14th Congress of SIOP Africa
Innovating for Africa

No child should die of cancer

Programme Book

Conference Website: siopfrica.org | SIOP Membership: siop-online.org
WELCOME TO UGANDA
THE UGANDA CANCER INSTITUTE
THE EAST AFRICAN PAEDIATRIC ONCOLOGY FELLOWSHIP PROGRAM

In collaboration with international experts the Uganda Cancer Institute is proud to participate in the Paediatric Oncology Fellowship program to train subspecialists to respond to the needs of East African Paediatric Oncology Units.

Under the leadership of Dr Joyce Balagadde-Kambugu, the Head for Paediatric Oncology for Uganda, a core team teaches the skills to thrive and adapt to the demands of childhood cancer management in the East African region.

The trainees will master clinical, management, leadership and research skills to lead their own units and adapt to their local settings whilst maintaining current international practices and standards.

Address inquiries regarding the program to Dr Joyce Balagadde-Kambugu
E-mail: joyce.balagadde@uci.or.ug or jbkambugu@gmail.com
Telephone: +256790501117
Welcome letters
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• Message from the Ugandan Minister of Health
• Message from the Executive Director of the Uganda Cancer Institute (UCI)
• Message from Chair of the Scientific Committee, SIOP AFRICA 2022
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Recognition, Acknowledgements And Commercial Support
On behalf of the Ministry of Health, I welcome all health workers, cancer survivors, parents, caregivers, well-wishers and politicians involved in the struggle against childhood cancer in Africa to this signature event of the year- The 14th SIOP Africa Congress. It will be held from the 1th to 18th March 2022 at Kampala Serena Hotel.

The theme of the Congress-Innovate for Africa builds on the WHO Global Initiative for Childhood Cancer (GICC) which is aimed at increasing survival of childhood cancer from 30 to 60% by the year 2030. Africa is one of the continents worst hit by childhood cancer with survival rates less than 30% in many countries

We are looking forward to learning the latest results from innovations in childhood cancer care from Africa. An excellent program has been developed to ensure that every minute you spend at the congress is beneficial to you and your country.

The Ministry has ensured your safety while in Uganda. Stringent measures in line with the latest WHO recommendations regarding COVID-19 are in place. Uganda is one of the friendliest countries in the world. The welcoming culture and peaceful nature of Ugandans, the beautiful scenery and wildlife will add to your experience and provide lasting memories.

We’re looking forward to an excellent meeting with great oncologists from different countries around the world and sharing new and exciting results in pediatric oncology.

Dr. Jane Ruth Aceng
Hon. Minister of Health - Uganda
Distinguished guests,
It gives me great pleasure to welcome you to the 14th SIOP Africa Congress 2022 hosted by Uganda Cancer Institute in collaboration with SIOP Africa. Uganda Cancer Institute has a vision to be an internationally recognized center of excellence advancing cancer management in Africa. It is against this background that the Institute is excited to host such a prestigious scientific meeting.

The Congress will contribute to improved childhood cancer care in Africa and thus attainment of the WHO Global Initiative for Childhood Cancer.

The Uganda Cancer Institute receives 7,000 new cancer cases annually of which children account for 10% (700).

In an effort to improve childhood cancer survival, the Government of Uganda has made increasing investments in cancer services.

Some ongoing efforts at the Uganda Cancer Institute include the Integrated Electronic Medical Record System, fully automated radiology unit, various auto-analyzers in our Laboratory among others that will be shared at the Congress. We look forward to sharing our experiences with colleagues from Africa and beyond and learning from each other’s innovations.

It is my hope that this Congress will lead the African child towards better health, better care and better life through innovating for Africa. No child should die from cancer: Cure for more care for all!

Dr. Jackson Orem
Executive Director
MESSAGE FROM THE PRESIDENT-ELECT OF SIOP INTERNATIONAL

Dear colleagues,

It is a great honor for me as SIOP President Elect to join you in this celebration of excellence and hard work that is the SIOP Africa congress held in Uganda.

SIOP Africa is leading the way in quick progress in survival, adapting therapies to local resources, addressing specific regional needs and adapting innovations which can make pediatric oncology change as it has done in the past with avoiding radiotherapy for Hodgkin’s lymphomas for example.

The scientific program of the 2022 SIOP Africa congress is really exciting and thought-provoking, full of exciting innovations, report of experiences and good science.

I will follow closely the advances from the distance due to COVID restrictions, only wishing to shake hands in the upcoming congress.

Dr Guillermo Chantada
MESSAGE FROM THE PRESIDENT OF SIOP INTERNATIONAL

This year’s SIOP Africa congress, to be held March 16-18 in Uganda, provides the first opportunity to come together in-person as the international community of childhood cancer professionals to share progress, learning and experiences.

As SIOP president, I look forward to welcoming you to the congress, where a tremendous research and education programme awaits you. The last two years have put both clinical care and research under previously unknown pressures.

The paediatric oncology community has responded magnificently, to continue to apply best practice standards of care, with adaptations where required due to COVID-19, and to continue to collaborate in clinical research studies that improve access to treatment and survival rates.

SIOP Africa 2022 is the place to come to share learning, hear about innovative approaches and build your networks of collaboration and support. The topic of the pre-congress workshop, Adapted Treatment Regimens, will be important opportunity to discuss the realities of implementing the WHO’s Global Initiative for Childhood Cancers.

I look forward to meeting with all congress delegates to take several steps forward together in achieving our mutual vision of “Cure for More, Care for All”. See you in Kampala @SIOP2022!

Kathy Pritchard-Jones
Dear Colleagues and friends,
Welcome to the SIOP Africa Congress 2022 in Uganda.
On behalf of SIOP Africa and Uganda Cancer Institute, it gives me immense pleasure to welcome you to the 14th SIOP Africa Continental Congress especially after the many challenges everyone has face with the COVID pandemic.

How fitting it is that the congress theme is “Innovate for Africa” since the continent has innovated in delivering cancer care despite these unique challenges independent from the continuous oncological challenges we face in our respective contexts.

An exciting programme of exceptional speakers and symposium topics has been prepared by the Scientific Committee. This year, the pre-congress workshops cater for many new innovative approaches, but we are proud to present a long-desired workshop on Adapted Treatment Regimens (ATRs).

SIOP Africa is looking towards the targets set in the WHO Global Initiative for Childhood Cancer for 2030 and is dedicated to developing the systems and opportunities on the African continent to help achieve these goals. This includes new ways of leading from the SIOP Africa committee, creating opportunities for our young investigator, more inclusive team orientated oncological management and advancing research on the African continent. Importantly, how we engage our governments as part of the fight against childhood cancer. This is why we are encouraged by the support from not only the Uganda Cancer Institute, but the Ugandan Ministry of Health.

Let us accelerate efforts to improve childhood cancer survival for children and young people in Africa. No child should die of cancer: cure for all care for more!

Enjoy the conference!
Joyce Balagadde-Kambugu
MESSAGE FROM THE CHAIR OF THE SCIENTIFIC COMMITTEE OF SIOP AFRICA 2022

Childhood cancer care in Africa, especially during the Covid19 pandemic, faces many challenges which need tailor-made innovative solutions, hence the timely theme, “Innovate for Africa”. These innovations should improve access to diagnosis, treatment, supportive and palliative care for children with cancer and ensure the gains made are not lost.

We have invited passionate childhood cancer specialists, parents, patients and activists that will make your attendance worthwhile and the scientific committee has received high quality abstracts that describe the different facets of cancer care experiences in Africa.

You do not want to miss this and I therefore request you to register for the three days of deliberations that will certainly leave us better equipped to uplift children with cancer in Africa.

Dr. Barnabas Atwiine
The Société Internationale d’Oncologie Pédiatrique/International Society of Paediatric Oncology (SIOP) was formed in 1969, as a small group of specialists at the Institut Gustave-Roussy in Villejuif, Paris, who’s mission it was to advance the study and care of children with cancer. It is a basic mission that continues to this day.

These aims have expanded to embrace the advancement of basic research as well as clinical studies, the inclusion of nurses, other health professionals and parents, and the organization of teaching and outreach programs to better the lot of children in underdeveloped nations and societies.

By today, SIOP has transformed itself into a truly global, multifaceted organization and is the only global multidisciplinary society entirely devoted to paediatric and adolescent cancer. The society has over 2,600 members worldwide including doctors, nurses, other health-care professionals, scientists and researchers. Our members are dedicated to increasing knowledge about all aspects of childhood cancer.

SIOP Africa is the continental organization with 250 members that continues the spirit of SIOP International on the African continent. Embracing the challenges unique to the continent, SIOP Africa promotes the idea that every child deserves a chance towards the goal that no child should die of cancer.

This year the SIOP Africa congress will focus on the WHO Global Initiative for Childhood Cancer and the status in Africa, the importance of targeted therapies for African patients, Childhood Cancer in special circumstances that affect the African continent and the role of survivors of childhood cancer and the advocacy for survivors.
We chose this theme because it speaks to all persons involved in the fight against childhood cancer. Are you a health worker, a survivor, a parent or guardian, relative or friend of a survivor? Perhaps none of these categories but a well-wisher or concerned citizen: we all want to improve the care of childhood cancer.

Children with cancer in Africa have survival rates as low as 20%. There are many reasons for this including malignancies not being diagnosed, misdiagnosis, inaccurate diagnosis, delayed diagnosis; obstacles to accessing care, treatment abandonment, toxic deaths, disease relapse among others. One really important concern is that protocols and guidelines prescribed in higher-income countries are often not feasible in many parts of our continent due to resource constraints.

This however does not mean that all children with cancer in Africa are dying untreated! We have been forced to become more resourceful and cleverer in order to treat our children.

There are numerous, often unrecognized but simple, innovative things being done all over the continent by hospitals, departments, and units treating children with cancer to ensure our children get the best treatment possible within the limits of available resources.

In the 2022 congress we invite all involved in providing care for children with cancer in Africa to share their innovative practice and how it has impacted quality of care or outcomes. In this way we hope to learn from each other, and together improve the way we treat children with cancer.

Together, we can achieve the World Health Organization target of improving survival of children with cancer in Africa to 60% by the year 2030.
THE LOCAL ORGANIZING COMMITTEE SECRETARIAT

Dr. Joyce Kambugu Balagadde
Chair Organizing Committee

Mr. Richard Tumwesigye
Chair Finance Committee

Mr. Paulina Mukago
Chair Administration

Christine Namulindwa
Chair Publicity

Dr. Barnabas Atwine
Chair Scientific Committee

Mr. Moses Echodu
Secretary

Shauna Georgia Odongo AraO
Member

Dennis Kawuma
Member

Susan Nabakooza
Member

Mariam Ndagire
Member

Janepher Nabaasa
Member

Lisa Christine Irumba
Member

Annet Nakkazi
Member
ORGANIZING COMMITTEES

**MEDICAL TRACK**
- Barnabas Atwiine (Chair)
- Joyce Balagadde
- Nixon Niyonzima
- Geriga Fadhil
- Lisa Christine Irumba
- Racheal Angom
- Moatassem Elayadi (Egypt)
- Jennifer Geel (South Africa)
- Suzanne Turner (UK)
- Jaques Van Heerden
  (South Africa/ Belgium)

**NURSES TRACK**
- Mariam Ndagire
- Misk Kemigisha
- Rose Nankinga
- Isaac Mulyowa
- Agnes Kaggwa
- Immelda Busingye
- Julia Challinor (USA)
- Glenn Mbah (Cameroon)
- Elianeth Kiteni (Tanzania)
- Julia Downing (USA)

**CIVIL SOCIETY TRACK**
- Paul Ebusu
- Sam Guma
- Caroline Namukwaya
- Willy Dhamuzungu
- Adrian Ssali
- Betty Muwonge Dennis Olodi
- Moses Echodu
- Claire Namulwa
- Titi Adriani (Italy)
- Alessio di Carlo (Italy)

**PUBLICITY COMMITTEE**
- Christine Namulindwa
- Dennis Kawuma
- Asiimwe Patience
- Peter Genza
- Brian Walusimbi
- Shamim Mukisa
- Moses Echodu

**ADMINISTRATION COMMITTEE**
- Paulina Mukago
- Peter Genza Zaitun
- Ssali Magdalene Kintu
- Dennis Olodi
- Claire Namulwa
- Isaac Mulyowa

**FINANCE COMMITTEE**
- Richard Tumwesigye
- Ezra Anecho
- Justin Eriyongu
- Susan Watera
- Janepher Nabaasa
- Joseph Kasaija
INVITED SPEAKERS

Prof. Charles Mark Lwanga Olweny
Dr. Jackson Orem
Dr. Kouya Francine
Prof. Alan Davidson
Dr. Eddie Mwebesa
HE. Dr. Zainub Shinkafi-Bagudu
Dr. Mahmoud Hammad
Dr. Amayiri Nisreen
Prof. Jennifer Geel
Dr. Noleb Mugisha Mugume
Marissa Mika
Alaa El-Haddad
INVITED SPEAKERS

Prof. Laila Hessissen  Mr. Moses Echodu  Freddie Sengooba  Dr. Joyce Balagadde-Kambugu

Dr. Adre Ilbawi  Prof. Lorna Renner  Biemba Maliti  Fatia Kiyange

Dr. Julius Ecuru  Dr. Yonas Tegegn Woldemariam
OPENING CEREMONY
The SIOP Africa 2022 Opening Ceremony will take place on Thursday 17th March 2022 between 11:00 and 13:00. All Congress delegates and accompanying persons are invited to the Opening Ceremony at the conference hall of the Kampala Serena Hotel in the Victoria Hall. This ceremony will serve as a welcoming to the paediatric oncology community and the persons responsible for the congress. The “Crane” cultural troop representing the East African community will entertain the attendees and set a festive mood to a congress that will drive the innovation of childhood cancer care forward on the continent.

GALA DINNER
The SIOP Africa 2022 Gala Dinner will be held on Thursday 17th March 2022 in the Lower Gardens Hall on the Kampala Serena Hotel Grounds. The dinner will serve as the perfect social event for all the members of the community to share their experiences.
Please register for the gala dinner. If you have not done so you can register upon your arrival to Kampala. The theme of the Gala Dinner is “Culture” and a form of national dress will be much appreciated.

**CLOSING CEREMONY**
The Closing Ceremony will take place on Friday 18th March 2022 between 18:00 and 19:00 in the conference hall of the Kampala Serena Hotel in the Victoria Hall. After the awards for the best oral and poster abstract has been given, the “Crane” cultural troop representing the East African community will complete the festivities.
GENERAL INFORMATION

VENUE
Kampala Serena Hotel, Kintu Rd, Kampala, Uganda

LANGUAGE
The official language is English. All slides must be in English but presentation can be either in French or English.

DRESS CODE
During the meetings the dress code will be informal. The Gala dinner has a cultural theme. You may represent your own culture or wear clothes that represents a culture.

CONGRESS INFORMATION AND INQUIRIES
Inquiries may be made at the registration desk regarding congress matters. For travel arrangements and transport to the airport or other locations inquiries may also be made at the Kampala Serena Hotel front desk.

TOURIST ATTRACTIONS
Inquiries regarding tourist attractions and activities may be made at the Kampala Serena Hotel front desk.

NAME BADGE
During the congress we request that attendees have their name badges visible to facilitate networking and introductions.

COFFEE AND LUNCH BREAKS
During the congress meals and coffee breaks will be available on the Victoria Gallery and the Katonga Hall. We request that attendees do not eat inside the presentation halls.

SUPPLEMENTARY MEETINGS
Supplementary meetings such as business meetings and meetings that are not part of the main program have been scheduled in the Nile Hall. The hall is available for additional meetings that have not been scheduled, but groups and attendees are requested to discuss the utility of the room with the congress organizers before occupying the room to avoid scheduling conflicts.

REGISTRATION HOURS

<table>
<thead>
<tr>
<th></th>
<th>Registration desk</th>
<th>Exhibition and Posters</th>
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<tbody>
<tr>
<td>Wednesday, March 16</td>
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<td>Thursday, March 17</td>
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<td>Friday, March 18</td>
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SOCIAL MEDIA
The conversations shall be online, you can follow the Uganda Cancer Institute, SIOP Africa and SIOP International on Twitter and Facebook. Follow; @WorldSiop, @SIOPAfrica, @UgandaCancerIns and the official hashtags; #SIOPAfrica #InnovatingforAfrica

CME/CPD
CME/CPD certificate of attendance will be available for participants after the Congress. Your electronic certificate will be available after completion of the online educational evaluation which you can find on the Congress website. Certificates will be available until two months after the Congress.

WIFI and INTERNET:
Wi-Fi is available in the conference facilities. The passwords will be clearly displayed, but you may inquire at the registration desk for further information. The livestreaming of congress events will take place on dedicated internet.

CONGRESS ABSTRACTS
The SIOP Africa 2022 abstract will be published in eCancer in the months following the congress and will be available from http://ecancer.org

SAFETY AND SECURITY
Please do not leave any bags, suitcases, electronic apparatus or personal belongings unattended at any time during you congress attendance. Neither the Venue or Congress Organisers will be liable for loss or damage to property.

LIABILITY AND INSURANCE
The Congress Organisers cannot accept liability for personal injuries or accidents during the congress attendance. Participants are advised to insure that they have their own personal travel and health insurance for their travels.
PRE-CONGRESS WORKSHOPS & MEETINGS
Wilms Tumour Group (14 - 15 March 2022) – Closed event
CANCaRe AFRICA - update of progress and future plans – Open Event
Work meeting Collaborative African Network for Childhood Cancer Care and Research (CANCaRe Africa).

Chair: Trijn Israels
Time: Monday 14 March 13:00 – 17:00 and Tuesday 15 March 09:00 – 14:00 (Closed event)
Tuesday 15 March 15:00 – 16:00 (Open event)
CANCaRe Africa is an inclusive platform for multi-centre clinical research and improvement of care of children with cancer in sub-Saharan Africa. This meeting is a group of clinicians caring for children with cancer in Africa who give priority to interventions and projects with the highest expected impact on survival. The Wilms Tumour Project aims for long term, sustainable impact by doing simple things well for children diagnosed with this kidney tumour. The meeting will focus on continuing the work done in this field.

Radiation Oncology Workshop (15 March 2022) – Open event

Chair: Jeannette Parkes
Venue: Online (Kampala Serena Hotel)

GFOAP meeting (15 March 2022) – Closed event.

Chair: Laila Hessissen
Venue: Royal Palm Hall, Speke Resort Munyonyo Time: 18:00 (including a dinner workshop at 19:00)
Founded in 2000 by African and French doctors, the Franco-African Group of Pediatric (GFOAP) Oncology is a medical association that brings together within its network specialists in child- hood cancer in 18 countries of the Maghreb and Sub-Saharan Africa.
Around a common and innovative vision: “Children with cancer in Africa can and should be treated locally by trained staff”. This meeting is their yearly business meeting.

AMCC (Alliance Mondiale Contre Le Cancer) Retinoblastoma Workshop Day (14 - 15 March 2022) – Open event
Retinoblastoma in sub-Saharan Africa

Chair: Karim Assani
Venue: Royal Palm Hall Speke resort Munyonyo
Time: 08:30 - 17:30
The Retinoblastoma Workshop aims to bring together retinoblastoma multidisciplinary teams of eastern Africa, Ghana and Mozambique. The primary goal is to bring eye cancer specialists from all those countries to discuss retinoblastoma care, challenges and actions that can be taken to improve early diagnosis and reduce mortality in the context of sub-saharan Africa. AMCC (Alliance mondiale Contre le Cancer) has made a commitment to support retinoblastoma multidisciplinary teams. This effort aims to improve survival rate beyond 70% in 2028 for this most common eye cancer in children.

Young SIOP Educational day (15 March 2022) – Open event

Chair: Jennifer Geel
Venue: Jacaranda Hall, Speke Resort Munyonyo
Time: 08:00 – 17:00
Clinical research is a critical driver of novel therapies and quality of care that results in the cure of childhood cancer. Systematic development, implementation, and evaluation of standardised care practices is an essential prerequisite to building a foundation for multi-centre clinical research and incorporating these research discoveries into routine care. The purpose of this session is to explore methods that foster standardisation of care that enables the conduct of multicentre paediatric cancer across Africa.
This workshop will introduce you to the principles and practice of palliative care and its integration into the management of children with cancer. A range of topics will be discussed including pain assessment and management, communication, managing other symptoms, advanced care planning, end of life care, the nurses role and caring for ourselves.

Experienced facilitators from the International Children's Palliative Care Network (ICPCN), the Palliative Care Education and Research Consortium (PcERC) and World Child Cancer (WCC) will lead an interactive day of sessions and provide opportunities for discussion and sharing experiences.

Civil Society and Parents Symposium (16 March 2022) – Open event
Chair: Paul Ebusu
Venue: Kampala Serena Hotel
Time: 09:00 – 16:00

The patients are the primarily reason why we are engaged in the discussion of how childhood cancer prevention, care and management, as well as rehabilitation/reintegration of survivors can be improved.

This means that there must be nothing for the patients without the patients and their caregivers who are living through the experience. As opposed to adult cancers, childhood cancer care may not succeed without the parents as caregivers, supporting and proving for the children during the process of receiving care. Civil society organizations usually combine people from diverse backgrounds trying to make a contribution across the continuum of childhood cancer care. They are drawn in to address specific gaps as they may find fit and where they respectively believe their skillsets, expertise and more so passion may befit.

As such, a number of civil society organizations are formations based on experiences of individuals and groups who have lived through the experiences of childhood cancer itself. It also involves practitioners and professionals who believe they can make a difference in the fight against childhood cancer and support the work of government in one way or another. With this workshop we aim to bring together these groups involved in the management of children with cancer and discuss initiatives to benefit their experience during treatment.
The Adapted Treatment Regimens workshop will be an interactive workshop led by African and International experts who have developed resource-based management guidelines and protocols for the African setting. The workshop will focus on a practical approach in initiating the development of treatment approaches for the multidisciplinary team independent of tumour type or resource setting. The workshop aims to mentor participants in the development process and stimulate problem solving abilities during the development of guidelines or protocols.

**IPSO Surgical Symposium (16 March 2022) – Closed event**

Chair: Hafeez Abdelhafeez  
Venue: Kampala Serena Hotel  
Time: 09:00 – 12:30

The Surgery workshop will focus on surgical management of pediatric index solid tumors. Management challenges will be discussed across the three phases: preoperative, operative, and postoperative. The workshop will be a hybrid in person and virtual active discussion with demonstrations.

**The ARIA Adapted Management Guidelines workshop (16 March 2022) – Closed event**

Chair: Jaques van Heerden  
Venue: Royal Palm Hall, Speke Resort Munyonyo  
Time: 08:00 – 16:30

It is with pride that we are conducting the first paediatric oncology pharmacy workshop hosted by SIOP Africa that includes various stakeholders in the management of childhood cancers. The workshop aims for pharmacists to acquaint themselves with the new innovations that contribute to the management in the paediatric oncology pharmacy world.

**Paediatric Oncology Pharmacy Workshop (16 March 2022) – Open event**

Chair: Shauna Georgia Odongo Arao  
Venue: Kampala Serena Hotel  
Time: 09:00 – 15:30

The Surgery workshop will focus on surgical management of pediatric index solid tumors. Management challenges will be discussed across the three phases: preoperative, operative, and postoperative. The workshop will be a hybrid in person and virtual active discussion with demonstrations.
These may assist pharmacists to face the challenges associated with care in the African setting.

**World Child Cancer Workshop (17 March 2022) – Open event**

Chair: Alan Davidson  
Venue: Achwa Hall, Kampala Serena Hotel  
Time: 13:00pm – 14:00pm

‘Improving Childhood Cancer Management in Sub-Saharan Africa’

This workshop will provide a space to share experiences on improving childhood cancer management and supporting the establishment of a centre of excellence for paediatric oncology in Sub-Saharan Africa. During the session we will discuss main challenges, successes, lessons learned and plans for the future.

There will be a special focus on the cost effectiveness of human resources interventions. The workshop is aimed at paediatric oncologists, nurses, professors, and anyone that has worked and is interested in the field of paediatric oncology. The session is hosted by World Child Cancer, a leading international children’s charity dedicated to improving services for children with cancer since 2007.

**Nutrition Workshop (19 March 2022) – Open event**

Chairs: Elena J Ladas and Michelle Walters  
Venue: Royal Palm Hall, Speke Resort Munyonyo  
Time: 09:00am – 12:00pm

This workshop will review fundamentals in nutrition assessment and intervention as well as provide instruction on the management of challenging nutrition conditions common in childhood cancer and challenging for their management in LMICs.
# Young SIOP Educational Day Program

**Open Event - Royal Palm Hall, Speke Resort Munyonyo**

08:00 - 08:10 Introduction and welcome

## Session 1

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<th>Time</th>
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<tr>
<td>08:10 - 08:30</td>
<td>Hodgkin Lymphoma</td>
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<tr>
<td>08:30 - 08:45</td>
<td>Discussion on Hodgkin Lymphoma</td>
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<td>08:45 - 09:05</td>
<td>Acute lymphoblastic leukemia</td>
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<td>09:05 - 09:20</td>
<td>Discussion on Acute lymphoblastic leukemia</td>
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<tr>
<td>09:20 - 09:40</td>
<td>Burkitt Lymphoma</td>
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<td>09:40 - 09:55</td>
<td>Discussion on Burkitt Lymphoma</td>
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09:55 - 10:15 **Tea and Coffee Break**

## Session 2

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<th>Time</th>
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<tr>
<td>10:15 - 10:35</td>
<td>Nephroblastoma</td>
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<td>10:35 - 10:50</td>
<td>Discussion on Nephroblastoma</td>
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<td>10:50 - 11:10</td>
<td>Retinoblastoma</td>
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<td>11:10 - 11:25</td>
<td>Discussion on Retinoblastoma</td>
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<td>11:25 - 11:45</td>
<td>Low grade glioma</td>
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<tr>
<td>11:45 - 12:00</td>
<td>Discussion on Low grade glioma</td>
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12:00 - 13:00 **Lunch Break**

## Session 3

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<th>Time</th>
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<tr>
<td>13:00 - 13:20</td>
<td>Standardisation of care – clinical protocols</td>
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<tr>
<td>13:20 - 13:35</td>
<td>Discussion</td>
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<tr>
<td>13:35 - 13:55</td>
<td>Translating research evidence into standardised clinical practice</td>
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<tr>
<td>13:55 - 14:10</td>
<td>Discussion</td>
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<tr>
<td>14:10 - 14:30</td>
<td>Approaches and strategies to integrate clinical research into busy clinical workflows</td>
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<tr>
<td>14:30 - 14:45</td>
<td>Discussion</td>
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14:45 - 15:05 **Tea and Coffee Break**
SESSION 4

15:05 – 15:25 Pathways to research leadership careers to improve patient outcomes in Africa.
15:25 – 15:40 Discussion
15:40 – 16:00 The art of writing abstracts for conferences and publications
16:00 – 16:15 Discussion
16:15 – 16:35 Publishing and Peer Review
16:35 – 16:50 Discussion
16:50 – 17:00 CLOSING REMARKS

CHILDREN’S PALLIATIVE CARE IN CANCER CARE WORKSHOP

OPEN EVENT - KAMPALA, SERENA HOTEL

09:00 – 09:45 The principles of palliative care and integration into the management of children with cancer
Julia Downing (ICPCN) United Kingdom

09:45 – 10:30 Pain assessment and management in children with cancer
Liz Nabirye (PcERC) Uganda

10:30 – 11:00 COFFEE BREAK

11:00 – 11:40 Communicating with children in palliative care
Florence Nalutaaya (PcERC) Uganda

11:00 – 11:40 Communicating with children in palliative care
Florence Nalutaaya (PcERC) Uganda

11:40 – 12:20 Communicating diagnosis and prognosis with children and their parents
Alex Daniels (ICPCN) South Africa

12:20 – 13:00 Managing symptoms other than pain
Florence Nalutaaya (PcERC) Uganda

13:00 – 14:00 LUNCH BREAK

14:00 – 14:35 Advanced care planning and end-of-life care
Liz Nabirye (MPCU) Uganda
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:35 – 15:10</td>
<td>The nurse’s role in children’s palliative care as an integral member of the multi-disciplinary team</td>
<td>Alex Daniels (ICPCN) South Africa</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>15:10 – 15:50</td>
<td>Caring for ourselves – managing stress and coping strategies</td>
<td>Megan Cruise (WCC) United Kingdom</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>15:50 – 16:00</td>
<td>Summary and Closing</td>
<td>Julia Downing (ICPCN)</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>
ARIA ADAPTED MANAGEMENT GUIDELINES WORKSHOP PROGRAM

CLOSED EVENT - ROYAL PALM HALL, SPEKE RESORT MUNYONYO

THE PRE-WORKSHOP EDUCATIONAL SESSIONS

00:00 – 00:00

Pre-recorded topics in preparation for the workshop (4x 30min)
ARIA (Adapted Resource and Implementation Application for Childhood Cancer Guidelines)
Michael Sullivan
Australia

Guideline Methods with update on SIOP Africa Guideline
Sheena Mukkada
United States of America

Quality Improvement methods
Paola Friedrich
United States of America

Implementation science
Caitly Dufft
United States of America

SESSION 1: FACILITATOR LED DISCUSSIONS

08:00 – 08:30
Session Chair: Vivian Paintsil (Uganda)

Facilitators
Joyce Balagadde-Kambugu (Uganda)
Alan Davidson (South Africa)
Moatasem Elayadi (Egypt)
Jennifer Geel (South Africa)
Laila Hessissen (Morocco)
Marc Hendricks (South Africa)
Vivian Paintsil (Uganda)
Jaques van Heerden (South Africa/Belgium)
08:30 – 08:40 Welcome and opening remarks
   Jaques van Heerden  South Africa / Belgium

08:40 – 10:30 Facilitator led group discussions on:
   - Multi-disciplinary team and adapted management guidelines
   - Local resources
   - Research and answering questions
   - Data management
   - Guideline Development Methods

10:30 – 10:50 COFFEE BREAK

10:50 – 11:50 Feedback session of discussion groups

**SESSION 2: PANEL LED DISCUSSION**

**Session Chair:** Alan Davidson  (South Africa)

11:50 – 13:00 Panel consisting of Paediatric oncologist
   Dr Vivian Paintsil
   Radio-oncologist Dr Thuran Naiker
   Paediatric surgeon Dr Helen Martelli
   Palliative care expert Dr Lyndal Gibbs

   Topic: Real world experience

   Interactive discussion

13:00 – 14:00 LUNCH BREAK

**SESSION 3: FACILITATOR LED DISCUSSIONS**

**Session Chair:** Marc Hendricks  (South Africa)

14:00 – 15:30 Facilitator led group discussions on:
   The application of evidence-based adapted management guidelines in the six focus childhood cancers: retinoblastoma, Wilms’ tumour, acute lymphoblastic leukemia, Hodgkin lymphoma, low grade gliomas and Burkitt lymphoma
Facilitators:
Joyce Balagadde-Kambugu (Uganda)
Alan Davidson (South Africa)
Moatasem Elayadi (Egypt)
Jennifer Geel (South Africa)
Laila Hessissen (Morocco)
Marc Hendricks (South Africa)
Vivian Paintsil (Uganda)
Jaques van Heerden (South Africa/ Belgium)

15:30 – 16:20 Feedback session of discussion groups
16:20 – 16:30 Closing remarks
Joyce Balagadde-Kambugu (Uganda)

SOCIAL EVENT AND NETWORKING

PAEDIATRIC SURGERY ONCOLOGY WORKSHOP

OPEN EVENT - KAMPALA, SERENA HOTEL

09:10 – 09:20 Welcome
09:20 – 09:50 Neuroblastoma
09:50 – 10:20 Wilm’s Tumour
10:20 – 10:40 COFFEE BREAK
10:40 – 11:10 Sarcomas
11:10 – 11:40 Hepatoblastoma and hepatocellular carcinoma
11:40 – 12:10 Case base discussion
12:10 – 12:20 Closing
IPSO SURGICAL SYMPOSIUM
OPEN EVENT - KAMPALA SERENA HOTEL

SESSION 1

09:00 – 09:30  Welcome coffee and registration

Chair of all Sessions: Shauna Georgia Odongo Arao

09:30 – 10:00  Introduction of the pharmacists’ preliminary session for the attendees and panelists

10:00 – 11:00  Paediatric Oncology Pharmacy
Shauna Georgia Odongo Arao (Uganda)

Emergency protocols in paediatric oncology
Shauna Georgia Odongo Arao (Uganda)

Use of off-label and off-licence drugs in the paediatric oncology pharmacy
Kyambadde Deo (Uganda)

11:00 – 11:30  COFFEE BREAK

SESSION 3

14:00 – 14:30  Nutrition innovations for the paediatric population
Pharmaceutical Care after Medical Interventions

15:30 – 16:00  Panel discussion.
Prof Patrick Ogwang
Mr Otim Francis (Pharmaceutical School of Uganda)
Dr Benjamin Mwesige (Head of Pharmacy Department UCI)
Mr Semujju Joseph (Nutritionist)
Dr Pakoyo Kamba (Pharmacy School at Makerere University)

16:00  Informal closure of the workshop
## INTRODUCTION

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>09:00</td>
<td>Overview of IIPAN activities in Africa</td>
</tr>
<tr>
<td>09:00-09:10</td>
<td>PhD, RD United States</td>
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<tr>
<td>09:10</td>
<td>SIOP Global health nutrition.</td>
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<tr>
<td>09:10-09:20</td>
<td>MS, RD South Africa</td>
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</table>

## SESSION 1: Nutritional Management of patients with Solid Tumors in Africa

**Session Chairs:** Glenn Mbah, MD (Cameroon) and MD (Uganda)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>09:20</td>
<td>Nutritional assessment of children with advanced diseases. Anna Henrh</td>
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<tr>
<td>09:20-09:30</td>
<td>Nutritional assessment of children with advanced diseases. Anna Henrh</td>
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<tr>
<td>09:30</td>
<td>Tube feeding in patients with large abdominal masses. Judy Schoeman,</td>
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<tr>
<td>09:30-09:40</td>
<td>Tube feeding in patients with large abdominal masses. Judy Schoeman,</td>
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<td>09:40</td>
<td>Common complications associated with the nutritional management of children with Stage III/IV solid tumors. Netherlands</td>
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<tr>
<td>09:40-09:50</td>
<td>Common complications associated with the nutritional management of children with Stage III/IV solid tumors. Netherlands</td>
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<td>09:50</td>
<td>The role of appetite stimulants in childhood cancer Karina Viani, PhD, RD Brazil</td>
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<tr>
<td>09:50-10:00</td>
<td>The role of appetite stimulants in childhood cancer Karina Viani, PhD, RD Brazil</td>
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<tr>
<td>10:00</td>
<td>Discussion session</td>
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## SESSION 2: Common Nutritional Complications and their Management

