

The 16<sup>th</sup> Congress of

# Sudan Association of Paediatricians

Program and Abstracts



**Khartoum Sudan  
Friendship Hall  
13-16 Nov 2009**



# BREAKING NEWS

U.S. Food and Drug Administration

CENTER FOR DRUG EVALUATION AND RESEARCH

## Drugs@FDA

FDA Approved Drug Products

### HIKMA CEFTRIAXONE

was granted U.S.  approval  
on January 2008

Check this link:

<http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>



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## ***I*nvitation from S.A.P President**

### **Dear friends & colleagues**

The Sudan Association of Pediatricians was founded in 1969. Our main objectives are to work in cooperation with governmental and non governmental organizations for the best of the children health and welfare.

The association biggest event is the annual meeting which is held every two years; it is a scientific and social gathering for all the pediatricians from different states of the Sudan and other countries. The congress also invites international distinguished speakers from different parts of the world to participate, exchange knowledge and add in more experience. The main theme of the congress this year is pediatric emergency, neonatology and care of critically ill children in the intensive care units.

On behalf of the organizing committee, it gives me great pleasure to invite you to participate in the 16<sup>th</sup> congress of the Sudan Association of Pediatrician, 13 – 16 November 2009, Friendship hall, Khartoum – Sudan. The organizing committee will do its best to make your participation possible and your presence will add more to the congress.

Thanks

**Prof. Mabyou Mustafa**  
**President, Sudan Association of**  
**Pediatricians**



## S.A.P Executive Council 2007-2009

**Prof. Mabyou Mustafa**

**Prof. Mohammed Ahmed Abdalla**

**Prof. Abdulaziz El Amin**

**Dr. Walyeldin Elnour M. ELfakey**

**Dr. Abdelmoniem Mohamed Hamid**

**Dr. Mohamed Babikir**

**Dr. Yousif Mukhtar**

**Dr. Abu Bakr Abdulaziz**

**Dr. Mohamed Osman Swar**

**Dr. Siham A. Hassab El rasoul**

**Prof. Ali Habur**

**Dr. Ilham Mohammad Omar**

President

President- Elect

Secretary General

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Assistant Academic Secretary

Financial Secretary

Assistant Financial Secretary

Social Secretary

Assistant Social Secretary

Editor In-Chief (SAP Journal)

Assistant Editor



# Opening Ceremony



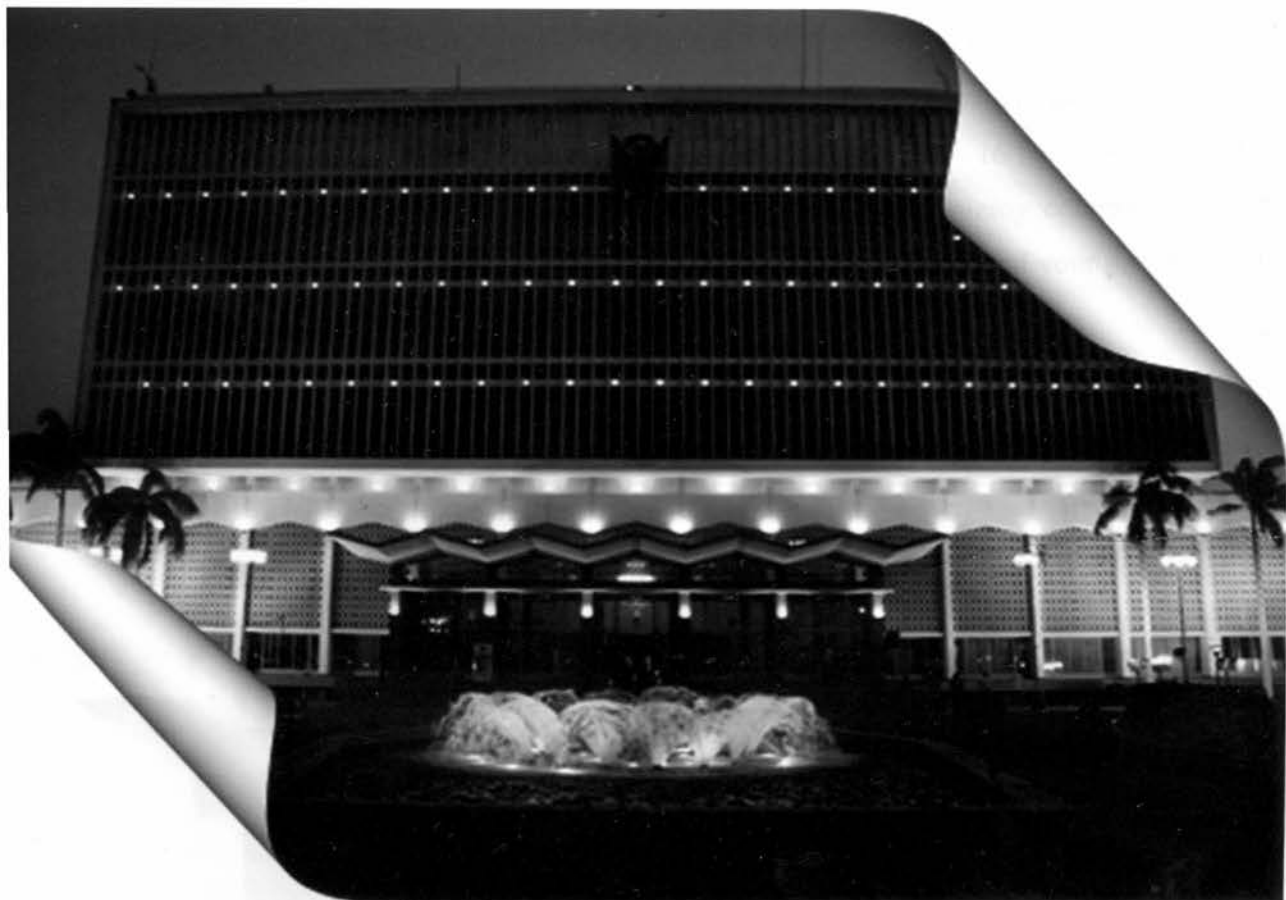
Holly Quran

President, Sudan Association of Paediatricians

Head, Ministry of health Paediatric Advisory Council

President, Sudanese Doctors Union

Minister of Health



# The Scientific Program

The program has been carefully designed to highlight updated changes and future challenges in the field of paediatrics, hoping to achieve our goals. The main theme of the congress this year is paediatric emergencies, neonatology and intensive care.

The congress consists of three days of concentrated activities, divided into morning & afternoon sessions including plenary and scientific sessions, poster presentations and workshops. Concurrently, satellite symposia, scientific and commercial exhibition will be organized.

## The main congress Theme is:

1. Intensive Care & Paediatric emergencies.
2. Neonatology – Peri-natology
3. Other paediatric specialties including child health and nursing

## Organizing Committees

### Scientific Committee:

Prof. Mohammed Ahmed Abdalla Chairman

Dr. Abdelmoniem Mohamed Hamid Secretary

Prof. Hafiz ElShazly

Prof. Zein Karrar

Prof. Hassan Mohammed Ahmed

Prof. Abdulrahman AlMufti

Prof. Eissa Elameen

Prof. Ali Babikir Habour

Prof. Abdulaziz Elamin

Prof. Mustafa Abdalla

Prof. Huda Haroun

Dr. Alsir Hashim

Dr. Omer Bashir

Dr. Jihan Abdelgadir Mohamed

Dr. Ashraf A. Awadalkareem

Dr. Mahmoud Ali Elhag

Dr. Hayder Al Hadi

Dr. Mohamed Khalil Ali

Dr. Siraj Mohamed Khair

Dr. Yousif Ishag

Dr. Fath Alrahman Al awad

Dr. Seif Babikir

Dr. Mohamed Zein Sid Ahmed

Dr. Al-Hadi Al-Zubair Al Malik

Dr. Laila Ali Abdelrahman

Dr. El Amin Mohamed Osman

Dr. Hanadi Abdelrahman Mohamed

Dr. Rania Tayfoor Mohamed

Dr. Abdullah Khamis

Dr. Sulafa Khalid

Dr. Mohamed Elhassan Elfakky

Dr. Amal Abdel bagi

Dr. Muna Babiker

Dr. Ghada Sheikhalidin

Dr. Nuralhuda Attalla Alljabu

Dr. Iman Bakri

Dr. Yasmin Mahgoub Obeid

Dr. Hind Alansari

Dr. Moawia Altayeb

Dr. Imtithal Awad Abdalla

Dr. Mohamed Alfatih Malik

### Financial Committee:

Dr. Mohamed Osman Swar Chairman

Dr. Yousif Mukhtar Secretary

Dr. Amany Nouri

### Services & Media Committee:

Dr. Siham A. Hassab Alrasoul Chairman

Dr. Walyeldin Elnour M. ELfakey Secretary

Dr. Amani Gindeel

Mr. Hamid Alarabi

Dr. Muntasir Taha

Dr. Yousif Mukhtar

### Medical Journal Committee:

Prof. Ali Habur Chairman

Dr. Hayder Al Hadi Secretary

Prof. Mabyou Mustafa

Dr. Bakhitta Attallah

Dr. Mohamed Osman Motwakil

Dr. Ilham Mohammad Omar

### Conference Secretariat:

Dr. Mohamed Babikir Chairman

Mr. Hassan A. Sadeg

Secretary

## Guest Speakers



- 1. Dr. Khalid Al.Mobaireek**  
Dean of Postgraduate Affairs  
Head Division of Pulmonology  
King Fahad Medical Centre - Riyadh, Saudi Arabia.
- 2. Dr. Maha Abdulla**  
Consultant Paediatric Emergency Department  
King Abdulaziz Medical - Riyadh, Saudi Arabia.
- 3. Dr. Jihad Zahraa**  
Head of PICU  
King Fahad Medical - Riyadh, Saudi Arabia.
- 4. Dr. Mohamed Shaheed**  
Senior Consultant Neonatologist  
Security Forces Hospital - Riyadh, Saudi Arabia.
- 5. Dr. Omer Basher Abdel Bassit**  
Head Division of Neonatology  
Security Forces Hospital - Riyadh, Saudi Arabia..
- 6. Dr. Mohamed Zein Sid Ahmed**  
Senior Consultant Neonatologist  
Security Forces Hospital - Riyadh, Saudi Arabia.
- 7. Ms. Mawahib Wang**  
Head of Nursing & Education & Clinical Skills  
Lab Coordinator of Security Forces Hospital  
Riyadh, Saudi Arabia.
- 8. Mrs. Roseline M.Oriowo**  
Assistant Director of Nursing, Maternal & Child  
Health Division - Security Forces Hospital  
Programme Riyadh, Saudi Arabia.
- 9. Prof. Mustafa Abdalla M. Salih**  
MB BS, MPCH, MD (U of K), Dr Med Sci  
(Uppsala), FRCPCH (UK), Division of Pediatric  
Neurology, Department of Pediatrics, College of  
Medicine  
King Saud University - Riyadh, Saudi Arabia
- 10. Dr. Imad Yassin SaadEldin**  
Paediatric department, King Fahad military hospital,  
Armed Forces Hospital, southern region  
Khamis Mushayt, Saudi Arabia.
- 11. Dr. Tarig Mohamed Osman**  
King Fahad Medical City  
Riyadh, Saudi Arabia.
- 12. Prof. Abdel Moneim Alseid**  
Professor of Paediatric Cardiology  
Saudi Arabia
- 13. Dr. Imad Yassin SaadEldin**  
Paediatric department, King Fahad military hospital,  
Armed Forces Hospital, southern region  
Khamis Mushayt, Saudi Arabia.



- 14. Dr. Seif Babiker**  
Consultant Neonatologist  
Peterborough District Hospital - UK.
- 15. Dr. Tim Jones**  
Consultant Neonatologist  
Peterborough district Hospital - UK.
- 16. Dr. Mamoun Alawad**  
Consultant Paediatric Gastroenterologist  
Institute of Child Health/Great Ormond Street  
Hospital, London - UK



- 17. Dr. Haytham Albashir**  
FRCPCH, DCH, MD(Lond.)  
Sr. Consultant in Developmental Paediatrics,  
Hamad Medical Corporation - Qatar.
- 18. Dr. Baha Eldin Hassan Ahmed**  
Paediatric Specialist  
Fellow PICU Hamad Hospital - Qatar
- 19. Dr. Osama Algibali**  
PICU Consultant  
Hamad Medical Corporation - Doha, Qatar.



- 20. Haytham Fouad Salih**  
MRCPCH, DCH  
Senior Registrar,  
Sultan Gaboos University Hospital - Oman.



- 21. Dr. Hadi Alzubair Almalik**  
Senior Consultant in child Neurology  
& developmental Paediatrics  
Tawam Hospital- Alain, UAE.
- 22. Dr. Al-Hadi Al-Zubair Al-Malik**  
MB, BCH, MRCP, FRCPCH, CCST, DCS  
Senior consultant in child Neurology & development,  
Paediatrics – Tawam Hospital - Alain, UAE.
- 23. Dr. AbdelAzim Mohamed Mabrouk**  
MD, DCH, CABP  
Paediatric Specialist- Alain, UAE.





# Preparatory Workshops

## EPNEC Workshop

### (Omdurman Emergency Paediatric Hospital)

Omdurman Emergency Paediatric Hospital in collaboration with SAP held a 2 days workshop on PICU & NICU (EPNIC) sponsored by Mahdi Company.

**Date:** Friday & Saturday 9<sup>th</sup>-10<sup>th</sup> October 2009

**Place:** Omdurman Paed Hospital CME Centre

**Attendants:**

Paediatricians & Sisters from paediatric hospitals (35 Consultant Paediatricians and 35 Sister).

**Programme:**

**Friday for Sisters & Saturday for Paediatricians**

- Sign in
- Introduction
- Teaching stations
  - Airway management
  - Fluid management
  - Monitors & ECG demonstration
- Lecture on Infection Control
- Lecture on Mechanical Ventilation
- 3 stations on
  - PICU tour & demonstration
  - NICU tour & demonstration
  - Mechanical ventilation practical station

**Tutors:**

Dr. Muawia Eltayeb Ahmed

Dr. A/Moneim Mohamed Hamid

Dr. Amal A/Bagi

Dr. Ghada Shaikhdain

Dr. Muna Babikir

Dr. Nur Elhuda Atalla

Dr. Amal Abdalla(anasthetist)

Dr. Rashida A/Fattah

Dr. Hanadi Mohamed Al Hassan

### Neonatal preparatory workshop Session

**Location:** Al Swaidi Neonatal Hospital

**Date:** 29<sup>th</sup> October 2009, 8:30 am

**Objectives:**

The main objective of this workshop and the one already held in Omdurman Paediatric Hospital (15/10/2009) is to prepare the participant to the preconference neonatal workshop. This will be achieved mainly by boosting the participant:

1. Knowledge.
2. Skills.
3. Attitude.
4. And Team-work in the field of neonatology, and make them more ready for the main workshop which will be held on 12<sup>th</sup> and 13<sup>th</sup> of November 2009 by the external expertise from UK and KSA.

**Number:** 42 (21 Consultant Paediatrician + 21 Sisters)

**Organisers:** Dr. Mohamed Khalil Dr. Iman Bakri

**Tutors:**

Dr. Mohamed Khalil

Dr. Taj Elsir Abdalla

Sister. Sawsan Oleish

Sister. Magda Ramadan

Dr. Eiman Bakri Ali

Dr. Sofia M. Elhassan

Sister. Buthaina Idriss

Sister. Amal Abdelgadir

Dr. Ilham M. Omer

Dr. Sahar Khidir

Sister. Batool Ahmad

Mahmoud

## The Themes:

No	Topic/ Theme
1.	lecture: Care of the newborn
2.	Resuscitation of the newborn
3.	Stations: practical sessions <ul style="list-style-type: none"><li>○ Equipment: pulse oxymeter, infusion pump, syring pump, resuscitator, overhead heater, phototherapy unit, suction machine, incubator, portable incubator, ambu bag, laryngoscope</li><li>○ Airway management</li><li>○ Procedures: Umbilical lines, chest drain, IO, exchange transfusion, long lines</li></ul>
4.	Fluid therapy: <ul style="list-style-type: none"><li>○ Lecture</li><li>○ 4 practical scenarios</li></ul>
5.	Ventilators: <ul style="list-style-type: none"><li>○ Lecture: Types of mechanical ventilators, CPAP</li><li>○ Practical session on ventilators and CPAP: 4 groups</li></ul>
6.	Blood gases: <ul style="list-style-type: none"><li>○ Session 1: Blood gas machine</li><li>○ Session 2: lecture; Interpretation of blood gases result</li><li>○ Session 3: practical scenarios on blood gases result – 4 groups</li></ul>
7.	Infection control lecture

### Other pre-requisite for the Preconference Workshops

#### For Neonatal Workshop:

**NRP Course:** 10<sup>th</sup> & 11<sup>th</sup> November 2009 (Doctors and Nurses)

**Organisers:** Dr. A/Moneim Mohamed Hamid                      Dr. Sami Tajelsir

**Venue:** Continuous Professional Development Centre (CPD), Khartoum

#### For Paediatric Workshop

▪ **Basic Life Support (BLS) course (Doctors and Nurses)**

**Venue:** Medical Specialists Board

**Date:** 1<sup>st</sup> and 2<sup>nd</sup> Nov. 2009

▪ **Paediatric Advanced Life Support(PALS) course(Doctors only)**

**Venue:** CPD Centre

**Date:** 3<sup>rd</sup> and 4<sup>th</sup> November 2009

#### BLS and PALS Organisers and Tutors:

Dr. Muna Babikir      Dr. Amal A/Bagi              Dr. Ghada Shaikhdain              Dr. Nur Elhuda Atalla

### Neonatal Ventilation Pre-Conference Workshop

**Gaafar Ibn Auf & Alswaidi Hospital**

**12<sup>th</sup> And 13<sup>th</sup> Nov. 2009**

#### 1. Workshop for nursing staff:

**Duration:** Two day session

**Location:** Alswaidi Hospital

**Total number of candidates:** 20

#### Conducted by:

**Visitors:** Ms.Roseline Oriowo, Assistant Director of nursing Maternal and child health, SFH

**Locals** Sr. Batool, Sr. Amel A/Gadir, Sr. Bothiana, Sr. Swsan, Sr. Magda

**Ms.Roseline:** Feeding of newborns.

Infection control in newborn nursery.

**Ms. Mwahib:** Chest tube insertion and care.

Central line and intra-osseous care.

**Theme:**

- Management of sick baby
- Monitoring
- Incubator care
- Feeding
- Ventilator care
- Infection Control
- Procedures
- Others .....

**2. Workshop for Doctors:**

**Location:** Alsewaidi Hospital

**Duration:** 2 day session

**Total Number of Candidates:** 20

**Organisers:** Dr .Mohamed Khalil Dr. Iman Bakri

**Conducted by:**

Dr. Seif babiker Dr. Tim Jones Dr. Omer Bashir  
Dr. Mohamed Shaheed Dr. Mohamed Zain Sid Ahmed Dr. Ali Alsanosi

**Theme:** Comprehensive neonatal care.

**Summary of the Programme:**

**1. Ventilation workshop:**

- a- Respiratory physiology.
- b- Principles of ventilation.
- c- Types of ventilators.
- d- Modes of ventilation.
- e- Case scenarios/problem solving.

**2. Stabilisation of the sick newborn baby:**

- a- The sick term baby.
- b- The cardiac baby.
- c- The sick preterm baby.
- d- Case scenarios.

**The scenario for the workshops will be as follows:**

1. Introduction to the subject
2. Case scenarios/practical questions
3. Practical/hands-on answers
4. Problem based discussion
5. Summary and 'take home message.'
  - Infection control
  - Fluid therapy
  - Initial management of sick baby
  - Hands on CPAP, mechanical ventilation , blood gas analysis
    - Intubation
    - CPAP
    - Mechanical ventilation
    - Interpretation of blood gases results
    - Portable incubator
    - Servo-control
    - Others .....

**Procedures:**

- IV Canulation
- UAC/ UVC
- Interosseous
- Peripheral arterial lines
- Central venous line
- Long lines
- Exchange transfusion
- LP
- Chest drain
- Others .....

**Paediatric Intensive Care Pre-conference Workshop**  
**Continuous Professional Development (CPD) Centre Khartoum**  
**12<sup>th</sup>-13<sup>th</sup> November 2009**

The programme includes a wide range of topics including Emergency Management, Initiation, Maintenance, Weaning of Assisted Ventilation & Special Ventilatory Techniques.

**Programme:**

▪ **Day1: Initiation, Maintenance and Weaning of Assisted Ventilation**

- 08:00 Registration
- 08:30 Welcome
- 08:45 Paediatric Respiratory System: Basic Anatomy & Physiology - Jihad
- 09:10 Basic principle of mechanical ventilation - Jihad
- 09:35 Airway and cardiac management - Emergency Group
- 10:15 Modes of ventilation – paediatrics - Yassmin
- 10:35 Modes of ventilation (video) -Sami
- 10:50 Blood gases interpretations and changing the ventilator settings- Baha/ Moniem
- 11:30 Breakfast
- 12:00 Ventilation according to pathophysiology-(asthma, bronchiolitis,) - Jihad
- 12:50 CPAP ventilation - Baha
- 13:15-13:30 Tea break and prayer.
- 13:30 Oxygenation and Ventilation Monitoring invasive and non invasive - Mawahib
- 13:50-16:20 Demonstration Workshops as allocated and video session ventilation.

The following five 30 minute interactive workshops will run over the afternoon. Each delegate will rotate through every workshop, therefore completing 5 workshops.

1. Ventilation - Baha/ Osama
  2. Way NIV O2 delivery devices, (Oral and Nasal airway BMV,ETT- LMA,Tube fixation, Inline suctioning, Suctioning pressures, Intubation setup, )- Emergency Group
  3. Paediatric conventional ventilators - Jihad
  4. Monitoring the ventilated child and Trouble shooting - Mawahib (Saudi Arabia)
  5. Neonatal ventilation: intubation, setting the ventilator and monitoring Samisir/Moniem
- 16:20 -17:00 discussion and feed back
  - 17:00 Close

▪ **Day 2: Special Ventilatory Techniques and Ventilator Workshops**

- 08:00 Stabilization and basic rules for transport - Sami
- 08:25 ARDS and complications and Adverse Effects of MV- Osama
- 08:50 Stuck on a Ventilator, What Next? Tracheotomy or withdrawal of support - Osama
- 09:15 Weaning modes SIMV with Pressure support - Yasmin
- 09:40 Ventilated children with cardiac problems (cyanosis and Cardiac failure)  
Osama/Moniem
- 10:05 Septic shock ICU management - Saudi Group
- 10:30 Orthopaedic and surgical emergencies - Emergency Group
- 10:55 Breakfast
- 11:25 Monitoring head injury & management of intracranial hypertension  
Emergency Group
- 11:50 Anaesthesia in PICU - sedation, analgesia and paralysis - Osama
- 12:15 Management of a sudden collapse of a ventilated child - Osama
- 12:40-13:10 Demonstration Workshops
- 13:10-13:30 Tea and prayer.
- 13:30-15:30 Demonstration Workshops continues  
(5 group rotations throughout day2 – see below)
- 15:30-16:00 workshop session (Videos) - Baha
- 16:00 Course closure & evaluation.

