan

**Objective:** To determine the role of triphasic contrast-enhanced helical CT in the detection and characterization of hepatocellular carcinomas.

**Materials & Methods:** A total of 40 subjects from Lahore who were visited at radiology department of Alrazi Health Care from October 2014 to February 2015 for the evaluation of hepatocellular carcinoma by helical computed tomography triphasic scan.

**Results:** The study was conducted on 40 subjects for the evaluation of hepatocellular carcinoma by computed tomography biphasic scan. The mean age of subjects was age of patients ranged from 40 to 80 years with a mean of  $56.60 \pm 9.795$  and out of 40 subjects the frequency of males was 24(24%) and the frequency of females was 16(16%).out of 40 subjects 19 had usg finding mass ,26 were hcv positive, 31 had chronic liver disease(cld)

**Conclusion:** HCC is an important cause of mortality in patients with HBV and in Asians. Early screening leads to early diagnosis and improved survival.

**Key Word:** Hcc, cld ,hcv, usg.

## **DETERMINING THE CAUSES OF NON-COMPLIANCE OF FOOT ABDUCTION ORTHOSIS AMONGST RELAPSE IDIOPATHIC CLUB FOOT PATIENTS**

Abdul Latif Sami, Armghan Anjum

**Background:** Clubfoot is the most common extremity birth defect. It causes the feet of affected individuals to point inward and downward, preventing them from walking normally. The treatment ranges from gentle manipulations to less invasive surgical treatment. Surgical procedures are predominated by Ponseti because it is considered as a method that could obtain full and long-lasting correction. Denis Browne described his special splint for treatment of clubfoot which consist of taping the feet onto a bar to maintain the position obtained by manipulation. The purpose of this study is to determine the causes of non-compliance of Foot Abduction Orthosis amongst relapse idiopathic Club Foot Patients.

**Methods:** Retrospective Cohort Study design was used. 67 patients were selected by Non- probability, purposive sampling technique from Outdoor Patient Department, Paediatric Orthopaedics Department, The Children Hospital and Institute of Child Health. For evaluation of relapsed deformity, I used Diméglio et al scoring system. For data collection Questionnaire were used. Data was entered and analyzed in SPSS version 20.0.

**Results/Findings:** Out of 67 patients 45 (67.16%) were males and 22 (32.83%) were females. The main causes of non-compliance were financial problems 24 (35.82%) M, 10 (14.92%) F, emotional reasons of parents 25 (37.31%) M, 11 (16.41%) F, ignorance 12 (17.91%) M, 08 (11.94%) F, skin problems 15 (22.38%) M, 05 (7.26%) F, swelling & redness 12 (17.91%) M, 10 (14.92%) F, infection 05 (7.26%) M, 05 (7.26%) F and lack of cosmesis 13 (19.40%) M, 05 (7.26%) F. Patients with multiple reasons were also found.

**Conclusions:** From this study it was concluded that main causes of non-compliance in both males and females were financial problems and emotional reasons of parents. The least cause of non-compliance in both males and females was infection.

**Key Words:** Clubfoot, Ponseti, Foot Abduction Orthosis



## IS EXCESS SCREEN BASED MEDIA USE A PREDICTOR OF ASD (AUTISM SPECTRUM DISORDER) AND ITS SEVERITY?

Mehboob Ahmad, Shazia Maqbool

**Introduction:** Autism spectrum disorder is characterized by deficits in social interaction and communication along with the presence of restrictive, repetitive and stereotyped behaviors, interests and activities. Different environmental factors have been implicated as contributing factor to pathogenesis of ASD. This study was conducted to establish any association of excess screen based media use with ASD and its severity.

**Methods:** A total of 100 children were included in this cross sectional study carried out at The Children's Hospital & Institute of Child Health, Lahore-Pakistan from January to June 2016. All children three or more than three years diagnosed with ASD based on History, examination & clinical observation. Portage was used for Developmental Profile while Functional Behavior Analysis, PECS ( Picture Exchange Communication System) & Speech Assessment, OT( Occupational Therapy), CARS( Childhood Autism Rating Scale) & DSM V ( Diagnostic & Statistical Manual V) was used to further support the diagnosis. Children with GDD (Global Development Delay), ID (Intellectual Disability), Rett's syndrome or Childhood Disintegrative Disorder or other co-morbid disorders were excluded. Data on age, gender, socio-economic status, parents education and working status, family structure, ASD with severity and total no of hours spent with screen based media ( TV, I-pads, mobiles, computers, laptops) was collected on a Structured Proforma. Statistical analysis was performed using SPSS 20 to look for effect of excessive use of screen based media (excess defined  $\geq 2$ hour/day) as a contributing factor in ASD and/or its severity. Chi-square test and logistic regression were used to calculate significance. P-value  $<0.05$  was taken as significant.

**Results:** A total 100 patients were included with 84 males (84%) and 16 females (16%). Mean age of the patients were  $\approx 4.5$  years (54.9 months) with St. Deviation of  $\approx 1.9$  years (22.7 months). Minimum age was 3 years and maximum was 11 years with range of 8 years. Few patients  $n=2$ (2%) belonged to low socioeconomic status, while (31%)  $n=31$  belonged to middle socioeconomic status and (67%)  $n=67$  belonged to high socioeconomic status. Out of total 100 patients (16%)  $n=16$  was in mild ASD severity, (38%)  $n=38$  in mild to moderate severity, (33%)  $n=33$  in moderate to severe category and (13%)  $n=13$  in severe autism category. The association between socioeconomic status and ASD severity was statistically significant ( $P=0.001$ ). The severity of ASD was significantly associated with longer duration of time spent with screen media ( $P=0.01$ ).

**Conclusion:** Excess screen media use may be considered a risk factor for ASD and its severity

**Key words:** Autism spectrum disorder, Screen media use, Autism and socioeconomic status.

## PREVALENCE OF ANTI-THYROID ANTIBODIES IN PATIENTS OF HCV GENOTYPE 3a

Sana Temuri, Nadeem Afzal

**INTRODUCTION:** Hepatitis C virus (HCV) infection is a major causative agent of liver disease worldwide. Acute infection of HCV is commonly asymptomatic but can be accompanied by fatigue and jaundice with 80% of infected individuals progressing to a chronically infected state. About 35% of the chronically infected symptomatic patients develop cirrhosis after 20 years of infection and almost a quarter of these patients develop Hepatocellular carcinoma (HCC) after 30 years of infection. Hepatitis C virus (HCV) is found to be associated with the development of autoimmunity in the HCV infected patients. HCV infection has been proposed as the contributing factor for various autoimmune diseases. HCV infection may trigger autoantibody formation against thyroid gland. The presence of thyroid antibodies, especially TPO-Ab is considered to be an initial phase of autoimmune thyroid disease (AITD). Thyroid specific antibodies like thyroid peroxidase antibody (TPO-Ab) and anti thyroglobulin antibody (TGA-Ab) have been detected in the sera of autoimmune patients, thus suggesting a correlation between HCV and autoimmunity.

**OBJECTIVE OF THE STUDY:** Present study was designed to determine the prevalence of anti-thyroid antibodies (ATA) in patients of HCV of genotype 3a at different stages of treatment.

**MATERIAL AND METHOD:** It was a cross-sectional study that included 50 patients of HCV of genotype 3a. Patients were divided into three groups on the basis of treatment duration, i.e., Untreated group, Mid treated group and Hepatocellular carcinoma group. The study was conducted in the Department of Immunology, University of Health Sciences (UHS). Samples were analyzed by using indirect immunofluorescent assay.

**RESULTS:** In present study, 50 HCV infected patients were recruited. Among these patients, 66% (33) were males and 34% (17) were females. The mean  $\pm$  S.D age of the subjects was  $37.5 \pm 9.4$  years. Among the untreated group of HCV, 73.1% (19) of subjects were positive for ATA, whereas in mid treated HCV patients 29.4% (5) had ATA. Among Hepatocellular carcinoma patients none of the subject had ATA. A higher prevalence of ATA was found in untreated group as compared to mid treated and HCC group. Further, 51.5% (17) of males and 41.2% (7) of females had ATA. Males had a higher prevalence of ATA.

Among the study subjects (n=50), 48.0% (24) of the subjects were positive for ATA and on comparison it was statistically significant (p-value <0.000).

**CONCLUSION:** In the studied population 48% (24) of subjects had ATA. A higher percentage of male subjects (51.5%) were positive for ATA as compared to female subjects (41.2%). Among untreated group, markedly higher number of subjects (n=19, 73.1%) were positive for ATA whereas it was less frequently present in mid treated patients (n=5, 29.4%) while it was absent in HCC subjects. A higher number of ATA in untreated patients suggests that factors other than interferon may contribute in triggering ATA formation in HCV patients.

## **FREQUENCY OF ANTINEUTROPHIL CYTOPLASMIC ANTIBODY IN GLOMERULONEPHRITIS PATIENTS**

Maria Arif, Nadeem Afzal, Aizaz Mand, Waqas Sami, Khursheed Javaid, Sarwar Abbas, Sarah Karim

**Introduction:** Autoimmune diseases including systemic vasculitis, affect a large number of people in whom the leading cause of morbidity and mortality is glomerulonephritis which is often associated with chronic kidney disease. There are many risk factors for kidney diseases such as chronic inflammation, autoimmune diseases, immunosuppressive therapy, etc. Early phases of kidney injury in autoimmune patients are clinically silent. There are various ways to detect nephron damage and histopathological examination remains the gold standard but detection of antineutrophil cytoplasmic antibody (ANCA) can be used to find out early nephron damage.

**Objectives:** Current study was designed to determine the frequency of ANCA (p-ANCA and c-ANCA) in clinically diagnosed glomerulonephritis patients.

**Study Design:** Cross-sectional analytical study.

**Place and Period of study:** Department of Immunology, University of Health Sciences, Lahore in a period of one year.

**Materials and Methods:** The study included 64 glomerulonephritis patients. Methodology: Levels of ANCA (MPO and PR3) were determined by ELISA technique.

Results: Four (6.25%) patients showed positive reaction to myeloperoxidase [MPO] antigen while 1 (1.56%) were positive for proteinase-3 [PR3] antigen. Sero-positivity for MPO and PR3, in the patients of 40-60 years of age, was 14% and 3.6% respectively. p-value for MPO and PR3 was < 0.05 and >0.05 respectively.

**Conclusion:** Glomerulonephritis is more related with MPO-ANCA than PR3-ANCA. The difference in levels of MPO-ANCA in different age groups was significant but it was non-significant among different genders. The difference in levels of PR3-ANCA was non-significant for both age and gender.

**Keywords:** Glomerulonephritis, ANCA, Autoimmune diseases.

## **SOCS3 MRNA EXPRESSION AND POLYMORPHISMS AS PRE-TREATMENT PREDICTOR OF RESPONSE TO HCV GENOTYPE 3A IFN-BASED TREATMENT**

Rabia Aslam, Nadeem Afzal, Syed Mohsin Raza, Bushra Mubarak, Saba Khaliq

**Aims:** Suppressor of Cytokine Signaling 3 (SOCS3) gene belongs to SOCS family as one of the negative regulators of cytokine signaling and IFN response that function via the JAK-STAT pathway in antiviral response. SOCS3 expression and genetic polymorphism influences the pathogenesis and outcome of antiviral treatment in hepatitis C virus (HCV) infected patients. This study was designed for analysis of SOCS3 gene expression and polymorphism in Pakistani HCV patients.

**Method:** This descriptive study was conducted on 250 diagnosed HCV genotype 3a infected subjects. The study population was divided into two major groups on the basis of therapeutic response i.e. sustained virological response (SVR) and non-responders/relapsers (NR). SOCS3 gene mRNA expression analysis was done by using Real time PCR technique, whereas ARMS PCR technique was used for analysis of SOCS3 gene polymorphisms i.e. 8464 A/C (rs12952093), -4874 A/G (rs4969170) and -1383 A/G, (rs4969168).

**Results:** Gene expression analysis of SOCS3 showed that there was statistically significant increase of 2.275 and 3.72 folds in relative gene expression for SVR and NR as compared to normal healthy samples ( $p < 0.001$ ). The distribution of rs4969168, rs4969170 and rs12952093 genotype frequencies between SVR vs NR group were not statistically significant, only the allelic frequency of rs4969170 was statistically significant ( $p = < 0.0001$ ) with therapeutic response.

**Conclusion:** The gene expression analysis of SOCS3 showed a clear difference in mRNA expression of SOCS3 as an indicator of therapeutic response rather than polymorphism of SOCS3 gene in our studied population.

**Keywords:** SOCS3, HCV, Interferon therapy, responders, relapsers.

## COMPARISON BETWEEN FILTERED BACK PROJECTION AND ITERATIVE OSEM RECONSTRUCTION METHODS ON MYOCARDIAL PERFUSION THALLIUM-201 SCAN

Sajeel Arif, Dr. Muhammad Ayub, Dr. Muhammad Numair Younus

**Background:** Coronary artery disease (CAD) is the most common cause of death in the general population. Myocardial perfusion TI-201 scan is used for the evaluation of perfusion defect in CAD. In TI-201 scan two reconstruction methods FBP and Iterative reconstruction are used.

