



KENYA
PAEDIATRIC
ASSOCIATION

ANNUAL SCIENTIFIC CONFERENCE

2022

HYBRID

Tuesday 10th - Friday 13th May

A Life Course Approach To Child Health

CONFERENCE BOOKLET

www.kenyapaediatric.org



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Welcome Note



Kenya Paediatric Association would like to invite you to the Annual Scientific Conference 2022. It will be the first hybrid KPA conference scheduled to be held from 10th -13th May 2022.

Kenya Paediatric Association is a membership organization whose motto is “Afya ya Watoto Wetu” meaning “the health of our children”. We believe in empowering our members to enable them serve the Kenyan child better as has been our mandate since 1968.

Since the onset of the pandemic in 2020, the association has embraced technology in the delivery of scientific content to our members through weekly webinars that have attracted participants from Kenya and beyond. In ASC 2021 we successfully held our first fully virtual conference and this year, in the same spirit, we will be holding our first hybrid conference.

This conference presents a unique opportunity to celebrate the association’s historic milestones in promoting child health with the theme for this year’s conference being, **‘A Life Course Approach to Child Health’**.

This year’s theme echos the World Health Organisation’s and the United Nations ethos on health investment. Distinct social, economic and environmental factors affect a person’s well-being differently during their lifetime. Targeted interventions for different stages of life ensure that needs are met appropriately and promptly. We will be looking at the different high-impact evidence-based interventions in Child health.

I welcome you all to experience and network all for Afya Ya Watoto Wetu.

Dr. Catherine Mutinda,
Scientific Committee Chair

About KPA

The **Kenya Paediatric association** is a non-profit, non-partisan body of paediatric practitioners committed to professional excellence and timely, quality, service delivery to the children they serve. Currently, KPA has a membership of over 500 paediatricians and child health practitioners.

KPA is duly registered with the registrar of societies under section 10 of the society's Act, Cap 108 of the Kenyan laws. The association was registered in 1968 with the sole purpose of advocating for and advancing the healthcare related interests of the Kenyan children.

Since its formation the association has been engaged in various facets of child welfare including:

- i. Fostering the interest of Kenyans through all measures considered necessary to combat childhood illnesses by enlisting their cooperation in implementing such measures and by acting as a centre of public enlightenment on the management, prevention, control and eradication of childhood diseases.
- ii. Disseminating knowledge concerning the cause, treatment and prevention of childhood illnesses
- iii. Playing a significant role in counselling support in the fight against societal ills, including drug abuse, HIV/AIDS and rape/ sodomy
- iv. Encouraging research into causes, management and prevention of childhood diseases in Kenya
- v. Collaborating on research, advocacy, education, training and sharing experiences for the implementation of best practices.

Years of experience in the sector increasingly made it clear that there was a need for KPA to get involved in research and become a leader in the search for knowledge and solutions in matters affecting child health.

This inspired the registration of Kenya Paediatric Research Consortium (Keprecon) in 2010, which is the research arm of the association. Keprecon serves to help achieve KPA's desire to initiate quality research into causes, management and prevention of childhood diseases in Kenya. It also collaborates in research, advocacy, education, training and sharing experiences for the implementation of best practices in child health promotion.

Scientific Committee & Local Organizing Committee

The KPA Annual Scientific Committee Conference planning committee comprised the following:

1. Dr Angela Migowa
2. Dr Catherine Mutinda- chairing
3. Dr Christine Chege
4. Dr Doreen Mutua
5. Dr Elizabeth Kiragu
6. Dr Immaculate Barasa
7. Dr Justus Simba
8. Dr Laura Oyiengo
9. Dr Lawrence Owino
10. Dr Maina Michuki
11. Dr Rosemarie Lopokoityit
12. Dr Sam Gwer
13. Dr Supa Tunje
14. Dr Syeda Ra'ana Hussain
15. Dr Thomas Ngwiri
16. Dr Twahir Hemed
17. Dr Waceke Kombe
18. Prof Ambrose Agweyu
19. Prof Grace Irimu

The Local Organizing Committee comprised the following:

1. Dr Hemed Twahir
2. Dr Twaha Ali
3. Dr Victor Bandika
4. Dr Aisha Jahadmy
5. Dr Msuo Omar
6. Dr Mwanaisha hatimy
7. Dr Suleiman Bakari
8. Dr Elizabeth Awimbo
9. Dr Nasra Ismail Adan
10. Dr Stephen Wahome Wanjohi

Guest of Honour



Dr Caroline Mwangi

Dr Caroline Mwangi holds a Bachelor's degree in Medicine and Surgery and a Masters of Medicine degree in Paediatrics and Child Health, from the University of Nairobi. She has just completed her fellowship in Global Health, Afya Bora Consortium program. She is currently the Head of Neonatal and Child health services at the Ministry of Health. She is working in close collaboration with Neonatal and Child health partners and stakeholders, in ensuring delivery of quality health services to infants and children amidst the COVID-19 pandemic.

She has previously worked as a consultant paediatrician in the county. She has played an important role in the development of current new-born and child health policies, strategies and guidelines. These will aid in the reduction of morbidity and mortality in newborns and children. She is a mentor and trains other health care workers on high impact interventions. Her interests are in strengthening health systems, research and implementation science to aid decision making to improve new-born and child survival.

Keynote Speaker



Professor Joy Lawn, BMedSci, MB BS, MPH, PhD, FRCPCH, FMedSci

Professor of Maternal Reproductive and Child Health Epidemiology,
Co-Director of MARCH, London School Hygiene & Tropical Medicine
Twitter: @joylawn Wikipedia

Joy is an African-born, British-trained paediatrician and perinatal epidemiologist with 30 years' experience especially in sub-Saharan Africa including trials and complex evaluation of newborn and child care services, plus epidemiological burden estimates for WHO and UNICEF. Her paediatric training was in the UK, followed by teaching, clinical care, implementation and research, mainly living in Africa. Her MPH was from Emory, Atlanta, USA, whilst at CDC, and her PhD at Institute of Child Health, London. For 10 years, she was based in Africa as the Director of Evidence and Policy for Saving Newborn Lives/Save the Children.

She currently serves as Co-Director of the MARCH Centre (Maternal Adolescent Reproductive & Child Health) at London School of Hygiene & Tropical Medicine. Her main contribution to global health has been developing the evidence-base to measure and reduce the global burden of 2.5 million neonatal deaths, >2 million stillbirths, and 15 million preterm births, including informing Sustainable Development Goal targets. She has published >320 peer-reviewed papers with a H-index of >110, including leading several Lancet series, with wide media and policy uptake. She and her research team work on multi-country studies regarding newborn health, stillbirths and child development worldwide, including large scale implementation research on small and sick newborn care with NEST360 network and novel work on Group B Streptococcus with WHO and others. She is on WHO's STAGE committee, and Global Statistics committee. She is a champion for equitable and diverse research leadership. Joy is one of the few women nominated to membership of both UK Academy of Medical Sciences and USA National Academy of Medicine.

Session Chairs



Aluvaala, Jalemba, Mb.Ch. B, M. Med, DLSHTM, MSc, DPhil

Jalemba Aluvaala is a post-doctoral researcher with an interest in perinatal-neonatal clinical and health services research. He co-leads the neonatal component of the Clinical Information Network (CIN) under Prof. Mike English at the KEMRI-Wellcome Trust Research Programme in Nairobi, Kenya. The CIN for Neonates focuses on inpatient units serving small and sick neonates in Kenyan hospitals. Research interests include understanding neonatal outcomes, implementation research, pragmatic clinical trials and evidence synthesis for essential inpatient neonatal care. He is also a member of the Ministry of Health Technical Working Group on Neonatal Health. In addition, he holds a research track post as a Research Fellow/Lecturer and Consultant Paediatrician at the Department of Paediatrics and Child Health, School of Medicine, University of Nairobi and Kenyatta National Hospital respectively.

Aluvaala is a Paediatrician with an Mb.Ch. B and M. Med (Paediatrics and Child Health) from the University of Nairobi. He also holds a Master of Science in Epidemiology (London School of Hygiene and Tropical Medicine) and a Doctor of Philosophy in Clinical Medicine (University of Oxford). He has authored research articles and technical reports in the areas of Clinical Epidemiology and Health Services Research.



Dr. Angela Migowa

Dr. Migowa is the Founding President of the Paediatric Society of the African Society of the African League Against Rheumatism (PAFLAR) and co-founder of Kenya Women In Health Alliance. She is an Assistant Professor and Pediatric Rheumatologist in the department of Pediatrics and Child Health at Aga Khan University Nairobi, Kenya. She completed a post-doctoral fellowship in Pediatric Rheumatology at McGill University Health Centre, Montreal-Canada and holds a Masters in Paediatrics and Child Health (AKUH). She is currently a PHD Candidate at University of Ghent in Belgium and her research work is focussed on addressing diagnostic challenges for paediatric rheumatic diseases in Kenya.

Her interests include Rheumatology, Clinical Immunology, Adolescent Medicine, Leadership and Governance. She is currently a member of the Paediatric Rheumatology European Society (PRES) global taskforce, PRES Lupus Working Group, PRES Scientific Committee and involved in collaborations with the Kenya Pediatric Association, ArthRheuma Society of Kenya, Allergy Society of Kenya, Association of Women in Rheumatology(AWIR), African League Against Rheumatism(AFLAR), Swiss based JIR Cohort, Canadian Rheumatology Association(CRA), American College of Rheumatology(ACR), European League Against Rheumatism (EULAR), Medical Women's International Association(MWIA) and Women Leaders in Global Health Movement(WLGH).

In order to raise awareness for pediatric rheumatology and primary immunodeficiencies, she has held several lectures and conference presentations across Africa, Europe and North America among medical students, doctors, nurses and patient support groups. She has pioneered the implementation of the first A project in Kenya aimed at raising awareness for primary immunodeficiencies in Africa. She partners with patient support groups such as International Patient Organisation for Primary Immunodeficiencies (IPOPI) and Rare Disease Society of Kenya to raise awareness and advocate for patients with rheumatological and other rare diseases. Through collaborative efforts of the PAFLAR Leadership team, they have secured grants to carry out educational activities across Africa in Paediatric Rheumatology which culminated in the Premiere Virtual PAFLAR Congress and publication of 97 abstracts in the Oxford Journal showcasing Paediatric Rheumatology Research across Africa to the global community. She is a certified RCUK EPLS Instructor.

She was recently declared winner of Top 40 under 40 women by Business Daily Africa as one of the most influential women in Kenya <https://top40.businessdailyafrica.com/candidates/dr-angela-migowa/> and featured in the global Lancet Journal for her advocacy in Paediatric Rheumatology [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)00572-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00572-4/fulltext)

Dr. Anne-Marie Macharia



Dr. Anne-Marie Macharia is a Senior Paediatric Infectious Disease Consultant at Kenyatta National Hospital. She led the Covid response for children at the hospital and is the unit head for Paediatric Infectious Disease. Her areas of interest include paediatric and adolescent HIV, Covid in children, Antimicrobial Stewardship, and vaccinology. She is a Co-PI in a CDC funded AMS grant investigating Candida auris. She is a member of the Kenya Paediatric Association, the Infectious Disease Society of Kenya and the European Society for Paediatric Infectious Diseases.

Dr Audrey Chepkemoi



Dr Audrey Chepkemoi is a Medical Doctor currently serving as a neonatologist at Moi Teaching and Referral hospital, Eldoret, Kenya. She also teaches as an adjunct lecturer at the Moi University, school of medicine. She has expertise in neonatology, pediatrics and child health. She also has a postgraduate fellowship in paediatric nutrition.

Dr Audrey also has interest in research, She current involved in several research projects in neonatology. Dr Audrey did her neonatology fellowship at university of Witwatersrand, South Africa and a has masters of medicine in Child health and pediatrics from Moi University, Kenya. She did her undergraduate at the University of Nairobi.



Dr. Catherine Mutinda

Dr. Mutinda serves as a pediatrician within the Nairobi City County and the National Secretary to the Kenya Pediatrics Association board. She received her medical degree from 1st faculty of Medicine, Charles University Prague, the Czech Republic, Masters of Medicine in Pediatrics and Child Health from the University of Nairobi, and a Master of Science in Medical genetics and genomics from the University of Glasgow, Scotland.

She has been involved in several operational research. She was involved in setting up the Kangaroo Mother Care and breastmilk bank under one roof at the Pumwani Maternity Hospital, helping the hospital attain the prerequisites a baby-friendly hospital as envisioned by the WHO. She committed to growing the practice of genetics in Kenya.



Dr Doreen Karimi Mutua

Pediatric Hematologist/Oncologist, Gertrude's Children's Hospital

Dr Mutua is a pediatrician whose passion for children with blood disorders and cancer was ignited during her residency training at the University of Nairobi where she noticed that most of these children had dismal outcomes due to late presentation, lack of appropriate diagnostic and treatment facilities.

Dr Mutua is a beneficiary of a two year training program conducted as a twinning program between Jimma University (Ethiopia) and ASLAN Project (a USA based Non-Governmental organization) that seeks to build capacity of low and middle income countries in treating children with blood disorders and cancer. She completed her training in May 2018 and returned back to Kenya to establish hematology/oncology services that include centers of excellence for pediatric cancer care and comprehensive sickle cell care at the Gertrude's Children's Hospital.

