The Role of Patient Navigation in Improving the Value of Oncology Care

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ABSTRACT: Today, cancer patients face many challenges when trying to understand and navigate the health care system. These challenges begin at the time of diagnosis and continue throughout treatment, follow-up care, and survivorship. Patient navigation programs were developed to reduce gaps in care by improving access to, and timeliness of, cancer services. Navigation adds a strong provision of support and guidance for timely access to the cancer care system, addressing barriers to and facilitating quality care. Adding care coordination to patient navigation has proven to have many benefits to physicians as well as to patients and their families. The author discusses the essential role of patient navigation and care coordination services in helping patients to adhere to their treatment plans and successfully navigate the health care system, in order to ensure improved clinical outcomes and enhanced value.

KEY WORDS: nurse navigation, patient navigation, oncology care management, care coordination, value in oncology care

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Today, cancer patients face many challenges when trying to understand and navigate the health care system. These challenges begin at the time of diagnosis and continue throughout treatment, follow-up care, and survivorship. For cancer patients, understanding their diagnosis and treatment plans should be paramount on their mind; yet, due to our fragmented system and the numerous treatment paths that patients have during the process of screening, diagnosis, and treatment, many patients either wait too long before initiating treatment or do not seek treatment at all. According to the CDC, the normal time from testing to treatment initiation can be 60–120 days, depending on the cancer type.1

While advances in cancer treatment have helped to save millions of lives over the last three decades, now more than ever before, patients face far more complex treatment decisions and follow-up options than they did in the past. The amount of time required and the types of services cancer patients are using are expanding across prevention, screening, diagnosis, and treatment (Table 1).2 And, as more cancer patients live with chronic illness, the length of time a patient is engaged with the health care system is increasing. Efforts made by hospitals to make the system clearer and to increase coordination among doctors have not always kept up with the changes.

Patient navigation is seen as one possible solution to this problem. Patient navigation has been shown to improve timely cancer care, especially in centers with the greatest delays in follow-up under usual care.3 Patient navigation programs were developed to reduce gaps in care by improving access to cancer services, to improve the timeliness of the provision of these services, and to

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add a strong provision of support and guidance to patients. Patient navigation involves a collaboration with not only patients but also providers, families and caregivers, and their support extends throughout the cancer continuum, from prevention and screening through post-treatment, survivorship, and palliative and end-of-life care.

This article provides an overview of the field of patient navigation and discusses its contribution to the delivery of high-quality oncology care.

**THE EVOLUTION OF PATIENT NAVIGATION**

Patient navigation can be described as an intervention to reduce health disparities in cancer care, specifically aimed at vulnerable or medically underserved populations. The first patient navigator program, created by Harold Freeman in 1990 at Harlem Hospital in New York, NY, focused on underserved women with breast cancer. The major goals of the program were to expand access to cancer screening; to improve clinical follow-up among medically underserved women through community outreach in order to reduce the time between an abnormal test result and diagnosis and/or treatment; to eliminate barriers to health access, such as lack of insurance or cultural and communication barriers; and to remove distrust of doctors on the part of patients. Astoundingly, the navigation program resulted in an increase in survival of 31% over 5 years (from 1995 to 2000) in patients with breast cancer.

Later in the decade, the Outreach and Chronic Disease Prevention Act was signed, which provided financial grants for the development and operation of patient navigator services for the purpose of improving health care outcomes. Each approved hospital was to add a full-time navigator to work with patients and their families. These funds were exactly what some facilities required to begin implementing programs; although there was data to support the use of navigators at that time, most of the evidence was anecdotal, which made it difficult to get internal funding for the programs. Federal funding allowed facilities to participate without needing to compromise on the number of staff or patients that could participate.

Most recently, in 2012, the American College of Surgeons (ACS) Commission on Cancer (CoC) released standards that reflected the goal of “ensuring patient-centered care.” One of the new standards (Standard 3.1), phased in for 2015, required all cancer programs seeking accreditation to have a patient navigation program.

As the importance of patient navigation has been recognized by different organizations over time (Table 2), the role of nurse or patient navigators, and the terms used to describe these individuals and their functions within the oncology care team, have continued to evolve. The National Cancer Institute (NCI) describes patient navigation as the support and guidance provided to persons with abnormal screenings or new cancer diagnoses, including overcoming challenges and barriers to accessing the health care system.