**Objective:** To compare the Filtered Back Projection and Iterative OSEM reconstruction methods on TI-201 myocardial perfusion scan.

**Materials and methods:** Sample size was 60. 50% patient had perfusion defect and 50% had not. Convenient sampling technique was used. Images were reconstructed on FBP and Iterative OSEM reconstruction methods.

**Results:** Out of 30 patients with no perfusion defect 14 had no change in contrast on FBP and IR, 4 had better contrast on FBP and 12 had better contrast resolution on IR images. 50% patients had perfusion defect on myocardial perfusion imaging out of which 12 had no change of contrast resolution on both FBP and IR, 4 had better contrast at FBP and 14 had better contrast at IR images. Chi square was applied and result showed  $p\text{-value} < 0.05$  which indicates significant difference between two techniques.

**Conclusion:** In this study, filtered back projection and Iterative OSEM reconstruction method showed considerable difference. Choosing reconstruction method is very important because it may lead to change in reporting of the image. There should be a reference technique to compare which one of them is more appropriate for reconstruction and hence for reporting.

**Key-words:** myocardial perfusion scan, FBP, Iterative, OSEM

## **SPEECH THERAPY– THE KEY TO EFFECTIVE COMMUNICATION**

Janet Shanem

Developing Effective Communication

Who is a Speech and Language Pathologist?

A speech and language pathologist (SLP) is a professional who has expertise in dealing with individuals suffering from communicative, speech, language, swallowing or hearing disorders.

Areas of an SLP

Speech therapy is vital for developing effective communication in those with communication disabilities.

A Speech and Language Pathologist develops a course which aims at modifying the nervous messages so that successful communication is possible.

Aims of an SLP

Giving voice to people with speech and language disorders.

Making them feel that they are not alone.

Enabling people to develop or regain vital communication and swallowing skills

Trying to improve the participation of these individuals in their family life, community, education and workplaces.

## ASYMPTOMATIC OCULAR CHANGES AMONG LONG TERM CONTACT LENS USERS.

Rabbia Ammer

**Background:** Use of contact lenses thought to reduce the oxygen supply to ocular tissues and many studies found that contact lens wear lead to various adverse ocular changes among contact lens users. The purpose of study was to rule out asymptomatic ocular changes in terms of blink rate, tear break-up time (TBUT) and corneal changes, among contact lens users, those used contact lenses for more than 1 year.

**Methods:** It was a cross-sectional study and convenient sampling was used to collect the sample of 100 contact lens users. This study recruited the sample from Madinah Teaching Hospital Faisalabad, E Plomer Optics and Punjab Optics Lahore. TBUT and corneal changes determined by using slit lamp and blink rate was recorded by direct observation and counting. SPSS version 23 was used for data analysis. Descriptive statistics was reported for variables.

**Results:** Normal range of blink rate was present in only 6 % of subjects and increased blink rate was recorded with a mean value of  $26.14 \pm 6.94$  blinks/minutes among contact lens users. 67% of contact lens users had TBUT equal to, lower than 10 sec and 11% of contact lens users had TBUT lower than 6 sec and mean value of TBUT was found to be  $9.14 \pm 2.89$  sec among asymptomatic contact lens users. 58% of asymptomatic contact lens users were presented with one or more corneal changes.

**Conclusions:** It was concluded that long term use of contact lenses caused various adverse ocular changes i.e. increased blink rate, decreased TBUT, corneal neovascularization, corneal staining, corneal infiltrates and corneal abrasions among asymptomatic contact lens users.

**Key Words:** contact lens, asymptomatic, TBUT, blink rate, corneal changes.

## THE FACTORS CAUSING LEFT ATRIAL CLOT FORMATION IN PATIENTS OF RHEUMATIC MITRAL STENOSIS

Ayesha Bajwa

**Background:** Rheumatic mitral stenosis is still present in the developing world. Left atrial appendage clot is a common complication of mitral stenosis. The management differs significantly if there is presence of clot.

**Objective:** We assessed the factors responsible for left atrial appendage clot formation in patients with severe mitral stenosis through transesophageal echocardiography

**Methods:** An observational study was conducted among 82 (73 females, mean age  $35.8 \pm 11.8$  years) patients with severe mitral stenosis who underwent transesophageal echocardiography before percutaneous transmitral commissurotomy. Patients were classified into two groups based on the presence or absence of left atrial thrombus. Group 1 consisted of 24 patients (women to men ratio 91:9) with left atrial thrombus, while group 2 consisted of 58 patients (women to men ratio 88:12) without left atrial thrombus. Transesophageal echocardiographic findings were reviewed in all patients.

**Results:** There was no significant difference between the two groups in terms of age, sex, systolic pulmonary artery pressure and mitral valve mean pressure gradient (MVMPPG), there was significant difference regarding frequency of atrial fibrillation ( $P \leq 0.05$ ), left atrial size ( $P \leq 0.05$ ), mitral valve area and flow velocities ( $P \leq 0.05$ ) in group-1 patients. Similarly, atrial fibrillation was observed in 35 (42.7%) patients out of which 20 (83.3%) patients had thrombus in left atrial appendage.

**Conclusion:** The frequency of left atrial thrombus formation increased in patients with rheumatic mitral stenosis because of low left atrial appendage flow velocities, atrial fibrillation and smaller mitral valve area.

**Keywords:** Mitral stenosis, left atrial appendage, thrombus, echocardiography



## ROLE OF ALLIED HEALTH PROFESSIONALIN CLINICAL NEUROPHYSIOLOGY

Tipu Sultan

Neurophysiology is a specialty that studies the central and peripheral nervous systems through the recording of bioelectrical activity, whether spontaneous or stimulated. It encompasses both research regarding the pathophysiology along with clinical methods used to diagnose diseases involving both central and peripheral nervous systems. Examinations in the clinical neurophysiology field are not limited to tests conducted in a laboratory. It is thought of as an extension of a neurologic consultation. Tests that are conducted are concerned with measuring the electrical functions of the brain, spinal cord, and nerves in the limbs and muscles. It can give the precise definition of site, the type and degree of the lesion, along with revealing the abnormalities that are in question. Due to these abilities, clinical neurophysiology is used to mainly help diagnose diseases rather than treat them. Hospitals that have neurologists and neurosurgeons tend to house clinical neurophysiology departments. Usually these tend to be larger hospitals that are able to employ more specialized staff units. In hospitals that possess clinical neurophysiology facilities, the major diagnostic modalities employed include:

- Electromyography and Nerve conduction studies (EMG/NCS): These diagnostic tests of the peripheral nervous system, especially useful in evaluating diseases of the muscles, nerves, and nerve roots. Records electrical activity of the muscles and the passage of them along nerves in the limbs.
- Electroencephalography (EEG): Diagnostic test of thalamocortical rhythms (brain waves), useful in evaluating seizures and various abnormalities of the central nervous system.
- Evoked potentials (EP): Diagnostic test evaluating specific tracts of the central and peripheral nervous system. May include visual, auditory, or somatosensory evoked potentials. These record the electrical responses of the brain and spinal cord to the stimulation of the senses.
- Polysomnography (PSG): A type of sleep study employed to diagnose disorders associated with abnormal sleep behavior
- Intraoperative monitoring(IOM), Intraoperative neurophysiologic monitoring:

**Background:** The present study aims to explore a comparison of quality of life between male and female tuberculosis patients and apply a systematic, quantitative approach to develop a hypothesis that females have more negative effects of tuberculosis than males. Tuberculosis adversely effects patient's performance during routine life. In the current study, A survey aimed to identify impacts of tuberculosis on patients life through a Quality of Life Scale by World Health Organisation including 26 questions about patients daily life and satisfaction with their lives. However, not much researches exists to identify the effects

of tuberculosis in quality of life of patients with respective to gender differences. So there was need to conduct such study.

**Objectives:** To find out the difference of quality of life between male and female tuberculosis patients.

**Materials and Methods:** Primarily pilot study has been conducted on 24 Patients including to verify the questionnaire reliability for both male and female patients. Test has administered on 400 Patients consisting 200 males and 200 females through purposive sampling.

**Results:** The results indicated that there were significant differences among all the demographic factors, that gender and quality of life of tuberculosis patients has significant relationship. Results provided a direction to treat tuberculosis through different perspectives as well as it is proving that female patients has more effected than males. Measures of mean difference were computed for determining quality of life by descriptive frequencies.

**Conclusion:** It can be concluded that current study helped to identify higher ratio of tuberculosis effects on quality of life among male and females. These findings extend the previous studies carried out on tuberculosis and its reflections and encourage further studies. Further studies can be conducted on quality of life among patients by considering different diseases, age and social status.

**Key words:** Quality, life, Gender, Tuberculosis, Significant

## **PARASITIC INFESTATION OF THE APPENDIX MASQUERADING ACUTE APPENDIX**

Adeel Ahmad

**BACKGROUND:** *Enterobius vermicularis* is considered the most common helminth worldwide. Interestingly, the presence of the parasite in the appendix may cause appendiceal colic even without eliciting an acute inflammatory reaction. The definitive diagnosis of parasitic infestation is generally achieved only after the histopathological examination of the resected appendix specimens.

### **OBJECTIVE:**

1. To evaluate the prevalence of parasitic infection in surgically removed appendices.
2. To investigate the role of parasitic infestation in the etiology of acute appendicitis

**MATERIALS AND METHODS:** A retrospective study was conducted in Pakistan Institute of Medical Sciences (PIMS) Islamabad over a span of 3 years included 593 pediatric and adolescent patients who underwent surgery for a diagnosis of acute appendicitis between January 2013 to December 2015. Microscope slides of specimens which were histopathologically diagnosed to contain parasites were retrieved from the archives and reviewed for features of acute inflammation and parasite type. Patients were divided into 2 groups according to the presence or absence of the appendicitis.

**RESULTS:** Total 593 appendectomies were performed in the PIMS hospital, of these 62(10.45%) were found to contain parasite on histopathology. This includes 24(38.71%) male and 38(61.29%) female patients. It was observed that 51(82.25%) patients appendectomies were performed due to acute appendicitis but histopathological evidence proved only a worm infestation but not appendicitis. Worm infestation without appendicitis is more frequent in children (64.52%) than adults (35.48%).

**CONCLUSION:** Low prevalence of parasites among the appendectomy specimens did not support the notion that parasites were the major cause of appendicitis in children. Parasites rarely cause appendicitis but its symptoms resemble appendicitis. If we de-worm the children at school level on a regular basis we might prevent many future unnecessary appendectomies.

**KEY WORDS:** Appendicitis, parasitic infection.

## EXPERIENCES OF THE BREAST CANCER PATIENTS UNDERGOING RADIOTHERAPY AT A PUBLIC HOSPITAL PESHAWAR PAKISTAN

Gulzar Habibullah

**Background:** Radiotherapy (RT) is the common treatment modality for breast cancer. In addition to its desired benefits, RT has several undesirable physical and psychological effects on the patients. However, this phenomenon remains under-explored in the context of Pakistan.

**Purpose:** This study aimed to explore the experiences of female breast cancer patients undergoing radiotherapy in a public hospital Peshawar.

**Methodology:** This qualitative study employed a descriptive exploratory study design. A purposive sample of fourteen breast cancer women undergoing radiotherapy was selected. Data was collected via in depth face-to-face individual interviews. These interviews were audio taped and transcribed by a bilingual transcriber. The translated version of the interview was coded and the analyzed manually.

**Findings:** Data analysis yielded four categories including: feelings and perceptions of the patients, their challenges, teaching and informational needs, and coping strategies. Subcategories were grief and sorrow, shame and guilt, Fatigue and pain were reported as physical complaints, which affected their role performance. They also experienced financial challenges for which they felt desperation. The status of their informational needs, regarding RT, was negligible. Therefore, they had to rely on other patients for information and, consequently ended up on fear and anxiety. Having a strong belief in God, they used prayers and recitation of the Holy Quran and Verses as their coping strategies. Their main support system was their families who offered them emotional, psychological, and financial support.

**Conclusion:** Women undergoing RT experience more intense psychological effects, as compared to the physical effects. Health care providers should address the informational needs of the patient. Keeping in mind the magnitude of the emotional stress experienced by the study participants while exposing themselves in front of the male staff during RT, reforms in the policy for training and hiring female staff in the RT department are highly recommended.

**Key words:** radiotherapy; breast cancer; experiences/problems/challenges.

## VALIDATION OF ICF-CY

Prof. Dr. Shazia Maqbool

**Objective:** To validate ICF-CY for cerebral palsy children according to clinical observation and experience by different professionals dealing cerebral palsy children at Children's hospital, Lahore

**Method:** This research was conducted in three rounds . Each participant has been provided ICF-CY core set which includes five subsets: comprehension, Common, <6 years, 6-14years, 14-18years. Each subset has different number of categories. These categories cover four main areas: Body functions, Activities & Participation, Environmental factors, Body structures. Every participant has been given a chance to validate each category for 3 times in the rating of 1-5.

**Results:** After statistical analysis that category considered validated which has been rated important by >80% of participants.

In comprehensive core set, 89 categories out of 135 categories were validated.