**Session Chairs:** Judy Schoeman

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>10:10</td>
<td>Nutritional complications of cancer patients with liver impairment. South Africa</td>
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<tr>
<td>10:10-10:20</td>
<td>Nutritional complications of cancer patients with liver impairment. South Africa</td>
</tr>
</tbody>
</table>
10:20 – 10:30  Nutritional modification with enterocolitis and pancreatitis (virtual) Maha Barbar, MD Jordon
10:30 – 10:40  Nutritional modification with compromised kidney function (virtual) Michelle Walters, MS, RD United States
10:40 – 10:50  Nutritional management of children with severe acute malnutrition and newly diagnosed cancer Elena J. Ladas, PhD, RD United States
10:50 – 11:00  Discussion session

SESSION 3: CASE PRESENTATIONS

Session Chairs: Karina Viani, PhD, RD (Brazil) and Irene Nzamu MD (Kenya)
11:15 – 11:20  Case presentation: Nutrition support in patients with mucositis and severe acute malnutrition Diriba Fufa, MD Ethiopia
11:20 – 11:30  Case presentation: Tube feeding with advanced disease Primus Ewald, MD Tanzania
11:30 – 11:40  Case presentation: Total parenteral nutrition Barbara Muliro, RD Kenya Supported by Erika Damasco, PhD, RD (United States)
11:40 – 11:50  Case presentation: Severe acute malnutrition Joseph Mary Semujju, RN Uganda

CLOSING OF THE SESSION

11:50 – 12:00  Wrap up Elena J. Ladas, PhD, RD United States
VENUE PLANS - SERENA KAMPALA HOTEL

CONGRESS AREAS
ACHWA
ADDIS
KYOGA
NILE
VICTORIA HALL

MEAL AREAS
KATONGA HALL
VICTORIA GALLERY

TOILETS
VENUE PLANS – SPEKE RESORT

BUILDING A

SECOND FLOOR

SPEKE BALL ROOM

ROYAL PALM

FIRST FLOOR

MAHOGANY  JACARANDA  EBONY  ACACIA

GROUND FLOOR

HEALTH CLUB
# WEEK PROGRAM AT A GLANCE

<table>
<thead>
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<th>PRE-CONGRESS DAYS</th>
<th>CONGRESS DAYS</th>
<th>POST CONGRESS DAY</th>
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<tbody>
<tr>
<td>MONDAY 14 MARCH</td>
<td>TUESDAY 15 MARCH</td>
<td>WEDNESDAY 16 MARCH</td>
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<tr>
<td>AMCC Retinoblastoma Workshop Day 1</td>
<td>AMCC Retinoblastoma Workshop Day 2</td>
<td>Civil Society and Parents Symposium</td>
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<tr>
<td>OPEN EVENTS</td>
<td>OPEN EVENTS</td>
<td>OPEN EVENT</td>
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<tr>
<td>Young SIOP Educational day</td>
<td>Nurses Children’s Palliative Care Workshop</td>
<td>OPEN EVENT</td>
</tr>
<tr>
<td>Radiation oncology Workshop (online)</td>
<td>IPSO Surgical Symposium</td>
<td>OPEN EVENT</td>
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<tr>
<td>CLOSED EVENTS</td>
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<tr>
<td>Wilms’ Tumour Workshop Day 1</td>
<td>Wilms’ Tumour Workshop Day 2</td>
<td>IPSO Surgical Symposium</td>
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<td>GFAOP Meeting</td>
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## OPEN EVENTS
- AMCC Retinoblastoma Workshop Day 1
- AMCC Retinoblastoma Workshop Day 2
- Civil Society and Parents Symposium
- Young SIOP Educational day
- Nurses Children’s Palliative Care Workshop
- IPSO Surgical Symposium

## PRESENTATION OF ABSTRACTS
- Parallel Sessions
- Conference Opening
- World Child Cancer Workshop
- IPSO Surgical Symposium
- The ARIA Adapted Management Guidelines Workshop

## PLENARY SESSIONS
- Open Remarks
- Targeted Therapy
- WHO GICC
- Child hood Cancer in special circumstances
- Advocacy for access
- Awards ceremony

## PARALLEL SESSIONS
- Presenting of Abstracts
- Meeting
- Meeting
- Meeting
- Meeting

## CONFERENCE CLOSING CEREMONY
- Gala Dinner
- The Key Outcomes
- The Key Outcomes
- The Key Outcomes
- The Key Outcomes

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No child should die of cancer
## SCIENTIFIC DAYS AT A GLANCE

### THURSDAY 17TH MARCH

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00-8:30</td>
<td>Registration of delegates</td>
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<tr>
<td>8:30-8:50</td>
<td>Opening remarks</td>
</tr>
<tr>
<td>8:50-10:30</td>
<td>Plenary session: WHO Global Initiative for Childhood Cancer (GiCC)</td>
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<tr>
<td>10:30-11:00</td>
<td>Coffee Break, Poster Viewing and Patient Pavilion</td>
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<tr>
<td>11:00-11:15</td>
<td>Opening ceremony</td>
</tr>
<tr>
<td>11:15-12:15</td>
<td>Lunchbreak, Poster Viewing, World Child Cancer Workshop and Patient Pavilion</td>
</tr>
</tbody>
</table>
| 14:00-16:30 | **Medical Session:** Comorbidities  
**Nursing Session:** Training and Education  
**Combined Session:** Quality Care  
**Civil society and Parents Session:** Early Detection Registries and Epidemiology  
**Medical Session:** Haematological Malignancies |
| 16:30-17:00 | Coffee Break, Poster Viewing and Patient Pavilion                   |
| 17:00-18:30 | Plenary Session: “Not without us” - Advocacy for Access by patients/survivors/parents- Focus on Uganda |
| 19:00-21:00 | Gala Dinner                                                          |

### FRIDAY 18TH MARCH

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>8:00-8:30</td>
<td>Registration of delegates</td>
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<tr>
<td>8:30-10:30</td>
<td>Plenary Session: Targeted Therapy</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Coffee Break, Poster Viewing and Patient Pavilion</td>
</tr>
</tbody>
</table>
| 11:00-12:30 | **Medical Session:** Childhood Cancer Care in Special Circumstances  
**Nursing Session:** Training and Education  
**Civil society and Parents Session:** Treatment Abandonment  
**Medical Session:** Non-Haematological Malignancies |
| 12:30-13:30 | Lunchbreak, Poster Viewing and Patient Pavilion                   |
| 14:00-16:00 | **Medical Session:** Multidisciplinary Care  
**Nursing Session:** Safe Practice  
**Civil society and Parents Session:** Psychosocial aspects of care  
**Medical Session:** Implementation strategies |
| 16:00-16:20 | Coffee Break, Poster Viewing and Patient Pavilion                   |
| 16:20-18:00 | Plenary Session: Childhood Cancer in Special Circumstances (Refugees, Internally Displaced Persons and other Humanitarian Crises) |
| 18:00-19:00 | Congress Closing Ceremony and Award Ceremony                         |
OPENING REMARKS: THURSDAY 17 MARCH - VICTORIA HALL

SESSION 1: OPENING REMARKS

08:30 – 08:50
Conference Chair and Scientific Chairperson
Dr Joyce Balagadde-Kambugu
Head of Pediatric Oncology at Uganda Cancer Institute & SIOP Africa Continental President

Dr Atwiine Barnabas
Head Haemo-Oncology at Mbarara University of Science and Technology, Mbarara Regional Referral Hospital

PLENARY - VICTORIA HALL

SESSION 2: PLENARY SESSION WHO Global Initiative for Childhood Cancer (GICC)

Chairs: Prof. Kathy Pritchard-Jones
Tegegn Woldemariam (Uganda)

08:50 – 09:10
An overview of the Global Initiative for Childhood Cancer Dr. Andre Ilbawi Organization (WHO) Global Childhood Cancer Initiative.

09:10 – 09:25
Leveraging high level support for the process – African Union and Ministries of Health Her Excellency Dr Zainab Shinkafi Bagudu Paediatrician, Founder Medicaid Cancer Foundation & Kebbi state First Lady.

09:25 – 09:40
Implementation in Ghana - Process and progress, Challenges & Recommendation Lecturer University of Ghana School of Medicine and Dentistry and Head of the Paediatric Oncology Unit at Korle Bu Teaching Hospital – Accra, Ghana
09:40 – 09:55  Implementation of the GICC in Morocco - Process and progress, Challenges & Recommendations  
Prof. Laila Hesselien  Professor of Pediatrics in the Medical School of Rabat, Morocco

09:55 – 10:10  Implementation of GICC in Zambia – The Nurses’ perspective  
Ms. Biamba Maliti  Chief Nursing Officer Cancer Diseases Hospital, Lusaka, Zambia & President Zambian Oncology Nurses Society.

10:10 – 10:30  SIOP Advocacy and GICC – how they work together  
Prof Alan Davidson  Head – SIOP Advocacy Chair.

10:30 – 11:00  COFFEE BREAK, VISIT EXHIBITION, POSTER VIEWING AND PATIENT PAVILION

CONFERECE OPENING: THURSDAY 17 MARCH VICTORIA HALL

SESSION 3: CONFERENCE OPENING CEREMONY

11:00 – 11:10  Arrival of the Ministers and other invited Guests  
Mr. Tumwesigye Richard  
Senior Hospital Administrator of the Uganda Cancer Institute

11:10 – 11:15  Arrival of the Guest of Honor - The Minister of Health of Uganda  
Dr Jackson Orem  
Executive Director of the Uganda Cancer Institute

11:15 – 11:25  National Anthem of Uganda and the East African Anthem Master of Ceremonies

11:25 – 11:30  Opening Prayer Master of Ceremonies

11:30 – 11:40  Welcome remarks from the SIOP Africa President  
Dr Joyce Balagadde-Kambugu

11:40 – 11:50  Speech from the President of SIOP International  
Dr Kathy Pritchard-Jones
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>11:50 – 12:20</td>
<td>Keynote address Prof. Charles Olweny Board Chair of the Uganda Cancer Institute</td>
</tr>
<tr>
<td>12:20 – 12:30</td>
<td>Entertainment Cultural troop representing East African Culture</td>
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<tr>
<td>12:30 – 12:40</td>
<td>Speech from the Executive Director of the Ugandan Cancer Institute Dr Jackson Orem Executive Director of the Uganda Cancer Institute</td>
</tr>
<tr>
<td>12:40 – 12:55</td>
<td>Speech from the Minister of Health of Uganda and official opening of the conference Hon. Dr. Jane Ruth Aceng Minister of Health</td>
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<tr>
<td>12:55 – 13:00</td>
<td>Photo moment Ms. Namulindwa Christine Public Relations Officer</td>
</tr>
<tr>
<td>13:00 – 14:00</td>
<td>LUNCH BREAK, POSTER VIEWING AND PATIENT PAVILION WORLD CHILDHOOD CANCER WORKSHOP (ACHWA HALL)</td>
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<tr>
<td></td>
<td>‘Improving Childhood Cancer Management in Sub-Saharan Africa’</td>
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</tbody>
</table>

**PRESENTATION OF FREE PAPERS: THURSDAY 17 MARCH ADDIS HALL**

**SESSION 4: MEDICAL SESSION – COMORBIDITIES AND SUPPORTIVE CARE**

**Chairs:** Elena Ladas (USA) and Joloba Moses (Uganda)

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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<tbody>
<tr>
<td>14:00 – 14:20</td>
<td>Session Related Invited Speaker: Rheham Abdel</td>
</tr>
<tr>
<td>14:20 – 14:35</td>
<td>MALNUTRITION AND FEBRILE NEUTROPENIA IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIA AT MUHIMBILI NATIONAL HOSPITAL Lilian Bachuba (Tanzania)</td>
</tr>
<tr>
<td>14:35 – 14:50</td>
<td>FEVER AND NEUTROPENIA OUTCOMES AND AREAS FOR INTERVENTION: A REPORT FROM SUCCOUR: SUPPORTIVE CARE FOR CHILDREN WITH CANCER IN AFRICA Trijn Israel (Malawi)</td>
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<tr>
<td>Time</td>
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<tr>
<td>14:50 – 15:05</td>
<td>ECHINOCANDIN RESISTANT CANDIDEMIA, THE NEXT UPCOMING THREAT IN THE ERA OF ECHINOCANDIN PROPHYLAXIS AMONG PEDIATRIC CANCER PATIENTS</td>
</tr>
<tr>
<td>15:05 – 15:20</td>
<td>IMPACT OF RAPID MOLECULAR DETECTION OF SEPSIS ON TIME TO OPTIMAL ANTIMICROBIAL THERAPY IN PEDIATRIC CANCER PATIENTS</td>
</tr>
<tr>
<td>15:20 – 15:35</td>
<td>A CROSS-SECTIONAL SURVEY TO ASSESS THE KNOWLEDGE OF COMMUNITY PHARMACISTS ON CANCER IN GHANA</td>
</tr>
<tr>
<td>15:35 – 15:50</td>
<td>MORPHINE GAP IN CAMEROON: MORE ADMINISTRATIVE FACILITATION REQUIRED TO REDUCE SUFFERING</td>
</tr>
<tr>
<td>15:50 – 16:05</td>
<td>EXPERIENCE OF INFORMAL CAREGIVERS ON THE MANAGEMENT OF SIDE EFFECTS OF CHEMOTHERAPY, A STUDY AT THE KORLE BU TEACHING HOSPITAL</td>
</tr>
<tr>
<td>16:05 – 16:20</td>
<td>BACTEREMIA IN PEDIATRIC HEMATOLOGIC CANCER PATIENTS WITH FEBRILE NEUTROPENIA AT THE UGANDA CANCER INSTITUTE</td>
</tr>
<tr>
<td>16:20 – 16:35</td>
<td>INTEGRATING A PALLIATIVE APPROACH INTO THE HEALTHCARE PROVIDED BY PAEDIATRIC ONCOLOGY UNITS. INSIGHTS FROM A 3-YEAR TRAINING PROGRAM</td>
</tr>
<tr>
<td>16:35 – 17:00</td>
<td>COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION</td>
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</table>
Chairs: Mariam Ndagire (Uganda) and Elianeth Kiteni (Tanzania)

14:00 – 15:00  NURSING SYMPOSIUM
Pediatric Oncology Nursing Development: Best Practices Across Africa

Rose Nankinga (Uganda),
Enyo Bosomprah (Ghana),
K Esubalew (Ethiopia),
Glenn Mbah Afungchwi (Cameroon),
Nisseren Fathy (Egypt)

15:00 – 15:15  BUILDING A FOUNDATION NURSE TRAINING PROGRAMME FOR PAEDIATRIC ONCOLOGY NURSES IN SUB-SAHARAN AFRICA
Elianeth Kiteni (Tanzania)

15:15 – 15:30  TEACHING PEDIATRIC ONCOLOGY NURSING AT KAMUZU COLLEGE OF NURSING IN MALAWI
Tadala Mulemba (Malawi)

15:30 – 15:45  PROMOTING PEDIATRIC ONCOLOGY NURSING EDUCATION IN SUB-SAHARAN AFRICA
Joan Nakabiri (Uganda)

15:45 – 16:00  EXPERIENCES OF THE FIRST COHORT IN THE GHANA COLLEGE OF NURSES AND MIDWIVES’ FIRST PAEDIATRIC ONCOLOGY NURSING PROGRAMME
Wendy Eyiah-Mensah (Ghana)

16:00 – 16:30  ADDITIONAL DISCUSSION TIME

16:30 – 17:00  COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION
SESSION 4: CIVIL SOCIETY AND PARENTS SESSION – EARLY DETECTION

Chairs: Charity Kawadza (Zimbabwe)

14:00 – 14:20  Session Related Invited speaker: Adri Ludick

14:20 – 14:35  EVALUATION OF A HEALTHCARE WORKER TRAINING INTERVENTION TO IMPROVE THE EARLY DIAGNOSIS AND REFERRAL OF CHILDHOOD CANCERS IN GHANA: A QUALITATIVE DESCRIPTIVE STUDY Glenn Afungchwi (Cameroon)

14:35 – 14:50  PEDCAN: PRIMARY HEALTH PROVIDERS ARE WILLING AND ABLE TO USE A MOBILE APPLICATION TO RECOGNIZE CHILDREN WITH CANCER IN UGANDA Barnabas Atwiine (Uganda)

14:50 – 15:05  IMPACT OF INPERSON TRAINING ON HEALTH CARE PROVIDER KNOWLEDGE OF THE SYMPTOMS AND TREATMENT OF PEDIATRIC CANCER IN MWANZA REGION Goodluck Nchasi (Tanzania)

15:05 – 15:20  PROMOTING AWARENESS OF EARLY WARNING SIGNS OF CHILDHOOD CANCER IN BURUNDIAN HOSPITALS Estella Gategetse (Burundi)

15:20 – 15:35  IMPROVING ACCESS TO CHILDHOOD CANCER CARE IN NORTH UGANDA THROUGH EARLY DETECTION AND CASE FOLLOW-UP Adrian Ssali (Italy)
**KYOGA HALL**

**CIVIL SOCIETY AND PARENTS SESSION – REGISTRIES & EPIDEMIOLOGY**

**SESSION 4**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</table>
Alan Davidson (South Africa) |
| 15:50 – 16:05 | TRENDS IN CHILDHOOD CANCERS AT TYGERBERG HOSPITAL FROM 1994 TO 2014  
Sandile Ndlovu (South Africa) |
| 16:05 – 16:20 | NATIONAL PAEDIATRIC ONCOLOGY REGISTRIES AND SOCIETIES IN AFRICA: A SIOP GLOBAL MAPPING PROGRAMME REPORT  
Ahmed Kamal Beyoumi (Egypt) |
| 16:20 – 16:30 | ADDITIONAL QUESTIONS SESSION |
| 16:30 – 17:00 | COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION |

**SESSION 4: MEDICAL SESSION – HEAMATOLOGICAL MALIGNANCIES**

**Chairs:** Janet Poole (South Africa) and Grace Ndez (Uganda)

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<tr>
<td>14:00 – 14:20</td>
<td>Session Related Invited speaker: Edus H Warren</td>
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</tbody>
</table>
| 14:20 – 14:35 | DOSE-INTENSIVE CHEMOTHERAPY WITHOUT RADIATION FOR PEDIATRIC HODGKIN LYMPHOMA IN LOW RESOURCE SETTING: SINGLE CENTER EXPERIENCE  
Lovisa Mulanje (Malawi) |
| 14:35 – 14:50 | IMPROVED SURVIVAL RATES OF CHILDREN AND ADOLESCENTS WITH CLASSICAL HODGKIN LYMPHOMA TREATED ON A NATIONAL HARMONISED PROTOCOL IN SOUTH AFRICA  
Jennifer Geel (South Africa) |
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Location</th>
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<tbody>
<tr>
<td>14:50 – 15:05</td>
<td>SURVIVAL OF CHILDREN WITH BURKITT LYMPHOMA TREATED AT MUHIMBILI NATIONAL HOSPITAL IN TANZANIA</td>
<td>Aika Shoo (Tanzania)</td>
</tr>
<tr>
<td>15:05 – 15:20</td>
<td>IMPACT OF INFECTIOUS EPISODES IN INDUCTION PHASE CHEMOTHERAPY ON THE MORBIDITY AND MORTALITY OF PEDIATRIC PATIENTS WITH BURKITT LYMPHOMA, SINGLE INSTITUTIONAL EXPERIENCE</td>
<td>Dina Basil El Sabbagh (Egypt)</td>
</tr>
<tr>
<td>15:20 – 15:35</td>
<td>CLINICO-PATHOLOGICAL PROFILE, TREATMENT AND OUTCOMES OF CHILDHOOD MATURE B CELL LYMPHOMA AT A TERTIARY CARE CENTER IN UGANDA</td>
<td>R Mzikamanda (Uganda)</td>
</tr>
<tr>
<td>15:35 – 15:50</td>
<td>PREDICTORS AND OUTCOME OF INFECTION-RELATED MORTALITY IN PEDIATRIC ACUTE MYELOID LEUKEMIA, FEBRILE NEUTROPENIC EPISODES ANALYSIS. SINGLE INSTITUTE EXPERIENCE</td>
<td>A.K. Bayoumi (Egypt)</td>
</tr>
<tr>
<td>15:50 – 16:05</td>
<td>ACUTE LYMPHOBLASTIC LEUKEMIA IN CHILDREN AND ADOLESCENTS IN TANZANIA: CLINICAL PROFILE, SURVIVAL RATE AND FACTORS ASSOCIATED WITH OUTCOME</td>
<td>Diana Isingo (Tanzania)</td>
</tr>
<tr>
<td>16:05 – 16:20</td>
<td>CHILDHOOD ACUTE LYMPHOBLASTIC IN SUBSAHARAN AFRICA: 4 YEARS EXPERIENCE AT THE GABRIEL PEDIATRIC ONCOLOGY UNIT BAMAKO MALI</td>
<td>Boubacar Togo (Mali)</td>
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<tr>
<td>16:20 – 16:35</td>
<td>NON-HODGKIN LYMPHOMAS IN THE PEDIATRIC ONCOLOGY UNIT OF GABRIEL TOURE TEACHING HOSPITAL BAMAKO MALI</td>
<td>Boubacar Togo (Mali)</td>
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<tr>
<td>16:35 – 17:00</td>
<td>COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION</td>
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PRESENTATION OF FREE PAPERS  THUR. 17 MARCH
VICTORIA HALL

SESSION 5: LENARY SESSION “Not without us” - Advocacy for Access by patients, survivors & parents - Focus on Uganda

Chairs: Hon Dr Ayume Charles (Uganda) & Dr Kamara Nicholas (Uganda)

17:00 – 17:15 Cancer Advocacy Efforts by children: Short Skit 3C Club (Children Caring about Cancer) Uganda Childhood Cancer Foundation

17:15 – 17:30 The Role of Patients in Advocacy Mr. Moses Echodu Executive Director Uganda Childhood Cancer Foundation

17:30 – 17:45 Advocacy Lessons from Other Fields of Health and Human rights to advance cancer prevention and control: Lessons from Uganda Ms. Fatia Kiyange Executive Director Centre for Health Human Rights and Development (CEHURD)

17:45 – 18:00 Role of the patients and survivors in developing the National Cancer Control Plan of Uganda Dr. Noleb Mugisha Head Comprehensive Community Cancer Program Uganda Cancer Institute

18:00 – 18:15 Impact of patients and survivor’s advocacy on service delivery. A case study of radiotherapy services in Uganda Dr. Jackson Orem Executive Director of the Uganda Cancer Institute

18:15 – 18:30 The patient’s role in health policy formulation. Prof. Freddie Ssengooba Associate Professor - School of Public Health, Makerere University, Researcher in Health Policy, Health Systems Management and Economic, and Public Health. Director of the SPEED Project - (Support for Policy Engagements for Evidence-based Decisions) for UHC In Uganda.
Marissa Mika, PhD, MHS is a public health professional, historian, and anthropologist. She is currently a Visiting Scholar at the University of California, Berkeley’s Center for Science, Technology, Medicine and Society. In 2019, she served as the founding Head of Humanities and Social Sciences and Assistant Professor at the University of Global Health Equity in Rwanda. Prior to that, she worked as a Research Fellow on Chronic Disease in Africa at University College London from 2016 to 2018.

Her book, Africanizing Oncology, is an innovative contemporary history that blends insights from a variety of disciplines to highlight how a storied African cancer institute has shaped lives and identities in postcolonial Uganda.

Based on transcontinental research and public engagement with the Uganda Cancer Institute that began in 2010, Africanizing Oncology frames the cancer hospital as a microcosm of the Ugandan state, as a space where one can trace the lived experiences of Ugandans in the twentieth century.
PRESENTATION OF FREE PAPERS  FRI. 18 MARCH
VICTORIA HALL

MEDICAL SESSION - CHILDHOOD CANCER CARE IN SPECIAL CIRCUMSTANCES

Chairs: Laila Hessissen (Morocco) and Deo Munube (Uganda)

08:00 – 08:20  Session Related Invited Speaker: Daniel Hailu

08:20 – 08:35  BURKITT LYMPHOMA RELAPSE IN A RURAL HOSPITAL SETTING IN CAMEROON
Bernard Njodzeka (Cameroon)

08:35 – 08:50  IMPACT OF COVID-19 PANDEMIC ON PEDIATRIC ONCOLOGY SERVICES AT THE UGANDA CANCER INSTITUTE
Asasira Judith (Uganda)

08:50 – 09:05  CLINICAL CHARACTERISTICS AND OUTCOMES OF PAEDIATRIC CANCER PATIENTS WITH COVID-19 INFECTION IN A PAEDIATRIC ONCOLOGY UNIT IN ACCRA, GHANA
Lily Gloria Tagoe (Ghana)

09:05 – 09:20  MINIMAL CLINICAL IMPACT OF THE COVID-19 PANDEMIC ON PAEDIATRIC ONCOLOGY PATIENTS AT CHARLOTTE MAXEKE JOHANNESBURG ACADEMIC HOSPITAL, SOUTH AFRICA
Mapule Kholong (South Africa)

09:20 – 09:35  CHALLENGESPOSED BY COVID 19 PANDEMIC ON PEDIATRIC ONCOLOGY CARE DELIVERY AT THE UGANDA CANCER INSTITUTE
Nankinga Rose (Uganda)
SESSION 1: MEDICAL SESSION – ORBITAL SOLID TUMOURS

09:35 – 09:50
RETINOBLASTOMA PROGRAM IN SUB-SAHARAN AFRICA: IMPROVING SURVIVAL RATE DURING COVID-19 PANDEMIC
Karim Assani (Democratic Republic of Congo)

09:50 – 10:05
ASSOCIATION BETWEEN HIGH RISK HISTOPATHOLOGICAL AND CLINICAL FEATURES OF PRIMARY ENUCLEATED EYES AT MUHIMBILI NATIONAL HOSPITAL Neema Moshi (Tanzania)

10:05 – 10:20
FACTORS ASSOCIATED WITH REFUSAL FOR ENUCLEATION AMONG PARENTS/CAREGIVERS OF CHILDREN WITH RETINOBLASTOMA AT MUHIMBILI NATIONAL HOSPITAL Nicholaus Benedicto (Tanzania)

10:20 – 10:40
COFFEE BREAK, VISIT EXHIBITION, POSTER VIEWING AND PATIENT PAVILION

PRESENTATION OF FREE PAPERS - FRI. 18 MARCH
ACHWA HALL

SESSION 1: NURSING SESSION – EDUCATION AND LEADERSHIP

Chairs: Misk Kemigisha (Uganda) and Bernard Njodzeka (Cameroon)

08:00 – 08:20
PAEDIATRIC ONCOLOGY NURSING IN AFRICA: CURRENT STATUS AND PRIORITIES Glenn Mbah Afungchwi (Cameroon)

08:20 – 08:35
CREATING AN E-LEARNING TRAINING PROGRAMME FOR NURSES DURING THE COVID-19 PANDEMIC, BY THE FRENCH-AFRICAN GROUP OF PEDIATRIC ONCOLOGY (GFAOP) Olga Moly (Ivory Coast)

08:35 – 08:50
CONTINUOUS NURSING EDUCATION IN UGANDA: A SUSTAINABLE MODEL FOR LOW-AND MIDDLE-INCOME COUNTRIES Ndagire Mariam (Uganda)
08:50 – 09:05 PEDIATRIC ONCOLOGY NURSING LEADERSHIP GROWTH IN SUB-SAHARAN AFRICA
Aisha Nedege (Uganda)

09:05 – 09:20 TEACHING PEDIATRIC PALLIATIVE CARE IN SUB-SAHARAN AFRICA
Cosiate Abenawe (Uganda)

ACHWA HALL

NURSING SESSION: NURSING CHALLENGES AND SOLUTIONS IN LMICs

Chairs: Glen Mbah Afungchwi (Cameroon) & Susan Nabakooza (Uganda)

09:20 – 09:35 CARING FOR CHILDREN WITH SPINAL CORD COMPRESSION IN A LOW-INCOME SETTING: THE CASE OF MBINGO BAPTIST HOSPITAL
C Gweji (Cameroon)

09:35 – 09:50 IMPROVING ADHERENCE OF CHILDHOOD CANCER TREATMENT IN A RURAL PAEDIATRIC ONCOLOGY CENTRE: MBINGO BAPTIST HOSPITAL
B.W. Njodzeka (Cameroon)

09:50 – 10:20 NURSES BUSSINESS MEETING

10:20 – 10:40 COFFEE BREAK, VISIT EXHIBITION, POSTER VIEWING AND PATIENT PAVILION

PRESENTATION OF FREE PAPERS  FRI. 18 MARCH
KYOGA HALL

CIVIL SOCIETY AND PARENTS SESSION – TREATMENT ABANDONMENT

Chairs: Paul Ebusu (Uganda) and Adrian Ssali (Italy)

08:00 – 08:20 Session Related Invited speaker: Hedley Lewis

08:20 – 08:35 ABANDONMENT OF TREATMENT; A REPORT FROM THE COLLABORATIVE AFRICAN NETWORK FOR CHILDHOOD CANCER CARE AND RESEARCH: CANCARE AFRICA George Chagaluka (Malawi)
08:35 – 08:50  "MONEY WAS THE PROBLEM:" CAREGIVERS’ SELF-REPORTED REASONS FOR ABANDONING THEIR CHILDREN’S CANCER TREATMENT IN SOUTH WEST UGANDA Barnabas Atwiine (Uganda)

08:50 – 09:05  COMBATING TREATMENT DROPOUT IN PEDIATRIC CANCER Rolande Kaboré (Burkina-Faso)

09:05 – 10:20  ADDITIONAL DISCUSSION SESSION Strategic engagement – harnessing government, professional associations and other stakeholders to unify to create a strategic direction for Paediatric oncology Hedley Lewis

The value of effective partnerships between KidzCan (Zimbabwe) and St Jude’s / ALSAC to improve services in Zimbabwe Daniel McKenzie

Reducing the Treatment abandonment through awareness and fundraising. AFRON experience in Uganda Maria Tiziana Andriani

10:20 – 10:40  COFFEE BREAK, VISIT EXHIBITION, POSTER VIEWING AND PATIENT PAVILION

PRESENTATION OF FREE PAPERS  FRI. 18 MARCH ADDIS HALL

SESSION 1: MEDICAL SESSION – NON-HAEMATOLOGICAL MALIGNANCIES

Chairs: Fadhil Geriga (Uganda) and Marc Hendricks (South Africa)
08:00 – 08:20  Session Related Invited speaker: Vivian Paintsil

08:20 – 08:35  FACTORS DETERMINING ACCESS TO SURGICAL MANAGEMENT AND SURVIVAL IN CHILDREN DIAGNOSED WITH NEUROBLASTOMA IN SOUTH AFRICA Jaques van Heerden (South Africa/ Belgium)
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>08:35 – 08:50</td>
<td>Socioeconomic factors and distance from treating centre do not predict survival in South African children with neuroblastoma Robin Charlton (South Africa)</td>
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<tr>
<td>08:50 – 09:05</td>
<td>A multicentre study evaluating the presentation, predictors of survival and outcomes of neuroblastoma in Uganda Irene Nanyanga (Uganda)</td>
</tr>
<tr>
<td>09:05 – 09:20</td>
<td>Five year review of epidemiology and survival rates in children with Wilms tumour at a tertiary paediatric oncology unit, Ghana Ernestina Schandorf (Ghana)</td>
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<tr>
<td>09:20 – 09:35</td>
<td>Outcomes and predictors of survival among children with nephroblastoma at the Uganda cancer institute Shamimu Namugerwa (Uganda)</td>
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<tr>
<td>09:35 – 09:50</td>
<td>Clinico-pathological profile of malignant abdominal tumors in children: experience of the pediatric oncology unit of Bamako Abdoul Karim Doumbia (Mali)</td>
</tr>
<tr>
<td>09:50 – 10:05</td>
<td>The feasibility of staging and estimating outcomes according to the Toronto pediatric cancer stage guidelines for three childhood cancer types in 7 sub-Saharan hospital-based cancer registries (GFAOP) Brenda Mallon (France)</td>
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<tr>
<td>10:05 – 10:20</td>
<td>Outcomes and predictors of survival among children managed for orbital rhabdomyosarcoma at Uganda cancer institute Elizabeth Nagawa (Uganda)</td>
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<tr>
<td>10:20 – 10:40</td>
<td>Coffee break, visit exhibition, poster viewing and patient pavilion</td>
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PRESENTATION OF FREE PAPERS- FRI. 18 MARCH
VICTORIA HALL

SESSION 2: PLENARY SESSION TARGETED THERAPY

Chairs: Prof. Alan Davidson (South Africa) and Dr. Nixon Niyonzima (Uganda)

10:40 – 11:00  Role of targeted therapy in Africa
Prof. Alaa Elhaddad  Head of Pediatric Oncology Department and Bone Marrow Transplant Unit National Cancer Institute, Cairo University and Children's Cancer Hospital, Egypt

11:00 – 11:20  Case series - Targeted therapy in South Africa
Prof. Jennifer Geel  Wits University; Charlotte Maxeke Johannesburg Academic Hospital, Donald Gordon Medical Centre, South Africa

11:20 – 11:40  The future of target therapies in lymphoma and the potential role of Africa during development
Prof. Suzanne Turner  Division of Cellular and Molecular Pathology, Addenbrooke’s Hospital, UK

11:40 – 12:00  CAR T cells Therapy in Africa: a Priority or Not in Paediatric Oncology?  Prof. Mahmoud Hammad  M.D Associate professor and consultant Pediatric hematology/oncology and stem cell transplant. National Cancer Institute, Cairo University and Children’s Cancer Hospital, Egypt