She is passionate about raising awareness on childhood cancer with regard to early detection, establishing treatment guidelines and improving outcomes of Kenyan children who have cancer. She is also keen on seeing the establishment of comprehensive sickle cell centers in the country which can help reduce the morbidity and mortality of these patients.



Dr. Elizabeth Kiragu

Dr. Elizabeth Kiragu is a Paediatric Allergy specialist and full time faculty based at the Aga Khan University Hospital, Nairobi. She attended the University of Nairobi and attained her undergraduate degree and her Masters in Paediatrics and Child Health in 2005 and 2012 respectively. She completed a 2 year fellowship at the University of Cape Town and attained a Diploma in Allergy 2016, and a Certificate in Paediatric Allergy in 2017. Dr. Kiragu has established comprehensive allergy services within the Paediatric Department of Aga Khan University Hospital. She has a special interest in food allergies, asthma and allergy advocacy. She is the current Chair of the Allergy Society of Kenya and a member of the Kenya Paediatric Association, European Academy of Allergy and Clinical Immunology and the European Respiratory Society.



Dr. Eric Ngetich

Eric Ngetich is a Paediatrician / Neonatologist based at the Moi Teaching and Referral Hospital. He did his 2-year Neonatal-Perinatal Medicine training (June 2021) at Western University, London, Ontario Canada. He did his MB;ChB (2000) and MMed(Paeds) (2009) at the University of Nairobi. His research interests are in neonatal nutrition, ventilation, POCUS, and hemodynamics.



Dr Felicitas Makokha Okwako

Dr Felicitas Makokha Okwako is a consultant Paediatrician at Bungoma County referral hospital currently pursuing a clinical Fellowship in Neonatal Perinatal Medicine at the University of Nairobi/KNH. She holds a Bachelor of Medicine and Surgery degree from the University of Nairobi and a Master of Medicine- Paediatrics and Child Health from Moi University.

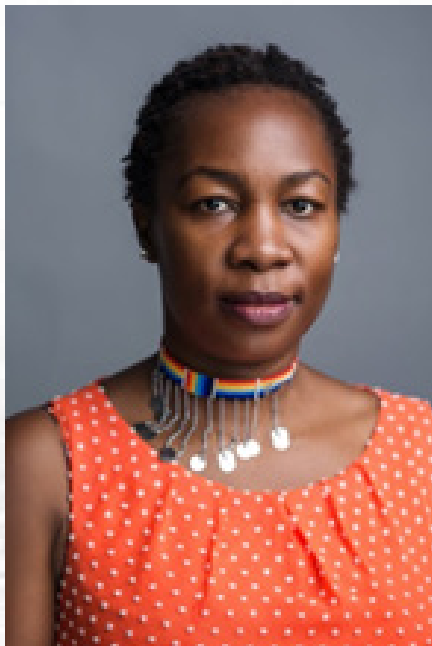
Her work has focused on improving survival of premature and low birth weight infants through implementation of Kangaroo mother care in Bungoma County and prevention of mother to child transmission of HIV (PMCT) as Co-Chair of the Nyanza-Western HIV regional technical working group. She is also part of the NEST360 facility implementation team, a NEST and ETAT+ trainer and a member of the Kenya Paediatric Association.



Dr. Justus Maingi Simba MBChB, PhD.

Dr. Simba is a Senior Lecturer and Acting Dean, School of Medicine, Jomo Kenyatta University of Agriculture and Technology, Kenya. As Consultant Paediatrician/Respiratory Medicine Specialist he serves as the lead of the paediatric respiratory service at Mama Lucy Kibaki Hospital, Nairobi, Kenya.

He has special interest in evidence-based medicine more so in paediatric respiratory medicine, as well as in advancing child health in the country. He has published several peer reviewed articles in the field of respiratory medicine among others. Apart from being involved in KPA, Dr. Simba is also an active member of the Respiratory Society of Kenya, PanAfrican Thoracic Society as well as the European Respiratory Society.



Dr. Laura Bonareri O. Angwenyi

Dr Laura Bonareri O. Angwenyi is the Head of Neonatal and Child health division at Ministry of Health, Kenya. She is a Consultant Pediatrician and Child health expert having worked at the Ministry of Health as a clinician in various health facilities and later at district, provincial and National level as a public health technical expert.

In her previous role as the head of Paediatric and Adolescent HIV services at National AIDS STI Control Program, she was instrumental in changing the Paediatric and Adolescent HIV landscape in Kenya through innovations in identification, treatment and support for Children and Adolescents Living with HIV. She was part of the global experts team convened by UNICEF to develop a Paediatric HIV service delivery framework.

During the COVID-19 pandemic she took leadership and support in development of the National guidance for continuity of neonatal and paediatric health services; Provision of Home-based care for infants and children infected with COVID-19, Managing COVID-19 infections in Children with special needs and development of COVID-19 guidelines for Health care workers and community health volunteers.

Her goal is to influence policy at National, Regional and Global level through Strategic leadership and ensure access to quality health care for children everywhere.



Dr. Lawrence Owino Okong'o

Dr. L. Okong'o is a lecturer, department of Paediatrics, University of Nairobi (UoN). He attained his undergraduate (MBChB) and postgraduate (MMed) degrees from UoN and holds an MPhil. degree (University of Cape Town) and a fellowship certificate from the colleges of medicine of south Africa (CMSA) in Paediatric Rheumatology.

He previously served as a pediatrician in Several county hospitals in Kenya; Wau Teaching Hospital South Sudan (2011-13) and Red Cross Children's Hospital (2013-15), Cape Town during his Paediatric Rheumatology training. He is a member of Paediatric Rheumatology European Society (PReS) and the Paediatric Rheumatology International Trials Organization (PRINTO).

He is passionate about promoting education for economic empowerment and serves in various school boards in Siaya county and in the board of Kenya Paediatrics Research Consortium (KEPRECON). Other than Paediatric Rheumatology, his other interests are in Vaccinology and serves in the board of East and Central Africa Vaccines Institute (ECAVI). He is the current alternate to the chairperson representing the division of Paediatrics at the Medical Advisory Committee (MAC), Gertrude's Children's hospital.



Dr. Maureen Njoroge

Dr. Maureen Njoroge is a consultant paediatrician currently pursuing her paediatric neurology fellowship at the Aga Khan University Hospital. She is also an author for the International League Against Epilepsy. Her interests include epilepsy, headache, developmental delay and neuromuscular conditions. In addition to other neurologic conditions, she has a keen research interest in ADHD.



Dr. Sam Gwer , MBChB, FRCPC, PhD

Sam is a child neurologist based in Nairobi, Kenya. He is a senior lecturer at the school of medicine, Kenyatta University, and a member of the faculty for the Child Neurology Fellowship programme in Kenya. He also serves as one of the lead consultants at Ubuntu Neurology and as a visiting consultant at Gertrude's Children's Hospital. He implements an epilepsy outreach programme for rural communities through a network of primary health care centres (Ubuntu-Afya Kiosks) in Kenya. He has research interests in infectious encephalopathies, sickle cell disease, epilepsy, and health system solutions for under-served settings. He has been the recipient of a number of international awards in child neurology and programme grants to support his work on access to health care in underserved settings.



Dr. Rashmi Kumar

Dr Rashmi Kumar is a Consultant Pediatrician/Pediatric Intensivist/Lecturer from University of Nairobi. She heads the Pediatric Critical Care Unit at the Kenyatta National Hospital and is currently actively involved in the Emergency and Critical Care fellowship program. She is an executive board member in the Global Initiative of Children's Surgery (GICS) group, involved in bringing up the care of critically ill surgical children in LMICs.



Dr. Susan Wamithi

Dr. Susan Wamithi is a developmental paediatrician at Aga Khan University, Nairobi. She completed her undergraduate degree in biology at Birmingham-Southern College, USA, Doctor of medicine degree - St. George's University School of Medicine, Grenada, Masters in Medicine Paediatrics and Child Health at Aga Khan University Nairobi. She proceeded to Holland Bloorview Kids Rehabilitation Hospital-University of Toronto for her clinical fellowship in Developmental Paediatrics.

Dr. Wamithi is the scientific chair - Eastern African Academy of Childhood Disability (EAACD). Serves in the research and best practice committees of the International Alliance of Academies of Childhood Disability (IAACD). She served as the AKU team lead COVID-19 MOH special needs guidelines. Serves in the COVID-19 Task force for the International Alliance of Academies of Childhood Disability (IAACD). She is the project director, Kenya – Early childhood development project: KPA/AAP



Dr. Thomas Ngwiri

Thomas Ngwiri is Head Clinician at Gertrude's Children's Hospital since February 2010. He is also Director of the Paediatric endocrinology training centre for Africa (PETCA) - Nairobi which trains paediatricians from sub-Saharan Africa in the field of diabetes and other endocrine disorders. He is the Program Lead for the Kenya Paediatric Fellowship Program (KPFP) at KPA. He has been a member of the Kenya Paediatric Association board since 2010 and is the immediate former National Chair of the association. He has previously served on the executive committee of the Africa society for Paediatric and Adolescent endocrinology (ASPAE). Thomas Ngwiri has published work on diabetes mellitus in children and on developing education programs in paediatric endocrinology in Africa..



Dr. Waceke Kombe

Waceke's interests are in Paediatric Gastroenterology, Hepatology and Nutrition as well as medical education. Her vision is to see the children of Kenya and Africa thrive and become instrumental members of society. This can only be achieved if they are brought up in an environment that carries out preventative as well as curative high quality services that are affordable. She works at the Aga Khan University Hospital as a Paediatric Gastroenterologist and also Program Director for the Paediatric Residency program.

Conference Program

Tuesday 10th May 2022

Pre-Congress Sessions

Track 1: Emergency and Critical Care | Session Chair - Dr. Rashmi Kumar

Time	Title	Speaker
8:00 am - 8:15 am	Registration	
8:15 am - 8:30 am	Introduction	Dr. Rashmi Kumar
8:30 am -9:00 am	Biophysics of Ventilation (Lecture & Virtual Sim)	Dr. Idris Chikophe
9:30 am -10:00 am	Mechanisms of Respiratory Failure(Lecture) - Abnormalities of Gas Exchange - Altered Lung Mechanics	Dr. Idris Chikophe
10:00am - 10:15 am	Q & A	
10:15 am -10:45 am	TEA BREAK	
10:45 am - 11:30 am	Modes of Ventilation(Chatburn Classification)(Lecture)	Dr. Idris Chikophe
11:30 am - 12:30 pm	Ventilation for Non-Respiratory Organ Failure(Severe Head Trauma & Severe Metabolic Acidosis: Virtual Sim)	Dr. Idris Chikophe
12:30 pm - 12:45pm	Q&A	
12:45 pm -1:45 pm	LUNCH	
1:45 pm - 2: 45 pm	Ventilation for Parenchymal Lung Disease (Paediatric ARDS: Virtual Sim)	Dr. Idris Chikophe
2:45 pm - 3:45 pm	Ventilation for Airway Disease (Paediatric Asthma: Virtual Sim)	Dr. Idris Chikophe
3:45 pm - 4:00 pm	Feedback	

Track 2: The Year in Review | Session Chair - Prof. Ruth Nduati

8:00 am - 9:00 am	To Mask or not to Mask	Prof. Ruth Nduati
9:00 am - 10:15 am	Adolescent Mental Health	Prof. Ruth Nduati

10:15 am - 10:45 am	TEA BREAK	
10:45 am - 12:00 pm	Controversies around cooling	Prof. Ruth Nduati
12:00 pm - 1:00 pm	Chamas for child health	Prof. Ruth Nduati
1:00 pm - 2:00 pm	LUNCH BREAK	
2:00 pm - 3:00 pm	New evidence for HPV vaccination	
3:00 pm - 4:00 pm	Quality systems improvement	Prof. Ruth Nduati
4:00 pm - 5:00 pm	Evidence for shortened antimicrobial courses	Prof. Ruth Nduati
Track 3: Paediatric Ophthalmology Session Chair - Dr. Sarah Sitati		
8:00 am - 8:40 am	Common Paediatric Eye Conditions	Dr. Sarah Sitati
8:40 am - 9:20 am	Retinoblastoma	Dr. Lucy Njambi
9:20 am - 10:20 am	Retinopathy Of Prematurity	Dr. Oscar Muwale Onyango
10:20 am - 11:00 am	Q&A	
Track 4: Practice updates for paediatric and neonatal care Session Chair: Dr. Jalemba Aluvaala		
8:30 am - 9:00 am	Welcome and introductions	Dr. Jalemba Aluvaala
9:00 am - 9:15 am	Opening Remarks	Dr. Caroline Mwangi
9:15 am - 10:30 am	What's new in the 2022 Basic Paediatric Protocols	MoH Team
10:30 am - 11:00 am	TEA BREAK	
11:00 am - 12:45 pm	Improving referral services for children	Dr. T. Njoroge/C. Wanyama/ Prof. A. Agweyu
12:45 am - 2:00 am	LUNCH BREAK	
2:00 pm - 2:20 pm	Immediate Kangaroo Mother Care and Survival of Infants with Low Birth Weight	Dr. Jalemba Aluvaala
2:20 pm - 2:40 pm	Mothers experience of care in NBU	Justinah Maluni
2:40 pm - 3:00 pm	Audits	Dr. Muthoni Ogola
3:00 pm - 3:45 pm	AMR in admitted children	Dr. Sam Akech
3:45 pm - 4:00 pm	Closing remarks	Prof. Mike English
Wednesday 11th May 2022		
Track 6 - Common Neonatal Disease: What Works, What might Work, What might not Work Session Chair - Dr. Audrey Chepkemai		
8:10 am - 8:25 am	HATCH Executive Director's Speech	Dick Oranja
8:30 am - 9:30 am	Key Note Speaker/Guest Speaker	Dr. Audrey Chepkemai

