The Oncology Phone: An Innovative Program for the Management of the Oncology Population in an Academic Medical Center

Kristen W. Maloney, MSN, RN, AOCNS®, Mary Denno, MSN, RN, CMSRN, Teresa Kider, RN, MSN, OCN®, Kirsten McClintock, MS, BSN, RN, Amy Moore, MSN, RN, ACNS-BC, Therese Rutyna, BSN, RN, Kathleen Wiley, RN, MSN, AOCNS®, and Mauri D. Sullivan, MSN, RN, NEA-BC

Demands for oncology nursing care are increasing in the inpatient setting when patients with cancer are not located on a dedicated oncology nursing unit. As the incidence and prevalence of cancer continues to increase, oncology nurses will be confronted with how to best deliver high-quality care to this expanding population. With the growth of the oncology population and expansion of treatment options, staff are challenged to meet the care needs of an increasingly large and highly complex group of inpatients on the oncology service. Nurses are commonly faced with challenges when patients with cancer are treated in units that do not specialize in cancer care. In the off-unit locations, patients with cancer have specialized needs that range from cancer symptom management to the administration of complex, multi-drug treatment regimens typically unfamiliar to the staff on these units.

In addition to the expansion of patient care, antineoplastic agents are more commonly being prescribed for nononcologic indications. Oncology nurses are responsible for the delivery of these drugs because they are the nurses who are chemotherapy certified. Because of the expanded use of these agents, an immediate need exists for innovative strategies for management of complex oncologic diagnoses and treatments, as well as nononcologic indications requiring chemotherapy certification. From strategies developed, collecting and analyzing data surrounding the work of the innovation are important. This will assist in driving nursing practice and will inform nursing leaders of adjustments that should be made to current practice.
The purpose of this article is to describe the oncology phone, the authors’ innovative telephone-based strategy system to manage the needs of inpatients with cancer located on nononcology units. The description will be achieved through an examination of the problem and implementation, process and data collection, and analysis of the intervention. Outcomes and implications for nursing practice will be discussed.

Oncology Phone Design and Structure

Cancer care is a highly specialized type of clinical care. As the general population in the United States continues to grow and age, so too will cancer incidence, with an estimated increase of 45% from 2010–2030 (Smith, Smith, Hurria, Hortobagyi, & Buchholz, 2009). Many nurses who are not specialized in the care of patients with cancer will likely encounter them in their practice. According to Gill and Duffy (2010), 50% of newly diagnosed patients will survive five years after diagnosis. With the growing number of patients with cancer, needs for education and skills related to their care will greatly increase. The authors of this article have seen these needs increase and have experienced challenges in meeting such needs. Variability existed in regard to which oncology unit was called to assist with oncologic questions, and no standardized process was in place for data collection to see what needs existed in which areas throughout the hospital. A new process of internal consultation using cell phone technology was created, called the oncology phone, to address this problem.

Goals and Aims

The overarching goal of the oncology phone project was to provide direct, patient population-specific education to support the safe and comprehensive care of off-location patients with cancer. The authors’ secondary goal was to ensure patient flow was not impeded by requests for oncology unit placement that would delay admissions and demand triage of waiting patients. The third goal was to provide adequate support to patients who needed antineoplastic agents administered for nononcologic indications.

Implementation

The oncology phone was implemented as a single cell phone number that is covered 24 hours per day, seven days per week, with the intention that any staff caring for an off-location patient with cancer can call for specific education and/or support to carry out oncologic treatment and cancer symptom management. The oncology phone is managed by the Oncology Nursing Leadership Team, inclusive of clinical nurse specialists, nurse managers, and assistant nurse managers from the inpatient oncology units. The oncology phone is carried and responded to by a member of this team or an experienced oncology nurse from the oncology-dedicated inpatient units. The inpatient units, which comprise 85 dedicated oncology beds, rotate the responsibility of the oncology phone on a weekly basis to provide coverage to the 722-bed academic medical center.