## Demonstration Workshops:

### Day2 (12:40-15:30)

The following five 30 minute interactive workshops will run over the afternoon. Each delegate will rotate through every workshop, therefore completing 5 workshops.

1. Long lines, arterial lines and central lines - Baha /Osama
2. Pneumothorax and chest drain- Mawahib (Saudi Arabia)
3. Stabilization and Transport incubators and ventilators -Yassmin/ Sami
4. Scenarios in PICU- Jihad
5. Mega code Skock (cardiac and respiratory cases) - Emergency Group

### Workshop Organisers:

Dr. Abdelmoniem Mohamed Hamid

Dr .Yasmin Mahgoub Obeid

Dr. Muna Babiker

### Tutors:

Dr. Osama Algibali

Dr. Jihad Zahraa

Dr. Sami Alsir

Dr. Bahaa Aldin Hassan Jumaa

Dr. Abdelmoniem Mohamed Hamid

Dr. Yasmin Mahgoub Alobeid

Dr. Maha Abdalla

Ms. Mawahib Wang



## Programme at a glance

	Thursday 12 <sup>th</sup> Nov 2009 (Pre-congress Workshops)	Friday 13 <sup>th</sup> Nov 2009 (Pre-congress Workshops)	
08:00-16:30	Neonatology (Swaidi Hospital)	Neonatology (Swaidi Hospital)	
08:00-16:30	Paediatric Emergency & Intensive Care (CPD)	Paediatric Emergency & Intensive Care (CPD)	
19:30-22:30	-	Opening Ceremony Friendship Hall (Presidential Hall)	
Saturday 14 <sup>th</sup> Nov	Regional Hall 5 <sup>th</sup> Floor	Africa Hall 4 <sup>th</sup> Floor	Omdurman Hall 3 <sup>rd</sup> Floor
08:30-10:30	Plenary	-	-
10:30-11:00	Break Fast - Posters		
11:00-13:15	Session (1)	Session (2)	Session (3)
13:15-13:40	Coffee Break - Prayer - Posters		
13:40-16:00	Session (4)	Session (5)	Session (6)
19:30-22:30	Malnutrition Symposium (National Nutrition Directorate) Sponsored by Unicef and Amipharma (Al Fatih Tower Hotel)		
Sunday 15 <sup>th</sup> Nov	Regional Hall 5 <sup>th</sup> Floor	Africa Hall 4 <sup>th</sup> Floor	Omdurman Hall 3 <sup>rd</sup> Floor
08:30-10:30	Plenary	-	-
10:30-11:00	Break Fast - Posters		
11:00-13:15	Session (7)	Session (8)	Session (9)
13:15-13:40	Coffee Break - Prayer - Posters		
13:40-16:00	Session (10)	Session (11)	Session (12)
19:30-22:30	LIPTIS Sponsored Symposium (Al Salam Rotana Hotel)		
Monday 16 <sup>th</sup> Nov	Regional Hall 5 <sup>th</sup> Floor	Africa Hall 4 <sup>th</sup> Floor	Omdurman Hall 3 <sup>rd</sup> Floor
08:30-10:00	Plenary	-	-
10:00-10:30	Break Fast		
10:30-12:30	Session (13)	Session (14)	Session (15)
12:30-12:45	Coffee Break - Prayer		
12:45-15:30	General Assembly SAP		
19:30-22:30	Gala Dinner Sponsored by Mahdi Global Company (Pullman Hotel Old Helton)		

## Scientific Programme

### Saturday 14<sup>th</sup> November: Plenary Lectures

<p><b>Regional Hall</b> <b>Chairs:</b> <b>PI: 08:30 am</b> <b>PII: 09:00 am</b> <b>PIII: 09:30 am</b> <b>PIV: 10:00 am</b> <b>10:30-11:00</b></p>	<p><b>8:30-10:30</b> <b>Prof. Mabyou Mustafa, Prof. Abdelrahman Al Mufti &amp; Dr. Laila Ali A. Rahman</b> Child Survival: Progress towards MDGS Dr. Amani Mostafa Paediatric Emergency Medicine: from dream to reality. Dr. Maha Abdalla Promotion of Perinatal &amp; Neonatal Services in Sudan. Dr. Mohamed Zein Seedahmed Approach to diagnosis and management of stroke in children Prof. Mustafa Salih <b>Breakfast</b></p>
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### Parallel Sessions

#### Sessions (1,2,3) & (4,5,6)

#### Sessions I: Neonatology

<p><b>Regional Hall</b> <b>Chairs:</b> <b>OP01. 11:00-11:20</b> <b>OP02. 11:20-11:45</b> <b>OP03. 11:45-12:10</b> <b>OP04. 12:10-12:35</b> <b>OP05. 12:35-12:55</b> <b>12:55-13:15</b> <b>13:15-13:40</b></p>	<p><b>11:00-13:15</b> <b>Dr. Omer Bashir, Dr. Tim Jones, Dr. Mohamed Khalil</b> Current Status of Neonatal Service in Sudan Dr. Ilham Mohamed Omer. Neonatal Jaundice Dr. Mohamed Shaheed Neonatal Hypoglycemia Update Dr. Mohamed Zein seedahmed TPN in Neonates Dr. Mohamed Shaheed Six Months Experience In NICU- Omdurman Children Hospital. Dr. Widad Mustafa Discussion <b>Coffee Break</b></p>
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#### Session 2: Paediatric Cardiology

<p><b>Africa Hall</b> <b>Chairs:</b> <b>OP06. 11:00-11:25</b> <b>OP07. 11:25-11:45</b> <b>OP08. 11:45-12:00</b> <b>OP09. 12:00-12:15</b> <b>OP10. 12:15-12:35</b> <b>OP11. 12:35-12:55</b> <b>12:55-13:15</b> <b>13:15-13:40</b></p>	<p><b>11:00-13:15</b> <b>Prof. Abdelmoneim Alseid, Dr. Al Fatih Abuzaid, Dr. Fatma Abu Noura</b> Management of children with heart disease in Sudan: current situation and future perspectives Dr. Sulafa Khalid Ali. Congenital Heart Diseases- National Ribat Hospital experience Prof. Eisa O. Elamin. Spectrum of Congenital Heart Diseases in infants in a central referral Hospital in Khartoum. Dr. Samia Hassan Osman Clinical Pattern of Patients admitted to Cardiology Unit at Gafar Ibnaof Specialized Children Hospital. Dr. Ghada Sheikh Eldian Arterioventricular Septal defect (AV-Canal) in Sudanese patients: clinical and echocardiographic features. Dr. Sulafa K.M Ali Acute Rheumatic Fever in an Arabian Gulf Country. Dr. Eltohami Ahmed. Discussion. <b>Coffee Break</b></p>
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<b>Sessions 3:</b>		<b>Gastroenterology and Nutrition</b>
Omdurman Hall	11:00	13:15
<b>Chairs:</b>	<b>Prof. Gaafar Ibn Auf, Dr. Mamoun Alawd, Dr. Altayeb M. Seid, Dr. Ali Arabi</b>	
OP12. 11:00-11:25	Gut Inflammation in children with Juvenile Idiopathic Arthritis. Dr. Mamoon Alawad.	
OP13. 11:25-11:45	Cow's milk protein allergy, A new substitution formula. Dr. Mohamed Osman Swar	
OP14. 11:45-12:00	Prevalence & effect of eradication triple therapy on extra digestive Helicobacter Pylori skin manifestations. Dr. Adil H.H. Bashir,	
OP15. 12:00-12:25	Orofacial Granulomatosis, is it a separate entity of Crohn's Disease Comprising an allergy component? Dr. Mamoon Alawad	
OP16. 12:25-12:40	The impact of multi-disciplinary team approach on cystic fibrosis Pt. Outcom Dr. Haithem F. Salih	
OP17. 12:40-12:55	Oesophageal Stricture in Sudanese children Dr. Insaf Abdelkarim	
	12:55-13:15	Discussion
	13:15-13:40	Coffee Break

<b>Session 4:</b>		<b>Disadvantaged Children and Non accidental Injury Symposium</b>
Regional Hall	13:40	16:10
<b>Chairs:</b>	<b>HE Dr. Ameera Alfadel, Prof. Zain Karrar, Dr. Atiyat Mustafa</b>	
OP18. 13:40-14:00	The prevalence and statistics of the abandoned babies presenting to Almygoma Orphan Centre. Dr. Mohamed Mohei Aldin Algimeabi	
OP19. 14:00-14:20	سوء معاملة الاطفال بروفيسر ابراهيم بخيت - جامعة الرباط.	
OP20. 14:20-14:40	Street Children. د.منى مصطفى خوجلي - وزارة الشؤون الاجتماعية ولاية الخرطوم. الاستاذ حسين محمد فرح - المجلس القومي لرعاية الطفولة.	
	14:40-15:00	Discussion
OP21. 15:00-15:15	Non-accidental injury case from Sudan. Dr. Zeinab Mohamed Gaili.	
OP22. 15:15-15:35	Non-accidental injury-Diagnosis and management. Dr. Yousif Ishag.	
OP23. 15:35-15:55	Emotional Abuse in children. Islamic rules, a solution? Dr. Satti Abdelrahim.	
	15:55-16:10	Discussion



<b>Session 5: Surgery &amp; Traumatology</b>	
<b>African Hall</b>	<b>13:40 - 16:10</b>
<b>Chairs:</b>	<b>Prof. Osman Taha, Prof. Omer Alamin, Mr. Salah A.Razig, Dr. Mohamed Swar</b>
<b>OP24. 13:40-14:05</b>	Disaster Management Dr. Tarig Osman
<b>OP25. 14:05-14:30</b>	Paediatric Surgical Emergencies Prof. Omer Alamin
<b>OP26. 14:30-14:55</b>	Neonatal Surgical Emergencies Dr. Abdulbasit S. Ali.
<b>OP27. 14:55-15:20</b>	Road traffic accidents: problems and answers Mr. Almutaz Billah Khalifa.
<b>OP28. 15:20-15:40</b>	Trauma to primary and permanent upper incisors teeth among Children In Khartoum State. Dr. Alhadi Awouda.
<b>15:40-16:00</b>	Discussion.

<b>Session 6: Neurology and Neurobehavior</b>	
<b>Omdurman Hall</b>	<b>13:40 - 16:10</b>
<b>Chairs:</b>	<b>Prof. Mustafa Salih, Dr. Alhadi Alamalik, Dr. Hayder Alhadi</b>
<b>OP29. 13:40-14:05</b>	Autism Spectrum Disorder. Dr. Haitham Elbashir <i>Prof</i>
<b>OP30. 14:05-14:20</b>	PANDAS a new paediatric syndrome Dr. Abdelazim Mohamed Mabrouk <i>Dr It</i>
<b>OP31. 14:20-14:35</b>	Fixation and sensitivity with abnormal behavior Dr. Emad Yassin. <i>Dr</i>
<b>OP32. 14:35-15:00</b>	Rehabilitation of children with cerebral palsy, Management strategies and Practice guidelines Dr. Haitham Elbashir
<b>OP33. 15:00-15:20</b>	The neurons in the myocardium of the mammalian heart Dr. Amna M. Alfaki.
<b>OP34. 15:20-15:35</b>	Case Presentation Dr. Olivia Almutasim
<b>OP35. 15:35-15:50</b>	Reflex-epilepsy induced by tap water bath: Case report & review of the literature.
<b>15:50-16:10</b>	Dr. Haydar El Hadi Babikir Discussion

**Sunday 15<sup>th</sup> November:****Plenary Lectures**

<b>Regional Hall</b>	<b>8:30-10:30</b>
<b>Chairs:</b>	<b>Prof. Salah A. Ibrahim, Prof. Eissa Osman, Dr. Suad El-Tigani</b>
<b>PV: 08:30 am</b>	PICU in Sudan: the present and the future. Dr. Abdelmoniem Mohamed Hamid
<b>PVI: 09:00 am</b>	Changing scenes in neonatal practice. Dr. Omer Bashir Abdelbasit
<b>PVII: 09:30 am</b>	Status Asthmaticus. Dr. Khalid Almobaireek
<b>PVIII: 10:00 am</b>	Respiratory Failure in children. Dr. Jihad Zahraa
<b>10:30-11:00</b>	<b>Breakfast</b>

**Parallel Sessions****Session (7, 8, 9) - (10, 11, 12)****Session 7: Paediatrics Emergencies**

<b>Regional Hall</b>	<b>11:00 - 13:15</b>
<b>Chairs:</b>	<b>Dr. Maha Abdullah, Dr. Abdelmoneim Hamid, Dr. Mouawia Altayeb</b>
<b>OP36. 11:00-11:25</b>	Viral Bronchiolitis, H1N1 infection. Dr. Khalid Al Mobaireek.
<b>OP37. 11:25-11:45</b>	Paediatric Rheumatological Problems. Dr. Yasmin Mahgoub Obeid
<b>OP38. 11:45-12:05</b>	Drowning and near Drowning in children حوادث الغرق عند الاطفال عقيد شرطة/ بابكر محمد احمد
<b>OP39. 12:05-12:25</b>	Drowning and near Drowning in children, Management Dr. Abdelmoniem Mohamed Hamid
<b>OP40. 12:25-12:40</b>	Paediatric Emergency situation in Sudan Dr. Muna Babiker
<b>OP41. 12:40-12:55</b>	ETAT Dr. Ali Alarabi
<b>12:55-13:15</b>	Discussion
<b>13:15-13:40</b>	<b>Coffee Break</b>

**Session 8: Paediatric Nursing Symposium**

<b>African Hall</b>	<b>11:00 - 13:15</b>
<b>Chairs:</b>	<b>Dr. Alsir Hashim, Prof. Awatif Ahmed, Dr. Sara Butrus Shuka, Sr. Batoul Alfeel</b>
<b>OP42. 11:00-11:25</b>	Vision for sustainable Quality of nursing care in Paediatric Settings In Khartoum State Magda Ramadan
<b>OP43. 11:25-11:50</b>	Recognizing Patients at risk Ms. Mawahib Wang
<b>OP44. 11:50-12:15</b>	Nurses Role in NICU Mrs. Rosaline M.Oriowo
<b>OP45. 12:15-12:35</b>	Assessment of Neonatal Units in Khartoum state Hospitals Mrs. Amal Abdelgadir
<b>OP46. 12:35-12:55</b>	Team work concept in medical disciplinary Dr. Amal Abdelbagi
<b>12:55-13:15</b>	Discussion
<b>13:15-13:40</b>	<b>Coffee Break</b>

<b>Session 9:</b>	<b>Haematology and Oncology</b>
Omdurman Hall	11:00 - 13:15
<b>Chairs:</b>	<b>Prof. Mutwali A.Magid, Prof. Malik A Babiker, Dr. Bakhitta Atalla</b>
OP47. 11:00-11:20	CNS crisis in children with sickle cell Disease Prof. Malik A. Babiker
OP48. 11:20-11:40	Sickle cell disease emergency management Dr. Bakhitta Atallah
OP49. 11:40-12:00	Comparative study of sickle cell disease pattern in Sudanese & Saudi Children Dr. Amin A. Mohamed
OP50. 12:00-12:15	Gall stones in Homozygous children with sickle cell disease Dr. Bakhitta Atallah
OP51. 12:15-12:35	Pain assessment and management Dr. Fatah Alrahman Alawad
OP52. 12:35-12:55	Emergencies in Paediatric Oncology Dr. Mohamed Awad Alkhateeb
	12:55-13:15 Discussion
	13:15-13:40 <b>Coffee Break</b>
<b>Session 10:</b>	<b>Paediatrics Intensive Care</b>
Regional Hall	13:40 - 16:10
<b>Chairs:</b>	<b>Dr. Jihad Zahara, Dr. Osama Jibali, Dr. Kamal Mohamed Kheir</b>
OP53. 13:40-14:05	Key performance indicators in Neurointensive care Dr. Mohamed Alhadi Alzubeir Almalik
OP54. 14:05-14:30	Challenges in the management of septic shock Dr. Jihad Zahraa
OP55. 14:30-14:55	Brain Death, is it Death? Dr. Osama Algibali
OP56. 14:55-15:15	Omdurman Paediatric Intensive Care Unit-shared experience Dr. Amal Abdelbagi
OP57. 15:15-15:35	Intra-abdominal hypertension, the silent killer in PICU Dr. Osama Gibali
OP58. 15:35-15:50	DKA management in children admitted to PICU Dr. Satti Abdalrahim Satti
	15:50-16:10 Discussion
<b>Session 11:</b>	<b>Tropical Emergencies</b>
Africa Hall	13:40 - 16:10
<b>Chairs:</b>	<b>Prof. Huda Haroun, Dr. Nur alhuda Mostafa, Dr. Ibraheem Gamareldawla</b>
OP59. 13:40-14:00	Severe complicated Malaria Prof. Huda Haroun
OP60. 14:00-14:20	Visceral Leishmaniasis in Sudanese children Dr. Walyeldin Elnour M. ELfakey
OP61. 14:20-14:40	Envenomation Prof. Eissa Osman
OP62. 14:40-14:55	Acute Fulminant Hepatic Failure-Management Dr. Yassin Hag Mohamed Hamid
OP63. 14:55-15:10	Role of school teachers in detection of malaria among school children in East province. Dr. Hamza Elteгани Omer
	15:10-15:30 Discussion

**Session 12:****Cardiology and Miscellaneous****Omdurman Hall****13:40 - 16:10****Chairs:****Prof. Abdelaziz Alamin, Dr. Alshafeea Altayeb, Dr. Rabih Berier****OP64. 13:40-14:00**

Neonatal Cardiac emergencies

Prof. Abdel Moneim Alseid

**OP65. 14:00-14:20**

Newborn screening for congenital hypothyroidism

Dr. Sarar Mohamed.

**OP66. 14:20-14:40**

Cardiac Arrhythmias

Dr. Ghada Sheikhaldeen

**OP67. 14:40-14:55**

A new type of Ehlers- Danlos syndrome associated with tortuous systemic arteries.

Dr. Eltohami Ahmed.

**OP68. 14:55-15:15**

Pattern of congenital heart disease in Sudanese children with Noonan's Syndrome

Dr. Siham A. Hassab El rasoul

**OP69. 15:15-15:30**

Problems and outcome in children starting chronic Peritoneal dialysis

Dr. Amir Eltayeb Mohammed

**OP70. 15:30-15:50**

A new quick method of assessment of medical students in the final examination.

Dr. Madeeha Fathi

**15:50-16:10**

Discussion.

**Monday 16<sup>th</sup> November:**

**Plenary Lectures**

**Regional Hall 8:30-10:30**

**Chairs: Prof. Hafiz Alshazeli, Prof. Mohamed A. Abdalla, Prof. Amna A. Elfaki**

**PIX: 08:30 am** Proposal for Child Health Institute in Sudan.  
Prof. Hafiz Alshazali.

**PX: 09:00 am** Neonatal Seizures.  
Dr. Tim Tones.

**PXI: 09:30 am** Perinatal Ethics & Parents Expectations in the Developing World.  
Dr. Seif Babiker

**10:00-10:30** **Breakfast**

**Parallel Sessions**

**Session 13,14,15**

**Session 13: Neonatology**

**Regional Hall 10:30 - 12:30**

**Chairs: Dr. Mohamed zein seid Ahmed, Dr. Seif Babiker, Dr. Widad Alsheikh**

**OP71. 10:30-10:55** Ethical and clinical dilemmas in Perinatal Medicine  
Prof. Abdulateef A Khalefa

**OP72. 10:55-11:15** Investigation of asymptomatic heart murmur in newborn.  
Dr. Tim Jones

**OP73. 11:15-11:35** Fluid and electrolyte management in the newborn.  
Dr. Seif Babiker

**OP74. 11:35-11:55** Hypernatremic Dehydration in an exclusively breast – fed baby.  
Dr. Mohamed Khalil Ali.

**OP75. 11:55-12:15** The Role of imaging in Neonatology problems.  
Dr. Elrayah Mohamed Mustafa

**12:15-12:30** Discussion.

**12:45-15:30** **SAP General Assembly Meeting**

**Session 14: Paediatric Emergencies**

**Africa Hall 10:30 - 12:30**

**Chairs: Dr. Tarig Mohamed Osman, Dr. Yahia Omer Hamza, Dr. Ismail M. Ismail**

**OP76. 10:30-10:50** General approach to toxicology in children  
Dr. Maha Abdalla

**OP77. 10:50-11:10** Medical errors in Paediatric Emergency Department  
Dr. Tarig Osman.

**OP78. 11:10-11:25** A rare case of carbamazepine poisoning in a sister and brother  
Dr. Satti Abdulrahim Satti

**OP79. 11:25-11:40** Home Accidents  
Dr. Mona Babiker Mohamed Ahmed

**OP80. 11:40-11:55** Acute renal failure owing to paraphenylenediamine Hair dye poisoning  
in Sudanese children.

Dr. M. B. Abdelraheem

**OP81. 11:55-12:10** Heat Stroke

Dr. Amel Aziz Malik

**12:10-12:30** Discussion

**Session 15:****Miscellaneous****Omdurman Hall****10:30 - 12:30****Chairs:****Dr. Balla Awad alseid, Dr. Siraj Mohamed Kheir, Dr. Fawzi Abdelrahim****OP82. 10:30-10:50**Epidemiology of obesity.  
Prof. Abdelaziz Elamin.**OP83. 10:50-11:05**The impact of the reform in obstetric policy on the neonatal outcome at  
The Omdurman new hospital  
Dr. Atif Fazari**OP84. 11:05-11:20**Hypertriglyceridaemia in infants and children with Hybernatraemia  
Dr. Fatih Elrahman Alawad.**OP85. 11:20-11:35**Cough and cold medicines for children and their effectiveness.  
Dr. Abdelbassit Abass**OP86. 11:35-11:50**Adherence to antiretroviral therapy on HIV positive children at  
Omdurman  
Management and counseling unit.  
Dr. Widad Mustafa.**OP87. 11:50-12:10**HIV infection by occupational exposure and recommendations for post  
exposure prophylaxis.

Dr. Nour Alhouda Ata Alla

**12:10-12:30**

Discussion



# Abstracts

**To the Chairmen:**

- Please make sure that sessions starts and finishes at the exact time

**To the Speakers:**

- No personal laptop is allowed, please handover your presentation to the organizing committee at least one hour before the session.
- The lectures is going to be downloaded into SAP website and/or made in CDs. Please if you have any reservations notify the congress organizers.

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# Plenary Lectures

## PI. Child SurvivalÉ Progress Towards MDGs

**Dr. Amani Abdelmoniem Mahmoud Mustafa**

M.B.B.S , Community Medicine Fellowship

Deputy Manager Maternal & Child Health Directorate, FMOH  
National Expanded Programme on Immunization Director,  
FMOH

Every year 12 million children in developing countries die before they reach their fifth birthday, many of which occur in the first year of life. Sub-Saharan Africa bears 51% of these deaths (Lancet). About one quarter of these deaths occur in the first month of life, two thirds of which in the first 7 days. The majority of deaths in children under the age of 5 years are due to a small number of common, preventable and treatable conditions, such as infections, malnutrition and neonatal conditions, occurring singly or in combination.