In common set, 20 categories out of 25 categories were validated.

In <6 years set, 21 categories out of 37 categories were validated.

In 6-14years set, 30 categories out of 41 categories were validated.

In 14-18 years set, 32 categories out of 43 categories were validated.

## **CORRELATION OF GLYCATED HEMOGLOBIN (HBA1C) AND DYSLIPIDEMIA IN TYPE-2 DIABETES MELLITUS**

Maqsood Ahmad, Iqra Ijaz, Nadia Rasheed, Muhammad Saeed, Sumbula Ghaznavi

**Background:** Patients with Diabetes Mellitus (DM) are more prone to have lipid abnormalities. These disorders can result in cardiovascular diseases (CVD) which may lead to death of these patients. This study was conducted to investigate the correlation between Glycated hemoglobin and dyslipidemia with type-2 DM.

**Place of study:** Department of Pathology, Sheikh zayed hospital, Lahore.

**Material and method:** Sixty patients of type-2 DM and forty age and gender matched controls were included in study. HbA1C, Fasting Blood Glucose and lipid profile was performed after overnight fasting. Control group was labeled as Group-A and patients were labeled as Group-B. Mean of all parameters from both groups was compared and evaluated for significance by independent sample t-test and person correlation.

**Results:** There was no significant difference in mean values of different parameters between both genders, except Total Cholesterol (TC) which was found statistically higher in females (p-value 0.047). Hyper-cholesterolemia in study population was 46.7% (28), hypertriglyceridemia was 33% (55), decreased High Density Lipoprotein Cholesterol (HDL-C) was 28.3% (17) and increased Low Density Lipoprotein Cholesterol (LDL-C) was 41% (68.3). Only 02% (02) patients had normal lipid profile, 46% (46) had one-abnormal parameter of lipid profile, 17% (17) patients had 02-abnormal parameter of lipid profile and 35% (35) had mixed type of dyslipidemia. According to diabetes Control and Complication Trial/national glycohemoglobin standardization program, 16.66% (10) of study population fall in good glycemic control (GGC) and resting 83.4% (50) were in poorly controlled glycemic group (PGC). HbA1c was positively correlated with all parameters of lipid profile except HDL-C which was negatively correlated. There was strong positive correlation between HbA1c and Fasting Blood Glucose (FBG) with p-value >0.002.

**Conclusion:** We concluded that there is strong correlation between HbA1c and dyslipidemia. So; HbA1c will not only monitor glycemic control but also indicate severity of dyslipidemia of type – 2 DM. Patients with good glycemic control reduces chances of dyslipidemia.

**Key Words:** Type-2 DM, Glycated hemoglobin, Dyslipidemia, cardiovascular diseases.

## **BLOOD DONATION: GENERAL PERCEPTION OF PAKISTANI YOUTH**

Maqsood Ahmad, Muhammad Saeed, Usman Waheed, Anam Khalid, Nadia Rasheed1, Shahida Hussain

**Introduction:** In spite of solid steps taken to enhance blood donation in our community, still we are facing complex situation. Multiple barriers are source for reduction in number of volunteer blood donation which forces our community for paid/professional blood donation, which is great health dilemma in this civilized world.

**Objective:** This survey was conducted to know, about the factors which motivate our youngster to donate blood and the barriers which impede them for blood donation.

**Materials & Methods:** In this cross sectional survey based study, detailed questionnaire was designed, comprised of questions about the number of their previous donations, experiences, and reason for donating or not donating the blood. Furthermore data was analyzed by IBM SPSS 21.0.

**Results:** Out of the 789 participants 51.45% (406/789) were male and 48.54% (383/789) were female, with mean age of  $21.65 \pm 2.98$  years. From total study population only 36.0% (284/789) were blood donors including 81.39% (231/284) males and 18.61% (53/284) females. Helping others, Altruism, Sense of social responsibility, Voluntarily, Spiritual Pleasure and gaining experience were major factors for blood donation and never asked for donation, Objection from elders, Fear for Needle, Fear of adverse effects, leads to weight gain/loss were the barriers which impede our youngsters for blood donation.

**Conclusion:** We concluded, to increase the voluntary blood donation, younger population must be advocated so that all the myths and false beliefs regarding blood donation may be mitigated. This aim can be attained through social media promising for such a public awareness campaign.

**Key Words:** Blood donation, Motivational factors, Barriers, Pakistani youngsters.

## **THE AIM OF STUDY IS TO FIND THE FREQUENCY OF POST OP WOUND INFECTION IN OPEN VERSUS LAPAROSCOPIC APPENDECTOMY**

Taiba Shafique

**Objective:** The aim of study is to find the frequency of post op wound infection in open versus laparoscopic appendectomy.

**Material and method:** The current study was conducted in the surgery ward of children's hospital and the institute of child health, Lahore. Data was collected by using random sampling technique within the period of three months (after the approval of synopsis). In this study, patients of both genders were included.

**Result:** Out of 30 patients, 15 underwent open appendectomy out of which 10(66.67%) had infection and 15 underwent laparoscopic appendectomy out of which 2(13.33%) had infection.

**Conclusion:** The frequency of post operative wound infection is less in laparoscopic appendectomy as compared to open appendectomy.

**Key Words:** Laparoscopic appendectomy, Open appendectomy, surgical wound infection.



## **TO FIND THE FREQUENCY OF ABDOMINAL WOUND INFECTION AFTER ELECTIVE LAPAROTOMY CASES AT THE CHILDREN HOSPITAL AND THE INSTITUTE OF CHILD HEALTH LAHORE**

Salma Rani

**Objective** Aim of this study was to find out rate of wound infection by comparing the two surgeries which were indirect inguinal hernia and hydrocele at the Children's Hospital and The Institute of Child Health Sciences. **Study Design** Comparative and prospective study design was used. **Material and Methods** Out of 30 selected patients 20 under gone in indirect inguinal hernia and 10 were in hydrocele. Patients were followed up and comparison of rate of wound infection was seen. **Results** Out of 20 patients of Indirect inguinal hernia no one was infected and out of 10 patients of hydrocele only 1 was infected. **Conclusion** It is concluded that greater rate of wound infection was found in hydrocele than in indirect inguinal hernia. **Key Words** Indirect Inguinal Hernia, Hydrocele, Wound infection rate.

## **IMMUNOCYTOCHEMICAL MARKERS (BER-EP 4, MOC- 31, CALRETININ AND HBME-1) IN THE DIFFERENTIAL DIAGNOSIS OF REACTIVE MESOTHELIAL CELLS AND ADENOCARCINOMA CELLS IN EFFUSION CYTOLOGY**

Faiza Shabbir, Prof. A.H. Nagi

**Background:** The difficulty in the undisputed distinction of reactive mesothelial cells (RMCs) from metastatic adenocarcinoma cells (ACs) exfoliated in serous effusions is the striving issue for the cytopathologists worldwide. Majority of the cases of effusion cytology are identified on routine cytological preparations based on adopted standard criteria of cytomorphology, but there are still some cases which are very difficult to interpret with certainty. The main reason is the overlap in cytomorphological features of reactive cells of mesothelial origin and the cells of adenocarcinoma. It may not be possible to definitively distinguish RMCs from adenocarcinoma based on morphology alone and ancillary techniques i.e. immunocytochemistry helps in ambiguous cases.

**Objective:** To differentiate RMCs from ACs by using ICC markers (Ber-EP 4, MOC-31, Calretinin and HBME-1) on cytospin preparations of serous effusions.

**Materials and methods:** A total of n= 75 fluid samples containing either of reactive mesothelial cells or adenocarcinoma cells were subjected to ICC on cytospin smears.

**Results:** Ber-EP 4 and MOC-31 showed positivity in 100% and 93% cases of adenocarcinoma respectively. Reactive mesothelial cells showed both cytoplasmic

and nuclear staining with Calretinin. HBME-1 was positively stained in 100% of cases of reactive mesothelial effusions but also showed positive expression in 16% cases of adenocarcinoma. A good correlation was observed in positivity of Ber-EP 4, MOC-31, Calretinin and HMBE-1 with the diagnosis ( $p < 0.05$ ).

Conclusion: Ber-EP 4 and Calretinin are more effective in differentiating RMCs from ACs. Use of immunocytochemistry on cytospin preparations is reliable, cost-effective and time-saving method.

Key words: Reactive mesothelial cells, adenocarcinoma, effusion cytology, cytospin, immunocytochemistry, Ber-EP 4, MOC-31, Calretinin and HMBE-1.

## **ABO BLOOD GROUP BASED DISTRIBUTION OF HCV GENOTYPING**

Hafiz Ahmar Ansari, Muhammad Saeed, Prof Fouzia Ashraf  
Muzammil Saim, Farhan Rasheed, Prof. Ambereen Anwar

**OBJECTIVE:** Blood group based evaluation of HCV genotypes.

**INTRODUCTION:** literature showed significant association between ABO blood groups and many diseases, type O “non-secretors” have about twice the incidence of duodenal ulcer than secretors of types A and B. On the other hand, type A carries a higher incidence of tumours of salivary glands, stomach and pancreas than do type O blood groups. . In Pakistan, it has been observed that frequency of blood group B was significantly higher and that of blood group O was lower in Diabetes mellitus type 2. Therefore

**STUDY SETTINGS:** Dr Abdul Qadeer khan PCR Lab Jinnah hospital & Allama Iqbal medical college Lahore Pakistan.

**METHODOLOGY:** Known HCV positive samples by immune-chromatographic (ICT) method were confirmed by HCV ELISA technique. All those cases who were HCV positive by ELISA method were processed for HCV genotyping by Real Time PCR (QIAGEN ) via INVADER Genotyping Assay , additionally all those cases who were processed for HCV Genotyping were also processed for ABO blood grouping. (Heam-agglutination).

**RESULTS:.** Out of 100 HCV positive 78.0% (n=78) were males and 22.0% (n=22) were females. The mean age was 36.61±11.3years. HCV genotypic distribution showed maximum frequency of . 3a Genotype, it was also higher in Rh positive samples.

**KEY WORD:** HCV, PCR, ELISA, RNA, GENOTYPE ABO

## **NUTRITIONAL STATUS OF CHILDREN AND ADOLESCENTS SUFFERING WITH DOWN SYNDROME**

RD. Sameera Mustafa1, Maha Omer Rao, BS Food & Nutrition

**Background:** Down syndrome (DS) is associated with a trisomy in chromosome 21. The prevalence of DS is one out of 700–1000 live births. Down syndrome is characterized by a unique phenotype and associated with multiple congenital anomalies. Classic phenotypic findings include brachycephaly, epicanthal folds, palpebral fissures, macroglossia, neck skinfolds, clinodactyly, single transverse palmar creases, and widely spaced first and second toes. Heart defects occur in around 47% of individuals with Down syndrome and 10 to 15% of babies with Down syndrome have a severe heart defect that requires surgical intervention during the first few months of life.

### **Objective:**

- To assess the nutritional status of children suffering from Down syndrome
- To assess the prevalence of obesity and its link with physical activity in children with Down syndrome
- To identify risk factors affecting their nutritional status positively or negatively.

### **Methodology:**

Study design: This study was descriptive, cross sectional study. This study was obtained nutritional status of children and adolescents suffering from Down syndrome and its link with obesity.

Sample size: Minimum 50 children and adolescents were conveniently enrolled on random basis.

Results/Findings: Most of children were 15-17 years of age, male and overweight. Weight at birth of 92 % children was 5-7 (lbs), stature at birth of 54 % children was low. 48% children were physically active. Mean and standard deviation of head, chest and waist circumference was  $51.31 \pm 8.51$ ,  $42.28 \pm 5.55$  and  $36.82 \pm 5.16$  respectively. 28% mothers were belonged to age category 35-39 years, 98 % mothers were educated and 82 % were housewives and 72 % had income in between 21-90k.

Conclusion: This study showed that BMI and physical activities are associated with each other. Positive correlation is present between nutritional status and risk factors of Down syndrome.

## **EFFECT OF FOOD INSECURITY DURING PREGNANCY ON BIRTH WEIGHT OF NEONATES: A PROSPECTIVE COHORT**

Ayesha Saeed, Mobina Naqvi

**Background:** Pakistan has serious hunger level and ranks 107 of 118 countries on Global Hunger Index. Food insecurity is among major causes of under-nutrition and has been associated with birth weight. The prevalence of food insecurity has not been explored in Pakistan; neither its implication for birth weight. Objective: To identify the effect of food insecurity during pregnancy on birth weight of neonates.

**Methods:** In a prospective cohort conducted at Shalamar Hospital Lahore; from April till August 2016. Written informed consent was obtained from 104 eligible pregnant women. Data on demography was collected through a structured questionnaire. Exposure was assessed through U.S. Household Food Security Survey (6-item version) and cohort was followed till delivery and birth weight was recorded. Follow up could be completed for 50 women only and response rate was 49%. Descriptive statistics were calculated and Fisher's Exact Test was applied to observe association in exposure and outcome variables and a p-value of  $<0.05$  was taken as significant. SPSS version 20 was used to analyze data. Results: Mean maternal age was  $28.100 \pm 4.824$  years, mean education was  $12.400 \pm 2.138$  years, mean BMI was  $29.420 \pm 5.075$  and mean household income was PKR  $25641 \pm 16251.543$ . Mean birth weight was  $2.814 \pm 0.551$  kg and had a significant relationship with household income ( $r=0.287$ ,  $p=0.043$ ). 34% women were LFS and 4% were VLFS and food insecurity was found to be associated with LBW (p-value 0.002). Conclusion: It was concluded that food insecurity in pregnancy is associated with low birth weight in neonates. Antenatal screening of food insecurity and timely provision food supplements through social welfare can help reduce neonatal morbidity and mortality.

