CANCER PEDIA

CLINICAL MANAGEMENT, THE HEALTHCARE TEAM AND PATIENTS

HEALTHCARE TEAM

Contributors: Pamela Savage, Jessica Blackman, Amanda Chudak, Meena Merali, Mary Gospodarowicz

UHN Princess Margaret Cancer Centre

CHAPTER
6

HEALTHCARE TEAM

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A. INTRODUCTION

Optimal cancer care encompasses a complex set of interventions that cannot be accomplished by a single individual. In fact, optimal cancer care and control requires a complex group of many professionals, working together as a cohesive team. Team-based healthcare involves the provision of health services by healthcare providers, who work collaboratively to accomplish shared goals and achieve co-ordinated, high-quality care. The healthcare team is composed of a multidisciplinary/interprofessional group inclusive of physicians, nurses, pharmacists, allied health professionals, and administrative and support staff. In addition, financial experts, informatics and data scientists, physicists, biomedical engineers, process engineers and other professionals are becoming increasingly embedded in healthcare organizations. An effective team is one in which team members communicate with one another and combine their "observations, expertise and decision-making responsibilities" to optimize a patient's care and outcomes.[1]

While in most situations physicians remain ultimately responsible for the patient's overall cancer care plan and decision-making, their tasks are increasingly being shifted to other healthcare professionals. Nurses and allied health professionals are the largest group of healthcare providers in the world.[2] Their overall scope of practice has expanded significantly over time to meet the evolving needs of healthcare systems and support the specialized care of cancer patients.[3] Together, these healthcare providers supply a range of direct patient care and support services, engaging in therapeutic relationships with cancer patients and caregivers to address their changing physical and psychosocial-spiritual needs.

Patient- and family-centred care describes a model of care that encourages collaboration and shared decision-making between healthcare providers and patients, families and caregivers. In this model, the preferences, needs and values of patients are considered integral to clinical decisions. Healthcare providers are responsible for delivering care that is respectful, responsive and accessible to the patient, and for working together in co-ordinated and seamless ways.[4] For more information about patient-centred care, see the *Cancerpedia: Patients* chapter.

All members of the healthcare team are assisted in their roles by administrative and support staff, who work to ensure the safety, quality and flow of patient care, and provide a range of services that enable the operations of the cancer centre.

This chapter presents the essential elements of the core healthcare team in a cancer centre or program. Many health professionals essential to the effective functioning of a cancer center are described in detail in the *Cancerpedia: Clinical Services* and *Cancerpedia: Core Services/Infrastructure* chapters. Information about the healthcare team beyond the cancer centre is detailed in the *Cancerpedia: Integrating Hospital and Community* chapter. Information about cancer control structures and resources can be found in the *Cancerpedia: Cancer Control* chapters.

B. OVERVIEW

1. SCOPE

The core roles and responsibilities fulfilled by the healthcare team in a cancer centre include the following.[3]

Assessment: Conducting timely and comprehensive assessments of the health and supportive care needs of patients and their families across the cancer care continuum, using a systematic approach that is sensitive to the situational context, language and culture, and needs and responses of the patient and family.

Clinical care procedures: Providing a range of direct patient care and support services, such as the administration of chemotherapy, dressing changes and wound care, drain management, peripherally inserted central catheter and central line assistance, inpatient care, and rehabilitation care.

Management of cancer symptoms and treatment side-effects: Integrating and applying a knowledge of cancer pathophysiology, disease progression, symptoms, treatment modalities, and treatment side-effects and complications to offer appropriate interventions that address the physical and psychosocial needs of patients and families, and improve their quality of life.

Support for continuity of care and navigation: Promoting and facilitating the continuity of care across settings and between healthcare providers by sharing information about the patient and family's current situation, plan of care and goals. Assisting the patient and family in navigating the healthcare system by providing an understanding of, and strategies to work within, its structures and processes.

Support for decision-making and advocacy: Facilitating self-determination and informed decision-making for the patient and family. Advocating on behalf of the patient and family by documenting and communicating their preferred approach to care.