12:00 – 12:40  Is Africa ready for CAR T cell therapy?
Panel discussion

12:40 – 13:40  LUNCH BREAK, POSTER VIEWING AND PATIENT PAVILION SIOP ANNUAL BUSINESS MEETING FOR REGISTERED MEMBERS ONLY

VENUE: ACHWA HALL
PRESENTATION OF FREE PAPERS - FRI. 18 MARCH
ADDIS HALL

SESSION 3: MEDICAL SESSION - MULTIDISCIPLINARY CARE

Chairs: Jeannette Parkes (South Africa) and John Ssekabira (Uganda)

13:40 – 14:00  Session Related Invited Speaker: Moatasem Elayadi

14:00 – 14:15  ANTICANCER DRUGS SUPPLY CHAIN MANAGEMENT, ADMIXTURE, USE AND DISPOSAL AT TIKUR ANBESSA SPECIALIZED HOSPITAL: A QUALITATIVE STUDY
Atalay Mulu Fentie (Ethiopia)

14:15 – 14:30  ACCESS TO ANTINEOPLASTIC MEDICINES FOR TREATING PEDIATRIC CANCERS AT KOMFO ANOKYE TEACHING HOSPITAL, GHANA
Kofi Boamah Mensah (Ghana)

14:30 – 14:45  COMMUNITY PHARMACISTS IN CANCER HEALTH PROMOTION IN GHANA: IN THE CONTEXT OF CHILDHOOD CANCERS
Kofi Boamah Mensah (Ghana)

14:45 – 15:00  DEVELOPING CHEMOTHERAPY ADMINISTRATION PROTOCOLS FOR PAEDIATRIC CANCERS AT UGANDA CANCER INSTITUTE: A PHARMACIST’S PERSPECTIVE
Shauna Georgia Odongo Arao (Uganda)

15:00 – 15:15  IMPLEMENTATION OF MULTIDISCIPLINARITY IN FRENCH AFRICAN GROUP OF PEDIATRIC ONCOLOGY (GFAOP) SUBSAHARAN TEAMS: A SLOW INNOVATIVE PROCESS
Pierre Bey (France)

15:15 – 15:30  ESSENTIAL COMPONENTS OF PAEDIATRIC CANCER CARE IN AFRICA: CORRELATION WITH ECONOMIC AND POPULATION INDICATORS. A SIOP GLOBAL MAPPING PROGRAMME REPORT
Jennifer Geel (South Africa)
15:30 – 15:45  PAEDIATRIC ONCOLOGY REHABILITATION IN A LOW-RESOURCE CONTEXT: SIOP GLOBAL MAPPING AFRICA & FORMATION OF A PAEDIATRIC ONCOLOGY REHABILITATION TASK FORCE
Prince Makupe (Malawi)

15:45 – 16:00  ADDITIONAL DISCUSSION TIME

16:00 – 16:20  COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION

PRESENTATION OF FREE PAPERS-FRI. 18 MARCH KYOGA HALL

SESSION 3: NURSES SESSION – SAFE PRACTICE

Chairs: Nankinga Rose (Uganda) and Winnie Wanjiru (Kenya)
13:40 – 14:00  Session Related Invited speaker:
Marilyn Hockenberry

14:00 – 14:15  CHEMOTHERAPY SAFETY: AUDIT OF PRESCRIPTION AND ADMINISTRATION IN A TERTIARY REFERRAL UNIT
Isaac Mulyowa (Uganda)

14:15 – 14:30  ERRORS IN CHEMOTHERAPY PRESCRIPTION
Isaac Mulyowa (Uganda)

14:30 – 14:45  USING THE S-BAR COMMUNICATION TOOL TO EFFECT A CHANGE IN THE PEDIATRIC ONCOLOGY UNIT Comfort Asoogo (Ghana)

14:45 – 15:00  IMPROVING EFFECTIVE DISCHARGE EDUCATION FOR PARENTS OF CHILDREN WITH CANCER AT KORLE-BU TEACHING HOSPITAL
Enyo Asi Bosumprah (Ghana)

15:00 – 15:15  THE USE OF CENTRAL VENOUS DEVICES IN THE PEDIATRIC ONCOLOGY UNIT DEPARTMENT OF RABAT, MOROCCO Sara Sennani (Morocco)
15:15 – 15:30 IMPROVING CARE FOR CHILDREN WITH CANCER IN EGYPTER Abdelkhalek (Egypt)

15:30 – 15:45 SHEFA AL-ORMAN CHILDREN CANCER HOSPITAL: A GIANT STEP TO CANCER CARE IN UPPER EGYPT Mahmoud M Elzemely (Egypt)

15:45 – 16:00 NURSES BUSINESS MEETING

16:00 – 16:20 COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION

PRESENTATION OF FREE PAPERS-FRI. 18 MARCH VICTORIA HALL

SESSION 3: CIVIL SOCIETY AND PARENTS SESSION – PSYCHOSOCIAL

Chairs: Emmanuel Luyirika (Uganda) and Mark Mwesiga (Uganda)

13:40 – 14:00 Session Related Invited Speakers:
Sidney Chahonyo and Allesio Di Carlo

14:00 – 14:15 LISTENING AND RESPONDING TO FEEDBACK FROM FAMILIES Megan Cruise (United Kingdom)

14:15 – 14:30 RETENTION IN CARE; PSYCHOSOCIAL SUPPORT FOR VULNERABLE CHILDREN WITH CANCER DURING COVID19 LOCKDOWN Claire Namulwa (Uganda)

14:30 – 14:45 ADDRESSING THE EMOTIONAL WELL-BEING OF NURSES WORKING IN PEDIATRIC ONCOLOGY IN SUB-SAHARAN AFRICA Megan Cruise (World Child Cancer)

14:45 – 15:00 PSYCHOSOCIAL ISSUES EXPERIENCED BY ADOLESCENTS WITH CANCER AT NEW HOPE CHILDRENS HOSTEL Atuhaire Auleria Kakwara (Uganda)
15:00 – 15:15  PSYCHOSOCIAL SUPPORT IN AFRICAN PAEDIATRIC ONCOLOGY CARE IS GENERALLY DELIVERED BY SOCIAL WORKERS: A SIOP GLOBAL MAPPING PROGRAMME REPORT  
   Mawethu Bell  (South Africa)

15:15 – 15:30  THE POSITIVE IMPACT OF TECHNOLOGY ON COPING IN CHILDREN WITH CANCER  
   Denis Chagira  (Kenya)

15:30 – 15:45  LE RETENTISSEMENT DU CANCER DE L’ENFANT SUR SA SCOLARISATION  
   F Taher  (Morocco)

15:45 – 16:00  ADDITIONAL DISCUSSION

16:00 – 16:20  COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION

PRESENTATION OF FREE PAPERS  FRI. 18 MARCH  ACHWA HALL

SESSION 3: MEDICAL SESSION – IMPLEMENTATION SCIENCES

Chairs: Jaques Van Heerden (South Africa) and Chantal Bouda (Burkina Faso)

13:40 – 14:00  Session Related Invited Speaker: Aggrey Semere

14:00 – 14:15  THE BURDEN OF CHILDHOOD CANCER AND MANAGEMENT RESOURCES IN BURUNDI  
   Jonas Nsengiyumva (Burundi)

14:15 – 14:30  IMPLEMENTATION OF EARLY DIAGNOSIS PROGRAM FOR FIVE CHILDHOOD CANCERS IN SUB-SAHARAN AFRICA. A PROGRESS REPORT FROM GFAOP AND J. LEMERLE INSTITUTE  
   Mame Ndella Diouf (Senegal)

14:30 – 14:45  IMPACT OF IMPROVING ACCESS TO TREATMENT IN THE MANAGEMENT OF RETINOBLASTOMA IN KINSHASA UNIVERSITY HOSPITAL  
   Aléine Budiongo (Democratic Republic of Congo)

PLENARY - VICTORIA HALL
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<tr>
<td>14:45 – 15:00</td>
<td>THE VALUE OF THE MULTI-DISCIPLINARY TEAM TOWARDS MANAGEMENT OF PAEDIATRIC NEURO-ONCOLOGY IN UGANDA</td>
<td>Richard Nyeko (Uganda)</td>
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<td>15:00 – 15:15</td>
<td>PEDIATRIC CANCERS IN HOSPITAL PRACTICE IN NIAMEY-NIGER: STUDY OF 164 CASES</td>
<td>Aïchatou Mahamadou (Niger)</td>
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<td>15:15 – 15:30</td>
<td>EXPERIENCE OF SETTING UP A DAYCARE ONCOLOGY CENTRE AT A TERTIARY HOSPITAL IN NAIROBI, KENYA</td>
<td>W Wanjiru (Kenya)</td>
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<tr>
<td>15:30 – 15:45</td>
<td>ELABORATING TELE-EXPERTISE TOOLS FOR CHILDHOOD CANCER IN SUB-SAHARIAN AFRICA. EXPERIENCE OF BAMAKO-CURIE-GFAOP TWINNING PROGRAM</td>
<td>Pierre Togo (Mali)</td>
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<td>15:45 – 16:00</td>
<td>BUILDING A MODEL PEDIATRIC NEURO-ONCOLOGY PROGRAM IN SUB-SAHARAN AFRICA</td>
<td>Mwebe Katasi (Uganda)</td>
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<td>COFFEE BREAK, POSTER VIEWING AND PATIENT PAVILION</td>
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**PLENARY SESSION | FRIDAY 18 MARCH | VICTORIA HALL**

**SESSION 4: PLENARY SESSION Childhood Cancer in Special Circumstances**

(Refugees, Internally Displaced Persons and Other Humanitarian Crises)

Chairs: Prof. Lorna Renner (Ghana) and Dr. Orem Jackson (Uganda)

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<tr>
<td>16:20 – 16:40</td>
<td>WHO position on Childhood Cancer Access in Special Circumstances</td>
<td>Dr Yonas Tegegn Woldemariam (WHO)</td>
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(Refugees, Internally Displaced Persons and Other Humanitarian Crises)
16:40 – 17:00  Africa specific circumstances affecting the management of childhood cancer Dr. Francine Kouya
Oncology Supervisor of the Cameroon Baptist Convention, Cameroon

17:00 – 17:20  Challenges of accessing Care in Special Circumstances – Palliative Care in Refugee Settlements in Uganda Dr Eddie Mwebesa Clinical and International Programs Director, Hospice Africa Uganda

17:20 – 17:40  Childhood Cancer Care in Special Circumstances - Experiences from other Continents Dr. Nisreen Amayiri Consultant pediatric neuro-oncology and solid tumors, King Hussein Cancer Center, Jordan.

17:40 – 18:00  Ethical considerations in Childhood Cancer Access in Special Circumstances Julius Ecuru Manager, BioInnovate Africa

CLOSING - VICTORIA HALL

FINAL SESSION: CONGRESS CLOSING CEREMONY

18:00 – 19:00  Awards presentation
Lifetime Award: doctors – Elhamy Rifky
Lifetime Award: nursing -- Enyo Bosumprah
Friend of SIOP Africa award – Catherine Patte
Best Oral presentation
Best Poster presentation
Most Innovative Work for Africa Award
SIOP Africa Congress 2022: The Key Outcomes and closing ceremony
MANAGEMENT OF ACUTE LEUKAEMIA IN KINSHASA UNIVERSITY HOSPITAL: AN EXPERIENCE OF 13 YEARS
Budiongo Aléine (Democratic Republic of Congo)

ANAPLASTIC LYMPHOMA MIMICKING A BRODIE’S ABSCESS IN A 12-YEAR-OLD BOY
S Aggoune (Algeria)

UNUSUALLY LOCALIZED BURKITT LYMPHOMA: A CASE REPORT
Aime Kissou (Burkina-Faso)

COMMUNITY PHARMACISTS IN CANCER HEALTH PROMOTION IN GHANA: IN THE CONTEXT OF CHILDHOOD CANCERS
Emmanuel Ayire Adongo (Ghana)

LEVEL OF AWARENESS OF CHILDHOOD CANCER IN GREATER ACCRA REGION OF GHANA
Emmanuel Ayire Adongo (Ghana)

TO CARRY OUT REAL-TIME MEDICAL CHECK-UPS AT THE JOSEPH RAVOAHINGY ANDRIANAVAHLONA HOSPITAL IN MADAGASCAR UNDER THE RESPONSIBILITY OF AN ASSOCIATION
Sonia Rasandra (Madagascar)

NUTRITIONAL ASSESSMENT AND PREVALENCE OF MALNUTRITION IN CHILDREN AGED 0-59 MONTHS WITH CANCER
Abdoul Karim Doumbia (Mali)

EARLY NUTRITION INTERVENTION IMPACT ON NEUROBLASTOMA-HR (TWO SIGNIFICANT INTERVENTIONS)
Aliaa Ahmed (Egypt)

WILMS TUMOR IN A TUNISIAN CENTER: CLINICAL AND THERAPEUTIC STUDY OF 12 CASES
Amal Chamsi (Tunisia)
DIAGNOSIS AND MANAGEMENT OF PEDIATRIC BRAIN TUMORS IN UGANDA
Mwebe V Katasi (Uganda)

A PEDIATRIC CASE WITH LUMBAR NEPHROBLASTOMA
Nouria Benmouffok (Algeria)

GASTRIC ADENOCARCINOMA, AN UNUSUAL CANCER IN PEDIATRICS: A CASE REPORT
Abdoul Karim Doumbia (Mali)

GLIOME INFILTRANT DU TRONC CÉRÉBRAL : UN CAS OBSERVÉ AU NIGER CHEZ UNE FILLE DE 10 ANS
Nafissatou Moussa Nanaito (Niger)

EPIDEMIO-CLINICAL ASPECT OF RETINOBLASTOMA AT THE SIKASSO REGIONAL HOSPITAL IN MALI
Poma Dembele (Mali)

UN TORTICOLIS RÉVÉLANT UNE LOCALISATION INHABITUELLE D’UN SARCOME D’EWING CHEZ L’ENFANT
Z Lamich (Morocco)

SITUATION AND ACTIVITY OF THE PEDIATRIC ONCOLOGY UNIT OF GABON 2018-2021
Laila Hessissen (Morocco)

ONCOLOGY NURSING TRAINING PROGRAMME: AT UGANDA CANCER INSTITUTE
Kemigisha Misk (Morocco)

CHILDHOOD HEAD AND NECK RHABDOMYOSARCOMA IN PEDIATRIC HEMATOLOGY AND ONCOLOGY CENTER OF RABAT (MOROCCO).
M El kababri (Morocco)
MED-COM01 MALNUTRITION AND FEBRILE NEUTROPENIA IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIA AT MUHIMBILI NATIONAL HOSPITAL

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Background/Objectives
Febrile neutropenia (FN) is common in Acute Lymphoblastic Leukemia (ALL). Malnutrition predisposes children with ALL to FN by alterations of body metabolism which aggravates low body immunity. The aim of this study was to determine the prevalence of malnutrition in ALL children with FN and to compare it with ALL children without FN.
**Methods**

A cross sectional retrospective study involved data retrieved from the files of children 0 to 10 years diagnosed with ALL admitted at Muhimbili National Hospital from January 2019 to December 2020. Data included Age, Sex, ALL type, body weight on admission, History of fever with body temperature 38 degrees centigrade(C) and above at any point from diagnosis to the end of Remission induction treatment and absolute neutrophil count <1/mm3 during fever presentation. Weight for Age was interpreted using WHO Z scores. Malnutrition was defined as Mild to moderate underweight (<-1 to >-3 SD) and Severe underweight (-3 and <-3 SD). FN was defined as body temperature of 38C and above with Absolute neutrophil count <1/mm3. Frequency percentages, Pearson Chi square test and Fischer exact test were used in data analysis.

**Results**

A total of 59 children, 28(47.5%) males and 31(52.5%) females were included in the study. Mean age was 5.2 3 2.0 years. Children with FN were 45(76.3%) and those without FN were 14(23.7%). FN mostly affected age group 1 to 5 years (p value 0,004). The prevalence of Malnutrition in children with FN was 28.9% where severe underweight was 11.2% and mild to moderate underweight was 17.7%. Prevalence of Malnutrition in children without FN was 28.6% (mild to moderate underweight) none had severe underweight (0%) 

**Conclusions/Recommendations**

Malnutrition is prevalent in ALL children both with and without FN. Severe malnutrition predisposes ALL children to FN. Early nutritional intervention is important in children with ALL to reduce the incidence of FN.
MED-COM02 FEVER AND NEUTROPENIA OUTCOMES AND AREAS FOR INTERVENTION: A REPORT FROM SUCCOUR: SUPPORTIVE CARE FOR CHILDREN WITH CANCER IN AFRICA

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Background and Aims
Death during paediatric cancer treatment is common in sub-Saharan Africa. Using the infrastructure of Supportive Care for Children with Cancer in Africa (SUCCOUR), our objective was to describe fever and neutropenia (FN) characteristics and outcomes in Sub-Saharan Africa in order to identify potential areas for future intervention.

Methods
A multi-country, multi-centre prospective, observational cohort study was conducted in sub-Saharan Africa in Malawi, Kenya, Ghana and Zimbabwe. Data were collected from September 2019 to March 2020. Children below 16 years with newly diagnosed cancer treated with curative intent were included. Data were abstracted in real time using standardised case report forms by trained personnel. Characteristics and outcomes of FN during the first three months of treatment were documented.
Results
Two hundred and fifty-two patients were included (median age 6.0, range 0.2–15.0 years, 54% male). The most common cancer was Burkitt lymphoma (63/252, 25%). Among 104 FN episodes, 21 (21%) were associated with prolonged neutropenia (> 1 week) and 32 (31%) were associated with profound neutropenia (absolute neutrophil count < 0.1 x 10⁹/L). In 10/104 (10%) episodes, empiric antibiotics were started within one hour following fever onset and in 16/104 (15%) episodes, a blood culture was obtained before starting antibiotics. Malaria parasitaemia was detected in 4/104 (4%). A total of 11/104 (11%) patients died in the FN episodes.

Although most FN was not associated with prolonged or profound neutropenia, 11% resulted in death. Future efforts to target for reducing mortality include doing blood cultures prior to giving antibiotics and earlier initiation of empiric antibiotics. We aim to develop and implement a local care pathway on the management of FN and to evaluate the impact of this intervention.

MED-COM03 ECHINOCANDIN RESISTANT CANDIDEMIA, THE NEXT UPCOMING THREAT IN THE ERA OF ECHINOCANDIN PROPHYLAXIS AMONG PEDIATRIC CANCER PATIENTS
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Introduction
Cancer patients are at risk for candidemia, echinocandin are widely used for prophylaxis in haematological cancer patients. increasing echinocandin resistance Candida spp. represent an emerging threat. The aim of study to identify echinocandin candida resistant strains and breakthrough candida among our paediatric cancer patients.
**Methods**

Between 2014 and 2020, Echinocandin was our antifungal prophylaxis among children with acute myeloid leukemia and relapsing leukemia. We retrospectively reviewed the medical records of patients with candidaemia in Children Cancer Hospital, Egypt CCHE. Resistant candida species pattern and outcome are analyzed. Breakthrough candidaemia was defined as candidaemia if it developed during the administration of anti-fungal agents. Candida spp. were identified using the Vitek and Vitek2 systems.

**Results**

Three-hundred fifty pediatric cancer patients with candidemia were reported, median age 4 years, range (4 months - 18 years). Main underlying diseases were hematological malignancies (54%) and solid tumors (46%). Acute leukemia was the most common hematological malignancies while neuroblastoma was the most common solid malignancies.

Non-albicans Candida account for 72% of isolates compared to candida-albicans (28%). Candida sp. isolated were: C. albicans (28%), C. tropicalis (30%), C. Parapsilosis (20%), C. krusei (6%) and C. glabrata (3%). Resistance pattern to antifungal reported to 15% for fluconazole, 6% for liposomal ampho-B, 5% for echinocandin and 3% for voriconazole (Table 1). Echinocandin resistant candida strains reported in 17(5%) patients: C. parasitosis (7), C. albicans (4), C. tropicalis (2), C. krusei (3) and C. lipolytica (1).

Breakthrough candidemia on top of echinocandin prophylaxis reported among 62(17%) patients with C. parapsilosis is the most common 31(50%) isolated pathogen. Ten patients (16%) with Breakthrough candidemia died from candida sepsis syndrome. The overall 30-day mortality rate was 24% (85/350 patients). Candida attributable cause of mortality 36 cases (10%). Echinocandin Resistant candida was a direct cause of mortality in 2 patients. Patients with septic shock and ICU admission and Central venous catheter candidemia was associated with high risk of mortality.
Conclusion
Echinocandin resistant Candida is a major threat in high risk of hematological pediatric cancer patient with high mortality rate. Therefore, clinicians should pay attention to resistance and Break- through Candida even patient under antifungal prophylaxis. Antifungal stewardship may be helpful.

MED-COM04 IMPACT OF RAPID MOLECULAR DETECTION OF SEPSIS ON TIME TO OPTIMAL ANTIMICROBIAL THERAPY IN PEDIATRIC CANCER PATIENTS

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Background
The clinical microbiology laboratory plays a key role in the diagnosis of bloodstream infections (BSI). Reducing the time to microorganism identification and susceptibility is crucial to improving clinical outcome and subsequently reducing length of hospital stay and associated costs.

Patients and methods
This study was conducted at National Cancer Institute (NCI) on 120 pediatric cancer patients suspected to have sepsis according to a revised consensus conference definition in 2016 (Sepsis 3) from December 2017 to December 2018. They were divided into two groups, group I to whom only blood cultures were done (n=60); while in group II, blood cultures and rapid molecular method for detection of sepsis were done (n=60). The test used was the hospital acquired infection real-time multiplex- PCR detection kit from DNA technology, which detects 21 different bacterial pathogens directly from venous blood sample. Bactec 9120 and Vitek-2 (Biomerieux, France) were used for the conventional blood culture testing.
Results
Using the rapid multiplex- PCR detection kit showed a significantly shorter turnaround time to identification. The median turnaround time for group I blood culture was 120 hrs with IQR (96-144 hrs) compared to 5 hrs with IQR (4-6 hrs) for (p value <0.001). Shift to optimal antimicrobial therapy was effectively achieved in 75% of patients in Group II compared to 48% of cases in group I (p value 0.003).
All-cause mortality was lower in the multiplex- PCR group but the difference was not statistically significant (42% versus 50%, p = 0.360). There was agreement between the results of the multiplex- PCR detection kit and blood culture in 93.3% of isolates. Four isolates were detected only by the multiplex- PCR.

Conclusion
Sepsis requires early diagnosis and prompts appropriate treatment to improve prognosis. The benefits of rapid diagnosis of sepsis etiology are adequate antimicrobial treatment and reduction of duration of hospital stay and mortality.

MED-COM05 A CROSS-SECTIONAL SURVEY TO ASSESS THE KNOWLEDGE OF COMMUNITY PHARMACISTS ON CANCER IN GHANA
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Background:
GLOBOCAN estimates that 16,600 cases of cancer occur annually in Ghana. Community pharmacists are the first point of contact to the public due to their accessibility, wide spread and credibility. Thus, the level of knowledge and awareness of community pharmacists are important in order to assure best healthcare advice is provided to the public. Aims of this survey were; (1) to collect a preliminary data on knowledge of risk factors, signs, and symptoms of cancer, (2) to ascertain the adequacy of the research survey in determining their level of knowledge, (3) to assess the viability of a full-scale study on community pharmacists.
**Methods:**
A cross-sectional survey was conducted using a self-administered questionnaire to assess the knowledge of signs and symptoms and risk factors of cancer among 150 community pharmacists.

**Results:**
Score for knowledge on cancer among community pharmacists indicated that 76.7% had poor knowledge. Responses of community pharmacists toward a list of warning signs and symptom of cancer indicated poor level of knowledge (82%). Community pharmacists recorded poor level of knowledge (65.3%) on causes and risk factors for cancer. Correlation analysis shows that age has a relation with level of knowledge on signs and symptoms of cancer.

**Conclusion:**
This survey provided a valuable data which indicated that community pharmacists in Ghana have poor level of knowledge on cancer. The findings obtained from the study agree with findings of other studies conducted in this area which suggest that survey instrument was adequate to assess the knowledge level of community pharmacist in Ghana. Though the response was low, data obtained indicate a viability and need of conducting full-scale research in this workforce to get a better assessment of the level of knowledge of community pharmacists on cancer in Ghana.

**MED-COM06 MORPHINE GAP IN CAMEROON, MORE ADMINISTRATIVE FACILITATION REQUIRED TO REDUCE SUFFERING**

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**Background**
Many patients in Low- and middle-income countries lack access to the opioid medicines that the World Health Organization designates as essential for pain control. Disparities in opioid consumption are partly related to policies affecting opioid access. Pain associated with cancer can significantly influence an individual's morbidity and quality of life.
Therefore, Pain relief is fundamental to quality of life and palliative care.

**Aim**
To evaluate the availability of oral Morphine in relation to pain control need in Cameroon and national opioids regulation policies.

**Method**
Analysis of opioid consumption data for Cameroon as published by the international narcotic control board (INCB), followed by a descriptive literature review of publicly available documents on pain control needs and opioid regulations for Cameroon using PubMed, Medline, Google Scholar, Google, Ministry of Public Health Website and National Institute of Statistics Cameroon.

**Results**
The annual consumption of morphine in Cameroon has steadily increased from 0.07 mg/capita in 1985 to 0.35 mg/capita (7.6 kg) in 2012. About 55.3% of cancer and HIV related deaths are associated with moderate/severe pain. Almost all (98%) of patients dying of HIV or Cancer have untreated moderate/severe pain. An average annual import of 3.4kg of Morphine was recorded between 20011 and 2013, while a minimum of about 183Kg is required for HIV and cancer patients only. Importation of morphine is subject to signed authorization signed by the minister of public health.

**Conclusion**
There is a huge unmet need for pain relief with oral morphine in Cameroon. Limited access is at least in part from unduly strict national narcotic drug policies and regulations. Continuous advocacy with the ministry of health is essential to reduce the suffering of many Cameroonians.

**MED-COM07 EXPERIENCE OF INFORMAL CAREGIVERS ON THE MANAGEMENT OF SIDE EFFECTS OF CHEMOTHERAPY, A STUDY AT THE KORLE BU TEACHING HOSPITAL**

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Background
Management of chemotherapy side effect can be challenging for both patients and family caregivers. This study explored the experiences of caregivers of children with cancer on management of side effects of chemotherapy at the Korle Bu teaching hospital in Accra, Ghana.

Methodology
A qualitative design, which was exploratory and descriptive in nature was employed. Purposive sampling was used to recruit participants. Data collected between May – July, 2021 was by means of a semi-structured interview guide. Saturation was reached after the twelfth participant was interviewed. Interviews were audio recorded and lasted between 30 to 50 minutes; data was then analyzed using thematic analysis.

Results
All interviewed were parents with 8 being mothers and 4 fathers. 98% of participants received diverse information on chemotherapy and its side effects. This information was received from the health professionals through counseling, internet, or written books. All participants (100%) were able to describe various side effects their ward had experienced such as nausea and vomiting, hair loss, fever, low blood counts. 80% were able to identify these side effects due to prior knowledge received. 58% of the participants described how they managed these side effects at home whilst 42% did nothing but went to the hospital, some after undue delays, due to lack of information on initial home management. The challenges faced by caregivers of children with cancer at the Korle Bu teaching hospital included lack of information and poor social support.

Conclusion
It is recommended that health service providers should train caregivers on the initial home management of side effects of chemotherapy where appropriate and there should be continuous education of caregivers on the side effects of chemotherapy.
MED-COM08 BACTEREMIA IN PEDIATRIC HEMATOLOGIC CANCER PATIENTS WITH FEBRILE NEUTROPENIA AT THE UGANDA CANCER INSTITUTE

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Background/objectives

Bloodstream infections in pediatric hematologic cancer patients are associated with significant mortality. Poor clinical outcomes are associated with presence of multidrug resistant organisms. Empiric management of infections is complicated by emerging antimicrobial resistance and changing local epidemiology of organisms. We sought to determine predominant species causing bacteremia, and their antimicrobial susceptibility profiles from pediatric hematologic cancer patients with febrile neutropenia at the Uganda Cancer Institute.

Methods

Blood drawn from pediatric participants during a febrile neutropenic episode (FNE; fever ≥ 37.5°C and neutrophil count ≤ 1000 cells/µL) was cultured in the BACTEC 9120 blood culture system. Bacteria from positive cultures were identified biochemically. Antimicrobial susceptibility testing was performed with the disc diffusion method.

Results

Overall, in the pediatric population, 56 (34.4%) participants had at least one FNE. A total of 27/67 (40%) FNEs with pathogenic organisms isolated were from the pediatric population. Twenty-three (85%) of bacteremia occurred during the first FNE and were more common among patients with acute leukemias (70%).
Of the 40 aerobic bacteria isolated, 31 (78%) were Gram-negative, the most common being Escherichia coli (11; 35%). Seventeen (55%) of the Gram-negative bacteria displayed the extended spectrum beta lactamase phenotype and 11 (35%) were resistant to carbapenems. Overall, 25 (81%) of Gram-negative bacteria were multidrug resistant. Two (50%) of the four Enterococcus species were vancomycin resistant. Two molds and two Candida albicans were also isolated.

Conclusions/recommendations
Multidrug resistant bacteria are the main cause of bacteremia in pediatric hematologic cancer patients with febrile neutropenia at the UCI. Enhanced microbial surveillance, infection control and antimicrobial stewardship programs are needed to guide therapy and address emerging antimicrobial resistance in the pediatric ward at the UCI.

MED-COM09 INTEGRATING A PALLIATIVE APPROACH INTO THE HEALTHCARE PROVIDED BY PAEDIATRIC ONCOLOGY UNITS. INSIGHTS FROM A 3-YEAR TRAINING PROGRAM
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Background and objectives
Members of the French-African Pediatric Oncology Group (GFAOP) developed a 3-year program to train pediatric oncology units (POU) from 15 French-speaking countries in Africa to use analgesics and provide palliative care, with the assistance of the Sanofi Espoir Foundation, as part of its My Child Matters initiative.
We report how this program was rolled out, the lessons that can be learned from it, and how it might be extended.

**Methods**

This program was rolled out from April 2016 to March 2019 in three phases: initial training, assessment, and advanced training in selected topics. The initial 5-day training by a group of French-African teachers, took place in 3 different cities in Africa Dakar, Abidjan and Rabat. 

An early assessment was done 6 to 12 months later via a questionnaire sent to all the POU directors, and/or on-site visit. The advanced training phase was adjusted accordingly this evaluation. A collective training session was proposed to the teams whose projects were already underway, while in situ mentoring was provided for the others.

**Results**

The first phase brought together 65 trainees from 18 units attending one of three sessions. A total of 16 teams were assessed. 7 out of 9 teams attended the collective training session in Marseille, while five out of 7 received in situ trainings, focusing on palliative care organization, morphine access, and procedure-related pain. An updated evaluation is underway to better measure the impact of this training.

**Conclusion**

We were able to bring this collaborative training program to a successful conclusion. It allowed us to explicitly discuss pain treatment and palliative care within the GFAOP's POUs. Future plans will need to shift from very large-scale training projects to more targeted initiatives, in order to adapt to the complexity of local systems.
NUR-TRA01: BUILDING A FOUNDATION NURSE TRAINING PROGRAMME FOR PAEDIATRIC ONCOLOGY NURSES IN SUB-SAHARAN AFRICA

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Background
The Sub-Saharan African nursing network builds on existing training initiatives and partnerships across the region. It aims to develop harmonized tiered curricula for nurse training. A steering committee of nurse leaders, predominantly of African origin, oversees the activities of the network. The aim of this study was to build on an outline curriculum framework developed through a previously reported Delphi survey using a consensus methodology to develop core teaching materials for ‘foundation level’ nurse training.

Methods
Following the development of an outline curriculum for ‘foundation’ level training based on the views of paediatric oncology nurses working in Africa a consensus approach was used to develop a core learning package relevant to the setting. This learning package was developed through collaboration between steering committee members from institutions and partnerships working in Sub-Saharan Africa. It was quality assured through review by members of the SIOP Global Health Nursing Working Group. Each module’s content was reviewed by two nurse specialists and scored for accuracy, applicability, comprehensiveness and clarity. A programme of ‘train the trainer’ courses has been initiated.
Results
The learning package has been completed and consists of 12 modules, with a core slide deck for each module; an aligned competence framework, and a facilitator guide to be used by trainers. The overall rating for all modules on a scale of 5 was 4.53, being 4.5 for accuracy, 4.92 for applicability, 4.17 for comprehensiveness and 4.67 for clarity. This package, to be launched at SIOP Africa will be available through the open access website maintained by CancerPointe.

Recommendations
This innovative learning package should be adopted by programmes in Sub-Saharan Africa looking to establish or formalise paediatric oncology nurse training. It is aligned to the SIOP Nursing Baseline Standards, and provides a foundation level of knowledge and skills on which to build.

NUR-TRA02: TEACHING PEDIATRIC ONCOLOGY NURSING AT KAMUZU COLLEGE OF NURSING IN MALAWI

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Background and Aims
In the Malawian health system, nurses are of paramount importance, but most never receive specialized paediatric oncology nursing (PON) training. While there are many nursing schools in Malawi, none have PON-related courses. Nurses are often the frontline health workers that see paediatric patients, but don’t know how to recognize cancer. Kamuzu College of Nursing (KCN), within Malawi University, is recognised as an excellent public nursing and midwifery college with special commitment to academic rigor. The aim of this project was to develop a partnership between KCN faculty and Global HOPE Nursing to offer specialized training to nursing students.
**Methods**

This project uses the foundation courses developed to provide a formal structure to Global HOPE Nursing education. The two Global HOPE foundation courses were used to teach KCN nurses, each course includes modules that contain readings, short video lectures, case studies, group discussion questions and exam questions. Thirteen KCN graduate students specializing in paediatrics enrolled in the two courses. Students met for class with the Global HOPE Nurse Educator who taught through face-to-face lectures and group discussions. Due to COVID 19, schools were closed for 2 months and this disrupted the clinical allocations and final examinations for students. However, after schools re-opened, students finished their clinical work and took the final examinations.

**Results**

All 13 students successfully completed the courses that involved 32.5 hours of classroom work including face-to-face presentations and ZOOM. Students also completed 80 hours of clinical experience on the paediatric cancer ward.