Millennium Development Goal 4 (MDG 4) calls for a two-thirds reduction in the mortality rate among children under the age of 5 years between 1990 and 2015. Inter-agency Group for Child Mortality Estimation (IGME) estimates that improvement in child survival in sub-Saharan Africa is insufficient to reach MDG 4. Furthermore, high levels of fertility in sub-Saharan Africa, combined with the high levels of under-5 mortality, have resulted in an increase in the absolute number of under-5 deaths (from 4.0 million in 1990 to 4.4 million in 2008). Sub-Saharan Africa now accounts for half of the 8.8 million under-5 deaths worldwide in 2008. Through projections based on the current situation analysis; it was predicted that child mortality will continue to be a major health problem till the year 2020, and based on Lancet series, about two-thirds of U5 deaths could be prevented by interventions that are available, and are feasible for implementation in low income countries at high levels of population coverage. This confirms the need for considerably greater efforts to control the situation. UNICEF, WHO, World Bank and other partners develop a joint initiative for supporting countries to reduce child Mortality and reach MDG 4, known as the **Accelerated Child Survival Initiative (ACSI)**.

The child health indicators in Sudan are one of the worst in the region, despite its history of implementing public health programmes that address the majority of and specific child health problem. There was little impact on child health mortality indicators (112/1000 live birth), despite the great efforts exerted by the public programmes intervention and private sectors. The Government of National Unity in Sudan, along with its development partners, intends to achieve the Millennium Development Goals by 2015 and had identified priority child health package of interventions for scaling up.

**Achievements: The Accelerated Child Survival Initiative (ACSI)** has been adopted by Sudan FMOH and partners in order to achieve the MDGs for the reduction of maternal and child mortalities, that evidence of positive impact in pilot countries in West Africa, resulting in reduction in U5MR by 20% in a population of 3 million in 4 countries (Senegal, Mali, Ghana and Benin) thus saving 5,500 lives over a period of 2 years had been proved. The objective of implementing the ACSI was to demonstrate within a very short period of time, how the integrated implementation of low-cost, high-impact and evidence-based minimum, expanded and maximum packages of interventions with universal coverage could have a dramatic effect on child survival in Sudan. As part of these interventions 90% administration of neonatal intervention package that address the pre-pregnancy, pregnancy, birth, neonatal period and infancy could reduce neonatal mortality by two thirds. Implementation phases of ACSI in Sudan has included the jump start phase and which is a

onetime activity at a national scope and pulse phase /child health days during which multiple health and nutrition interventions provided including (measles and polio vaccinations, vit A distribution, LLITNs distribution, Deworming, Iodine containing capsules for targeted population, Health awareness messages, screening for malnutrition, and Iron &Folic acid tabs for pregnant women) as a result high quality performance and high coverage rates were performed. The routine ACSI at facility, outreach, community and family level is under planning and implementation.

**Vaccines Preventable Disease (VPD)** contributes to 25% of under five mortality. Sudan has made substantial progress in the area of child immunization, where the routine measles vaccination coverage reached (80%) among children under one year of age by end of 2008. Beside that measles follow up and catch-up campaigns were implemented in Sudan since 2004 targeting under fifteen /five years children as a result marked reduction in measles morbidity (98.9%) and mortality (99.3%) had been achieved between 2004-2008. Sudan had introduced **Pentavalent (DTP,Hep B, Hib)** new vaccine in 2008 in the 15 Northern states. The third dose coverage for under one children by end of 2008 was 93%.

Sudan has applied to GAVI for introduction of **Rota virus vaccine** in June 2010 and **Pneumococcal vaccines** in Jan 2011 as Rota virus and Pneumococcal diseases are responsible for the highest proportion of under five deaths in Sudan. FMOH is implementing primary child health care strategies as IMCI which covers a range of cost-effective interventions and adopted the ETAT. In the same time FMOH in collaboration with UNICEF and NGO partners, leads the provision of services to identify, prevent and treat malnutrition as for Community Management of Acute Malnutrition (CMAM). In conclusion, Accelerated progress can be achieved, even in the poorest environments, through integrated, evidence-driven, and community-based programmes that focus on addressing the major causes of death, including pneumonia, diarrhoea, newborn disorders, malaria, HIV, and under-nutrition; reaching the unreached with a basic package of interventions at large scale and achieving coverage with equity; and using data for action and advocacy. In conclusion effective interventions to reduce child mortality have been identified, tools are available and opportunities exist however, we need to find appropriate strategies to overcome the existing challenges in order to ensure results for children. Only 6 years left to show results, without addressing the issues contributing to child morbidity and mortality, it will be an uphill task to achieve the MDGs in Sudan.

## PII. Pediatric Emergency Medicine Department (From Dream to Reality)

**Dr. Maha Abdulla**

Consultant Paediatric Emergency Department, KAMC  
Saudi Arabia

Paediatric Emergency Medicine is the medical specialty dedicated to the diagnosis and treatment of unforeseen paediatric illness or injury. The practice of PEM includes the initial evaluation, diagnosis, treatment and disposition of any patient requiring expeditious medical, surgical or psychiatric care.

The purpose of this presentation is to introduce you to the specialty of paediatric emergency medicine. We would like you to develop an understanding of what paediatric emergency medicine is, what working as a PEM physician is like, and how the emergency department is unique in both its approach to patients and the type of patients we evaluate.

Planning of good PEM department (from dream to reality) is one of our interested goal and objective of this open discussion.

We would like also to discuss in general terms the various positive and negative aspects of emergency medicine so that you can better determine if this is the specialty for you. In this open discussion, we will try to describe briefly how residency and fellowship training is accomplished. Finally, What Emergency Medicine Association, Emergency Medicine Interest Groups and resources those are available to you.

### **PIII. Promotion of Perinatal and Neonatal Services in Sudan**

#### **Dr. Mohammed Zain**

FRCP, FRCPCH, Consultant Neonatologist,  
Security Forces Hospital, Riyadh, KSA

#### **Dr. ILham Mohammed Omar**

MRCP, Consultant Pediatrician  
Soba University Hospital, Sudan

If we cast a look at the countries' profiles and reports by the World Health Organization, East Mediterranean Region Office (EMRO), which includes Sudan and some African countries, we will be very disappointed by the fact that Sudan is rated at the bottom of the countries in respect to maternal and child health services, especially antenatal, perinatal and postnatal care.

This is reflected by the unacceptable high perinatal mortality rate (PNMR) (42-80 per 1000 births, and neonatal mortality rate (NMR) of 41 per 1000 live birth and infant mortality rate (IMR) of 81 per 1000 live births.

The maternal mortality ratio (MMR) is the highest in the region 1107 deaths per 10000 deliveries. These disappointing data reflect the severe lack of maternal health and neonatal intensive care units (NICU) all over the country. In this review we reflect the present status and recent data and project some suggestions to promote antenatal care, perinatal and neonatal services guided by the recent advances in the field.

**Keywords:** perinatal services- Sudan, PNMR, NMR, IMR, MMR, WHO-EMRO

### **PIV. Diagnostic Approach & Management Strategy Of Childhood Stroke**

#### **Prof. Mustafa Abdalla M. Salih,**

MB BS, MPCH, MD (U of K),

#### **Dr. Med Sci (Uppsala), FRCPCH (UK)**

Professor, Division of Pediatric Neurology, Department of Pediatrics, College of Medicine, King Saud University, Riyadh, Saudi Arabia

Prompt recognition and early intervention with pertinent management and medication may reduce subsequent neurologic deficits in stroke, which constitutes a devastating event in children. This is due to the tasking consequences including death on residual neurological deficits, which may last for many decades, in over 60% of survivors. Evidence-based treatment for children with stroke is still lacking, reflecting scarcity in baseline epidemiological data on pediatric stroke, the multitude of underlying risk factors and the ethical and practical challenges incurred in conducting clinical trials. Based on the experience, the authors gained from a combined prospective and retrospective study in childhood stroke (covering 10 years and 7 months and involving a cohort of 104 Saudi children) a diagnostic algorithm, which outlines the approach to a child with suspected stroke / cerebrovascular lesion, was formulated. This algorithm might also be of use for managing other children with stroke from North Africa and Middle East Regions with similar demographic, socioeconomic and ethnic backgrounds.

Underlying risk factors which need special attention include thrombophilia and hypercoagulable state and sickle cell disease (SCD) which was found to constitute a common risk factor with severe manifestations. Other risk factors include infections (especially meningitis), cardiac diseases and hypernatremic dehydration. Recognition of an identifiable syndrome or inherited metabolic cause may unravel an underlying cerebrovascular disease. This is particularly important in regions with a large pool of autosomal recessive diseases and high rate of consanguinity. In the evaluation of a suspected case of stroke, important neuroimaging modalities include cranial computed tomography (CT), magnetic resonance imaging (MRI) [including diffusion-weighted images], magnetic resonance angiography (MRA), magnetic resonance venography (MRV) and conventional angiography.

Transcranial Doppler sonography of the intracranial vessels and duplex ultrasound of the neck are valuable modalities for detecting large vessel vasculopathy which occurs in SCD, moyamoya syndrome, arterial dissection and stenosis. Antithrombotic drugs are increasingly being used in the acute phase of childhood ischemic stroke. These include unfractionated heparin, low-molecular-weight heparins, aspirin or warfarin. Specialized stroke care and follow-up are needed for children with stroke, as well as their families.

### **PV. PICU in Sudan: The Present & the Future**

#### **Dr. Abdelmoniem Mohamed Hamid**

MBBS, MRCPCH (UK)

Associate Professor of Paediatrics,

Alneelain University, Khartoum, Sudan

Intensive Care services in Sudan are very limited for adults, and far more limited in children. In the capital, where health facilities are slightly better, Paediatric Intensive Care remains restricted. There are three PIC units in each of the three cities (Khartoum, Khartoum North and Omdurman). Only two units are functioning at present. However, equipments are not complete, and Mechanical Ventilation is done only occasionally. There is shortage of trained Medical and Nursing Staff to run PICU Units.

My presentation will highlight the Paediatric Intensive Care services in Sudan and suggest causes of the current situation which is substandard. It will discuss the future of services which could be improved if a structured plan of change is adopted. Recommendations for change will be discussed, which focuses on the following:

Reconstruction of PIC Units according to the known standards, fully equipped PICU and training of medical staff.

The latter would start in the working units in the capital, and the units to be in the districts. It includes consultants and registrars.

Further recommendations include training of Nursing Staff working in the active units now, and preparing new staff for the units planned to start in the near future, training the trainers in the capital and district, including medical and nursing staff, to maintain continuous training and professional development and retaining trained medical and nursing staff to ensure continuity of good service in PICU.

The cornerstone recommendation is to alert the health authorities to the importance of establishing PICU to try to reduce the high mortality and morbidity in children in Sudan.

### **PVI. Changing Scenes in Neonatal Practice**

#### **Dr. Omer Basher Abdelbassit**

Head Division of Neonatologist,

Security Forces Hospital - Riyadh, Saudi Arabia

Continuing research in neonatal medicine coupled with technological advances has resulted in a wealth of

knowledge in the pathophysiology of various neonatal disorders.

The stress that has been given these days to the concept of evidence-based practice has improved the management of these various disorders and has led to establishment of standardized practice guidelines.

Newer trends in management have resulted in improved outcomes in relation to morbidity and mortality. I will share with you some of the recommended evidence-based guidelines in neonatal practice, which have revolutionized the whole field of neonatology evolving over a short time in the history of neonatal care. Great strides have been made in the areas of respiratory support, nutrition and overall management of the sick neonate.

These days neonatal care starts from fetal life and pediatricians in general as well as neonatologists should face this challenge well equipped with the ongoing developments around them.

## **PVII. Status Asthmaticus**

**Dr. Khalid Al-Mobaireek**

Dean of Postgraduate Affairs

Head Division of Pulmonology

King Fahad Medical Centre – Riyadh, Saudi Arabia.

There is no definition for status asthmaticus. It may be also named as life threatening or severe asthma.

The assessment of status asthmaticus is mainly clinical, additional useful information may be obtained from some diagnostic tests. Chest film do not result in changes in management. Noninvasive oximetry and sidestream capnography have replaced routine blood gas testing. The decision to intubate an asthmatic child should not depend on the result of blood gases, but should be made on clinical grounds. The child will need cardiorespiratory monitoring and comfortable environment.

Supplemental oxygen, via partial or nonrebreather facemask, should be administered. Fluid replacement should be aimed towards restoration of euolemia. The mainstays of treatment for status asthmaticus continue to be  $\beta$ -agonists and steroids. Low salbutamol dosages (0.15 mg/kg in 5 ml) delivered by continuous nebulization is the most effective as it provides sustained stimulation of  $\beta_2$  receptors and prevents the rebound bronchoconstriction that may occur with intermittent therapy. Intravenous salbutamol remains controversial. Useful adjuvants including anticholinergics, methylxanthines, magnesium, heliox gaseous mixture, noninvasive bilevel positive pressure ventilation, positive pressure ventilation, inhalational anesthetics and ketamine. The role of montelukast severe asthma or in addition to oral steroids remains unknown. Most acute exacerbations of asthma are triggered by acute infections that are due to viral respiratory pathogens, not to bacteria or atypical Antibiotic therapy should be targeted to patients with evidence of bacterial infection.

## **PVIII. Respiratory Failure in Children**

**Dr. Jihad Zahraa**

Head of PICU, King Fahad Medical City

Riyadh, KSA

It is important to emphasize when we discuss respiratory failure that the respiratory system is much more than the lung per se. It is the lung, the respiratory muscles, the chest cage, the blood and cardiovascular system, the brain (especially the brainstem), the endocrine system and, often, the gastrointestinal tract. Historically respiratory failure is defined usually as  $PaO_2 < 60$  mm Hg,  $PaCO_2 > 50$  mm Hg. Obviously we must take into account patient's anatomy (ie? cyanotic heart lesion).

Best way to think about it is oxygenation vs. ventilation failure. Respiratory failure can develop acutely or over days. Symptoms/Severity dependent on acuity.

The four major causes of arterial hypoxemia are hypoventilation, shunt, diffusion limitation, and ventilation-perfusion mismatch, which can be diagnosed by relatively simple tests and the alveolar-arterial  $PO_2$  difference ( $PAO_2 - PaO_2$ ).  $PaCO_2$  is only measurement that reflects alveolar ventilation and the relationship to  $CO_2$  production. When you plan your management think WHY (ie physiology) the patient is hypoxic/hypercarbic. Remember to follow patients closely as kids can deteriorate quickly.

## **PIX. Proposal for Establishing Institute of Child Health in Sudan**

**Emeritus Professor. Hafiz Elshazli**

MR BS, FRCPCH, FRCPh.DCH

Faculty of Medicine University of Khartoum

The Primary mission of the Institute is to promote training in child Health through co-ordinated relevant, equitable and quality programmes that meet the priority needs and requirements of children, and at the same time cultivating the culture of child care and health in the communities with the realization that the child is NOT a minute adult. In fact he is three persons in one-neonate, child and adolescent.

Each phase has its own problems and diseases and requiring special care and care deliverers – yet all have to work collectively to insure that children are born healthy, and have the chances to achieve their growth potentialities to adulthood-free from diseases and disabilities.

The Ministry of Health already has many training and service programmes with involvement of WHO and UNICEF and other International bodies. Other Ministries and Universities and NGOs are likewise involved. All these bodies are mainly working individually and many limiting themselves to a certain aspect of child health – one can not deny that some are doing a good job – but still the best can be better.

The proposal for establishing the institute is to co-ordinate and work with all bodies interested in the bringing up of healthy children. This would be through planned standardized multidisciplinary training programmes, and spreading the services over the country. The Institute will create links with WHO, UNICEF, UNISCO, and other international bodies and institutes. The Institute will encourage research award post graduate degrees and follow up evidence – based practice.

## **PX. Neonatal Seizures**

**Dr. Tim Jones**

Consultant Neonatologist, Peterborough Hospital, UK

Neonatal seizures are common, but are not always easy to recognise.

There is debate, on whether or not all seizures should be treated and what the best treatment is. This session will review the frequency and causes of neonatal seizures. We will consider how to recognise seizures and how they should be investigated in order to determine the aetiology.

This will include a discussion on the role of Cerebral Function Monitoring (CFM) and other special investigations. We will review the current evidence with regard to treatment of seizures and look at the different treatment options and the benefits and risks of treating or not treating neonatal seizures in terms of the long term outlook. The session will aim to complement the neonatal seizure workshops which will follow the plenary session.

## PXI. Perinatal Ethics and Parents' Expectations in the Developing World

**Dr. Seif Babiker**

MRCP, FRCPCH, Peterborough, UK.

Ethical issues are routinely encountered in prenatal, perinatal and neonatal practices in the developed world. Obstetricians and neonatologists are often involved in ethical dilemmas, despite the advances in risk management and the medico-legal support by their employers. Hospitals in the UK pay out huge sums of money, every year, to the families of babies who had serious untoward incidents (SUIs), due to suboptimal care. Hospitals in the developing countries are under-resourced and are not financially viable to compensate families and/or meet the cost of court proceedings.

SUIs can not be completely eliminated. However, robust and vigorous systems should be in place to manage clinical risk. Such systems will help both clinicians and managers to learn from mistakes and develop remedial strategies. Simple measures can help to minimise clinical risk and mitigate clinical outcomes. Proper communication has always helped prevent litigations. Clinicians are expected to be of high ethical conduct. Serious ethical issues usually arise during prenatal counselling, whilst breaking bad news and in certain 'end of life' situations.

Withdrawal of intensive care is usually discussed and agreed with parents in certain futile situations. Every parent deserves a healthy newborn baby. Unfortunately, this is not always the case. Many families have to endure and bereave following the loss of a foetus or a newborn baby. The extended family structure in developing countries provides huge support to the bereaving parents.

Doctors, nurses and midwives are expected to be equally supportive. Babies born with lethal congenital malformation/ malfunction or a life limiting condition are particularly common among consanguineous families. Parents should be encouraged to bond with the dying baby and to, subsequently, bereave. Bereavement counselling is highly appreciated by these families.

Neonatal palliative care is commonly practiced in the UK, whilst active neonatal euthanasia is prohibited by law. Applying the 'Doctrine of Double Effect' in a developing country setting is often not possible. Doctors in the developing world have a duty to develop local models based on culture, traditions and beliefs.

## Parallel Sessions

### OP01. Current Neonatal Care Services in Sudan

**Dr. Elham M. Omer**

Khartoum – Sudan

Neonatal care services in Sudan are provided in specialized units as well as in the general paediatrics wards. The specialized neonatal care centres are focused mainly in Khartoum states and Medani. In Khartoum state, the specialized centres are in: Soba, Gaafar Ibn auf, Maternity hospital, Omdurman hospital, and Khartoum T. Hospital and Swaidy Charity hospital. Also care is provided in some other hospitals like Ibrahim Malik; Saudi hospital Albulook hospital; and some private hospitals. In all the hospitals the number of staff is not coping with the number of patients. The equipments in all the hospitals need to be increased and modernized. Some of the lives saving instruments like endotracheal tubes are not available. In all hospitals there are no fixed scheduled training programmes. The perinatal mortality rate, which reflects the quality of services given by both obstetrical and Paediatrics department, is still high in the whole of Sudan, around 35/1000. It is a sensitive index of adequacy of obstetrical and neonatal care.

### OP02. Hyperbilirubinemia in Newborn

**Dr. M. M. Shaheed**

MD DCH, FRCP, Riyadh, Saudi Arabia

Hyperbilirubinemia is one of the most common problems encountered in term newborns. Historically, management guidelines were derived from studies on bilirubin toxicity in infants with haemolytic disease. Hyperbilirubinaemia in infants  $\geq 35$  weeks gestation is defined as TB  $> 95$ th percentile for hours-of-age on the Bhutani normogram. Hyperbilirubinemia with a TB  $> 25$  to 32 mg/dL (428 to 513 micromol/L) is associated with an increased risk for bilirubin-induced neurologic dysfunction (BIND), which occurs when bilirubin crosses the blood-brain barrier and binds to brain tissue.

The term "acute bilirubin encephalopathy" (ABE) is used to describe the acute manifestations of BIND. The term "kernicterus" is used to describe the chronic and permanent sequelae of BIND. Universal screening of all term and late preterm infants identifies at-risk infants for hyperbilirubinaemia.

In these patients, phototherapy is initiated to prevent hyperbilirubinaemia when TB exceeds a threshold level based upon a normogram of TB levels adjusted by the infant's age-in-hours and the presence or absence of additional risk factors. Therapeutic interventions for infants with hyperbilirubinaemia include Phototherapy, exchange transfusion, improving the frequency and efficacy of breastfeeding or supplementing inadequate breastfeeding with formula

### OP03. Neonatal Hypoglycemia Update

**Dr. Mohammed Zain**

FRCP, FRCPC, Riyadh, KSA.

The definition of neonatal hypoglycemia remains one of the most controversial issues in neonatal medicine, despite a plethora of research and publications over decades it still remains controversial. Risk factors for neonatal hypoglycemia have long been identified. Screening high risk newborns had been established. Operational thresholds and therapeutic objectives based on strong evidence that hypoglycemia is associated with neurodevelopmental consequences (Cornblath *et al.* 2000) had been suggested to guide the management of hypoglycaemic infants with defined therapeutic goals. In developing countries, with meager resources, poor

socioeconomic status, the classical risk factors such as low birth weight, hypothermia, delays in the onset of breastfeeding and poor maternal nutritional status, could have a serious impact and complicate the problem of neonatal hypoglycemia and its consequences. (Deb K Pal *et al.* 2000). Objectives of this presentation is to reflect the controversies of the definition of neonatal hypoglycemia. Review the literature on neonatal hypoglycemia and the different recommendations and protocols adopted for management. Make recommendations and suggest a protocol to suit the situation in Sudan as a developing country with limited resources without seriously compromising the care.

### OP04. Neonatal Parenteral Nutrition

**Dr. M. M. Shaheed**

MD DCH FRCP FRCPC, Riyadh, Saudi Arabia

The nutritional needs of premature infants are usually dependent upon parenteral nutrition (PN) during early postnatal life, especially for very low birth weight (VLBW) infants (birth weight of less than 1500 g). In these infants, full enteral feedings are generally delayed because of the severity of medical problems associated with prematurity. In addition, early enteral feeds are also delayed because of concerns that aggressive feeding may lead to complications such as feeding intolerance or necrotizing enterocolitis. As a result, the nutritional requirements of VLBW infants are rarely met by enteral feeds in the first two weeks after birth. There is growing evidence that inadequate nutrition in the first weeks of life of premature infants results in growth failure that is often difficult to correct and may lead to permanent detrimental effects). The early aggressive use of adequate PN minimizes weight loss, and improves growth outcome. Increased protein and energy intakes in the first week of life also are associated with improved neurodevelopmental outcome. PN for the premature infant includes adequate calories for energy expenditure and growth, carbohydrates to prevent hypoglycemia and, in combination with lipids, provide the caloric intake to meet the energy needs of the infant, adequate protein intake including essential amino acids to achieve positive nitrogen balance required for growth, fatty acids to prevent essential fatty acid deficiency and maximize overall non-protein energy intake and essential nutrients including minerals, electrolytes, vitamins, and trace elements needed for growth.

