

APHON Position Paper on Educating the Pediatric Hematology/Oncology Nurse

Authors

Deborah Echtenkamp, MSN RN CPON® FAPHON
Kari Wheeler, DNP APRN CPNP-AC CPN BMTCN® CPHON®

Reviewers

APHON Steering Council

Due to advances in treatments for children with hematologic and oncologic disorders, the demand for nurses with the requisite skills and experience to care for them and their families continues to grow. To address this need, APHON affirms the critical importance of educational efforts in three areas. First, for organizations responsible for educating these nurses to ensure their programs provide the required preparation and experience. Secondly, pediatric hematology/oncology nurses must engage in lifelong learning, staying current in their skills and up to date with diagnostic, treatment, and supportive care advances. Third, for all organizations that provide care or educate those who provide it to develop strategies designed to reduce local and global disparities in the quality of pediatric hematology/oncology care.

Background

The healthcare field is in a perpetual state of change, with advances in science and technology emerging at a continual and rapid pace. With the advent of new treatments and therapies, substantial improvements have been made possible for children with hematologic and oncologic disorders. Notably, the survival rate for pediatric oncology patients has improved dramatically since the 1970s, in line with the overall improvement and advances in nursing practice and supportive care made over the last few decades (American Cancer Society, 2021). Furthermore, children with a hematologic diagnosis are living longer and have more options for controlling the symptoms of their disease (Kline, 2014). Because pediatric hematology/oncology continues to be a highly specialized area, the demand for nurses with the knowledge, skills, and experience necessary to guide nursing practice, provide education and training, and lead future nursing research continues to grow.

Nurses in this field require a solid educational foundation if they are to provide the highest quality of care—both for these patients, who have complex needs, and for their caregivers. The ability to think critically and to rapidly integrate acquired knowledge into high-quality clinical practice is paramount in ensuring best outcomes for patients and their families and moving the art and science of the discipline forward. Despite the

ongoing efforts of both academic and clinical leaders, however, the pediatric hematology/oncology nurse faces numerous challenges on the journey from novice to expert.

In the face of national staffing shortages, the nursing workforce has grown tremendously over the last decade, with an increase in the number of bachelor's and doctorally prepared registered nurses (RNs) and advanced practice registered nurses (APRNs) available to provide evidence-based, high-quality nursing care. Yet the nursing workforce will continue to be tested because the healthcare needs of the U.S. population have become more intense and complex, the demand for an increase in the number and complexity of outpatient care services continues, and the need for medical care to be accompanied by increased attention to the social and cultural factors that influence a person's overall health and well-being is being acknowledged (National Academies of Sciences, Engineering, and Medicine [NASEM], 2021). Globally, low- and middle-income countries, where most childhood cancers occur, face many challenges in providing high-quality nursing care, and the rates of treatment survival in those countries are correspondingly low (Day et al., 2014; Hockenberry et al., 2020). Pediatric organizations involved in the care of hematology/oncology patients and their families can help reduce disparities and improve the quality of care for pediatric patients worldwide by offering education, support, resources, and networking opportunities to the global community (Hockenberry et al., 2020; Ribeiro et al., 2016). Building a diverse workforce that meets the demands of this evolving healthcare system requires a substantial increase in the number, type, and distribution of nurses. In addition, a significant investment is needed to provide an educational foundation that prepares nurses to provide care for racially and ethnically diverse populations who have a variety of lived experiences (NASEM, 2021).

The U.S. Department of Health and Human Services (DHSS) continues to predict a nationwide nursing shortage, and institutions are continuing to hire newly graduated nurses to begin their practice in specialty services like pediatric hematology and oncology (Linder, 2009; Society of Pediatric Nurses [SPN], 2021; U.S. DHHS et al., 2017). The increasing complexity of healthcare services, coupled with the nursing shortage, has influenced how the workforce is prepared, leading to a focus on preparing more nurse generalists. As a result, both the amount of pediatric nursing didactic content and the number of clinical learning experiences have declined. With a lack of pediatric clinical sites and a shortage of trained faculty available to teach pediatrics, many undergraduate education programs have been forced to switch to concept-driven curricula or rely on virtual and alternative learning experiences to provide education in pediatric-specific nursing (McCarthy & Wyatt, 2014; SPN, 2021). In 2016 the National Council of State Boards of Nursing (NCSBN) changed the structure of the National Council Licensure Examination (NCLEX) and integrated questions that reflect a lifespan approach to key concepts in nursing care and professional growth (NCSBN, 2019). Regardless of the intent, the lack of a dedicated section in the NCLEX on the care of children conveys the message that pediatric content is not necessary prior to a nurse's