9:35 am - 9:45 am	Hatch Products Introduction	Cliff Osoo
9:50 am - 10:20am	Bilirubinometer Introduction	Danica Kumara
10:25 am - 10:55 am	T E A B R E A K	All
11:00 am - 1:00 pm	NEST360: Enhancing Neonatal Care through Health Technologies	Dr. Emily Njuguna
1:05 pm - 2:00 pm	L U N C H B R E A K	All
2:05 pm - 2:15 pm	New Approach to Customer Service	Eng. Ali Khalid
2:20 pm - 2:30pm	Mediglobe Solutions Ltd	Abdul Bagha
2:35 pm - 4:00pm	Q & A Session, Hands-On Session	Vince Gate-Lead Simon/Alex/ Ali-Demo
Track 7 – Endocrinology – Growth in Practice Session Chair – Dr. Thomas Ngwiri		
8:30am - 9:15 am	Normal growth (ICP model)	Dr. Bernardine Lusweti
9:15 am - 10:00 am	Growth in puberty (Normal + abnormal)	Dr. Paul Laigong
10:00 am - 10:30 am	TEA BREAK	All
10:30 am -12:00 pm	Practical Session a. Growth Charts infants, > 2 years boys & girls: WHO/CDC; Plotting b. Measuring scales – weighing, infantometer, stadiometer c. Orchidometer	All
12:00 pm - 12:45 pm	Abnormal growth (pathological & non-pathological)	Dr. Thomas Ngwiri
12:45 pm - 13:00 pm	Panel Discussion	All
13:30 am -12:00 pm	Practical Application	All
Track 8: The Hematology-Oncology Session Chair: Dr. Doreen Mutua		
2:00 pm - 2:20 pm	Updates on Childhood Cancer Services In Kenya	Dr. Alfred Karagu
2:20 pm - 2:40 pm	Pediatric Radiation Oncology: The Good, The Bad and The Ugly	Dr. Solomon Mutua
2:40 pm - 3:00 pm	Child life practice in Oncology: Our experience	Dr. Elizabeth Kabuthi
3:00 pm - 3:20 pm	Newborn screening for SCD in Kisumu Couny: The CONSA Initiative	Dr. Benard Awuonda
3:20 pm - 3:40 pm	Transcranial Doppler in Dummies: Our experience	Dr. Sam Gwer
3:40 pm - 4:00 pm	Clinical trials in Sickle cell disease: Our experience	Prof. Jessie Githanga
4:00 pm - 4:20 pm	Transition care in Pediatric Haematology/Oncology	Dr. Doreen Karimi

4:20 pm - 4:40 pm	Case studies on Interesting haematology cases	Dr. Beatrice Kabera
4:40 pm - 4:55 pm	Sponsor Presentation	Dr. Maureen Mukanga
4:55 pm - 5:00 pm	Closing remarks	Dr. Doreen Karimi
Track 9 – Neurology Session Chair – Dr. Sam Gwer		
8:45 am - 9:00 am	Introduction: Sessions and Speakers	Dr. Sam Gwer
9:00 am - 9:40 am	Paediatric Neuromuscular Disease: Physiology and Pathophysiology	Dr. Sam Gwer
9:40 am - 10:20 am	The Floppy Infant	Dr. Nicholas Odera
10:20 am - 10:50 am	TEA BREAK	
10:50 am - 11:20 am	New Therapies and Outcomes in SMA	Marjorie Illingworth & Southampton Team
11:20 am - 12:00 pm	Managing Spinal Muscular Atrophy: The Kenyan Experience	Dr. Maureen Njoroge & Dr. Sam Gwer
12:00 pm - 12:45 pm	Multi-Disciplinary Approach to Neuromuscular Disease	Marjorie Illingworth & Southampton Team
12:45 pm - 1:45 pm	LUNCH BREAK	
1:45 pm - 2:10 pm	An Update on TB Meningitis	Prof. Pauline Samia
2:10 pm - 2:35 pm	Acute Infectious Encephalopathies	Dr. Jane Hassel
2:35 pm - 3:00 pm	Clinical Presentation and Outcomes for HHV6 Positivity in the CSF	Dr. Winnie Akoth and Dr. Janet Maranga
3:00 pm - 3:25 pm	Paediatric Auto-Immune Encephalitis	Dr. Nicholas Odera
3:25 pm - 3:50 pm	Navigating DNR Considerations in the Paediatric ICU: The GCH Experience	Dr. Margaret Adoyo
3:50 pm - 4:05 pm	Sponsor Engagement	Daniel Gachuche
4:05 pm - 4:15 pm	Interactive Closure	Dr. Sam Gwer
Track 10 - Hepatology Session Chair – Dr. Waceke Kombe		
8:00 am - 8:15 am	Introductions	Dr. Waceke Kombe
8:15 am - 8:45 am	Overview of liver function tests	Dr. Aabha Nagral
8:45 am - 9:15 am	Jaundice in the newborn. What should the paediatrician need to know.	Dr. Ahmed Laving
9:15 am - 9:45 am	Biliary Atresia	Dr. Waceke Kombe
9:45 am - 10:00 am	Q&A	
10:00 am - 10:30 am	TEA BREAK	

10:30 am - 11:00 am	Jaundice in the older child	Dr. Rose Kamenwa
11:00 am - 11:30 am	Tropical infections causing liver diseases	Dr. Victor Bandika
11:30 am - 12:00 pm	Upper GI bleed/ Portal hypertension	Dr. Juliana Muiva
12:00 pm - 12:30 pm	Basics of paediatric liver transplant	Dr. Aabha Nagral
12:30 pm -1:00 pm	Q&A	
Track 11 – Allergy - Living with allergies; the long haul Session Chair – Dr. Elizabeth Kiragu		
2:00 pm - 2:05 pm	Registration	KPA
2:05 pm - 2:10 pm	Welcoming remarks	Dr. Elizabeth Kiragu
2:10 pm - 2:35 pm	Early life determinants of allergic disease	Dr. Evelyne Nganga
2:35 pm - 3:00 pm	Living with severe food allergy; a mother's perspective	Dr. Rita Yumbe Kiattu
3:00 pm - 3:25 pm	FPIES - the allergy that shocks	Dr. Priya Bowry
3:25 pm -3:50 pm	Atopic eczema- food allergy or not?	Dr. Leah Githinji
3:50 pm - 4:15 pm	Transitioning the asthmatic child into adolescence	Dr. Adil Waris
4:15 pm - 4:35 pm	Insect allergies - Ouch, that sting!	Dr. Elizabeth Kiragu
4:35 pm - 4:55 pm	Question and answer session	All faculty
4:55 pm - 5:00 pm	Closing of session	Dr. Evelyne Nganga
Track 12 – Respiratory : Life course approach to child health Session Chair: Dr. Justus Simba & Dr. Mwanaisha Hatimy Omar		
8:00 am - 8:30 am	Arrival and Registration	
8:30 am - 8:50 am	Lung Development and the environment	Dr. Francis Ogaro
8:50 am - 9:10 am	Pneumonia: What is new?	Dr. Sam Otido
9:10 am - 9:30am	Management Childhood TB Sequelae	Dr. Mwanaisha Hatimy
9:30 am - 9:50 am	HIV-Related Chronic Lung Disease	Dr. Leah Githinji
9:50 am - 10:20 am	Oral Abstract Presentation	Dr. Eva Wainaina
10:20 am - 10:50 am	TEA BREAK	
10:50 am - 11:10 am	The Wheezing under 5: When it is not asthma	Dr. Adil Waris
11:10 am - 11:30 am	Dealing with Childhood Asthma Stigma: What do you do?	Dr. Justus Simba
11:30 am - 11:50am	Rare Lung Diseases in Kenya: Are they rare?	Dr. Diana Marangu
11:50 am - 12:10pm	Drug Delivery in Respiratory Medicine during COVID-19: Which way?	Dr. Everlyne Agisa
12:10 am - 12.30 pm	Sponsor Talk	Partners

12:30 am - 1:00 pm	Q and A	All
Track 13 – Telemedicine Session Chair: Dr. Carole Waweru		
2:00 pm – 2:15 pm	Introduction of the session	Dr. Carol Waweru
2:15 pm – 2:45 pm	The role technology companies should play to increase telemedicine adoption in Kenya	Ms. Violet Wandaho Njuguna
2:45 pm – 3:15 pm	Daktari Smart Program: Connecting 6 counties to paediatric specialists	Mr. Peter Kanda
3:15 pm – 3:45 pm	Is telemedicine, through mobile telephony, the solution to help curb self-medications?	Dr. Radha Karnad
3:45 pm – 4:15 pm	What is the value of telemedicine from an insurer's perspective?	Cigna International
4:15 pm – 4:45 pm	Panel discussion and Q&A	All
Thursday 12th May 2022		
Plenary - Session Chair: Dr. Juliana Otieno Chair Lake Basin Branch – Life course approach to child health		
8:00 am - 9:00 am	Registration	
9:00 am - 9:10 am	Welcome address	Dr. Catherine Mutinda - National secretary, KPA
9:10 am - 9:30 am	Importance of promoting Early Childhood Development: A Global Perspective	Dr. Sharon Smile- <i>University of Toronto, Holland Bloorview Kids Rehabilitation Hospital</i>
9:30 am - 9:50 am	Malaria Vaccine dissemination	Dr. Rose Jalango - NVIP, Ministry of Health
9:50 am - 10:15 am	Child Wellbeing and Life Cycle Approach	Dr. Fatima Gohar - UNICEF
10:15 am - 10:30 am	Universal Health Coverage	Dr. Njeri Gitau - Presidential Delivery Unit
10:30 am - 10:50 am	How hospital data help map out key causes of Newborn-Child-Adolescent morbidity and mortality: The case of Clinical Information Network in Kenya	Prof. Grace Irimu - University of Nairobi & KEMRI Wellcome Trust
10:50 am - 11:05 am	TEA BREAK	
Plenary - Session Chair: Dr. Twahir Hemed Chair Coast Branch – Life course approach to child health		
11:05 am - 11:20 am	Entertainment	
11:20 am - 11:35 am	Opening Address	Dr. Lawrence Okong'o Owino - National Chair, KPA

11:35 am - 11:50 am	Childhood mortality during and after acute illness in Africa and S. Asia: a cohort study - Virtual Attendance	Prof. James Berkley - KEMRI Wellcome Trust
11:50 am - 12:15 pm	Keynote Presentation: Lifecourse: fake news and facts for us as paediatricians	Prof. Joy Lawn - <i>London School Maternal and child health</i>
12:15 pm - 12:35 pm	Guest of Honor	Dr. Caroline Mwangi- Division of Neonatal & Child Health, MoH
12:35 pm - 1:00 pm	Poster Viewing	
1:00 pm - 2:00 pm	LUNCH	
Track 14 – Emerging Infectious Diseases Session Chair – Dr. Anne Marie Macharia/ Dr. Mithwani Sadik		
2:00 pm - 2:20 pm	Viral Haemorrhagic fevers	Dr. Christine Chege
2:20 pm - 2:40 pm	Influenza	Dr. Ombeva Malande
2:40 pm - 3:00 pm	Visceral Leishmaniasis	Dr. Beth Maina/Dr. Evaline Baya
3:00 pm - 3:20 pm	Re-emerging infections	Dr. Wahu Gitaka
3:20 pm - 3:40 pm	Next Outbreak preparedness	Dr. Joseph Mbutia
3:40 pm - 4:00 pm	Plenary/Q and A session	All
Track 15 – Cardiology Session Chair – Dr. Naomi Gachara & Dr. Bakari Mwashambi		
2:00 pm - 2:20 pm	The cardiac lesions with “silent murmurs”	Dr. Bonifase Osano
2:20 pm - 2:40 pm	Syncopal attacks, what are the cardiac diseases associated with syncopal attacks?	Dr. Martin Mbiata
2:40 pm - 3:00 pm	Rheumatic heart disease: When is it Rheumatic Heart disease?	Dr. Sean Del Rossi
3:00 pm - 3:20 pm	Relevance of evaluation of neonates at 2 weeks and 6 weeks of age	Dr. Naomi Kiniu
3:20 pm - 3:50 pm	Paediatric heart Failure	Dr. Gladys Njihia
Track 16 – Neonatology Session Chair – Dr. Eric Ngetich & Dr. Felicitas Makokha		
2:00 pm - 2:20 pm	High Frequency Oscillatory Ventilation: the Kenyatta National Hospital NICU Experience	Dr. Brian Maugo - Neonatologist