### OP05. Six month experience in Special Baby Care Unit at Omdurman Children Emergency Hospital

**Dr. Widad Mustafa**

MD, Omdurman, Sudan

A special or an intensive care unit should include assisted ventilation, intravenous feeding and management of babies with cardio-respiratory, metabolic or infectious diseases and post operative care. A Special Care Baby Unit (SCBU) includes infant with less severe problems. A retrospective study was done to determine the number of Neonatal Admission in relation to the total hospital Admissions, to detect the major Problems in SCBU and the out come of Babies. 174 patients were enrolled in the study with 50.49% males and 49.51% females. Total number of hospital admissions as long or short stay in this period were 17909 with 1526(8.5%) newborns. Of those, 174 (11.4%) were admitted in SCBU. (60%) were born at home, (38.5%) at hospital and (1.5%) referred from Maygoma with same ratio of antenatal care. Of the SCBU admissions (35%) were preterm, (65%) were term with (12%) with RDS, (34%) sepsis, (77%) jaundice and (9%) with other problems. The outcome of the admissions were: (83%) discharged, (14%)

died, (1%) discharged against medical advice and (2%) referred to other hospitals. The nurse to patient ratio is 1 to 3 instead of 1.5 to 1 (BPA/RCOG). Of the newborns admitted to Omdurman children emergency hospital, 60% were born at home with no antenatal care, and a high mortality rate. There were insufficient number of staff and equipments, which requires special attention and action.

#### **OP06. Management of Children with Heart Disease in Sudan: Current Situation and Future Perspectives**

**Dr. Sulafa KM Ali**

FACC, FRCPC. University of Khartoum, Faculty of Medicine, Department of Pediatrics and Child Health, PO Box 102,

Khartoum, Sudan.

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Management of heart disease (HD) in children has been revolutionized by refinement of diagnostic technology, interventional catheterization and operative/post operative care. In a country like Sudan with financial and technical constraints, introducing such management is a real challenge. In the last decade management of children with HD had been consolidated in Sudan by establishment of many cardiology/echocardiography clinics and introduction of paediatric cardiac catheterization and cardiac surgery. The current setup allows management of most children with HD including detailed diagnosis of all types of HD, transcatheter closure of heart defects, balloon dilatation of stenotic valves and balloon atrial septostomy with results comparable to the reference standards. Open heart surgery can be performed for children more than 8 kg and closed procedures can be done for smaller infants with acceptable results. Training and continuous professional development activities are well established and have helped to increase the number of cardiologists and technicians and extend the service to some states. The future perspectives are directed to improving neonatal diagnosis and management, especially that of intensive care, and early palliation/repair with affordable cost to the common congenital heart defects. Increasing the number of trained personnel including nurses and technicians is needed. Rheumatic fever and rheumatic HD prevention should be a central objective in the coming years.

#### **OP07. Congenital Heart Disease**

**Prof. Eisa O. El-Amin**

National Ribat Hospital Experience MBBS, DTCH, FRCP

Three thousand two hundred and twenty babies were echoed in two years. Ninety eight babies were found to have significant cardiac problems. The pattern is a wide spectrum with simple and complex heart disease. Few were referred for intervention in Khartoum but thirty two received treatment abroad- mainly in Jordan with good results. Problems were faced with babies whose guardians were not police because the police pays for this service from their own social security funds which cannot cover others. Ways for helping these babies should be thought of and secured within the health care system.

#### **OP08. Spectrum of congenital heart disease In infants in a central referral hospital in Khartoum An echocardiography study**

**Dr. Samia Hassan Osman,**

**Dr. Ghada Shikh Eldain Mohamed**

**Dr. Sulafa Khalid Ali**

**Dr. Osama Abdalla Mohammed**

Congenital heart diseases which is an abnormality in cardio circulatory structure or function that is present at birth

even if it is discovered much later .When appears in the first year of life it has a unique diagnostic and management problems. It is usually more serious and affects the ongoing well child care and can complicates bonding, feeding, growth and development. There is wide spectrum of CHD presentation in the newborns and infants. Studding the spectrum of presentation can helps in early detection and decrease the risk of mortality, morbidity and handicap. **Objectives:** To study the pattern of congenital heart disease in infants using echocardiography. To study the correlation between the mode of presentation and the specific cardiac lesion. patients and methods: We reviewed retrospectively records of 109 infant who attended the echocardiography clinic in Gafr Ibn Auf specialized hospital from November 2008 to September 2009 Echocardiography was performed using easote my lab30 echocardiograph equipped with 2.5–5.0 MHz transducer. Data was analyzed by software SPSS version thirteen. Results : Infants were 20% of the total number of patients. 55%were males and 45% were. females. Most of cases(78%) were a cyanotic .VSD was the commonest lesion (56%).In cyanotic lesion TOF was the commonest followed by complex lesions . Surgical treatment was indicated in 84% of case and 30% of cases needs surgery abroad. Conclusion: infants has wide spectrum of presentation clinically and echocardiographically. Critically ill neonates should be evaluated properly for a possibility of CHD. Significant percentage of the cases need surgery in Sudan or abroad.

**Recommendation:** We recommend use of fetal echocardiography, proper neonatal evaluation and check of oxygen saturation to pick CHD earlier. Improvement in pediatric cardiac surgery is needed to improve the outcome. Further studies in the pattern of presentation, predisposing factors, molecular and genetic basis can help in overall outcome.

#### **OP09. Clinical Pattern of Patients Admitted To Cardiology Unit at Gafar Ibn Specialized Children Hospital**

**Dr. Ghada Shiekh Eldin Mohd Abdallah**

MD,Assistant Professor at Juba University, College of medicine.

**Dr. Samiah Hassen, Dr. Sulafa Khalid, Dr. Elfatih AbuZaid.**

Gafar Ibn Auf is the main specialized children hospital in Khartoum .The hospital is receiving patients from the different parts of Sudan. The capacity of the ward is 12 beds. The study is mainly focused in studying the clinical pattern of patients admitted to cardiac unit at Gaafar Ibn Auf hospital in the duration between October 1st 2008 and October 1st 2009. The total number of patients admitted to the cardiology unit was about 75 patients. The study shows the different distribution of the cardiac disorders and different echo features. The study is a retrospective study using a questionnaire filled from the Files of the patients; statistics used for the analysis is the SPSS Package. Objective: To study the clinical pattern of patients admitted to cardiac unit in GBN Hospital. To study the echocardiographic features of patients admitted to cardiac unit in GBN Hospital. To specify the complications that these patients develop. To highlight the main problems encountered in the management of cardiac patient.

## **OP10. Atrioventricular Septal Defects (AV-Canal) In Sudanese Patients: Clinical and Echocardiographic Features**

**Dr. Sulafa KM Ali**

FACC, FRCPCH. University of Khartoum, Faculty of Medicine, Department of Pediatrics and Child Health, PO Box 102, Khartoum, Sudan.

E.mail:sulafakhalid2000@yahoo.com

Atrioventricular septal defects (AVSD) is a common congenital heart disease (CHD) with variable clinical and echocardiographic forms. The study is a retrospective review for all patients with AVSD seen at Sudan Heart Centre in the period from July 2004 to December 2008. In the study period we diagnosed 132 patients with AVSD out of 2480 patients with CHD, AVSD represented 5.3% of all CHD. Patients were divided into 4 groups: Group 1: complete AVSD, group 2: partial AVSD, group 3 complex AVSD and group 4: AVSD with no primum atrial septal defect (ASD). Group 1 included 57 patients (2.2% of CHD). Down's syndrome was present in 56% of patients and the mean age at presentation was 30 months. Ten patients had complete surgical repair with no mortality. 29% of patients in this group had Eisenmenger's syndrome on presentation. Group 2 included 32 patients (1.2% of CHD), Down's syndrome was present in 22% of patients and the mean age at presentation was 79 months. Eleven patients had complete surgical repair with one mortality. Group 3 included 41 patients with AVSD associated with major anomalies mainly pulmonary stenosis and unbalanced ventricles. Forty three percent of patients were found to be either inoperable or are at a very high risk of surgery. Twelve patients had palliative operations with one mortality. Group 4 included 4 patients all with Down's syndrome, large ventricular septal defect, common atrioventricular valve and no ASD. Echocardiographic measurements were useful in the diagnosis of these patients. In conclusion the frequency of the different forms of AVSD is comparable with the literature. Contrary to the literature, AVSD with no primum ASD is not rare in Down's syndrome. There is significant delay in diagnosis and referral causing many patients to be inoperable.

## **OP11. Acute Rheumatic Fever in an Arabian Gulf Country Effect of Climate, Advantageous Socio-economic Conditions, and Access to Medical Care**

**Dr. Eltohami ahmed Eltohami**

Associate Professor of Pediatrics Consultant Pediatrician and Pediatric Cardiologist Academic hospital and etal

An eleven-year study of the incidence and consequences of acute rheumatic fever was carried out in a country in which a uniform climate together with national characteristics of insularity, wealth, and unrestricted access to free medical care contribute prominently to the epidemiologic milieu. Study subjects were 86 children, aged four to fourteen years, satisfying criteria for acute rheumatic fever. Study methods included clinical evaluation, standard laboratory studies, and echocardiography. A declining incidence of rheumatic episodes, ranging from 1.06 to 18.6/100,000 population (average 11.2/100,000), was identified. The course of the episode was generally mild. Arthritic findings predominated (92%), followed by carditis identified clinically in 43% and, with the addition of echocardiography, in 71%. Residual valvular regurgitation, as a longer term consequence, persisted in 46% of those with auscultatory confirmation of valvulitis. No recurrences were identified. Comparison with countries of similar socioeconomic status revealed relatively unimportant differences. Comparison with near by

disadvantaged countries identified striking contrast. It may be concluded that among the contributing factors, for the improvement in the incidence and sequelae of a rheumatic episode, are an advantaged socioeconomic environment and accessibility to unlimited medical care.

## **OP12. Gut inflammation in children with Juvenile Idiopathic Arthritis**

**C Ong, F Kiparissi, SM Hill, KJ Lindley, M Elawad**

Institute of Child Health/Great Ormond Street Hospital, London

The relation between inflammatory bowel disease (IBD) and joint complaints is well established. Gut inflammation has been described in adult patients with spondyloarthropathy (1). The type of gut pathology in paediatric juvenile idiopathic arthritis (JIA) is not well described. Our study is to evaluate the histopathological features in the gut mucosa of children with JIA who had gastrointestinal symptoms. All cases of JIA who underwent oesophageal gastroduodenoscopy and ileocolonoscopy were identified from a single paediatric specialist centre (2002-8). The mucosa histopathology features, types of JIA, gastrointestinal symptoms, treatment and presence of autoantibodies at the time of endoscopy were reviewed. 30 children (9 Female) with JIA had endoscopy: 7 oligoarthritis, 9 polyarthritis, 5 systemic-related-arthritis, 8 enthesitis-related-arthritis and 1 psoriatic arthritis. All had one or more gastrointestinal symptoms including abdominal pain (n=15), abnormal bowels (n=8), vomiting (n=2), rectal bleeding (n=7) or faltering growth (n=7). 23/30 (77%) had abnormal histology (mean age  $9.13 \pm 4.22$ ) whilst 7/30 (23%) were normal (mean age  $9.64 \pm 2.47$ ). 10/23 (43%) patients had chronic/autoimmune inflammation of the gut, 7/23 (30%) had predominant eosinophilic gastrointestinal disease whilst 6/23 (26%) had active colitis/IBD. All but one had involvement of the colon, 10/23 (43%) the duodenum, 5/23 (22%) the terminal ileum and 3/23 (13%) the stomach and oesophagus. 61% (14/23) of patients with gut inflammation was on immunosuppression and 17% (4/23) on non-steroidals. 12% (3/23) were not on treatment. In the normal group, 5 were on immunosuppression whilst the other 2 were on non-steroidals. 43% had positive autoantibodies (abnormal group) whilst 3/7 in normal group had positive autoantibodies. No gut autoantibodies were performed. In conclusion, this is the largest paediatric series describing the mucosal histopathological features in the gut of children with JIA. 96% of the children had colitis while the small bowel was affected in more than half the cases. This matched the clinical presentation of abdominal pain and altered bowel habits as the predominant symptoms (76%). The type of gut inflammation was mainly chronic inflammation with a quarter having active IBD. The presence of eosinophilic GI disease in 30% of our study group is an important novel finding and may be used to guide therapy such as dietary exclusion, particularly in those with ongoing inflammation despite being on immunosuppressive therapy. Our data did not confirm a direct correlation between autoantibodies and specific mucosal disease; however a larger study might be needed to address this with particular emphasis on gut autoantibodies.

### OP13. Cow's Milk Protein Allergy, A New Substitute Formula

**Dr. Mohamed Osman Swar**

MBBS, MPCH, Dipl. Card. FAAP (I)  
Ahfad University for Women,

Cow's Milk Protein Allergy (CMPA) affects 2-7% of children. It occurs in children who have a strong positive family history of allergy and those who show allergic reactions on spilling or ingestion of cow's milk. CMPA may present as an immediate IgE mediated reaction like anaphylaxis, hives, angioedema, asthma, rhino conjunctivitis, eosinophilic gastroenteritis or migraine. Non-IgE delayed type of reactions present as enteropathy, enterocolitis, Heiner's Syndrome, colic and type 1 diabetes mellitus. Diagnosis of the condition depends upon history, IgE level, RAST, Skin Prick and Elimination - Challenge Tests. Management of CMPA includes exclusion of milk and milk products from diet, antihistaminics, mast cell stabilizers, anti-inflammatory drugs and the use of fortified cow's milk substitutes. Unfortunately, there is a very high incidence of allergy to milk substitutes. Fifty to 80% of children with CMPA develop allergy to other food items and substitutes e.g. eggs, peanuts, soya beans, sheep and goat milk. On the search for a safe and affordable substitute, when breast milk or a substitute mother is not available, we reviewed the composition of animal milks compared to breast milk. Our study included cows, buffalos, goats, sheep, mares and donkeys. Milk constituents studied included fat, protein, lactose, minerals, water, pH, Specific Gravity and calorific value. Compared to others, donkey milk is found to be closest to breast milk except for its low fat and calorific value. We recommend an addition of 16 ml of sunflower oil to one liter of donkey milk to have an equivalent of one liter breast milk. Sunflower oil contains vitamins, minerals, essential and non-essential amino acids, linoleic acid, omega3, 6, 7, 9 and volatile oils. Donkey milk is cheap, contains high level of immunoglobulins, vitamins, zinc and does not carry Bovine diseases. To our knowledge, no allergy has been reported to donkey's milk.

### OP14. Prevalence and effect of eradication triple therapy on extra digestive *Helicobacter pylori* skin manifestations, EdHpSm.

**Dr. Adil H.H. Bashir**

MD, Shaza M Yousif, MD, and Mona OA, MD  
Clinical MD Dermatology & Venereology Juba, University.  
Khartoum, Sudan

*Helicobacter pylori* are gram-negative; microaerophilic spiral rod-shaped bacteria that lead to gastritis, duodenal or gastric ulcer and even rarely to gastric carcinoma or Mucosa Associated Lymphoid Tissue lymphoma. Based on a number of reports, a possible relationship of *Helicobacter pylori* infection to a variety of dermatosis has been suggested, including urticaria, rosacea, acne-rosacea, atopic dermatitis, alopecia areata, Sjögren's syndrome, Schönlein-Henoch purpura, Sweet's. The study is to identify the prevalence of extra digestive *Helicobacter pylori* skin manifestations, and to observe the influence of *Helicobacter pylori* eradication triple therapy on the clinical evolution of patients skin conditions. A clinical descriptive study of 149 patients with skin manifestations and immunologically detected *Helicobacter pylori* by rapid test, in association with gastric, chest, joints and nasal symptoms were considered as study population. *Helicobacter pylori* (Hp) triple therapy given to all positive cases as first, second and relapse modality treatment one month interval with no other type of treatment. The study revealed that: 20.5 % of the skin cases examined have considered extradigestive H. pylori skin manifestation. Most of the skin

manifestations cases were females (67.1%), and approx. 60.4% of EdHpSm are at the age group 14 - 45 yr- old. Most of the patients with EdHpSm are of Northern Sudanese origin reach (87.2%). EdHpSm is common among professional. Hay fever & gingival disease were among the most commonly associated diseases where they represented 27.7% and 12.2 %, respectively. Chronic Idiopathic Urticaria, represent a higher prevalence (20.6%), where: Polymorphous Light Eruption alone represented 12.7%, and Polycystic Ovary Syndrome was 11.6%. Vitiligo 2.6% among the least presented cases. Consequently, it was concluded that: all cases of EdHpSm responded to triple therapy; 60.0% are of good response and 37.0% are dramatically responded to triple therapy, while 2.0% poorly responded to therapy. In conclusion: *Helicobacter pylori* infection found to have an important role in the etiology of chronic idiopathic urticaria, Urticarial vasculitis, and Atopic dermatitis and other skin diseases. Patients received antimicrobial triple therapy, found to respond dramatically the prevalence of *Helicobacter pylori* infection was significantly higher among urticaria patients.

### OP15. Orofacial Granulomatosis Is A Separate Entity of Crohn's Disease Comprising an Allergic Component

**Kiparissi, F, Hill, S, Lindley, K, Milla, P, Shah, N, Elawad**

Institute of Child Health/Great Ormond Street Hospital, London

Orofacial granulomatosis (OFG) is a clinical condition, were patients present with lip and facial swellings, due to an underlying granulomatous process, that can precede the occurrence of Crohn's disease by many years. Ingestion of allergens like dairy products can exacerbate and worsen the clinical presentation. The purpose of this study was to review the relationship between OFG and the allergic component that worsens the condition. We retrospectively reviewed clinical, histopathology and laboratory data of 15 patients who presented with lip swelling (age range 5 years to 19 years, median age 14 years, 7 female and 8 male), in a paediatric population over a 7-year period. All 15 children presented with upper or lower lip swelling, 7 patients presented with OFG only, 2 patients had developed Crohn's disease first and presented later with OFG, 5 patients developed Crohn's disease subsequently (2 years to 6 years after 1<sup>st</sup> diagnosis of OFG), one patient had OFG and Crohn's at presentation. 14 out of 15 patients were initially treated with Elemental 028 (E028), 11 of those clinically responded to E028, 4 responded to Medication. 12 patients were commenced on a dairy-free diet, 3 were not started on E028. All patients had increased numbers of eosinophils in their lamina propria, 8 patients had normal peripheral eosinophils, 5 low numbers and 2 increased numbers of eosinophils. 5 patients had increased IgE levels, 4 had normal levels, no results were available on 6. 8 patients had sings of immune dysregulation, 5 patients had positive RAST tests.

In conclusion our findings suggest, that patients with OFG have an allergic component to their underlying condition. Treatment of OFG should comprise Elemental 028 and not polymeric feeds, patients should receive single food introductions and dietary exclusion of suspected allergens only.

### OP16. The Impact of the Multi-Idisciplinary Team Approach on Patient Outcome

**Dr. Husain AL Kindi, Dr. Haytham Fouad Salih**  
Sultan Qaboos University Hospital/ Oman

Cystic fibrosis patients usually require high energy diet due to the increase in the energy expenditure, nutrient loss with malabsorption, anorexia and their raised basal metabolic



rate . A 12 year old Omani girl, diagnosed at 2 years as cystic fibrosis, was managed by a multidisciplinary team which aimed to improve her growth and development and to delay the progress of her pulmonary disease. Her clinical condition remained unsatisfactory in spite of relatively stable pulmonary function. The team decided to focus on the challenging issues in the management which were the poor nutrition and psychosocial problems. On psychosocial evaluation it was found that, she was unhappy and isolated child. She was teased by her peers as she was short, thin and tiny and frequently passed flatus in the class. Mother had socially restricted life and depression as she lost one child with CF, she was concerned and feared for her daughter future A nutritional team decided to institute gastrostomy tube feeding followed by extensive nutritional rehabilitation. Psychosocial intervention and the consideration of her schooling, has led to a positive impact on the whole family. In conclusion: The multi -disciplinary team approach which included the nutritional rehabilitation with a weight gain of 5 kg in 4 weeks , Psychosocial intervention and the attention to the educational needs has led to, a totally different family , looking forward to a bright future for the child. This highlights that in addition to medical therapy there is a big role for multi -disciplinary team approach to treat chronic illnesses such as cystic fibrosis

### OP17. Esophageal Stricture in Sudanese Children

Dr. Insaf Abdelkarim

Aneelein University, Faculty of Medicine

Oesophageal stricture can be congenital or acquired, malignancy is rare in children. In the developing world caustic ingestion represents a major public health issue. Injury is usually caused by strongly alkaline substances such as drain cleaners or gel products for dishwashers. These often have a sweet odour, attractive, and easily swallowed by young children.

The consequences may be devastating oesophageal scarring that prevents normal feeding the objective is to determine the incidence of oesophageal stricture, causes and the outcome after their treatment. It is Hospital based, retrospective study conducted during the period February to September 2009, in the Gastroentrol. Unit in Jaafar Ibn Oaf Hospital .Out of 3800 patient, 14 had oesophageal stricture corrosive Soda, 1 (7.1%) due to congenital stenosis and (7.1%) was post Herpal stomatitis. Dilatation was successful in 5 out of 6 in patients with reflux 83.3%, 1 (16.6%) death due to perforation and sepsis, while patients with soda ingestion only one patient out of 6(16.6% was cured with dilatation, 3 (50%) treated with esophagoplasty and 2(33.3%) died. The patient with congenital stenosis cured with dilatation and the patient with Herpetic stomatitis died due to laryngeal spasm during the dilatation. Out of the 14 patients 7 treated with oesophageal dilatation, 3 treated surgically and 4 died. In conclusion: about 85% of patients presenting with oesophageal stricture are due to Soda ingestion and post reflux oesophagitis. Response to treatment is low with high mortality in patient who ingested the corrosive soda.

### OP18. The Prevalence and Statistics of the Abandoned Babies Presenting to Almygoma Orphan Centre

Dr. Mohammed Mohei Aldin Algimmaabi

Dirictor of Ana Alsudan Organization

Member of SCOVA

In this 20 minutes talk an estimate of the prevalence and statistic of abandoned babies presenting to Almygoma Orphan Center will be presented. Community contribution to prevent & protect children for abuse will be discussed.

### OP19.

### سوء معاملة الأطفال وأستغلالهم

بروفيسور. إبراهيم بخيت

جامعة الرباط

سوء معاملة الأطفال وأستغلالهم غير المشروع هو سلوك متجذر في المجتمعات قديمها وحديثها بل أن القرآن الكريم أشار الى ذلك التعدي "وإذا المووده سنلت بأى ذنب قتلت". وكان الناس في إنجلترا خلال القرن الرابع الميلادى يلقون بأطفالهم فى نهر التايمز ليموتوا دون أن يثير الأمر شفقه أو إستكار من أحد. كما ان فرعون مصر كان يقتل كل طفل إسرائيلى لانه علم ان ملكه سوف يزول على يد طفل لم يولد بعد. ومن العجيب ان أول قانون لحماية الأطفال أصدرته جمعية الرفق بالحيوان فى امريكا عام ١٩٦٢ بإعتبار ان الأطفال حيوانات صغيره عاجزه عن الدفاع عن حقوقها. الا أن القضييه إتخذت بعداً طبياً عام ١٩٦٢ على أثر الحقائق التى قدمها "هنرى كمب" على ذكر بأن هنالك طفلاً بين كل مائة طفل يتعرض للتعذيب وان ثلث عدد الحالات يموتون. وفى العصر الحديث لم تكن النزعه حول قتل الأطفال أو وادهم بل نحو إستغلالهم فى مجال العمل وتجارة الجنس والحشيش والإغتصاب، بإعتبارهم غير مدركيين لحقوقهم ولا يستطيعون مجازة المعتدين، الذى يعقم إحساس الأطفال بالمأساه هو أن الجهات المناط بها حماية الأطفال عديده منها: الأسر، ولكن الشواهد تشير الى أن الاسر ضالعه ليس فى حماية الأطفال بل فى التعدى عليهم عمداً أو جهلاً. بـ القانون، يتعامل مع الجناه المعتدين بنعومه رغم الأذى والموت الذى يصيب الأطفال. ج. أما القضاة فيتخذون من باب تفريد العقوبه مجالاً يستفيد منه المحكوم عليهم فى التعدى على الأطفال بسبب ضعف وزنيه البنيه التى يدلى بها الأطفال. د. أما علماء الشريعه فلم يحركوا ساكناً حيال ضعف العقوبات ولم يقدموا تصوراً إجتهدياً رادعاً للمعتدين على الأطفال سيما فى حالات الإغتصاب. البيانات المرفقه توضح ضعف الأحكام الصادرة بحق الجناه والتى لا تحقق ردهاً عاماً أو خاصاً بل تشجع التمادى فى الإعتداء على الأطفال.