graduation and licensure (SPN, 2021). At a time when more newly graduated nurses are being hired, they are seemingly less prepared to care for pediatric hematology/oncology patients and their families.

A more diverse population of learners, together with the demands of the healthcare industry, has necessitated a re-envisioning of the educational process for nurses. The principles of adult learning theory have become more crucial because adult learners often have a well-established sense of self, more varied life experiences, greater internal motivation, and better-defined educational goals (Bastable & Myers, 2019). Although hospitals strive to improve access, quality, and value in health care, patient outcomes are negatively affected when non-specialty pediatric nurses care for hematology or oncology patients outside their areas of expertise and training (Helt et al., 2020). As more patients are treated in a variety of community settings, the necessary education, support, and resources must expand beyond the traditional walls of acute care children's hospitals. Furthermore, as biotherapeutic and oncologic treatments advance, so does the potential for serious complications from disease or treatment. The need is stronger than ever for qualified nurses to be trained to respond to emergencies and provide effective interventions to prevent devastating functional loss and even death. Notably, providing didactic and clinical simulation education and training can increase nurses' efficacy in caring for the complex needs of pediatric hematology/oncology patients and their families (Helt et al., 2020). Healthcare institutions and organizations must commit to educating and mentoring nurses in order to ensure that pediatric hematology/oncology patients and their families receive compassionate, evidence-based, high-quality care.

The Association of Pediatric Hematology/Oncology Nurses (APHON) believes that all children, adolescents, and young adults with cancer and blood disorders should be given "safe, expert evidence-based nursing care" (Nelson & Guelcher, 2014, pp. 34–35). This will require the contributions of appropriately educated and skilled pediatric hematology/oncology nurses. Attention to the following positions and recommendations will ensure that such care becomes the standard across all settings and in all countries.

Positions and Recommendations

Providing High-Quality Pediatric Hematology/Oncology Care

It is the position of APHON that:

- All children, adolescents, and young adults with cancer and blood disorders as well as their families should have an expert pediatric hematology/oncology nurse direct their care.
- Nurses caring for pediatric hematology/oncology patients must have a comprehensive understanding of children's growth, development, and unique

needs (SPN, 2017).

- Nurses caring for pediatric hematology/oncology patients must demonstrate clinical knowledge and skill in the specialty of both pediatric nursing and pediatric hematology/oncology nursing (Nelson & Guelcher, 2014).
- Nurses in all clinical areas should have comprehensive training in emergency response, including early recognition, intervention, and rescue strategies.
- Nurses caring for pediatric hematology/oncology patients should participate in comprehensive knowledge-based programs and should complete skills validation to ensure that they can provide competent care.
- Pediatric hematology/oncology nurses should pursue continuing education opportunities, commit to being lifelong learners, and remain current in their knowledge about research and changes in practice through a variety of educational offerings, many of which are available through APHON (Nelson & Guelcher, 2014).
- Nurses administering chemotherapy and biotherapy to children, adolescents, and young adults should successfully complete APHON's Pediatric Chemotherapy and Biotherapy Provider Course, pursue validation of institution-specific clinical skills, and renew their provider status according to APHON's requirements.
- Pediatric hematology/oncology nurses should obtain the Certified Pediatric Hematology Oncology Nurse (CPHON®) credential or other related certifications when the eligibility criteria have been met.