Because of the variety of calls and necessary hands-on teaching and/or administration of antineoplastic agents, the nurse carrying the phone is located on one of the oncology inpatient units. A member of the Oncology Nursing Leadership Team carries the phone while maintaining his or her normal day-to-day role. During shifts (i.e., night shift and weekends), an experienced oncology nurse carries the phone. This nurse is most often operating in the charge nurse role on one of the inpatient oncology units. Peer-to-peer consultation is one major advantage of this system. Allowing the nursing staff to speak directly to an oncology nurse to assist in the care of a patient is important. A major challenge can be the amount of phone calls in a short time frame. The nurse carrying the oncology phone must prioritize and delegate as needed. Although one unit is responsible for the phone for a week, the other inpatient units provide support when needed. The teamwork in the oncology program is a critical part of the program functioning at a high level.

To best promote the oncology phone within the institution, several methods were used to communicate the new program. A flyer was designed, laminated, and posted on nursing units and other departments. It was titled “Inpatient Oncology Phone” and included the phone number and wording, “To speak directly to an oncology nurse for questions or concerns related to: chemotherapy administration, patients with acute leukemia, and general management of oncology patients.” E-mail communication also was used as a method to raise awareness.

Process

The oncology phone follows an operational plan to streamline and prioritize incoming phone calls from hospital staff.
The consultation begins when a call is received by the oncology nurse from any staff member regarding oncology care needs or antineoplastic agent administration. The consultations have standardized steps to enhance communication between the caller and the nurse responsible for answering the call. The nurse carrying the oncology phone begins the consultation with an assessment of the caller’s need. The next step is to create a plan with the caller, prioritizing the needs of the patient, determining the skill and support needed to meet the patient needs to accomplish the goal of the call, and assigning the appropriate assistance for the call. The plan is then implemented and overseen by the nurse carrying the oncology phone. Implementation may include items such as clarification and review of chemotherapy orders, administration of antineoplastic agents, and education related to the agents being delivered or specific to disease or symptom management. The oncology phone also can be used for bed placement for specific patients with cancer. The admissions department will discuss placement with the nurse carrying the phone to arrange appropriate bed assignment. The final step in the process is the evaluation of each phone call. This allows for assurance that the consultation is completed by the nurse carrying the oncology phone. In addition, in the evaluation process, each call is documented and data recorded in an electronic format inclusive of time, personnel, and other resources (e.g., educational materials) used to complete the call. The oncology phone process algorithm can be seen in Figure 1.

Data Collection

Oncology phone data are collected with each call and tabulated. Data collection began on paper; however, to allow for efficiency and easier data entry and collection, the transition was made to an online system. Data points are placed into an online document, which can be broken down into various spreadsheets for categorical review of data. Data collection begins with time and date of request and who receives the request (e.g., clinical nurse specialist, nurse manager, assistant nurse manager, inpatient oncology nurse). The next set of data recorded includes information surrounding the request called into the phone. This includes name of requestor, their role, contact number, and the department or inpatient care unit needing support. The reason for request is categorized into six different groups: chemotherapy verification and administration, education, bed placement, line care, laboratory draw, and drain management. After the reason for the request is selected, interventions performed are selected. For example, if the nurse is administering chemotherapy, he or she may select additional calls that were made to the pharmacy or provider to clarify the order set, or education that was provided to nursing staff off location regarding the chemotherapy being administered. The approximate time for completion of the request and who performed the request is captured. In addition, the type of patient (oncology versus nononcology) was recently added to the collection tool. The monitoring of compliance with data documentation is completed through team meetings and quarterly review of the online data by the Oncology Nursing Leadership Team. The nurse carrying the oncology phone is responsible for entering the data and receives education on data entry via the online system.