### Table 1. Utilization of Health Care Resources During Different Phases of Cancer Care

<table>
<thead>
<tr>
<th>Phase</th>
<th>Services Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention and screening</td>
<td>Outreach, Routine imaging and genetic testing for disease markers, Patient education</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Patient education, Family education</td>
</tr>
<tr>
<td>Active treatment</td>
<td>First-line treatment, Second- or third-line treatment, Follow-up imaging and testing for markers of recurrence or progression</td>
</tr>
<tr>
<td>Survivorship</td>
<td>Follow-up imaging and testing for markers of recurrence or progression, Social services</td>
</tr>
<tr>
<td>End-of-life care</td>
<td>Palliative care, Social services</td>
</tr>
</tbody>
</table>

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in a culturally competent manner. The NCI’s Center to Reduce Cancer Health Disparities defines the process as supporting and offering guidance to persons with abnormal cancer screening or a new cancer diagnosis. They state that the role of a navigator is to help patients and their families assess the cancer care system and overcome barriers to receiving care, as well as facilitate the provision of timely, quality care in a culturally sensitive manner. Specific time points in the cancer continuum are the focus, and the goal is to reduce the complexity of the health care system for the patient.

The George Washington Cancer Institute has expanded upon this definition of patient navigation to include a “longitudinal” model of navigation that extends from diagnosis to survivorship. The Oncology Nursing Society (ONS), Association of Oncology Social Work and the National Association of Social Workers, in their joint position statement on patient navigation, built on C-Change’s cancer care definition to emphasize individualized assistance to patients, families, and caregivers that also incorporates psychosocial care from pre-diagnosis and throughout the entire cancer continuum.

The benefits of a nurse navigator program can be realized by implementing one of a wide spectrum of models of navigation. This flexibility allows institutions to develop a useful program that fits their specific needs and goals. There are three Institution-Specific Models: shared model, facilitating model, and active model (Figure 1). The type of model an institution chooses is based on the type of program they have developed and the level of navigators being used. The following are the three roles most commonly responsible for patient navigation.

**Oncology nurse navigator.** An oncology nurse navigator (ONN) is a professional registered nurse with oncology-specific clinical knowledge who offers individualized assistance to patients, families, and caregivers to help overcome health care system barriers and facilitate informed decisions. They ensure that the patient receives timely access to quality health and psychosocial care throughout all phases of the cancer continuum. In 2009, the National Coalition of Oncology Nurse Navigators (NCONN) developed the first competencies that defined the role of the ONN. Developed in consultation with active professional oncology nurse navigators throughout the United States, these core competencies cover five areas: (1) professional, legal and ethical nursing practice; (2) health promotion and health education; (3) management and leadership; (4) negotiating the health-care delivery system and advocacy; and (5) personal effectiveness and professional development. The first published guidelines establishing core competencies for ONNs were established by the ONS in 2013.

**Novice.** A nurse who has worked for 2 years or fewer as an ONN and is building upon his or her academic preparation and nursing knowledge is a novice navigator.

**Lay navigator.** A lay navigator is a trained nonprofessional or volunteer who provides individualized assistance to patients,
families, and caregivers to help overcome health care system barriers and facilitate timely access to quality health care and psychosocial care, from pre-diagnosis through all phases of cancer care. Interestingly, Dr Freeman’s original patient navigation program held firmly to the idea that the role of the navigator be served by a lay person and not by a nurse or social worker.4

Navigators can be disease, condition, or service specific, with many specializing in areas such as breast, prostate, lung, or any other form of cancer. Other navigators focus primarily on the role of financial navigator. Others may provide assistance in the areas of screening and testing, as the original navigators did. Patient navigation in cancer care currently focuses on assisting patients in the coordination of care among providers, community, and the patients and their families. One of the unique challenges facing patient navigation is the need to clearly define terms and roles to distinguish it from existing professional health care roles. To move patient navigation forward, the cancer community will need to develop and agree upon a streamlined definition that can be promoted by all stakeholders and understood by patients and their families.

**BENEFITS OF PATIENT NAVIGATION**

Patient navigation programs have had many successes. The Patient Navigation Research Program (PNRP) was designed to develop interventions to reduce the time to diagnosis and treatment of cancer after identifying an abnormal finding from a cancer detection procedure. A total of 10,521 individuals were enrolled in the program from January 1, 2006, to March 31, 2010. The weight of evidence from the PNRP studies indicates that patient navigation can reduce the time from abnormal findings to diagnosis in breast, cervical, colorectal, and prostate cancers.5,17 Diagnostic resolution at 180 days and at 270 days with navigation were 56.2% and 70.0%, respectively, compared with 53.8% and 68.2%, respectively, with usual care. The estimated cost of navigation in this study was valued at $275 per patient.