Educating the Pediatric Hematology and Oncology Nurse

It is the position of APHON that:

- Education programs should be geared toward the nurse's experience level and be tailored to identified needs and learning styles.
- Nursing educators and programs should employ a variety of teaching methods to accommodate diverse learning styles, with simulation strongly recommended as a tool to develop critical thinking for both common and low-volume scenarios.
- Education programs for the pediatric hematology/oncology nurse should contain comprehensive content that covers these areas:
 - hematologic and oncologic diagnoses, treatments, supportive care, and emergency care

- effective strategies to deliver patient and family education
- management of the patient and family from the stages of prevention and early detection of disease through treatment and transition to survivorship, chronic illness, or palliative and end-of-life care
- the connection of psychosocial, emotional, spiritual, cultural, and diversity issues related to “the predominant cultural groups in their community [so that nurses can] meet the diverse needs of their patients” (Nelson & Guelcher, 2014, p. 15)
- cooperative group clinical trials, nursing and multidisciplinary research, and the use of scientific evidence to advance clinical practice
- topics in professional practice such as ethics, error reduction, safe handling of biohazardous agents
- topics addressing nursing mental health and wellbeing such as moral distress, burnout, resiliency, and selfcare
- ongoing changes in the healthcare environment and the issues of regional, national, and global trends that have an impact on pediatric hematology/oncology patients and their families (Nelson & Guelcher, 2014)

Providing Necessary Instruction and Developing Competencies

It is the position of APHON that:

- Newly graduated nurses or experienced registered nurses new to pediatric hematology/oncology should:
 - attend a general clinic or hospital orientation
 - complete a hospital-based nursing residency program
 - Complete a unit or job-specific orientation (length to be determined by needs assessment or hospital policy)
 - Complete the following courses, depending on the unit or work area population:
 - *APHON's Foundations of Pediatric Hematology/Oncology Nursing: A Comprehensive Orientation & Review Course 3rd Edition*
 - *APHON's Foundations of Pediatric Hematopoietic Stem Cell*

Transplantation, 3rd Edition

- complete APHON's Pediatric Chemotherapy and Biotherapy Provider Program and a clinical practicum with skills validation
- complete End-of-Life Nursing Education Consortium (ELNEC) or similar pediatric palliative care education
- complete advanced pediatric emergency response training, for example, the American Heart Association's Pediatric Advanced Life Support (PALS) Course (<https://cpr.heart.org/courses/pals>) or Pediatric Emergency Assessment, Recognition and Stabilization (PEARS) Course (<https://cpr.heart.org/courses/pears>)
- participate in lifelong learning through continuing education programs and ongoing work on competencies
- obtain the CPHON® credential when the eligibility criteria have been met
- Experienced pediatric hematology/oncology nurses must:
 - complete unit and job-specific orientation (length to be determined by needs assessment or hospital policy)
 - complete APHON's Pediatric Chemotherapy and Biotherapy Provider Program as needed and complete a clinical practicum with skills validation
 - complete ELNEC or similar pediatric palliative care education
 - complete advanced pediatric emergency response training, for example, the American Heart Association's PALS or PEARS course, as needed
 - complete the following courses, depending on the unit or work area population:
 - APHON's *Foundations of Pediatric Hematology/Oncology Nursing: A Comprehensive Orientation & Review Course 3rd Edition*
 - APHON's *Foundations of Pediatric Hematopoietic Stem Cell Transplantation, 3rd Edition*
 - participate in lifelong learning through continuing education programs and ongoing work on competencies
 - obtain the CPHON® credential when the eligibility criteria have been met

Strengthening Institutions' Commitment to Education

It is the position of APHON that institutions must commit to providing:

- Highly effective pediatric hematology/oncology-focused orientation programs such as APHON's *Foundations* series for newly hired staff members, along with requisite competency validation to ensure that high-quality nursing care is given to patients.
- Nurse residency programs that focus on both pediatric and hematology/oncology specialty care for newly graduated nurses or those new to pediatrics, including ongoing maintenance of nursing competency through continuing education and skills evaluation.
- Comprehensive staff support programs based on the recognition that well-developed critical thinking and coping skills are as important as knowledge acquisition in the development of highly skilled pediatric hematology/oncology nurses.
- Up-to-date resources and adequate staffing of support positions (e.g., educators and APRNs).