2:20 pm - 2:40 pm	Coagulopathy and Thrombocytopenia in asphyxiated neonates undergoing therapeutic hypothermia in Kenyatta National Hospital Newborn Unit.	Dr. Rachel Kanguha Mmene Co-authors: Prof. Aggrey Wasunna and Dr. Lawrence Owino
2:40 pm - 3:00 pm	Outcomes of neonates born through meconium stained amniotic fluid at Thika Level 5 hospital	Mogaka. N. F. Co-authors: Kimani R.J., Wafula T. A., Mwangi W. J., Chepkoech M. and Mureithi N. F.
3:00 pm - 3:20 pm	Familial Chylomicronemia. A Case report from MTRH	Dr. Audrey Chepkemoi Co-authors: Ngetich E, and Prof. Nyandiko W. M.
3:20 pm - 3:40 pm	RDS Updates	Dr. John Khamenwa
3:40 pm - 4:00 pm	ROP Updates	Dr. Gachago
Track 17 – Dermatology - Management of common childhood skin conditions Session Chair – Dr. Bernard Gichina		
2:00 pm - 2:15 pm	Bacterial/viral infections	Dr. Meichi Quek
2:15 pm - 2:30 pm	Scabies and other infestations	Dr. Edel Karau
2:30 pm - 2:45 pm	Fungal/yeast infections	Dr. Meichi Quek
2:45 pm - 3:00 pm	Acne	Dr. Bernard Gichina
3:00 pm-3:30 pm	Panel discussion	Presenters
Track 18 - Nutrition Session Chair – Dr. Ahmed Laving		
2:00 pm - 2:20pm	Updates in management of malnutrition.	Dr. James Berkely
2:20 pm - 2:40pm	Obesity in Kenya?	Dr. Ahmed Laving
2:40 pm - 3:00 pm	Multivitamin supplements: are they really necessary?	Dr. Peter Ngwatu
3:00 pm - 3:20 pm	The picky eater.	Dr. Polycarp Mandi
3:20 pm - 3:40 pm	Gluten intolerance in developing countries : fact or fiction.	Dr. Rose Kamenwa
3:40 pm - 4:00 pm	Q& A	
4:30 pm - 6:00 pm	Annual General Meeting & Election Results	
7:00 pm	Annual Scientific Networking Night	

Friday 13th May 2022		
Plenary Session <i>Session Chair – Dr. Laura Oyiengo - Life Course Approach To Child Health</i>		
8:30 am - 9:00 am	Poster Viewing Session	
9:00 am - 9:15 am	Sickle Cell Disease	Dr. Deborah Omeddo - Kisii Teaching and Referral Hospital
9:15 am - 9:30 am	Vaccines: State of the Art	Dr. Vincent Kioi - International AIDS Vaccines Initiative
9:30 am - 9:50 am	Mortality due to Pediatric Abuse Clinically Mischaracterized as Natural Death, Insights from a Pediatric Autopsy Series	Dr. Edwin Walong - University of Nairobi
9:50 am - 10:10 am	Adolescents need a trained workforce: How do you score?	Prof. Susan Sawyer - University of Melbourne
10:10 am - 10:30 am	The role of the Paediatrician in mental health	Dr. Josephine Omondi - Kenyatta National Hospital
10:30 am - 10:45 am	Community Acquired Pneumonia - Evolving Microbial Etiology in the Era of Pneumococcal Conjugate Vaccines	Dr. Adeel Shah - Agence de Médecine Préventive
Track 19 – Adolescent Mental Health <i>Session Chair – Dr. Lawrence Owino - KPA National Chair</i>		
11:00 am - 11:20 am	Understanding the adolescent brain	Dr. Kelvin Gitau
11:20 pm - 11:40 pm	Rep MOH Updates on Programmatic activities around adolescent and school health	Dr. Christine Wambugu
11:40 pm - 12:00 pm	Adolescent Vaccines with focus on ISS and IMIDS.	Dr. Ombeva Malande
12:00 pm - 12:30 pm	Sleep deprivation as cause of mental stress in Adolescents	Prof. Ruth Nduati
12:30 pm - 1:00 pm	Helping Adolescents to Thrive	Dr. Terezah Alwar
1:00 pm - 1:30 pm	Adolescents need a trained workforce: How do you score?	Prof. Susan Sawyer
Track 20 – Vaccinology <i>Session Chair – Dr. Wahu Gitaka</i>		
11:00 am - 11:30 am	Role of Vaccines in Preventing Infectious Diseases and Antimicrobial Resistance	Dr. J. K. Mbutia
11:30 pm - 12:00 pm	The changing landscape of meningococcal disease in Africa- Making the case for a tetravalent vaccine ACYW135	Dr. Ombeva Malande
12:00 pm - 12:30 pm	Vaccine for the child Immunocompromised Child	Dr. Christine Chege
12:30 pm - 1:00 pm	Covid-19 vaccination in children	Dr. Anne-Marie Macharia

1:00 pm - 1:30 pm	Challenge of malaria vaccines and of their potential introduction	Dr. Sam Aketch
Track 21 – Bridging the Silos in Special Needs Care Session Chair – Dr. Susan Wamithi		
11:00 am - 11:05 am	Introduction	Dr. Susan Wamithi
	<i>Family Centered Care for special needs children</i>	
11:00 am - 11:15 pm	Access to justice for persons with special needs	Jaki Mathaga
11:15 am - 11:30 pm	Providing collaborative care for children with down syndrome	Lily Mwai
11:30 am - 11:45 pm	Family-Professional partnerships for children with rare diseases	Roselyn Kanja Odera
11:45 pm - 12:00 pm	Panel Discussion	
	Re(habilitation) Interventions for children with special needs	
12:00 pm - 12:15pm	Neurosurgical interventions for children with special needs	Dr. Grace Muthoni
12:15 pm - 12:30pm	Optimizing independence and physical functioning for children with special needs	Fonda Ruiter
12:30 pm - 12:45pm	Orthopedic interventions for children with cerebral palsy	Dr. Njalalle Baraza
12:45 pm - 1:00 pm	Panel discussion	
	Early Childhood Development (ECD): American Academy of Pediatrics & Kenya Paediatric Association Project	
1:00 pm - 1:15 pm	Paediatric societies role in promoting early childhood development	Dr. Reshma Shah
1:15 pm - 1:30 pm	Advocating for early childhood development in the counties	Dr. Florence Oringe
1:30 pm - 1:40 pm	Training paediatricians on the fundamentals of early childhood development	Dr. Rosemarie Lopokoityit
1:40 pm - 1:50 pm	Sustaining early childhood development work in the region	Dr. Caroline Mwangi
1:50 pm - 2:00 pm	Panel Discussion	

Track 22 – Leadership & Governance Session Chair – Dr. Angela Migowa		
11:00 am - 11:35am	Vision in Volatile Circumstances	Ms. Teresa Njoroge
11:35 am-12:10 pm	Communication in Leadership and Governance	Dr. Sam Kamau
12:20 pm - 12:30 m	Q&A Session	
12:30 pm -13:05pm	Policy to Action	Dr. Rose Oronje
13:05 pm - 3:25pm	Third delay in emergency and critical care: case studies of patient journeys in public hospitals in Kenya	Onyango O. et al
13:25 pm - 13:45 m	Leadership in the Integration of Clinical Care Pathways and Laboratory Medicine	Dr. Angela Migowa
13:50 pm - 14:00pm	Q&A Session	
Session Chair- Dr. Catherine Mutinda		
11:00 am - 11:20 am	Genetic test. Which one?	Dr. Mutinda Catherine
11:20 am - 12:00 pm	Newborn screening, local possibilities	Dr. Rabia and lancet group
12:00 pm - 12:20 pm	Approach to the funny looking child	Dr. Mutinda Catherine
12:20 pm - 12:40 pm	Ichthiosis congenital: A case presentation	Dr. Bernad Gichina
12:40 pm - 1:00 pm	Q&A	
1:30 pm - 3:00pm	LUNCH TIME[Rapporteur's Summary, Conference Resolution & Closing Ceremony]	

Book of Abstracts

MODIFIABLE FACTORS AND INCIDENCE OF NECROTISING ENTEROCOLITIS AT A TERTIARY CARE HOSPITAL IN KENYA

ABSTRACT

Background

Necrotizing enterocolitis (NEC) is a common gastrointestinal emergency. Eighty percent of the cases occur preterm infants born at ≤ 37 gestation weeks. The incidence of NEC stage IIa - IIIb varies across neonatal intensive care units (NICU) globally and multiple risk factors have been reported with varying association. We aimed to determine the incidence and modifiable risk factors for NEC in preterm infants at a private tertiary care hospital in Kenya.

Methodology

This retrospective cohort study evaluated the incidence and the modifiable risk factors of NEC (Stage IIa – IIIb) in preterm infants born between August 2009 and August 2019 at ≤ 32 weeks' gestation with a birth weight of ≤ 1500 grams. Simple and multivariate logistic regression analyses was used.

Results

A total of 200 records met the inclusion criteria. NEC was diagnosed in 15 preterm infants. Modifiable risk factors identified included antenatal exposure to glucocorticoids (OR=0.056 CI=0.003-0.964 $p=0.047$), duration of exposure to invasive mechanical ventilation (OR=2.172 CI=1.242-3.799 $p=0.007$) and duration of exposure to umbilical vein catheterization (OR=1.344 CI=1.08-1.672 $p=0.008$). The incidence of NEC was 12.5% amongst extremely low birthweight (ELBW) preterm infants compared to 4.9% in very low birthweight (VLBW) preterm infants. The overall incidence for the study period was 7.5%.

Conclusions

Antenatal glucocorticoids, duration of mechanical ventilation, and duration of umbilical vein catheterization are independent modifiable risk factors. These factors should be considered and included in NEC predictive models in our NICUs. The overall incidence of NEC Stage \geq IIa in VLBW and ELBW was similar to the globally reported incidence.

INCIDENCE OF VENTILATOR-ASSOCIATED PNEUMONIA IN THE CRITICAL CARE UNIT AT KENYATTA NATIONAL HOSPITAL, A PUBLIC TERTIARY CARE HOSPITAL

F. A. A. Sattar¹, D. S. Quadros²

1.Department of Anesthesia, University of Nairobi, Kenya

2.Department of Pediatric Cardiology, Aga Khan University Hospital, Nairobi Kenya

Abstract

Background: Ventilator-associated pneumonia (VAP), a severe type of hospital-acquired pneumonia develops 48-72 hours after initiation of mechanical ventilation.

Methods: A hospital-based, prospective cross-sectional study aimed to determine incidence of VAP using the Clinical Pulmonary Infection Score (CPIS) which combines clinical, radiographic, physiologic and microbiological data into a numerical result, ranging from 0 to 12, and to identify risk factors associated with its development. A secondary objective was to assess the diagnostic utility of a positive culture of pathogenic bacteria on tracheal aspirate in predicting a positive culture on a mini-Broncho Alveolar Lavage (Mini-BAL).

Results: Of the 92 patients studied, 50 had a CPIS of ≥ 6 , an incidence of 54.4% (C.I. 44.0-64.7%). Factors that appeared to show an association with VAP included documented aspiration (OR 2.0), a high nurse to patient ratio (OR 4.0), post-surgical patients (OR 2.5) and those who were nasally intubated (OR 4.0) and those with oral candidiasis (OR 3.5). Of the 50 patients that showed a CPIS of ≥ 6 , 46 (92%) patients had a positive culture on tracheal aspirate and 31 (62%) patients demonstrated a positive mini-BAL culture. The sensitivity and specificity of a positive tracheal aspirate in predicting a positive mini-BAL culture were 100% (C.I 88.7-100.0%) and 21.1% (C.I 6.2-45.6%) respectively. Negative predictive value of 100.0% (C.I 40.2-100.0%) and a positive predictive value of 67.4% (C.I 52.0-80.5%).

Conclusion: Our study, the first documented in East Africa, found a high incidence of VAP. Further studies are needed to compare the diagnostic utility of various invasive and non-invasive tests for diagnosis of VAP.

A RAPID ASSESSMENT TO EXPLORE SUPPORTS AND BARRIERS TO RECOMMENDED TUBERCULOSIS(TB) GUIDELINES INCLUDING HEALTHCARE SEEKING BEHAVIOUR, SCREENING, DIAGNOSIS, AND TREATMENT.

Authors: *Wainaina E.¹, Ogada E.¹, Grant A.², Nduati R.¹*

Affiliation:

¹ Department of Paediatrics and Child Health, University of Nairobi, Kenya.

² Department of Paediatrics, University of Washington, Seattle.

Background: Efforts to end TB requires adherence to stipulated TB guidelines. Strengthening systematic screening of contacts of people with TB helps identify patients. Children less than 5 years of age in contact with a smear-positive index case should be provided preventive chemotherapy. Drug adherence monitoring is important for reduction in morbidity and mortality. To encourage people to seek early intervention, there is a need to enrich community knowledge and awareness of TB. The objective of this study was to understand healthcare seeking behaviour, TB screening, diagnosis and treatment practices in Bomachoge- Borabu Sub – County, Kisii and to identify barriers and supports to following recommended TB guidelines.

Methods: Qualitative research methods were employed to including free listing survey, key informant interviews, focus group discussions, community resource mapping and home visit.

Results: There are knowledge gaps in the causes and transmissibility of TB at the community level. TB screening at the periphery level is limited. Diagnosis of TB could be improved by enhancing diagnostic facilities and training of health care workers. Efforts at prophylaxis are hampered by commodity shortage. There is a well-organized system of defaulter tracing. Health seeking behavior is influenced by cultural beliefs.

Conclusion: Dissemination of knowledge about TB to the community is important to assist in healthcare seeking and to reduce stigma. Appropriate screening, diagnosis and prophylaxis of TB is currently hampered by inadequate resources within the community. Cultural beliefs are important determinants of health seeking behaviour. Resources are required for successful management of TB at the community level.