**Key words:** Food Insecurity, Low Birth Weight, Pregnancy, Cohort Studies.

## **THE OBJECTIVE OF MY STUDY IS TO FIND OUT MOST CAUSATIVE MICROORGANISM INVOLVED IN POST OP WOUND INFECTION IN ELECTIVE LAPAROTOMY.**

Sofia Noor

### **Material and Methods**

The current study was conducted in the surgery ward of children's hospital and the institute of child health, Lahore. Data was collected by using random sampling technique within the period of six months (after the approval of synopsis). In this study, patients of both genders were included.

Result: Out of total 15 patients, 40% patients were having E.Coli, 13.3% patients were having pseudomonas, 13.3% patients were having klebsiella, (13.3%) patients were having no growth and 6.7% patients were having pseudomonas fluorescence, acinobactor and staph aureus.

Conclusion: In the current study the most common reasons of wound infection in elective laparotomy were increase in duration of surgery and number of surgeons involved in surgery and it was concluded that most abundant microorganism isolated was E.coli.

## **EFFECTIVENESS OF PREFABRICATED AND CUSTOM MADE INSOLES IN ADULT ACQUIRING FLAT FOOT DEFORMITY**

Meveshal

**BACKGROUND:** Adult acquired flat foot deformity (AAFD) is a painful condition that results from the collapse of the longitudinal (lengthwise) arch of the foot. This condition is not present at birth or during childhood. It occurs after the skeleton is fully matured

**AIM:** To determine which type of insole is more effective in treatment of adult acquired flat foot deformity and to determine the efficacy of insoles in management of AAFD.

**Material And Methods:** Total 60 patients are included in the study divided into 2 groups one is prescribed with custom made insole other one is with prefabricated insoles and data is collected on especially designed per forma. After data collection data is coded on SPSS version 20 and descriptive statistics means standard deviations and cross tabulation is used to analyze the data.

**RESULT:** The comparison of means of variables with insole given is taken. The variables reduce pain, prevent from surgery, improve mobility/gait, inhibit further deformity, correct current alignment, promote safety and walking with custom made insoles have mean (3.60

,3.40,3.20,3.20,3.33,3.47,3.20) while with prefabricated insoles have mean (2.67,2.60,2.87,2.67,2.87,3.07,2.80) respectively. The means differences showed that means with custom made insoles are greater than means with prefabricated insoles. Greater means showed that custom made insoles are more effective than prefabricated insoles

**Conclusion:** I concluded that custom made insoles are more effective than prefabricated insoles in conservative treatment of adult acquiring flat foot deformity. Custom made insoles also better improve the functional activities of subjects such as gait or mobility, safety and walking.

**Keywords:** AAF: adult acquired flat foot,AAFD: adult acquired flat foot deformity,PTTI: posterior tibial tendon insufficiency,NSAIDs: non-steroidal anti inflammatory drugs ,FO: foot orthosis ,CMFO: custom made foot orthosis.

## **SILENT KILLERS: TRANSFUSION TRANSMISSIBLE INFECTIONS-TTI, AMONG ASYMPTOMATIC POPULATION OF PAKISTAN**

Muhammad Saeed, Aamir Hanif, Farhan Rasheed

**Objective:** To analyse transfusion transmissible infections in asymptomatic population.

**Methods:** This study was conducted at the Allama Iqbal Medical College and Jinnah Hospital, Lahore, Pakistan, from December 2014 to November 2015, and comprised healthy asymptomatic blood donors. Every sample was screened for the presence of antibodies/antigens of hepatitis C virus, human immunodeficiency virus, treponema pallidum, hepatitis B virus and malaria parasite through rapid immunochromatographic technique.

**Results:** Of the 18,274 blood donors, 17,276(94.53%) were found healthy and 998(5.46%) were infected. Besides, 71(0.38%) had multiple infections. The overall frequency of anti-hepatitis C virus, treponema pallidum (syphilis), hepatitis B surface antigen, malaria parasite and anti-human immunodeficiency virus was 480(2.62%), 284(1.55%), 210(1.10%), 20(0.10%) and 4(0.02%), respectively.

**Conclusion:** Blood transfusion was found to be a significant but preventable mode of spread of transfusion transmissible infections.

**Key Words:** TTI, Asymptomatic Blood Donors, ICT.

## **GENE XPERT: A NEW TOOL FOR THE RAPID DETECTION OF RIFAMPICIN RESISTANCE IN MYCOBACTERIUM TUBERCULOSIS**

Muhammad Saeed, Shagufta Iram, Shahida Hussain,  
Adeel Ahmed, Mamoon Akbar, Maleeha Aslam

**Objective:** To evaluate the diagnostic accuracy of GeneXpert(MTB/RIF) assay for the detection of Rifampicin (RIF) resistance in Mycobacterium Tuberculosis(MTB) using conventional drug susceptibility testing (DST) as “Gold Standard”.

**Methods:** A total of 2200 pulmonary and extra-pulmonary specimens were collected from strong TB suspects from January 2012 to December 2014. All specimens were processed for ZN staining, LJ culture according to WHO protocol and GeneXpert (MTB/RIF) assay as per manufacturer instructions. All MTB positive cases on LJ culture were further processed for DST.

**Results:** Out of 2200 TB suspects, 840 (49.46%) cases were positive for MTB on GeneXpert (MTB/RIF) assay. Among these 15.6% (134/840) cases showed RIF resistance on GeneXpert(MTB/RIF) assay. The sensitivity, specificity, PPV and NPV of GeneXpert (MTB/RIF) assay for RIF resistance were found to be 98.3%, 99.1%, 94.7% and 99.4% respectively by comparing the results with DST.

**Conclusion:** Our study revealed that GeneXpert (MTB/RIF) assay is an extremely helpful diagnostic tool for the detection of RIF resistance in TB suspects with fairly high sensitivity and specificity along with 2 hours turnout time, which facilitates proper in time management and treatment among MDR-TB patients in developing countries.

**Keywords:** GeneXpert MTB/RIF assay, Mycobacterium Tuberculosis, Rifampicin resistance, Drug susceptibility testing.

## **CONFEDERACY OF ABO ALLELES WITH ISCHEMIC HEART DISEASE IN PAKISTAN: AN ANGIOGRAPHIC STUDY**

Muhammad Saeed, Farhan Rasheed, Maqsood Ahmad

**Objective:** To establish weather the ABO alleles are in confederacy with Ischemic Heart Disease in Pakistani Population

**Patients and Methods:** Sample Selection/Sample Size: 734 IHD suspects 500 Controls / Non probability / purposive sampling

**Data Collection and Analysis:** A total of 734 suspects of IHD were selected out of which 599 (81%) were diagnosed as confirmed IHD patients by interventional coronary. 500 individuals (control Group) were selected from adult healthy blood donors with no symptoms of IHD and normal ECG. All subjects were processed for ABO blood grouping by commercially available standard hem-agglutination technique, Baseline characteristics Cardio-vascular risk factors were collected by cardiologist.

**RESULTS:** Mean age among cases was 48 years SD 12.34 and among controls was 47.3 SD 12.38, 68.8% were male and 30.1% were females among case and 76.4% were male and 23.6% were female. ABO blood group among cases was, 36.1% had A, 27.0% had B, 19.2% had AB and 17.7% had O blood group. ABO blood group among controls was, 20.0% had A, 28.4% had B, 7.5% had AB and 27.5% had O blood group. Risk factors among cases, 77.1% were smokers, 71.1% had hypertension, 73.1% had hyperlipidemia, 41.1% had diabetes, 39.1% had family history, 36.1% do exercise, and 75.0% were ghee abuser. Risk factors among controls, 27.8% were smokers, 42.2% had hypertension, 37.0% had hyperlipidemia, 15.0% had diabetes, 42.6% had family history, 59.2% do exercise, and 34.6% were ghee abuser. ( $P < .05$ )

**Conclusion:** Blood group type “A” is significantly associated with ischemic heart disease. There is significant difference for risk factors between cases and control groups.

**KEYWORDS:** ABO , Ischemic heart disease, Risk factors, Pakistan



## **FREQUENCY OF DIABETES MELLITUS AMONG CHRONIC LIVER DISEASE PATIENTS AT TERTIARY CARE HOSPITAL LAHORE**

Anum Basharat, Muhammad Saeed, Dr. Iqbal Javaid  
Mehak Sajjad, Farhan Rasheed, Prof. Ambereen Anwar

**Background:** Alterations in carbohydrate metabolism is associated with chronic liver disease. Because liver is responsible for balance of glucose and its metabolism. Therefore liver disease is significantly associated with glucose abnormalities.

**Objectives:** To evaluate the association of diabetes mellitus with chronic liver disease (CLD)

**Study settings:** Chemical pathology department, Allama Iqbal Medical College Lahore Pakistan.

**Material and methods:** a total of 100 samples were collected from chronic liver diseased diagnosed patients from medical wards of Jinnah Hospital Lahore, during the period of 1st August 2015 to 31 January 2015. Every sample was processed for Blood sugar fasting, two-hour levels, and HbA<sub>1c</sub>, diagnosis was made on the according to American Diabetes Association guidelines.

**Results:** out of 100 CLD patients 51.0% (n=51) were male and 49.0% (n=49) were females. The mean age was 36.61±11.3years. Diabetes was diagnosed in 52.0% (n=52) patients.

**Conclusions:** Chronic liver disease patients were more prone to develop diabetes.

**Keywords:** CLD,DM,AIMC,JHL

## **LEVEL OF STRESS AND ITS ASSOCIATION WITH SOCIO-DEMOGRAPHIC FACTORS AMONG STUDENTS OF ALLIED HEALTH SCIENCES AT RAWALPINDI MEDICAL COLLEGE**

Badur-un-Nisa, Dr. M. kashif

1 Final year student (B.Sc Hons Orthotics and Prosthetics) at Rawalpindi Medical College  
2- Assistant Professor Institute of Psychiatry Benazir Bhutto Hospital, Rawalpindi Medical College.

**Background:** Stress and anxiety are commonly associated with demanding and challenging education in the field of medical and Health sciences. This study assesses level of stress among the students of allied Health sciences at Rawalpindi Medical College and association of stress with socio-demographic factors.

**Methods:** A cross-sectional study of six months was conducted on 200 Allied Health students (AHS) at Rawalpindi medical College in 2015. A sample of 200 hundred students was drawn through Stratified random sampling. The data was collected through a semi-structured Performa and the Student Life Stress Inventory (SLSI) scale. Data was analysed with SPSS version 17.

**Results:** Stress was observed in all 195 students (100%). The results showed that 25.1% of students were mildly stressed, 51.3% moderately stress and 23.6% were severely stressed. Relatively higher level of stress (58%) was found in the students of Prosthetics & Orthotics discipline but no statistically significant difference was observed. ( $p=0.42$ ). Amongst all, 81% female students were stressed as compared to only 19% male students ( $p=0.03$ ).

**Conclusion** Stress was present in all AHS students, moderate stress being the commonly prevalent and it was more common in female students as compared to male students, irrespective of disciplines or academic years.

**Key words:** Stress, Psychological, Allied Health Occupations/education\* Demography, This paper has been published in Journal of Rawalpindi Medical College (JRMC) and Some part of this paper is presented in 9th SAARC Psychiatric Conference 2016 (4 to 6 March) at Serena Hotel Islamabad

## **ANALYSIS OF MICROBIAL FLORA FROM PATIENTS SUFFERING FROM PERIAPICAL ABSCESS**

Muhammad Alamgir, Saba Shamim, Mehmood Hussain Qazi

**Objective:** To study isolation, characterization and antimicrobial sensitivity of the microbial flora from patients suffering from periapical abscess.

**Background:** As teeth are an important part of human body, their health is very important. In any ignorance, it can lead to dental problems. The sequence of dental diseases is from an ordinary dental infection, gingivitis, periodontitis, and cellulitis leading to periapical abscess. Siqueira and Rôcas, (2013) defined apical abscess as an infection of tooth root canal. Apical abscess commonly persists in the society in which uneducated people lives as they do not care for personal hygiene including dental health.

**Materials and methods:** Total 100 oral swabs were collected from Dental Hospital, The University of Lahore. The microbial growth were isolated on Luria Bertani medium. After morphological and biochemical characterization, growth optimization was done on the basis of different temperature ranges, different pH and different carbon sources. After that four different motilities pattern were performed for each isolate. Finally, antibiogram test was performed.