Data Analysis

The authors began data collection at the inception of the oncology phone in November 2009. Since that time, 1,453 phone calls have been managed by the oncology nursing team. Calls originate from nurses on medical, surgical, women’s health, and critical care nursing units, as well as from physicians, bed management center staff, radiology areas, and nursing coordinators. During review of the consultative services provided, the following categories have been identified to tabulate call volumes: verification and administration of chemotherapy to patients with or without cancer, education related to chemotherapy agents, general oncologic management, PleurX® catheter drains, and vascular access device care. Identification of common tasks performed throughout the institution has provided the Oncology Nursing Leadership Team with insight into the development of various process improvement projects. As evidenced by Figure 2, the numbers are continuing to increase in all categories, except one. Education on management of PleurX catheters has taken place on targeted units, accounting for the decrease in calls for assistance regarding these catheters.

Exploration on the Go

Telephone Triage for Oncology Nurses (2nd ed.) is a valuable resource for those developing a formalized telephone nursing practice. To access, open a barcode scanner on your smartphone, take a photo of the code, and your phone will link automatically. Or visit http://esource.ons.org/ProductDetails.aspx?SKU=INPU0622.
The oncology population continues to grow in great numbers, needing very specialized care. Because of the growth of the population and overflow, the need for expert oncology care continues to increase. For example, central line blood draws are performed by trained oncology nurses. Because of varying volumes of need for central line blood draws on nononcology units, oncology nurses continue to perform the blood draws as requested. In addition, looking at areas where services are provided is imperative to identify specific educational needs within those areas. Figure 3 breaks down the areas in which the oncology phone provides assistance, and is inclusive of the surgical, medical, critical care, and specialty or women’s health units. The specialty units include the emergency room and the transition unit where oncology care is provided. Of note, two of the surgical units had been identified as areas that would provide care for the oncology overflow patients, thereby increasing their need for consultative services from the oncology phone.

**Findings**

The collection of data allows the Oncology Nursing Leadership Team to identify gaps in practice. Process improvement projects have been executed based on the preliminary data analyses. Each of those projects has provided a support to promote patient and family satisfaction. In addition, staff education has allowed for expanded knowledge and delivery of treatment to specific patient populations. To improve effectiveness and delivery of care for those patients, the Oncology Nursing Leadership Team has partnered with nursing and physician leaders and pharmacists who are key to the development of this process. The action plans have been multifaceted, including expansion of Sunrise Clinical Manager (SCM), the computerized ordering system used in the hospital; order sets for specific indications and dosing parameters; and creation of regimen grids and keys for practice to be used by nursing staff. For example, in the neuroscience patient population, biotherapy, a partnership developed between oncology clinical nurse specialists and neuroscience clinical nurse specialists. Within this team, a course was designed to educate nurses on the specifics of chemotherapy and biotherapy for nononcologic indications. The creation of a chemotherapy and biotherapy course tailored to neurologic indications helped prepare neuroscience nurses to independently deliver such agents. The development of this course for nononcologic indications blended two nursing specialties, allowing for comprehensive nursing care and increasing patient and family satisfaction and patient safety. The success of this course was measured by clinical nurse evaluation. In the first course, participants rated the overall course evaluation as 3.875 out of a possible 4, and relevance to purpose and goal was rated 4 out of a possible 4. Comments included, “Very informative,” “This was excellent,” “Very beneficial to my practice,” and “This has already sparked an interest in chemotherapy as well as decreased my anxiety pertaining to administration and patient teaching.” The oncology phone data also continued to be tallied and reflected a decrease in the need for oncology clinical nurse support for the neuroscience patient population. With proof that this course was successful, it was expanded to encompass other specialties, including rheumatology, solid organ transplantation rejection, and various study protocols.