BUILDING CAPACITY FOR YOUNG RESEARCHERS IN FOUR KENYAN UNIVERSITIES.

Mburugu P¹., Nduati R²., Obimbo E²., Makworo D³., Simba J¹., Lusweti B⁴., Munyendo C⁴., Kawira R³., Emadau C⁵., Jowi L⁵., Mutisya K³., Ongecha F⁶., Wamalwa D².

Jomo Kenyatta University of Agriculture and Technology, Child Health and Paediatrics, Juja.

University of Nairobi, Paediatrics and Child Health, Nairobi.

Jomo Kenyatta University of Agriculture and Technology, School of Nursing, Juja.

Thika Level V Hospital, Paediatrics Department, Thika.

Mama Lucy Kibaki Hospital, Department of Paediatrics, Nairobi.

Kenyatta University, School of Medicine, Nairobi

Abstract

Background: Building capacity in research for undergraduate students can be a defining factor for their future careers in research. Integration of research in main stream medical curricula improves critical thinking skills and research-oriented approaches in medical practice. Very few universities in Kenya have integrated research training in their undergraduate medical curricula.

Methods: The Health Professional Education Partnership Initiative (HEPI) developed an innovative 10-week research elective that targets medicine, nursing and pharmacy students completing clinical undergraduate (bachelors) degrees at 4 Kenyan universities. Students learn basic implementation science research methods in the classroom for 1 week before constituting a multidisciplinary team to implement a project at one of the teaching hospitals affiliated with their institution.

Results: A total of 240 students across the four universities have been trained. Among the main competencies gained include skills in conducting health research and use of health findings to improve health. The students have conducted microprojects in interprofessional teams in county hospitals, disseminated results to county health teams and published four manuscripts in peer reviewed journals.

Conclusions: Introduction of early mentored research experiences to undergraduate health professionals promotes scientific output.

Acknowledgments: Health-Professional Education Partnership Initiative (HEPI)- Kenya, Grant no: R25TW011212

POST ANGIOCARDIOGRAPHIC UROGRAM; ITS IMPORTANCE IN SCREENING FOR SILENT URINARY TRACT ANOMALIES IN PATIENTS WITH CONGENITAL HEART DEFECTS

Del-Rossi S. Quadros¹, Kothandam Sivakumar²

1 Department of Pediatric Cardiology, Aga Khan University Hospital, Nairobi Kenya

2. Department of Pediatric Cardiology, Institute of Cardio Vascular Diseases, Madras Medical Mission, Chennai, Tamil Nadu, India

Abstract:

Introduction: Cineurography after any angiocardiology acts as a screening tool for detecting occult congenital urinary tract disease. Such a renal screening has shown substantial utility in early detection of renal pathology even four decades ago. In the past, when angiocardiology was the principal diagnostic tool, all forms of congenital heart diseases were subjected to this mode of investigation.

Methods: A retrospective observational survey of fluorographic images of the renal excretory system was carried out on all consecutive patients, who underwent an angiogram at Madras Medical Mission, Institute of Cardiovascular Diseases, between the January 2015 and January 2016. The prevalence and type of urologic abnormality was analysed.

Results: Four hundred and fifty-three patients were included. The mean age was 9.4 ± 1.65 years. Prevalence of urinary tract abnormality seen by post angiographic urogram was 13.7% (95% C.I 11.0 – 17.4). Of those with abnormal urograms, 92% (58/63) of patients had a normal Glomerular filtration rate (GFR), while 8% showed some degree of kidney dysfunction.

Conclusion: Cineurography at the end of angiographic studies acts as a good screening tool for detecting occult congenital urinary tract disease which can be intervened if detected early. Higher resolution ultrasonograms identify more detailed renal anomalies however, ultrasonography is not yet recommended as a routine protocol to screen for cardiac interventions, unless there are specific clinical or biochemical pointers to an associated renal anomaly.

SUCCESSFUL PALLIATION FOR HYPOPLASTIC LEFT HEART SYNDROME (HLHS)

Del-Rossi S. Quadros¹

¹ Department of Pediatric Cardiology, Aga Khan University Hospital, Nairobi Kenya

Introduction

Hypoplastic left heart syndrome (HLHS), a rare but complex heart abnormality characterized by either hypoplasia of the left ventricle or systemic inflow and outflow tracts or both. Without intervention, these types of cardiac defects are universally fatal.

Case Presentation

A 3-day old male baby, born at term via LSCS with birth weight of 2.75 Kgs, developed cyanosis, decreased feeding and breathing difficulty requiring mechanical ventilation at a local hospital. Echo showed aortic atresia, severely hypoplastic ascending aorta with mild isthmic hypoplasia with an inadequate sized LV, there was a large 6 mm PDA supplying descending aorta and with retrograde filling of the arch and ascending aorta. Other significant findings were a large sub pulmonic VSD, large ASD with adequate biventricular systolic function. After sternotomy, bilateral PA band was done plus a reverse BT shunt from MPA to innominate artery with a 4mm graft. Baby had an uneventful post op period and was shifted to the ward on the 3rd post-op day and finally discharged on the 10th post-op day with fairly stable hemodynamics.

Discussion

Tremendous progress has been made over the past 3 decades in the management of HLHS. The survival of this population of babies born with HLHS has now surpassed the initial expectations. The management of these babies puts a financial burden both on the family as well as hospital resources with focus mainly directed to providing medical attention to those cardiac conditions that have better survival rates, compared to conditions as complex as HLHS. A common theme is the need for institutional commitment, expertise, and experience for optimal results for the care of these fragile and complex patients.

MORTALITY DUE TO PEDIATRIC ABUSE CLINICALLY MISCHARACTERIZED AS NATURAL DEATH, INSIGHTS FROM A PEDIATRIC AUTOPSY SERIES

Author: Dr Edwin Walong. Mbchb, MMed (pathology), FC Path ECSA

Consultant pathologist, lecturer, Anatomic Pathology Unit, School of Medicine, University of Nairobi

ABSTRACT

Background: Yearly, 74,000 children die in Kenya before attaining the age of 5 years. Mortality rates among pre-adolescents are unknown. According to the KDHS 2014, under 5 mortality rates of 25 per 1000 live births were recorded. The manner of death assigned to these deaths were largely natural. Autopsies are rare in these circumstances. Because of this, deaths related to pediatric abuse (non-accidental injury, sexual abuse) are thought to be rare. I describe a series of pediatric deaths initially classified as natural death, but at autopsy, found to be due to child abuse.

Objective: To identify and describe fatal child abuse mis-classified as natural death.

Materials & Methods: Autopsies were performed as part of the study, 'Pediatric Respiratory Disease Surveillance Study', which, as part of an influenza surveillance program, recruited deceased study subjects for complete diagnostic autopsy, at Kenyatta National Hospital, between 2014 and 2017. Additional cases were recruited from pediatric autopsies due to various reasons, such as perioperative mortality. Complete diagnostic autopsies were performed by a team of pathologists. Diagnostic features on gross pathology, histopathology and infectious disease diagnostics were documented.

Results: A total of 68 autopsies were performed. Out of these, 11 cases (16%) had evidence of non-accidental injury that were sufficient for reclassification as the immediate cause of death. Skull fractures and traumatic brain injury were observed in 5 cases, retroperitoneal injury and hemorrhage identified in 3 cases, traumatic subarachnoid and subdural hemorrhages seen in 1 case. Fatal multiple injuries including sexual abuse was seen in 1 case. One pre-adolescent had evidence of penetrative sexual abuse, pelvic inflammatory disease and gonococcal infection. Overall, traumatic injuries were mainly observed among boy children, while sexual abuse was observed among two female children.

Conclusion: Physical and sexual abuse appear to cause or contribute to 16% of all pediatric mortalities. Increased index of suspicion and regular complete diagnostic autopsies are essential for pediatric injury surveillance.

Keywords: PEDIATRIC SEXUAL ABUSE, PEDIATRIC PHYSICAL ABUSE, NON-ACCIDENTAL INJURY, AUTOPSY.

AN ASSESSMENT OF CARE OF CHILDREN WITH SCD AT VIHIGA COUNTY REFERRAL HOSPITAL (VCRH)

Authors

Kirwa Kiplagat, Marire Fanuel, Otieno Ochieng, Awuonda B. O.

Affiliation

Maseno University,

Background

Sickle cell disease is a hematological disorder caused by a point mutation in the beta globin chain resulting in defective hemoglobin that cannot efficiently transport oxygen to the various tissues and organs of the body. It affects 20-25 million people globally, with 75% of these being in Sub-Saharan Africa. Prevalence in Western part of Kenya is estimated at 0.8%-4.5% for SCD and 5-30% for sickle cell trait. Inadequate comprehensive care characterizes our health systems with resultant increase in morbidity and mortality. Effective management would include early diagnosis, and early therapeutic interventions such as appropriate pain management, oxygen therapy, fluid therapy, infection management with antibiotics including penicillin prophylaxis, hydroxyurea, nutrition and psychosocial support.

Broad objective: To assess the care of children with SCD aged 0-12 years admitted at VCRH between August 2018 and July 2021.

Method: Study was conducted in pediatric ward. A cross sectional study, targeting children aged 0-12 years with a diagnosis of SCD. Purposive sampling technique was used. Data collection was through Quality of SCD Management Observation Sheet (QSMOS), a questionnaire and interviews with key informants. Data entered into Microsoft Excel, cleaned and coded appropriately. SPSS used for quantitative analysis and report presented in texts, tables and figures. Thematic analysis was used for qualitative data. Ethical approval was sought from Maseno ERC.

Results: Out of the total pediatric admissions in that period (n=3999), children with SCD were 112 giving a prevalence of 2.8%. About 53% of these were below 5 years. Males represented 59%. Only 23% of the parents were in formal employment. Payment for treatment was mostly out-of-pocket (67%), with only 28% having some form of insurance (NHIF). The commonest clinical presentations were: pain (83%), anemia (83%), jaundice (51%), and splenomegaly (45%). Appropriately prescribed medications were noted as: hydroxyurea (13%), folic acid (40%), pen V (64%), morphine (48%), fluids (24%) and blood transfusion (21%). Poor levels of care were associated with adverse outcomes such as death, prolonged hospital stay and other complications. Higher hemoglobin at presentation was associated with significantly higher odds of a good outcome. Having a medical insurance was associated with better care and outcomes. Emerging themes included: inadequate commodity supply and stock-outs; health care workers fear giving morphine to children; patients cannot afford proper investigations like HPLC or Hb electrophoresis; and, drugs for SCD are not part of essential drugs.

Conclusion: there is need to lobby government so that drugs for SCD are part of essential drugs. Patients and parents of children with SCD should be encouraged to enroll in health insurance including NHIF. More training on appropriate prescription is needed. The SCD guidelines should be disseminated widely for ease of access by health care workers,

ASSESSMENT OF CHILD HEALTH NEEDS, HEALTH-SEEKING BEHAVIORS AND COMMUNITY RESOURCES AMONG CHILDREN 5 – 14 YEARS DURING THE COVID – 19 PANDEMIC

Authors: *Kayiza A.¹, Kakibibi P.¹, Pak-Gorstein S.², Nduati R.¹*

Affiliation:

¹Department of Pediatrics and Child Health, University of Nairobi, Nairobi

²Department of Pediatrics, University of Washington, Seattle

Background: Globally, the COVID-19 Pandemic has had profound effects on the well-being of children of all age groups, this effect was projected to be worse in low-middle- income countries. The objective of this assessment was to determine the child health needs, health-seeking behaviors and identify resources for addressing child health among children 5 – 14 years in Bomachoge Borabu sub- county, Kisii, Kenya, during the COVID 19 pandemic.

Methods: Community-based participatory research methods were used including **Free-listing questionnaires, Key informant interviews, Focus Group Discussions, Community asset mapping, Educational baraza** and **Observation through a child home visit**. Open-ended questions were asked in all methods. Kenya Sub- County hospital data on causes of morbidity and mortality in children 5 – 14 years of age was also obtained.

Results: Four major themes that arose on the needs of these children were Basic needs, Health Care, Parenting needs and Adolescent Needs. 85% of caregivers mentioned use herbal medications before going to hospital. The factors they consider when seeking health care include; age of child and type of illness, financial capability, distance, and waiting time in the health facilities. There was increased hesitancy for caregivers to visit health facilities during the COVID-19 pandemic. And importantly, the prolonged closure of schools led to children engaging in casual labor, an increase in teenage pregnancies, early marriage, child abuse, substance use, and school drop outs.

Conclusions: COVID-19 has had tremendous impact on the health of children between 5-14 years, which is likely to have lasting effects on their future health.

CHILDHOOD MORTALITY DURING AND AFTER ACUTE ILLNESS IN AFRICA AND S. ASIA: A COHORT STUDY

Group authorship: The Childhood Acute Illness and Nutrition (CHAIN) Network

The CHAIN Network, hosted at KWTRP P.O Box 43640 – 00100, 197 Lenana Place, Off Lenana Road, Nairobi.

Abstract

Background

Mortality during acute illness among children in low- and middle-income settings remains unacceptably high and the importance of post-discharge mortality is increasingly recognised. A more comprehensive understanding of the incidence, timing and contributions of proximal and underlying exposures underlying mortality among acutely ill children is needed to develop interventions and improve guidelines.