**Results:** Total 7 Gram positive bacterial isolates *Actinomyces* sp. (*A. naeslundii*, *A. israelii*, and *A. viscosus*), *Streptococcus* sp. (*S. mutans*, *S. sanguis*), *Corynebacterium* sp., *Lactobacillus* sp., *Fusobacterium* sp., *Bacteroides* sp. and *Staphylococcus* sp. were obtained. Out of seven isolates, four *Corynebacterium* sp., *Lactobacillus* sp., *Fusobacterium* sp. and *Bacteroides* sp. were anaerobic while three were aerobic *Actinomyces* sp., *Streptococcus* sp., and *Staphylococcus* sp.

**Conclusion:** This study reveals the optimum growth conditions were 37 °C, pH 7 and glucose as carbon source. Chemotaxis experiments confirmed the presence of both flagella and type IV pili. According to antibiogram results, *Streptococcus* and *Fusobacterium* were sensitive to amoxicillin and Cephalosporin generations (1st, 2nd and 3rd). *Bacteroides* was sensitive to 3rd generation Cephalosporins only, showing resistance to others.

**Key words:** Periapical abscess; Luria Bertani Agar; Chemotaxis.

## **KNOWLEDGE OF NURSES ON THE MANAGEMENT OF DENGUE FEVER IN TERTIARY CARE HOSPITALS OF LAHORE AND RAWALPINDI**

Kamran Munawar

### **Introduction**

Dengue fever is very dynamic in nature and producing life threatening results in Pakistan and other part of the world and require great attention by the health care professional. As majority of the patient comes to tertiary care hospitals for the treatment and management of the disease. The best and cheapest way to combat the disease is to spread its knowledge and awareness. Dengue related mortalities and economic challenges can be minimized and even prevented with proper awareness and management by nurses and knowing there level of knowledge is a great edge in understanding the impact of this disease on health professionals.

### **Research Methodology:**

The proposed study design for this study is cross sectional descriptive study design. A sample of 280 staff nurses working in tertiary care hospitals were selected from Lahore and Rawalpindi hospitals by using method of non-probability convenient sampling. Data was collected by self-administered questionnaire. The data was analysed by SPSS version 20 and Microsoft Excel. Data was represented in the form of figures, tables, graphs, statistical association was found by using Chi-Square test among level of knowledge and demographic variables.

### **Results:**

The results indicate that a major proportion of staff nurses 227 (76%) were having poor level of knowledge as they scored less than 50% of scores on knowledge based questions and only 4% were found with excellent knowledge according to arbitrary scale.

### **Conclusion:**

The findings of study suggest that there is an inadequate knowledge of diploma nurses working in great strength in tertiary care hospitals of Lahore and Rawalpindi and there is a need to build a proper educational training programme for diploma nurses

**Key Words:** dengue fever, dengue hemorrhagic fever, knowledge

## EXPERIENCE OF THE BREAST CANCER PATIENTS UNDERGOING RADIOTHERAPY AT A PUBLIC HOSPITAL PESHAWAR PAKISTAN

Gulzar Habibullah

**Background:** Globally quality of life (QoL) has become an important indicator to measure the outcomes of medical and nursing interventions. The QoL studies play an imperative role for the patients especially suffering from the chronic disease as the latest diagnostic and treatment modalities has increased the survival rates of patients suffering from cancer and other chronic diseases. The QoL of Pakistani woman with breast cancer is a significant healthcare issue; therefore it requires to be addressed on priority bases.

**Aim:** The purpose of this study was to evaluate the QoL of Pakistani women with Breast Cancer patients undergoing chemotherapy and relationship of QoL with socio demographic variables.

**Methodology:** A descriptive cross sectional study was conducted on 110 female breast cancer patients undergoing chemotherapy. FACIT-B questionnaire was used to assess the quality of life these patients. SPSS version 20 was used for the statistical analysis of the data. Pearson correlation coefficient, Chi-square and Spearman's rho correlation coefficient tests were applied.

**Results:** The mean age of participants was (mean $\pm$  SD)  $42.98 \pm 8.98$ . Significant negative correlation was observed with age and QoL,  $r = -0.218$ , p-value 0.022. No significant association was observed between QoL and marital status; education status; and socioeconomic status. Overall QoL score (Mean  $\pm$  SD)  $89.20 \pm 18.39$  was observed in all domains of QoL that indicates a moderate quality of life in the study subjects.

Lowest QoL score was seen in Physical well-being domain (Mean  $\pm$  SD)  $1.96 \pm 1.27$  and highest in Emotional wellbeing (Mean  $\pm$  SD)  $2.66 \pm 1.26$  then in Functional well-being (Mean  $\pm$  SD)  $2.40 \pm 1.24$ . Subsequently in Breast cancer subscale (additional concerns) QoL scores were (Mean  $\pm$  SD)  $2.36 \pm 1.28$  and in Social / Family well-being (Mean  $\pm$  SD)  $2.33 \pm 1.25$ . There was significant negative correlation between age and physical well-being domain,  $r = -0.304$ , p-value 0.001 but no significant correlation was found between age and remaining four domains of quality of life i.e., social well-being,  $r = -0.024$ , p-value 0.806, emotional well-being  $r = -0.144$ , p-value 0.133 functional well-being,  $r = -0.106$ , p-value 0.268 and breast cancer subscale  $r = -0.158$ , p-value 0.099.

**Conclusion:** It was concluded that majority of breast cancer women 59 (53.6%) had moderate QoL and Chemotherapy has shown moderate impacts on different domains: physical, functional, emotional, social and sexual well-being of the women. Most affected domain of QoL was physical and least affected was emotional well-being in the participants of this study.

## **ASSOCIATION OF CHILD'S NUTRITIONAL STATUS WITH IMMUNIZATION AND MOTHER'S NUTRITIONAL KNOWLEDGE.**

Farah batool

**Background:** Malnutrition is one the major public health problem in developing countries. In Pakistan greater than 38% of the children are under weight and stunted. Nutrition problems are at times due to lack of nutritional knowledge of mothers. The current study is being done to assess the nutrition status of children of 6 months to 5 years of age in District Kasur.

**Objectives:** To determine the association of child's nutritional status to immunization and mother's nutritional knowledge.

**Methods:** A community based cross sectional descriptive survey was done on mothers having children 06 months to 5years of age residing in the rural area of Mustafa abad, District Kasur. Convenience sampling technique was used and sample size was 100. For data collection a questionnaire was designed. Nutritional status of children was measured in term of stunting, wasting and under weight, according to the WHO's criteria of malnutrition – NCHS. Data were entered in SPSS and analyzed.

**Results:** For those mothers who had well nutritional knowledge, the children's height and weight were well correlated against the mothers who showed poor nutritional knowledge. The immunization coverage of this area was good.

**Conclusion:** malnutrition is prevalent in our children. Nutritional status of the children has a definite association with the Mother's Nutritional knowledge and immunization.

**Keywords:** Malnutrition, under Nutrition, Nutritional knowledge, under-5 children, Anthropometry, stunting, wasting, underweight, Immunization.

## FUNCTIONAL OUTCOME OF LATERAL SHOE WEDGING WITH QUADRICEPS STRENGTHENING EXERCISES IN MANAGEMENT OF MEDIAL KNEE OSTEOARTHRITIS

Nayyab Nasir

**Background:** Osteoarthritis also known as degenerative joint disease, is the most common musculoskeletal problem of the knee joint mostly affecting older people but young as well. If left neglected or untreated, its unpredictable pain and stiffness makes it difficult for patients to take part in planned activities leading to increase depression and anxiety, medication overuse, lack of self efficacy, ageing and hence decreased quality of life that worsens day by day.

**Aims:** The main aim of the study is to find the functional outcome of lateral shoe wedging with quadriceps strengthening exercises in management of medial knee osteoarthritis symptoms.

**Material and method:** It is a descriptive study and is performed at Orthopedics Rehabilitation Centre of Benazir Bhutto hospital, Rawalpindi. Data of 4 to 5 months has been collected in such a way that patients have been recruited with informed consent to rehabilitation unit, then patients have given shoe wedge with a quadriceps strengthening exercise and their follow ups are maintained after every 15 days on a specially designed Performa (Bio-data, main complaints, associated complaints). Patient's outcome is observed in terms of subjective evaluation according to KOOS questionnaire after every 2 weeks of management. Follow ups are also ensured by recording the contact number of patients.

**Results:** After applying z-test on pain variable its mean value before applying exercise and wedging and after comes out to be 2.60 & 1.15 and p value is .000. Similarly after applying z statistics the mean value of different activities of ADL (ascending stairs, descending stairs, rising from sitting, putting on socks, rising from bed, lying in bed, getting in /out toilet, heavy duties and light domestic duties ) before wedging and exercise comes out to be (3.15, 3.25, 2.85, 2.30, 3.05, 3.05, 3.35, 3.50, 2.35) respectively and mean value of different activities of ADL (ascending stairs, descending stairs, rising from sitting, putting on socks, rising from bed, lying in bed, getting in /out toilet, heavy duties and light domestic duties ) after wedging and exercise comes out to be ( 1.15, 1.45, 1.45, 0.45, 1.55, 1.40, 1.55, 2.00, 0.60) respectively and p value is .000. There were no effect on structural deformity of disease as mean value before and after wedging and exercise were same (2.30).

**Conclusion:** As the p value is 0.000 so results are highly significant and there is significant improvement in patients who showed maximum compliance with exercise and shoe wedging. There is also considerable decrease in the mean values of pain and ADL activities after the wedged shoes and exercise and hence there is a significant betterment in symptoms of osteoarthritis.

**Key words:** OA: Osteoarthritis, KOOS: knee injury and outcome score, ADL activities of daily living, TKR: total knee replacement

## **A COMPARATIVE STUDY OF DEPRESSION AMONG MALE AND FEMALE TUBERCULOSIS PATIENTS**

Nouman Faryad, Sadaf Afreen, Zia-Ur-Rehman Farooqi

**Background:** The present study aims to explore a comparison of depression between male and female tuberculosis patients and apply a systematic, quantitative approach to develop a hypothesis that females have more negative effects of tuberculosis than males. Tuberculosis adversely affects patient's performance during routine life while depression is commonly comorbid with prolonged and severe illness and later on comes out extremely adverse clinical outcome. In the current study, a survey aimed to identify impacts of tuberculosis on patient's life through a standardized Beck Depression Inventory by Aaron Beck (1961) including 21-questions considered as one of the most widely used psychometric tests for measuring the severity of depression. Currently the literature review on the relationship of tuberculosis and depression in terms of gender is very limited. So there was need to conduct such study.

**Objectives:** To find out significant difference of depression between male and female tuberculosis patients.

**Materials and Methods:** Primarily pilot study has been conducted on 24 Patients to verify the questionnaire reliability for both male and female patients. Test has administered on 400 Patients consisting 200 males and 200 females through convenience sampling.

**Results:** The results revealed that there was a significant relationship between tuberculosis and depression while significant gender differences were observed. Results provided a direction to treat tuberculosis through different perspectives as it is proving that female patients have more depression than males. Measures of mean difference were computed for determining depression by descriptive frequencies.

**Conclusion:** It can be concluded that current study helped to identify higher ratio of depression after tuberculosis among females. These findings extend the previous studies carried out on tuberculosis and its reflections encourage further studies. Further studies can be conducted on depression among patients by considering different diseases, age and social status.

**Key words:** Depression, Gender, Tuberculosis, Significant



## **COMPARITVIE STUDY OF QUALITY OF LIFE AMONG AUTISTIC CHILDREN PARENTS AND TYPICALLY DEVELOPED CHILDREN PARENTS**

Amna Mumtaz, Sadaf Afreen, Zia -UR- Rehman Farooqi

**Background:** This study aimed to examine whether there is a variation in terms of quality of life of autistic and typically developed child parents. Previous studies indicated that caregivers of autistic children are adversely effected and high level stress anxiety and depression. In the current study, through systematic quantitative approach a survey aimed to identify comparison of quality of life of both autistic children and typically developed children parents through a standardized Quality of life scale developed by WHO including 26items. Currently the literature review on the comparison of quality of life covering different aspects of life in terms of autistic child and typically developed child parents is very limited. So there was need to conduct such study.

**Objectives:** To find out significant difference of quality of life between autistic children and typically developed children parents

**Materials and Methods:** Primarily pilot study has been conducted on 20 Parents to verify the questionnaire reliability for both. Test has administered on 200 Parents consisting 100 autistic children parents and 100 typically developed children parents through purposive convenience sampling.

**Results:** The results revealed that all indices of quality of life are more effected in parents of autistic children than typically developed children parents. Results provided a direction to focus on parents of autistic children as well through different perspectives. Measures of mean difference were computed for determining quality of life by descriptive frequencies.

**Conclusion:** It can be concluded that current study helped to identify higher ratio of significant differences among parents of autistic and typically developed children's. These findings extend the previous studies carried out on autism caregivers and its reflections encourage further studies. Further studies can be conducted on quality of life among parents by considering different diseased children.