### OP20.

### ملخص ورقة الأطفال المشردين فى السودان

د. منى مصطفى خوجلي

وزارة الشؤون الإجتماعية ولاية الخرطوم

الأستاذ/حسين محمد فرح

المجلس القومي لرعاية الطفولة

مشكلة الأطفال المشردين فى السودان من المشاكل التى أخذت فى البروز منذ أوائل الثمانينات من القرن الماضى ، ثم أخذت فى النمو والتفاقم فى السنوات التى أعقبت ذلك ، وتأتى ولاية الخرطوم فى المقدمة من حيث عدد الأطفال المشردين ، فهى أكثر الولايات جذباً لهؤلاء الأطفال بإعتبارها أكبر المراكز الصناعية والتجارية فى السودان . وتتناول الورقة بإيجاز الخلفية التاريخية عن المشكلة وبعض أسبابها الرئيسية وحجمها وأبعادها الإجتماعية والتنمية والصحية ، والجهود التى بُذلت فى معالجة المشكلة وتُشير الورقة إلى بعض الدراسات التى أُجريت فى هذا الشأن ، وما تمخضت عنه من مخرجات ، مع التركيز على الدراسة التى أُجريت بولاية الخرطوم فى العام ٢٠٠٨ من قبل المجلس القومي لرعاية الطفولة بالتعاون مع معهد الدراسات الإنمائية( جامعة الخرطوم) ، كما تتطرق الورقة إلى المشروع الذى تمّ تنفيذه فى ولاية جنوب كردفان وسجل نجاحاً كبيراً فى التصدي لهذه المشكلة . وفى الجزء الثانى من الورقة يتناول بشئ من التفصيل المشروع الذى يتم تنفيذه حالياً فى ولاية الخرطوم والذي يشمل الأطفال المشردين تُشرد كلي وكيفية معالجة أوضاعهم بتطبيق مفهوم المراكز المفتوحة كمدخل للتصدي للمشكلة ، بالإضافة إلى الأطفال المشردين تُشرد جزئى حيث يتم تطبيق مبادرة المراكز الصديقة للأطفال .

## OP21. Non-accidental Injury Case from Sudan

**Dr. Zeinab Mohammed Gaily**

Address: Red Sea Ministry of health, Pediatrics teaching Hospital, Port Sudan, Sudan

Child abuse is clinical presentation of repeated physical or sexual abuse, usually by an adult or by person who is responsible for child care. Does it happen in Sudan? What is the reason and mostly done by home? What response in this situation? This is case report a Sudanese female 7 years old from port Sudan presented to ER with multiple skin lesion, she was brought to hospital by the neighbors. The child was managed by team work and the Police of child and family protection was consulted.

## OP22. Child Abuse

**Dr. Yousif Ishag Omer**

Consultant Pediatrician, Gaffar Ibnauif Hospital

Child abuse was initially described by Kempe 1962 as (The battered baby syndrome) or non-accidental injury. It was defined as (any problem resulting from lack of proper care and protection of children by their parents, guardians or other care givers). Child abuse is increasingly recognized in its different forms including physical injury, sexual assault, emotional deprivation, neglect and Munchausen's Syndrome by proxy. The participation of media has led to greater awareness of the problem and its implication on the child's health and the safety of the community. There is very little data on the extent of child abuse in our country. Most cases of child abuse go unreported. War victims, abandoned babies, street children and child labor are forms of abuse which need to be addressed. Pediatricians play an important role in the early detection, reporting of suspected cases of child abuse and liaison with the other specialties concerned with the management of cases of child abuse in the community and to prevent and protect children from abuse by forming SCAN teams (suspected child abuse and neglect teams). In this 20 minutes talk Tabuk Military Hospital experience in child abuse is presented by two cases of child abuse, discussing their management, literature review and update on child abuse.

## OP23. Emotional Abuse in children: Islamic Rules, a Solution

**Dr. Satti Abdulrahim Satti**

MD, CABS (pediatric), Ass professor. University of Medical Sciences

The aim of this presentation or Lecture is draw our attention to forgotten pediatric problem and stressing the role of our Islamic rules and laws. The American Medical Association (AMA) describes Emotional Abuse as: (When a child is regularly threatened, yelled at, humiliated, ignored, blamed or otherwise emotionally mistreated) the modern era of concern about abuse and neglect resulted from research by: C. Henry Kempe in 1962.

Emotional Abuse insidiously destructive and emotional consequences of physical abuse can be more debilitating than the effects. Risk factors and clinical manifestations of emotional abuse are discussed. This lecture will review the diagnosis. The Islamic rules and laws as a solution will be discussed as part of treatment.

(والوالدات يرضعن أولادهن حولين كاملين) سورة البقرة  
(ولا تقتلوا أولادكم خشية إِملاق) سورة الإسراء  
(ولا تقربوا مال اليتيم إلا بالتي هي أحسن) سورة الإسراء

Treatment also include: A case plan, homes of appropriate relatives, social worker, psychiatric evaluation, law

enforcement and sometimes hospital admission. Other services may be needed.

Sequelae of unsuccessful treatment are discussed. Preventive measures include: determination of risk factors, addressing the root causes, early rooming in children's right, follow up of illnesses, family planning and reinforcement of community standards. Reinforcement and application of our Islamic rules is crucial.

## OP24. Disaster Management

**Dr. Tarig Osman**

MBBS, MPCH, CABP, MRCP(UK), FRCPC

King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia

Disasters occur frequently. The majority of disasters are natural (e.g. Floods, earthquakes, tsunamis, hurricanes and volcanoes), but some are manmade (e.g. terrorism, wars, and major accidents). Disaster is "A serious disruption to community life which threatens or causes death or injury in that community, and damage to property, which is beyond the day-to-day capacity of the prescribed statutory authorities, and which requires special mobilisation and organisation of resources other than those normally available to those authorities." Disaster triage is the sorting of patients according to their urgency or severity into categories which determine their medical management. Disaster management principles include a prepared community, risk management approach, Leverage off existing activities, Comprehensive approach involving all agencies and dealing with all hazards. In the true disaster there are three forms of triage: Prioritisation for extrication, Allocation and distribution. Medical triage aim is to decongest the scene and reduce further injury. Allocative triage describes the dispersal of patients to various institutions with the aim of maximising the resources available across the whole system. The key principles are: - Efficiency of transport, Matching need to services and Dispersing the load. Medical triage is a continuous process that needs doing at key points in the system (Scene, Arrival, Operating Theatres, ICU, etc). True disasters do occur. Maximising effectiveness will depend on familiarity with the process required, training and exercises, simplicity and logic, clear command and control.

## OP25. Paediatric Surgical Emergencies

**Prof. Omer Elamin**

FRCS, Senior Consultant Paediatric Surgeon, Ribat University Hospital

The presentation is touching on common Paediatric Emergencies including trauma, chest and abdominal conditions. It is discussing the main differential diagnostic points, the immediate action by the paediatrician and things not to do to avoid delay and masking clinical pictures. We will also discuss the need for a proper paediatric hospital with surgical facilities.

## OP26. Neonatal Surgical Emergencies

**Dr. Abdalbasit S. Ali**

Khartoum, Sudan

Congenital and/or acquired abnormalities may present as emergency conditions in the neonatal period. Both physicians and surgeons need to be aware of these conditions. The presenting features of the more commonly encountered problems are described with advice on immediate management. The successful outcome of surgery for life threatening congenital abnormalities depends on early diagnosis, definite treatment within a short period, skilled pre- and postoperative management and absence of associated major abnormalities.

## OP27. حوادث الأطفال المرورية : الواقع والحلول

رائد مهندس/ المعترف بالله خليفة  
(الإدارة العامة للمرور - مرور ولاية الخرطوم)

تشكل حوادث المرور هاجساً كبيراً في كل دول العالم ، خلال السنوات الماضية تم القيام بعدة دراسات للتقليل من حدة الحوادث المرورية خاصة في دول أوروبا الغربية وقد اثمرت تلك الدراسات عن تقليل الحوادث المرورية بدرجة ملحوظة. في السودان بدأ حديثاً العمل لادخال منهج التربية المرورية لمرحلتى الثانوى والاساس وذلك للحد من مخاطر الحوادث المرورية خاصة وسط الأطفال.

## OP28. Trauma to the primary & permanent upper incisors teeth among children in Khartoum state

Dr. Al Hadi Awooda

Lecturer in university Of Medical Science And Technology (Faculty of Dentistry))

Dental trauma is injury to the teeth, gums and jawbones which may results in fractured, displaced or lost teeth that can have significant negative functional, aesthetic and psychological effects on children. A cross sectional study conducted among 333 (male and female) school children aged 6-12 years in public and private schools and 543 children age group 2-5 years from different kindergartens in Khartoum state (2006). The study parameters were obtained through a questionnaire and clinical examination. Andreasens classification (1981) was adopted for diagnosis and recording dental injury. Prevalence of the traumatized maxillary permanent incisors was 6%. There is a significant difference between gender prevalence (9.78% among males, 1.35% among females)  $P=0.0004$ . Horizontal fracture showed high prevalence 80%. Enamel Dentine with out pulp involvement fracture was the most common type of fracture 70%. Falls constituted the bulk of causes for traumatic dental injuries in this study 35% followed by collision with an inanimate 25%, violence and accidents has the same percent 10%, contact sport 5%. Most of the trauma happened at home 60%. No one of the school children consulted a dentist post traumatically. On the other hand the prevalence of trauma in primary teeth was 5%, male and females were similarly affected ,the commonest type of fracture was enamel fracture (70.4%). 51.9% of the parent did not know the cause of trauma and only 14.8% attended to dentist for treatment. Health care promotions and education of the community is called for, to prevent dental trauma in children.

## OP29. Autism Spectrum Disorder: An overview and highlight of the myths and truths about the aetiology, diagnosis and therapeutic interventions

Dr. Haitham El Bashir

FRCPC, DCH, MD (Lond.)

Sr. Consultant in Developmental Paediatrics, Hamad Medical Corporation, Qatar

Over the last decade, there has been increasing interest among clinicians, researchers, parents and the public about autism. The condition is a long-term neurodevelopmental disorder characterised by poor social skills, communication and language difficulties and repetitive non-functional play accompanied by varying degree of learning and behavioural difficulties. The prevalence of autism is around 6/1000; three times higher than cerebral palsy and almost six times that of Down syndrome. The presentation aims firstly to give an overview of the recent literature on the epidemiology and

classification, pathophysiology and diagnosis with particular reference to screening and early detection in younger children including infants. Secondly, to elaborate -from an evidence-based perspective- on the myths and truths about the disease's aetiology as well the different therapeutic interventions currently in use.

## OP30. PANDAS. A new Paediatric Syndrome

Dr. Abdelazim Mohamed Mabrouk

MD, DCH, CABP, Paediatric specialist, Al Ain, United Arab Emirates, Dr. Abdelazim Mohamed Mabrouk<sup>1</sup>, Professor. Valsa Eapen, Department of Paediatrics, Al Ain, UAE; Department of Psychiatry, Faculty of Medicine, UAE University, Al Ain,<sup>2</sup>Department of Infant, Child and Adolescent Psychiatry, University of New South Wales, Sydney, Australia

Paediatric autoimmune neuropsychiatric disorder associated with streptococcal infection (PANDAS) is relatively a new Paediatric syndrome, which is characterized by Tic disorder and/or childhood-onset obsessive-compulsive disorder (OCD) that has been found to have a post infectious autoimmune-mediated etiology, where the onset and subsequent exacerbations of symptoms is temporally related to group A beta-hemolytic streptococci (GABHS) infection. Objectives: to present an overview of PANDAS, and describe case scenarios of neuropsychiatric symptoms triggered by streptococcal infection in an Arab population, and highlight the challenges faced by clinicians in the identification and management of PANDAS. Results showed that there were four boys and one girl and the mean age at onset was 10.4 years. Cases 1, 2 and 4 had 'Probable PANDAS' as characterized by the criteria that include at least one documented episode triggered by streptococcal infection, and another one with an Upper Respiratory Tract Infection (URTI) or evidence of a missed streptococcal infection. Case 3 had 'Possible PANDAS' as characterized by sudden exacerbation of symptoms; Positive throat culture and antibody titers; and high or rising throat titers 6 weeks after the exacerbation. Case 5 had 'Definite PANDAS' as characterized by at least two exacerbations that are documented to be triggered by streptococcal throat infection; the child is free of streptococcal infection during remissions; and high titers and culture positive when ill and low titers and culture negative when well. In conclusion PANDAS is a newly emerging Paediatric syndrome in which mental illness is brought back to its biological roots, and essentially defines it as a physical illness with mental symptoms. To our knowledge, our case series is the first presentation of PANDAS to be reported in an Arab population. Pediatricians, General Practitioners and other health professionals involved in the care of children should be aware of the possibility of neuropsychiatric symptoms triggered by streptococcal infection. In any child presenting with abrupt onset or exacerbation of Tics, OCD or late onset of ADHD (after 7 years), clinicians need to look for history of throat infection and evidence for GABHS infection and consider the diagnosis of PANDAS top on the diagnostic list.

## OP31. Fixation-off sensitivity with abnormal behavior: clinical and video-EEG documentation

Dr. Imad Yassin SaadEldin

Pediatric Department, King Fahad Military Hospital, Armed Forces Hospital, Southern Region, Khamis Mushayt, Saudi Arabia

A 9-year- 2-months old Saudi boy of normal intelligence brought to paediatric neurology clinic due to frequent abnormal behavior and transient amnesia. Video-electroencephalopathy (V-EEG) evaluation documented unexpectedly the presence of fixation-off sensitivity.

### **OP32. The rehabilitation of children with cerebral palsy: management strategies and practice guidelines**

**Dr. Haitham El Bashir**

FRCPC, DCH, MD (Lond.)

Sr. Consultant in Developmental Paediatrics, Hamad Medical Corporation, Qatar

Cerebral palsy (CP) is a non-progressive disorder of posture and movement due to a brain insult that occurred during the prenatal, perinatal or in early years of life. The incidence is 2-2.5/1000 live births. Children with CP develop many manifestations related to their abnormal muscle tone and reflexes including muscle weakness, spasticity, persistence of primitive reflexes etc, all interfere with daily activities and motor functions. In addition, associated problems such as visual, hearing and intellectual difficulties may further jeopardise the child's abilities. Hence, early identification and rehabilitation is of paramount importance in the short-term and in the long-term prevention of further deterioration. The presentation will examine the following issues:

Diagnostic assessments including general movements, gait analysis and radiology. The concepts of multidisciplinary team approach and will briefly describe the role of each member of the team in the management. Elaborate on the different management strategies and rehabilitation components including bracing, assistive devices, medications and surgical interventions.

### **OP33. The Neurons in the Myocardium of the Mammalian Heart have Perceptive Sensory Functions Locally in the Heart like Sensory Cortical Neurons of the Brain**

**Dr. Amna Al Faki**

The mechanical function of the mammalian (human) heart as a hemodynamic organ pumping blood to whole body is well understood and known. However, with more research focusing in the intrinsic system of the heart, it was found that the cardiac afferent neurological input to the brain not only facilitates homeostatic regulation but also influences cognitive processing. This means that the heart has other role in emotion, cognition and sensory perception other than a mechanical pump. In fact, the heart could be considered as a sense and motor organ. New scientific discoveries are now providing evidences which indicate that the heart indeed plays a significant role in emotional experience modulate perception and is involved in intuitive perception and intention (the hypothesis). These new discoveries are mainly based upon the anatomical structures and functions of the nervous system of the heart, the intrinsic system (little brain). Recent studies have shown that the heart has an endogenous neural intrinsic system independent of the central medulla in the brain stem, which controls the heart. This intrinsic system is composed of hierarchy of neurons afferent, efferent and interconnected neurons that interact to form loops of circuits within which information processing takes place. It is also has been shown that cardiac activity effects perception. It is well known that information processing in the cerebral cortex is directly involved in sensory integration and perception.

I postulate that some of the information processed in the intrinsic cardiac nervous system give rise to a type of perception which is (felt) or experienced locally in the area of the heart, the afferent cardiac information, which is sent to the brain, effects cortical processing and perception in the cerebral cortex of the brain. I also postulate that some of the intrinsic cardiac neurons and the cortical neurons may have similar basic functions and act together in a distributed network to inform perception of body states, emotion, intuition and consciousness.

### **OP34. Friedreich's Ataxia**

**Dr. Olivia Al Mutasim Said Ahmed**

Paediatrics Registrar Albulok Hospital

In the view of the fact that proportion of people with Friedreich's Ataxia, which is a progressive autosomal inherited neurodegenerative disease, can be missed in our wards on the assumption that it is a rare condition & a disease of white population. In this paper we reported a Sudanese family with multiple consanguineous unions, contains members suffers from F.A, at almost same age of onset, clinical features, & course of progression. Differential procedures were carried out in attempt to rule out other causes & to confirm the diagnosis

Lastly we would like to highlight that F.A it is not so rare, it is the most prevalent inherited ataxia > 50%, & although it is thought to be a disease of white population, it could be found in other races & people should know more about this condition, which beside major physical disability & bad psychological impact can lead to serious life threatening events like MI due to its associated medical complications.

### **OP35. Reflex-epilepsy induced by tap water bath. Case report and review of the literature.**

**Dr. Haydar El Hadi Babikir**

MD

**Dr. Mohammed Salahdin Mgzoub**

MD, PhD.

Reflex epilepsy is a condition in which seizures can be provoked habitually by an external stimulus or, less commonly, internal mental processes. Individuals with reflex epilepsy may have seizures exclusively in response to specific stimuli and not suffer spontaneous seizures; alternatively, reflex seizures may coexist with spontaneously occurring seizures. Reflex seizures are epileptic rather than psychogenic in nature, often manifesting epileptiform EEG changes. It may manifest as either focal-onset or primary generalized seizures. We present the case report of a 18-month-old Sudanese toddler with symptoms of loss of consciousness, central cyanosis and uncontrolled movements of the upper limbs triggered by bathing with tap water. The diagnosis of water epilepsy was supported by an ictal EEG. Water epilepsy, is a reflex epilepsy also known as bathing epilepsy or water-immersion epilepsy is, a rare form of benign epilepsy, where seizures are provoked by immersion in a hot or even just a warm bath. Up to our knowledge this is the first publication of a seizure provoked by water-bath in an Arab or African child.

### **OP36. Viral bronchiolitis**

**Dr. Khalid Al-Mobaireek**

Dean of Postgraduate Affairs, Head Division of Pulmonology King Fahad Medical Centre - Riyadh, Saudi Arabia.

Bronchiolitis is the commonest reason for hospital admission in infancy and the most frequent cause of acute respiratory failure in children admitted to pediatric intensive care units. Despite the fact that bronchiolitis was first described in 1840 and respiratory syncytial virus (RSV) was isolated in 1957 bronchiolitis is still "the disease of controversies". Still controversies exist in its definition, management, prophylaxis and outcomes. In UK, bronchiolitis definition includes "widespread crackles are the key diagnostic feature"<sup>1</sup> whereas, in USA crackles are not mentioned and the definition includes wheeze<sup>2</sup>. Lack of uniform definition will make the diagnosis variable and the interpretation of literature from different countries variable. The respiratory syncytial virus remains the most commonly isolated virus; however, new virus isolation techniques have led to the discovery of new viruses, including the human metapneumovirus and bocavirus. The diagnosis is

mainly clinical. In most cases no radiological or laboratory test is required. There are no evidences to support the use of bronchodilators, steroids, antibiotics, anti-viral agents or any other pharmacological treatments. Treatment remains supportive as Reynolds and Cook stated more than 45 years ago "oxygen is vitally important and there is little evidence that any other therapy is consistently or even occasionally useful."<sup>3</sup>

### **OP37. Paediatrics Rheumatological Emergencies**

**Dr. Yassmin Mahjoub Obeid Taha**

Assistant Professor, Alneelain University, Khartoum, Sudan

Most of the rheumatological disorders are insidious in onset and chronic in nature. However, clinicians do encounter emergencies in rheumatological practice. Problems involving multiorgans such as lungs, kidneys, heart, brain and joints may present in a catastrophic manner increasing the morbidity and mortality. Infection can occur denovo or as a result of immunosuppression. Infection of joints or muscles is to be treated as an emergency as it can lead to severe damage. Rheumatic disease itself can present as an emergency like massive GI bleed as a manifestation of GI vasculitis in HSP or polyarteritis nodosa, hypertensive encephalopathy in Takayasu's arteritis or SLE, acute renal failure with its associated complication in SLE and systemic vasculitis, pericardial tamponade in SLE, pulmonary hemorrhage in SLE and Wegeners granulomatosis, mononeuritis in vasculitis, stroke in SLE, vasculitis and anti-phospholipidsyndrome. Macrophage activation syndrome (MAS) is a life-threatening complication of childhood rheumatic diseases.

### **OP38. حوادث غرق الأطفال وحوادث إنقاذ الأطفال حديثي الولادة**

**عقيد شرطة. بابكر محمد أحمد**

(إدارة الدفاع المدني - ولاية الخرطوم)

السودان أكبر الدول الأفريقية يبلغ العدد الكلي للسكان 34,441 مليون نسمة ويمثل الأطفال 45% من العدد الكلي للسكان وهم أكثر شريحة عرضة لحوادث والأطباء، وتعرض في هذه الورقة لحوادث الغرق وسط الأطفال وحوادث إنقاذ الأطفال حديثي الولادة من خلال تجربة وخبرة إدارة الدفاع المدني التي تتعامل مباشرة مع هذه الحوادث وتقدم هذه الإدارة خدمة الأطفال، الأنقاذ النهري والبرى، والرقابة، والسلامة من المخاطر.