**Conclusions**

This project serves as a model platform for other sub-Saharan Africa locations where nursing education programs would enhance capacity. It also provides an ongoing opportunity for continuing professional development in the specialty and provide accessible oncology information, hence impacting on early recognition and referral of oncology patients.

**NUR-TRA03: PROMOTING PEDIATRIC ONCOLOGY NURSING EDUCATION IN SUB-SAHARAN AFRICA**

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Background and Aims
To maximize cures for children with cancer in low- and middle-income countries (LMIC), excellence in nursing is at the centre of all that is needed. While the burden of childhood cancer care is the highest in LMIC, opportunities for continuing nursing education and specialization are extremely limited. The aim of this project was to implement an education network for nursing caring for children with cancer across sub-Saharan Africa.

Methods
The Extension for Community Health Outcomes (ECHO) model is used by Global HOPE Nursing to implement a learning platform that provides nurses in sub-Saharan Africa access to nursing expertise in the care of children with cancer. Case-based learning strategies are used at monthly Project ECHO nursing seminars to provide access to nursing expertise in the care of children with cancer. Early career nurses specializing in paediatric oncology are mentored to serve as Global HOPE Nursing Project ECHO presenters.

Results
During the first 17 months of implementation 598 participants from 18 countries attended an ECHO seminar with an average of 35 participants per seminar. To date, 187 unique participants attended the first 17 Global HOPE Nursing Project ECHO Seminars with 42% of these individuals (n= 78) attending more than one. Nurses were from Global HOPE Centers of Excellence (44%) and community hospitals or schools of nursing (56%). Participants felt more confident in providing childhood cancer nursing care after the Project ECHO seminar and evaluations demonstrated a case-based approach to learning was extremely successful.

Conclusions
A key focus of the Global HOPE Nursing Project ECHO is to build a knowledge network to increase capacity of paediatric oncology nursing experts in sub-Saharan Africa. Formal education programs that build the capacity of specialists in paediatric oncology nursing are essential to improve global cure rates for children with cancer.
NUR-TRA04: EXPERIENCES OF THE FIRST COHORT IN THE GHANA COLLEGE OF NURSES AND MIDWIVES’ FIRST PAEDIATRIC ONCOLOGY NURSING PROGRAMME

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Background
The drive and desire to improve care for children with cancer in Ghana led to the development of the Ghana College of Nurses and Midwives’ first-ever paediatric oncology nursing one-year specialization program, that trained nurses working in paediatric oncology units (POUs) in Ghana to handle the complex and specialized care these children need.
The aim is to outline the experiences of nurses and the benefits of the specialized paediatric oncology nursing program.

Methods
World Child Cancer funded eighteen nurses already working in Ghana’s two major treatment and shared care centres to undertake the one-year program. The course was created and presented by experienced paediatric oncology nurses from the United Kingdom and the United States, in collaboration with local partners and was delivered as didactic online lectures and practicums on the POUs in Accra and Kumasi. WhatsApp platform was used to collate the nurses’ experiences.

Results
Seventeen nurses (94%) were honoured to be part of the first cohort and all described the course as excellent. They also gained more expertise in a variety of areas related to the care of children with cancer. There were constantly facilitators available. Majority of the residents acquired knowledge in writing scholarly papers and designing health promotion tools. Twelve nurses (67%) appreciated their practicum sessions in different hospital settings and thought that hospital swaps provided them with valuable experiences. The others, however disagreed, citing reasons such as, search for accommodation and good food, and leaving one’s family behind. Other issues raised included the desire for online lectures throughout. Recommendations given included course upgrade to Membership and timely dissemination of information from the College.
Conclusions
Specialized paediatric oncology nursing training will give the nurses working in the POUs confidence and empower them to offer quality care to children with cancer and improve overall survival rates in Ghana.

CIV-EAR CIVIL SOCIETY AND PARENTS SESSION
- EARLY DETECTION

CIV-EAR01: EVALUATION OF A HEALTHCARE WORKER TRAINING INTERVENTION TO IMPROVE THE EARLY DIAGNOSIS AND REFERRAL OF CHILDHOOD CANCERS IN GHANA: A QUALITATIVE DESCRIPTIVE STUDY
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Background/objectives
Childhood cancer outcomes in low-and-middle income countries continue to lag behind those in high-income countries. This is in part due to the lack of awareness of the warning signs among healthcare workers (HCWs) resulting in delayed diagnosis. And although interventions aimed at improving early diagnosis and referrals by targeting HCWs have shown promise, the impact of these interventions amongst intervention recipients is yet to be explored. This study sought to evaluate the perceived effectiveness of an early warning signs and symptoms (EWSS) training intervention on HCWs knowledge, attitudes and clinical practice.
Method
A qualitative descriptive study design was adopted. We conducted in-depth, semi-structured interviews via teleconferencing software or phone call with 23 purposively sampled Ghanaian HCWs who had attended the EWSS training intervention. Data was analyzed concurrently with interviews using thematic analysis and we used a modified version of the theoretical framework of acceptability (TFA) to guide the evaluation of the training intervention.

Results
We identified six themes, five of which relate to constructs in the TFA, and an additional theme named “quality improvement” that relates to participants’ suggestions for improving the training intervention. Participants generally had a positive attitude to the training intervention, found the content relatively easy to understand and communicated the positive impacts of the training on their day-to-day practice. However, challenges to the implementation of intervention components including patients’ cultural and religious beliefs about illnesses, patients’ financial constraints and health system challenges were experienced.

Conclusion/recommendations
Findings from this study showed that HCWs found the EWSS intervention to be acceptable. Yet, a few system-level challenges were encountered that might act to impede intervention implementation. This suggests that while an HCW-focused training intervention might prove effective in improving diagnosis and referral for childhood cancers, other complementary interventions are required to address challenges to successful implementation.
CIV-EAR02 PEDCAN: PRIMARY HEALTH PROVIDERS ARE WILLING AND ABLE TO USE A MOBILE APPLICATION TO RECOGNIZE CHILDREN WITH CANCER IN UGANDA

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Objective
To assess the acceptability and feasibility of PEDCan mobile application by primary health care workers (PHCW) to recognize children with cancer-related clinical features and initiate remote consultations with specialists.

Methods
We innovated a mobile application, called PEDCan, to aid PHCWs recognize children with cancer and hold remote consultations with specialists. In May 2021, we conducted a cross-sectional descriptive study among consented PHCWs in southwest Uganda to collect data about knowledge regarding childhood cancer, smart phone ownership and internet usage.
After training them on the use of the application using mock clinical scenarios, their ease and readiness to use it was assessed. Descriptive statistics were used to calculate proportions of participants able and willing to use it. Ethical approval was provided by Research and Ethics Committee of Mbarara University of Science and Technology.

**Results**

Forty-four PHCWs participated in the study. Twenty-five (56.8%) were nurses/midwives, 8 (18.2%) clinical officers, 3 (6.8%) general doctors and 8 (18.2%) other cadres. All had heard about childhood cancer and 28 (63.6%) had ever seen a child suspected to have cancer. Thirty-eight (86.4%) participants owned a smart phone and used internet and 12 (31.6%) had access to internet all the time. Thirty-eight (86.3%) participants found the use of PEDCan very easy or easy and all were willing to use it.

**Conclusion and recommendation**

PHCWs were able and willing to use PEDCan application to recognize children with cancer and initiate remote expert consultations. A pilot study with real patients would further demonstrate effectiveness in real life clinical settings.
CIV-EAR03 IMPACT OF INPERSON TRAINING ON HEALTH CARE PROVIDER KNOWLEDGE OF THE SYMPTOMS AND TREATMENT OF PEDIATRIC CANCER IN MWANZA REGION

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Background
In Tanzania, less than 20% of the estimated 3,500 children who develop cancer each year present to one of the three cancer treatment centres. Of those who do present, there is an average of 89 days between when they present to the local health care centre and their cancer centre evaluation. Our aim was to assess the baseline paediatric cancer knowledge among medical providers at health centres and district hospitals in the Mwanza region and evaluate the impact of a training program on cancer knowledge and symptom recognition, and ultimately reduce referral delay.

Methods
One provider from each of the 69 Mwanza region health care centres and district hospitals was selected by district non communicable disease coordinators to participate in a one day training program. Training education strategies included didactic, small group discussions and interactive sampling. Topics included childhood cancer epidemiology, symptoms recognition, diagnostic evaluation, and referral options. Participants completed re- and post-training surveys to determine knowledge change.
**Results**
A total of 80% (n=56) of invited health centres participated in the training. In the pre survey, while all participants knew what cancer was (uncontrolled cellular division), 82% of were not aware that there was potentially curative treatment available, and 35% did not know which hospitals provided cancer treatment in their region. Post training, overall knowledge scores significantly increased (73% to 81%, p<0.001), with a >20% score change for key content areas including symptom recognition and appropriate referral location hospital.

**Conclusion**
Community medical provider knowledge about childhood cancer is low within the Mwanza Region. In person short training is an effective strategy to increase key knowledge areas that are known to contribute to referral delay. Future research will evaluate the impact of this training on referral rates and referral delay to the regional cancer referral hospital.

**CIV-EAR04 PROMOTING AWARENESS OF EARLY WARNING SIGNS CHILDHOOD CANCER IN BURUNDIAN HOSPITALS**

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**Background**
Awareness and training are core projects of the Global initiative for childhood cancer. Burundi is establishing paediatric oncology services. The study objectives were to evaluate the basic knowledge of health care workers on the early warning signs (EWS) of childhood cancer, evaluate single contact training sessions in identifying EWS.
Methods
Training sessions on EWS were presented in Burundian referral hospitals. Participants listed 20 EWS, provided their healthcare level, years of service, experience treating childhood cancers and training in paediatric malignancies before the training. Afterwards participants listed 20 EWS and provided an email address or mobile number. A test to evaluate the ability to identify EWS were sent electronically after two weeks. The results of the pre-test and post-test were compared and the ability to identify EWS after one teaching reported.

Results
One hundred and thirty-seven healthcare workers from 18 hospitals participated in the in-person training. There were 85 (62.0%) nurses, 47 (34.4%) doctors and five (3.6%) paramedical personnel. Forty-one (30.0%) had teaching in childhood cancers, 51.2% were nurses and 48.8% doctors respectively. Thirty-seven (27.0%) participants have managed childhood malignancies of which 43.2% never received training. The mean score for the pre-test was 4 (range 0-18, IQR 3-6) and 18 for the post-test (range 5-20, IQR 14-20). The mean percentage of improvement was 75% (range 0-100%, IQR 60%-83%). The nurses improved by 78% (range 5%-100%, IQR 70%-85%) and doctors by 65% (range 0%-100%, IQR 50%-79%) (p<0.05). Seventy (51.1%) participants provided e-mails, 67 (48.9%) provided WhatsApp numbers. Only 17/137 (12.4%) participants responded to the electronic test. Respondents correctly identified 70% of EWS (range 50%-85%, IQR 65%-80%). The majority of respondents (14/17, 82%) received the link via WhatsApp.

Conclusions
A single training session improved the knowledge on EWS and assisted in identifying EWS in >50% of cases. In person training was more beneficial as the electronic retention rate was poor. Burundi should increase childhood cancer awareness.
CIV-EAR05 IMPROVING ACCESS TO CHILDHOOD CANCER CARE IN NORTH UGANDA THROUGH EARLY DETECTION AND CASE FOLLOW-UP

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Background
According to Lancet Oncology Commission (2020) stark inequalities in access to cancer prevention, diagnostic, treatment and care for children between Low- and Middle-Income Countries (LMIC) and high-income countries, result in large global variations in survival: estimates of 5-year net childhood cancer survival show a huge gap between Eastern Africa (8.1%) and North America (83%). At current levels of access and referral, it's estimated that 44.9% of 13.7 million new cases of childhood cancer foreseen for 2020-2050 will go undetected and 11.1 million children will die of cancer. Among them 9.3 million (84.1%) will be in LMIC because of current demographic trends and differences in survival rates. Since 2018 AFRON and Soleterre implement ABLE+ program (Awareness for Burkitt’s Lymphoma Eradication) in Northern Uganda in collaboration with St. Mary’s Lacor Hospital, to increase the survival of children with Burkitt’s Lymphoma (BL), in line with WHO initiative.

Methodology
Developed through multi-stakeholders’ participatory methodologies, ABLE+ pursues a holistic and integrated approach including psychological and social aspects, to fill gaps in the different phases of care, focusing on children and their caregivers. ABLE+ builds hospitals’ and health centers’ doctors’ and health workers’ capacities; supports them through supervision with mobile technologies to improve early detection and diagnosis; strengthens the referral system to facilitate access to care; improves psychosocial conditions and education of children, increases caregivers’ awareness and resilience, also through income generating activities; enhances the sustainability of care through follow-up and home visits.
Results
In spite of COVID-19 pandemic disruptions, 99 new BL cases were referred in 3 years (33 cases/year against 17 in 2016) and the mortality rate of children treated for BL at Lacor decreased from 47.05% (2016) to 28.57% (2020).

Conclusions and recommendations
An innovative, integrated, holistic and cost-effective intervention with high potential social impact should be considered for scaling-up and/or replication.
Methods
A REDCap database was developed with a grant from CANSA in 2018. A database administrator consented all new patients seen at the Red Cross War Memorial Children's Hospital (RCWMCH) Oncology Unit and recorded detailed demographic and social information. UCT HREC R046/2015.

Results
There were 191 children consented from January 2019 to September 2021: 100 girls and 93 boys. Ages ranged from 5 days to 15 years (median 5.66 years). Only 29 (15%) of these families had medical insurance, 32 (16.6%) lived in informal housing and 24 (12.4%) did not have access to piped water. Seventy of the families (36.3%) reported a relative with cancer, including 7 first degree relatives (one known DICER-1 family) and two sets of cousins (who both have the same diagnosis). Patient diagnostic groups were as follows: Acute Lymphoblastic Leukaemia (20.7%), Acute Myeloid Leukaemia (10.4%), Chronic Leukaemia (1%), Lymphoma (11.4%), Histiocytic Disorders (5.2%), Solid Tumours (37.8%) and Brain Tumours (14.5%).

Outcomes (expressed as estimated 2-year overall survival) were poorer for children from families in informal housing (72.3% vs 80.3% p=2) and without piped water (60.3% vs 81.4% p=0.07) and significantly different (p=0.013) by disease group: Acute Lymphoblastic Leukaemia (84%), Acute Myeloid Leukaemia (41%), Lymphoma (93.3%), Histiocytic Disorders (100%), Solid Tumours (84.3%) and Brain Tumours (61.8%). The main limitation was our inability, due to COVID-related restrictions, to include children diagnosed in other units of the UCT complex.

Conclusions
Active inclusion of children and families in a robust database maintained in real time can provide a research ready platform for the multidisciplinary team, and generate new areas for research.
CIV-REG02 TRENDS IN CHILDHOOD CANCERS AT TYGERBERG HOSPITAL FROM 1994 TO 2014

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Background
There is paucity of data regarding childhood cancer incidence in low and middle-income countries due to the lack of population registries.

Aim
The aim was to describe the disease profile and outcome of children with cancer, treated in a single institution in South Africa between 1994 and 2014.

Methods
Data collected included demographic data (age at diagnosis, sex, stage or risk group, race) and 5-year overall survival (OS) of children ≤15 years diagnosed with cancer. Stata version 17 was used for data analysis with p-value <0.05 defined as statistically significant. Time to event and factors associated with 5-year outcomes were analyzed, using Kaplan-Meier curves and Cox regression analysis.

Results
The most common malignancies were leukemia (27.7%), brain tumors (18.4%), lymphomas (14.1%), nephroblastoma (8%) and soft tissue sarcomas (7.4%) for 935 patient records. Limited disease solid tumors and standard risk hematological malignancies had a good OS of respectively 77.7% and 85.9%, although OS for the whole group was 60.2%. Nephroblastoma (89.3%), retinoblastoma (86.7%), Hodgkin lymphoma (HL) (89.9%) and Burkitt lymphoma (BL) (75.5%) had the best OS. Type of cancer (p<0.01), solid tumor stage (p<0.001) and risk classification for hematological malignancies (p<0.001) were significantly associated with mortality.
Conclusions
Underlying cancer diagnosis, stage and risk group remained significant factors influencing survival with good OS for limited disease in solid tumors and standard risk hematological malignancies, comparable to survival rates in high-income countries (HICs).

CIV-REG03: NATIONAL PAEDIATRIC ONCOLOGY REGISTRIES AND SOCIETIES IN AFRICA; A SIOP GLOBAL MAPPING PROGRAMME REPORT

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Methods
SIOP Global Mapping Programme data abstracted from a survey of African paediatric oncology facilities (2018-2020) documented registries and societies/associations. Data was verified through searches of “grey literature” and personal contacts.
Results
National cancer registries were reported as present in 25/46 African countries—22 with paediatric data. They were absent in 18/46 and undocumented in 3/46. Hospital-based registries were reported in 17/25 countries, population-based in 6/25 and undocumented in 2/25. At least one respondent in 10 countries reported having a national paediatric oncology society, 33 had none and 3 were unknown. At least one respondent in 9 countries reported the presence of all three components: national cancer registries, paediatric oncology registries and national paediatric oncology societies/associations.

Conclusion
A minority of African countries have the organisational infrastructure to coordinate strategic efforts to improve CC care. National paediatric oncology societies/associations facilitate advocacy, networking and discussion, which may improve access to care, and decrease disparities among centres. Accurate epidemiological data and academic collaborations are essential to improve the survival rate of African children with cancer. The creation of registries and national oncology associations, relatively low-cost interventions, should be implemented urgently in a multi-pronged strategy to raise African survival rates.

MED-HEA MEDICAL SESSION – HEMATOLOGICAL MALIGNANCIES

MED-HEA01: DOSE-INTENSIVE CHEMOTHERAPY WITHOUT RADIATION FOR PEDIATRIC HODGKIN LYMPHOMA IN LOW RESOURCE SETTING: SINGLE CENTER EXPERIENCE

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Background and aim

Excellent survival for paediatric Hodgkin Lymphoma (HL) in high-income countries has been achieved with combination of chemotherapy and radiation. The adoption of dose-intensive regimens in paediatric HL has reduced the need for radiation. Outcomes for paediatric HL in sub-Saharan Africa (SSA) remain poor, with only 50-60% of children surviving.

More than 50% of countries in SSA lack access to radiation, and concerns for treatment-related toxicity limit the use of dose-intensive regimens. We investigated the impact of dose-intensive chemotherapy on survival for paediatric HL in Malawi – a country without access to radiation.

Methods

This was an IRB-approved retrospective cohort of children with biopsy-proven HL at Kamuzu Central Hospital in Lilongwe, Malawi, from 2015 to 2019. Patients (age ≤16 years) treated with ABVE-PC (adriamycin, bleomycin, vincristine, etoposide, prednisone, and cyclophosphamide) – a dose-intensive regimen used commonly in North America, were included in this analysis. Chemotherapy was administered every 21 days. The 2-year Progression-Free-Survival (PFS) and Overall Survival (OS) were estimated using Kaplan-Meier analysis.

Results

Twenty-nine patients were included in the analysis. The median age was 11 years (IQR 4); 66% (n=19) had B symptoms, and 62% (n=18) presented with high-risk disease (stage IIB with bulk, IIIB or IV). The median number of cycles was 6 (range 4 - 8). At last treatment follow-up, 86% (n=24) were alive and in clinical remission, and 14% (n=4) had died. No treatment-related deaths were observed. Three out of the four relapses occurred in patients who had treatment interruptions. The 2-year PFS and OS were 81% and 90% respectively.
Conclusion

Dose-intensive chemotherapy resulted in excellent survival without increased treatment-related mortality. With appropriate supportive care, this approach should be considered in low-resource settings, particularly when radiation is unavailable. A reduction in dose intensity arising from treatment interruptions was associated with an increased risk for relapse.

**MED-HEA02: IMPROVED SURVIVAL RATES OF CHILDREN AND ADOLESCENTS WITH CLASSICAL HODGKIN LYMPHOMA TREATED ON A NATIONAL HARMONISED PROTOCOL IN SOUTH AFRICA**

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Introduction
In 2014 the South African Children’s Cancer Study Group initiated a process to harmonise treatment protocols for childhood cancers. A multicentre retrospective study indicated that 5-year overall survival (OS) rates for children with Hodgkin lymphoma (HL) were 46% for those with HIV, and 84% for those without, and that treatment with ABVD yielded the highest survival rates.

Objective
To determine whether a harmonised treatment protocol using risk grouping and response-adapted therapy could raise survival rates of childhood HL in South Africa.

Methods
All 14 state paediatric oncology units and two private institutions enrolled paediatric and adolescent patients onto a protocol comprising ABVDX4 for low-risk patients, ABVDX6 for medium risk patients and ABVDX2 with COPDacX4 for high-risk patients. Consolidation radiotherapy was administered to patients with slow early response on interim assessment PET-CT. HIV-positive patients were offered extra support with granulocyte-colony stimulating factor, and could be treated on less intensive therapy if high-risk, at the discretion of the treating clinician. Kaplan-Meier survival analysis was performed to determine 2-year overall survival according to various prognostic factors.
Results
Currently, 109 patients are enrolled on study, with median follow up time of 433 days (range 10-2182 days). The 2-year OS was 93% in HIV-negative patients, and 88% in HIV positive patients (p=0.42 100% for low-risk, 93% for medium-risk and 91% for high-risk patients (p=0.66); and 90% in those with auto-immune manifestations and 93% in those without (p=0.74).

Conclusion
In South Africa, risk grouping appears to correlate with prognosis. While preliminary and based on small numbers, this interim analysis suggests improved OS over time, which may partially be ascribed to standardised treatment and increased supportive care. The incidence of relapsed and refractory disease will require more time on study, and the accrual of more patients over time will indicate whether these results are significant.

MED-HEA03: SURVIVAL OF CHILDREN WITH BURKITT LYMPHOMA TREATED AT MUHIMBILI NATIONAL HOSPITAL IN TANZANIA

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Background
Survival of children with Burkitt lymphoma (BL) in Africa has remained suboptimal compared to survival rates of more than 90% in high-income settings. This study aimed at describing the outcomes of children with BL treated at Muhimbili National Hospital (MNH) in Tanzania.
Methods
A retrospective cohort study with longitudinal follow up was conducted at the Pediatric Oncology unit at MNH from January 2012 to December 2017. Children with BL were risk stratified and treated using iv Cyclophosphamide 1200mg/m2, iv Vincristine 0.4 mg/m2, iv Methotrexate 75mg/m2, intrathecal Methotrexate and intrathecal Cytarabine (COM). Children with CNS disease and those who did not respond to COM were treated with iv Etoposide 60 mg/m2, iv Cytarabine 100 mg/m2, iv Ifosfamide 1500 mg/m2 and iv Mesna 1800 mg/m2 (EIMC). Overall Survival (OS) and Event Free Survival (EFS) were estimated using the Kaplan-Meier method and Cox regression was used to determine the relationship between selected variables and mortality.

Results
One hundred and twenty-three children were enrolled, median age was 7 years (IQR 4-10). At the end of the study 40% of patients were in clinical remission, 33% were deceased and 27% were lost to follow up. Overall Survival (OS) at 12 and 18 months was 63.4% and 54% while Event-Free Survival (EFS) was 38.8% and 36.4% respectively. HIV infection and advanced disease were associated with poor survival in univariate model but in multivariate analysis only HIV infection remained a significant risk for death (aHR 5.12 95% CI 1.39-19.0; log-rank P< 0.01).

Conclusion
Survival of children with BL in this study was suboptimal with OS of 63.4% at 18 months. We recommend intensification of chemotherapy regimens to match available supportive care in order to improve survival of children with BL in Tanzania.
MED-HEA04: IMPACT OF INFECTIOUS EPISODES IN INDUCTION PHASE CHEMOTHERAPY ON THE MORBIDITY AND MORTALITY OF PEDIATRIC PATIENTS WITH BURKITT LYMPHOMA, SINGLE INSTITUTIONAL EXPERIENCE

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Background

The outcome of childhood Burkitt’s lymphoma has improved steadily over the past decades with intensive chemotherapy regimens but chemotherapy-induced neutropenia remains the most serious and the major dose-limiting toxicity of systemic chemotherapy. This study objective was to assess the morbidities and mortalities of infectious episodes during induction phase chemotherapy.

Methods

A retrospective study including all patients 18 years old or younger diagnosed with BL and treated according to the modified LMB 96 protocol at the National Cancer Institute, Cairo university from January 2016 to December 2019 and their follow up till June 2020.

Results

There were 303 infectious episodes in 152 patients. Typhlitis/colic was the commonest clinically documented infection (54.4%), followed by mucositis (40.5%), and chest infection/pneumonia (38.2%). In the micro- biologically documented episodes, Gram negative organisms represented 57%. The main cause of death was likely sepsis (65.4%). Mortality was higher in group C patients (18.8%) compared to group B patients (7.8%). There were no mortalities in group A patients (P value = 0.011). Mortality of microbiologically documented episodes represented 78.8% (P value <0.001), including those of multidrug resistant Gram-negative bacteremia representing 37.2% (P value <0.001). Among predictors of outcome, thrombocytopenia, anemia, impaired electrolytes, and impaired liver and renal function tests, were associated with higher mortality rate (37.3%, 20.2%, 25.2%, 37.5%, and 72.7% respectively) (P value <0.001). Additionally, poor general condition before starting chemotherapy, presence of active disease, and earlier onset of fever and neutropenia were associated with poorer outcome (P value <0.001)
Conclusion
Infectious complications are the commonest cause of mortality in pediatric Burkitt lymphoma patients. More intensive chemotherapy (in group C) is associated with higher mortality rates.

MED-HEA05: CLINICO-PATHOLOGICAL PROFILE, TREATMENT AND OUTCOMES OF CHILDHOOD MATURE B CELL LYMPHOMA AT A TERTIARY CARE CENTER IN UGANDA

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Background and Aims
Mature B-Cell Lymphoma (Mature B-NHL) is the commonest Non-Hodgkin’s Lymphoma subtype in Uganda with short term survival lower than in the high-income countries. The aim of this study was to describe the clinico-pathological characteristics, treatment, and outcomes of children with Mature B-NHL at the Mulago National Referral Hospital in Uganda.

Methodology
From March 2019 to July 2021, children under 18 years of age diagnosed by morphology, flow cytometry, immunohistochemistry, and cytogenetics with Mature B-NHL were followed up. Details of demographics, clinical features, and treatment outcomes were collected. Treatments received were grouped into high dose methotrexate (HD-Mtx) and high dose methotrexate plus anthracycline (HD Mtx plus doxorubicin) regimens. Descriptive analysis was done, and outcomes were analyzed using Kaplan Meier survival analysis.
Results

Fifty-six children were included in the analysis, with a median age at diagnosis of 8 years and 64% were male. Forty-four (78.6%) had confirmatory diagnosis of Burkitt lymphoma and Diffuse Large B-Cell Lymphoma accounted for 8.9% of the cases analysed. At diagnosis, 95% had advanced disease (Stage III/IV) and 5% were Stage I/II. The abdomen was the commonest site of disease at 71.4%, whilst jaw accounted for 17.9%.

Cytogenetic confirmation of translocation t(8;14) was present in 21 patients. 13 patients (23.2%) received HD-Mtx regimen and 31 (55.4%) had HD-Mtx and doxorubicin regimen. Nine patients developed grade 4 treatment related toxicities. Treatment failure was because of relapse at 10.7% (6/56) and progressive disease in 7.1% (4/56). One Year Overall Survival (OS) Rate was 48.4% (95% CI:32.9 – 64.0) and 1 year Event Free Survival (EFS) was 46.2% (95% CI:30.9 – 61.8). For patients who received HD-Mtx and doxorubicin, the OS Rate was 76.7% (95% CI:57.6 – 95.7) with an EFS of 71.6% (95% CI:51.3 – 91.8). For the HD-Mtx group, the OS rate was 38.5% (95% CI:13.5 – 64.9) with an EFS of 38.5% (95% CI:12.0 – 64.9).

Conclusion

Burkitt lymphoma is the commonest NHL subtype, mostly presenting with abdominal disease and at advanced stage. Short term follow-up shows improved outcomes with an anthracycline containing regimen with comparable toxicity profile.
MED-HEA PREDICTORS AND OUTCOME OF INFECTION-RELATED MORTALITY IN PEDIATRIC ACUTE MYELOID LEUKEMIA, FEBRILE NEUTROPENIC EPISODES ANALYSIS. SINGLE INSTITUTE EXPERIENCE


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Background
Children with acute myeloid leukemia (AML) are at a particularly high risk for infectious complications related to the highly intensive chemotherapy. Infections leads to mortality and prolong hospitalization. The aim of the study is to: assess the risk factors, infectious complications and assess outcome of febrile episodes in children with AML at the Paediatric Oncology Department, National Cancer Institute, Cairo University from January 2016 to December 2018.

Methods
Infectious complications were evaluated retrospectively in 621 febrile episodes in 101 patients: were divided into survivors and non-survivors according to outcome at end of each episode. Each febrile episode was interpreted in correlation with infectious complications.

Results
Mortality from gram negative bacteraemia was 29.9%, in febrile episodes with multidrug resistant gram-negative bacteraemia: Mortality was 39.2 %. In febrile episodes with multidrug resistant gram negative bacteraemia and septic shock. Mortality was 71.8 % (p value <0.001). Mortality was high in early chemotherapy phase (intensive timing). Infection related mortality was 39%.
In our institute there is epidemiological shift towards gram negative organisms. In clinically documented febrile episodes: Mortality was 13.2 % (p value <0.001). Mortality rate was 15.3% for patients who presented with pneumonia, as compared to 6 % who hadn’t. (P value = 0.001). It was 25.7% for patients who had typhlitis/colitis, as compared to 9% who hadn’t. (P value <0.001; statistically significant). However, it was 11.7% for patients who had soft tissue infection, as compared to 9% who hadn’t. In clinically documented febrile episodes with multidrug resistant gram-negative bacteraemia: Mortality was 42.9% (p value =0.122). Mortality from febrile episodes with ICU admission was 58.5 %. (P value <0.001). Median value was 3 days, mortality in febrile episodes with ICU stay more than 3 days was 66.7%, and however, in patients with ICU stay less than 3 days, mortality was 54.7%. (P value <0.001).

Conclusions
Sepsis and septic shock are major causes of mortality. Awareness of the presenting characteristics and prompt management is important. Improved management of sepsis during neutropenia may reduce the mortality of paediatric. Acute myeloid leukemia. It is Important to trace the predictors that may impact the outcome of febrile episode.

**MED-HEA07: ACUTE LYMPHOBLASTIC LEUKEMIA IN CHILDREN AND ADOLESCENTS IN TANZANIA: CLINICAL PROFILE, SURVIVAL RATE AND FACTORS ASSOCIATED WITH OUTCOME**

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Background
Survival rates of children with cancer in low and middle income countries (LMIC) has remained low over decades despite favorable outcomes in high income countries. In this study, we report on the clinical profile, survival rates and factors associated with outcome in children with acute lymphoblastic leukemia (ALL) at Muhimbili National Hospital (MNH) in Tanzania.

Methods
This was a retrospective cohort study that utilized patient medical records of children and adolescents (0 – 18 years) with ALL from April 2011 to April 2016.

Results
A total of 222 children were recruited in this study. Diagnosis was confirmed by flow cytometry. Almost a half (48.2%) had B cell ALL and 29.7% had T cell ALL. The mean age at diagnosis was 6.79 years ± 4.59SD. Majority (80.2%) had severe anemia (mean hemoglobin 5.4 g/dl ± 1.98SD). Extra-medullary involvement was found in 73.4% of the children. The overall survival rate was 62.5% at one year and 27.3% at five years. At five years, loss to follow up rate was 20.3%. More deaths were observed in the high risk group (aHR 1.82; 95CI 0.36-0.87; P< 0.01), T cell ALL (aHR 6.32; 95CI 1.45-27.59; P< 0.01), B cell ALL (aHR 4.60; 95CI 1.10-19.26; P< 0.04) and infantile ALL (aHR 59.41; 95CI 9.22-382.6; P< 0.01).

Conclusion and recommendations
The five year overall survival of children and adolescents with ALL in Tanzania is low (27.3%). Identified poor prognostic factors were those in the high-risk group, infantile ALL, B cell ALL and T cell ALL.
We recommend reclassification of ALL risk groups and further studies to broadly study prognostic factors for ALL in our setting such as mutations and chromosomal abnormalities in order to provide the appropriate regimen allocation and increase the survival outcome.
MED-HEA08: CHILDHOOD ACUTE LYMPHOBLASTIC IN SUBSAHARIAN AFRICA: 4 YEARS EXPERIENCE AT THE GABRIEL PEDIATRIC ONCOLOGY UNIT BAMAKO MALI

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Backgrounds
Childhood acute lymphoblastic Leukemias are relatively rare in sub-Saharan Africa but probably underdiagnosed. The aim of this work was to describe the epidemiological, clinical, and therapeutic aspects of ALL in the pediatric oncology unit of Bamako.

Patients and methods
This was a retrospective, descriptive study of 33 children with acute lymphoblastic leukemia collected at the Pediatric Oncology Unit of Bamako treated according to a therapeutic protocol developed in collaboration with the French African Pediatric Oncology Group (FAPOG).

Results
The mean age of patients was 10 years with extremes of 2 and 15 years and a sex ratio (M / F) of 3.7. The majority of patients were over 5 years of age (79%). Clinically, Anemia was noted in 72% of cases, fever in 79% and 24% had a hemorrhagic syndrome. The tumor lysis syndrome was present in all patients. Biologically, all patients had hemoglobin levels less than 10g/dl, 91% had thrombocytopenia and 51% had leukocytosis (> 50 Giga / l).

Complete remission at the end of induction was 64%, with 27% of early deaths. After a mean follow-up time of two years, we recorded 12% of loss of follow-up and 82% of deaths. The global survival was 6 %.
Conclusion
Childhood ALL have a very poor prognosis in Mali. Early diagnosis and adapted protocols to high-risk patients will help reduce early deaths and improve the survival of patients in remission.

MED-HEA9: NON-HODGKIN LYMPHOMAS IN THE PEDIATRIC ONCOLOGY UNIT OF GABRIEL TOURE TEACHING HOSPITAL BAMAKO MALI

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Background
Non-Hodgkin lymphomas are the first childhood cancer in sub-Saharan Africa.