**Key words:** Quality of life, Parents, Autism, Typicly

## **EVALUATION OF NURSING CARE PLANS IMPLEMENTATION IN NURSING PRACTICE AT CENTRAL PARK TEACHING HOSPITAL AND BHATTI INTERNATIONAL TEACHING HOSPITAL LAHORE; NURSES' PERSPECTIVE**

Ejaz Fatima

Nurses play an important role in promoting public health. During the period of my teaching in nursing college, I observed the difficulties faced by nurses in providing ideal health care to the patients and dealing with the client/patient. The purpose of this study was to identify NNN classifications [NANDA International (NANDA-I), the Nursing Interventions Classification (NIC) and the Nursing Outcomes Classification (NOC)] used in nursing care plans for ICU patient care and to determine the factors which influenced the change of the NOC nursing out-come scores. I studied nurses' performance reports and patient records of Central Park Teaching Hospital (CPTH) and Bhatti International Teaching Hospital (BIT). When the NIC interventions and NOC outcomes used in the actual nursing care plans of CPTH and BIT were compared with core interventions and outcomes for critical care nursing suggested by experts, it was found that the performance of nurses was affected by a number of factors and it could be improved. The factors responsible for the determent of nurses' performance included poor understanding of the concept of nursing process along with lack of facilities and poor acceptance of nurses in health sector. Nurses consider health promotion important but a number of obstacles associated with organizational culture prevent effective delivery. Several factors contributing to the change in the five common NOC outcome scores were identified: the diagnoses, duration of hospital stay, gender, and type of ICU/ward. The results of this study can provide valuable information for the development of knowledge and skills in patient care.

Significance: The objective of this was to find the gaps and error in nursing practices to improve the patient care outcomes.

Key words: Public health, nursing care plans, nursing process, outcomes.

## **HEPATOPROTECTIVE EVALUATION OF POLYHERBAL FORMULATION I AGAINST PARACETAMOL INDUCED HEPATOTOXICITY IN RABBITS.**

Shoaib Rana

**Back Ground:** The use of medicinal plants has been documented in history of all civilization. Secondary metabolites are the compounds that are responsible for medicinal properties of plants. The use of medicinal herbs in the treatment and prevention of diseases is attracting attention worldwide. Natural antioxidant phenol in plants for example, protects plant cells from oxidation, and often performs the same function in the human body. Our bodies recognize the substances that occur in plants and possess sophisticated mechanisms for metabolizing plant materials.

**Materials and Methods:** The study was performed on 15 rabbits used as experimental animals. Polyherbal Formulation (PHF) I was given in the dose of 50 mg/kg body weight for 7 days and toxicity was induced by paracetamol (2 g/kg). Silymarin (100 mg/kg body weight) was used as reference standard. On the 7th day animals were sacrificed and liver function markers (ALT, AST, ALP), total bilirubin and histopathology were done. Statistical analysis was done using standard error of mean and 't' test.

**Findings:** PHF I treatment significantly restored the paracetamol-induced elevations in levels of serum enzymes aspartate transaminase (AST), alanine transaminase (ALT), alkaline phosphate (ALP) and total bilirubin in a dose dependent manner. Histopathological examination revealed that the treatment attenuated the paracetamol-induced damage to liver. The hepatoprotective effect was comparable to that of the standard hepatoprotective agent, silymarin.

**Conclusion:** The study shows that Polyherbal Formulation (PHF) I exhibited hepatoprotective action against paracetamol induced hepatotoxicity.

**Keywords:** PHF=polyherbal formulation, aspartate transaminase (AST), alanine transaminase (ALT), alkaline phosphate (ALP).

## **FREQUENCY OF ADOLESCENT IDIOPATHIC SCOLIOSIS IN SECONDARY SCHOOL GIRLS**

Amal Shakeel

**Background:** Scoliosis is a three-dimensional deformity of the spine that includes lateral or sideways curvature of the spine greater than 10 degrees accompanied by vertebral rotation. Screening of scoliosis in schools is a useful non-invasive method of physical examination for the detection of the curves at an early stage that would otherwise go unnoticed. The rationale behind this study is to enable early identification of scoliosis when the deformity is likely to go unnoticed and permits prompt initiation of treatment. The study will also educate students, parents, school staff, and the community about the need for early detection of scoliosis and its treatment. The objectives of this study is to describe the frequency of idiopathic scoliosis in secondary school girls and to aware the importance of screening for idiopathic scoliosis in secondary school girls.

**Methodology:** This is cross-sectional descriptive study and the data will be collected with the help of scoliosis screening form taken from School Health Program, California State Department of Education. A sample of 139 subjects from different schools of Lahore will be selected by systematic sampling. The data will be analyzed by IBM SPSS STATISTICS 20. The quantitative variables will be presented as mean and standard deviation while qualitative variables will be evaluated as proportions (%) and frequencies.

**KEY WORDS:** Idiopathic Scoliosis, Screening, Secondary school girls.

## **REFLECTION OF PHYSIOTHERAPY LEADERS ABOUT THEIR LEADERSHIP EFFECTIVENESS**

Samreen

**Background:** Effective leadership requires the manager to be vigilant and be able to address the conflicting issues. In the health care environment four leadership frames have been identified which includes structural, human resource, political and symbolic. The utilization of at least three of the four leadership orientation frames is important to manage an organization efficiently. Leadership in physical therapy is essential so that the profession can endure the changing circumstances. The purpose of the study is to describe the perception and to evaluate the leadership orientation of physical therapist leaders. This is the first survey about the leadership frames in physical therapy profession in Pakistan.

**Methods:** A cross-sectional study will be conducted on 27 physiotherapist leaders including head of departments of private and public setups in Lahore. The sampling technique used

will be non-probability purposive sampling. The duration of the study will be 4 months. Leadership qualities will be assessed using the Bolman and Deal Leadership orientation Index. This tool includes four leadership frames; structural, human resource, political and symbolic. Respondents will be asked to rate their leadership traits on 4 point graded scale (4= best describes you, 1= least describes you). Qualitative variables will be expressed as percentages and descriptive statistics will be used to present the data.

## **THE OUTCOME OF LOWER LIMB STRENGTH TRAINING IN CHILDREN WITH SPASTIC DIPLEGIA**

Sharjeel Anjum

**Background:** Until very recently, resistance training was considered unsuitable for children with CP because of the unsubstantiated supposition that such training would increase spasticity. However, recent studies have shown that PRE strength training programs can improve lower limb strength without increasing spasticity. The data available on the effect of strength training on CP is limited also the training protocols are not consistently defined. This study endeavours to define a method and training protocol for the resistance training and its effect on children with CP.

**Objective:** The objective of this study was to assess the effect of progressive strength training on gross motor function in children with cerebral palsy.

**Methods:** 45 children with Gross Motor Function Classification System (GMFCS) 1-3 were recruited using convenience sampling. Strength training was given three times a week for 12 weeks. Each training session lasted for 45-60 minutes. Five exercises were performed in each session. The resistance was increased according to level of strength of each child calculated by one repetition maximum (1RM). The outcome measure was Gross Motor Function Measure 88 (GMFM 88). Two measurements were made one at the start of training protocol and the second at the end of 12 weeks.

**Results:** Descriptive statistical tools were used to analyze data. Mean pre intervention score was 64.49 and mean post intervention score was 64.49. Mean change in GMFM score after 12 weeks was 4.20. Mean of pre and post intervention scores were compared by using Wilcoxon signed rank test and it showed significant increase in the post score ( $p$  value < 0.05).

**Conclusion:** Results showed a significant improvement in child GMFM score especially in standing and walking ability after resistance training. Thus it can be inferred from the results that functional strength training is helpful in improving the strength and physical ability of children.

## **MUSCLE ENERGY TECHNIQUE IN COMBINATION WITH STRETCHING TECHNIQUE AND STRETCHING ALONE ON DEACTIVATION OF TRIGGER POINT PAIN**

Muhammad Tariq Shafi

**Objective:** To compare efficacy of Muscle energy technique alone and combination of Muscle energy Technique with stretching in treatment of Trigger point pain of cervical muscle in terms of pain reduction, and Neck Disability Index.

**Methods:** it was a single blind study. 72 patient with age 18 \_ 50 years having non-specific neck pain with trigger points in trapezius muscle were taken from the physical therapy department of Shalamar hospital Lahore. Patients were randomly assigned into two groups by using random number table; one group received integrated approach (Muscle energy techniques along with stretching) while the second group received stretching. Baseline treatment for both groups was Therapeutic ultrasound (ITO US-100) in Continuous mode, frequency 1MHz, intensity 1.0 W/cm<sup>2</sup> with 70% for 5 minutes. Each maneuver was repeated for three to five times per treatment session 3 days in a week for 4 consecutive weeks. After 4 weeks patients were reassessed for improvement in neck disability index and reduction in pain on visual analogue scale. Independent-Sample T Test was applied.

**Results:** The results showed that The P-value for neck disability index NDI using combined approach was 0.047 and for NPRS was 0.046 which is less than the level of significance 0.05. So the findings of this study indicated that combined approach (MET with stretching) is more effective in deactivation of trigger point's pain in term of reducing pain, and improving neck disability index.

**Conclusion:** It was concluded that combination of muscle energy technique with stretching is more effective than Muscle energy technique alone for patients with trigger point pain.

**Key words:** Muscle Energy Technique, Neck Disability Index, Trigger point, Stretching.

## **SERVICE QUALITY OF PUBLIC AND PRIVATE PHYSICAL THERAPY CLINICS: AN EMPIRICAL STUDY BASED ON SERVQUAL MODEL**

Roohi Abbas

Since health care has become a rapidly growing and highly competitive service industry around the globe, more emphasis is given on patient safety, infection prevention, cost effectiveness, and above all these is superior quality of healthcare services to patient. In order to overcome these issues, hospital around the globe has implemented quality improvement standards, ISO-9000 series of standards, service excellence standards to improve service quality and JCI (Joint Commission International) standards to improve patient safety and infection control issues at hospitals. Literature on quality in healthcare sector is still scarce, and specifically in physical therapy practices a very little studies has been found. Due to the aging population and current life style of people has raised the importance of physical therapy practices. Main objective of study is to evaluate the service quality of physical therapy clinics in public and private hospitals and to what extent these clinics are delivering quality of services to the patient to meet and exceed their perceptions. SERVQUAL is most widely used and generic instrument for measuring service quality and thus this study uses a modified SERVQUAL instrument by considering accessibility and affordability a new dimension to compare service quality of public and private, physical therapy clinics based on patient perceptions and expectations.

**OBJECTIVES:** Quality has been considered as a vital factor to outperform and enable the organizations to deliver best quality and error free service to the customer to gain their satisfaction. Main objective of this study to highlight the importance of quality, patient satisfaction in physiotherapy clinics and to assess the quality of services delivered by public and private physical therapy clinics in Pakistan using modified SERVQUAL instrument.

**METHODS:** It is a comparative cross-sectional study which has been carried out in selected private and public physical therapy clinics, located in 2nd largest city, Lahore of Pakistan which has been carried out over a period of 6 months from approval of synopsis. This research work is purely quantitative and questionnaire is considered as a main research instrument. About 374 patients visiting outpatient department of selected clinics are included through nonprobability purposive sampling. Data is entered and analyzed using SPSS 23.0 and difference of values regarding patient expectation and perceptions was taken to identifying the gaps regarding each dimension of service quality. The values for mean expectations i.e. (E), perceptions i.e. (P) and Gap Score i.e. perception minus expectation (P-E) relating to each dimension of service quality are calculated.

The gap score is calculated by taking expectation values minus perception values and

resulting numbers are mean values ranging from -5 to +5 , in which zero means that patient has perceived the same what he has expected, whereas negative value shows perception lag behind expectations and positive values shows that perception are greater than expectations.

The mean, standard deviation and standard error of mean is calculated to find out the average behavior of physiotherapy clinics and a comparison is made between the mean response of both public and private clinics regarding all six service quality dimensions i.e. reliability, tangibility, assurance, responsiveness, empathy, accessibility and affordability. An independent paired sample t-test is performed the mean differences, t value, degree of freedom and significance (p-value) of these dimensions is calculated to make a comparison of two groups, public and private physical therapy clinics

**RESULTS:** The largest negative quality gap in public physiotherapy clinics was found to be in the item “feedback obtained from the patient” which comes under the dimension “empathy” and also in the item “medical condition explained to the patient” which comes under the dimension of “assurance” and the largest negative quality gap in private physiotherapy clinics was found to be in item of “affordability of service charges” and “consistency of service charges” which comes under dimension “accessibility and affordability” and “Reliability” respectively.

When comparing both setups i.e. public and private physiotherapy setups it is seen that private setup excel in every dimension of service quality from the public setup except for the dimension “accessibility and affordability” where public physiotherapy clinics have shown to gain patient satisfaction regarding this dimension of service quality.

**CONCLUSION:** In the light of above results it is concluded that public physiotherapy clinics needs to improve all six dimensions of Service quality except “Accessibility and Affordability” in order to satisfy patients and improving their overall quality of life by increasing their compliance towards the treatment through satisfying them, whereas Private Physiotherapy clinics needs to improve the dimension “Accessibility and Affordability” of Service Quality in order to satisfy patients to get positive behavioral intention and Word of mouth in order to gain competitive advantages. Public setups needs to emphasize on improvement of “empathy” and “assurance” where largest negative quality gaps were found, where perceptions lags behind expectations and private setups needs to emphasize improvement of dimension “accessibility and affordability” and “reliability” where largest negative quality gaps were found.