### **OP39. Drowning and Near Drowning In Children**

**Dr. Abdelmoniem Mohamed Hamid**

MBBS, MRCPCH (UK)

Associate Professor of Paediatrics, Alneelain University, Khartoum, Sudan

Drowning was previously defined as death secondary to asphyxia while immersed in a liquid, usually water, or within 24 hours of submersion. Near drowning refers to survival (even if temporary) beyond 24 hours after a submersion episode. A new definition states that drowning is a process resulting in primary respiratory impairment from submersion in a liquid medium. Annually, approximately 150,000 deaths are reported worldwide from drowning, with an annual incidence probably closer to 500,000. More than 1500 children die in the United States each year from submersion injuries. This averages to 10 deaths per day. Approximately one quarter of these deaths occur in children 14 years or younger. The incidence of near drowning has an estimated range of 20-500 times the rate of drowning. In 2005, of all children aged 1-4 years who died, almost 30% died from drowning. Despite preventative measures, statistics noted drowning to be second only to motor vehicle collisions as the most common cause of death in children aged 1-14 years. The principal physiologic consequences of drowning are prolonged hypoxemia and acidosis and the multiorgan effects of these processes. Depending upon the degree of hypoxemia and resultant

acidosis, the person may develop myocardial dysfunction and electrical instability, cardiac arrest, and central nervous system (CNS) ischemia. In Sudan, the number of children dying from drowning is very significant. The common sites being rivers, bathrooms, ponds, sea and swimming pools. The aim of this presentation is to highlight importance of assessment of the child who has sustained drowning and near drowning, clinical emergency presentation and management. It also stresses the importance of prevention and education for parents, older children and authorities, in reducing morbidity and mortality in children secondary to drowning and near drowning.

### **OP40. Pediatrics emergency situation in Sudan**

**Dr. Muna Babiker Mohd Ahmed**

M.D. Gafar Ibn Aouf Hospital

Pediatrics Emergency as a separate subspecialty of pediatrics was known since 1980's. Pediatrics Emergency as a specific field had appeared in Sudan during the last few years. Pediatrics emergency setting is one of the health care strategies in our country. To improve this setting, we need to study the real situation of our pediatric emergency units. The aim of the presentation is to study the setup in Pediatrics emergency care units in two major Hospitals (Gafar Ibn Aouf and Omdurman Hospital) as a model of hospitals with the highest admission rate. Gafar Ibn Aouf Hospital in particular is a tertiary centre for referral of subspecialty care. The aim is also to assess the knowledge and awareness about the issue among health care providers working in the field, and ways to upgrade it. The Study includes classification criteria of emergency cases available in the hospital and evaluation of the Triage system. (retrospective study of the last year admissions in Gafar Ibn Aouf hospital was collected). C.A.P study of knowledge and skills of the health care providers at the pediatrics emergency in Gafar Ibn Aouf Hospital is conducted and statistical analysis using SPSS.

### **OP41. ETAT**

**Dr. Ali Arabi**

Consultant Paediatrician, Faculty of Medicine, University of Khartoum, Sudan

Deaths in hospital often occur within 24 hours of admission. Many of these deaths could be prevented if very sick children are identified soon after their arrival in the health facility, and treatment is started immediately. Therefore, a process of rapid triage for all children presenting to hospital needs to be put in place, to determine whether any emergency or priority signs are present.

This 3 1/2-day training course builds on the WHO Emergency Triage Assessment and Treatment (ETAT) guidelines as contained in the "Pocket book of hospital care for children". It provides participants with the reading materials to prepare themselves for the modules taught in the course. Guidance on how to conduct the training is contained in the parallel facilitator's guide. This training course can be included in a quality improvement process which targets the whole hospital or it can start such a process.

## **OP42. Vision for Sustainable Quality of Nursing Care in Pediatric Settings in Khartoum State August 2009**

**Magda Ramadan**

Head department of pediatric nursing, Alneelain University, School of Nursing Science, General Secretary of Sudanese Pediatric Nursing Association (SPNA)

Nurses are the healthcare providers for patients and their families who are most likely to encounter, spend the greatest amount of time with no one and depend on for recovery when hospitalized. Nursing actions have been shown to be directly related to patient care quality and outcomes.

Recently, published research has drawn attention to the relationship between hospital nurse staffing and patient outcomes. Provided nurse with updated knowledge, highly clinical skilled and research based practice have been associated with decreased mortality, shorter length of stay and decreased complications among sick children. Consequently improving quality of nursing care in pediatric settings and developing measures of pediatric nursing quality have become major goals of SPNA.

The purpose of the study is to determine quality of the nurses working in the pediatric settings, in order to avail information to assist in promoting and maintaining high qualities of care and outcome consistent with international standard.

Methods: A survey was done among head nurse and nurses who work in three federal children hospitals in Khartoum State in August 2009. The instrument is a questionnaire which consists of 15 items based on a qualification of the nurses, availability of clinical pediatric nurse specialist, nurse / pt bed ratio, protocol of the nursing care, hospital based research training, implementation of evidence base practice, play activities as apart of nursing care for hospitalized children, availability of information center (Library and internet source) in the hospital ..... Etc.

Analysis of the data revealed that 85% of the nurses were ordinary nurses (not qualified from university) which make the practices more founded on tradition and experience.

100% of the pediatric hospitals have no protocol for the nursing care and no job description for the pediatric nurses, most of nurses do not update them selves. 100% of the ordinary nurses know nothing regarding evidence base practice and source of their information are schools from which they are graduated. 90% of the qualified nurses mentioned there are barriers to implement EBP.

Conclusion: Indeed, these study finding may play an important role in promoting nursing care in pediatric setting, so strategic plan for sustainable requirement must be developed.

## **OP43. Recognizing Patients at Risk Nurse. Mawahib S. Wang**

There is plenty of evidence to show that most patients exhibit signs of deterioration well before they reach the point of full cardiopulmonary arrest. Numerous researches showed that treating these symptoms in timely manner leads to improved chances of survival. The objective of this presentation is to alert health care providers to warning signs of potentially life threatening symptoms that could lead to cardiopulmonary arrest. The presentation will also cover samples of protocols to deal with rapidly deteriorating patients.

## **OP44. The role of Nurses in Neonatal Intensive Care Unit (NICU)**

**Ms. Roseline M. Oriowo**

Assistant Director of Nursing, Maternal & Child Health Division Security Forces Hospital Programme, Riyadh, Saudi Arabia

NICU Nurses care for newborn babies who are delivered pre-term or at term newborns that experience complications at the time of birth. As pre-term birth increases yearly, advancement in technology and research have also increased the survival rate of pre-term babies to grow up into normal healthy kids. This is a highly technical and challenging area of nursing care. The NICU nurses need highly specialized skill in the assessment and care of neonates and sick infants. The newborn in the NICU may suffer from multiple complications including pulmonary, neurological and cardiac deficits, which generally requires a range of medical, technological and surgical interventions. NICU nurses work primarily in hospital based neonatal intensive care units along with respiratory therapists, neonatologists and advanced practice nurse clinicians. Neonatal nurses need higher levels of assessment skills that require them to be highly diligent because any failure in their duty of care can lead to dire consequences. It is the nurse's job to not only care for the infant, but also to have good communication skill with people particularly parents. The nurse's responsibility is to teach the parents how to give proper care to their infants. They have to explain to parents how to watch out for signs and symptoms, which may indicate whether the baby needs hospital attention.

## **OP45. Assessment of Neonatal Units in Khartoum State Hospitals**

**Amal Abd Elgadir Ali Mohamed**

University of Medical Sciences & Technology, Faculty of Nursing Sciences, MSc.N pediatrics and child health nursing, DNP candidate

Improving the quality of care for neonates has become a major goal of the health promotion in Pediatrics. This study was conducted for the purpose of assessing the neonatal units human and material resources as well as the quality of nursing care offered to neonates in (21) hospitals with delivery services, (13 public and 8 private) in Khartoum state in 2004 .

The objectives of the study are: to assess the availability of the neonatal units in Khartoum state hospitals with delivery services; to assess the availability of neonatal resources in the hospitals included in this study; and to assess the quality of neonatal nursing care in the studied units. All the neonatal units in hospitals with delivery services in Khartoum state (21) were included in this descriptive cross-sectional , hospital based study .Each unit was assessed for the presence of nursing staff, equipments, and nursing care offered to the neonates .Data were processed and analyzed by using the statistical package for social sciences (version 11). The results showed that Neonatal units are available only in 50% of hospitals with delivery services .The majority of units are not equipped with enough facilities, e.g. there is no ventilator in the (13) public hospitals .No availability of specialized neonatal nursing staff 100%. Only 57% of private hospitals were applied identification band to their neonates. In conclusions, this information can be used to improve the quality of care offered to healthy and sick neonates through establishing well equipped all levels of neonatal care in the hospitals with delivery services in Khartoum state. All neonatal units need to be revised from the point of design; equipment and staff .Further research is required to provide evidence based for neonatal care.

#### OP46. Teamwork the Key to Success

**Dr. Amal Abdel Bagi**

Department of Pediatrics and Child Health, College of Medicine, University of Juba, Omdurman Sudan

The importance of teamwork in health care emerged in anesthesiology over a decade ago with the work of David GABA and colleagues who developed Anesthesia Crisis Resources Management (ACRM). ACRM was designed to help the anesthesiologist effectively manage crisis by working in multidisciplinary team that include physicians, nurse, technicians, and other medical professionals. Given the interdisciplinary nature of work in medical fields and the necessity for cooperation amongst those who deliver services to patients, team work is critical to ensure patient safety. Teamwork makes fewer mistakes than individual especially when each team member knows his or her responsibilities, as well as, the responsibilities of other team members. In late 1990s, Dynamic Research Cooperation conducted a randomized control trials to study teamwork in emergency department as an error reduction strategy. Team work is not solely a consequence of co-locating individuals together rather it depends on willingness to cooperate, coordinate and communicate while remaining focused on shared goal of achieving optimal outcomes for all patients.

#### OP47. Central Nervous System Crisis in Children with Sickle Cell Disease

**Prof. Malik A. Babiker**

University of Medical Sciences & Technology  
Alzaytona Specialist Hospital

CNS Crisis is a medical emergency and a devastating complication of sickle cell disease. Overt Stroke occurs in 11% and silent infarcts in another 22% by age of 20 years. Peak incidence is at 2-10 years. Morbidity, recurrence and mortality are high. The clinical presentation, diagnosis and pathogenesis will be presented. Emergency treatment and long term management will be presented. Primary and secondary prevention will be discussed.

#### OP48. Sickle Cell Disease Emergency Case Management

**Dr. Bakhieta Attalla Ibrahim**

Consultant Paediatrician, Associate Professor Faculty of Medicine, Bahr Elgazal University – Sudan

Patients with sickle cell disease if managed properly are capable of enjoying quite good health provided that they are not in crisis. **Definitions of Crisis:** Any deviation from the current state of health, which would not have happened had the patient been without sickle cell gene. **Emergency conditions:** **Painful crisis** Painful vaso-occlusive crisis are the most common reasons for admission to the hospital in sickle cell disease. The person in crisis is in extreme discomfort. **Acute chest syndrome** Acute chest syndrome (ACS) refers to the combination of respiratory symptoms, new lung infiltrates, and fever. **Central nervous system** Involvement of the CNS is one of the most devastating aspects of SCD. **Priapism** It is a serious complication and tends to occur repeatedly. When it is prolonged, it may lead to impotence.

#### OP49. Comparative Study of Sickle Cell Disease Pattern in Sudanese and Saudi Children

**Amin A. Mohammed, A. A. Mohamadani H. M. Ahmed**

Studies on sicklers in the eastern province claimed that homozygous sickle (SS) disease ran a restively benign course. High levels of HbF and frequent alpha thalassaemia characterized the disease and a pattern of polymorphism within the beta globin gene cluster or beta haplotype. The objective of the study was to recognize the pattern of sickle cell disease in Saudi and Sudanese children in order to help establish a plan for action that can minimize the morbidity of this hereditary disease. This work was a descriptive longitudinal prevalence study. The data was collected by follow up of admitted children with a crisis of sickle cell disease (SCD) It aimed to through light on the epidemiologic differences in the pattern of the disease in Sudan and both the eastern and south western regions in Kingdom of Saudi Arabia and Sudan. It was found that the mean Hb was significantly lowest in Eastern Saudi ( $3.9 \pm 1.9$ ) than those of the others. The Hb S was significantly highest in Western Saudi ( $81.8 \pm 13.4$ ) Both mean Hb F and Hb A2 were significantly highest in Eastern Saudi children ( $29.3 \pm 9.4$  &  $2.4 \pm 1.2$  respectively). Age distribution showed 3 significant peaks ( $P < 0.001$ ) as half the Sudanese children (50.0%) were below the age of 3 years, half Eastern Saudi children (50.0%) were aged 6-10 years and about half the Western Saudi children (47.8%) were aged 10 years and more. Consanguinity was statistically lower in the Western Saudi children (44.3%) than each of the Eastern Saudi (69.8%) and Sudanese (70.6%). Transfusion was significantly less frequent (45.3%) in Sudanese children than in the other two Saudi groups (75.0% and 81.4%). Splenomegally and hepatomegally were significantly highest in Sudanese (55.7% and 55.3% respective) than in Saudi. Hemolytic crisis was significantly lowest in western Saudi (17.2%) but highest in Sudanese (45.9%). Splenic crisis was significantly higher in Eastern Saudi (12.8%) than in Sudanese (1.2%). Mean age at 1<sup>st</sup> attack was significantly lowest in Sudanese ( $1.7 \pm 1.7$  years) and highest in Western Saudi ( $3.2 \pm 2.1$  years). Hospitalization frequency mean was significantly lowest in Sudanese ( $4.3 \pm 3.3$  times) and highest in Western Saudi children ( $8.4 \pm 5.9$ ). The mean hospital stay in bed was significantly highest in Western Saudi ( $4.3 \pm 3.4$  days) and lowest in Eastern Saudi children ( $3.1 \pm 1.2$  days).

#### OP50. Gallstones in Children with Homozygous Sickle Cell Disease Followed up at the Sickle Cell Clinic

**Bakhieta A. I. Attalla, Zein Al Abdin Karrar, Gafar Ibnauf, Abdelrahim O. Mohammed, Osman Abdelwahab**

Sickle cell disease causes chronic and recurrent haemolysis which is a recognized risk factor for cholelithiasis. This complication occurs in 15% of children younger than 10 years of age and more than 80% of those older than 30 years. Surgery for symptomatic patients is unquestioned, but the surgical approach is still controversial in asymptomatic individuals. The aim this study is to determine the prevalence and to describe and discuss the outcome of children with homozygous sickle cell disease complicated with gallstones followed up at the sickle cell clinic. In a prospective and descriptive study, 261 patients with sickle cell disease age 4 months to 16 years (165 males and 96 females) attending the sickle cell clinic were interviewed and clinically examined. Their hematological parameters were assessed and an abdominal ultrasound examination was carried out. Those with gallstones were followed from June 1996 to September 2009

when a second abdominal ultrasound examination was obtained. Gallstones occurred in 30 (18 boys, 12 girls), of whom four were lost to follow up. The overall prevalence of cholelithiasis was 11.5%. It increased with age, with the condition being diagnosed before the age of 5 years in 0.7%, between 5 and 10 years of age in 13%, between 10 and 16 years in 33%. The youngest patient with cholelithiasis was 2 ½ years old. Analyses of haematological variables, bilirubin and sex did not identify a subgroup of patients at higher risk for gallstones. All the patients were asymptomatic at the time of diagnosis. One patient developed symptoms 3 years after the diagnosis and he was submitted to surgery that relieved his symptoms. The asymptomatic patients were followed up for 13 years and none of them presented complications related to cholelithiasis during this period. The prevalence of cholelithiasis in the study population was 11.5%. The age was a risk factor for the development of cholelithiasis. All the patients with gallstones were asymptomatic and did not present complications during follow-up period except one. Our results indicate the need for an ultrasound screening in pediatric patients after the age of 2 years. Cholecystectomy must be considered in symptomatic patients. In asymptomatic patients, our data did not show significant complication to support prophylactic cholecystectomy so conservative management seems to be the better choice.

#### **OP51. Pain Assessment and Pain Management in Children**

**Ahmed, Fathelrahman E.**

CABP, MRCP (UK), Associate Professor, Alneelain University, Khartoum, Sudan

Pain is an unpleasant sensory and emotional feeling due to actual or potential tissue damage. Physicians, who are supposed to alleviate suffering, have done poorly in alleviating pain. This is in part due to false beliefs like children do not feel severe pain, children have no memory of; as well as fear of medication side effects particularly fear of addiction. Validated pain assessment tools are available for neonates as well as children. Opioids do not cause addiction when used for pain management. Not treating pain is inhuman, unethical and endures in memory. This will shape the future pain perception as well as response to treatment.

#### **OP52. Emergencies in Pediatric Oncology**

**Dr. Mohammed Awad Mohammed Abdalla Alkhatib**

University of Khartoum, Faculty of Medicine  
Pediatric Department

This review addresses pediatric oncologic emergencies in general and those encountered in Sudan with special stress on management of emergencies associated with cytopenia, abnormal hemostasis and use of blood component therapy. It highlights the problems in diagnosing and management of these patients in countries with poor resources like Sudan. The role of the general pediatricians before referring these patients will be discussed.

#### **OP53. Key Performance Indicators in Neurointensive Care**

**Dr. Hadi Alzubair Al-Malik**

MB, Bch, MRCP, FRCPCH, CCST, DCS, Senior Consultant in Child Neurology and Developmental Paediatrics Tawam Hospital, Al Ain, UAE

Paediatric Neurointensive Care is an emerging subspecialty and a new frontier in clinical child neurology with unlimited opportunities for research. Recent collaborative efforts have produced several evidence-based guidelines for the

field. Paediatric Neurointensive Care is provided for healthy children with primary brain disorders as well as those with complex multiple-organ medical conditions. The main aim of research, evidence based practice guidelines in paediatrics and cross disciplinary training is to improve the care and outcome of the critical neurological conditions. One of the most effective ways to assure sustainable and excellent quality of care is to identify a measurable key performance indicators and keep working towards them. This approach has been adopted by health and professional organisations, including the British Paediatric Neurology Association (BPNA). The BPNA identified quality indicators in three categories: patient's safety, patient's experience and effectiveness of care. The objectives are show why key performance indicators in neurointensive care. Examples of Key performance indicators (KPI) for the most common paediatrics neurocritical conditions (examples in our hospital). Evidence from literature. Evidence from practice. Role of hospital neurologist and E/R physician. Training in Neurointensive care.

#### **OP54. Challenges in the management of septic shock**

**Dr. Jihad Zahraa**

Head/PICU King Fahad Medical City Riyadh, KSA

The overall mortality from severe sepsis in children is much lower than that in adult but still significant (around 10% vs. 25% in adults). More than 11 organizations have sponsored internationally accepted guidelines that was first published in 2004 and again modified in 2008 under the title of Surviving Sepsis Campaign. American College of Critical Care Medicine have published clinical guidelines for hemodynamic support of neonate and children with septic shock in 2002 and revised it in 2007. Many studies have tested the 2002 guidelines and found them to be useful and effective in reducing the mortalities. The aim of these guidelines is to be used by bedside clinician to improve outcome. Pediatric expert recommendation is similar in many aspects to the adult guidelines but there are some special considerations. Due to low functional residual capacity, young infants and neonates with severe sepsis may require early intubation. Intravenous access is more difficult to attain in children, and it's recommended to establish early intraosseous access since aggressive fluid resuscitation is of fundamental importance to survival of septic shock in children. No difference in mortality between colloid and crystalloid was shown. In children blood pressure by itself is not a reliable end point for assessing the adequacy of resuscitation because of the strong compensatory mechanisms. Dopamine is suggested as the first choice of support for hypotension refractory to fluid resuscitation and can be given with peripheral IV until central venous catheter is inserted. Decreased cardiac output with increased systemic vascular resistance is the most common hemodynamic profile in pediatric septic shock. In children we depends more on physical examination therapeutic endpoint like heart rate, capillary refill of < 2 seconds, urine output and mental status. Currently there are other less invasive methods to assess cardiac output other than pulmonary artery catheter. Doppler echocardiography or pulse index contour cardiac output catheter can be used as an alternative. Steroid is reserved for children with catecholamine resistance and suspected or proven adrenal insufficiency. The recommendation in children is against the use of protein C and activated protein C. Tight glucose control should be carefully done in children as they are at risk of developing hypoglycemia. Immunoglobulin infusion should be considered in infants and children with severe sepsis. And finally the use of ECMO should be limited to refractory cases of shock or respiratory failure.



### **OP55. Brain death, Is it death?**

**Dr. Osama Algibali**

PICU Consultant, Hamad Medical Corporation, Doha, Qatar

Brain death in the pediatric patient is an important concept in the modern era. Over centuries, medicine and societies have struggled with the definition of death and the criteria that determine it. Historically, death identified with cessation of pulse and respiratory effort since these findings herald the "dissolution" of the individual. The progression of life sustaining ICU therapies challenge our concepts of death. In 1950's and 1960's with advent of ICU's, a group of patients began to emerge who had persistent pulse and circulation in the absence of detectable neurologic function. The first certification of brain death issued by the Ad Hoc Committee of the Harvard Medical School in 1968. At present different institutes have different protocols to announce children as brain death. Generally whenever the 3 fundamental criteria for brain death (coma, apnea, and absent brain stem reflexes) are present, and the supportive tests are positive for brain death, most of the centers consider that the child is legally dead.

Once brain death criteria are met, the child is legally dead!! Is this statement is true?

Brain death, is it death? Are we going to withdraw the support immediately while the heart is beating and the chest is moving? Many people in our area define death as, whenever the Soul goes out of the body. What the Soul? They are asking, are you sure doctor that the Soul is gone? What are the regulations of acceptance of announce of brain death in different laws based on the society believes an religion background? What the Islamic Scholars said about patients who diagnosed as brain death?

When we are going to initiate the process of organ donation? Who has the right to give consent for organ donation in pediatric patient? This presentation try to answer some of these quotations, and raise the different opinions and contra versions in this complicated ethical issues, that facing frequently the physicians who work in Pediatric critical care fields.

### **OP56. Omdurman Pediatric Intensive Care Unit: Shared Experience**

**Dr. Amal Abdel Bagi, Dr. Muawia Ahmed**

**Dr. Walyeldin Elfakey**

Department of Pediatrics and Child Health, College of Medicine, University of Juba, Omdurman Sudan

Omdurman children emergency hospital is one of the biggest tertiary, referral hospitals in Sudan. It offers medical services to a large geographical area. The total number of patients seen in the casualty range from 300-500 patients per day. Out of this, 10-20% are admitted for long stay. From those admitted to hospital 1-2% are critically ill and need to be admitted to the intensive care unit. Omdurman intensive care unit was established in the year 2006. The building lies at the northern part of the hospital. It is composed of pediatric intensive care unit, pediatrics intermediate care unit and a neonatal intensive care unit. In addition, there are accommodation rooms for the working staff, a sterilization room, a mini lab, a mini pharmacy and other supportive services. Patients admitted to ICU are received either from inpatient wards, causality admissions or referred from other hospitals. Since 2007 there is a dramatic reduction in mortality among children admitted to Omdurman children Emergency Hospital.

### **OP57. Intera-abdominal hypertension the silent killer in PICU**

**Dr. Osama Algibali**

PICU Consultant, Hamad Medical Corporation, Doha, Qatar

Abdominal compartment syndrome (ACS) is defined as an IAP above 20mmHg with evidence of organ dysfunction/failure, is a serious sequel of intra-abdominal hypertension (IAH) which is defined as an intra-abdominal pressure (IAP) at or above 12mmHg. IAH arise in trauma or, more commonly, following fluid resuscitation in patients with sepsis. Sustained elevated intra-abdominal hypertension leads to multiple organ dysfunction and even death. Early recognition and careful measurement of intra-abdominal pressure is vital to detect and monitor the progression of the condition. Treatment may include drainage of ascitic fluid or even decompression surgery. Volume resuscitation and careful mechanical ventilation may be life-saving. Unfortunately recent survey revealed that still significant percentage of intensivists may be unaware of current approaches to abdominal compartment syndrome management including monitoring bladder pressures and decompression laparotomy. So the aim of this presentation is to raise the awareness of early monitoring and early management of IAH in all critically ill children, in order to avoid the serious associated sequels and complication.