Objective
The purpose of this study was to assess non-Hodgkin lymphomas cases in our setting.

Patients and methods
A retrospective and descriptive study carried out in the pediatric oncology unit of the Gabriel Touré Teaching Hospital Bamako over 10 years from 1st January 2005 to 31th December 2015.

Results
We extracted 274 (21.6%) cases of Non-Hodgkin Lymphoma out of 1295 cancer cases registered, the age group 6 - 10 years was the most represented (46.4%); the male sex was predominant with a sex-ratio of 1.8; digestive signs were the most common signs of discovery (44.2%) followed by maxillary swelling (42.7%); the majority of patients (52.9%) consulted between 1 and 3 months after the onset of signs; the malnutrition rate was 39.8%, of which 24.1% were severe cases and 15.7% were moderate rate.
Abdominal localization was the most common (43.1%) followed by maxillofacial localization (33.9%). Almost all were Burkitt type cytology (92.7%), the majority (73.4%) were in Murphy stage III. Almost all (96%) had received chemotherapy and the modified LMB 01 protocol was widely used (62.4%). The majority of patients (85%) were chemosensitive at day 7 or after the third cyclophosphamide injection but at the end of induction only 31% were in complete remission. Gastrointestinal toxicity was the most common (37.13%) followed by hematologic toxicity 35.09%; 9.12% of patients were lost of follow-up and 22.26% died. Tumour progression was the most common cause of death (60.66%) followed by infection (21.31%).

**Conclusion**

In light of these findings, the late diagnosis and the poor management of NHL, as well as the limited ability to primarily treat metabolic complications, explain the high case-fatality rate, hence the important role of early diagnosis and treatment multidisciplinary.
MED-SPE MEDICAL SESSION -
CHILDHOOD CANCER CARE IN SPECIAL CIRCUMSTANCES

MED-SPE01 BURKITT LYMPHOMA RELAPSE IN A RURAL HOSPITAL SETTING IN CAMEROON

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Background
Burkitt lymphoma account for 54 to 76% of all lymphomas diagnosed in Cameroon with survival rates of 52% in children treated in the Cameroon Baptist Hospitals. The aim is to establish the rate of relapse and their outcome.

Methods
This was a retrospective cross-sectional study. Data from hospital-based registry was analysed for children 0-14 years treated for Burkitt lymphoma between 2014 to 2018 at Mbingo Baptist Hospital.

Results
One hundred and five patients were recorded with BL with a male to female ratio 2.6:1. The median age and duration of onset of symptoms to diagnosis was 9 years and 30 days respectively. FNAC (86%) was the main diagnostic method. The pathology report for 90 (79.6%) of patients had a clear conclusion of BL. The distribution of disease stage was: Stage IV (21.2%), stage III (65.5%), stage II (5.3%), and stage I (8%). The overall survival was 45.2% with a treatment completion rate of 75.4%. Stage 3 patients were more likely to complete treatment OR 6.769 [CI: 2.423-18.904] (p<0.001). Forty two (36.5%) patients relapsed, 31(37.8%) males and 11(33.3%) of females (p=0.65). Thirty (71.4%) of patients who relapsed received more treatment with a treatment completion rate of 83.3% and 22 (52.4%) placed on palliation.
The median delay from end of treatment to relapse was 3.4 months. Patients who completed treatment had an odds ratio of 0.041 to relapse [95% CI: 0.05 – 0.313] \( (P = 0.002) \). At last contact, 19 (45.2\%) of patient who relapsed were alive and 50\% dead.

**Conclusion**

The rate of BL relapse was 36.5\%. Most patient with BL relapsed 6 months before their initial treatment. Minimizing treatment delay and abandonment will reduce the chances of relapse. More treatment after relapse can improve on overall survival.

**MED-SPE02 IMPACT OF COVID-19 PANDEMIC ON PEDIATRIC ONCOLOGY SERVICES AT THE UGANDA CANCER INSTITUTE**

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**Background and objective:**

The novel coronavirus disease 2019 (COVID-19) has affected the entire world at a level never witnessed in recent history and has had a great impact on cancer care and prevention. We aim to assess the impact of COVID-19 on the access of care among children with cancer at the Uganda Cancer Institute (UCI).

**Methods:**

We conducted a retrospective study by analyzing newly diagnosed childhood cancer cases (0- to 17-years) that were recorded in the UCI clinic master data base in 2019 and 2020 (pre- and during -COVID 19 respectively). Cancers were categorized as leukemias, lymphomas, sarcomas, abdominal tumors, Central Nervous System tumors and other cancers. Descriptive statistics were analyzed using STATA software.
Results:
A total of 867 childhood cancers (410 pre-COVID and 457 during- COVID) were registered. In both periods more males (55.1%) were registered compared to females. There was a slight increase in the number of cases (5.4%) in 2020. Lymphomas and abdominal tumors were the most registered cancers in both periods. There was a decrease in the number international patients seeking services at UCI. A big drop in the number of cases was observed in April 2020, a month after a national lockdown was imposed by the government. There was a significant increase (P=.000) in the number of total visits in 2020.

Conclusions:
COVID-19 did not greatly affect pediatric oncology services at UCI. A follow up study accessing the survival of these children during the COVID-19 season needs to be conducted.

MED-SPE03 CLINICAL CHARACTERISTICS AND OUTCOMES OF PAEDIATRIC CANCER PATIENTS WITH COVID-19 INFECTION IN A PAEDIATRIC ONCOLOGY UNIT IN ACCRA, GHANA

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COVID-19 infection, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was declared a pandemic in March 2020. Cancer comorbidity is associated with increased severity and risk of death from Covid-19 whereas Covid-19 worsens cancer prognosis due to treatment disruptions. We describe the clinical presentation and short- term outcomes of children seen at the Paediatric Oncology Unit (POU), Korle Bu Teaching Hospital, Ghana, who also tested positive for SARS-CoV-2.
Methods
Retrospective review of case records of patients with COVID-19 from March 2020 to September 2021. Diagnosis of COVID-19 was confirmed by RT-PCR from nasopharyngeal swabs.

Results
Of the 10 children who tested positive, the median age was 4 years (range: 1.5-16 years), majority (60%) were female and 5 (50%) had acute lymphoblastic leukaemia. Nine out of the ten (90%) were symptomatic, with fever as the commonest presenting symptom (78%). Most common systems affected were respiratory (44%), rhinorrhoea, cough, hoarseness of voice with stridor, severe respiratory distress; and central nervous system (22%), seizures, abnormal behaviour. Positive contact history was elicited in only three (30%) patients. Neutropenia and lymphopenia were seen in 4/10 and 3/10 of the patients respectively. Three patients (30%) required supplementary oxygen during hospitalization, due to hypoxaemia and/or severe respiratory distress and overall, 5/10 (50%) required high dependency unit (HDU) care. Treatment received included antibiotics (90%), unfractionated heparin (20%) and intravenous steroids (20%). Majority (70%) of the patients experienced cancer treatment delays ranging from 9-28 days due to hospitalization followed by mandatory quarantine. Two patients (20%) died, both from Covid-19 related complications.

Conclusion
Covid-19 infection among paediatric cancer patients at KBTH showed varied clinical manifestations. Efforts to prevent disease transmission should be sustained to avoid adverse outcomes including treatment disruption.
MED-SPE04: MINIMAL CLINICAL IMPACT OF THE COVID-19 PANDEMIC ON PAEDIATRIC ONCOLOGY PATIENTS AT CHARLOTTE MAXEKE JOHAN- NESBURG ACADEMIC HOSPITAL, SOUTH AFRICA

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Introduction
South Africa has experienced three waves of Covid-19 infections, starting in March 2020. Before this study, the effect of SARS-CoV2 infection on South African children with cancer was unknown. The objective of the study was to investigate the numbers of patients infected with, and the effects of Covid-19 infections on children with cancer at Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) in the first three waves of the pandemic.

Methods
CMJAH oncology patients under 18 years and their accompanying caregivers were tested. Nasopharyngeal Covid-19 PCR tests were performed on all oncology patients with symptoms suggestive of Covid-19 infection, and those admitted for procedures, chemotherapy and treatment of any intercurrent illness. Results of all Covid-19 swab tests with corresponding full blood count results were prospectively collected. Simple descriptive statistics were used to describe the study population.

Results
From 1 May 2020 to 30 September 2021, 646 Covid-19 tests were performed on 432 patients. Thirteen tests (2% of all tests, 3% of patients) were positive. Six (0.9%) of the lodger caregivers also had positive swabs suggesting positive contacts. Five of the positive patients were admitted for chemotherapy, and three were admitted for febrile neutropaenia. No other patients were neutropaenic.
One neutropaenic patient had Covid pneumonia, requiring facemask oxygen therapy and was managed safely in the in-patient ward.

The commonest symptoms included fever and mucositis (3/13, 23%) followed by fever and cough (2/13, 15%) while 7/13 (54%) were asymptomatic for Covid disease. All positive patients recovered fully and did not have any features of “long Covid”.

**Conclusion**

The low numbers of oncology patients positive for Covid-19 may possibly be explained by effective isolation techniques due to pre-existing immunosuppression and effective health education. The clinical impact of the Covid-19 pandemic on paediatric oncology patients at CMJAH has been minimal. All patients have fully recovered.

**MED-SPE05: CHALLENGES POISED BY COVID 19 PANDEMIC ON PEDIATRIC ONCOLOGY CARE DELIVERY AT THE UGANDA CANCER INSTITUTE**

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**Background**

Nearly 30,000 children in sub-Sahara Africa are believed to have died from cancer during the COVID-19 pandemic, (WHO). Uganda Cancer Institute (UCI) is the only public cancer treatment centre in Uganda, it receives over 4000 new cases annually, among which 12% are children below 14 years. In Uganda, 3000 children under 18 years develop cancer each year (Globoccan2018), 30 percent present for cancer treatment, 30 percent abandon treatment.

**Aim**

To study the challenges faced by Paediatric oncology service during the pandemic.

**Methodology**

Review of Presidential directives, Ministry of Health standard operating procedures (SOPs) and guidelines and the Uganda Cancer Institute SOPs, and challenges they posed to paediatric cancer care. Review of the UCI Covid statistics. Review of challenges forwarded in the UCI task force meetings on status of Covid.
MED-ORB01: RETINOBLASTOMA PROGRAM IN SUB-SAHARAN AFRICA: IMPROVING SURVIVAL RATE DURING COVID-19 PANDEMIC

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4 Hopital Aristide Le Dantec, Dakar, Senegal

Background
The covid-19 pandemic has had an impact in the management of childhood cancer worldwide. This impact has also been reported in sub-Saharan Africa. AMCC 10-year retinoblastoma program was launched few months before the start of the covid-19 pandemic. We describe the impact of the pandemic on this retinoblastoma program which has the objective to improve the survival of children with RB to > 70% in sub-Saharan Africa.

Methods
The impact of the covid-19 pandemic on the AMCC’s RB program has been reviewed on all its different areas of intervention such as the support for training, equipment for RB care, support for early diagnosis and advocacy to improve access to quality care. The adaptations that have been made to the program in order to continue its actions despite the pandemic were also described.
Results

All the program’s areas of intervention have been impacted by the covid-19 pandemic causing disruptions related to travel restrictions (training, shipping of equipment), prohibition of in person meetings (difficulty in organizing training on early diagnosis) and also restrictions in the referral pathways of suspected cases of RB contributing to disrupt early diagnosis efforts. Several adaptations in the implementation of program activities were necessary to pursue its objective despite the pandemic.

Among them, the possibility of organizing online training on early diagnosis and the establishment of a systematic financial support on the health costs for early cases when needed.

Conclusion

Sub-Saharan Africa has been impacted by the covid-19 pandemic increasing the difficulties while implementing a specific program to improve survival of RB. Nevertheless, lessons learned will be applied even after the end of the pandemic.

MED-ORB02: ASSOCIATION BETWEEN HIGH RISK HISTOPATHOLOGICAL AND CLINICAL FEATURES OF PRIMARY ENUCLEATED EYES AT MUHIMBILI NATIONAL HOSPITAL

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Purpose

To associate the clinical and histopathological high risk features of primary enucleated eyes with retinoblastoma at Muhimbili National Hospital.

Method

Descriptive cross sectional study done at Muhimbili National Hospital. Consecutive sampling was used to recruit total of 66 participants from January 2018 to December 2020. Data were analysed by statistical package for social sciences version 23. Mann Whitney test, independent T test tested, Chi squire and Fishers test confirmed statistical association which was significant when P<0.05.
Results
Sixty-six (38.5%) patients with retinoblastoma underwent primary enucleation. Dilated pupil was commonly found in examination under anaesthesia. The rate of histopathological high risk features was 64%; massive choroidal involvement predominated by 53%. The median intraocular pressure (34mm) was statistically higher in patients with high risk histopathological features by P=0.006. The far the place of residence, duration of symptoms, high intraocular pressure, shallow anterior chamber depth, dilated pupil, poor tumour differentiation and extensive necrosis were significantly related to histopathological high risk features at P<0.05.

Conclusion
The proportion of primary enucleation among patients with retinoblastoma at MNH is still low. The presence of histopathological high risk feature is still high. Dilated pupil, high intraocular pressure, shallow anterior chamber, poorly differentiated and extensively necrotic tumour are associated with histopathological high risk features. Awareness of the natural history of retinoblastoma to the general public is emphasized. Tertiary care for retinoblastoma should be established in referral hospitals to reduce patients who are coming late.

MED-ORB03: FACTORS ASSOCIATED WITH REFUSAL FOR ENUCLEATION AMONG PARENTS/ CAREGIVERS OF CHILDREN WITH RETINOBLASTOMA AT MUHIMBILI NATIONAL HOSPITAL
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Purpose:
Parental refusal for enucleation is a major challenge in management of children with retinoblastoma, and associated with low survival rates. Knowing and addressing factors leading to parental/caregiver refusal will help improve the survival rates of children with retinoblastoma.
Materials and Methods:
A descriptive hospital based cross sectional study was conducted from June to December 2019. The study employed both quantitative and qualitative methods. A total of 50 participants were recruited using non-probability consecutive technique. Ten in-depth interviews were conducted by purposive sampling technique. Ethical approval was obtained.

Results:
More than two thirds of the participants were females (78%) with a mean age of 33.3yrs, had a primary level education, peasants, had 2-4 children (60%) and most children had unilateral retinoblastoma (83%). The proportion of refusal for enucleation was (24%), advanced stages of the disease was associated with refusal for enucleation of more than 3months in 25% of children. Majority of parents/caregivers refused enucleation because of low level of education, family and economic challenges, lack of employment, traditional and religious beliefs, perception towards appearance of the child after eye removal and the associated social stigma.

Conclusions:
The proportion of refusal for enucleation is high, it hinders timely and proper management of children with retinoblastoma and a barrier to their survival. Most parents/caregivers refused enucleation because of their perception towards appearance of the child after enucleation, low level of education traditional and religious beliefs, poor socioeconomic status. Refusal for enucleation was associated with disease progression and eventual death.
Introduction
To attain the goal of the Global Initiative for Childhood Cancer in Africa, conscious attention should be accorded nursing education, jobs and leadership as recommended by the WHO State of the World’s Nursing report. This study describes the baseline status of paediatric oncology nursing in Africa.

Method
An analysis of nursing-related questions from the SIOP Global Mapping for Africa, buttressed with findings of several inquiries into specific aspects of paediatric oncology nursing in Africa. A survey of strengths and weaknesses was conducted in 2017; nursing research priorities survey was undertaken in 2019. In 2020, a Delphi survey established a consensus on knowledge required for a foundation level nursing training course. A review of National Cancer Control Plans (NCCP) was conducted to assess nursing participation and inclusion of nursing- specific
Results

Few African centres (8.1%) had subspecialized paediatric oncology wards, half (49%) had five or fewer nurses working 75% of the time in paediatric oncology, 19% had specialist-staffed paediatric intensive care units. Two-thirds (66%) had a dietician, 45% had a psychologist, and 28% had a child life specialist/play therapist. Nurses described their strengths as being close to patients and families; aptitude in pain management and professionalism while the weaknesses included insufficient research skills and poor documentation. Priority research topics are professional practice, and psychosocial support, targeting nurses, parents and patients. Fifty-seven topic areas were identified for inclusion in a foundation course, including a general introduction to cancer and treatment modalities; chemotherapy administration and side effects; psychosocial support; palliative care; and infection prevention and control. Nurses were involved in the development of 5 (23.8%) NCCP and there were specific recommendations for nurses documented in 16 (76.2%).

Conclusion

This study provides a snapshot of the current state of paediatric oncology nursing in Africa and serves as a yardstick for evaluating progress.

**NUR-EDU02: CREATING AN E-LEARNING TRAINING PROGRAMME FOR NURSES DURING THE COVID-19 PANDEMIC, BY THE FRENCH-AFRICAN GROUP OF PEDIATRIC ONCOLOGY (GFAOP)**

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Background/ objectives
Since its creation in 2000, caregivers' training and especially nurses' training was one of the main concerns of GFAOP. The objective is to improve nurse skills in accordance with their local working conditions, and to enhance daily collaboration between nurses and doctors.

Methods
A specific program, called “Fundamentals in Pediatric Oncology” was developed by the GFAOP nursing group in 2013, consisting in a one-week presentational intensive training session. Because of the pandemic, the session programmed in 2020 had to evolve toward e-learning format. The trainers, helped by a pedagogic adviser, were mostly French (5 nurses and 3 MD). African nurses and MD were also partly involved. The format was modified to ten modules of 2 hours each; 2 modules were accessible per week through the e-gfaop remote platform located in Rabat. A French nurse-doctor or nurse-nurse pair was responsible for each module (Training supported by the Bristol Myers Squibb Foundation).

Results
After the trainers training (12/2020-02/2021), the e-learning took place in March-April 2021. Four modules were (partly) synchronous, which resulted in creating a group dynamic, and six asynchronous. Five were focused on a tumor (Wilms tumor, Burkitt, retinoblastoma, lymphoblastic leukaemia), the other related to nurse practice. A clinical case was the common thread in each module which combined theory and practice with different formative questions.

Each module ended with a 10-question test. Twenty-six nurses from 11 sub-Saharan countries participated. Internet connection has been challenging and having mixed synchronous/asynchronous format allowed trainees to work at their own rhythm.
Conclusion
The e-learning format was a huge work for the trainers and allowed to keep on nurse training during the pandemic. The objective was reached, based on the satisfaction expressed by trainees. The tools created remain available for further use. But this won’t totally replace presental training which must be continued, and blended training methods must be considered too.

NUR-EDU03: CONTINUOUS NURSING EDUCATION IN UGANDA, A SUSTAINABLE MODEL FOR LOW- AND MIDDLE-INCOME COUNTRIES. A SUSTAINABLE MODEL FOR LMICS

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Background
The International Society of Pediatric Oncology PODC Baseline Nursing Standards 2 and 3 state formalized orientation and continuing education as critical for a successful pediatric oncology service. Specialized education and clinical training for new nurses and formal mandatory continuing nursing education are rarely available in low-income countries and likely contribute to continued disparity in survival. Uganda has no accredited pediatric oncology nursing program, so nurses learn through mentorship from (and observership) of senior nurses. The Uganda Cancer Institute (UCI) pediatric department started weekly continuing nursing education (CNE).

Objective
Meet increasing demand for specialized knowledge required for childhood cancer nursing practice.
Methodology
Weekly one-hour CNE sessions are conducted by a senior nurse, and sometimes by a pediatric oncologist, for pediatric nurses caring for approximately 500 children with cancer (received annually). CNE sessions delivered to diploma and bachelor-prepared nurses and occasionally attended by adult oncology nurses. Presentations include oncology nursing (e.g., oncologic emergencies, chemotherapy administration and side-effect management), case studies and nursing implications of treatment protocols.

Results
A CNE baseline assessment (by questionnaire with Likert scale) in October 2018 showed improvement in nurses’ knowledge and attitudes. CNE outcomes include: quality improvement project, successful My Child Matters 2020 Nursing project funding, and nurses’ improved confidence in clinical work and active participation in the multi-disciplinary clinical team.

Conclusions
A cornerstone of successful treatment of childhood cancer is the provision of specialized professional care in pediatric oncology units. Ugandan pediatric oncology nurses manage disease-related complications, coordinate care, administer chemotherapy, and educate patients and families. Our CNE program supports all these activities and has proven to be sustainable and cost-effective. CNE has improved nursing care and multi-disciplinary team integration and serves as an education model for nurses in other resource-limited settings.
Background and Aims
Pediatric oncology nursing training is a challenge to effective clinical oncology management in sub-Saharan Africa due to lack of expertise in the field. Global Hematology Oncology Pediatric Excellence (HOPE) set out to provide nurse leaders with training opportunities in leadership and management and to promote individual professional development by building and enhancing core competencies and strategic workplace management skills.

Methods
Global HOPE nurse leaders from Botswana, Malawi and Uganda participated in a year-long program focused on developing leadership skills. Participants completed five modules: essential nursing leadership skills, high-performance teams, diplomatic communication, strategic management and practice models, and nursing quality care. Each module consisted of lectures, discussion, readings, group activities conducted at their practice site, and forum presentations. Participants met monthly via ZOOM during the program.

Results
All nurse leaders completed the program requirements. Program results are presented by discussing completed activities designed to promote leadership skills. Learning activities included personal assessments of individual strengths and weaknesses, and interviews with nurse leaders at their institutions followed by oral presentations on key elements of leadership.
Participants learned about high performance teams and interviewed their own site teams to explore barriers to team performance; recommendations for change to improve team performance were developed and shared with their teams. Effective communication strategies were explored using several change and practice management models to gain knowledge of strategic management. Participants chose a practice model and presented the framework during group discussion. Quality improvement processes were learned, and all nurse leaders completed the open course on Quality Improvement that is part of the Institute for Healthcare Improvement.

**Conclusion**

Global HOPE is making strides to enhance vital leadership skills among oncology nurse leaders. This translates to better patient care while shaping future approaches to oncology nursing in sub-Saharan Africa.

**NUR-EDU05 TEACHING PAEDIATRIC PALLIATIVE CARE IN SUB-SAHARAN AFRICA**

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Background and Aims
Worldwide, there is tremendous need for paediatric palliative care (PPC) services. However, in resource-poor settings, where services are highly needed, programs and training are scarce. To ensure feasible, acceptable, accessible, affordable and effective PPC services, healthcare providers need to be trained with an affordable and effective program. The aim of this project was to develop an online PPC course for healthcare providers in sub-Saharan Africa.

Methods
The online course was developed by multidisciplinary PPC experts from Botswana, Malawi and Uganda. Five modules with 15 lectures provide the course foundation: introduction to palliative care, communicating with children and families, cultural, spiritual and bereavement considerations, symptom assessment and management, and care at the time of death. Each module contains videotaped lectures and case studies completed by the student. At the end of each module, a quiz is completed before moving on to the next module. Course certificates are awarded when all modules and coursework are finished.

Results
During the first months of the course launch, 105 participants enrolled and 52 completed the course. Students who completed the course were from Malawi (54%), Botswana (34%), Uganda (10%) and outside sub-Saharan Africa (2%). The majority of course participants were nursing/- medical students (44%) followed by practicing nurses (33%) and medical officers (23%). Course evaluation evaluated knowledge gained and self-efficacy in end-of-life care: 96% agreed that the course met their educational needs and they felt more confident in providing care for a child receiving palliative care.

Conclusions
There is an urgent need for PPC training of health providers in resource-poor settings as the majority of children needing palliative care live in these countries. This online PPC course confirms the effectiveness of online distance-based learning and provides essential education that increased the number of providers comfortable in this important area of specialized care.
NUR-CHA NURSING SESSION - NURSING CHALLENGES AND SOLUTIONS IN LMICs

NUR-CHA01 CARING FOR CHILDREN WITH SPINAL CORD COMPRESSION IN A LOW-INCOME SETTING: THE CASE OF MBINGO BAPTIST HOSPITAL

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Introduction
Spinal cord compression is a medical oncology emergency. These patients experience significant impairments in life caused by functional, psychological and socio-economic disorder. The goal of care is to improve functional level, decrease secondary morbidity and enhance quality of life. Early diagnosis, treatment and nursing care will prevent secondary complications. The aim is to describe the nursing care of children with spinal cord compression and their outcomes.

Method
This was a retrospective cross-sectional review of patient files managed for spinal cord compression between September 2019 to September 2020 at Mbingo Baptist Hospital. A summary description of their presentation, management and outcome was done.

Results
There were 10 patients managed for spinal cord compression with a male to female ratio of 1:1. The median age at diagnosis was 13 years. The 10 patients were all diagnosed with Burkitt Lymphoma confirm with FNAC. Three patients were incontinence to one urine and incontinence to urine and stool. All ten patients were presenting with severe pain. The head of bed was elevated in all ten patients, dressing change, and medications (chemotherapy, analgesics and steroids) served according- ly. Patient incontinent to urine and stool had urinary catheterization and manual stool disimpaction. The patients and their families received nutritional, psychosocial, and spiritual support. Bed and walking exercises by a trained physiotherapist were done. There was improvement in the quality of lives prior to discharge from the hospital. Five of the children are alive with one of the children able to walk with help of crutches.
NUR-CHA02 IMPROVING ADHERENCE OF CHILDHOOD CANCER TREATMENT IN A RURAL PAEDIATRIC ONCOLOGY CENTRE: MBINGO BAPTIST HOSPITAL

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Background
Treatment abandonment is a major cause of lower childhood cancer survival rates in LMICs. The aim is to describe strategies used to maximize the completion of treatment for children diagnosed with Burkitt lymphoma.

Methods
Data was extracted from the Paediatric Oncology Networked Database (POND) electronic registry for children diagnosed with Burkitt Lymphoma (BL) at Mbingo Baptist Hospital, Cameroon, between 2005 and 2015. The strategies used to minimize abandonment were described.

Results
There were 304 patients treated for BL with a male to female ratio of 1.4:1. The median age at diagnosis was 8 years (IQR 6 – 10). The rate of abandonment (n=18, 6.1%) and children who had no treatment (n=8, 2.7%) combined was 8.8% with a treatment completion rate of 234 (80%). Interventions implemented were continuous counselling during treatment with identification of patients’ needs; as well as a treatment adherence diary to track patients who have missed their appointments and a phone follow-up/home visit done. Support needed included payment of medical bills with nutritional, financial, and transportation support by donor funding.

Conclusion
The early identifications and continuous tracking of patients during treatment with donor funding support for the individual family needs ensured the non-abandonment of treatment in 80% of families. The treatment adherence diary proved to be a good intervention, as well as the reminders to families through phone follow-up/home visits after a missed appointment.
Background

‘Abandonment’ (or discontinued treatment), is a common and prevent-able cause of childhood cancer treatment failure in sub-Saharan Africa. In Malawi, implementing a comprehensive package of strategies to enable parents to complete treatment of their child reduced abandonment of treatment from 19% to 5%. Using the infrastructure of CANCaRe Africa, we studied ‘abandonment of treatment’ in Sub-Saharan Africa, in order to identify potential areas for future intervention.
Methods
A multi-country, multi-centre, prospective, observational cohort study was conducted in five hospitals in Malawi, Cameroon, Kenya, Ghana and Zimbabwe. Children below 16 years of age, with newly diagnosed cancer, treated with curative intent were included. Data were abstracted in real time using standardised case report forms by trained personnel. Frequency and known factors associated with abandonment of treatment during the first three months of treatment were documented.

Results
We included 252 patients (median age 6.0, range 0.2–15.0 years, 54% male). The most common cancer was Burkitt lymphoma (63/252, 25%). Seven percent of patients (18 of 252) abandoned treatment in the first three months after diagnosis. Median travel time to the hospital was four hours (range 0.25 -4) and median distance was 104 km (range 3 - 836). 65% (163 of 252) of patients had to borrow money to reach the hospital. 79% (200 of 252) of patients were counselled on the need to complete treatment. All five centres provide free accommodation to families during the period of intensive treatment, one provides free medical treatment, four provide meals and cover transport costs and trace patients who do not come for treatment.

Conclusions
In sub-Saharan Africa cost is an overriding reason for abandonment of treatment. We aim to implement a comprehensive package to enable parents to complete treatment, including no costs for families, and improved counselling, in all centres participating in CANCaRe Africa.

CIV-ABA02 "MONEY WAS THE PROBLEM:” CAREGIVERS’ SELF-REPORTED REASONS FOR ABANDONING THEIR CHILDREN’S CANCER TREATMENT IN SOUTH WEST UGANDA

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Introduction
Treatment abandonment contributes significantly to poor survival of children with cancer in low-and-middle-income countries (LMIC).
In order to inform an approach to this problem, we investigated why caregivers withdraw their children from treatment.

Methods
In a qualitative study, carried out in October and November 2020, in-depth interviews were conducted with caregivers of children who had abandoned cancer treatment at the Paediatric Cancer Unit of Mbarara Regional Referral Hospital in South-western Uganda. Recorded in-depth interviews were transcribed and analysed to identify themes of caregivers’ self-reported reasons for treatment abandonment. The study was approved by the Review and Ethics Committee of Mbarara University of Science and Technology.

Results
Seventy-seven out of 343 (22.4%) children diagnosed with cancer abandoned treatment during the study period; 20 contactable and consenting caregivers participated in the study. The median age of the caregivers was 37 years and most (65%) were mothers. At the time of this study, eight (40%) children were alive and 5 (62.5%) were males; with a median age of 6.5 years. Financial difficulty, other obligations, the child falsely appearing cured, preference for alternative treatments, belief that cancer was incurable, fear that the child’s death was imminent and chemotherapy side-effects were the caregivers’ reasons for treatment abandonment.
Conclusions and Recommendation
Seeking cancer treatment for children in Uganda is an expensive venture and treatment abandonment is mainly caused by caregivers’ difficult socio-economic circumstances. This problem needs to be approached with empathy and support other than blame.

CIV-ABA03 COMBATING TREATMENT DROPOUT IN PEDIATRIC CANCER
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Background and Objectives
The dropout during treatment is a major challenge for pediatric oncologist. The dropout rate assessed in 171 patients was 18% during the 2016 to 2017 period preceding this study. Our objective was to reduce oncology treatment dropout in our GFAOP unit through support for families of children with a curable cancer.

Patients and Methods
A program to support families of children with Burkitt’s Lymphoma, nephroblastoma and retinoblastoma was set up in Ouagadougou (Burkina Faso) in 2019 to include 80 patients. Eligibility criteria were involvement in one of these 3 diseases, potential curability, and parent’s agreement to participate in the study. The managements of both university hospitals agreed to the collection of nominative clinical and social data and to the recording of information on support, with a view to analyzing the reasons for persistent dropouts despite the financial aid granted.

Results
One hundred and thirty-nine patients were evaluated for inclusion and 81 were included in the program between November 1, 2019 and November 30, 2020 (54 Burkitt, 16 nephroblastoma, and 11 retinoblastoma- ma). To date, 15 children have died on treatment (from toxicity or disease), 10 have dropped out during treatment (4 Burkitt 1 Retinoblasto- ma and 5 Nephroblastoma), 5 are currently on treatment, 51 have com- pleted treatment (12 of whom relapsed early including 10 who died).
Two patients died of other causes after the end of treatment. Final data on dropouts, financial help given, and survival will be presented during the meeting in March 2022.

**Conclusions**

Although financial support may reduce treatment dropouts, major issues remain the death on treatment and early relapse, related to advanced disease at diagnosis.
Background
In neuroblastoma (NB) surgery is of prognostic importance. South Africa has a high burden of high-risk (HR) and metastatic disease that receive no surgical management. The primary study objective was to identify factors that determine access to surgical management and the factors that predicted outcomes as secondary objective.

Methods
The study was a retrospective, multicentre chart review of children diagnosed between 2000 and 2016. Two hundred and seventy-one patients who completed induction chemotherapy were included of which 178 stage 4 patients were evaluated to determine metastatic complete remission rates (mCR). The second objective end-point was five-year overall survival (OS).

Results
The median age was 32.4 months (IQR 15.1 – 53.5 months). Most tumours in the 0 – 18 months (76.9%) age group were resected followed by 18.1–60 months (51.8%) and > 60 months (51.7%) (p<0.001). All stage 1 primary tumours were resected followed by 93.8% stage 2, 83.9% stage 3 tumours and only 44.9% of stage 4 disease (p<0.001). There was 68.5% operated with a LDH < 750U/L compared to 52.8% > 750U/L (p=0.005) and 63.8% with a ferritin < 120 ng/dl compared to 52.8% > 120 ng/dl (p=0.030).
Most low- (86.1%) and intermediate-risk disease (78.6%) were operated, but only 51.4% HR disease. Of those who were in metastatic complete remission (mCR), 80.4% were operated on compared to 28.7% not in mCR (p<0.001).
On univariate analysis age, stage, pathology classification, risk stratification; mCR (p<0.001), LDH (p<0.005) and ferritin (p<0.03) determined resection rates while mCR, surgical status (p<0.001) and IDRFs (p = 0.004) determined OS. On multivariate analysis mCR was the only significant factor determining both access to surgery and OS (p<0.001).

Conclusions
Less than half of HR-NB patients are operated on; mostly determined by post-induction metastatic remission rate. Non-standard surgical practices led to variable OS. A greater rate of primary tumour resection in HR-NB is advocated to improve survival.

MED-SOL02 SOCIOECONOMIC FACTORS AND DISTANCE FROM TREATING CENTRE DO NOT PREDICT SURVIVAL IN SOUTH AFRICAN CHILDREN WITH NEUROBLASTOMA

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Background and aims
Optimal management of neuroblastoma depends on accurate risk stratification at time of diagnosis. Many low-and-middle-income countries lack access to the specific genetic tests used globally for this purpose. This study aimed to determine whether socioeconomic factors predicted prognosis in neuroblastoma and so provide alternative measures for risk stratification in resource-constrained settings.
Methods
This retrospective record review included 145 patients with biopsy-proven neuroblastoma between 1 January 2000 and 31 December 2018. Records were obtained from the three main paediatric oncology units in Johannesburg: Charlotte Maxeke Johannesburg Academic Hospital, Chris Hani Baragwanath Academic Hospital and Wits Donald Gordon Medical Centre. Kaplan-Meier survival analysis was performed in relation to biological and socioeconomic factors, including serum ferritin and lactate dehydrogenase, age, stage, parental employment status, nationality and distance of residence from treating facility. Cox proportional hazards regression analysis determined the significance of prognostic factors in both univariate and multivariate models.