Reducing Disparities in Pediatric Hematology/Oncology Care Through Sharing of Resources and Education

It is the position of APHON that children's hospitals and pediatric hematology/oncology centers should provide education, support, and resources to *local and rural facilities* as able by:

- Providing consultation opportunities for colleagues using available technology.
- Providing distance-based education opportunities, "just-in-time" education, and/or live or virtual simulation experiences.
- Sharing detailed plans of care and discharge instructions for children being referred back to a local or community-based facility, as needed.
- Sharing resources such as the Children's Oncology Group's *Family Handbook* and *New Diagnosis Guide*, APHON's *Hematology/Oncology Medication Fact Sheets in English and Spanish*, disease-specific handbooks, guidelines, or clinical pathways such as those on sepsis, fever and neutropenia, and pain management, and other APHON education materials.

It is the position of APHON that our organization should continue to take a leadership role in helping to reduce disparities in care and improve care for pediatric

hematology/oncology patients and their families *globally* through:

- Encouraging participation in APHON's International Nurse Scholarship Program.
- Hosting APHON's Pediatric Chemotherapy and Biotherapy Provider Course in countries outside the United States.
- Providing education and resources to nurses caring for pediatric hematology/oncology patients and families globally.

References

- American Cancer Society. (2021). *Cancer facts & figures 2021*.
<https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2021.html>
- Bastable, S. B., & Myers, G. M. (2019). Developmental stages of the learner. In S. B. Bastable, *Nurse as educator: Principles of teaching and learning for nursing practice* (5th ed., pp. 168–217). Jones & Bartlett Learning.
- Day, S., Hollis, R., Challinor, J., Bevilacqua, G., & Bosomprah, E. (2014). Baseline standards for paediatric oncology nursing care in low to middle income countries: Position statement of the SIOP PODC Nursing Working Group. *The Lancet Oncology*, 15(7), 681–682. [https://doi.org/10.1016/s1470-2045\(14\)70213-x](https://doi.org/10.1016/s1470-2045(14)70213-x)
- Helt, J., Gilmer, M. J., & Connors, L. (2020). Clinical simulation training in nurses caring for pediatric oncology patients. *Clinical Simulation in Nursing*, 47, 73–81.
<https://doi.org/10.1016/j.ecns.2020.06.001>
- Hockenberry, M., Mulemba, T., Nedege, A., Madumetse, K., & Higgins, J. (2020). Distance-based education for nurses caring for children with cancer in sub-Saharan Africa. *Journal of Pediatric Oncology Nursing*, 37(5), 321–329.
<https://doi.org/10.1177/1043454220938355>
- Kline, N. E. (Ed.). (2014). *Essentials of pediatric hematology/oncology nursing: A core curriculum* (4th ed.). Association of Pediatric Hematology/Oncology Nurses.
- Linder, L. (2009). Experiences of pediatric oncology nurses: The first year of hire. *Journal of Pediatric Oncology Nursing*, 26(1), 29–40.
<https://doi.org/10.1177/1043454208323913>
- McCarthy, A. M., & Wyatt, J. S. (2014). Undergraduate pediatric nursing education: Issues, challenges and recommendations. *Journal of Professional Nursing*, 30(2), 130–138. <https://doi.org/10.1016/j.profnurs.2013.07.003>
- National Academies of Sciences, Engineering, and Medicine. (2021). *The future of nursing 2020–2030: Charting a path to achieve health equity*. The National Academies Press. <https://doi.org/10.17226/25982>
- National Council of State Boards of Nursing. (2019). *NCLEX-RN® examination: Test plan for the National Council Licensure Examination for Registered Nurses*.
https://www.ncsbn.org/2019_RN_TestPlan-English.pdf

