It has been a little over 6 months since the launch of the first Making Global Connections newsletter. I hope our PODC nursing community is doing well as we move into the second half of 2018. In addition to your responsibilities at work, many of you have been busy writing My Child Matter grant applications and submissions of abstracts for the SIOP meeting in Kyoto in November. Congratulations to everyone who submitted and for those of you who received acceptances … the work is just beginning!

I am very excited that several of you volunteered to write a short article about a practice issue or educational program for the newsletter. As nurses working in pediatric oncology, we have an opportunity to learn from each other beyond attending SIOP conferences. A BIG thank you to everyone who accepted my plea to contribute. I am so impressed by the information they have to share, I hope you are too! Also, a special thank you to Liz Sniderman who helped out proof-reading and editing and will be the co-editor for our January 2019 publication.

See you in Kyoto.
Linda Abramovitz (Editor)
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Improving the Quality of Health Care in Developing Countries Through Nursing Research – Veronica de la Maza & Paola Viveros Lamas – (Chile)

SIOP Kyoto 2018 and SIOP 2019 Lyon France

Photographs from Program Activities in Indonesia

**2018 PODC Educational Calendar**

- September 20: Joint Meeting with PODC Supportive Care
- October: Professional Development in Pediatric Oncology Nursing: Rima Saad, Lebanon and Liz Sniderman, USA
Hello from the Co-Chairs
PODC Nursing Working Group

Rehana Punjwana (Pakistan) and Lisa Morrissey (USA)

The PODC Nursing Workgroup has added 24 new members since the SIOP conference in Washington, D.C. in October of 2017. Our current membership is 149 nurses, representing over 40 countries. Please encourage your colleagues to join; new members are always welcome.

The Pediatric Oncology Nurses’ Day Poster Campaign, to celebrate Pediatric Oncology Nurses’ Day on September 8, is currently underway. This initiative is led by Glenn Mbah Afungchwi from Cameroon, Rima Saad from Lebanon and Shenila Anwaral from Pakistan. The poster development team has reached out to patients from the six WHO regions to draw a picture representing nurses and patients together. We look forward to a masterpiece!

The Baseline Standards task force has had a busy and productive year. Currently, three manuscripts related to the Baseline Standards are under review. A Baseline Nursing Standard Toolkit is under construction and you will hear more about it in the next several months. For information about the Baseline Nursing Standards, please visit the SIOP nursing site where you will find the published articles, a copy of the standards and an endorsement letter: [http://siop-online.org/nursing-working-group/](http://siop-online.org/nursing-working-group/)

Preparation for SIOP 2018 in Kyoto are moving forward. Nursing scholarships have been selected and planning for the pre-conference nursing educational day on Friday, November 16th is nearly finalized.

Hope to see you in Kyoto!

Updates to Safe Handling of Hazardous Drugs for Oncology Nurses

Liz Sniderman, MSN, NP, CPHON (USA)

Nurses working in pediatric oncology handle cytotoxic medications routinely as part of their nursing care. To avoid negative effects, ranging from skin rashes to reproductive health problems, nurses must take the proper precautions when handling these hazardous drugs. Hazardous drugs include chemotherapy, anti-virals, hormones, bioengineered drugs, and other medications known to cause harm at the cellular level. Newer therapies, such as targeted therapies and immunotherapy, have limited information about their hazardous potential, and thus should be handled with appropriate precautions until more is known.
The Oncology Nursing Society (ONS) has recently published the “Toolkit for Safe Handling of
Hazardous Drugs for Nurses in Oncology” to equip nurses with the knowledge and resources needed to ensure their safety. Appropriate use of personal protective equipment (PPEs) is the most important way to avoid exposure to hazardous drugs. PPEs need to be worn during all stages of drug use: storage, preparation, administration, and disposal (disposal includes cleaning, spills, and exposure to bodily fluids of patients receiving drugs).