### **OP58. Diabetic Ketoacidosis in Children Admitted to Pediatric Intensive Care Unit**

**Dr. Satti Abdulrahim Satti**

MD, CABS(pediatrics) . Ass. professor, University of medical sciences.

Type I diabetes mellitus is the most common endocrine-metabolic disorder of childhood and adolescence. Diabetic ketoacidosis (DKA) is an acute metabolic complication that can be life-threatening. The Objective is to identify precipitating factors, state epidemiological features and describe clinical presentations in children with DKA admitted to PICU at KFHH, Albaha, South-Western area of Saudi Arabia. The hospital records of 80 children admitted to PICU with DKA between January 2000 and December 2004 were reviewed. Results were compared with published data from Saudi Arabia and other countries. Age of admitted children ranged between 8 months and 14 years, with a mean age of 10.7 years. Female to male ratio was 1.22: 1. 1<sup>st</sup> degree consanguinity was reported among 27.5% of all admitted children's parents. A family history of diabetes (either type1 or 2) was reported in 59 (74%). The leading precipitating factor for development of ketoacidosis was infections (82%). An episode of DKA was the 1<sup>st</sup> clinical presentation of diabetes among 52 (65%). The common presenting symptoms were : vomiting in 57 (71%) and abdominal pain in 53 (66%). All children were dehydrated. Other signs were acidotic breathing and tachypnea each in 60%. Only two children were comatose (2.5%) Three of presenting cases were initially misdiagnosed as acute appendicitis before correct diagnosis was established. Cerebral edema as a complication occurred in one child. There were no deaths. DKA is an important cause of hospital admissions in our hospital and 65% of newly diagnosed cases present with DKA. Girls facing more risk. Positive family history of diabetes was significant. Infections are the most common precipitating factor. Vomiting and abdominal pain are the commonest presenting symptoms with only 2.5% presenting with coma. Current availability of intensive care facilities as well as standardized guidelines for management had resulted in management outcome and complications similar to the experience of the high centers in the west. We had no mortalities. More effort should be put to prevent and reduce the incidence of DKA at initial presentation and later.

## **OP59. Severe Complicated Malaria**

**Prof. Ali Habur**

Faculty of Medicine, Gazira University, Medani, Sudan

Malaria is considered as a major cause of morbidity and mortality in Sudan; it has a significant impact upon the economical aspect of our daily life, particularly in Central and South Sudan. Fatality occurs mainly in children and pregnant ladies due to severe complicated malaria. Severe malaria is diagnosed when the patient with plasmodium falciparum a sexual parasitaemia (with exclusion of other causes of his symptoms) presents with one or more of the following clinical and laboratory features:

- 1-Cerebral malaria, defined as unrousable coma, not attributed to any other cause in patient with falciparum malaria.
- 2-Repeated convulsions
- 3-Severe normochromic anaemia
- 4-Metabolic acidosis with respiratory distress
- 5-Hypoglycemia
- 6-Acute renal failure
- 7-Acute pulmonary oedema
- 8-Circulatory collapse
- 9-Abnormal bleeding
- 10- High fever
- 11- Haemoglobinuria
- 12-Jaundice
- 13-Hyperparasitaemia

## **OP60. Visceral Leishmaniasis in Sudanese Children Clinical and Some Laboratory Aspects Omdurman Paediatrics Hospital**

**Dr. walayeldin Elfakey**

Department of paediatrics and child health, collage of Medicine, University of Juba, Omderman - Sudan

This study showed children with visceral leishmaniasis (VL) who presented to Omdurman paediatric hospital during the period between March 2006 to march 2008. Most of the children in the study came from the White Nile State, south to the capital of Sudan. The area of the White Nile was not known as endemic for VL. In total, 132 patients between 2-14 years old, mainly from the white Nile State, who presented with prolonged fever and/or splenomegaly were diagnosed as visceral leishmaniasis based on finding the parasite from bone marrow aspirate, lieshmania donovani (LD) bodies. Latter direct agglutination test (DAT) and enzyme linked immunosorbent assay (ELISA) were performed to all patients. In 80 of the patients, in whom lymphadenopathy is marked, aspiration from lymph nodes was performed. Of the 132 patients, 93.1% had kala-azar dermal leishmaniasis (PKDL) and only 0.7% showed eye complications and mucocutaneous lesions. Median hemoglobin (Hb) for the studied patients was 7.2 grams/dl and median weight was below normal (-2.30 SD). DAT was positive in 94.6% and in only 16(20%) patients (n=80) the parasite was isolated from lymph node aspirate. Most of the patients (85.6%) responded to sodium stibogluconate. In 6% sodium stibogluconate was stopped due to toxic effects. In 8.3% of patients, there was resistance to sodium stibogluconate and these were treated liposomal amphotericin B. Four of the patients (3%) died; in the three of them there was jaundice, bleeding and evidence of liver impairment. One death report as sudden and may be due to toxic effect of the chemotherapy. More epidemiological implementations are discussed in this study.

## **OP61. Envenomation**

**Prof. Eisa. El-Amin**

MBBS, DTCH, FRCP

Dean, Faculty of Medicine, Rabat University

Envenomation is the process by which venom is injected into some animal by the bite (or sting) of a venomous animal. Many snakes are harmless but there are dangerous ones like King Cobra. Many spiders are harmless but black widow is deadly. Bees employ venom for hunting and for self defense but bee stings can kill. Most venoms are administered by biting the skin of the victim, but some venoms are applied externally, especially to sensitive tissues such as those that surround the eyes. In some reptiles, such as snakes venom in the saliva enters prey through bites of grooved teeth, but scorpions have hollow tubular stingers that penetrate the prey's skin and forcibly squirt venom deep within the victim's body tissue. Sometimes death may occur as a result of bites or stings. This paper reflects the author's experience about envenomations in children and provides the practical approach to this problem.

## **OP62. Acute and Fulminant Hepatic Failure – Management**

**Dr. Yassin Hag Mohammed Hamid**

MD, Assistant professor - Alneelain University

Paediatrician – gastroenterologist – Gaafar Ibn Auf hosp

Acute liver failure or fulminant hepatitis is a rare but potentially fatal disease. Mortality without supportive management and/or liver transplantation is in excess of 70%. Acute hepatic necrosis leading to hepatic encephalopathy and coagulopathy develops secondary to a virus, toxin or immune mediated attack. It is associated with failure of hepatic regeneration. The processes leading to such profound hepatic damage are unknown, but are multifactorial and depend on the age and susceptibility of the host and the extent of hepatic injury. Acute hepatic failure clinically manifested by progressive jaundice, fetor hepaticus. Fever, anorexia, vomiting, bleeding diathesis and the progression of encephalopathy through its different stages starting from disturbed sleep pattern. Irritability poor feeding up to the development of deep coma. The management of acute liver failure includes the Assessment of prognosis for liver transplantation, Prevention of complications while awaiting hepatic regeneration or a donor liver and hepatic support

## **OP63. Role of the School Teachers in Detection of Malaria among School Children, in East Nile Province**

**Dr. Hamza Eltigani Omer**

Sennar Teaching Hospital, Sudan

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An experimental study was conducted in the East-Nile Province aiming at involving the primary school teachers in detection of malaria among school children. 10 schools were randomly allocated into experimental or control schools. 3 focus group discussions with the school teachers were held at one school and based on it a training manual was developed. Teachers in the experimental schools were trained to use the manual for detection of malaria. A clinical algorithm of (headache, muscle/joint pains, feeling feverish) and oral temperature of 37.5 °C or higher was used for the diagnosis of malaria by the teachers. A questionnaire was developed for data collection by the teachers and laboratory technicians. For the control group, data were collected for the incidence of malaria and school absenteeism from the nearby health centres and schools, respectively. Results of 1242 school children referred by the school teachers in the experimental schools to the nearby

health centres during the transmission season, 560 (45.1%) were identified by the teachers as having malaria, of them, 369 (65.9%) had positive blood films. Blood films done for all referred cases revealed that 424 (34.1%) were positive for the malaria parasite. The sensitivity and specificity of the teachers in detection of malaria were 87.03% and 76.65% respectively. The positive and negative predictive values were 65.89% and 91.94%, respectively. Conclusion With little training school teachers can make a presumptive diagnosis of malaria if supported by health and educational authorities.

#### **OP64. Neonatal Cardiac emergencies**

**Prof. Abdel Moneim Alseid**

#### **OP65. Newborn screening for congenital hypothyroidism: it is high time to start in Sudan**

**Dr. Sarar Mohamed**

FRCPC, MD, DCH, CCST, Alkhobar, Saudi Arabia

The Objectives of the newborn screening program is to identify affected infants with genetic diseases before development of symptoms and signs. Newborn screening for congenital hypothyroidism fulfills all the criteria for a successful screening program. In developing countries like Sudan, newborn screening for congenital hypothyroidism is an ideal step to start within the journey of expanded newborn screening that addresses most of the treatable genetic disorders. Newborn screening for congenital hypothyroidism is cost effective and affordable. Universal screening for congenital hypothyroidism probably costs around 2-3 dollars (5-6 Sudanese pounds). In view of a probable incidence of congenital hypothyroidism of 1 in 2000 to 3000 birth in Sudan, screening for congenital hypothyroidism would prevent around 300 to 500 children from learning difficulty annually. The best approach for screening in developing countries is measurement of TSH in cord blood. Screening technique is simple.

Specimen is a blood spot obtained by heel prick and collected in a filter paper. Cord TSH method is affordable, with high sensitivity and specificity for diagnosis of primary congenital hypothyroidism. Secondary hypothyroidism may be missed. Treatment with thyroxin and follow up can be done by pediatricians and or general practitioners. Newborn screening for congenital hypothyroidism should be high on the list of childhood health care programs in Sudan.

#### **OP66. Cardiac Arrhythmias and Emergency Management**

**Dr. Ghada Shiekh Eldin Mohd Abdallah**

MD, Assistant Professor, College of medicine, Juba University  
Paediatric cardiology unit GBN Hospital, Khartoum, Sudan

Arrhythmias may result from disorders in impulse generation (too fast, too slow), disorders of impulse conduction or both. The key management of tachycardia is identification of underlying mechanism in terms of site and origin. Terms like SVT or VT, are the most practical for description, and treatment which is considered a real challenge in our clinical practice. SVT includes rapid rhythm from the atrium, AV junction, whereas VT arises from cardiac sites below bifurcation of bundle of His or myocyte. The differentiation depends on the identification of QRS complex. VT should be the primary consideration as it is more serious and needs urgent management. It is encountered in our daily practice in patients of cardiomyopathy. Long QT syndrome is a type of ventricular arrhythmia which should be considered as it's a cause of sudden cardiac arrest Symptoms and signs differ according to the age. History of toxins and medications are very important in the

management. The decision of giving medical or electrical management depends on the clinical status of the patient. Treatment strategy depends on the status of ventricle contractility and the patients' age, for patients with depressed function symptoms may improve by lowering the ventricular rate, so acute therapy can be directed toward blocking AV node. Chronic VT or SVT is mainly treated medically and this is different from emergency management.

#### **OP67. A New Type of Ehlers-Danlos Syndrome Associated With Tortuous Systemic Arteries in A Large Kindred From Qatar**

**Dr. Eltohami Ahmed Eltohami**

Associate professor of pediatrics consultant pediatrician and pediatric cardiologist Academic hospital and etal.

Aim: To describe the clinical spectrum of anomalies a new type of Ehlers-Danlos syndrome in 32 patients from a large inter-related extended family in Qatar. Methods: Among the 32 patients (from 22 families), there were 6 affected pairs of siblings and 2 families with 3 affected sibling. The male to female ratio was 2:1; ages ranging from birth to 18 y (mean 7.4 y). Results: Anomalies included a variable degree of skin hyperextensibility, hypermobility of small and large joints, and tortuous systemic arteries. Peculiar facial features included epicanthic folds, flat saggy cheeks, elongated faces and micrognathia. The combination of an elongated aortic arch and tortuous brachiocephalic arteries was seen in 30 patients (93.8%), aneurysm of the ascending aorta in 3 patients (9.4%), bifid pulmonary artery in 27 patients (84.4%) and multiple severe peripheral stenosis of the right and/or left pulmonary artery in 7 patients (21.9%). A prominent aortic knuckle was observed on the chest roentgenograms of 30 patients (93.8%), inguinal hernia in 11 patients (34%), diaphragmatic hernia and/or hiatus in 7 patients (21.9%), and laryngo-tracheomalacia in 2 patients (6.3%). Generalized muscle hypotonia was found in 15 neonates (46.9%). Parental consanguinity involved in all the patients was traced to a common ancestor from a large Bedouin tribe in Qatar. These patients are at risk for potentially catastrophic arterial rupture. Linkage to the major loci involved in Ehlers-Danlos syndrome and other connective tissue disorders, such as cutis Laxa, Familial Aneurysm, and Osteogenesis imperfecta, was excluded by using specific DNA markers, confirming the uniqueness of this disorder. Conclusion: The study describes a large cohort of patients from the same closely related family, sharing peculiar dysmorphism and consistent radiological and echocardiographic features different from known types of Ehlers-Danlos syndrome. As known loci involved in Ehlers-Danlos syndrome and other connective tissue disorders were excluded by specific DNA markers, this Appears to be a new type of Ehlers-Danlos syndrome or even a new syndrome.

#### **OP68. Pattern of congenital heart disease in Sudanese children with Noonan's Syndrome**

**Dr. Siham A Hassab El rasoul**

MD, MRCP, MRCPCH, DCH, DIP PAED CARDIOLOGY  
Consultant Paediatric Cardiologist, Khartoum North, Sudan

The objective of the study is to study the pattern of congenital heart disease in children with Noonan's syndrome .65 patients aged 2 days to 26 years, referred to Ahmed Gasim Cardiac Centre. Each patient was thoroughly examined and a predesigned questionnaire was completed. The diagnosis of Noonan's Syndrome was established following the Van Der Bergt criteria diagnostic scoring system. Only those with confirmed Noonan's were included in the study. Each patient had a detailed echocardiography study. Samples were taken from each candidate for chromosomal analysis to exclude

Turner's and other similar craniofacial syndromes. Each candidate was further reexamined for Dysmorphic features by geneticist to avoid bias. Consent was obtained from parents for inclusion into study, chromosomal analysis and photography. 65 candidates aged 2 days – 26 yrs had confirmed Noonan's Synd, 60% were males and 40% were females. 55% were referred because of a murmur, while 28% were referred because of failure to thrive and 17% for respiratory distress. Of the 65 patients 18% had normal hearts while 82% had congenital heart disease. The majority of those with congenital heart disease (20%) had PS, while 13% had Hypertrophic Cardiomyopathy. The remainder had other forms of CHD like ASD, VSD, VSD + PDA, TOF. Only one patient had Pulmonary Atresia + VSD and one had Dextrocardia + Cleft mitral valve disease. Most of the patients with PS (80%) had mod-sever PS. 57% of patients with Cardiomyopathy had biventricular hypertrophy while 43% had concentric left ventricular hypertrophy. In conclusion, Noonan's Syndrome is a common genetic disorder (second commonest to Down's syndrome), that is associated with congenital heart disease. Dysmorphic features of Noonan's Syndrome are subtle and can be easily missed. Diagnosis of Noonan's Syndrome is mostly a clinical one as there are no definite biochemical tests available yet. Routine Echocardiography in suspected individuals with NS may lead to further definition of more associated CHD.

### **OP69. Problems and Outcomes in Children Starting Chronic Peritoneal Dialysis below Five Years of Age**

**Dr. Amir Eltayeb Mohammed**

Nephrology Unit, Gaafar Ibaof Children Hospital – Sudan

A retrospective chart review of seventeen children who were put on APD programme in Children and Young Peoples Kidney Unit, between September 1989 – June 2007, there were 8(47%) male and 9(53%) female and the mean age of start of APD 24.3±20.2 months (range 1-to-59 months). All patients received CCPD and the mean duration was 20.2±9.6 month (range 7-to-43 months). The primary diagnosis of ESRD were VUR±UTI 4(23.6%), congenital NS 2(11.8%), neonatal cortical necrosis 1(5.9%), familial renal dysplasia 1(5.9%), HUS 1(5.9%), hypoplastic kidney 1(5.9%), renal dysplasia due to twin-to-twin transfusion 1(5.9%), neonatal sepsis ± aortic and renal artery thrombosis 2(11.8%), progressive glomerulonephritis 2(11.8%), Prune-Belly syndrome 1(5.9%), Single left dysplastic kidney 1(5.9%). The mean episodes of peritonitis/year were 0.71±0.99 and the causative organisms were E.coli 1(5.9%), Staph. Aureus 4(23.6%) and 4(23.6%) had negative culture. The mean episodes of ESI/TI/year were 1.7±1.0 and the causative organisms were staph. Aureus in 3(17.6%), MRSA 1(5.9%), mixed colonising bacteria 1(5.9%), and Pseudomonas 1(5.9%). Fifteen patients (88.2%) were successfully transplanted and two were (11.8%) remained in APD (CCPD).

### **OP70. A New Quick Method of Assessment of Students in the Final Examination.**

**Mutwali Abdelmageed Hussain et al**

University of Science and Technology, Department of Paediatrics  
Personal experience

Almost all Sudanese Universities are using the conventional way of assessing medical students in their final year. This consists of written papers composed of multiple choice questions (MCQs) and short notes in the majority of the departments, in addition to the slide session which is titled as an OSCE. The clinical examination consists of a long case in which the student, takes history in 45 minutes and presents his findings

to the examiners in another 20 minutes. There are also two short cases examination each takes about 10 minutes. The aim of this experience is to find a quick way of assessing students in the clinical aspect of the examination and to replace the slide session by a more informative and practical way. The other reason is to change the written to a form that is currently internationally in practice. To achieve this the department of Paediatrics and child health, University of Science and Technology has made changes over the last three years. We deviated gradually from the conventional negatively marked MCQs to single best answer, extended matching questions, and clinically based problems. The clinical examination change was mainly in the long case. The student takes history in 20 minutes, focused and observed by two examiners. The slide session was replaced by a station what we refer to an oro-practical exam. The later consists of items used in the emergency department; it tests attendance and performance of the students in the emergency department during their training. The result of this new method of assessment showed that the clinical examination was quick, accurately gives a good chance of comparing students and saved a lot of time compared to the conventional method. It also removed the worries of getting new patients everyday for the exam, because the long cases are taken from the daily intake to the casualty. Moreover in the long case both the student and examiners are alert because they are completely blind about the patients. The written is matching with the international ways of assessment and prepares the students for postgraduate examinations. The comments of all our external examiners from different universities showed great satisfaction and some universities are on the way to adopt this experience. All the examiners shared with us the opinion that this is an appropriate, quick and accurate method of assessing the increasing numbers of medical students.

### **OP71. Clinical and Ethical Dilemmas in Prenatal Medicine**

**Prof. Abdulateef A. Khalefa**

A *dilemma* is a situation in which a choice must be made between alternative courses of action or argument. A situation offering a choice between two or more equally undesirable. The use of *dilemma* to refer to a problem that seems incapable of a solution is considered by some people to be incorrect. Dilemma of the clinical and ethical issues of prenatal medicine is a real problem facing Obstetricians and paediatricians in their daily practice. The gray areas and controversies are identified concerning the viable fetuses and whether, when and how to be terminated. The answers lie in multidisciplinary approach, clinicians, law and religious persons. Because the problem is always clinical in addition to religious and cultural issues in addition to the patient and family choices. This problem can be made easy by formulating clear guidelines and committees to help the concerned who are facing this issue in their routine practice.

### **OP72. The Investigation of Asymptomatic Heart Murmurs In Newborns**

**Dr. Tim Jones**

A Shastri, S Reddy, Peterborough, UK

Echocardiogram remains the gold standard for assessment of the significance of heart murmurs. In many district general hospitals, however, this is not routinely available and assessment is based on clinical evaluation and special investigations. Investigations including chest x-ray (CXR), electrocardiogram (ECG) and blood pressure (BP) measurements are not sensitive or specific enough to reliably detect congenital heart disease in neonates with heart murmurs. We conducted a retrospective notes based review of all neonates

with asymptomatic heart murmurs seen in our hospital over a 6 year period. Our results are compared with recent published evidence of the investigation of asymptomatic heart murmurs with the following conclusions and learning points:

CXR, ECG and 4 limb blood pressure measurement are not useful investigations in asymptomatic heart murmur in newborns; Oxygen saturation monitoring may be a useful screening tool for the detection of CHD in neonates; Where echocardiography is not immediately available, a combination of careful clinical evaluation and directed special investigations can help us determine whether to refer urgently to a specialist cardiology centre or to arrange routine review. A suggested algorithm for investigation of heart murmurs in a district general (non-tertiary) hospital and the benefit of using oxygen saturation monitoring as a screen for congenital heart disease (CHD). Will be presented.

### OP73. Fluids and Electrolytes Management in Neonates

**Dr. Seif Babiker**

MRCP, FRCPC, Peterborough, UK.

The requirements for fluids and electrolytes in the neonatal period are unique. Appropriate and meticulous management of fluids and electrolytes can not be overemphasised, especially in the preterm infant. Total body water accounts for 75 – 90% body weight in neonates. Both term and preterm infants have acute expansion of ECF by shifts of fluids from ICF during the first few days of life. Term infants normally lose 5 – 10% of their body weight, whereas preterm infants may lose up to 10 – 15%. Insensible water losses can be enormous in the extremely low birth baby. Renal tubular function is generally impaired and hence neonates are very prone to electrolyte derangements, in particular the preterm baby. The larger well babies are, ideally, breast fed on demand or bottle fed. If necessary, NG or IV fluids should be commenced at 60ml/kg/day (90ml/kg/day in the extremely premature baby). The amount is gradually increased to reach 150ml/kg/day by day 4 of life. Serum sodium and urine output should be closely monitored and fluid intake should be varied appropriately. Fluids and electrolyte requirements are influenced by a variety of medical conditions e.g. RDS, PDA, NEC, IVH and BPD. All infants receiving IV fluids should have daily measurements of creatinine and electrolytes. Extremely premature babies may require more frequent electrolyte monitoring; less frequent as condition stabilises. Electrolytes should not be routinely added to IV fluids in the first day of life. From day 2, sodium and potassium are usually added at rate of 3 and 2mmol/kg/day respectively. Some infants require calcium and phosphate supplementation. Fluids and electrolyte additives should be carefully calculated and administered according to locally agreed guidelines.

### OP74. Hypernatraemic Dehydration and Malnutrition in an Exclusively Breast-Fed Neonate

**Dr. Mohamed Khalil Ali**

MB BS, FRCP (UK), DTCH(UK), DCH(Aus), DCH(UK)  
Consultant paediatrician /neonatologist Gaafar Bin Aouf Hospital  
Associate professor & head of paediatric department  
International University of Africa

There have been several reports in the literature about hypernatraemic dehydration and severe malnutrition in exclusively breastfed infants. **Hypernatremic dehydration** in neonates is a potentially devastating condition. The author reports a 19 days old term female who presented to the emergency room with a 7 day history of poor feeding, lethargy,

weight loss & infrequent firm BM. She had weight loss of greater than 29% of her birthweight, serum sodium level of 178 mmol/L, metabolic acidosis and pre-renal failure at presentation. She also had seizures shortly after presentation.