A hospital-wide system project that stemmed from the collection of data from the oncology phone project and improvement recommendations was granting all attending physicians privileges to order chemotherapy and biotherapy agents within SCM. Previously, only specific attending physicians had privileges to enter orders for antineoplastic agents. Expanding this to all attending physicians greatly decreased the wait time for chemotherapy and biotherapy agents to be ordered or verified. Patients are now able to receive their treatments in a timely manner with the appropriate support. Another concern within the computerized ordering system, and recognized through the data collection from the oncology phone, was the emergent regarding regulatory changes. To address this need, a new chemotherapy and biotherapy order set was developed and implemented, streamlining the process and reducing the complexity for oncology nurses.
pathway order set for chemotherapy. The emergent pathway order set is a function within SCM that allows for ordering of immediate chemotherapy when an attending physician is not available. For example, a patient admitted with a high white blood cell count would need emergent hydroxyurea overnight. Mostly implemented in the off shift, this order set allowed any ordering provider the ability to place the order for chemotherapy, but did not automatically discontinue after its use. That had the potential to create errors with chemotherapy dosing. In collaboration with pharmacy staff, the emergent pathway order sets were changed to be automatically discontinued after one-time usage. Each of these projects represents the interdisciplinary teamwork employed to enhance patient safety and satisfaction within the hospital.

Implications for Nursing Practice

The oncology nurses who carry the oncology phone have been empowered to ensure the delivery of high-quality care that meets the needs of a specialized population. Supported by the Oncology Nursing Leadership Team, the nurses have managed many phone calls. In addition, the development of their leadership abilities has been noted during the operation of the oncology phone. Future directions for the oncology phone include additional skills instruction related to the management of central access devices and Pleurex catheters (because these devices are used with various patient populations). In addition, educational opportunities for oncology and nononcology nurses will be provided. The oncology phone has provided the Oncology Nursing Leadership Team with valuable information about institutional cancer care, and it should be a consideration for all centers facing challenges in caring for large volumes of patients with cancer. Based on the authors’ experiences of operationalizing the oncology phone, the strength of leadership teams, as well as oncology clinical nurses should be considered because a great deal of clinical expertise is needed to provide this consultative service. The importance of accurate data collection is imperative to formulate directions for both skills and educational needs. The online system was most helpful in providing accuracy for this project. Overall, the oncology phone has been an innovative use of technology to drive patient safety and quality. It has provided a mechanism to create partnerships among interdisciplinary staff, identify systemwide concerns, and improve overall patient and family care.

The oncology phone was developed as a means of ensuring safe and effective care for patients with cancer not housed on dedicated oncology units and for patients receiving chemotherapy and biotherapy for nononcologic indications. Patients’ perceptions of this service have been overwhelmingly positive. Many patients are frequently admitted and understand that they may be placed in a nononcology unit. Most find the oncology phone comforting, with the knowledge that an experienced oncology nurse is available to answer any questions either they or the nurse caring for them should have.

Although this innovation was developed in a large academic medical center with three dedicated oncology units, the concept has potential for much broader application in the context of today’s oncology care. Advances in the management of common toxicities and improved supportive care have shifted many aspects of cancer care from the inpatient to ambulatory settings. As a result, many hospitals no longer have dedicated oncology units, creating vulnerability for patients requiring the delivery of oncology-specific nursing service (Jacobson et al., 2012). The oncology phone provides an effective means of delivering specialized nursing care to patients who are not housed in locations where oncology nurses and resources are readily available. As such, in addition to its benefit in academic medical centers where high volumes of oncology admissions create issues with bed capacity, this innovation may have particular relevance for those organizations without dedicated oncology units.

The authors gratefully acknowledge the nursing staff of Rhoads 3, 6, and 7 for their dedication, leadership, and teamwork to provide safe and effective patient care throughout the institution.

References


Receive Continuing Nursing Education Credits

Receive free continuing nursing education credit* for reading this article and taking a brief quiz online. To access the test for this and other articles, visit http://evaluationcenter.ons.org/Login.aspx. After entering your Oncology Nursing Society profile username and password, select CNE Tests and Evals from the left-hand menu. Scroll down to Clinical Journal of Oncology Nursing and choose the test(s) you would like to take.

* The Oncology Nursing Society is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s COA.