For more information, including recommendations on use of closed-transfer devices, post-treatment care, day-to-day cleaning, spill management, and safe handling in the home, and further resources, the full toolkit is available at: https://www.ons.org/sites/default/files/ONS_Safe_Handling_Toolkit.pdf

<table>
<thead>
<tr>
<th>Type of PPE</th>
<th>When to Use</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Gloves</td>
<td>Storage, Preparation, Administration, Disposal</td>
<td>Double-glove during preparation, administration and disposal. Ensure gloves are chemotherapy safe.</td>
</tr>
<tr>
<td>Gowns</td>
<td>Preparation, Administration, Disposal</td>
<td>Single-use, lint-free, long-sleeved with wrist cuffs, fasten in the back, non-permeable</td>
</tr>
<tr>
<td>Eye and Face Shield</td>
<td>Administration and Disposal (spills)- whenever risk of splash</td>
<td></td>
</tr>
<tr>
<td>Respirators</td>
<td>Preparation (if not done in bio-cabinet), administration of aerosol or irrigation treatment, and cleaning spills</td>
<td>Fit-tested, N95 or more respirators for airborne particles; full-facepiece chemical cartridge-type respirator required for exposure to vapors or gases. Surgical masks offer NO protection!</td>
</tr>
<tr>
<td>Shoe, Sleeve, Hair/Facial Hair Covers</td>
<td>Preparation</td>
<td></td>
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The SIOP PODC Nursing working group has developed baseline standards for pediatric oncology nursing in low- and middle-income countries. The fifth standard states that nurses must have available to them the resources for safe care; and that chemotherapy drugs should only be prepared by nurses if a pharmacist is not accessible, and when appropriate PPEs are available. The above guidelines from ONS help clarify resources require for safe care; however, we know that these are not readily available in many settings. Solutions to ensure care is safe for both nurses and patients, including ways to request safety resources from institutions requires ongoing dialogue and assessment of current practices.
The Indonesian Pediatric Oncology Nursing Working Group of Indonesia Pediatric Nurses Association (IPNA) launched the Learning Structure Program Curricula for Pediatric Oncology Nurses in Bahasa Indonesia with the support of My Child Matters Sanofi Foundation Award (2016 – 2017). Based on this curriculum, the first basic Training course was taught from July 24 to July 28, 2018. IPNA worked collaboratively with Indonesia Care for Cancer Kid Foundation (YKAKI), a parent founded organization that is a member of Childhood Cancer International (CCI). The 49 nurse participants had at least 2 years of pediatric experience and represented several hospitals from the different provinces of Indonesia, including the west and middle regions of the country. The training was conducted over five consecutive days from 8 am to 5 pm and is outlined below.

➢ Days 1-2: Lectures on Introductory Concepts for Childhood Cancer
➢ Day 3: Skills labs with simulations and demonstrations in clinical areas; nutritional assessment, safe handling of chemotherapy drugs, management of chemotherapy spills, documentation of chemotherapy, and pediatric palliative screening
➢ Days 4-5: Hospital visits for case observations and health education presentations for children and their families who live in shelter house of YKAKI

Participants verified their competency during the training course by completing several requirements: pre- and post-test, skills demonstration, case observations and presentations, and teaching health education for family and patients. Several topics for health education were successfully delivered to the families and children with cancer who stay at the YKAKI shelter house, including preparing balanced nutrition, hand hygiene, pain management using non-pharmacological approaches, and effective coping techniques. The teaching methods for family education included demonstrations, role play, dancing, and singing performances. At the closing ceremony, all participants received a certificate of attendance, and recognition for outstanding performances by specific nurses was acknowledged. We are excited that this will be an ongoing program in Indonesia. Enjoy the pictures at the end of the newsletter!

The current membership of PODC Nursing Working Group is 149 nurses from over 40 countries and still growing strong. You do not need to be a member of SIOP to be a part of the PODC Nursing Working Group. Our group supports Collaboration, Networking and Mentorship.

To raise the visibility of nursing within the organization, please consider joining SIOP, or if you are already a member make sure you renew your SIOP membership and support an L&MIC nurse: http://siop-online.org/membership/

A mentor list is available on the Cure4Kids group for those seeking assistance writing an abstract and/or submitting a My Child Matters Grant.
Central Line-Associated Blood-stream Infection Prevention

Lauri Linder, PhD, APRN, CPON (USA)

Central venous catheters, or central lines, have improved the quality of life for children with cancer during treatment. Having readily available vascular access has decreased the frequency of venipunctures and has supported delivery of chemotherapy and related supportive care. A central line, however, is an additional potential source of infection. Nurses are often the ones who are responsible for the management of the central line, including efforts to prevent infection.