- Nelson, M. B., & Guelcher, C. (Eds). (2014). *Scope and standards of pediatric hematology/oncology nursing practice*. Association of Pediatric Hematology/Oncology Nurses.
- Ribeiro, R. C., Antillon, F., Pedrosa, F., & Pui, C-H. (2016). Global pediatric oncology: Lessons from partnerships between high-income countries and low- to mid-income countries. *Journal of Clinical Oncology*, 34(1), 53–61.
<https://doi.org/10.1200/JCO.2015.61.9148>
- Society of Pediatric Nurses. (2017). *Pre-licensure core competencies*.
<http://www.pedsnurses.org/core-competencies>
- Society of Pediatric Nurses. (2021). Child health content in the undergraduate curriculum [position statement].
<http://www.pedsnurses.org/p/cm/ld/fid=220&tid=28&sid=3861#publications>
- U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Workforce, & National Center for Health Workforce Analysis. (2017). *Supply and demand projections of the nursing workforce: 2014–2030*. <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/nchwa-hrsa-nursing-report.pdf>

Bibliography

- Andam, R., & Silva, M. (2008). A journey to pediatric chemotherapy competence. *Journal of Pediatric Nursing*, 23(4), 257–268.
<https://doi.org/10.1016/j.pedn.2006.12.005>
- Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Addison-Wesley Publishing Co.
- Dailey, B. (2009). Eyes wide open: Recognizing new graduate nurse fears. *APHON Counts*, 23(3), 1, 18.
- Herring, R. A. (2019). Introduction and standards. In R. A. Herring (Ed.), *The Pediatric Chemotherapy and Biotherapy Curriculum* (4th ed., pp. 1–2). Association of Pediatric Hematology/Oncology Nurses.
- Itano, J. K., Pierce, M., Masten, K. B., & Whitley, M. J. (1992). Developing the oncology nurse from novice to expert. *Oncology Nursing Forum*, 19(8), 1233–1234.
- Kline, N. E. (Ed.). (2008). *Essentials of pediatric hematology/oncology nursing: A core curriculum* (3rd ed.). Association of Pediatric Hematology/Oncology Nurses.
- Mosher, R. B. (2008). Standards of pediatric oncology nursing. In N. E. Kline (Ed.), *Essentials of pediatric hematology/oncology nursing: A core curriculum* (3rd ed., pp. 4–6). Association of Pediatric Hematology/Oncology Nurses.
- Oncology Nursing Society. (2006, 2019). *Oncology certification for nurses* [position statement]. <https://www.ons.org/make-difference/ons-center-advocacy-and-health-policy/position-statements/oncology-certification>
- Oncology Nursing Society. (2011, 2020). *Education of the registered nurse who administers and cares for the individual receiving antineoplastic therapies* [position statement]. <https://www.ons.org/make-difference/ons-center-advocacy-and-health-policy/position-statements/education-nurse-administers-antineoplastic-therapies>

- Smith, J. B., Rubinson, D., Echtenkamp, D., Brostoff, M., & McCarthy, A. M. (2016). Exploring the structure and content of hospital-based pediatric nurse residency programs. *Journal of Pediatric Nursing*, 31(2), 187–195. <https://doi.org/10.1016/j.pedn.2015.10.010>
- Spears, P., Thornton, D., & Long, L. M. (2008). Journey to nursing excellence: Building partnerships for success. *Nurse Leader*, 6(3), 59–66. <https://doi.org/10.1016/j.mnl.2008.04.009>
- Society of Pediatric Nurses. (2017). *Pediatric residency core competencies*. www.pedsnurses.org/core-competencies
- Warise, L., & Green, A. (2008). Determining perceived learning needs of newly employed pediatric oncology registered nurses. *Journal for Nurses in Staff Development*, 24(2), 69–74. <https://doi.org/10.1097/01.NND.0000300863.82867.59>

Disclaimer

The Association of Pediatric Hematology/Oncology Nurses (APHON) publishes its position statements as a service to its members to promote awareness of certain issues. The information contained in the position statement is neither exhaustive nor inclusive of all circumstances or individuals. Such variables as institutional human resource guidelines; federal and state rules, regulations, and statutes; and regional environmental conditions may affect the relevance of these recommendations and the approaches to their implementation. APHON advises its members and others to carefully and independently consider each recommendation (including the applicability of that recommendation to any particular circumstance or individual). The position statement should not be relied upon as an independent basis for care but rather be considered as a resource. Moreover, no opinion is expressed herein regarding the quality of care that adheres to or differs from the guidance given in this position statement. APHON reserves the right to rescind or modify its position statements at any time.