### OP75. The Role of Imaging in Neonatology Problems

**Dr. El Rayah Mohamed Mustafa**

MBBS, MD- Clinical Radiology

Radiology is an important diagnostic tool in neonatology, detecting pathologies congenital, acquired, anatomical or functional. Different modalities of radiological investigations are available: X-ray either plain or with contrast, Ultrasound either gray scale or color flow Doppler, CT and MRI scans either with or without contrast in addition to nuclear scintigraphy. Imaging is commonly used in neonatology to detect the following disorders: Respiratory System (respiratory distress syndrome type 1, Tracheo-oesophageal fistula, Congenital diaphragmatic hernia, Aspiration pneumonia, Lung sequestration), Cardiovascular System (Dextrocardia, Septal defects, Fallot tetralogy, Transposition of the great vessels, Coarctation of the Aorta), Gastrointestinal System (Hypertrophic pyloric stenosis, oesophageal, duodenal, and jejuna Atresias, Imperforate anus, GI malformation, Volvulus Neonatorum, Biliary Atresia), Urogenital System (Ambiguous genitalia and intersex, Undescended testicles, Congenital Hydrocele, Renal Agenesis, Renal Dysplasia, Renal Ectopia) Central Nervous System ( Hydrocephalus, Arnold Chiari Malformation, Dandy Walker, Spina bifida, White-grey matter heterotopias), Peripheral nervous system (Neuroblastoma) Musculoskeletal system (Congenital hip dislocation, achondroplasia, Osteogenesis Imperfecta, osteopetrosis).

### OP76. General Approach to Toxicology in Children

**Dr. Maha Abdalla**

FAAP, Diplomate of The American Board of Pediatrics;  
Consultant, Pediatric Emergency, King Abdulaziz Medical City,  
Riyadh, KSA

The aim of presentation is:

- 1) To understand the general principal of clinical toxicology
- 2) To know the epidemiology and general factors that influence toxicity
- 3) To understand the initial approach to the poisoned child in term of setting immediate priorities
- 4) To appreciate the necessity to conduct, as the first order of business, those procedures that evaluate and preserve ABCs and vital signs
- 5) To know what aspects of Medical exam. and diagnostic tests to be conducted to evaluate in general the poisoned child
- 6) To understand the toxidrome of specific agents
- 7) To understand that one pill can kill
- 8) To know the antidote for specific agents

### OP77. Errors in the Paediatric Emergency Department

**Dr. Tarig Osman**

MBBS, MPCH, CABP, MRCP(UK), FRCPC  
King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia

Medical Errors are very common. It is estimated that 44,000 to 98,000 unnecessary deaths and 1,000,000 excess injuries each year in the USA. This presentation discusses the definition of medical error and Distinguishes between Adverse event, Near Miss and Medical Error. Errors are associated with inexperienced clinicians, new procedures, extremes of age complex care and urgent care, Poor

communication ,improper documentation, inadequate nurse-to-patient ratios, similarly named medications . Patient actions may also contribute significantly to medical errors.Medical errors include ,Diagnostic errors , Equipment failure ,Infection (nosocomial, post-operative) ,Transfusion-related injury, Misinterpretation of medical orders ,System failures that compromise diagnostic or treatment processes.the Emergency departments are are very vulnerable to medical errors due to high decision density, High acuity & Complexity of patients ,Lack of complete patients information and Time constraints.Total Quality Management is the preferred corrective approach . In this model, there is an attempt to identify the underlying system defect that allowed the opportunity for the error to occur this includes , Error Reporting , Team-based care , Open communication education and training.

#### **OP78. A rare Case of Carbamazepine "Tegretol" Poisoning in a Sister and Brother**

**Dr. Satti Abdulrahim Satti**

MD, CABS (Pediatrics), Ass. Professor, University of Medical Sciences.

Carbamazepine is a CNS depressant with anticholinergic effects. It is used for treatment of partial, grandmal and psychomotor epilepsy. It is one of the most common pediatric overdoses. Clinical features of poisoning include: Vomiting, drowsiness, confusion, psychomotor disturbances, ataxia, myoclonus, tremors and coma. Mydriasis, respiratory depression, cardiac toxicity and hypertension may occur. Multiple dose activated charcoal is needed for treatment. We report a sister and brother admitted to our PICU with features of carbamazepine poisoning . Managed and discharged well few days later. The 1st child is an 11 year old Saudi girl was admitted to PICU because of Sudden onset of dizziness progressing to loss of consciousness, abnormal movements, blurring of vision, headache and vomiting. Her elder brother was epileptic on medication. On examination she was unconscious, hypothermic with dystonic movements. BP was normal. Pupils were dilated but reactive to light. Up going toes on CNS examination. Given IVF and oxygen then put on the monitor. EEG showed multifocal epileptic discharges. Ct scan was normal. Blood sent for culture and toxicology screening. On follow up , difficulty in passing urine, a depressive mood and some behavioral changes were revealed. Result of screening revealed a toxic level of carbamazepine ( 20 ug/ml ) , so Carbamazepine poisoning was confirmed. The girl was completely normal when discharged on the 9<sup>th</sup> day with normal drug level. The 2<sup>nd</sup> child is the younger brother of the girl mentioned in the 1<sup>st</sup> case, a 3 years old boy, presented few days later with vomiting and loss of consciousness. Admitted to our PICU. On examination he was semicomatosed, hypothermic, hypertensive with abnormal dystonic movements. RBS, Alkaline phosphatase and LDH were high. Given activated charcoal and IVF. Samples sent for toxicology screening. He improved after 3 days. Later screening showed a high and toxic level of carbamazepine in the blood. Later discharged in a good condition. Medical personnel should consider strongly poisoning in any child presenting with coma, disturbed level of consciousness or unexplained symptoms and signs. Health education concerning preventive measures related to poisoning is essential for families having patients with chronic illnesses who are on regular medication.

#### **OP79. Home Accidents**

**Dr. Muna Babiker Mohd Ahmed**

MD, Gafar IBN Oaf Hospital

Most of the out-of hospital cardiac arrest in infants and children occur in or around the home, where children are under the supervision of parents or child care providers. Serious cardiac rhythms such as ventricular fibrillation which is a leading cause of cardiac arrest could occur. The first clinical link in child chain of survival (Has the greatest effect on reducing mortality and morbidity in infants and children) is the prevention of injuries and accidents in children. Many types of home accidents occur in our country. Home accidents are one of the common presenting child disorders in Sudan, examples are: ingestion of corrosives, burns, electrical shocks, drug ingestion and others. To elicit the most common home accidents(non-traumatic) presenting to the casualty, a model hospital was selected. Recommendations of how to prevent home accidents.

#### **OP80. Acute Renal Failure Owing To Paraphenylene Diamine Hair Dye Poisoning In Sudanese Children**

**M.B.Abdelraheem,M.A.A.El-Tigani,E.G.Hassan,**

**M.A.M. Ali, I.A. Mohamed & A.E. Nazik\***

Paediatric Nephrology Unit and \* Department of Ear Nose & Throat, Soba University Hospital, University of Khartoum, Sudan

Paraphenylene diamine (PPD) has traditionally been used as a dark-coloured hair dye. In Sudan, it is used by women to colour their hair and as a body dye when added to henna (*Lawsonia alba*). Accidental or deliberate ingestion causes severe systemic toxicity. Although a wide variety of complications has been described, there are few reports in children. The aim of the presentation is to describe the clinical features, management and outcome of PPD intoxication in Sudanese children. Data for a 3-year period (2006–2008) were extracted from the medical records of the Paediatric Nephrology Unit, Soba University Hospital. Information included the circumstances of poisoning, gender, age distribution, clinical presentation, biochemical findings and outcome. Over the 3-year period, 17 children (16 female) were admitted to the Paediatric Nephrology Unit with PPD intoxication. Mean age was 13.8 yrs (range 2–18). Thirteen (76.4%) had attempted suicide, three (17.6%) were poisoned as a result of attempted murder and one poisoning (5.8%) was accidental. Eight children (47%) required tracheostomy for severe angioneurotic oedema. Of 12 (71%) who developed acute renal failure (ARF), nine required dialysis and three were managed conservatively. Two children (12%) died and the other 15 recovered with normal renal function. In Conclusion, PPD intoxication is a life-threatening condition with significant morbidity and mortality in children. Clinical manifestations and outcome are similar to those in adults. Mortality can be reduced by early recognition, prompt referral and aggressive supportive treatment.

### **OP81. Heat Stroke in Port Sudan**

**Dr. Amel Aziz Malik**

MD.(Paediatrics) Head Dept. of Paediatrics, Faculty of Medicine University of Red Sea

Heat exhaustion and heatstroke are part of a continuum of heat-related illnesses. Both are common and preventable conditions. Heat stroke is an important public health problem in Port Sudan, occurring annually during summer seasons (July –September), when the weather is hot humid and temp 45 +with average hospital mortality of 15-30. Young Children are more susceptible than adults to heat related illnesses. This is a retrospective study involving 32 child with Heat exhaustion and heatstroke during 2008-2009 summer in Port Sudan paediatric hospital, looking in the predisposing factors and outcome. Active preventive measures, prompt recognition and immediate management can reduce the morbidity and mortality associated with heat exhaustion and heatstroke.

### **OP82. Epidemiology of Childhood Obesity**

**Prof. Abdelaziz El-Amin**

Faculty of Medicine, University of Khartoum, Consultant Paediatrician, Gafaar Ibaof Children Hospital - Sudan

Childhood obesity has reached epidemic levels in industrialized countries particularly in the west. Twenty five percent of children and adolescents in the US are overweight and 14% are obese. However, the prevalence of obesity is alarmingly rising in other less developed parts of the world, like Asia, the Middle East and some parts of Africa, as well. Overweight and obesity in childhood are known to have significant impact on both physical and psychological health. The mechanism of obesity development is not fully understood and it is believed to be a disorder with multiple causes. Environmental factors, lifestyle preferences, and cultural environment play pivotal roles in the rising prevalence of obesity worldwide. In general, overweight and obesity are assumed to be the results of an increase in caloric and fat intake. On the other hand, there are supporting evidence that excessive sugar intake by soft drink, increased portion size, and steady decline in physical activity have been playing major roles in the rising rates of obesity all around the world. Consequently, both over-consumption of calories and reduced physical activity are involved in childhood obesity. The presentation covers epidemiology, causes and complications of this Condition.

### **OP83. The Impact of the Reform in Obstetric Policy on the Neonatal Outcome at the Omdurman New Hospital**

**Dr. Hala Gasim. MBBS, MD**

**Dr. Dalia Abudarag, MBBS**

**Dr. Atif Fazari**

MBBS, FOG, SMSB-MD, MSc. PH-TH

Omdurman New Hospital is located almost at the center of Omdurman city with extended catchment areas. It provides pure obstetric & gynecological services with the needed and supportive services mainly the neonatal one. It has a neonatal unit run by two consultants pediatrician and organized team (registrars, medical officers, sisters & trained nurses). The service is running with very basic facilities. It's a analytic comparative study for the cases admitted to the nursery department at the Omdurman New Hospital during the years 2007- 2008- 2009., bearing in mind the policy and the system was reformed in February 2009 by staff numbers and upgrade, audits, protocols, equipments, monitoring and quality assurance. The data were collected from the statistical records for 2007 & 2008 along with current registered data for the running year 2009. All were put in the master sheet and by

using the computer 'program- SPSS version 13, the data were analyzed. The major cause of the neonatal mortality seen over the Three years is the Respiratory distress syndrome and the Preterm Deliveries. In 2007 the rate of death is = 19%; in 2008 it is 16% and In 2009 is =20%. It seems that this reform improves the services in the obstetrics and increases the rate of admission and numbers of the deliveries that makes the neonatal mortality of great clinical difference but statistically is NOT differs from the previous rate. We highly recommend significant changes in the Neonatal setup for great improvement of the services that can withstand the increasing numbers of the cases and their needs.

### **OP84. Hypertriglyceridemia in Infants and Children with Hybernatraemia**

**Dr. Ahmed, Fathelrahman E.**

CABP, MRCP (UK)

Associate Professor, Alneelein University, Khartoum, Sudan

This case series describes 10 patients with hypernatremia and hypertriglyceridemia. Hypertriglyceridemia was discovered accidentally in two infants with hypernatremia. An additional 8 patients were detected when serum lipids were measured in infants and children with hypernatremia secondary to various causes. The hyperlipidemia resolved in all when serum sodium returned to normal. In conclusion: The association of hypernatremia and hypertriglyceridemia is rare in children. It is a transient phenomenon. It is most likely secondary to inhibition of lipoprotein lipase by high serum sodium.

### **OP85. Cough and Cold Medicines for children Are they effective? And are they safe?**

**Dr. Abdelbasit Abbas**

Science investigates in a heartless and rigorous way although its starting point is human concern and it ends with human hope and foresight. This is clearly exemplified in the case of Cough and Cold Medicines for children where the impetus for scientific research was the tragic death of the child, Devon . In his case the fact that a postmortem was carried out was extremely significant because the results led to the initiative undertaken by a pediatrician and championed by the American Academy of Pediatrics, other medical organizations, children hospitals and departments of pediatrics in several universities. Case studies, double blind evidence based and placebo controlled studies with their meta analyses were undertaken to ascertain the effectiveness and side effects of these drugs. The following points will be addressed: The brief story of Devon .The incidence of cough and colds and their natural history. The combination of these drugs and the clinical pharmacology of their ingredients (decongestants, anti histamines, cough suppressant, and expectorants). The steps taken to implement these research results on the academic, health institutional, media and individual level both nationally and internationally. The role of the drug industry. The practical steps already taken here. Proposals for future action. A short video tape showing the role of the media will close the presentation

## **OP86. Adherence to Antiretroviral Therapy on HIV positive children at Omdurman Management and counseling Unit**

**Dr. Widad Mustafa**

HIV is a major cause of infant and childhood mortality and morbidity in Africa.

The objective if the study is to determine the adherence rate to antiretroviral therapy among children receiving free ART at OMACU and to detect the major factors influencing non adherence to ART in these children. It is a Prospective cohort study. The study included all HIV positive children who attend the paediatric clinic from the first of March 2006 to 30<sup>th</sup> of September 2007.

03 patients were enrolled in the study. 50.49% males and 49.51% females. Most of the patients' ages were between 1.5 – 6 years. 59.7% were having good adherence, compared to 40.3%with poor adherence. 57% of the children with good adherence had CD4 level <250 compared to 70% with poor adherence. The risk factors of HIV in these children were perinatal in 94.17%, blood transfusion in 4.85% and tooth extraction in 0.9%. 10 patients out of 103 died, 2 lost follow up and 91 still alive. The Adherence to ART at OMACU is lower than what has been observed elsewhere. 95% of children in the study group had HIV through vertical transmission.

## **OP87. Post Exposure Prophylaxis HIV Infection by Occupational Exposure & Recommendations for Post-exposure Prophylaxis**

**Dr. Nour Elhouda Ata Alla**

MD, University of Juba, College of Medicine, Dept of Paediatric & Child Health

Workers in health care settings are constantly exposed to occupational hazards; wet floors that lead to slip and falls, or toxic chemicals that cause burns to the hands or face, are among many examples. But there is one hazard that people in the healthcare field fear most, the needle stick. Occupational exposure to blood borne infections, including HIV infection, via the needle stick occurs all too often. Some sources report that nearly 1 million healthcare workers suffer needle stick injuries each year. As a result, hundreds of workers are infected with diseases such as Hepatitis B, Hepatitis C and HIV. This report updates and consolidates The Sudan Public Health Service recommendations for the management of health-care personnel (HCP) who have occupational exposure to blood and other body fluids that might contain the human immunodeficiency virus (HIV). Recommendations for HIV PEP include a basic 4-week regimen of two drugs (Zidovudine [ZDV] and Lamivudine [3TC]; 3TC and Stavudine [d4T]; or didanosine [ddl] and d4T) for most HIV exposures and an expanded regimen that includes the addition of a third drug for HIV exposures that pose an increased risk for transmission. When the source person's virus is known or suspected to be resistant to one or more of the drugs considered for the PEP regimen, the selection of drugs to which the source person's virus is unlikely to be resistant is recommended. In addition, this report outlines several special circumstances (e.g., delayed exposure report, unknown source person, pregnancy in the exposed person, resistance of the source virus to antiretroviral agents, or toxicity of the PEP regimen) when consultation with local experts and/or the National Clinicians' Post-Exposure Prophylaxis Hotline is advised. Occupational exposures should be considered urgent medical concerns to ensure timely post-exposure management and administration of HIV PEP.



## General Information

### **Sudan Demography & Population:**

The **Republic of the Sudan** is the largest country in Africa occupying 2.5 million square kilometers (967,500 sq. miles), situated in northeast Africa. The capital is Khartoum. It is bordered by Egypt to the north, the Red Sea to the northeast, Eritrea and Ethiopia to the east, Kenya and Uganda to the southeast, Democratic Republic of the Congo and the Central African Republic to the southwest, Chad to the west, and Libya to the northwest. It extends from the great desert in the north, into savannah, to equatorial forests in the south. The total population of Sudan is 39,154,490 (April 2008).

### **Visas:**

Participants are kindly requested to inquire at the Sudan Embassy /Consulate in their country of residence to obtain an entry visa. Upon individual request, a letter of invitation from the organizers to participate in (S.A.P) 16<sup>th</sup> Congress will be provided to facilitate procedures for obtaining a visa into Sudan. If needed, kindly email your request for your individual invitation letter to [info@sapsudan.com](mailto:info@sapsudan.com).

### **Language of the Congress:**

The main language of The Congress is English.

### **Khartoum Airport:**

Khartoum International Airport is located approximately 5 km from the Center of Khartoum.

### **Currency:**

Sudanese Pound (1 SDG = 100 Girsh)

**Coins:** 1, 5, 10, 20, 50 Girsh

**Banknotes:** 1, 2, 5, 10, 20, 50 Pounds

### **Electricity:**

Electricity in Khartoum is supplied at 220V AC 50Hz

### **Time Zone:**

Standard Time Zone: UTC/GMT +3 Hours

### **Banking:**

Bank services are available at the Airport & throughout the Khartoum city.

Banks are open from 08:30AM to 12:00 PM from Sunday to Thursday.

### **Business Hours:**

**Offices:** from 08:00AM to 15:30PM from Sunday to Thursday

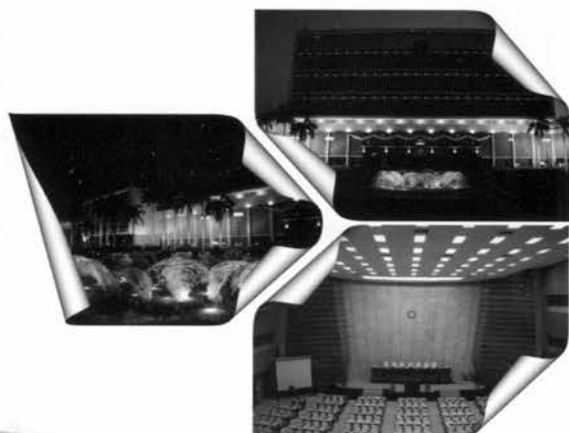
**Shops:** from 08:00AM to 15:30PM & from 17:30PM to 23:00PM

### **Congress & Exhibition Venue:**

**The Friendship Hall** was established with the cooperation of the people's republic of China in 1973 as one of the most modern conference, exhibition and convention centers in Africa.

**The** conference hall was built and equipped to the highest international standards and since it opened has been the venue for prestigious international and regional conferences including Sudanese — European dialogues, African union summits, regional agricultural and medical conferences, trade conferences and business events.

**The** conference hall and seminar rooms are well equipped and supported by secretarial annexes.



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- Ministry of Health
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  - Health Insurance corporation
  - Friendship Hall
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الرؤساء المتعاقبون على الجمعية السودانية لإختصاصي طب الأطفال

١٩٨٠م - ١٩٨٢م

المرحوم د. محمود محمد حسن

١٩٨٤م - ١٩٨٦م

بروفيسور. حافظ الشاذلي

١٩٨٦م - ١٩٨٨م

المرحوم بروفيسور. صلاح على طه

١٩٨٨م - ١٩٩٠م

د. عبدالمنعم السيد

١٩٩٠م - ١٩٩٢م

المرحوم د. يس أبو تركي

١٩٩٢م - ٢٠٠١م

بروفيسور. جعفر بن عوف سليمان

٢٠٠١م - ٢٠٠٣م

د. السر هاشم

٢٠٠٣م - ٢٠٠٥م

بروفيسور. الزين كرار

٢٠٠٥م - ٢٠٠٧م

بروفيسور. صلاح أحمد إبراهيم

٢٠٠٧م - ٢٠٠٩م

بروفيسور. مبيوع مصطفى

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ  
كلمة ترحيب

الأخوة الأعزاء

إن في اجتماعتكم في مؤتمر الجمعية السودانية لاختصاصي طب الاطفال فرصة عظيمة لإستقراء واقع الطفل السوداني فلنتضامن جميعاً أمام الهموم والتحديات التي تواجه الطفولة من فقر وحرب وجهل ومرض تحقيقاً لآمالنا في مستقبل أكثر إشراقاً للأجيال القادمة .

إننا نؤمن جميعاً بأن الأطفال هم الأستثمار الأهم في حياتنا وأن الطفل وليس سواه هو المستقبل وإن واجبنا المقدس هو بذل كل ما في وسعنا للعناية بالطفل من المهد إرتقاءً بصحته رضيعاً ودارجاً وياقاً وبالغاً مستفيدين من كل ماتوصل اليه العلم من تطور في النقانه والتشخيص والعلاج لننشئ أجيالاً صحيحة ومعافاة قادرة على خدمة امتها وتحقيق غايتها العظام .

تشرف الجمعية بدعوة العلماء وكافة المهتمين بقضايا صحة وتطبيب الطفل للمشاركة الفاعله في مداورات

المؤتمر السادس عشر والذي سيعقد بالخرطوم في ١٣ - ١٦ نوفمبر من العام ٢٠٠٩ م .

ندعوكم جميعاً لتشريفنا ومرحباً بمشارككنم وتعاونكم معنا .

أ.د. مبيوع مصطفى

رئيس الجمعية السودانية لاختصاصي طب الاطفال



## اللجنة التنفيذية دورة ٢٠٠٧ - ٢٠٠٩

رئيس الجمعية	ب/ مبيوع مصطفى
الرئيس المنتخب	ب/ محمد أحمد عبد الله
السكرتير العام	ب/ عبدالعزيز الامين
مساعد السكرتير العام	د/ والي الدين النور الفكي
السكرتير الاكاديمي	د/ عبدالمنعم محمد حامد
مساعد السكرتير الاكاديمي	د/ محمد بابكر عبدالرحيم
السكرتير المالي	د/ يوسف مختار
مساعد السكرتير المالي	د/ أبوبكر عبدالعزيز
السكرتير الاجتماعي	د/ محمد عثمان سوار
مساعد السكرتير الاجتماعي	د/ سهام أحمد حسب الرسول
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