The United States’ Centers for Disease Control and Prevention use the term central line-associated bloodstream infection (CLABSI) to describe an infection occurring in a hospitalized patient with a central line that cannot be attributed to another source. Most CLABSIs are presumed to result from external sources of contamination. For some
children with cancer, however, bloodstream infections can also result from translocation of
organisms across injured mucosal tissue. CLABSIs occurring in an individual with neutropenia and involving an organism associated with injury to mucosal tissues are further designated as mucosal barrier injury (MBI) events or CLABSI-MBI.

The following practices can help reduce the risk of CLABSI:
Nurses who care for patients with central lines should receive training in the care of the line. In many US settings, training is given as part of nursing orientation and then is renewed on an annual basis. Training is guided by a skills checklist and includes basic skills such as hand hygiene, accessing the line, changing the dressing, and obtaining laboratory specimens. Allowing nurses an opportunity to practice on a model can help reinforce skills. Simple training models can even be created using tubing and a plastic container. Nurse staffing ratios and practices should allow the nurse adequate opportunity to assess and manage the central line. Many hospitals have implemented central line “bundles,” a group of interventions that, collectively, help standardize central line care and reduce the risk of infection. These include:

- Hand hygiene before providing any cares related to the central line
- Disinfecting the access ports on the central line before accessing the line
- Routine dressing changes: every 7 days for transparent dressings and every 2 days for gauze dressings. A dressing should also be replaced anytime that it becomes wet or soiled.
- Changing the tubing and needleless connectors every 96 hours
- Limiting the need to access the central line such as combining collection of laboratory specimens or giving medications orally rather than intravenously

Hygiene practices, including daily baths, twice daily tooth brushing, and promoting out-of-bed activity also help reduce the risk for bloodstream infection. Having written procedures for central line-related care is also key to preventing infection. These documents should be readily accessible to nurses to support them in providing consistent, evidence-based central line care. Monitoring CLABSI rates and reviewing individual cases can identify opportunities to improve practice and provide a way to evaluate interventions aimed at reducing CLABSIs.

Infection Control personnel are available at many hospitals to help with CLABSI surveillance. Nurse leaders can also assume responsibility for maintaining records of individual CLABSI events and related characteristics such as the patient’s diagnosis, the type of central line, duration of hospitalization, presence of neutropenia, and the organism involved in the infection.
The transfusion of blood products is an essential part of supporting the treatment of oncology patients. However, as we know, it is not without complications. Therefore, nurses must keep informed and updated about transfusions to provide nursing care that guarantees patient safety.

General pre-administration considerations:

- Review the medical order to confirm the indication for transfusion
- Review patient’s allergies, and administer any pre-medications for patients with a history of a transfusion reaction
- Inform the patient and/or family of the possible adverse effects and the need to communicate any concerning symptoms to the nursing staff immediately.
- It is not necessary to restrict oral intake during transfusion
- Ensure venous access. If peripheral or central access already exists, verify its correct functioning and patency. In the case of peripheral access, an upper extremity site is preferred, with a catheter of at least 22 Ga.
- Do not administer any other medications or solutions, other than 0.9% sodium chloride, in the same lumen as the blood product. Never administer simultaneously with Ringer’s Lactate or other products containing calcium, as they have a pro-coagulant effect.
- Perform baseline vital signs measurement (blood pressure, heart rate, respiratory rate and temperature, oxygen saturation if available) before starting administration.
- Verify the patient's identification. This is very important, as the most serious transfusion accidents occur due to mistakes in the identification of the patient and/or product. DOUBLE CHECK BY A SECOND NURSE!
- Check the blood product bag: Observe the appearance, integrity and expiration date of the product to be transfused.
- Verify blood group on bag label. DOUBLE CHECK BY SECOND NURSE!

Ensure emergency equipment available in case of serious allergic or other transfusion reaction.