**KEYWORDS:** Service quality, Physical Therapy clinics, SERVQUAL, Public and Private Hospitals.



## **ALLIED HEALTH PROFESSIONS IN PAKISTAN: A SWOT ANALYSIS**

Muhammad Shoaib Akhtar

**Background:** Different disciplines of Allied Health Professions are being offered by many universities in Pakistan. Allied health professionals are available in local market now and serving nation in order to promote healthcare delivery system. Different universities are offering similar courses but with different titles and professionals are working in different capacities in the market. This study aims to provide an analysis based on real-time situation of allied health professions in terms of academics, market growth and research nationally and internationally.

**Methods:** Open source data was collected from Higher Education Commission, Allied Health Sciences degree awarding institutes, Primary and Secondary Healthcare Department, Specialized Healthcare and Medical Education Department, foreign professional societies and scholarship agencies. Data presented at websites and public notifications were analyzed to carry out SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of allied health professions in Pakistan.

**Results:** It is found there are too many differences in degree nomenclature and duration awarded by different universities/DAIs. There is lack of central supervisory body presenting allied health professionals. Some professions like MLT, DPT have too many options of higher studies but others till lack it. Job descriptions of each discipline except few are defined by Health Department, Government of Punjab but these are not under practical application anywhere. There are opportunities of overseas education and employment in different regions of the world but an ordinary student, professional or faculty member is unaware of procedures.

**Keywords:** Allied Health Sciences, Job Descriptions, Degree Nomenclature, Research Scholarships, Pakistan.

## **SPEECH AND LANGUAGE PATHOLOGIST (SLPS) PERSPECTIVE REGARDING EFFECTS OF VOICE EXERCISES IN UNILATERAL VOCAL CORD PARALYSIS (UVCP).**

Anum Ashraf, Rabia Azmat, Dr Muhammad Sikander Ghayas Khan, Fazaila Ehsaan, Tariq Manzoor

**Introduction:** Unilateral vocal cord paralysis (UVCP) is a neurogenic disorder that occurs due to damage of recurrent laryngeal nerve a branch of cranial nerve ten (CN X). Two of the major problems that occur with UVCP are voice impairment and swallowing difficulties. Characteristic voice difficulties that occur are instability, breathiness and hoarseness of vocal quality.

**Objective:** The purpose of this study is to evaluate the perspective of Speech-Language Pathologist's regarding the effects of voice exercises in unilateral vocal cord paralysis.

**Methodology:** Cohort prospective pre and post observational study design was conducted within the duration of from October 2014 to March 2015(6 months). Study was conducted in Fatima Memorial College of Medicine and Dentistry. Data was collected by using purposive sampling technique. Sample size of 20 Speech- Language Pathologists (19 Female 1 Male) was calculated from different clinical setting of Lahore, Karachi and Islamabad, having atleast 3 years of clinical experience. Questioner was developed from literature review and expert opinion which encompass all areas of voice assessment as per GIRBAS (grade, instability, roughness, aesthenia, strain) Scale. A two part questionnaire was used before therapy and after therapy. for the duration of 6 months to compare the perspective of speech-language pathologist's regarding effects of voice exercises in UVCP patients.

**Results:** It was reported by all participants that before getting therapy patient's with unilateral vocal cord paralysis usually experience certain deviated voice qualities while after therapy SLP's were asked through questionnaire that do the quality of patient's voice changes ?17 (85%) of them reported 'yes' and 3 (15%) reported 'sometimes'. none of them reported with 'no'. SLP's were asked about that do patient's feel vocal stress after therapy has been administered? 6 (30%) of them responded 'yes', 5 (25%) said 'no' and remaining 9 (45%) said 'sometimes'. That shows that vocal stress remain not resistant . In majority cases it subsides and if still patient feels vocal stress, its intensity has been reduced.90% SLP's reported intensive therapy for voice exercises cause significant improvement in voice.

**Conclusion:** The study shows that voice exercises have a good contribution as a treatment of vocal exercises to improve the voice quality.

**Keywords:** Speech Language Pathologist, Unilateral, Vocal Cord Paralysis, Voice Exercises Effects.

## **DEVELOPMENT OF AN URDU LANGUAGE SCALE FOR CHILDREN BETWEEN THE AGES OF 0-6 YEARS**

Fazal Butt, Azka Azhar

**Background:** Language is a system of conventional signs and symbols that people of particular region or community use to express ideas and feelings and in Pakistan there is no tool available for Urdu language for assessment of delays and disorders. Mostly English language tools are used for the assessment of language delays and disorders that are not applicable on our Urdu speaking population.

**Objective:** To Develop an Urdu language scale for children between the ages of 0-6 years.

**Methodology:** This exploratory study was conducted at Normal mainstream schools and day care centre on Children with normal language development between the ages of 0-6 years from January 2016 to June 2016 by using convenient sampling technique. Firstly, the items for the questionnaire were constructed for both receptive language and expressive language from four sources: literature review, experts, parents and direct observation of 384 Children of same age. Secondly the constructed test items were sent to the experts. Thirdly, after the improvement of questionnaire these items were again send to Urdu experts and were finalized. Fourthly, these items were tested for Relevance, Ambiguity, Clarity and Simplicity from experts. After the development of the scale, reliability and validity of the scale was analyzed by using SPSS.

**Results:**

There were total 130 test items, 71 for expressive language subscale and 59 for receptive language subscale. Each age range had different test items distribution. The mean of the relevance, clarity, simplicity, ambiguity of receptive language test items was 3.89 and 3.92 for expressive language test items. The Item content validity index value was 1 for test items of each subscale. The content validity index for each subscale was 1. The Cronbach's alpha is 0.948 for receptive language scale and 0.976 for expressive language scale, which indicates a high level of internal consistency for both subscales.

**Conclusion:** The developed Urdu Language Scale is reliable and valid.

**Key words:**

Urdu, Receptive language, Expressive language, Reliability, Validity

## **FACTOR INFLUENCING CEREBRAL PALSY PARENTS /CAREGIVERS ADHERENCE TO SPEECH THERAPY INTERVENTION.**

Mamona Riaz (Riphah International university),

Dr. Huma Riaz (Riphah International university)

Dr. Nayyab Iftikhar (Riphah International university)

Dr. Muhammad Sikandar Ghayas (Riphah International university)

**BACKGROUND:** Cerebral palsy is regarded as one of the leading cause for disability worldwide. Speech symptoms are usually associated with poor control of respiration, laryngeal dysfunctions and velo-pharyngeal malfunction. It is chronic condition that needs continuous and regular speech therapy. However, patients show poor adherence to the treatment sessions due to many reasons.

### **PURPOSE OF THE STUDY**

The purpose of this study was to investigate factors influencing cerebral palsy parents/ caregivers' adherence to prescribed speech therapy plan.

### **MATERIAL AND METHODS**

The study used quantitative descriptive design. Cross Sectional Survey was conducted. It was carried out in Speech therapy Departments of different institutes. The target population was the parents (n=100) bringing their cerebral palsy children for speech Therapy. Almost 6 months were taken to complete the study. Non-probability, convenient sampling technique was used. Structured questionnaire formed after extensive literature search and reviewed by experts to check validity and reliability of Questionnaire. Parts of Questionnaire were Demographics questions, Adherence question and Questions related to Factors influencing adherence to therapy. The data was analyzed by the application of descriptive and inferential statistics through SPSS-21 software.

### **RESULTS**

The Cronbach  $\alpha$  of the instrument is 0.98 which shows high internal consistency. Mean age of child is 5.6 years and of parents is 33 years. Female parents (85%) bring their child for SLP services, 34% come from rural area. Most parents are employed (99%) and educated to secondary level (33%). 38% parents were not able to adhere to speech therapy session. Travelling distance, cost, time and unavailability of transportation influence treatment adherence to great extent in 36%, 34%, 37% and 33% of parents respectively. The communication between SLP, parents and CP child is satisfactory to great extent (Mean  $\pm$  S.D = 2.64  $\pm$  0.75). 50% of parents reported that adherence to SLP services is affected to some extent by economic cost of treatment. 55% not at all receive any emotional support from the other family members. 50% understand disease and treatment nature. 43% parents adherence is greatly affected due to total time spent in the hospital and 56% reported due

to long treatment duration of speech therapy.

#### CONCLUSION

The finding suggest that Travelling issues, Lack of social support from the family and Waiting time are causes of non adherence to great extent where as Economic cost of treatment and Parents' knowledge of disease and treatment nature causes non-adherence to some extent. And respondents reported that interaction with clinician is not a problem with adherence.

#### KEY WORDS

Adherence, speech and language pathology, Cerebral palsy

## **TESTING OROFACIAL ABILITIES OF CHILDREN WHO STUTTER BY USING MOVEMENT, ARTICULATION, MANDIBULAR AND SENSORY AWARENESS (MAMS) ASSESSMENT PROCEDURE.**

Iqra Naseer

**Objective:** The objective of this study is to find out the frequency of orofacial abilities in children who stutter the Movement, Articulation, Mandibular and Sensory Awareness (MAMS) Orofacial Assessment.

**Material and Methods:** The Study design was descriptive study. The data was collected from the Department of Developmental Pediatrics, The Children's Hospital and Institute of Child Health, Lahore from July 2014 to September 2014. 35 patients were analyzed through MAMS, a valid and reliable assessment tool, administered individually by the researcher.

**Results:** From 35 patients, 71.4% were males while 28.6% were females. In the assessment of tongue movements 91.4% did not roll their tongue and in articulation assessment 20% did not correctly articulated alveolar sounds. In mandibular awareness 68.6% had normal occlusion, whereas 88.6% did not discriminate star and 80% did not discriminate cross.

**Conclusion:** The result of this study showed that there is a relationship between orofacial abilities and stuttering. MAMS assessment tool is a valid and a reliable tool to measure orofacial abilities of CWS. According to the result findings it is proved that CWS had worse orofacial abilities. The Movement of the tongue, Articulation, Mandibular, Sensory and Oral stereognosis more or less were affected in CWS. Moreover, accurate assessment of stuttering is helpful for speech and language pathologist to better management plan for stutterers.

**Keywords:** orofacial abilities, stuttering, articulation, movements, mandibular and sensory awareness

## **SINGLE NUCLEOTIDE POLYMORPHISM OF P2RY12 AND CYP3A5 GENES IN CLOPIDOGREL RESISTANT AND NON-RESISTANT ISCHEMIC HEART DISEASE PATIENTS**

Ghulam Mustafa, Nabila Akram, Shahzad Tawwab, Shabbir Hussain, Haiba Kaul, Shahida Mohsin

**Background:** Antiplatelet therapy with clopidogrel is generally used to decrease the risk of ischemic heart disease. Environmental and genetic factors including SNPs in CYP3A5 and P2RY12 genes are attributed for this inter-individual variation in response to drug. **Objective:** To examine the role of CYP3A5 rs776746 and P2RY12 rs2046934 polymorphisms in clopidogrel resistance in IHD patients. **Methods:** A total of 237 IHD patients were recruited who had received 75mg clopidogrel for more than 07 days. Platelet aggregation studies were performed on Innovance® PFA-200 system. The rs776746 and rs2046934 polymorphism were determined by PCR-RFLP. **Results:** Out of selected IHD cases, 85.7% were clopidogrel responders and 14.3% were non- responders. Genotype for CYP3A5 responder, 5.4% were homozygous (\*1/\*1), 89.7% were heterozygous (\*1/\*3) and 4.9% were homozygous (\*3/\*3). Non-responders CYP3A5 indicated that 8.8% were homozygous (\*1/\*1), 64.7% were heterozygous (\*1/\*3) and 26.5% were homozygous (\*3/\*3). The allele frequencies difference among responders and non-responders were highly significant ( $p < 0.05$ ). P2RY12 genotypes with clopidogrel responder patients showed that 78.3% were TT alleles, 19.7% were CT alleles and 2.0% were for CC alleles. Similarly, non-responder patients showed 91.2% were with TT alleles, 8.8% were CT alleles and no patient were with CC alleles. So, these frequencies difference in alleles among clopidogrel responder and non-responder P2RY12 patients were not statistically significant ( $p > 0.05$ ). **Conclusion:** The allele CYP3A5\*3/\*3 showed a significant association with clopidogrel resistance whereas, P2RY12 did not show association with clopidogrel resistance in studied samples.

**Key Words:** Clopidogrel, Ischemic Heart Disease, Single Nucleotide Polymorphism, Innovance® PFA-200 system, PCR-Restriction Fragment Length Polymorphism

## **CHARACTERISTICS OF AN EFFECTIVE TEACHER: PERCEPTIONS OF PHYSICAL THERAPY TEACHERS AND STUDENTS IN FAISALABAD**

Rafia Imtiaz

**Background:** In last few years, there is an immense increase in Physical Therapy institutes in Pakistan particularly in Punjab both in public and private sectors. Hence, there is an

increased demand of Physical Therapy teachers also. Keeping in view, the dire need of Physical therapy teachers, it became necessary to maintain the quality as well, because the best teacher should be enthusiastic, self-motivated, disciplined and should possess excellent communication skills to carry out innovative teaching ideas. Apart from formal teaching, original pedagogic skills and acquaintance with the latest knowledge will add to the success of a teacher.