Methods

We enrolled a cohort of acutely ill children, stratified by anthropometry aged 2-23 months admitted to nine hospitals in sub-Saharan Africa and South Asia from 2016 to 2019. We assisted sites to comply with guidelines. Co-primary outcomes were mortality within 30-days from admission and post-discharge mortality within 180-days from discharge. A priori exposure domains, including demographics, clinical and anthropometric characteristics at admission and discharge, and child-, caregiver- and household-level characteristics, were examined in regression and structural equation survival models (SEM).

Results

Of 3101 participants (median age 11 months), 1218 were severely wasted/kwashiorkor, 763 moderately wasted and 1120 were not wasted. Of 350/3100 (11%) deaths overall, 234 (67%) occurred within 30-days of admission and 168 (48%) within 180-days after discharge. Ninety (54%) post-discharge deaths occurred at home. The proportion of children who died post-discharge was relatively preserved across nutritional strata. Numerically large high and low risk groups could be disaggregated for both early and post-discharge mortality. Structural equation models identified direct pathways to mortality and multiple socioeconomic, clinical and nutritional domains acting indirectly through anthropometric status.

Conclusions

Among diverse sites in Africa and South Asia, almost half of mortality occurs post-discharge. Despite being highly predictable, these deaths are not addressed in current guidelines. A fundamental shift to a risk-based approach to inpatient and post-discharge management is needed to further reduce childhood mortality and clinical trials of these approaches with outcomes of mortality, readmission and cost are warranted.

Registration\Funding

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COMPLICATIONS FOLLOWING ADENOID REMOVAL SURGERY IN CHILDREN AT A PAEDIATRIC HOSPITAL KENYA

OCHIDO N. A. and KIMANI J. R.

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

ABSTRACT

Background

Adenoid enlargement may be physiologic or secondary to viral or bacterial infection, allergy, irritants, and, possibly, gastroesophageal reflux. Diagnosis is usually made on clinical basis in patient presenting with nasal obstruction, sleep disturbances, and middle ear effusions with hearing loss.

Diagnosis is enhanced by lateral neck x-ray and nasal endoscopy. Treatment includes intranasal corticosteroids, antibiotics and adenoidectomy for significant nasal obstruction or persistent recurrent acute otitis media or middle ear effusion. Postsurgical complications include: Bleeding (van den Aardweg MT et al., 2011), Velopharyngeal insufficiency (Gates GA et al., 1987). Torticollis (Potsic WP et al., 1988). Nasopharyngeal stenosis, atlantoaxial subluxation (Grisel syndrome), (van den Aardweg MT et al., 2011) mandibular condyle fracture (Gates GA et al., 1992) eustachian tube injury and anesthetic complication is postextubation stridor (Goldstein NA et al, 1998).

Methods

The study was carried out to identify postoperative complications following adenoidectomy in children at Gertrude's Children's Hospital in 2019. Using descriptive retrospective cross sectional study design. Data was collected using data abstraction forms, analyzed using statistical package for social sciences (SPSS) version 25.0 software and presented in tables, graphs and charts. A census method of data collection was used to look at all the 1053 cases in 2019.

Results

Bivariate analysis was done on the association between number of additional procedures and the number of symptoms per patient with the rate of complications. The two variables were found to be significant as $\alpha=0.05$ with chi square and p values of 20.1 and <0.000347 and 18.90 and <0.001 respectively.

Conclusion

Minor complications are the majority.

There is significant association between clinical features and procedures and postoperative complications.

Recommendation

Sensitization to educate the population about the importance of seeking health care services before complication of symptoms.

More research into the Health care seeking behavior at Gertrude's Children's Hospital, to find out factors influencing presentation of the patients at a complicated state.

PREVALENCE OF DEPRESSION AMONG CAREGIVERS OF HIV-INFECTED CHILDREN AGED 10 YEARS AND BELOW ON FOLLOW UP AT COMPREHENSIVE CARE CLINIC, KENYATTA NATIONAL HOSPITAL.

Authors: Kihiu, A.W, Nduati R.W, Mutai, B.C, Kumar, M.

Background: Depression is common among caregivers of children with chronic illnesses. HIV presents additional challenges since caregivers often are infected and dealing with their own ill health. We conducted this study to determine the prevalence of depression among caregivers of HIV infected children, and the association between caregivers' depression and viral suppression and ART adherence among children on follow up at KNH.

Methods: Using cross-sectional study design, participants were recruited from CCC. Caregiver depression was assessed using PHQ-9 questionnaire. Pill count record was used to assess children's ART adherence, while viral loads were abstracted from electronic records.

Results: 117 caregivers-child dyads were enrolled and 110 (94.02%) of the caregivers were female. The median age of the caregivers was 35 years (IQR (31-42 years), 78 (66%) were married and 52 (44%) had secondary education. Majority, 38 (34.23%) were casual laborers or 38 (34.23%) self-employed. The median age of children was 5 years (IQR 3-7 years). 95 (81.19%) had a parent as the primary caregiver. Overall 75 (64.1%) of the children had a viral load <1000 copies/ml, 95 (81.2%) were adherent to ART. Most children were on 1st line ART regimen with a median duration of treatment of 4 years (IQR (1.25-6 years)). The study found 53.6% of caregivers to exhibit symptoms of depression. Caregivers with moderate and moderately-severe depression had lower odds of having children with $\geq 95\%$ adherence to ART, AOR=0.015 [(0.001, 0.135) $p=0.000$] and increased odds of having children with viral load of >1000 copies/ml AOR=107.8 [(19.4, 599.1) $p=0.000$] compared to those with no depression.

Conclusion: There is a high prevalence of depression among the caregivers of HIV-infected children. Caregivers' depression adversely impacts on children's ART adherence and viral suppression.

OUTCOMES OF NEONATES BORN THROUGH MECONIUM STAINED AMNIOTIC FLUID AT THIKA 5 HOSPITAL, KIAMBU COUNTY

Authors: Mogaka N. E., Kimani R. J., Wafula T. A., Mwangi W. J., Chepkoech M., Mureithi N. F.

Affiliations: Health-professional Education Partnership Initiative (HEPI) Kenya and Jomo Kenyatta University of Agriculture and Technology.

Background: Neonates born through meconium stained amniotic fluid (MSAF) are associated with significant morbidity and mortality. Incidence of MSAF in Kenya is at 12.7% and 6.5% in Asia (Makomba, 2013; Shrestha et al., 2018). Some of the common MSAF complications include meconium aspiration syndrome and pneumonia (Gabriel et al., 2016). Interventions carried out include suctioning of the nose and mouth and also use of antibiotics (Lauren et al, 2015). Associated factors are prolonged labour, postdatism, and gestational diabetes. The researchers aimed to determine outcomes of neonates born through MSAF in Thika Level 5 Hospital between June to August 2021.

Methods: Cross-sectional descriptive ambispective study design used. Total sampling technique was employed where all mothers presenting with meconium-stained liquor and all neonates born through meconium-stained liquor were included. Data was collected using a predesigned proforma and analyzed by SPSS 26. Confounding variables were adjusted by stratification of data into categories.

Results: The hospital recorded 670 deliveries during the study period. 6.78% births were reported to have MSAF. The mean gestational age studied was at 38.89 weeks, SD=2.2. Presence of meconium stained amniotic fluid was graded at 3 levels, with the grade 3 being more common. 61.9% of the newborns received some resuscitation measures, involving BVM, suctioning and warming. 47.6% had complications and 35.7% necessitating admission in the new born unit.

Conclusion: The incidence rate of children born through meconium-stained liquor was found to be 6.27%. This was consistent with a study done in Dhulukhel hospital where the rate was 6.5% (Addisu et al., 2018). There was a significant association on development of complications and resuscitation, a major intervention. Other interventions included: suctioning, bag ventilation with mask, warming, monitoring of vital signs, physical examination during admission to the newborn unit. Following the study, the researchers recommended continuing medical education and training on resuscitation protocols among staff, longer-period studies and larger samples, and quality improvement initiatives in the hospital.

KNOWLEDGE, ATTITUDE AND PRACTICE OF FEMALE GENITAL MUTILATION AMONG WOMEN IN PRODUCTIVE AGE IN MCH HODAN DISTRICT IN MOGADISHU-SOMALIA

Author Dr Fatima Ismail Mohamed

Bsc. Human Nutrition, Capital University

Contacts: 00252616470703 Email drsfatimaismail@gmail.com

ABSTRACT

Background: Female Genital Mutilation (FGM) also known as Female Genital Cutting (FGC) is by definition the removal of female genitalia partially or completely for non-medical purpose. The former term is widely used by World health organization (WHO). FGM is a long-held tradition in the society of Somalia; it is practiced for a variety of reasons including socio-cultural reasons, varying from one ethnic group and region to another but the primary reason is that it is part of the cultural tradition and history of the community. FGM predates Islam and is also performed in some Christian communities whilst it is not practiced at all in many Muslim countries whatever the reason.

Methodology: The current researcher collected primary data using questionnaire and focus group discussion as a research instrument. Descriptive statistics were used. This study targeted a population of 323 subjects and as sample size is 149. The shape of the questionnaire in the demographic section is looked upon in terms of age, marital status, level of education and occupation analysis of data in this study was done concurrently with data collection. After data collection the questionnaires of respondents were sorted out accordingly; responses were verified, coded, categorized and entered into the computer using Statistical Package for Social Sciences (SPSS) version 20.0 Software.

Result: This study found that all participants 149 (100.0%) have an insufficient or even low level knowledge about FGM whereas 95(63.8%) respondents have neutral attitude and highly practice FGM. Interestingly, only 68 (45.6%) have shown positive attitude towards FGM and are likely to mutilate their daughters, while the 81(54.4%) did not like to mutilate their daughters. Indeed, the majority of respondents 97(65.1%) preferred that FGM practice should continue in the community, while only 52(34.9%) were against this practice in the community. The most of respondents 103(69.1%) did not try to make any intervention against FGM practice, while the only 46(30.9%) are in favor to make an intervention against FGM.

Recommendations: The current study sheds light on the level of awareness of FGM in the community and thus recommends that the Government should conduct an awareness program for the community about FGM.

The researcher recommends that the Minister of Health (MoH) may inform the community about health problems that FGM can cause. One of main reasons why FGM is carried is to control women's sexuality, which is sometimes said to be insatiable if parts of the genitalia, especially the clitoris, are not removed. FGM is seen as part of a girl's initiation into womanhood and as an intrinsic part of a community's cultural heritage, sometimes myths about female genitalia. Inclusion, the outcome of this study highlights a growing need for new strategies to raise awareness and understanding of FGM and its health consequences.

Key words: Mutilation, Cutting, Circumcision, sexuality, genital

A CYCLE OF DYSFUNCTION LIMITS THE READINESS OF KENYAN HOSPITALS TO TREAT CRITICALLY ILL PATIENTS

Authors

Oliwa J., Onyango O., Mulenga T., McKnight J., English M.

Background

Reduced availability of materials, staff and structure commonly seen in LMIC settings are all known to directly limit the ability of a hospital to provide effective care to critically ill patients. However, critical illness care remains an under-researched topic in Kenya. We set out to explore how ready Kenyan hospitals of various levels are to deliver quality critical illness care through Essential Emergency and Critical Care (EECC).

Methods

We used a multi-method approach to explore various aspects of readiness for care of critical illness defined by EECC. We undertook a health facility assessment (HFA), in-depth interviews (IDIs) and patient journeys in five Kenyan facilities. HFA scores were expressed in percentages for each category. IDIs were thematically analysed using a grounded theory approach and patient journeys used to contextualise findings from the patient perspective.

Results

High percentage scores in the HFA for equipment, consumables and infrastructure (>80%) showed widespread availability of items required for identification and care of these patients. While the HFA conveyed a positive picture of availability, IDIs and patient journeys contrasted these findings by demonstrating how structural deficiencies lead to problematic processes emerging from coping mechanisms producing ineffective outcomes for patients.

Conclusion

Our study suggests Kenyan facilities are not ready to deliver effective Emergency Essential and Critical Care. While our HFA shows availability of basic materials to provide EECC, our qualitative work shows lack of consistency in standard of care for critically ill patients due to significant failures in processes and management throughout the patient journey. Addressing long-standing ways that limit the quality of care critically ill patients receive will ensure Kenyan facilities are ready to deliver quality critical illness care.

KNOWLEDGE AND PRACTICE OF PAEDIATRICIANS REGARDING HELICOBACTER PYLORI INFECTION IN CHILDREN

Authors

Aura M¹, Rose K¹, Waceke K²

Affiliation

^{1,2}Aga Khan University Hospital, Nairobi

Department of Paediatrics and Child health.

Background: Helicobacter pylori is one of the most common chronic bacterial infections. It affects more than half of the world's population and is majorly associated with peptic ulcer disease, gastric carcinoma and other extra gastrointestinal manifestations. A third of the children globally are infected with H pylori. The highest burden is in low and middle income countries. In Kenya the prevalence stands at 87% among school going children and 50% in children under 3 years.