At a comprehensive community cancer center accredited by the ACS, a survey study was done to evaluate patient and oncology staff views about navigation services provided at the center. A total of 48 patients (28 who had received navigation services and 20 who had not) and 26 employees, including physicians, nurses, and other support staff, participated in the survey. Patients who received navigation services responded significantly more positively to survey statements than patients who did not. Both patients with cancer and oncology staff reported that patient navigation was effective in increasing patient satisfaction and decreasing barriers to care.18

At the Ralph Lauren Cancer Center, patient navigation programs were initiated across the center’s three sites. Researchers assess the incremental cost effectiveness of implementing these programs by estimating the numbers of patients with abnormal screening results for breast cancer or colon cancer that would reach timely diagnostic resolution as a result of the navigation programs. The researchers estimated that, after 1 year, the implementation of the navigation program would lead to an additional 78 of 959 individuals with an abnormal breast cancer screening result and 21 of 411 individuals with an abnormal colonoscopy achieving diagnostic resolution.19 Additionally, patients...
with breast cancer were moved to the point of diagnostic resolution in 20 days on average, while patients with colorectal cancer were moved to the point of diagnostic resolution in 7 days on average; both resolution times were much shorter than the maximum resolution time recommended by the CDC.19 The cost effectiveness ratios for breast cancer and for colorectal cancer ranged from $511 to $2080 and $1192 to $9708, respectively, per patient diagnostic resolution achieved.19 However, these estimates were not inclusive of the medical treatment costs saved, indicating that overall savings is much higher than what was reported in the study.

The George Washington Cancer Institute, a project participant of the multicenter PNRP, determined the ability of patient navigation to reduce breast cancer diagnostic time. A total of 2601 women (1047 navigated and 1554 not navigated) were examined for breast cancer from 2006 to 2010 at nine hospitals/clinics in Washington, DC. Diagnostic time was significantly shorter for navigated patients than for patients who were not navigated (25.1 days vs 42.1 days). The authors concluded that their results “support previous findings of [patient navigation’s] positive influence on health care.”20

The findings of these studies demonstrate that navigation can improve access to the cancer care system by addressing community, facility, and literacy barriers as well as monitoring and facilitating quality care. The benefits of patient navigation for patient outcomes seems to be considerable. With respect to cost effectiveness, most studies support Dr Freeman’s findings21 that the modest cost of patient navigation for patient outcomes seems to be considerable. Adding care coordination to patient navigation has proven to have many benefits to physicians as well as to patients and their families. It enhances interaction among physicians, increases patient awareness and self-management, improves patient education and satisfaction, and allows oncologists to focus on treatment and clinical management. It also increases referrals for nutrition, physiological care, and physical and services needs. For the patient and the family, care coordination simplifies the process. Care coordination also facilitates access to ancillary and community services and resources. Other benefits include improved education of patient and family, increased collaboration and communication among the patient and the health care team, improved patient self-care and satisfaction, and increased multi-disciplinary care.2

### THE FUTURE OF PATIENT NAVIGATION AND CARE COORDINATION

The cancer care continuum can be separated into two phases (Table 3).2 The first phase begins after the first abnormal finding and continues through diagnosis. The role of the patient navigator is critical during this phase; the navigator evaluates the individual needs of patients in order to coordinate psychosocial and educational support and resources. The second phase begins with the initiation of active treatment. It is in this phase where care coordinators can assist the patient with the daunting task of coordinating care across multiple modalities and identify community resources and services to assist the patient and family in the home.2 Care coordination is a specialty that involves taking a dynamic and collaborative approach to facilitate, provide, and coordinate comprehensive care to assess and meet patients’ needs. It enhances patient knowledge and self-management as well as improves the quality and cost-effectiveness of care by decreasing fragmentation and duplication of services and care.

Adding care coordination to patient navigation has proven to have many benefits to physicians as well as to patients and their families. It enhances interaction among physicians, increases patient awareness and self-management, improves patient education and satisfaction, and allows oncologists to focus on treatment and clinical management. It also increases referrals for nutrition, physiological care, and physical and services needs. For the patient and the family, care coordination simplifies the process. Care coordination also facilitates access to ancillary and community services and resources. Other benefits include improved education of patient and family, increased collaboration and communication among the patient and the health care team, improved patient self-care and satisfaction, and increased multi-disciplinary care.2