<table>
<thead>
<tr>
<th>PACKED RED BLOOD CELLS: Nursing Considerations</th>
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<tr>
<td>Dose: 10 - 15 ml/kg: will increase hemoglobin by 2.5 to 3 g/dl</td>
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</tbody>
</table>
Evaluate for signs and symptoms of transfusion reaction
Must be cross-matched for ABO and Rh compatibility; ensure irradiated and leuko-reduced

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<tr>
<th>PLATELETS: Nursing Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dose:</strong> 10 ml/kg; adult volume is 6-10 units: will increase platelet count by 10,000 cells/mm³</td>
</tr>
<tr>
<td>Infuse using an administration set with a 170-μm filter</td>
</tr>
<tr>
<td>Take a post-transfusion platelet count between 60 minutes to 24 hours after infusion is finished to evaluate efficacy, if indicated</td>
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</tbody>
</table>

When faced with a transfusion reaction:
- STOP the transfusion immediately
- Maintain the IV site infusing normal saline solution
- Notify the doctor responsible for the patient
- Monitor temperature, blood pressure, heart and respiratory rate
- Treat the symptoms as indicated
- Observe fluid balance
- Verify all records, labels and identifications of the transfused product and the patient to determine if the patient has received the correct component
- Immediately report the suspected transfusion reaction to blood bank personnel and follow their instructions
- Send the bag that caused the reaction to the blood bank, along with the required documentation of transfusion reaction
- Once the etiology of the reaction is established, specific measures will be taken for subsequent transfusions
- Document the reaction in the patient chart

References:
To spread the word about the Baseline Standards for Pediatric Oncology Nursing, please follow and share our posts! Tag us in your pictures of pediatric oncology nurses working globally and help us advocate for safe and high-quality nursing worldwide!

To be featured in a post, please send your pictures to:
Liz.sniderman@stjude.org or mbahlos@gmail.com, or via Whatsapp to +1-267-438-1987
CURE4KIDS
Cure4Kids is a professional medical education website developed by the Cure4Kids team at the Department of Global Pediatric Medicine at the St. Jude Children’s Research Hospital. Cure4Kids has hundreds of online seminars and courses, and group collaboration workspaces. Cure4Kids is free of charge. Register at www.cure4kids.org/register.

ONCOPEDIA
Oncopedia, part of the Cure4Kids website, has freely available articles on a wide range of pediatric hematology and oncology subjects, including nursing content. Oncopedia articles are written by various experts in the field from around the world and are available in several languages.

If you have any questions regarding registration, please contact Liz Sniderman (Liz.sniderman@stjude.org).

POINTE
The Paediatric Oncology International Training and Education Network (POINTE) was launched on October 18, 2016. The goal for the website is to have existing educational materials and training opportunities accessible to resource limited settings in an open access site requiring no passwords or members-only restrictions. The site currently has downloadable PowerPoint presentations and modules available for training pediatric oncology nurses. If you wish to share prepared educational materials, please send it to Rehana Punjwani (rehana_punjwani@yahoo.com) and Liz Sniderman (liz.sniderman@stjude.org).
MARCHING TOWARDS THE STANDARDS: FORMAL NURSING ORIENTATION PROGRAMME FOR PAEDIATRIC ONCOLOGY IN CAMEROON

Glenn Mbah, MPH, RN (Cameroon)
Rachel Hollis, FRCN (UK)

Nurses of the SIOP PODC strongly engaged in the dissemination of the six baseline standards for paediatric oncology nursing (http://siop-online.org/nursing-working-group/) as they celebrated the International Childhood Cancer Day 2018. One of the six standards developed in 2014 calls for a formal orientation for paediatric oncology nurses. A recent survey shows that this standard is unmet in several Low and Lower Middle-income countries, including Cameroon.

The Cameroon Baptist Convention Health Services Paediatric Oncology Programme runs across three hospitals in North West and South West Cameroon. It was first established in 2003 and has grown and strengthened over time to develop paediatric oncology care in Cameroon. The programme has been supported by a long-term twinning partnership with Stellenbosch University, South Africa and the Beryl Thyer Memorial Africa Trust, joined by World Child Cancer UK, and more recently by the Children’s Hospital of Leeds Teaching Hospitals NHS Trust in the UK.

The programme is sustained by a committed and dedicated nursing team. At the start of the new twinning partnership with the Leeds Children’s Hospital, Sister Rachel Hollis - Lead Nurse and former co-chair of the SIOP PODC nursing working group, undertook a careful training needs assessment with the local team, facilitated by Nurse Glenn Mbah. Formal nurse training was identified by the team as the greatest priority for development.