Methods: We conducted a descriptive cross sectional study. All paediatricians registered under the Kenya Medical Practitioners and Dentists Council (KMPDC), were eligible for the study. The estimated minimum sample size required for the study was 220. An online questionnaire from a similar study was adopted with permission to reuse. It had 13 items inclusive of data on demographic characteristics, questions on knowledge and practice. Knowledge and practice were treated as composite variables

Results: A total of 217 paediatricians completed the questionnaire (98% response rate). Two thirds of the respondents scored less than 50% in both knowledge and practice. Paediatricians performed better in the individual questions assessing knowledge compared to those that assessed practice. Paediatricians who had ever attended CME activity on H pylori were 16 times more likely to have good knowledge and practice scores. ($p < 0.001$, OR 16.66; 95%CI: 7.66-38.89)

Conclusions: This study showed that paediatricians had overall poor knowledge and practice regarding childhood H pylori. It also highlighted that having attended CME activity on childhood H pylori was associated with higher scores in knowledge and practice. There is need to develop education initiatives to disseminate information regarding childhood H pylori among paediatricians.

CLINICIANS' PERCEPTIONS OF PEDIATRIC ASSENT FOR INVASIVE BEDSIDE PROCEDURES AT THREE TERTIARY REFERRAL HOSPITALS IN NAIROBI COUNTY, KENYA.

Authors: Omondi G.P, Migowa A, Weru J, Orwa J.

Affiliation: Aga Khan University Hospital, Nairobi.

Background: Information is important for an individual to be autonomous when making informed healthcare decisions. Consent or assent is then obtained. Paucity of literature regarding pediatric assent for clinical treatment specifically clinicians' perceptions towards the same necessitated a study to help to shape the context of pediatric assent in clinical practice in Kenya.

Methods: A descriptive mixed method cross-sectional study carried out among clinicians in the pediatric units at three tertiary referral hospitals in Nairobi between July 2020 and June 2021. It entailed filling in self-administered questionnaires and participation in semi-structured interviews. A perception index score was used to analyze perceptions and the results supported by thematic quotes. Associations between predictor and outcome variables were analyzed using chi square test and logistic regression used to analyze the emergent significant factors.

Results: Up to 75% of the 241 participants were familiar with the term assent and its importance. A high perception index score was noted among 50.2% of the participants who were mostly female. Despite being familiar with the concept of assent, 67.2% would still proceed with an invasive bedside procedure even if the child dissented.

Up to 72.6% were not aware of any local laws or guidelines informing the practice of assent. Upon multivariate analysis, a high perception score was significantly associated with the female gender (aOR: 2.40, 95% CI: 1.29–4.46) and working in both inpatient and outpatient departments.

Conclusions: Majority of the participants were familiar with the concept of assent. However, 67.2% would still proceed with an invasive bedside procedure despite the child dissenting especially if the parent had already consented and the benefits outweighed the risks. A major gap identified is the lack of knowledge regarding the local laws and guidelines informing on the practice of obtaining assent in clinical practice. Assent was thus viewed to be important for informing the child about a procedure at the clinician's discretion but not as an important component of decision making in clinical practice.

COMPLIANCE TO NUTRITIONAL SUPPLEMENTS AMONG CHILDREN 9 - 23 MONTHS WITH MODERATE ACUTE MALNUTRITION (MAM) PARTICIPATING IN A RANDOMIZED CONTROLLED TRIAL (RCT).

Muchina M.¹, Inziani M.¹, Olack B.¹, Ouma L.¹, Melby P.², Melby C.³, Otieno P.¹

¹Kenya Medical Research Institute, Nairobi; ² University of Texas Medical Branch, Galveston; ³Colorado State University, Fort Collins.

Background: RCTs are widely considered to be the gold standard for demonstrating intervention effects. Participant compliance to interventions is the hallmark in response to treatment and appropriate interpretations of effects. We report the pattern of compliance to either fish oil or vegetable oil used to enhance the standard of care among children with MAM.

Methods: Study participants were randomized to receive either vegetable oil or fish oil flavored with lemon to mask any differences in taste. Children were also on regular Corn Soy blend for management of MAM. Data was collected using self-report forms filled by caregivers daily over a 12-week period.

Results: A total of 80 children with MAM were enrolled to the study. Of the expected 6,720 records, 5,620 (83.6%) were available for analysis. With 2,800 (49.8%) from fish oil while 2,820 (50.2%) from vegetable oil arm respectively. Overall, 4,831 (86.0%) reported good swallowing of the supplements, while 286 (5.1%) spit out, 248 (4.4%) refused, 205 (3.6%) were not given and 50 (0.9%) vomited. Among those on fish Oil compared to those on vegetable oil respectively: Swallowing well was 85.9% versus 86.1% (OR: 0.98), spitting out was 6.1% versus 4.1% (OR:1.4), vomiting was 1.0% versus 0.8% (OR: 1.3), refusal was 2.9% versus 5.9% (OR: 0.47) and not given 4.2% versus 3.1% (OR:1.35).

Conclusion: The findings show that refusal rates were higher in the control compared to the intervention arm however the other events related to ingestion were similar.

A MISSED DIAGNOSIS !!

Murila F, Kuria M, Gatumbu M
University of Nairobi

Background: Congenital malaria is defined as presence of malarial parasites in the peripheral smear of the newborn from 24 hours to 7 days of life. It is indistinguishable from neonatal sepsis in terms of clinical features and a high index of suspicion is necessary.

Methods: The authors report a case of cerebral malaria as a cause of neonatal death on post-mortem in a high endemic malaria zone.
Results: A 42 day old infant was born via SVD at 24 weeks gestation with very low birth weight (VLBW) 1300g. Apgar score 5 at 1 min, 5 at 5 min and 6 at 10 min. Additionally, baby was diagnosed with respiratory distress syndrome (RDS). The neonate was managed for prematurity, VLBW, RDS. While in the nursery went through a stormy course with neonatal sepsis, neonatal jaundice, necrotizing enterocolitis, anemia of prematurity and unconfirmed PDA. Concurrently, the baby also had non communicating hydrocephalus due to aqueductal stenosis. Finally, the baby succumbed due to what looked like disseminated intravascular coagulopathy. Post-mortem findings showed plasmodium falciparum in the blood and CSF and features of cerebral malaria on examination of the brain.

Conclusions: This case report emphasizes the need of early diagnosis and treatment of neonatal malaria even in malaria endemic zones to prevent neonatal mortality.

NEWBORN SCREENING FOR SICKLE CELL DISEASE IN KISUMU COUNTY: THE CONSA INITIATIVE

Author

Awuonda B.O.

Affiliation

Maseno University and Jaramogi Oginga Odinga Teaching and Referral Hospital, Kenya.

Background: Globally, about 300 000 newborns delivered annually have SCD, and 75% of these are in Sub-Saharan Africa. About 50-90% of these children die before their 5th birthday, with most of them undiagnosed. In Western part of Kenya, birth prevalence of SCD and SCt are 1-4.5% and 5-30%, respectively. The goal of newborn screening is early detection, diagnosis and early therapeutic interventions to forestall SCD-related morbidity and mortality. The consortium on newborn screening in Africa (CONS) was formed in 2016 and currently has 7-member countries: Nigeria, Ghana, Uganda, Tanzania, Zambia, Liberia and Kenya. Members receive support from the American Society of Hematology and Perkin Elmer to carry out early diagnosis, therapeutic interventions, and follow-up comprehensive care for 5 years, with data entered into a central database.

Objective: Demonstrate the effectiveness of laboratory based newborn screening, early intervention services and comprehensive follow-up for at least 5 years. Annually we aim to screen about 10, 000 newborns.

Method: All healthy newborns are approached and screened by heel-prick onto DBS kits, before discharge or at first clinic visit. Pre-collection parental education and consent is sought. The collected samples are transported to the reference lab at JOOTRH where testing is done using the MiGele system and IEF technique. Results are relayed to parents within 2 weeks. Those with positive results are re-tested for confirmation, and enrolled into comprehensive follow-up.

Results: Kenya site at JOOTRH commenced screening in November 2021. A total of 2330 newborns screened so far, out of which 50 (males=29, females=21) are positive for SCD, giving an incidence of 2.15%. Another 376 are HbAS (16%). So far, 20 of the positive newborns are enrolled into follow-up care at JOOTRH. Challenges encountered include inadequate parental education, lack of finances for logistical support to parents, and lack of subsidies on pharmaceuticals.

Conclusion: Newborn screening is feasible and scalable with adequate budgetary support. Early diagnosis and therapeutic interventions improve child survival and quality of life beyond 5 years. Financing options including medical insurance should be explored to increase access and prevent catastrophic expenditures.

CLINICAL OUTCOMES OF NEONATES BORN TO MOTHERS ON OPIOID SUBSTITUTION THERAPY (OST) WITH METHADONE IN KENYA

AUTHORS: OMWOHA J.A, NDUATI R, LAVING A.
UNIVERSITY OF NAIROBI, NAIROBI.

Background: Heroin use during pregnancy has been associated with high incidence of prematurity, low birth weight, Neonatal Abstinence Syndrome (NAS) and neonatal mortality. A retrospective cohort study was carried out on mothers on opioid substitution therapy (OST) with methadone and their neonates born in the period 1st January 2015 to 31st December 2019 from six Medication Assisted Treatment (MAT) clinics in Kenya.

Methodology: Mother/infant data was extracted from 81 patient files using a standard data collection tool, cleaned and transferred to STATA version 11.2 for analysis. Proportions were used as estimates of the prevalence of the three main outcome variables: LBW, NAS and neonatal mortality. Logistic regression analysis was conducted to test the factors associated with the outcome variables.

Results: The median age of the mothers was 31years, 95.1% had some formal education and 80.3% were unemployed. All the women were heroin users on OST; 87.7% and 65 (80.3%) reported cannabis and tobacco use respectively. The mothers had been on OST for a median 20 months (range:1-60) and were receiving a median of 90mg of methadone (range 0-245mg) just before delivery. 39.7% of the babies were low birthweight and median birthweight was 2550g. Independent predictors of LBW were maternal history of heroin IVDU AOR=5.7 (95% CI 1.7,18.9) p=0.004 and heroin used during pregnancy AOR=37.05 (95% CI 3.8,361.8) p=0.002]. 35% of neonates developed NAS. Maternal use of benzodiazepine was associated with a significantly reduced risk of NAS use, AOR=0.31 [95%CI 0.10-0.97) p=0.045]. 8.7% of the babies died. Risk of neonatal death was significantly reduced by methadone use (AOR=0.97[(95% 0.95,1.0) p=0.031] and increased by cocaine use AOR =12.85 [(95% 2.0,82.4) p=0.007].

Conclusion: Outcomes of neonates born to mothers on OST was poor, there is need for better interventions, education and emphasis on management of mothers and neonates in this population.

THE MAZE OF REFERRAL PATHWAYS FOR EMERGENCY AND CRITICAL CARE IN PUBLIC HOSPITALS IN KENYA

Authors

Onyango O., Oliwa J., Mulenga T., McKnight J., English M.

Background: In Kenyan level 4 and 5 hospitals, patients are referred in and out for reasons ranging from basic laboratory and radiological investigations to specialized and/or advanced care. For emergency and critically ill patients, the channels for referrals are essential in maintaining the urgency of care throughout the care points along the pathway.

Methods: This study is based on a ten-month qualitative study of Kenyan secondary-level hospitals. We employed a mix of seventeen in-depth interviews, observations during health facility assessments and during patient journey walkthroughs, field notes and informal conversations. The in-depth interviews targeted frontline nurses, unit in-charges, clinical officers and medical officers, and administrative healthcare workers. The HFAs assessed the hospitals' readiness to provide essential emergency and critical care. We followed seven patients from arrival at the emergency department till admission/referral. The qualitative data was transcribed and analysed in NVivo-12 Plus. Nodes containing information about referrals were aggregated to build themes.

Results: While hospitals and units have 'protocols' in place for referring patients out to other destination facilities, the practicality of referrals was an evident challenge. Arranging and execution of the referrals took between 2-8 hours. During these times, care is often withheld as the logistics were sorted out. Main challenges cited were lack of finances by the patients, ineffective intra/inter-facility communication and administrative challenges.

Conclusion: Our study revealed normalized long-standing referral systems that are unreliable in emergencies, in as much as they are functional. Emergencies in hospitals require prompt systems to transmit the urgency need across care points, therefore, there is need for swift, effective and reliable referral systems. Findings from our study can help fortify existing referral systems in hospitals.

IMPACT OF THE PROTECTING INFANTS REMOTELY BY SMS (PRISMS) ON NEONATAL CARE IN A DISTRICT HOSPITAL

Mary Asiimwe¹, Joan Kemigisa¹, Martin Mukama², Rosette Birungi³, Joy Batusa³, Santorino Data⁴

1. Kagadi Hospital, 2. E-Wall Technologies Company Ltd, 3. Clinton Health Access Initiative, Uganda, 4. Mbarara University of Science and Technology.

Introduction: The Protecting Infants Remotely by SMS (PRISMS) is a neonatal care decision support tool that uses routine assessment findings to provide instant clinical management suggestions. PRISMS consists of an assessment form, feeds calculator, and growth rate calculator at the front end and an analytical server at the back end. We aimed to describe newborn characteristics and the effects of PRISMS deployment on neonatal care in Kagadi Hospital.

Methods: Four frontline health workers were trained in Helping Babies Breathe, Essential Care for Every Baby and Essential Care for Small Babies and in PRISMS use. PRISMS was deployed in Kagadi Hospital during which case scenarios were utilized to familiarize clinical staff to PRISMS followed by real time use in clinical ward rounds. Three mentorship visits 4-6 months apart were conducted during which mentors participated in newborn care using the PRISMS technology in the morning and a Quality improvement meeting in the afternoon. A paired t test was used to compare in-facility neonatal mortality in months before and during PRISMS use. PRISMS was deployed for use in both the postnatal ward and Neonatal Intensive Care Unit (NICU).