For the identification of the needs of a student and the learning requirements that can be fulfilled by a competent teacher by his skills and knowledge; and for the improvements and upgrading in the teaching methodology of the teachers from the feedback of students while considering their gender and socio-economic status.

Methods: The data was collected from all the Physical Therapy Institutes in Faisalabad by a descriptive.

Study design: The sample size was 100 students and 50 teachers and convenient sampling technique will be used. Data was collected through self-structured questionnaire which was validated by authenticated statistical tools by expert statisticians. After taking consent from the Physical Therapy teachers and students the data was collected in terms of score, which was entered and analyzed on SPSS. Version 17.00; using NPar tests, Mann Whitney Test, so calculating their median ranks.

Results/ Findings: A total number of 100 students and 50 faculty members were taken. Among the students 60% were females and 40% were males. Among the faculty members, 70% were females and 30% were males. The distribution of the students in age group below 20 years was 54% and above 20 years was 46% respectively. The faculty members having higher qualification of TDPT/MS/MPHIL were less in number almost 28% and the young faculty members were 72%. Overall the response shown by the students described that the female students of age group 20 years and above laid focus on, 'Knowledge of subject' followed by 'Clinical competency in physical therapy field'. The male students of the same age showed similar interests and included, 'Interest and passion for teaching' as another important feature of a best Physical Therapy Teacher. The female students of age less than 20 years said that, 'coming prepared for lecture' and 'Resourceful & Helping'. The male students said 'Interactive teaching' and 'Knowledge of subject' followed by 'Clinical competency in physical therapy field'. Conversely, faculty of public sector institutes told 'clinical skills' and 'scholarly activity'. The faculty of private sector said, 'Good communication skills' subsequently 'Creative and giving inspirational thoughts' are best characteristics.

The female faculty members chose 'Interest and passion for teaching' and 'Knowledge of subject' as the best qualities of a good teacher. The male faculty members liked



‘Organizational skills’ and ‘Possess effective discipline skills’.

Conclusion: Hence, by concluding all the results, it is observed that an effective teacher must be having Clinical competency in Physical Therapy, should be a scholar and role model, must be having good communication skills and an interactive style of teaching, should possess good organizational capabilities, be required to have the knowledge of the subject and ought to be resourceful and helping towards students. He must be having creative and inspirational thoughts to make the lecture interesting and indulge students in learning activities.

Key words: Physical therapy, teacher, characteristics, traits, qualities

## CYP2C9 POLYMORPHISM IN WARFARIN THERAPY PATIENTS

Sumaira Khan, Irum Aftab, Ayesha Hameed, Fauzia Shafi Khan, Shahida Mohsin

**Introduction:** CYP2C9 is an enzyme involved in warfarin metabolism. Its gene shows many single nucleotide polymorphisms. Most common of them are CYP2C9\*2 and CYP2C9\*3. They are involved in increased metabolism of warfarin leading to lower dose of warfarin. **Objective:** To observe CYP2C9 polymorphism and to determine CYP2C9\*2 and CYP2C9\*3 allele frequency.

**Study Design:** Descriptive study.

**Place and Duration of Study:** The study was conducted at University of Health Sciences, Lahore. It was completed in a period of 1 year.

**Patients and Methods:** Seventy four patients were included in this study. All patients were receiving low dose of warfarin as compared to standard dose which is up to 5mg/ day. DNA was separated by organic method. Polymorphisms were confirmed by PCR RFLP technique and sequencing.

**Results:** The frequency of CYP2C9\*2 was 12.1% and 17.6% were heterozygous for allele 2(\*1/\*2). CYP2C9\*3 frequency was found to be 14.6% which was relatively higher than the frequency of this allele in other ethnic regions. 21.6% individuals were heterozygous for variant 3 (\*1/\*3). We found that warfarin weekly dose was related significantly ( $p$  value  $\leq 0.001$ ) with variability of genotypes in patients taking long term warfarin therapy. Individuals possessing \*3 were found to be taking lowest warfarin dose among all genotypes (\*1 and \*2).

**Conclusion:** CYP2C9\*2 and CYP2C9\*3 variant alleles are present in higher frequency in our population. It has become clear that presence of polymorphic alleles (\*2 and \*3) are found to be responsible for lower dose of warfarin.

**Key Words:** Warfarin, CYP2C9\*2, CYP2C9\*3.

Shahida Mohsin

**Background:** Fresh frozen plasma (FFP) contains all the coagulation factors. Once thawed, FFP should not be refrozen and administered as soon as possible. If there is any delay in transfusion, FFP should be stored at 2-6 °C in an approved blood storage refrigerator. **Objective:** To assess the FV, FVII, FVIII and hemostatic integrity of single-donor FFP units during 5 days storage at 2-6°C. **Materials and Methods:** Total 35 FFP units of AB positive blood groups were aliquoted and stored at -70°C. Aliquots were thawed at 37°C and stored

at 2-6°C for 5 days. PT, APTT and FV, FVII & FVIII, levels were assessed during 0, 1, 3 and 5 days by Stago Compact Coagulation Analyzer. Results: Our results showed that mean level of FV was within normal range during 5 days storage and FVII and FVIII was normal during 3 days storage but these levels were on lower side on day 5. Repeated Measures ANOVA Test revealed that mean levels of FV and FVII were statistically different on day 3 and 5 but the difference was insignificant on day 1 as compared to day 0. Significant difference was observed for FVIII, PT and APTT on day 1, 3 and 5 when compared to day 0. Conclusion: Labile factors are within normal range in thawed plasma stored at 2-6°C for 3 days. The plasma not used should be relabeled as Thawed Plasma and use it in emergency situations.

Key words: Fresh frozen plasma, Labile factors, Stage Compact Analyzer, Refrigerator.

## **CROSS CULTURAL ADAPTATION OF OF KEELE STAR T BACK SCREENING TOOL FOR ASSESSING BACK PAIN**

Qudsia Shamim

**BACKGROUND:** Progress assessment of any health condition became the prime most aspect of patient management with the advent of health care and evidence based practice. There are multiple outcome measurement tools have been developed for this purpose, to assess patients clinically. They are developed conceptual, technical, cultural and linguistic framework of a specific country. Alternative to development is its translation to a particular language and cultural norms. This project is based on alternative method for linguistic adaptation of the keele StarT Back Screening Tool.

**OBJECTIVES:** Objective of the study was to adapt/ translate of the keele StarT Back Screening Tool for assessing back pain, from source language (English) into the target language (Urdu).

**METHODS:** This was a study with qualitative design of validity/ reliability. The keele StarT Back Screening Tool was translated from English Language to Urdu Language through a forward translation, backward translation and expert committee review/ consensus method. Experts from physical therapy field and that of English and Urdu Language participated in completing this process of translation. Study completed in four months of duration. Consensus meetings were held in University of Health Sciences, Lahore and Riphah International University, Lahore.

### **RESULTS**

Total 8 meetings took place. Forward translation by physiotherapy personnel, by Urdu language expert and both for concluding the draft. Backward translation by physiotherapy

personnel, English language expert and both to conclude a draft. Experts to detect conceptual and proverbial gaps between original draft and final backward translated draft and final meeting to verify the aforementioned aspect between original scale and forward translated final draft.

#### CONCLUSION

The Keele StarT Back Screening Tool was translated from English to Urdu Language. The tool was validated ready to be used in any part of Pakistan where patient can read and speak Urdu Language at satisfactory level.

#### KEYWORDS

Cross Cultural Adaptation, Keele StarT Back Screening Tool, Validation, Translation, Outcome Measures, Back Pain.

## **PERCEPTION OF PEDIATRICIANS & ALLIED HEALTH PROFESSIONALS IN FUNCTIONAL ASSESSMENT OF CEREBRAL PALSY CHILDREN**

Azhar H, Ullah E, Rauf MT, Maqbol S,

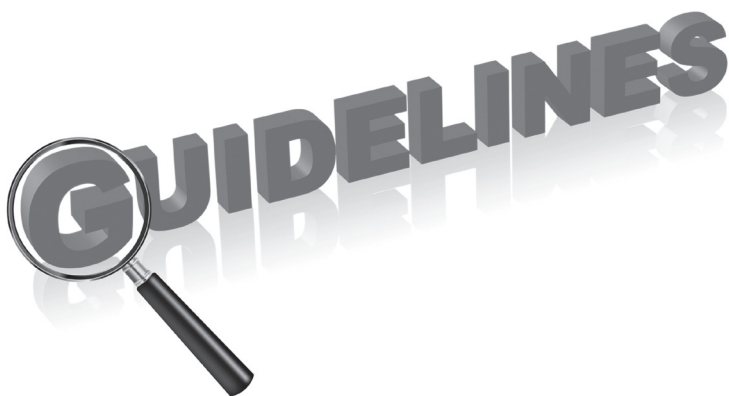
**Objective:** To identify the difference in perception of Pediatricians & Allied health professionals for assessment of functional capabilities for rehabilitation of Cerebral Palsy Children.

**Methods:** 45 participants (14 Pediatricians and 31 Allied health professionals) were taken from different department of the Children's Hospital & Institute of Child Health, Lahore through purposive sampling. Perception of participants regarding functional capabilities was assessed through Comprehensive Core set of ICF –CY (Cerebral palsy) which consists of four sub scales namely Body functions, Activities & Participation, Environmental factors & Body structures.

**Results:** T-test was administered & results revealed that there was no significant difference between the two groups on functional perception of cerebral palsy using ICF-CY (p value >0.05). This was true for all four subscales. Environmental factors have been given more importance by both groups.

**Conclusion:** Different health professionals working at Children's Hospital, Lahore, can do a better assessment of functional capabilities of children with Cerebral Palsy by using Comprehensive core set of ICF-CY.









## Oral Presentation Guidelines

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Oral presentations will be strictly limited to 10 minutes total. Please plan on a 7-minute talk, followed by no more than a 3-minute question-and-answer period with audience members. The session chair will conclude your talk at exactly 10 minutes, regardless of where you are in the presentation or question set. A general rule of thumb is to allot half a minute per slide, so your total slide count should be between 15 and 20. Please use the following guidelines to construct your presentation:

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- Be sure you have embedded any multimedia objects (e.g., movies) in the slides
- You may use any theme, although we recommend dark text on a light background
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- Purpose/objectives clearly stated
- Applicability or relevance of work identified
- Concise explanation of methods/analysis used
- Methods used clearly conveyed
- Conclusions supported by data

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If you have questions on guidelines, please contact Conference Coordinator (0300-813 86 54).

## Poster Presentation Guidelines

- Each poster session author will be provided with a 4' x 4' poster board area and mounting pins. The board will indicate the poster number in upper right or left corner. Authors are responsible for mounting their posters on the morning of the 25<sup>th</sup> of November 2016 and removing them at the end of the Conference. Posters left up past that time will be discarded.
- All illustrations, charts, etc., to be posted should be prepared in advance as materials for these purposes will not be available at the meeting site. UHS will provide a reasonable supply of push pins, but we suggest authors provide their own if possible.
- Each poster must include text in a large enough font (~20 point font) to be read easily. Lettering on illustrations should be large and legible. Photographs should be a minimum of 5 x 7 inches. Material should be displayed in logical sequence (introduction, development, conclusion).
- Avoid overcrowding figures and cramming too many numbers into tables. Legends and titles should accompany all figures, tables, photographs, etc. in order to allow their immediate identification.
- No commercial activities or any advertising may be displayed on the posters. Non-compliance with this rule will result in the poster being removed.
- Authors may wish to bring extra copies of their data and conclusions. No duplication facilities will be available. Authors may also wish to provide sign-up sheets for attendees who may wish additional information, reprints, etc.
- The authors need not be present the entire time but if not, should post the hours when they will be at their poster.





## Housekeeping Announcements

1. The password for protected Wi-Fi Internet facility on the University campus during the Conference is **ahs12345**.
2. Please keep your cell phone on 'Silent' mode during the sessions.
3. Limited facility of photocopying and taking out computer prints is available at the Business Centre (Room 46, 1st Floor).
4. No food or drinks are allowed in the auditorium or workshop rooms.
5. Smoking is strictly prohibited.
6. Conference mics at each session can be activated by pressing the "on" button.
7. On the day of their presentations, all speakers should check in at the Business Centre (60 minutes before the meeting starts). Please remember to pick up you're A-V materials before the end of the Conference.
8. If speakers have brought a laptop computer or other such electronic device with them, they will need to inform the official at the Registration Desk. This will allow the owner to remove the equipment from the building after the meeting and the official will verify that the item is not the property of the UHS.
9. Emergency telephone number is 0301-4693032.
10. The First Aid Centre is located in the Medical Center (Car Parking Area) of University of Health Sciences Lahore.
11. All luncheons and tea shall be served in the Front Lawn at the designated time provided in the Conference Program.
12. In case of any emergency, please contact the help desk in Room # 16 or the front desk (reception).





# Organizing Committee





## Organizing Committee

Patron:	Mr. Muhammad Ishaq Dar Chairman BoG, University of Health Sciences Lahore
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