Results
Factors with a significant effect on survival were age below 18 months (p=0.030), lower stage (p<0.001) and serum LDH level <750U/L (p=0.041). None of the socioeconomic factors observed had a significant effect on survival (mother employed p=0.215, father employed p=0.125, South African nationality p=0.563). The association between distance from treating facility and stage at diagnosis was not significant (Kendall tau-b coefficient 0.108, p=0.060).

Conclusion
Socioeconomic factors did not prove to be significantly associated with neuroblastoma survival in this study. Age, stage and LDH level did, however, suggesting that tumour biology exerts an overriding influence on prognosis in neuroblastoma.

MED-SOL03 A MULTICENTRE STUDY EVALUATING THE PRESENTATION, PREDICTORS OF SURVIVAL AND OUTCOMES OF NEUROBLASTOMA IN UGANDA

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Introduction

Neuroblastoma (NB) is the most common extracranial solid tumour of childhood, but limited data from lower-income countries are available. In Uganda, the management varies between centres based on resources.

Objective

To evaluate the presentation, outcomes and predictors of survival of NB.

Methods

A multicentre retrospective chart review of children between 0 to 15 years diagnosed with NB from January 2010 to November 2020 was conducted. Clinical and management data were extracted for analysis. Kaplan-Meier survival curves and Cox regression models were used to determine prognostic factors, survival time and overall survival (OS).

Results

Seven-five patients were studied, with a median age at diagnosis of 48 months (IQR 26-108). The male/female ratio was 0.9. The most common presenting symptoms were fever (74.7%), weight loss (74.7%) and abdominal swelling (65.3%). The median duration of symptoms was 12 weeks (IQR 4-24 weeks). Suprarenal tumours were most common (52%) and majority of the patients (70.7%) had stage IV disease. All diagnoses were made on histopathology with or without immunohistochemistry. All children received neo-adjuvant chemotherapy, but only 20% of tumours were resected and 5.3% irradiated. OS at six, 12, and 24 months was 77%, 61%, and 44% respectively, with a median survival time of 18.1 months (11.5-30.1; 95%CI). On univariate analysis surgery was significant for one-year survival (p=0.007). On multivariate only age 18.1-60 months (aHR 0.05) and above 60 month (aHR 0.08), non-metastatic disease (aHR 0.24), lung metastases (aHR 5.46), leukoerythroblastosis (aHR 7.36), and anaemia (aHR 2.94) were significant. Survival time increased in patients that received maintenance chemotherapy (26.6 vs 7.9 months, p = 0.5).
Conclusion

Ugandan patients present similar to East African countries, but had a better one-year OS. Age above 18 months and non-metastatic disease had better outcomes. Further studies are needed to evaluate the prognostic significance of maintenance chemotherapy and local control therapies.

MED-SOL04 FIVE YEAR REVIEW OF EPIDEMIOLOGY AND SURVIVAL RATES IN CHILDREN WITH WILMS TUMOUR AT A TERTIARY PAEDIATRIC ONCOLOGY UNIT, GHANA

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Background and Aims

Wilms tumour (WT) is the commonest curable renal tumour in children. However, there is still disparity in survival rates, ranging from 90% in developed countries to below 50% in developing countries. The number of new WT cases at the paediatric oncology unit (POU) of Korle Bu Teaching hospital (KBTH) is estimated to be 22 cases/year (11% of all paediatric malignancies). The aim of this study was to evaluate epidemiology of WT for sex, age, tumour site, surgical staging, histopathological type and survival rates among the various disease stages at KBTH, Ghana.

Methods

The historical cohort study method was employed. We analysed one hundred and fourteen hospital files of all patients with WT admitted to the POU of KBTH between 2014 to 2019. After initial evaluation with abdominal CT scan and baseline investigations, patients were treated according to the SIOP PODC protocol with preoperative chemotherapy followed by transabdominal nephrectomy then post-operative chemotherapy based on surgical-pathological stage.
Results
Analysis of 114 records of children with WT revealed female predominance 52% and mean age of 4.3 ± 2.2 SD years. The left kidney was more frequently involved 53% and bilateral involvement was 6%. Most frequent surgical and pathological stages were stages 3 and 2 respectively. Out of 114 children, 55.3% completed treatment, 10.5% abandoned treatment and 31.5% died. Most frequent histologies were Intermediate risk mixed (66.7%) and high risk blastemal (16%) types. The overall 5-year survival rate (excluding treatment abandonment) was 74.7% with stages 1, 2, 3 and 4 survival of 100%, 87.7%, 71.1% and 52.4% respectively.

Conclusion
Early WT stages confer better survival rates, therefore increased advocacy for early diagnosis, treatment and adherence should be key in developing countries like Ghana.

MED-SOL05 OUTCOMES AND PREDICTORS OF SURVIVAL AMONG CHILDREN WITH NEPHROBLASTOMA AT THE UGANDA CANCER INSTITUTE
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Background
Nephroblastoma is the most common solid tumour in African children, but only has an average overall survival (OS) of 39% in sub-Saharan Africa. Uganda has improved the diagnosis and treatment of nephroblastoma, but has not evaluated treatment outcomes or prognostic predictors to improve outcomes in line with target set by the WHO 2030 global initiative for children's cancer (GICC).
Objective
To determine the prognostic predictors and outcomes of survival among children with nephroblastoma at the Uganda Cancer Institute (UCI) towards optimizing care.

Methods
A retrospective chart review of children with a histological diagnosis of nephroblastoma between January 2014 - December 2019 was conducted. Clinical and management data were abstracted for analysis. Kaplan-Meier survival curves and Cox regression models were used to determine predictors of survival and OS.

Results
Of the 115 children included, the mean age at presentation was 3.6 years (2.5) and 65% had hypertension. Majority of patients presented with stage III (63%) and stage IV disease (37%). Forty percent had anaplastic histology. All patients had a delay in commencing local therapies. The OS at one, three, and five years were 77.8%, 58.0%, and 48.3% respectively. Medium survival time was 4.7 years (0.4014-0.6403). On multivariate analysis, having both liver and lung metastases (HR 3.02), focal anaplasia (HR 2.83), diffuse anaplasia (HR 3.080), access to surgery (HR 0.31) and radiotherapy (HR 0.17) were significant predictors of survival. The treatment abandonment rate was 29.6% and 16.6% were lost to follow up.

Conclusion and recommendation
Children with nephroblastoma at UCI have increased rates of hypertension and anaplastic histology. OS are higher than most sub-Saharan African countries but does not reach WHO 2030 GICC targets. Local therapies are paramount for survival but should be more accessible.
A nephroblastoma registry, local tumor biology studies and prevention of treatment abandonment strategies are targets for improved outcomes.
MED-SOL06 CLINICO-PATHOLOGICAL PROFILE OF MALIGNANT ABDOMINAL TUMORS IN CHILDREN: EXPERIENCE OF THE PEDIATRIC ONCOLOGY UNIT OF BAMAKO

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Introduction
This work was undertaken to study the clinicopathological profile of malignant abdominal tumors in children.

Methodology
This was a descriptive, cross-sectional study conducted from January 1, 2017 to December 31, 2018. We included all patients aged 0 to 15 years with pathologically confirmed abdominal cancer.

Results
We collected 46 records of abdominal malignancies (35% of pediatric cancers). The majority of patients were less than 5 years old (65%). The sex ratio was 1.7. They were generally from a low socioeconomic background (67%). The average delay of consultation was 50 days. The main reasons for consultation were abdominal mass (48%), pain (17%) or distension (9%). The mass was voluminous, hard (89%), immobile (71%) and painful (46%). Undernutrition was found in 80% of patients. The mass was retroperitoneal in 63% of cases and renal in 54%. It was solid in 94% of cases and heterogeneous in 76%. Tumor markers were not measured. Anemia was present in all patients. Cytopuncture was performed in 43%, biopsy in 37% and myelogram in 15% of cases. Marrow invasion was observed in 28% of Burkitt’s cases. The main cancers diagnosed were nephroblastoma (52%), Burkitt’s lymphoma (26%) and neuroblastoma (13%). Stage 1 and stage 2 were common in 20% and 22% of cases respectively; 36% of cases were unstaged. The average duration of chemotherapy was 11 weeks. Total removal was performed in 30% of cases. The evolution of the patients was marked by a total remission in 65%.
Conclusion
Abdominal malignancies are very frequent in children. The diagnosis of certainty is late in our context.

MED-SOL07 THE FEASIBILITY OF STAGING AND ESTIMATING OUTCOME ACCORDING TO THE TORONTO PAEDIATRIC CANCER STAGE GUIDE- LINES FOR THREE CHILDHOOD CANCER TYPES IN 7 SUB-SAHARAN HOSPITAL-BASED CANCER REGISTRIES (GFAOP)
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10.Epidemiology of Childhood and Adolescent Cancers Team (EPICEA), Paris-Descartes University, Villejuif, France.

Background
Accurate cancer staging is necessary to determine prognosis, plan treatment and improve knowledge about the differences in incidence and survival between populations. Using data from the GFAOP cancer registry in 7 sub-Saharan pediatric Oncology Units we looked at the feasibility of analysis of stage specific outcome for 3 cancers types using the international Toronto staging guidelines Tier-1 less detailed used for limited resource setting or Tier-2, requiring more detailed information.
Objectives
Identify all cases diagnosed and assess the feasibility of staging according to cancer types. Assess the feasibility of estimating survival by stage based on the Guidelines.

Method
Children <18 years with a diagnosis of Burkitt Lymphoma (BL), retino-blastoma (RB) and Wilms’ tumor (WT), attending 7 GFAOP, Sub-Saharan POU from 2017 to 2019, were included. Staging Tier-2 (St Jude/Murphy) was used for BL and Tier-1 (localized/metastatic) for RB and WT.

Results
Of the 1257 cases included (486 BL, 366 RB, 395 WT), staging was possible for 94% of WT, 88% of RB and 93% of BL. 85% of BL had advanced disease stage III or IV. 29% of RB and 36% of WT, had stage IV disease. Vital status (alive or dead) is known for 98% of staged cases. Overall, 48% of the cases were alive at last follow up (35% for most advanced stages), with median follow-up of 14 months; 20% of cases abandoned before end of treatment.

Conclusion
We have shown that it is feasible to assign stage according to international standards and survival analysis by stage. These results show that the proportion of deaths was much higher for children with advanced disease and high even in localized cancers, while 5-year overall survival is now >90% for these 3 cancer types in HIC. To our knowledge, this is the first study assigning T-2 stage for BL in a LIC setting.
MED-ORB03: OUTCOMES AND PREDICTORS OF SURVIVAL AMONG CHILDREN MANAGED FOR ORBITAL RHABDOMYOSARCOMA AT UGANDA CANCER INSTITUTE

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**Background**

Orbital rhabdomyosarcoma accounts for 4% of all solid tumours in children worldwide and 10% of orbital malignant tumors. ORMS is highly curable, with about 90% survival in the developed world however little is known about ORMS outcomes in developing countries like Uganda.

**General objectives**

To determine the outcome and predictors of survival among children managed for orbital rhabdomyosarcoma at Uganda Cancer Institute.

**Methods**

Retrospective follow-up study of 71 children with histological diagnosis of ORMS at UCI between January 2008 and December 2019 using chart review. Secondary data on demographics, clinical, imaging, laboratory, treatment characteristics and vital status were collected and entered into a computer for analysis with STATA 16. Kaplan –Meier survival curves were used to describe survival. Cox regression analysis was used to determine the predictors of survival at 5% level of significance.

**Results**

Seventy-one participants included and studied, 39 (54.9%) were male. The total follow-up time was of 177.3 person-years. The median age at diagnosis was 6 years (IQR 4-12). Forty-one (57.7%) died during the study. The median survival time was 2 years. The 3-year survival rate was 44.1% while the 5-Year survival rate was 42.0%. The predictors of survival were Age 3 to <7years (HR: 0.30, 95% CI: O.11-0.81), 7 to <15years (HR: 0.26, 95%CI: 0.10-0.66). Primary orbital tumor (HR: 0.37, 95%CI: 0.16-0.83), and disease progression (HR 5.93, 95% CI: 2.14-16.45). Abandonment rate of 69.0%.
Conclusion and recommendations
The 3-year and 5-year survival of children with ORMS at the UCI is very low compared to the Global Initiative for Childhood Cancer (GICC)2018. Older age, having a primary orbital tumor and no disease progression positively predict survival. A notably high abandonment rate in children with ORMS. Interdisciplinary discussion and coordination into the poor survival and to address the root cause of the high abandonment in the children with ORMS is called for.

MED-MDT01: ANTICANCER DRUGS SUPPLY CHAIN MANAGEMENT, ADMIXTURE, USE AND DISPOSAL AT TIKUR ANBESSA SPECIALIZED HOSPITAL: A QUALITATIVE STUDY

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Background
Optimal chemotherapy utilization (reliable supply-chain, safe-chemotherapy preparation, administration, and disposal) is a major challenge in low and middle-income countries like Ethiopia. Hence, the purpose of this assessment was to identify major gaps and design interventional strategies at the oncology and hematology units of Tikur Anbessa Specialized Hospital (TASH), Ethiopia.
Methods
The study was conducted using an observational checklist, open-ended guiding questions, record/document review and key informant interview of the respective department heads and focal persons of TASH. Findings were categorized manually into specific themes that were developed following the objectives.

Results
Apart from the donation, anticancer drugs consumed about 60.2% of the hospital medication budget. Drug utilization was quantified via monthly consumption documentation; however, this data was unreliable as evidenced by frequent stock outs of anticancer drugs with percentage availability of 67.8%. Thirteen healthcare staffs (9-nurses, 2-pharmacists and 2-janitors) were interviewed whose experience ranged from 1-6 years. All clinical staff believed that they were at risk of hazardous agents while janitors did not. The major challenges mentioned during the interviews were inadequate and frequent stock out of personal protective equipment, lack of standard guideline for anticancer drugs handling, admixture and disposal, lack of standardized preparation room, and lack of adequate training on safe handling and disposal of anticancer drugs.

Nurses handled chemotherapy admixtures despite only two nurses received in-service training about the chemotherapy admixture process. Most of the participants had never seen the disposal of anticancer drugs.

Conclusions
Considering these gaps which directly and indirectly affect the care and treatment outcomes, a trilateral dialogue has started among staffs of TASH, American Cancer Society, and University of North Carolina with the aim of implementing action-oriented project in order to fill the identified gaps in TASH to then scale up lessons for other respective hospitals in Ethiopia.
MED-MDT02 ACCESS TO ANTINEOPLASTIC MEDICINES FOR TREATING PEDIATRIC CANCERS AT KOMFO ANOKYE TEACHING HOSPITAL, GHANA
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5 Pediatric Oncology Unit, Komfo Anokye Teaching Hospital, Ghana.

Background
The availability of pediatric cancer medicines is a significant challenge globally. There is a lack of suitable context-dependent data in Ghana on access to essential medicines for treating pediatric cancers. Here, we present an assessment of essential antineoplastic medicines availability using a public pediatric cancer center as the anchor point.

Methods
The antineoplastic medicines were selected from the 2017 World Health Organization (WHO) Essential Medicines List on cancer (EMLc) and the WHO/Health Action International (HAI) Global Core list. The WHO/EMLc and WHO/HAI lists were compared with the Ghana EMLc to ensure that the selected medicines were registered and available in Ghana. A data collection sheet comprising a list of innovator and generic brand antineoplastic and non-cancer medicines with specific dosage forms and strength was used to obtain data from the public hospital pharmacies and four selected private pharmacies around the referenced hospital. Data on the availability of 20 strength-specific essential antineoplastic medicines was collected. Availability data on eight non-cancer medicines used at the center was collected to serve as a comparator.
Results
The mean availability of essential antineoplastic and non-cancer medicines at the hospital pharmacies was 27 and 38%, respectively, and 75 and 84% for the private pharmacies. Five intravenous antineoplastic medicines, namely etoposide 100mg, carboplatin 450 mg, cyclophosphamide 500 mg, granisetron 1 mg, and doxorubicin 50 mg from the WHO EMLc were available at all the survey sites. The solid oral dosage form of procarbazine 50 mg was not available at all the survey sites. There were no innovator brand antineoplastic medicines at all the survey sites.

Conclusion
Most antineoplastic medicines surveyed were found in the private pharmacies; however, the mean availability across all studied pharmacies was below the WHO target of 80%. The low availability of medicines at public pharmacies indicates the need for government interventions.

MED-MDT03 COMMUNITY PHARMACISTS IN CANCER HEALTH PROMOTION IN GHANA: IN THE CONTEXT OF CHILDHOOD CANCERS

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Background
Available data indicate that childhood cancers have emerged as an important cause of morbidity and mortality in children in Ghana. Across the globe, one of the interventions aimed at disease prevention is through health promotion. To our knowledge, no published reports are examining the practices of community pharmacists towards childhood cancer health promotion in Ghana. This study was set to examine community pharmacists’ perceptions and perceived barriers in providing childhood cancer health promotion services in Ghana.
Methods
A cross-sectional study was conducted using electronic questionnaire to assess the perception and perceived barriers of Ghanaian community pharmacists towards provision of childhood cancer health promotion.

Results
Most community pharmacists (77.30%) believe that cancer health promotion is an integral part of their daily practice. The survey participants were more likely to positively perceive the pharmacist’s role if they were older, male, or had completed the PharmD program (p < 0.05 for all parameters). Lack of cancer educational materials (69%) was the major perceived barrier in providing cancer health promotion services.

Conclusion
Ghanaian community pharmacists recognize to play an essential role in the provision of cancer health promotion services.

MED-MDT04 DEVELOPING CHEMOTHERAPY ADMINISTRATION PROTOCOLS FOR PAEDIATRIC CANCERS AT UGANDA CANCER INSTITUTE: A PHARMACIST’S PERSPECTIVE

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Background
Uganda Cancer Institute (UCI) is a tertiary institute with 700 new referrals of paediatric cancer per year. Low staff to patient ratio produces multiple challenges to safe chemotherapy prescription and administration.

Methods
A comprehensive audit of quality and safety issues in chemotherapy prescription and administration was completed in 2020. A multidisciplinary team with members from both Cambridge and UCI was then established. Treatment protocols in use were reviewed and a chart developed with prescription and administration instructions, including fluids and supportive medications.
Where relevant, a patient-held steroid card was developed. Four emergency protocols used for sick children pending definitive diagnosis were given priority, i.e. COP (Cyclophosphamide, Vincristine and Prednisolone) for suspected lymphoid malignancies, VAC (Vincristine, Dactinomycin and Cyclophosphamide) for suspected soft tissue tumours, OJEC (Vincristine, Carboplatin, Etoposide and Cyclophosphamide) for suspected neural tumours and JEB (Carboplatin, Etoposide and Bleomycin) for suspected germ cell tumours.

Results
Piloting of these protocol charts is in progress and will be completed shortly. The detailed prescription sheet has helped prescribers’ understanding of the protocols and subsequently reduced errors. The inclusion of fluids and supportive medications e.g. antiemetic has been positively highlighted. Both parents and staff have found that the steroid cards have acted as a reminder to take a dose and allowed tracking of protocol adherence. The safety aspect of having pharmacist oversight of prescribing and administration was appreciated and encouraged staff to seek early advice.

Conclusions and recommendations
This project led to the establishment of a multi-disciplinary team in paediatric oncology with pharmacist involvement for the first time at the UCI. This has allowed formalisation of chemotherapy prescribing and administration which is expected to improve patient safety. It has also highlighted the value of paediatric pharmacy input for safety, standardisation and education of staff and patients.
MED-MDT05 IMPLEMENTATION OF MULTIDISCIPLINARITY IN FRENCH AFRICAN GROUP OF PEDIATRIC ONCOLOGY (GFAOP) SUBSAHARIAN TEAMS: A SLOW INNOVATIVE PROCESS

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Background and Objectives
In 2017, according to the 2025 GFAOP project, a program was built to develop training in multidisciplinary care in pediatric oncology. It was managed through the creation of a training Institute in Dakar called Institut Jean Lemerle. The goal is to improve practically multidisciplinarity at each step of care, in the context of each unit.

Methods
A three-day residential interactive seminar with two objectives: 1- to share general notions about childhood cancers, to understand why multidisciplinary care is mandatory, 2- to better organize it in day-to-day practice: informative reports from each specialist according to what is needed by the others, regular tumor board meetings (TBM) organized to optimize everyone’s time. Along three seminars, 14 sub-Saharan pediatric oncology teams were invited to send 5 doctors involved in the care of pediatric cancers. Teams were then invited to write 6 referential and start TBM on site. It was followed by local workshops to elaborate care referentials for 6 pediatric cancers, according to medical guidelines defined by GFAOP committees and to organize TBM practically.
Results
Seventy-eight doctors from 14 countries (18 pediatricians, 15 pathologists, 15 pediatric or general surgeons, 13 ophthalmologists, 10 radiologists and 6 radiation oncologists) + two animators were attending the three days course in June 2018, April and September 2019 in Dakar, with fruitful interactive discussions opening to recommendations. More than 50 referential were written during local workshops held between April 2019 and August 2021. Moreover, TBM are active in 12 sites, among them 9 being implemented since the beginning of the program.

Conclusion
This program has allowed to organize multidisciplinarity in most of the units involved.

MED-MDT06 ESSENTIAL COMPONENTS OF PAEDIATRIC CANCER CARE IN AFRICA: CORRELATION WITH ECONOMIC AND POPULATION INDICATORS. A SIOP GLOBAL MAPPING PROGRAMME REPORT
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On behalf of the SIOP Global Mapping Programme

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Introduction
In alignment with the WHO Global Initiative for Childhood Cancer, the International Paediatric Oncology Society (SIOP) initiated a programme to map global paediatric oncology services. As survival rates in Africa are low and data is scant, this continent was mapped first to identify areas with greatest need.

Methods
Beginning November 2018, an electronic survey was sent to all known stakeholders, followed by email communications and internet searches to verify data: data was analysed in October 2020. Availability of paediatric oncologists, chemotherapy, surgical expertise and radiotherapy was correlated with geographic region, World Bank income status, Universal Health Coverage, population <15 and <24 years, percentage of gross domestic product spent on healthcare, and Human Development Index (HDI).
Results
A total of 264 responses were received with 130 individual responses were analysed from 48/54 African countries. All three treatment modalities were reportedly available in 9/48 countries, while seven countries reported no paediatric oncology services: Cape Verde, Chad, Equatorial Guinea, Eswatini, Guinea-Bissau, Sao Tome and Principe, South Sudan. Negative correlations were detected for provision of all three services and geographic region (p=0.01), younger median population age (p=0.002), low-income-country status (p=0.045) and lower HDI (p<0.001).

Conclusion
This study provides a comprehensive overview of paediatric oncology care in Africa, emphasising marked disparities between countries: some have highly specialised services, while others have no services. A long-term strategy to eliminate disparities in African paediatric cancer care should be aligned with the WHO GICC aims and facilitated by SIOP Africa. The three main modalities of paediatric cancer care are interconnected and cannot function optimally in isolation. If all are strengthened, and childhood cancer care is included in UHC, the hope is that the survival rate of children with cancer in Africa will rise, thus reaching the GICC’s goal of 60% global survival of children with cancer.
MED-MDT07 PAEDIATRIC ONCOLOGY REHABILITATION IN A LOW-RESOURCE CONTEXT: SIOP GLOBAL MAPPING AFRICA & FORMATION OF A PAEDIATRIC ONCOLOGY REHABILITATION TASK FORCE


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Background

Children with cancer receive intense treatment, often resulting in negative sequelae requiring rehabilitation. Appropriate rehabilitation vastly improves quality of life during treatment, at end of life and survivorship. There is no global paediatric oncology network for rehabilitation professionals and limited understanding of rehabilitation infrastructures, particularly in low-and-middle income countries (LMIC). The objective was to determine access to such services in Africa through the SIOP Global Mapping Programme and such services in Africa through the SIOP Global Mapping Programme and national rehabilitation organisations.

Methods

The SIOP Global Mapping Programme African baseline data identified physiotherapy services at a hospital/facility level. We also performed an extensive search for physiotherapy services in Africa through the World Physiotherapy global body.

Results

Of 100 complete responses from 47 African countries, 36 countries reported availability of physiotherapy services. Physiotherapy services were reported from 67% of low income, 85% of lower-middle income and 83% of upper-middle income countries. National physiotherapy organisations were identified in 25 countries. A working group (including six physiotherapists from four African countries) formed a global network of paediatric oncology rehabilitation professionals to improve access to childhood cancer rehabilitation services in all settings and facilitate professional development.

Conclusions

Physiotherapy services were reported from a relatively high number of African countries. Further investigation is required to understand the extent and accessibility of available services and the impact on children’s quality of life. Further understanding of the challenges in delivering rehabilitation interventions in such low-resource contexts is also required. Africa demonstrates to us that Paediatric Oncology Rehabilitation services can exist in any setting, regardless of income classification.
As survival rates improve in LMIC, it is vital to increase awareness of paediatric oncology rehabilitation needs and attract/retain rehabilitation professionals. The new SIOP global rehabilitation working group will advocate for appropriate paediatric rehabilitation and collaborate with WHO GICC and other key stakeholders to support local training and improve access worldwide.

**NUR-SAF: NURSES SESSION – SAFE PRACTICE**

**NUR-SAF01 CHEMOTHERAPY SAFETY: AUDIT OF PRESCRIPTION AND ADMINISTRATION IN A TERTIARY REFERRAL UNIT**

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**Background**

The Ugandan Cancer Institute (UCI) is a tertiary referral unit for paediatric oncology that receives 700 new referrals annually. As in many LMIC, the staff to patient ratio is low. This led to concern about the potential for errors in the prescription and administration of chemotherapy, and highlighted the need to improve overall safety in this area.

**Methods**

An audit tool was developed to look at prescription and administration of chemotherapy, which was conducted in the clinic and inpatient ward over a two-week period. It included demographic data, diagnosis and staging information, assignment of correct treatment protocol, pre-chemo checks, details of prescribed chemotherapy and supportive medications.
Results
A total of 83 patients were audited over a 2-week period (34 inpatients and 59 outpatients). Some areas of good practice were noted, but areas for improvement were also identified. Notable areas of good practice included: 94% patients had complete staging documented, and 95% had histological confirmation. 88% had the correct protocol assigned and signed off by a consultant or fellow. 100% had a documented body surface area. Over 98% had the correct cycle prescribed, and 94% of prescriptions had consultant or fellow sign-off. 98% prescriptions were administered on time.

Areas for improvement included fluid charts, antiemetic and supportive medication prescription. 64% had a fluid chart appropriate for the patient’s chemotherapy and 65% had an appropriate antiemetic prescribed. 66% patients had an appropriate prescription for other supportive medication. No significant harm was identified as a result of any error of prescription or administration.

Recommendations
The formation of a multidisciplinary committee of doctors, nurses and pharmacy was proposed to improve the safety of chemotherapy prescription and administration, ensuring protocols were assigned correctly, checked by senior staff, prescriptions were clear and included appropriate supportive fluids and medication.
NUR-SAF02 ERRORS IN CHEMOTHERAPY PRESCRIPTION

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Background

Although the rate of medication errors for chemotherapy prescription and administration is not well documented, estimates of the frequency of errors with adult and paediatric chemotherapy in the ambulatory setting have been published with an increase in the paediatric ambulatory oncology clinics. We aimed to investigate unintentional medication errors during prescription and administration of chemotherapy.

A team from Cambridge University visited the Uganda cancer institute in 2020 and among the discussions were the chemotherapy prescription errors that were occurring at the Paediatric oncology unit.

Methods

This survey was conducted in the Paediatric oncology clinic and in-patient ward of the Uganda Cancer Institute (UCI). An audit tool was developed which included demographic data, diagnosis and staging information of the patient, and assignment of a treatment protocol, details of prescribed chemotherapy and supportive medications such as anti-emetics and fluids.

Results

A total of 83 patients were audited over a 2-week period and the information collated and analysed. Most of the patients (39.8%) were aged between 10 and 17 years, of these, most were males. Most of the participants (98.8%) had their chemotherapy prescribed on time per the protocol. Most of Chemotherapy prescription go-ahead (94%) was given by the fellow/consultant, and most of them had fluid charts in the files, and over 60% had fluids prescribed.
Most of the participants had anti-emetic prescription (68.7%) and about 65% of these were appropriate for the patient. Other supportive medications and prescription guidelines were indicated in the protocols and were appropriately prescribed.

**Conclusion**
There are no significant errors detected from during prescription. A survey to investigate chemotherapy preparation and administration errors should be conducted.

**NUR-SAF03 USING THE S-BAR COMMUNICATION TOOL TO EFFECT A CHANGE IN THE PEDIATRIC ONCOLOGY UNIT**

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**Background/Objectives**
An effective communication in the inter-professional practice is a key component for nurses in carrying out care for optimal results. One of the nursing activities that require effective communication is handover and telephone communications. However, nurses are unable to communicate across shifts leading to lapses in patient care and this has been recognized as vulnerable to communication failure, which lead to inappropriate patient safety. The SBAR communication method (Situation, Background, Assessment, and Recommendation) is a technique that can be used by members of the health team to report patient condition, which can improve patient safety and quality of care. The aim was to determine the knowledge of SBAR tool among Nurses at Paediatric Oncology Unit of Komfo Anokye Teaching Hospital (KATH).
Method
This was a cross-sectional descriptive study involving nurses at the Paediatric Oncology Unit, KATH who originated from diverse social and ethnic groups as well as geographically distinct areas from the vast territory of Ghana. Data collection of their social and demographic background, knowledge on; and the use of SBAR were obtained after seeking consent and through semi-structured close-ended questionnaire. Data was analyzed using SPSS version 12.

Results and discussions
Majority (85.0%) of the respondents were female, with their age <40 years old. Majority (71%) had “poor” knowledge scores (p<0.05), with 16% having “high” while 13% had “moderate” knowledge scores about SBAR Communication tool. The knowledge scores and practice of SBAR had a marginal positive association with education level (P = 0.056).

Conclusions
Increasing the education and the benefits about SBAR can lead to improving the quality and appropriateness of health care to the sick child and can address barriers to communication and care.

NUR-SAF04 IMPROVING EFFECTIVE DISCHARGE EDUCATION FOR PARENTS OF CHILDREN WITH CANCER AT KORLE-BU TEACHING HOSPITAL

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Background
Parents of children with cancer were noted to have been defaulting on review dates, medications and management of side effects at home. A survey carried out among parents who have been discharged to find out what information they received from nurses on discharge, showed about 70% of parents did not receive adequate discharge education.
Objective
To identify and solve the problem of ineffective education for parents on discharge.

Methods
A questionnaire was developed and administered to 20 parents selected randomly, same analyzed using SPSS. Pre and post test questions developed and administered to 16 nurses on the pediatric oncology unit and a zoom power point session was held to educate nurses on what information is required to be given during discharge.

Results
Of the parents, 90% (18) said they were informed about the date for review, 70% had no education on other areas such as what to do if their child developed a fever at home or on continuing medication. A pretest revealed that 9 nurses (56.25) did not give adequate discharge information. Of concern, most did not educate parents on drugs to take home and post treatment side effects. Post test results showed a significant increase in nurse’s knowledge on what to say to parents when their child was being discharged. 14(87.5%)

Conclusion
It is important that nurses are empowered with the right discharge information for parents and patients. This will be expected to improve patient outcomes as parents would know how to give medications on discharge and act as advised if the child becomes unwell at home.
NUR-SAF05 THE USE OF CENTRAL VENOUS DEVICES IN THE PEDIATRIC ONCOLOGY UNIT DEPARTMENT OF RABAT, MOROCCO

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Introduction

Antitumor chemotherapy represents in pediatric oncology one of the pillars of antitumor treatment with increasingly complex, aggressive and prolonged protocols. Cytotoxics constitute for the peripheral veins a factor of aggression and secondary fibrosis, imposing the need of a stable venous route in these patients with a small peripheral venous calibre. In the SHOP - Rabat (Moroco) (haematology and paediatric oncology department) peripheral venous lines were used in the majority of cases for the administration of chemotherapy, antibiotics, transfusion or parenteral nutrition and the number of Venous access devices put in place was limited to 4 per year. During 2020 and 2021 we increased the number of VAD inserted.

Objective

To review the number of venous access devices VAD (port) inserted during 2020 - 2021. To improve the management of venous access devices. To evaluate the nurse’s satisfaction related to the use of VAD.

Methods

The study was based on the collection of patients’ information from their follow-up and a satisfaction questionnaire that was sent from the Googleforms to all the nursing staff.
Results
From October 2020 to October 2021, we were able to increase the frequency of central lines for patients with different diagnoses and achieve satisfactory results:
Total number of central venous lines: 100 Number of implantable chambers: 64
Number of placements per month: 5 to 6. Number of catheter withdrawals: 9
(Causes of withdrawals: KT migration, chamber blockage, infections). Nurses satisfaction rate about the increase of the CVD use was 87% (12.5% were insatisfaction). Quality of the devices was estimated as “good” for 75% of nurses and 75% reported minimal to moderated difficulties in using the CVD.

Conclusion
The establishment of CVDs is essential to ensure safety and quality of life when administering treatment to affected children. It is important to ensure that the placement

NUR-SAF06 IMPROVING CARE FOR CHILDREN WITH CANCER IN EGYPT
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Background
More than 6000 new cases of cancer are diagnosed each year in Egypt. Almost 40-50% of children with cancer are treated at the Children Cancer Hospital (CCH), the remaining of these children are treated at the NCI and MPH centres with Heterogeneous quality of care.
Aim of the work
This study aims to investigate and estimate the progress made with paediatric oncology (PO) care and access in Egypt in the last decade.

Methods:
A literature search was conducted for nationally/ internationally published statistics, academic publications, and many other sources to better understand childhood cancer in Egypt. Relevant documents and abstracts were reviewed.

Results
PO in Egypt has developed over the last decade with an increase in the facilities for treatment and the number of expertise. Advanced techniques & equipment are available at NCI, CCH, and some other university hospitals. Large numbers of children still don’t reach treatment centres, however, now with having new centres at Luxor and Alexandria, children have more access to quality cancer treatment, where they could get their treatment.