Results

We report analysis of data collected over 10 months of PRISMS use (October 2020 - July 2021). A total of 3418 neonates were assessed 3507 times with the PRISMS technology. Babies in the NICU were 56.4% (1929/3418) of all babies in the database and contributed 56.3% (1976/3507) of all assessments.

The incidence of hypothermia (axillary temp < 36.5°C) in neonates assessed in maternity was 27.5%, with 91.2% of hypothermic babies having a temperature of < 35.5°C. The incidence of hypothermia among NICU neonates was 42.3% with 20.8% of hypothermic babies with temperatures of < 35.5°C. The incidence of inability to feed was 1.2% (19/1531) in maternity and 64.5% (1275/1929) among babies in NICU. A prolonged capillary refill time (> 3 seconds) was present in 0.1% and 9.9% of maternity and NICU assessments respectively. Chest indrawing was present among 0.4% (6/1531) and 11.6% (229/1976) of assessments in maternity and NICU respectively.

Mean in-facility neonatal mortality in NICU was 8 (95% CI: 3.1 - 12.9) pre intervention and 3.4 (95% CI: 2.3 - 4.5) in the PRISMS use period, $p = 0.0459$.

Conclusion: A combination of newborn care training, mentorship and PRISMS deployment reduced and sustained lower in-facility neonatal mortality over 10 months in a district hospital.

We recommend that the PRISMS technology be considered for routine in-facility care of neonates at scale.

VALIDATION OF POINT-OF-CARE SCREENING FOR SICKLE CELL DISEASE

Authors: De Vita M.V. ^{1,2,3}, Morino G. ^{1,2}, Omondong A. ³, Opondo E. ³, Orata N. ³, Oevermann L. ⁴, Maina H. ², Riro M. ⁵, Wafula K.C. ³

Affiliations: ¹ World Friends, Nairobi (Kenya); ² Ruaraka Uhai Neema Hospital, Nairobi (Kenya); ³ Children Sickle Cell Foundation, Nairobi (Kenya); ⁴ Charité-Universitätsmedizin Berlin, Klinik für Pädiatrie m.S. Onkologie/Hämatologie/SZT, Berlin (Germany); ⁵ Hemex Health Inc (USA), Nairobi (Kenya).

Background: Although Kenya does not have an established national screening program for sickle cell disease (SCD), it is estimated that 10-12000 children are born every year with this haemoglobinopathy, putting the country's incidence ranking at approximately 4th globally. Of these children, 50 -90% die before the age of 5 without a confirmed diagnosis. Hemoglobin (Hb) electrophoresis is the confirmatory test. It is available in a limited number of laboratories countrywide at a cost of \$ 20-50. Hemex Health developed a rapid point-of-care test, Gazelle™, for determining Hb variants at a testing cost of \$2. The objective of this study is to assess the validity of results obtained with Gazelle™ against a standard reference method namely Biorad.

Methods: Participants over 6 months old were enrolled following informed consent procedures performed during an outreach program coordinated by Ruaraka Uhai Neema Hospital (RUNH) in collaboration with Children Sickle Cell Foundation between February and July 2021. Blood samples were drawn using aseptic technique. Each sample was tested by qualified laboratory technicians at RUNH's laboratory using both Gazelle™ and high performance liquid (Biorad machine).

Results: 500 participants were recruited from RUNH and Baraka Medical Centre, 2 samples were invalid. 498 tests were performed with Gazelle™. Of these, 495 were deemed valid, as defined by the Standards for Reporting Diagnostic Accuracy (STARD). Gazelle™ correctly identified all subjects previously diagnosed with SCD as Hb SS, however 1 subject with HbAS was identified as HbSS. 2 subjects were read as traits and 1 as Hb SC by Gazelle™. 1 HbAA was seen as HbAS.

Conclusions: Gazelle™ offers a valid screening method for SCD. Access to affordable diagnostics for case identification and treatment monitoring is essential for the reduction in SCD burden in Kenya.

Conference Resolutions

PLENARY TALKS

DAY ONE

- Malaria vaccine is a complementary malaria control tool. other control measures need to be continued
- Kenya addresses UHC under 4 parameters: Quality, Equity, Affordability and Access
- Curbing preventable deaths spans across addressing family issues (education of danger signs), community issues (primary preventive measures) and system issues such as referral
- Despite global decline in childhood mortality, many children in LMIC countries remain at high risk of death
- Infancy, childhood and adolescence are the most vulnerable points in the life course and can provide the greatest return on investment for human capital.

DAY TWO

- Need to increase universal newborn screening and yearly transcranial Doppler ultrasound in sickle cell disease
- Need to scale up preparedness for mass vaccine productions e.g in pandemics
- Need for a high index of suspicion for pediatric sexual assault in pre-adolescents and adolescents
- Need to increase capacity to handle adolescent health burdens through research and education
- Pediatricians need to take care of themselves and to strongly consider aspects of mental health in children
- There is need to modify WHO guidelines for pneumonia management to match local epidemiology

INDIVIDUAL TRACKS

1. EMERGENCY AND CRITICAL CARE

- We RECOGNIZE that the goal of ventilation should guide the choice of mode of ventilation.
- We RECOMMEND that sedation should be the last resort to making a patient comfortable on the ventilator.
- We COMMIT to encouraging the involvement of anesthesia team in training of Paeds critical care fellows.

2. THE YEAR IN REVIEW

- We RECOGNIZE In RCTs, lack of fidelity to intervention causes misclassification.
- We RECOGNIZE travel time increase affects immunization uptake in rural Kenya(Kilifi)
- We RECOMMEND – improvement of roads, increase of health centers that are reachable to rural community and strengthening of outreach activities.
- We COMMIT to being part a multidisciplinary team that works on improvement of vaccine uptake in Kenya.

3. PAEDIATRIC OPHTHALMOLOGY

- We RECOGNIZE that Pediatricians as the first point of contact can aid in diagnosis of eye conditions by checking for red flags from history and examination
- We RECOMMEND urgent referral for suspected cases
- We COMMIT to being part of the multidisciplinary team working on improvement of outcomes in ROP.

4. PRACTICE UPDATES FOR PEDIATRIC AND NEONATAL CARE

- We RECOGNIZE the need for standardized patient referral tools and improvement in communication between facilities in improving referral services
- We RECOMMEND understanding patient experiences as a key step in moving toward patient-centered care.
- We COMMIT to promoting early initiation of KMC due to evidence in its role in reduction of neonatal mortality

5. NEONATOLOGY

- We RECOGNISE that laboratory total serum bilirubin measurement remains goal standard, even in the advent of new strategies for diagnosis of jaundice.
- We RECOMMEND use of intermittent phototherapy for non-hemolytic moderate hyperbilirubinemia. It is feasible, efficacious, and safer than continuous phototherapy.
- We COMMIT to supporting drivers of change according to evidence based practice.

6. ENDOCRINOLOGY

- We RECOGNIZE that deviation from a normal growth pattern may be the first manifestation of disease
- We RECOMMEND Good measurement quality: Frequent, accurate and reliable training performed by trained personnel using the appropriate equipment.
- We COMMIT to increase knowledge through CMEs to the wider HCP

7. HEMATO-ONCOLOGY

- We RECOGNIZE that it is important to recognize and diagnose iron overload as a common side effect of SCD treatment, since it is often asymptomatic.
- that there exist gaps in access to vaccines
- We RECOMMEND increased newborn screening for sickle cell disease. Screening is now available in Kisumu County through CONSA (Consortium on Newborn Screening in Africa).
- We COMMIT to promoting child life practice in pediatric oncology.

8. NEUROLOGY

- We RECOGNIZE early diagnosis, referral & treatment is key in SMA management.
- We RECOMMEND development of guidelines for decision making in brain dead patients
- We COMMIT to promoting maternal education is critical in early newborn screening for SMA

9. HEPATOLOGY

- We RECOGNIZE Proper understanding of the liver function tests goes a long way in formulating a possible diagnosis.
- We RECOMMEND use of the infant stool chart for early diagnosis of biliary atresia.
- We COMMIT to increase knowledge through CMEs to the wider HCP on the risks of herbal medications and supplements in liver injury.

10. ALLERGY

- We RECOGNIZE that global increase in allergies over the last 3-4 decades are mostly attributable to changes in environmental factors and epigenetic changes.
- We RECOMMEND change from pediatric to adult doses of medications in the transition of care for asthma from childhood to adolescence.
- We RECOMMEND caution in food elimination in children with food allergy in order to prevent undernutrition.
- We COMMIT to continued improvement of HCP on allergic conditions through CMEs.

11. RESPIRATORY MEDICINE

- We RECOGNIZE that clean cooking technology is a key intervention to reduce insults to lung development from biomass indoor pollution.
- We RECOMMEND early ART initiation in HIV as it preserves lung function and improves outcomes.
- We COMMIT to promote asthma education to help reduce stigma.

12. TELEMEDICINE

- We RECOGNIZE that technology can help reach patients in remote areas who otherwise do not have access to health specialists.
- We RECOMMEND use of telehealth interventions which can help improve medical adherence and discourage self-medication.
- We COMMIT to collaborate with other stakeholders to make telemedicine more accessible.

13. EMERGING INFECTIOUS DISEASES

- We RECOGNIZE that Measles and Pertussis are now recent re-emerging diseases despite having components of an eradicable disease.
- We RECOMMEND development of strategies to control emergence of viral hemorrhagic fevers: sentinel surveillance, modernizing wet markets, ban on wild animal trade, conducting field surveys
- We COMMIT to educate HCPs on emerging infectious diseases.

14. CARDIOLOGY

- We RECOGNIZE that the most common cause of syncope in an otherwise healthy child is neurocardiogenic-benign and transient.
- We RECOMMEND use of pulse oximetry. Pulse oximetry is a safe, cost effective tool for screening for congenital heart disease
- We COMMIT to promoting screening for congenital heart disease: prenatal, postnatal and on follow up visits

15. NEONATOLOGY

- We RECOGNIZE that up to 75% of deaths caused by hypothermia could be prevented with essential equipment and trained staff
- We RECOMMEND inclusion of inputs from the local context, and end-users to design equipment that will enable the provision of skilled care to newborns.
- We COMMIT to improvement of the knowledge and practice of HCPs on management of neonates

16. DERMATOLOGY

- We RECOGNIZE that in the immunocompromised host, opportunistic fungi, e.g. Aspergillus can lead to both cutaneous and systemic
- We RECOMMEND adjunctive treatment for household contacts for patient with tinea capitis & the patient includes regular use of an antifungal shampoo, until the patient is free of disease.
- We COMMIT to improvement of the knowledge and practice of HCPs on management of skin conditions

17. NUTRITION

- We RECOGNIZE that maternal obesity is a major risk factor for childhood obesity thus our interventions need to go back into the prenatal period.
- We RECOMMEND addressing of factors associated with picky eating: early feeding difficulties, late introduction of lumpy foods at weaning, pressure to eat & early choosiness; parental feeding styles and practices as a way of avoiding picky eating.
- We COMMIT to improvement of the knowledge and practice of HCPs on management of nutritional conditions.

18. ADOLESCENT MENTAL HEALTH

- We RECOGNIZE that pediatricians are central to the sphere of influence changing child survival and transformation of children and adolescents' lives.
- We RECOMMEND in-depth multidisciplinary research, and collaboration to avert school violence.
- We RECOMMEND vaccination for all children and adults with IMIDs (immune mediated inflammatory disorders).
- We COMMIT to improvement of the knowledge and practice of HCPs on Adolescent Mental Health.

19. VACCINOLOGY

- We RECOGNIZE that IMIDs (immune mediated inflammatory disorders) are associated with reduced ability to mount immune response to vaccine antigens thus suboptimal protection.
- We RECOMMEND vaccination of household contacts of immune-compromised children especially against VZV and influenza.
- We COMMIT to participating in strengthening surveillance and laboratory confirmation to follow up the meningitis pathogens trend in the country.

20. BRIDGING THE SILOS IN SPECIAL NEEDS CARE

- We RECOGNIZE that pediatricians have a role in advocating for children and families to ensure optimal developmental, health and socio-emotional outcomes.
- We RECOMMEND the need for inclusion of more indicators for tracking development in ECD.
- We COMMIT to improvement of the knowledge and practice of HCPs on their role in advocating for the wholesome care of the child with special needs.

21. LEADERSHIP AND GOVERNANCE

- We RECOGNIZE that leadership is driven by a compelling vision. There will always be 'vision derailers' but one needs to remain focused.
- We RECOGNIZE Communication is key in leadership. One cannot be a good leader without being a good communicator.
- We RECOMMEND improvement in terms of the third delay in public hospitals. These are often underestimated.
- We COMMIT to improvement of the knowledge and practice of HCPs on their role in leadership and governance.

22. GENETICS

- We RECOGNIZE that genetic testing is indicated to confirm diagnosis, perform risk analysis and guide management.
- We RECOMMEND identifying the reason for testing, the person to be tested and the consideration for genetic consultation.
- We COMMIT to improvement of the knowledge and practice of HCPs on their role in genetic testing.



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