Rachel and Glenn worked together to develop a competency-based paediatric oncology nursing training programme. This course, now in its second practical phase with 20 participants, consists of two intensive didactic workshops, delivered during twinning visits, with presentations from both the local and the visiting team. Each workshop is followed by a six-month period of supervised practical competency acquisition and validation. Assignments, including case studies and the development of teaching tools and checklists, are used to assess and further develop knowledge and learning. The training covers the domains of cancer and its treatment; supportive care; outcome of cancer and its treatment; and professional issues – all of which are recommended by the baseline standards.

Through the twinning partnership and nursing collaboration Cameroon has joined the likes of Egypt, Morocco, Pakistan, Mexico and Chile, who have established orientation programmes for nurses in paediatric oncology.
IMPROVING THE QUALITY OF HEALTH CARE IN DEVELOPING COUNTRIES THROUGH NURSING RESEARCH

Verónica de la Maza, RN  
Paola Viveros Lamas, BSN, RN, CPHON

Cancer is a disease that places the patient and his family in an unknown world, greatly impacting physical, economic, social and family aspects of life. This impact is even greater when cancer occurs in a child, due to their vulnerability and dependence on their family for care. The family burden that this creates can stand in the way of confronting the disease which, in turn, can negatively influence treatment and patient outcomes.

Several papers have described internal and external familial factors that influence the way in which parents cope with their child’s illness. Internal factors relate to the disease itself, while external factors are those related to the availability of networks to which families can turn. The health care team is an important external factor, which has a role in supportive care for the family. This role can be described as the “process of educational interaction between people who, through contact, establish friendship and information links, receiving support of different types, contributing to reciprocal well-being and constructing positive factors in the prevention and maintenance of health.”

The delivery of health information to the patient is a key component of nursing care, and should be delivered in a complete, true, timely and clear manner, and consider the condition and particular needs of each patient; especially at the most difficult times for parents’ coping, such as the moment of diagnosis, the days immediately after diagnosis and at first relapse.

In developed countries, supportive care has seen important advances in recent decades. However, in developing countries, such as Chile, until 2010 supportive care, including patient and family education, has not been a main component of nursing care. This was mainly due to the lack of time and availability of nursing staff to carry out this educational role. For this reason, a group of nurses with experience in childhood cancer and research formed a working team with the main objective of developing a research project to demonstrate the impact of an educational program to increase parents’ knowledge of their child’s illness. In 2010, this experimental, randomized-controlled project was carried out in 96 parents of children with a recent diagnosis of cancer. 49 parents were in the experimental group, and 47 in the control group. Parents in the experimental group participated in 3 one-hour education sessions. Both groups had evaluations of their knowledge on days 1, 10, and 90. Additionally, all parents who participated in the program were asked to complete a satisfaction survey in relation to the education received.

The results obtained showed that the parents who received the educational intervention achieved a higher level of knowledge of the pathology of their children, compared with the group that did not receive the education (14 vs. 11 correct answers; p<0.05). In the satisfaction surveys, parents expressed gratitude for the intervention and that the information they received allowed them to take a more active role in the care of their children.

The results of this study were presented to the authorities of the hospital after the conclusion of the study, who decided to assign dedicated hours for a pediatric oncology nurse to provide education to parents of children with cancer. This is the only public hospital with a professional who has dedicated hours to develop educational programming, ensuring the education of 100% of the parents of newly diagnosed patients. In addition, since 2014 the family education nurse organizes group educational sessions, held one week per month, with classes given by different professionals of the health care team.
Undoubtedly, the study showed that the implementation of an educational program was feasible and cost-effective, ultimately leading to the decision of the hospital management to implement a permanent nurse educator for families. This led to an objective improvement in the overall care provided to pediatric cancer patients and their families.

References:
1. P. González. Experiencias y necesidades percibidas por los niños y adolescentes con cáncer y por sus familias. Nure Investigación, Nº 16, Junio 2005


Please visit the SIOP website for more information: www.kenes.com/siop

It is never too early to think about SIOP 2019 (Lyon, France)

January 2019 Newsletter

Please consider submitting a short article for the January 2019 newsletter. Photos are welcomed!

Rehana Punjwana (co-chair)  rehana_punjwani@yahoo.com
Lisa Morrissey (co-chair)  Lisa.Morrissey@childrens.harvard.edu
Linda Abramovitz (editor)  BMTskier@comcast.net
Photos from Program in Indonesia