Considering the non-existence of National documentation of cancer in Children in Egypt causing difficulty in evaluating the progress in survival. The estimated 5 year overall survival for 14 808 eligible patients treated at the CCHE (2007-2017) was 72.1% (95% CI 71.3-72.9) for all cancers combined significantly lower by 9% and 11.2% (P < .001) than England and the United States, respectively. However, these data cannot spread on the whole country due to the heterogeneous state of facilities in different centres.

Conclusion
Childhood cancer should receive more attention from health care authorities in Egypt. Thanks to nongovernmental organizations, charities, childhood cancer specialists’ efforts and help that they are responsible for the great achievement in this field in the last decade. There should be an improved future for children with cancer in Egypt crossing the small existing gap with the developed countries.
NUR-SAF07 SHEFA AL-ORMAN CHILDREN CANCER HOSPITAL: A GIANT STEP TO CANCER CARE IN UPPER EGYPT

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Background
The overall global incidence of childhood malignancies is 88 per million according to GloboCan 2012, whereas, it’s 130.9 per million in Egypt. Shefa Al-Orman Children Cancer hospital (SOCCH) at Luxor is the first childhood cancer specialized hospital in Upper Egypt covering around 20 million populations. We received the first child with cancer on 7/2020. We treat both hematological and solid malignant tumors. Before inauguration of SOCCH, parents had to travel from 500 km to receive medical care.

Methods
Retrospective review of medical records of children with cancer treated at SOCCH from 1st of July 2020 to 1st of October 2021.

Results
During the study period, we received 430 new patients with 350 of them proved to have cancer. Males represented 57% of children with cancer. 80% of the cases were diagnosed and treated at SOCCH, whereas, 20% were referred from other cancer centers to continue treatment at SOCCH. Children with acute lymphoblastic leukemia represented 23%. Children with acute myeloid leukemia represented 6%. Children with Non-Hodgkin and Hodgkin lymphoma represented 14% each. Children with bone tumors represented 9%. Children with Neuroblastoma represented 8%. Children with Wilms tumors represented 6%.
Children with Non-Hodgkin and Hodgkin lymphoma represented 14% each. Children with bone tumors represented 9%. Children with Neuroblastoma represented 8%. Children with Wilms tumors represented 6%. Eighty-five patients were treated at the pediatric oncology intensive care unit at SOCCH. Sixty-five patients underwent surgeries.

**Conclusions**

Although cancer is a rare disease among children and adolescent, it's one of the leading causes of death. Shefa Al-Orman Children Cancer Hospital provides comprehensive multi-disciplinary care for children with cancer in Upper Egypt, thus improving access to cancer care in Upper Egypt and subsequently decreasing treatment abandonment at SOCCH.

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**CIV-PSY CIVIL SOCIETY AND PARENTS SESSION - PSYCHOSOCIAL**

**CIV-PSY01 LISTENING AND RESPONDING TO FEEDBACK FROM FAMILIES**

*Megan Cruise* 1

1 World Child Cancer, Psychosocial Support Advisor, London, UK

**Background and aims**

Through World Child Cancer’s psychosocial support work, we strive to improve quality of life and wellbeing for families and to reduce treatment abandonment. We provide financial support to families, along with emotional, practical, and educational support. To understand better the experience of the families that receive this support, we piloted a beneficiary feedback survey at Korle Bu Teaching Hospital in Accra, Ghana.
Method
A semi-structured beneficiary feedback survey was used. The survey focused on 5 key areas: About you, Quality, Impact, Future improvements, Support provided by nursing team. The survey was conducted at a variety of stages of treatment: at diagnosis, during treatment, post treatment. Survey Monkey was used to collect the feedback.

Results
A total of 30 surveys were completed in March 2021. Respondents were asked, ‘Would you have been able to access treatment for your child without support?’ The majority (73%) responded ‘no’. Respondents were asked to rate the quality of each type of support provided, the majority (89%) rated all types of support as excellent or good. When asked ‘What was the most important type of support you received?’ 66% said financial support for drugs and diagnostic. When asked if there was any other support World Child Cancer (WCC) should offer to families in the future, answers included increased financial support and information on childhood cancer.

Conclusions
The survey provided invaluable information about the impact and quality of the support provided, along with suggestions for ways the support could be improved and developed.

CIV-PSY02 RETENTION IN CARE; PSYCHOSOCIAL SUPPORT FOR VULNERABLE CHILDREN WITH CANCER DURING COVID19 LOCKDOWN

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Background
In Uganda, it is estimated that 3,000 children are affected with cancer annually. Only 750 are registered for treatment at Uganda cancer institute (UCI). Due to close clinic appointments most of the children from up country brave harsh conditions and camp on the verandahs at UCI as they await their next appointment. Some families abandon treatment and return home resulting in many unnecessary deaths. Kawempe Home Care (KHC), a non-government organization in Kampala, opened New Hope Children’s Hostel (NHCH) in September 2016 to support vulnerable children with cancer and their families to increase access to specialized oncology and palliative care services.
Aim
To retain children in cancer care through provision of psychosocial support during the COVID19 lockdown and ensure that they complete treatment.

Method
Poor and vulnerable children with cancer and their families identified and referred to NHCH by UCI social workers for psychosocial support. NHCH provides medicine and all basic needs. Those with appointments were transported to UCI daily. Follow up telephone calls were made to remind patients at home of their next visit, collaborated with health centers, District Health Officers, LC5 Chairpersons and nearby Hospices to support transportation of the children for treatment. Civil society actors led by the Uganda Cancer Society in partnership with UCI organized transport for patients who had completed treatment to travel back to their homes.

Results
During the 3 most difficult months (March - June 2020) NHCH cared for 95 patients each with a care taker, of these 55 were followed up, 37 returned for their appointments, 30 were in the hostel, 10 were admitted at UCI and sadly 14 died.

Conclusion
Despite the tough times COVID19 has caused, NHCH managed to offer psychosocial and palliative care services to the children suffering from cancer. Childhood cancer care requires a holistic approach to address the psychosocial needs of the children.

CIV-PSY03 ADDRESSING THE EMOTIONAL WELLBEING OF NURSES WORKING IN PEDIATRIC ONCOLOGY IN SUB-SAHARAN AFRICA
Background and aims
Nurses working within paediatric oncology in low- and middle-income countries have heightened exposure to death and dying, pain and suffering, treatment abandonment, along with staff shortages and high workloads. A Nurses Wellbeing Group was formed as a sub-group of the SIOP Sub-Saharan African Nursing Network to explore ways to increase and improve the emotional wellbeing support available to nurses working within paediatric oncology in the region.

Method
A survey was used to collect the views of a convenience sample of nurses working in paediatric oncology in the region. The survey focused on what strategies nurses currently use to manage wellbeing and resilience and how provision of emotional wellbeing support could be improved. Survey Monkey was used to circulate the survey which was available in English and French.

Results
A total of 64 surveys were completed by nurses from 11 countries. Nurses reported three main aspect of their work that have an emotional impact: Witnessing children in pain and suffering (94%), death of a child (91%) and caring for children at end of life (88%). The most common methods for managing emotional wellbeing were: discuss with a colleague (88%), think positively (81%), faith/religion/spirituality (81%).
The majority of nurses (83%) stated they were not provided with sufficient support with emotional wellbeing at work. Four interventions were highlighted as areas where nurses need greater support: Access to a psychologist, case study meetings to discuss emotional impact of work, greater support and recognition from management and more training in emotional wellbeing and resilience.

Conclusions
The survey results demonstrate unmet need in the emotional wellbeing support available to nurses working in paediatric oncology. Strategies are needed to implement professional and structured support. The Nurses Wellbeing Group is developing a support plan and exploring ways to embed this support across hospitals in Sub-Saharan Africa.

CIV-PSY04 PSYCHOSOCIAL ISSUES EXPERIENCED BY ADOLESCENTS WITH CANCER AT NEW HOPE CHILDRENS HOSTEL

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Background
Many of the families from rural areas who are poor and disadvantaged find it difficult to complete treatment for their children with cancer, due to high costs involved for treatment, travel, food and shortage of beds at the hospital leading patients to sleep on verandas or in tents.

Kawempe Home Care a private not for profit community-based Organisation opened New Hope Children’s hostel in 2016 to provide care to disadvantaged children with cancer access to specialist oncology and palliative care services and the hostel has helped over 150 children with cancer and their families each year.

Aim
To share psychosocial issues experienced by adolescents retained for cancer treatment at New Hope Children’s hostel.
Method
The study on the psychosocial issues experienced by adolescents retained for cancer treatment at New Hope Hostel was a quantitative study that used a structured questioner as the data collection tool. Fifteen adolescents were interviewed. The questioner used a quantitative self-report technique that had four point ranging scale from strongly agree (4) agree (3), disagree (2) and to strongly disagree. It had close and open-ended questions.

Results
Major findings revealed that most adolescents have the fear of death within them; this is because they have seen their friends succumb to cancer and its complications, so they think it's a matter of waiting for their time of death. There was an issue of physical dependence/lack of privacy some of the physically unwell adolescents revealed that they feel much stressed up depending on their care takers for everything. An issue on decision making was raised by some adolescents whereby they feel that they have grown up can make decisions on their own and other hand their parents feel that they do not have the intellectual maturity or capacity to make informed choices or decisions. Some of the adolescents had depression due to the disorders caused or brought about by cancer and its complications like body deformities, or missing body parts. There was a feeling of isolation where most of the adolescents felt isolated from their peers due to spending long periods in hospital, missing school or other community activities and being unwell at home due cancer. Sexuality was another issue raised by most of the adolescent, people gossip about them saying that cancer drugs have affected their manhood or womanhood and that they will not be able to have children of their own this was so stressing to them.

Conclusion
Findings from the interview and group discussion revealed that adolescents go through a lot of psychological pains which are not attended to by most health professionals. It’s the responsibility of every health worker to know these pains and to offer support to them.
Background/Objectives
Psychosocial support (PSS) is a vital component of true multidisciplinary care of children with cancer. PSS can decrease treatment abandonment, positively influencing survival rates. Children with cancer are at particular risk of psychopathological complications, and psychologists play a role in screening for these and other signs of distress, supporting patients and enhancing overall psychological well-being. Social workers aid in bereavement counselling and breaking bad news to patients and families, but also assist with counselling, discharge planning and connecting families to resources and support groups. The objective of this study is to detail different forms of psychosocial support in paediatric oncology care in Africa and so determine potential areas for recruitment focus.

Methods
An electronic survey was sent to African paediatric oncology professionals to document availability of social workers, psychologists, play therapists, support groups, schoolteachers and volunteers in paediatric oncology units (POUs) in Africa. Simple descriptive statistics were employed.
Results
Of 54 African countries, respondents in 43 countries reported data from 100 POUs. The presence of social workers was reported in 34/43 countries, play therapists in 17/43, volunteers in 26/43; psychologists in 21/43; patient support groups in 26/43 and schoolteachers in 20/43. The presence of one of each provider was reported from 7 countries.

Conclusion
The majority of POUs have access to social workers while a minority access other professionals involved in PSS. This places a disproportionate burden of responsibility on social workers to provide all forms of PSS. Only seven countries have all six services, which are not necessarily present in all POUs in those countries. This highlights the gap between regional realities and the increasingly recognised requirement to provide the essential elements of PSS. Investment in all components of PSS is strongly recommended to contribute to improvements in childhood cancer care and survival in Africa.

CIV-PSY06 THE POSITIVE IMPACT OF TECHNOLOGY ON COPING IN CHILDREN WITH CANCER
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Background
Children and youth diagnosed with cancer face difficult experiences that can cause a negative impact on their mental health. Through the incorporation of Child Life (CL) support and strategies such as game play for distraction during painful procedures, distress can be reduced and coping improved. The professional practice of Child Life Specialists aims to help, support and foster hospitalized children’s healthy coping. Patients of all ages with cancer can experience feelings of fear and worry about the hospital which can lead to poor coping.
Through the provision of play, creative arts, specialized games and informative apps CL increases knowledge and familiarity about the hospital experience as well as positive distraction and improved coping contributing to their positive mental health.

**Objectives**
To describe the positive impact of gaming technology on children with cancer at the Moi Teaching and Referral Hospital.

**Methods**
This is a retrospective review of the impact of gaming technology at a Kenyan tertiary public hospital. Gaming technology uses a wide variety of electronic games to provide individual and group play opportunities for children of all ages.

**Results**
CLSs reported that in 75% of cases that used games to distract children during painful procedures, non-pharmacological pain management and patient’s cooperation during the procedure was significantly improved. Similarly positive outcomes included withdrawn patients becoming social and engaged with fellow patients when invited to participate in group Xbox or PlayStation games. The CLSs observed improved coping and positive outcomes during painful procedures when using engaging tablet-based games in comparison with similar procedures using different methods of distraction. These games also helped patients develop cooperation and supportive skills as they work together.

**Conclusion**
Children’s hospitals should incorporate a variety of gaming technology as tools within greater CL play-based oncology programs to improve overall coping and psychosocial care for children facing cancer.
CIV-PSY07 LE RETENTISSEMENT DU CANCER DE L’ENFANT SUR SA SCOLARISATION

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Introduction
L’école est le pilier social de l’enfant comme l’est la vie professionnelle pour l’adulte. Outre le lieu d’apprentissage, il s’agit d’un lieu de socialisation. La maladie et les traitements provoquent un bouleversement de la scolarité dont les causes sont variables et peuvent évoluer avec le temps (absentéisme, asthénie, difficulté de concentration, stress post-traumatique, séquelles sensorielles, isolement social et moqueries).

Objectif
L’objectif de ce travail est d’évaluer le retentissement scolaire du cancer sur la scolarisation de l’enfant.

Patients et méthodes
Nous avons mené une étude prospective au service d’oncologie hématologie pédiatrique au centre d’hématologie oncologie du CHU Mohamed VI de Marrakech, intéressant les enfants suivis et sous traitement pendant au moins 03 mois et âgés de plus de 07 ans, sur une période de 2 mois allant du premier avril au premier juin 2021.

Résultats
Durant cette période nous avons pu interroger 33 patients avec leurs parents. L’âge moyen de nos malades était de 11 ans avec une prédominance masculine (66%). Le cancer le plus fréquent était la leucémie aigue lymphoblastique (17 cas) suivi par les lymphomes (8 cas) et les tumeurs osseuses (5 cas). La majorité de nos patients, soit 25 cas, sont en primaire, tandis que 8 cas sont des collégiens. Plus que la moitié de notre série (18 cas) sont en rupture totale de la scolarité dès la confirmation du diagnostic, suite à une décision des parents chez 15 cas d’entre eux, cette décision a été prise essentiellement chez 14 enfants par peur de l’infection et des effets indésirables du traitement et chez 5 enfants par peur de discrimination à l’école.
La durée moyenne d’absentéisme était de 8 jours par mois, alors que 11 cas de nos malades ont refait au moins une année. Seulement 15 enfants qui obtiennent du soutien scolaire par leurs parents et leurs fratries, tandis qu’aucun des enfants interrogés n’a obtenu du soutien par son école. Au cours de l’hospitalisation, seulement 2 enfants utilisent la bibliothèque du service, et 8 enfants continuent à étudier grâce aux parents accompagnateurs, ou par téléphone avec leurs enseignants. Tous les enfants ainsi que leurs parents ne sont pas satisfaits de leurs scolarisations au cours de la maladie et 23 enfants d’entre eux désirent de continuer leurs scolarisations, en proposant de créer une école au centre d’hématologie et d’oncologie pédiatrique.

Discussion
Au Maroc, il n’y a pas de données disponibles sur la situation scolaire des enfants atteints de cancer, mais on se référant aux données de la littérature, il est convenu que le cancer induit des absences importantes chez les patients élèves, jusqu’à trois ans après le diagnostic. Au niveau de notre centre, il est conçu un local dédié à l’école des enfants, reste à organiser avec les autorités de l’enseignement d’affecter des enseignants agréés dans ce sens. Certaines études ont montré une forte proportion des collégiens/lycéens à redoubler une classe après le diagnostic de maladie comparativement à leur fratrie, elles ont démontré également que le lien entre les adolescents malades avec leurs pairs pourrait être un outil favorisant le maintien de la scolarité pour ce groupe d’âge. Il faut donc envisager de faire entrer l’école « ordinaire » à l’hôpital.

Conclusion
Pour limiter l’échec scolaire lié au cancer, il est devenu impératif de faire fonctionner l’école dans le SHOP de Marrakech, voir même, avec un système d’assistance pédagogique national qui prendra en charge les enfants en hospitalier. Il est aussi utile d’inciter leurs propres écoles à adopter un système particulier qui prendra en considération les contraintes des soins occasionnant la discontinuité du temps scolaire, et de créer des projets d’accueil pour préparer la réinsertion scolaire des enfants qui étaient en rupture.
MED-IMP01 THE BURDEN OF CHILDHOOD CANCER AND MANAGEMENT RESOURCES IN BURundi

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Background

Until the end of 2020, Burundi had no paediatric oncology services. There were no management services beyond limited palliative care, despite the need for childhood cancer treatment. The study objectives were to determine the burden of childhood cancers, evaluate management resources and assess national health policies for establishing paediatric oncology services in Burundi.

Methods

The in-hospital patient registries of 24 referral hospitals in four health regions were screened for diagnoses of childhood malignancies and epidemiological data between January 2017 to June 2021. The hospitals’ resources for the management of childhood cancers were documented. A search of government documents on chronic illness and cancer care was done on Google and Pubmed. Direct contact was made with the Department of Health for cancer policies.
Results
There were 161 children, 82 (50.4%) males and sex ratio of 1:0.99, diagnosed with cancer. The most common were ocular tumours (n=55, 34.1%), mainly retinoblastomas (n=40/55, 72.7%) followed by lymphomas (n=23/161, 14.3%); leukemias (n=16/161, 9.9%) and renal tumours (n16/161; 9.9%); mainly nephroblastoma (n=13/16, 81.3%).

Bujumbura city has seven hospitals (public and private) with paediatricians, adult surgeons, pathology laboratories (1 academic facility, 1 private), pharmacies with chemotherapy (1 academic facility, 1 private), and imaging services. No rural hospitals with resources for paediatric oncology, beyond general practitioners and basic diagnostic services, exist. A single private paediatric oncology centre was opened in Bujumbura during 2021, with one paediatrician.

Burundi has no paediatric oncology policies. An adult cancer control plan is in development without provision for childhood cancer, palliative care or a childhood cancer registry.

Conclusions
The true burden of childhood cancer cannot be determined due to insufficient data. The most common cancers are retinoblastoma, lymphomas and leukemia.

Resources exit to start paediatric oncology services beyond palliative care. More medical paediatric oncology and nursing skills for management are needed. Government policies should be developed to establish, support and facilitate access to childhood cancer care.

MED-IMP02 IMPLEMENTATION OF EARLY DIAGNOSIS PROGRAM FOR FIVE CHILDHOOD CANCERS IN SUB-SAHARAN AFRICA. A PROGRESS REPORT FROM GFAOP AND J. LEMERLE INSTITUTE

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**Background**
In Sub-Saharan Africa, like in other low-income countries, delayed diagnosis is the first cause of death by cancer in children. Developing early diagnosis tools, trainings healthcare givers as well as raising awareness among populations is paramount to improve survival rates.

**Material and Methods**
Two workshops on designing and validating childhood cancer education and awareness tools were conducted in 2019 with paediatric oncology experts from ten African countries and health authorities from Senegal, including the Senegalese Ministry of Health and the National School of Nurses and Midwives. Educational modules on detection of early signs leading to the diagnosis of five main children’s cancers (Retinoblastoma, Acute Lymphoblastic Leukemia, Wilms Tumor, Burkitt and Hodgkin Lymphoma) were developed and harmonized. These modules (manuals, flyers, posters), intended for general practitioners, nurses and other healthcare givers have been used to train trainers and then to train healthcare givers.

**Results**
During the 2019-2021 campaign in seven countries in sub-Saharan Africa, 651 health care providers were trained, including 197 general practitioners, 35 pediatricians, 287 nurses, 36 midwives and 96 other health technicians, as part of several training workshops. Digital technology will be developed to support healthcare givers in swiftly referring patients to services for children with cancer in different countries. Similar training is planned for three other countries by December 2021.
Conclusion
The implementation of effective tools to enhance early diagnosis may improve the survival of children with cancer in Sub-Saharan Africa. Demonstrating such an impact will need further development in additional regions and countries in 2020 and 2021.

MED-IMPO3 IMPACT OF IMPROVING ACCESS TO TREATMENT IN THE MANAGEMENT OF RETINOBLASTOMA IN KINSHASA UNIVERSITY HOSPITAL

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Background
Retinoblastoma (RB) is the most common intraocular malignancy in children. Survival of children with RB in resource-limited countries is very poor compared to high income countries. This situation can be improved with better access to effective and affordable treatment. We describe the management of RB and the outcome in the Kinshasa university hospital from January 2008 to December 2019.

Methods
A 12-years retrospective review of all patients treated for RB in the Kinshasa university hospital from January 2008 to December 2019 was conducted. Improvement of care of childhood cancer was observed after 2014 consecutive to the collaboration between the hospital and the French African Paediatric Oncology Group (GFAOP). Clinical features, management of patients and outcome before and after improvement of care were compared.
Results
A total of 113 patients was registered with 79% unilateral RB, 16.8% bilateral and 2.6% trilateral at the presentation. The mean age at presentation was 2.49 years. Leukocoria was the most common presenting sign (61.3%) and the extra-orbital form was the most seen at diagnosis (60%). From 2008 to 2014, the recruitment of patient was poor and patients of all stages was treated with a same regimen with no histological analysis after surgery. All patients abandoned of died during treatment and no remission was registered. After 2014, the recruitment was better and treatment was given according to the staging at diagnosis. 70.7% of patients had histopathological report after surgery and we registered 20% of complete remission after completion of treatment.

Conclusion
The management of RB is still a problem because of poor survival. However, improvement of hospital care can increase the survival rate. Late presentation and abandonment of curative treatment need to be addressed.

MED-IMP04 THE VALUE OF THE MULTI-DISCIPLINARY TEAM TOWARDS MANAGEMENT OF PAEDIATRIC NEURO-ONCOLOGY IN UGANDA
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Background
Survival of children with brain tumours in low-income countries are low, making multi-disciplinary teams (MDT) vital in quality management. In Uganda, paediatric neuro-oncology services are in its infancy. We evaluated the epidemiology of brain tumours and the MDT contributions to improve care and outcomes.

Methods
A retrospective records review of paediatric brain tumours at the Uganda Cancer Institute (UCI) between 2017 and 2021 was conducted. Patient and tumour characteristics; the MDT contributions were sourced. A survey among MDT members was conducted to assess perspectives on quality.

Results
Thirty-one paediatric brain tumour cases were treated at UCI, of which 20 (64.5%) were discussed on the MDT. The median age was 8.0 years (IQR 6.0-11.0), 17 (54.8%) were male and the median duration of symptoms was six months (IQR 3.0-8.5). Seven (22.6%) were craniopharyngiomas, five (16.1%) astrocytomas, and three (9.7%) each were medulloblastomas, ependymomas, and pineoblastomas. None 0/2 (0.0%) of the cases diagnosed in 2017 were discussed in MDT, 3/5 (60.0%) were discussed in 2018, 2/4 (50.0%) in 2019, 6/9 in 2020 (66.7%) and 9/11 (81.8%) in 2021. The median time to MDT discussion was 14.5 days (IQR 7.0-17.5). In 2018, 0% of MDT recommendations were acted upon, 50% in 2019, 83.3% in 2020 and 77.8% in 2021. Surgical resections were done in 29.0% of cases, radiotherapy in 16.1%, chemotherapy in 29.0%, and palliation in 16.1%. In the 16 survey responses, the lack of neurosurgical resources (46.7%) and imaging (46.6%) were the major barriers to care, then diversity of MDT roles (26.7%), access to radiotherapy (20.0%) and pathology (20.0%). Most patients (10/13, 76.9%) treated according to MDT recommendations were alive, versus 0/7 (0.0%) without MDT recommendations.
Conclusions/recommendations
In Uganda the paediatric neuro-oncology MDT is essential in improving management outcomes. Greater emphasis should be placed on increasing resources and actionable treatment recommendations.

MED-IMP05 PEDIATRIC CANCERS IN HOSPITAL PRACTICE IN NIAMEY-NIGER: STUDY OF 164 CASES
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Introduction
Niger started the paediatric oncology activity on March 2016 supported by the Francophone African Group of Paediatric Oncology GFAOP and other NGO's. Childhood cancer care in Niger remains challenging due to lack of presenting symptoms knowledge among families and healthcare providers, leading to a delayed diagnosis. Other obstacles are the lack of a national childhood cancer registry, limited access to diagnosis and essential drug shortage. We report the demographic aspects, the diagnosis, the treatment and follow-up of the patients referred to Paediatric oncology unit.

Method
This is a descriptive cross-sectional study of patient medical records and the consultation register over a 3-year period (September 10, 2018-September 10, 2021). The data collected were general demographic data, clinical presentation at diagnosis, workup information, therapeutic aspects and follow-up. All patients followed in the unit were included.
Results
A total of 164 patients were registered during the study period. The mean age at diagnosis was 4.9 years (range 1 month to 15 years) with an M / F ratio of 1.4. The 0 to 5 age group was the most represented with 67.68%. The anatomicopathological diagnosis was specified in 49.39% of cases. Retinoblastoma represented 33.55% of cases, followed by nephroblastoma 25.62% and lymphomas 12.2%. Thirty-two of the 112 patients who started treatment completed it. Forty-one patients abandoned and 55 patients died (20 before treatment, 27 after progression and 8 after treatment).

Conclusion
Those finding can be used to design a strategic plan for childhood cancer care in Niger. This plan needs to be in alignment with the WHO – Global initiative for childhood cancer aiming 60% survival rate by 2030.

MED-IMP06 EXPERIENCE OF SETTING UP A DAYCARE ONCOLOGY CENTRE AT A TERTIARY HOSPITAL IN NAIROBI, KENYA

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Background
Treatment of oncological conditions in children is a long and resource-intensive process, costing about 2,000-8,000 USD on average. The practice at Gertrude’s Children’s Hospital (GCH) had been fully in-patient until December 2018 when a daycare service was started. A clinical team of doctors and nurses, overseen by a paediatric oncologist, run the service. Offering chemotherapy in an outpatient setting may reduce the cost of treatment while increasing efficiency and minimizing risk of hospital acquired infections.

Methods
This was a retrospective descriptive study. All pediatric oncology patients who received outpatient chemotherapy treatment in GCH from December 2018 to August 2021 were included. The range of services offered, medications given, turnaround time and adverse events encountered were outlined. Costs incurred in the outpatient setting were compared to the standard cost of inpatient treatment.
Results
The unit served 35 childhood cancer patients over the period of Dec 2018 to August 2021, recording a total of 905 visits. Some of the medications given include doxorubicin, vincristine, vinblastine, actinomycin D, cytarabine, L-asperaginase, bleomycin and intrathecal methotrexate. The cost of treatment for acute lymphoblastic leukemia during the induction phase of treatment was 4 times cheaper in the outpatient versus the inpatient setting [USD 1065 (Ksh 106 470) versus USD 4430 (Ksh 442 645)]. The average turnaround time for delivering intrathecal chemotherapy was 77 (35-133) minutes, while that for intravenous boluses and infusions was 64 (30-134) minutes. Only one case of a severe adverse event was reported, with a child developing emesis and dehydration post discharge from daycare.

Conclusion
Outpatient care, in some phases of treatment, is a cost saving, efficient and safe strategy in treatment of childhood cancer.

MED-IMP07 ELABORATING TELE-EXPERTISE TOOLS FOR CHILDHOOD CANCER IN SUB-SAHARIAN AFRICA. EXPERIENCE OF BAMAKO-CURIE-GFAOP TWINNING PROGRAM.

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Background/Objectives
In French-speaking Sub-Saharan Africa (SSA), 20,000 cases of childhood cancer occur each year, while only 2,500 children reach one of the GFAOP Pediatrics Oncology Center, and half of them receive a treatment according to recommendation. Cases may require opinions of remote experts for better diagnosis and treatment. This is the objective of the E-health program which now reach Oncology Centers with High-Speed Internet, Microsoft real-time collaborative tools and Visio-conferences.
Methods
The 2018-2021 program twinning Pediatrics Department, Gabriel Touré University Hospital, Bamako - Mali, and Centre SIREDO, Curie Institute, Paris, France plus Telemedecine support of Expertise France, and Interconnection of medical facilities in Bamako and regional hospital of Sikasso has been implemented. Sharing high speed Intranet between 4 hospitals in Bamako through Radio-Frequency Intranet network and Internet upgrade in Sikasso. Microsoft Teams rolled out over a one organization medical team provides real-time interaction every 14 days, records and reporting sharing. For each Tumor Board Meeting (TBM) cases are presented, question, discussion and proposal follow. A synthesis is issued for each case and returned to patient chart.

Results
Microsoft Teams provides a simple, robust way of collaboration with laptop providing easy mobility and redundancy over smartphone. Agenda management of all experts is the main topic to solve: pathologists, radiologist, radiotherapist and surgeons have rarely time to join TBM. One hundred and eight cases were discussed over 60 TBM (convening 1-5 doctors in Mali) - May 2018 to September 2021 (1, 8 case per TBM). Main cases were Burkitt Lymphomas, Sarcomas, Nephroblastoma and Neuroblastoma. Difficult cases covered differential diagnosis between disease progression and toxicity, second tumor, and decision of palliative treatment.

Conclusions
TBM developed in SSA with speedy internet allows actors to share opinion and decision in real time.

MED-IMP08 BUILDING A MODEL PEDIATRIC NEURO-ONCOLOGY PROGRAM IN SUB-SAHARAN AFRICA
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Background
Central nervous system tumours are the most common solid tumours in children and the second commonest childhood cancer globally. However, paediatric brain tumours are rarely diagnosed in low resource settings, like those found in Sub-Sahara Africa (SSA), due to scarcity of comprehensive paediatric neuro-oncology services. We describe the establishment of the first dedicated comprehensive paediatric neuro-oncology program that may serve as a model for others in the low resource setting.

Methods
This is a descriptive interim report of a paediatric neuro-oncology capacity-building project in the SSA setting. The project is a collaboration between Makerere University College of Health Sciences and Mulago National Referral Hospital in Uganda, Texas Children’s Hospital/Baylor College of Medicine, and other academic and philanthropy partners in North America and Europe.

Results
A total of 14 paediatric oncologists have been trained over 6 years. One completed additional neuro-oncology training at Texas Children’s Hospital and returned to establish the first dedicated neuro-oncology service in 2020. Between March 2019 – September 2021, 76 children have been diagnosed and enrolled in the program. Children are treated on standardized protocols adapted for the local setting. Multidisciplinary management involving two neuro surgery teams, radiation oncologists, paediatric oncologists, an endocrinologist, neurologists, ophthalmologists, and experts from Texas Children’s has been strengthened.

Conclusion
Capacity to improve the suspicion, referral, diagnosis, and comprehensive care for children with brain tumours low resource settings can be improved through innovative collaborations.
POSTER PRESENTATIONS

POS-PRE01 MANAGEMENT OF ACUTE LEUKAEMIA IN KINSHASA UNIVERSITY HOSPITAL: AN EXPERIENCE OF 13 YEARS.

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Background
Acute leukaemia (AL) is the most common childhood cancer in children. Survival of children with AL in resource-limited countries is very poor due to delayed diagnosis and lack of adequate treatment. We describe the management of AL and the outcome in the Kinshasa university hospital from May 2005 to December 2018.

Methods
A 13-years retrospective review of all patients diagnosed with AL in the Kinshasa university hospital from May 2005 to 2018 was conducted. Sociodemographic features, clinical findings and treatment outcome are described.

Results
A total of 105 patients was registered with 70.5% of ALL and 29.5% of AML. The medium age at presentation was 7.5 ± 4.5 years with male/female ratio of 1.3. Only 13% of patients arrived within the first month of the beginning of symptoms. The delay in the presentation was 4.18 ± 2.15 months. Prior to presentation at the oncology unit, 18.1% of patients was seen by traditional healers, 36.2% received anti tuberculosis drugs and 23% received corticosteroid. The most frequent presenting symptoms were fever 95%, pallor 91%, lymphadenopathy 90%. The 2 years overall survival was 6%.

Conclusion
The management of AL in Kinshasa is still a problem with very low survival rate. Delayed diagnosis at presentation, lack of supportive care and abandonment of treatment need to be addressed and corrected.
POS-PRE02 ANAPLASTIC LYMPHOMA MIMICKING A BRODIE’S ABSCESS IN A 12-YEAR-OLD BOY

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Introduction

Anaplastic lymphoma kinase-positive (ALK+) large B-cell lymphoma (LBCL) is a rare type of lymphoma with high invasiveness and rapid progression. It occurs in all age groups, but is extremely rare in children. In accordance with the World Health Organization classification, ALCL is composed of two main subtypes: anaplastic lymphoma kinase (ALK)-positive and ALK-negative. ALCL often develops in cervical or inguinal lymph nodes as well as in extranodular sites, such as skin, bone, soft tissue, liver, and lung; however, cases of ALCL with myocardial or pericardial involvement are rare. We experienced a pediatric ALCL patient with bone localization.

Case report

12-and-a-half-year-old adolescent admitted for treatment of tumefaction of the left knee; whose radiological and histopathological study explorations found an intramedullary inflammatory process lower left femoral metaphyseal epiphyseal in connection with a Brodie abscess. However, the unfavorable outcome despite a treatment involving broad-spectrum antibiotic therapy and surgical curettage, and the appearance of inflammatory signs in the left ankle made us do another bone biopsy which posed a diagnostic problem since the blades needed From a consultation between several anatomic-pathologists in view of the complexity of this case, which subsequently confluent in front of the “lymphoplasmacytoid” morphology of the tumor elements, the panel was completed by an anti-CD30 immunostaining.
his came back strongly and diffusely positive, as well as that carried out later for ALK1. The morphological characteristics and the immunophenotype of this tumor (CD30 + / EMA + / ALK1 +) suggest the hypothesis of localization of an ALK positive anaplastic lymphoma. The somatic molecular genetics results did not show any rearrangement by RT-qPCR within the limit of the fusion transcripts sought. The child is currently under chemotherapy protocol, according to the ALCL 99 protocol.