### Table 3. Benefits of Patient Navigation and Care Coordination Across the Phases of Cancer Care16

<table>
<thead>
<tr>
<th>Phase</th>
<th>Primary Function</th>
<th>Event</th>
<th>Without Navigation or Care Coordination</th>
<th>With Navigation or Care Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening and Diagno</td>
<td>Patient navigation</td>
<td>Abnormal test result and diagnosis</td>
<td>Few mechanisms to ensure patients receive timely test results and follow-up for abnormal results</td>
<td>Patients guided through diagnosis</td>
</tr>
<tr>
<td>Treatment Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Treatment</td>
<td>Care coordination</td>
<td>Clinical trial enrollment</td>
<td>Opportunities for clinical trial participation, neoadjuvant treatment, and combined modality treatment and are lost are missed</td>
<td>Improved education and increased coordination lead to improved outcomes, increased family and patient satisfaction, and lower costs</td>
</tr>
<tr>
<td>Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation and</td>
<td></td>
<td>Patient unable to navigate</td>
<td>Patients are empowered to navigate multimodal therapy</td>
<td></td>
</tr>
<tr>
<td>chemotherapy</td>
<td></td>
<td>multimodal treatment schedules</td>
<td></td>
<td></td>
</tr>
</tbody>
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Research has shown that there are similarities between the improvements in outcomes associated with patient navigation and those associated with care coordination. One study reported that coordination and continuity of care were similarly important to the roles of patient navigator, nurse care manager or coordinator, and nurse navigator, for improving outcomes.12 Another report suggested that professionally led models of patient navigation that were similar to comprehensive case management models—adding the supportive functions of advocacy, education, problem solving, and support to the standard model of assessment, outreach, and referrals—were favorable to other models.22 Coordination of care and ensuring continuity of care were described as overarching roles and responsibilities in an integrative review, demonstrating the value of the RN in ambulatory care.23 The expanded role of nurse navigation with care coordination has shown immediate cost savings as a result of improvements in the utilization of emergency department visits, hospitalization, supportive care services, palliative care, and hospice care.24

In the last couple of years, hospitals around the country have been adding patient or nurse navigation with care coordination services, with the support of funding from the government and from private groups. For example, pilot programs, such as the Oncology Patient Centered Medical Home25 and the Oncology Care Model from the Centers for Medicare and Medicaid Services,26 have attempted to drive oncologists to focus more on navigation with coordination of care within their practice.

THE FUTURE OF PATIENT NAVIGATION

The rapid changes occurring in the field of patient navigation lead us to question how we drive value to keep pace with the growing health care needs of cancer patients and their families. What are the necessary requirements to prove that patient navigation not only has clinical and psychosocial benefits but can also save money? The answer is to define the endpoints and expand the role by creating a distinct set of health services that are required to complete an episode of cancer-related care and utilizing care management/coordination models. These health services should include: (1) case identification, which is a systematic approach to the identification of those individuals with abnormal cancer screening in need of follow-up care or incident cancers; (2) identifying individual barriers to receiving care; (3) contacting patients and eliciting information regarding the barriers to completion of recommended care; (4) developing an individualized plan to address the barriers that are identified; and (5) tracking, a systematic method of following each case through resolution of the problem.

Starting in 2015, the new standard from the ACS CoC is the establishment of patient navigation programs in all CoC-accredited facilities.27 As both patient advocate and educator, the ONN partners with physicians to help support the cancer patient’s journey throughout the course of disease, with the ultimate goal of improving care and outcomes. Currently the greatest presence of navigators is in the community hospital setting; this trend is changing, however, as more oncology and radiation practices are adding navigation services to their cancer programs.

We are well on our way to demonstrating the value of the blended model of patient navigation and care coordination. The development and dissemination of standard process and outcome measures will allow communities and researchers to evaluate the results of their programs as well as to justify the creation and funding of more programs to study different models of navigation.

What is needed to truly study the economic impact is a better definition of which model is best for evaluating navigation: cost-effective analysis or budget impact analysis. Following a review of the relevant literature, the Health Services Research (HSR) cost workgroup of the American Cancer Society National Patient Navigator Leadership Summit met to examine cost data relevant to assessing the economic impact of patient navigation and to propose common cost metrics.28 Five categories of core and optional cost measures were identified: program costs, human capital costs, direct medical costs, direct non-medical costs, and indirect costs. The researchers recommended adoption of these metrics to promote understanding of the economic impact of patient navigation and comparability across diverse patient navigation programs.28

CONCLUSION

Models of patient navigation and care coordination must continue to evolve to meet the ever-changing needs of cancer patients and their families. However, new models must hold fast to the guiding principles of the original navigation program: improve access to the cancer care system and facilitating quality care. These programs will not only lead to more rapid diagnoses, improved patient outcomes, and increased cost savings, but they will also ensure greater patient adherence to treatment programs. With the increasing use of clinical pathways in oncology, and the need to demonstrate the value of these pathways, navigation and care coordination programs can be an effective tool for maximizing the quality of care provided to patients so that clinical pathways can be evaluated effectively.

References