**Conclusion**

ALCL can present with multiple or solitary bone involvement. In clinical practice, lymphoma is an important differential diagnosis when the bone is involved. A meticulous examination of initial and repetitive biopsy is recommended to make an accurate diagnosis of ALCL. As soon the diagnosis is confirmed, suitable chemotherapy should be adopted.

**POS-PRE03 UNUSUALLY LOCALIZED BURKITT LYMPHOMA: A CASE REPORT**

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**Background**

Endemic Burkitt’s lymphoma (BL) is preferentially localized at the abdominal and maxillofacial levels. Rarer or even exceptional locations are however possible. The authors report a case of monstrous inguinal BL.
Observation

Seven-year-old boy with no particular pathological background, admitted with a large left inguinal mass which has been evolving for 6 months. The child was brought in by his parents after several unsuccessful traditional treatments. He presented a relative preserved general condition and a very large ovoid mass in the left groin, with about 15 cm long axis, hard, irregular and tender in places, with multiple bilateral inguinal nodes. Histological examination of a biopsy sample taken under general anesthesia confirmed the diagnosis of BL. The patient was classified as Stage III and a treatment protocol according to the 2019 GFAOP recommendations was undertaken. Supportive care consisted in particular in local care of the tumor which quickly necrosed, with the contribution of pediatric surgeons. Scarring was obtained after approximately three months of treatment. The child is in complete remission with a follow-up of 11 months.

Conclusion

The case of this patient recalls the sometimes-surprising locations of BL and the importance of multidisciplinarity in the management.

POS-PRE04 COMMUNITY PHARMACISTS IN CANCER HEALTH PROMOTION IN GHANA: IN THE CONTEXT OF CHILDHOOD CANCERS

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**Background**
Available data indicate that childhood cancers have emerged as an important cause of morbidity and mortality in children in Ghana. Across the globe, one of the interventions aimed at disease prevention is through health promotion. To our knowledge, no published reports are examining the practices of community pharmacists towards childhood cancer health promotion in Ghana. This study was set to examine community pharmacists’ perceptions and perceived barriers in providing childhood cancer health promotion services in Ghana.

**Methods**
A cross-sectional study was conducted using electronic questionnaire to assess the perception and perceived barriers of Ghanaian community pharmacists towards provision of childhood cancer health promotion.

**Results**
Most community pharmacists (77.30%) believe that cancer health promotion is an integral part of their daily practice. The survey participants were more likely to positively perceive the pharmacist’s role if they were older, male, or had completed the PharmD program (p < 0.05 for all parameters). Lack of cancer educational materials (69%) was the major perceived barrier in providing cancer health promotion services.

**Conclusion**
Ghanaian community pharmacists recognize to play an essential role in the provision of cancer health promotion services.
Background

World Child Cancer (WCC) was founded in 2007 and over 10 years later, we support children with cancer, and their families, in Africa, Asia and Central America. Annually, about 397,000 children develop cancer with 43% of these cases getting diagnosed. According to WHO, the three main components of early diagnosis are awareness of symptoms by families and primary care providers, accurate and timely clinical evaluation, diagnosis, and staging (determining the extent to which a cancer has spread); and access to prompt treatment. Though several papers acknowledge the overarching importance of awareness of childhood cancer, none determines the exact level of awareness among families and community members. This paper provides information on the level of awareness among families and community members in the Greater Accra Region of Ghana.

Methods

Level of awareness of childhood cancer in Greater Accra Region of Ghana A multistage sampling method was used in three stages. At the first names of 16 districts were written on pieces of paper and placed in a bowl. 50 percent of the districts were randomly selected by two team members. Second, ten locations were purposively selected in each of the districts with the aid of district maps. Participants were selected systematically, and first participant was selected at random and subsequent participants selected in five count intervals until 160 persons were selected in each district. The survey was conducted in 2017 and repeated in 2021. There was marginal improvement in quality of awareness.

Results

In 2017 1,380 participants were interviewed and in 2021 1,396. Participants aged 21 to 30 years (38.3%) were more aware of childhood cancer with P=0.44, participants with primary education and beyond (92.8%) had higher awareness than participants with no education (7.2%) with P=0.001. Participants who heard about childhood cancer were more (56.2%) and this was statistically significant (P=0.002), and the source was TV (30.9%) followed by radio (26.3%) with P=0.03.
When were participants questioned “can cancer in children be cured?” 72.6% said yes, 8.9% said no whilst 18.6% were not sure. Out of this, 62.5% knew it was curable whilst 7.1% said no and 30.4% were not sure.

Conclusion
There is the need to improve on awareness on signs and symptoms of childhood cancer among families and community members through mass media, churches and mosques and social media to increase the level awareness. Exploring innovative ways of awareness creation is very crucial to improving on early detection of childhood cancer if Ghana is to meet the global aim of reaching at least a 60% survival rate for children with cancer by 2030.

POS-PRE06 TO CARRY OUT REAL-TIME MEDICAL CHECK-UPS AT THE JOSEPH RAVOAHANGY ANDRIANAVALONA HOSPITAL IN MADAGASCAR UNDER THE RESPONSIBILITY OF AN ASSOCIATION

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Background and Objective
To reduce the time between prescription and realization of medical examinations at the expense of the families in the absence of social coverage in order to make the diagnosis and start the treatment more quickly and increase the chances of recovery for cancer patients. Every day counts in the initiation of treatment for pediatric cancers, which are developing very rapidly.
Methodology and patients supported
The project presented by Anyma during a call for projects initiated by the GFAOP was financed by the Bristol Myers Squibb Foundation within the framework of a program dedicated to the development of local association initiatives. 1) Definition of the eligibility criteria for the support fund in collaboration with the Pediatric Oncology Unit: children suspected of having curable cancer and who have no other means of social care. 2) Identification of beneficiaries 3) Elaboration of the patient file: date of arrival, type of suspected cancer, list of prescribed examinations, date of realization, date of diagnosis, date of beginning of treatment 4) Budgetary follow-up returned to the service

Result
With the 2000 € fund, 20 children had been supported: 11 children with retinoblastoma, 3 children with acute lymphoblastic leukemia, 5 children with nephroblastoma and 1 Rhabdomyosarcoma.

Conclusion
The Covid pandemic disrupted the project: sick staff and limitation of patients' movements. It would seem from the reports made by the association that the examinations prescribed could all be carried out in less than a week. This reduction in the time between prescription and completion of the examinations was found between the diagnosis and the beginning of treatment after the establishment of the aid fund. This study should be continued for a more stable and longer period to better measure its impact and to have a more precise analysis of the incidence.

POS-PRE07 NUTRITIONAL ASSESSMENT AND PREVALENCE OF MALNUTRITION IN CHILDREN AGED 0-59 MONTHS WITH CANCER

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Introduction
Malnutrition is a particularly important problem in children with cancer. The objective of this study was to investigate the nutritional status of children with cancer under 5 years of age.

Methodology
This was a cross-sectional study conducted in the pediatric oncology unit (POU) in Bamako from January 1 to June 30, 2019. Anthropometric data (weight/height ratio, brachial circumference) were assessed at diagnosis. Malnutrition was defined as wasting with or without edema.

Results
The prevalence of malnutrition in pediatric oncology was 34%. The mean age was 30 months with a sex ratio of 1. The majority (94%) of patients were from a low socioeconomic background. The average time to consultation was 10 weeks. The study found severe malnutrition in 63% of patients and moderate malnutrition in 37%. The main cancers observed in the patients were: retinoblastoma, leukemia and nephroblastoma. The mortality rate was 44%.

Conclusion
These results show that cancer causes and/or aggravates nutritional deficits in children, hence the importance of developing a nutritional management protocol.

**POS-PRE08 EARLY NUTRITION INTERVENTION IMPACT ON NEUROBLASTOMA-HR (TWO SIGNIFICANT INTERVENTIONS)**

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Abstract
About 50% of all cancers in infants are diagnosed as Neuroblastoma during their first year of life, neuroblastoma represents 7-10% of childhood cancers. Malnutrition Prevalence in Neuroblastoma may reach 50% in the first presentation visit. Early nutritional intervention as integrative protocol of cancer treatment has been approved in Children’s Cancer hospital of Egypt (CCHE-57357) because preserving a good nutritional status prevents the delay of treatment, dosage alteration and poor tumour response.
The Case report emphasizes the importance of early nutritional diagnosis and intervention in a neuroblastoma high risk patient, who experienced severe weight loss and growth faltering post first and fifth cycles of CDV protocol (cyclophosphamide, doxorubicin, vincristine) respectively, and traces the growth Velocity and Changes in nutritional status from early referral and throughout the treatment period with responsive successful nutritional management.

POS-PRE09 WILMS TUMOR IN A TUNISIAN CENTER: CLINICAL AND THERAPEUTIC STUDY OF 12 CASES
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Background/objectives
Wilms tumor (WT) or nephroblastoma, accounts for approximately 5% of malignancies in children under age 15 years. This embryonal tumor is associated with excellent patients survival. Our aim is to identify the characteristics, therapeutic strategies and treatment results of pediatric WT.

Methods
A retrospective study including 12 children with WT treated in the radiation oncology department, Farhat Hached hospital, Sousse, Tunisia between 2014 and 2020 were retrospectively reviewed.
Results
The sex ratio was 0.7 (M/F) with a mean age at diagnosis of 4.8 years old (2-9). The main reason for consultation was an abdominal mass (n=10). Five patients demonstrated pulmonary metastatic disease at initial referral.Tumors were classified according the SIOP classification respectively into stage III (n=6) , stage IV (n=5) and stage V (n=1).Twelve children have neoadjuvant chemotherapy (CT) followed by enlarged uretero-nephrectomy which was incomplete in 2 cases.Only 11 patients underwent adjuvant radiotherapy (RT) of the flank at doses between 14.4 Gy and 25.2 Gy, depending on the risk group and adjuvant CT. After a mean time of 20 months (1-72),7 patients were in complete remission, 2 died of their disease after an average time of 10 months,1 had a contralateral recurrence after 36 months, he received concomitant RT-CT at a dose of 14 Gy and still symptom-free and 2 lost of follow up. The mean survival was 51 months.

Conclusions
Our series showed a significant improvement in survival of WT patients related to the refinement of the risk stratification system to maintain a high rate of cure for these patients while minimizing toxicity. The establishment of the stage makes it possible to determine the postoperative treatment which is based on CT and in some cases on RT.

POS-PRE10 DIAGNOSIS AND MANAGEMENT OF PEDIATRIC BRAIN TUMORS IN UGANDA
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Background
Pediatric brain tumours are the commonest solid tumours in children and the 2nd
commonest childhood cancer globally. In Sub-Saharan Africa, there is paucity of data
on their diagnosis and management.

Objectives
To describe the presentation, investigations done, treatment modalities and outcome
of paediatric patients with brain tumours seen at Mulago National Referral Hospital in
Uganda from May 2019 to May 2021.

Methods
A retrospective study was conducted in Mulago National Referral Hospital, paediatric
oncology unit, in patients below 18 years of age, admitted with a radiological finding of
a brain tumour from May 2019 to May 2021.

Results
Majority (45 /66 (68 %)) of patients were below 10 years of age. Most patients were
males (56%). The commonest symptom at presentation was headache (42%). Brain
Ct-Scans were done in all and majority (52%) had infratentorial tumours. Cerebrospinal
fluid analysis was done in 23 patients. The commonest diagnoses were glioma (38%),
craniothyraignoma (22%), medulloblastoma (10%). Twenty-two patients had surgical
resection and a histological diagnosis. Eighteen percent of patients had no diagnosis.
Only 7(11%) patients received radiotherapy. Eleven patients received chemotherapy.
Forty-eight patients are still alive and attending clinical reviews. The overall one-year
survival was 83% (95%CI (72.0-93.8).

Conclusion
Gliomas were the commonest diagnosed paediatric brain tumour at the Mulago
National Referral Hospital, paediatric oncology unit. Management of paediatric brain
tumours is still sub-optimal in Sub-Saharan Africa due to neuro-surgical, diagnostic
and treatment challenges.
POS-PRE11 A PEDIATRIC CASE WITH LUMBAR NEPHROBLASTOMA

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Introduction

Wilms’ tumor (WT) is one of the most common childhood solid malignancies, which classically arises from primitive metanephric cells, but exceptionally it may arise in places other than the kidneys. Extrarenal Wilms’ tumours (ERWT) are rare and have been described in various locations including perirenal, gynecologic tract, sacrococcygeal and pelvic areas. Few case reports have been described of a primary Wilms’ tumours of the spine. We report a case of retroperitoneal Wilms’ tumor emphasizing the imaging differentials with other retroperitoneal tumors.

Case presentation

A 6-year-old female presented with abdominal pain that has been in evolution for five months. On radiological imaging a mass measuring more than 8 cm in height was found in the L4/L5 spinal region. The tumor markers AFP (alpha-fetoprotein) and βHCG (beta-human chorionic gonadotropin) were negative. Microscopically, the tumours exhibited the typical triphasic histology for Wilms. The patient was treated on the SIOP 2001 protocol and received radiotherapy. The tumor was extra renal and the location made resection difficult.

Discussion

The most common sites of ERWT are the retroperitoneum and inguinal canal according to the literature. Retroperitoneal ERWT are more common in males. Surgical excision remains the key step in the treatment of ERWT, especially radical resection, that was not possible in our case.
Conclusion
The occurrence of the extrarenal nephroblastoma is exceedingly rare. In absence of typical clinical presentation or conclusive imaging tests, the diagnosis is based on histology after the resection of the tumor. The recommended management of the extrarenal nephroblastoma is similar to the treatment used for intrarenal nephroblastoma. The prognosis is good and comparable to that of classic Wilms’ tumor with the same stage and histology.

POS-PRE12 GASTRIC ADENOCARCINOMA, AN UNUSUAL CANCER IN PEDIATRICS: A CASE REPORT
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Introduction
Adenocarcinoma is a gastric malignancy rarely described in pediatrics. It is a real challenge in terms of diagnosis and treatment.

Observation
We report the case of a 13-year-old boy admitted for a painful abdominal mass that had been evolving for six months in a context of weight loss and fever. Physical examination revealed an epigastric mass, firm and with irregular borders; hepatosplenomegalgy and pallor. Laboratory investigations revealed severe microcytic and hypochromic anaemia (haemoglobin < 8 g/dl, GMV: 63fl, HDAC: 29g/dl), inflammatory syndrome and hepatocellular failure with a collapsed prothrombin time of 40%. An ultrasound scan showed liver lesions simulating a liver abscess. A thoracic-abdominal-pelvic CT scan showed extensive circumferential thickening of the gastric wall with adenopathy and hepatomegaly (figure 1). Endoscopy revealed a large, firm, crater-shaped, corporal-antral ulcerating tumour that bled easily on contact with the fibroscope (Figure 2).
Histological analysis of the gastric mucosal fragments revealed a differentiated gastric adenocarcinoma with tubes lined with atypical columnar cells. The stroma was necrotic and inflammatory. Biopsies were positive for H. pylori. H. pylori antigen was found in the patient’s stool. The patient had received Helicobacter pylori eradication therapy. No chemotherapy or local surgery was undertaken due to extensive metastatic disease (T3 N1 M1, stage IV).

**Conclusion**

This study highlights the rare clinical features of this tumor. CT scan, endoscopy and biopsies are decisive in establishing the diagnosis of the disease.

**POS-PRE13 GLIOME INFILTRANT DU TRONC CÉRÉBRAL : UN CAS OBSERVÉ AU NIGER CHEZ UNE FILLE DE 10 ANS**

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**Introduction**

Le gliome infiltrant du tronc cérébral (GITC) est la tumeur la plus fréquente du tronc cérébral chez l’enfant représentant environ 75 à 80% des cas avec une incidence maximale au milieu de l’enfance. Principale cause de décès par tumeur cérébrale chez l’enfant, le GITC est une tumeur cérébrale extrêmement agressive, avec une incidence maximale au milieu de l’enfance et une survie médiane inférieure à 1 an.

**Observation**

Nous rapportons le cas d’une fille de 10 ans qui a présenté une hémiparésie gauche incluant la face associée à des signes d’hypertension intracrânienne. Par ailleurs, 2 mois avant la symptomatologie actuelle, il a été noté une paralysie faciale périphérique droite de survenue soudaine.
Devant ce tableau clinique, un processus expansif intracrânien brutalement décomposé ou un accident vasculaire cérébral (ischémique ou hémorragique) siègent au niveau de la fosse cérébrale postérieure avaient été évoqués. L’IRM cérébrale a mis en évidence une lésion pontique infiltrante expansive évoquant un gliome infiltrant du tronc cérébral. Malheureusement, l’évolution clinique fut marquée, 2 semaines après le diagnostic, par une dépression respiratoire avec la survenue du décès de l’enfant dans un contexte de défaillance respiratoire et d’état de mal convulsif malgré les mesures de réanimation entreprises.

Conclusion
Le GITC est l’une des tumeurs du système nerveux central les plus agressives chez l’enfant et moins de 10% de patients survivent à 2 ans après le diagnostic dans les pays développés. Le cas de notre patiente nous suscite cette interrogation: quel pronostic pour les enfants d’un pays à faibles ressources, comme le Niger, atteints de du GITC?

POS-PRE14 EPIDEMIO-CLINICAL ASPECT OF RETINOBLASTOMA AT THE SIKASSO REGIONAL HOSPITAL IN MALI

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Background
Retinoblastoma is a malignant neuroepithelial tumor occurring in infants and young children. It is the most common intraocular tumor. It is most often unilateral. In Mali it represents 33.1% of all solid tumors. Management depends in part on early diagnosis.
Objective
Study the epidemiological and clinical aspects of retinoblastoma in the pediatrics and ophthalmology department of Sikasso hospital.

Methods
It was a retrospective study going from 2010 to 2018; the files of patients with intraocular retinoblastoma diagnosed clinically and/or by imaging were used. The entry was made on Microsoft office Word and Excel 2016. The data analysis was carried out on Epi info version 7.2.

Results
Over a period of 8 years, we collected 29 cases out of 61 cases of ocular tumors, a frequency of 48%. The male sex predominated with 55% (sex ratio of 1.2). The average age was 1.23 years. 17.24% of cases had a history of family cancer. Most of the patients lived in urban areas 79.31%. The first sign was leukocoria in 68.96% and the average time to consultation was 3 months or 51.72%. The left eye was the most affected in 56% against 39% for the right eye and 5% in bilateral forms. On examination of the fundus, we noted 65.52% of endophytic form and 68.97% of patients were in stage D of the ABC classification. All patients referred 100% to the Pilot Unit in Bamako.

Conclusion
Retinoblastoma is the most common eye tumor in children and the time to diagnosis was too long, compromising the patient’s functional and vital prognosis. Early diagnosis is of utmost importance.
POS-PRE15 UN TORTICOLIS RÉVÉLANT UNE LOCALISATION INHABITUELLE D’UN SARCOME D’EWING CHEZ L’ENFANT

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Introduction
Le torticolis est un symptôme fréquent chez l’enfant. Les étiologies sont multiples et le plus souvent bénignes mais parfois il peut révéler une maladie grave en particulier une pathologie tumorale maligne.

Objectif
Illustrer l’exemple d’un torticolis d’évolution inhabituelle en rapport avec une tumeur maligne du rachis cervical

Observation
Nous rapportons l’observation d’une patiente âgée de 8 ans qui se présente pour un torticolis évoluant depuis 3 mois, rebelle au traitement antalgique et antiinflammatoire compliqué depuis quelques jours d’une monoparésie gauche dans un contexte de fièvre, sueurs nocturnes et amaigrissement. L’examen clinique retrouve une tuméfaction jugulo-carotidienne gauche de 4 cm x 6 cm, dure, fixe par rapport au plan profond, sans signe inflammatoire en regard, une diminution de la force musculaire du membre supérieur gauche, une enophtalmie et un ptosis. L’IRM cervico-médullaire objective un processus lésionnel de la région cervicale latérale gauche avec extension endo-canalaire épidurale étendue sur 10 cm et une anomalie du signal du corps C5. Un thrombus. La biopsie de cette masse objective la présence des cellules rondes à l’examen histologique et l’étude immuno-histochimique est en faveur d’un sarcome d’Ewing vertébrale. Un traitement par chimiothérapie selon le protocole Euro-Ewing 99 est entrepris en urgence avec une bonne évolution.
Conclusion
Les douleurs de la nuque et le torticolis sont fréquents chez l'enfant et nécessite rarement le recours à des investigations. Cependant, la persistence des symptômes impose une méticuleuse approche à la recherche d'une étiologie et particulièrement un processus malin.

POS-PRE16 SITUATION AND ACTIVITY OF THE PEDIATRIC ONCOLOGY UNIT OF GABON 2018-2021
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Introduction
Gabon is a country of 2,284,912 inhabitants with 37.45% of children under 15 years old. It is estimated that around 28 new cases of paediatric cancer per year are known to the paediatric oncology unit, other cases fail to be identified for various reasons. The paediatric oncology activity started in July 2017 with the arrival of two paediatric oncologists trained by the Franco-African paediatric oncology group (GFAOP), the previous patients were treated either by paediatricians, adult oncologists or haematologists and in other cases evacuated abroad.

Goal
The aim of our study is to show the paediatric oncology activity within our unit since 2018 to date in order to better target areas for improvement in order to have a better survival rate.

Methodology
The Libreville Cancer Institute (ICL) being to date the only national public structure specializing in the treatment of cancers in Gabon, was created on February 4, 2014. Since then, its activity has continued to grow as well as its human resources. Our patient data is collected primarily from medical records stored in archives. All cancers affecting children are included in the study.
Results

Being still in the embryonic stage, the Gabon paediatric oncology unit currently resides within the ICL, which mainly takes care of adults. The ICL has two buildings dedicated to hospitalizations, in each building, a room is allocated for children, one has a capacity of 3 beds and the other of 4 beds. Day hospitalization receives patients of all ages. This unit now has a paediatric oncologist who takes care of children from 0 to 16 years of age at diagnosis, follow-up extends up to 18 years. These are all types of cancer including aplastic anemia. The most frequent cancers since 2018 on average are: Nephroblastoma 17.61%, lymphomas 17.47%, leukemias 15.35% and malignant bone tumours 13.56%. The unit takes care of around 28 new patients per year, despite the National Health Insurance and Social Guarantee Fund (CNAMGS) which covers the costs related to cancer, around 60% die, the vast majority for reasons related to factors that can be treated, including late diagnosis, late access to care, refusal of treatment, discontinuation of treatment, etc.

Conclusion

In terms of treatments, considerable progress has been recorded since 2018 through the efforts made by the government, nevertheless paediatric cancers in Gabon remain to this day a public health problem, which needs to be treated using important tools such as early diagnosis, rapid access to care, acceptance of treatment.

POS-PRE17 ONCOLOGY NURSING TRAINING PROGRAMME: AT UGANDA CANCER INSTITUTE

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Background
UCI is a specialized public medical care founded in 1967 as a collaborative initiative between American National Cancer Institute, Mulago Hospital, Makerere University and the British Empire Cancer Campaign as Lymphoma Treatment Centre and Solid Tumour Centre for clinical trials of chemotherapy on cancers that were highly prevalent in East Africa, such as Burkett’s lymphoma and Kaposi sarcoma. It became fully autonomous by the Uganda Cancer Institute Act (2016) to coordinate and provide comprehensive cancer care, prevention services, cancer related research, training, and development of policies on cancers, and cancer related diseases. It is a home of East Africa’s centre of excellence serving six member states with a combined population 170 million people. Increasing incidence of cancer in Uganda coupled with the identified training gap has created an urgent need for training of specialized oncology nurses. Therefore, an effective, skilled oncology-nursing workforce is needed not only to build capacity to meet the specialized training gap but also contribute to work force to operationalize regional satellite cancer centres.

Methods
Through corroboration with UCI partner, (Fred Hutchinson Cancer Research, St. Jude’s Cancer Center guidance, guidance of oncologists at UCI and senior nurses, nursing directorate designed a program of study with aim of developing relevant oncology clinical skills, knowledge, and competencies. A multi-disciplinary team of local and international experts in the fields of Clinical and Nursing Oncology, Medical Oncology, Paediatric Oncology, Surgical Oncology, Gynaecological Oncology, and Palliative care and radiation Oncology will offer training staff

Results
All nurses, who have successfully completed a bachelor’s degree in nursing education program from a recognized institution, with a minimum of two years of post-qualification experience and registered with Uganda Nurses and Midwifery Council. Ongoing evaluations to be conducted to assess for success in competency building in oncology knowledge and clinical skills.
Recommendations

The oncology curriculum is building capacity for oncology care of patients at UCI. Skill and knowledge competency assessments will be conducted per semester. Thereafter, services will be decentralized in to set light oncology units so as decrease the late-stage diagnoses and improve paediatric survival with early diagnosis and treatment.

POS-PRE18 CHILDHOOD HEAD AND NECK Rhabdomyosarcoma IN Pediatric Hematology and Oncology Center of Rabat (Morocco)

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Background and aims

Approximately 30% of childhood rhabdomyosarcomas arise in the head and neck region; tumors that originate in parameningeal sites account for one half of all lesions in this location. Tumors arising in parameningeal sites are at risk for central nervous system (CNS) extension. The aim of our study is to describe the experience of our center in the management of parameningeal RMS in children and to evaluate the treatment results.

Methods

Our present study is a retrospective analysis of children with parameningeal rhabdomyosarcoma (RMS) treated in the Pediatric Hematology and Oncology Center of the children’s hospital in Rabat (Morocco), from January 2014 to December 2018.

Results

Sixty-three new cases of pediatric rhabdomyosarcoma attended the pediatric hematology and oncology center of Rabat (5% of childhood cancers). Thirteen cases of Parameningeal RMS were evaluated (21% of all RMS). The median age at diagnosis was 5 years (2-11 years). Males predominated (9M/4F).
The average diagnostic time was 2.5 months. Parameningeal location and tumor size were confirmed by CT and/or MRI in all patients. 11 patients had large tumors > 5cm. Three patients had metastases at the time of diagnosis. The diagnosis is confirmed by histology in all cases. The most common histological type was the embryonal rhabdomyosarcoma. Chemotherapy was performed in all patients, according to two protocols: MMT95 and RMS2005. Radiotherapy was performed in 8 patients with a median dose of 50.4Gy's. Surgical excision was performed in 2 patients. Five patients were alive in their last follow-up, 1 of them with disease, whereas 6 patients died due to the disease and 2 lost to follow-up.

**Conclusion**

Parameningeal rhabdomyosarcoma remains a diagnostic and therapeutic challenge with an unfavorable prognosis. Local failure is a major problem in children with parameningeal rhabdomyosarcoma and meningeal involvement.

**POS-PRE19 BONE RELAPSE IN A PATIENT WITH WILMS TUMOUR AT A TEACHING HOSPITAL IN GHANA**

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Background/Objectives
The majority of relapses in Wilms Tumour occur in the lung, tumour bed or liver and normally occur within 2 years. The aim was to describe an unusual and uncommon recurrence site in the bone that occurred 2 years after the initial diagnosis. The prognosis for bone metastasis is guarded and protocols are not well defined for it. This patient presented with a mass of the left humerus 1 year after treatment.

Methods
This involved a description of the case with the investigations and management that was done.

Results
A 2 year 6-month-old boy was initially treated for metastatic Left Wilms tumour (lung metastasis) with no anaplasia on histology. He was initially given chemotherapy using the metastatic protocol of the SIOP PODC Wilms Tumour Africa protocol, surgery and abdominal radiotherapy. Post-treatment investigations showed a resolution of the lung metastasis and a normal abdominal scan. One year after treatment, he presented with swelling of the left arm after a fall. On evaluation, there was the presence of a pathological fracture of the left humerus. A whole-body diffusion MRI was done which showed that there was an isolated malignant-looking large mass of the left humerus. There was no lung metastasis present but had a 1.3cm para-aortic lymph nodes. The histopathology confirmed recurrent Wilms Tumour and mainly blastemal subtype. He received 34 weeks of Carboplatin-Etoposide-Cyclophosphamide-Doxorubicin. And he had to undergo an amputation of the arm during treatment. After treatment, the review investigations were normal. The patient was put on a strict follow-up schedule to monitor for any recurrence. He remains tumour free 6 months after the treatment.

Conclusion
Bone metastasis from Wilms Tumour although rare can occur. It needs a detailed and strict follow-up schedule to be able to pick them up early and put in the needed intervention, although survival is guarded.
POS-PRE20 PROFILE OF CHILDHOOD CANCER CASES SEEN AT THE PAEDIATRICONCOLOGY UNIT OF A TERTIARY HOSPITAL IN GHANA - A 10 YEAR REVIEW

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Background
Childhood cancers, though curable, have inequalities in outcomes between low- and middle-income countries and high-income countries. The WHO Global initiative on Childhood cancer (GICC) has a goal of increasing survival rate at least by 60% by 2030 while reducing suffering and improving quality of life for children with cancer globally. The main aim for this study was to assess the trends in yearly proportions and numbers of cases seen and to evaluate the survival patterns and also to serve as a baseline as interventions are implemented in tandem with the WHO GICC.

Methods
A retrospective study was conducted to review secondary data from the paediatric cancer registry of all patients diagnosed with cancer from 2011-2020. Demographic and clinical data stored in excel was exported to Stata and analyzed. Outcome data included death or alive.

Results
Total number of patients diagnosed were 1,094 with the lowest number of new patients (n=84) seen in 2012 and the highest (n=132) seen in 2014. There was a Male: Female ratio of 1.4:1. The commonest cancers were lymphomas, forming about 38.1% of the new diagnosis made. The incidence of lymphomas reduced from 62.8% in 2011 to 23.0% in 2020. Proportions for acute leukemias also increased from 11.3% in 2011 to 23.8% in 2020. Number of patients alive in reference to the year of diagnosis was lowest in 2016 with 29% of patients being alive. Subsequent years have higher survival with 53% of patients in 2019 still alive.
Conclusion
This baseline preliminary data showed a reducing trend in the incidence of lymphomas with an increase in the number of leukaemia patients seen but poor outcomes in patients with leukaemia. This calls for concerted effort with interventions to improve on the outcome and be able to reach the 60% survival goal for the WHO GICC.

**POS-PRE21 OSTEOSARCOMA IN CHILDREN: THE RABAT CHILDREN’S HOSPITAL EXPERIENCE**

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**Background and aims**
Twenty years ago, the prognosis of children with osteosarcoma was poor. The introduction of multimodal, risk adapted chemotherapy combined with limb-saving therapy is the treatment of choice in children with osteosarcoma and offered a chance to cure approximately 70% of patients.

The aim of our study is to study the epidemiological, clinical, paraclinical, therapeutic and evolution of osteosarcoma and to identify the difficulties related to its management and the feasibility of the Os 2005 protocol.

**Methods**
This work is a retrospective study of 51 pediatric osteosarcoma files collected at the pediatric hematology and oncology center of Rabat.

**Results**
Between 2011 and 2018, 51 children were treated for osteosarcoma at our institution. Their median age was 12.15 years (range, 6–15 years), with a sex ratio of 0.96. The mean time to diagnosis was 11.5 weeks. The lesion was located in 75% of cases in the region of the knee. 20% of patients were metastatic at the time of diagnosis. 94% of patients received preoperative chemotherapy. 51% of the cases were operated, 35% were conservative surgery and 65% were amputated, while adjuvant chemotherapy was received in only 49% of patients.
The high rate of amputations can be explained by late diagnosis at a locally advanced or even metastatic stage, problems with adherence to the chemotherapy protocol related to the rupture of certain drugs leading to a prolongation of the inter-cure interval or even a change of protocol (os 2005 protocol was only respected in 69% of cases) as well as the failure to respect surgical deadlines exposing to tumor evolution and the administration of additional cures favoring the risk of chemotoxicity. 76% of patients experienced side effects from chemotherapy, including 7 toxic deaths.

**Conclusion**

The prognosis of osteosarcoma has improved considerably with the introduction of multidrug therapy. However, results remain modest in developing countries; the overall survival rate in our study was 18% at 3 years.

**POS-PRE22 OUTCOME OF UNILATERAL ANAPLASTIC WILMS’ TUMOR IN PEDIATRIC: SINGLE INSTITUTE EXPERIENCE, CHILDREN CANCER HOSPITAL EGYPT, 57357**

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Background
Wilms’ Tumour (WT) also called Nephroblastoma is a malignant renal embryonal tumour and accounts for 5% of childhood cancers. WT comprises three histological components namely blastemal, epithelial and stromal. The histological feature of clinical significance is anaplasia (focal or diffuse). Anaplasia is a potent marker of adverse prognosis with increased resistance to chemotherapy. Purpose: To assess impact of different prognostic factors (age, stage, focal vs diffuse anaplasia) on the outcome of anaplastic WT also analysing chemotherapy related toxicity.

Methods
A retrospective study including all paediatric patients diagnosed with anaplastic WT treated at Children’s Cancer Hospital Egypt, 57357 (CCHE), from July 2007 to September 2017. Patients were treated according to modified Children’s Oncology Group (COG) protocol (AREN0321).

Results
Sixty-three patients (median age, 4.5 years; range, 9 months to 12.5 years) were eligible with slight male predominance 54% (n= 34 patients). Twenty patients had metastatic disease, (19/20 patients had pulmonary metastasis and one had pulmonary and hepatic metastases). Out of the 63 patients 12 had focal anaplasia (19%) and 51 had diffuse anaplasia (81%). Among entire cohort, stage III disease accounts for 47.6% followed by stage IV (31.7%). Eighteen patients underwent upfront nephrectomy while the remaining 45 patients received neoadjuvant chemotherapy. All patients received radiotherapy. The 5 overall survival (OS) and event-free survival were 70.7% and 68.1% respectively. Age and stage had no significant impact on outcome. As for type of anaplasia, although small numbers precluded a detailed analysis, 12 patients out of the 13 relapsed patients had diffuse anaplasia. Only 3 patients died out of treatment related mortality.

Conclusion
Anaplastic histology is an important histologic predictor of response and survival in patients with WT. Diffuse anaplasia confer a poorer prognosis, thus more efforts to improve the outcome is required through incorporating novel biological therapy together with the conventional one.