Teaching and coaching: Preparing patients and their families for the cancer experience by providing education, psychosocial-spiritual support and counselling across the continuum of care.

Leadership and management: Engaging in critical thinking, integrating best practices and evidence-based knowledge, exercising ethical judgement, and advocating for changes when institutional policies fail to meet the needs of cancer patients and families.

2. THE TEAM

The healthcare team in a cancer centre is made up of a number of professions, responsible for clinical care, supportive care and other support services. Within the overall healthcare team, sub- teams contribute in specific ways to the care of patients:[5]

- ***Core teams*** are directly involved in caring for the patient. They usually consist of team leaders and members who are direct care providers, such as physicians, nurses, pharmacists, and various other health professions. Core team members have specific disease-based expertise relevant to a patient's needs.
- ***Co-ordinating teams*** are responsible for the day-to-day operational management, co-ordinating functions and resource management of core teams. These teams are often comprised of nurses, though managers, physicians or other healthcare professionals may provide co-ordination support in some cancer centres.
- ***Contingency teams*** are formed to deal with emergencies or specific events (e.g. specific treatment needs, cardiac arrests, disaster response, etc.). The members of contingency teams may be drawn from a variety of core teams.
- ***Ancillary services*** consist of individuals, such as cleaners or domestic staff, who provide direct, task-specific and time-limited care to patients.
- ***Support services*** consist of individuals, such as facilities staff, who provide indirect, task-specific services that ensure an efficient, safe cancer centre environment.
- ***Administration and corporate services*** include the executive leadership of the cancer centre, as well as finance, human resource, technology and other professionals. This team has 24-hour accountability for the overall functioning and management of the organization.

A patient's core team can change over time based on needs, but usually consists of the most responsible provider/physician (MRP), a nurse, an assistant and, in some cases, a pharmacist.[5] The MRP is primarily responsible for directing and co-ordinating a patient's care and management. Some organizations rely on hospitalists, physicians trained in internal medicine who provide day-to-day care for inpatients, with the MRP maintaining responsibility for the patient's oversight and treatment. Nursing and administrative staff are permanently assigned to a patient and must maintain a 24 hour a day, seven day a week coverage. Consultant physicians (i.e., specialists) and allied health professionals act as the visiting healthcare team, who attend to the patient based on needs. A variety of ancillary, support and administrative resources enable effective operations and patient safety.

While generally accepted staffing principles vary from region to region, Table 1 outlines the core group of certified professionals required to support the delivery of patient care in a cancer centre. Various centre-specific factors may impact the level and configuration of the healthcare team; for example, more resources as well as different types of resources may be needed to support higher patient volumes or highly-specialized services.

Note that while the World Health Organization's international classification of health workers defines health professionals narrowly, in fact all members of the healthcare team should be considered health professionals who are expected to contribute their individual skills and expertise in a collaborative way.[6]

For more information about a variety of specific healthcare team members, refer to the *Cancerpedia: Clinical Services* and *Cancerpedia: Core Services/Infrastructure* chapters. Members of the physician and nursing teams are described in further detail below.

Table 1: Members of the Healthcare Team in a Cancer Centre[6]

Occupation Group	Examples of Team Members
Health Professionals	• Physicians (e.g. referring physicians, MRPs, surgical oncologists, anaesthesiologists, radiation oncologists, clinical oncologists, palliative care physicians, psychiatrists and psychologists, hospitalists and consultant physicians, such as general internal medicine specialists, neurologists, nephrologists, ophthalmologists, cardiologists, dentists, physiatrists, etc.) • Nurses (e.g., generalist nurses, specialized oncology nurses, advanced oncology nurses) • Pharmacists • Occupational therapists • Dieticians and nutritionists • Recreation therapists • Physiotherapists • Respiratory therapists • Optometrists and ophthalmic opticians • Paramedical professionals • Environmental and occupational health and hygiene professionals • Traditional and complementary medicine professionals • Audiologists and speech therapists
Health Associate Professionals	• Medical imaging and therapeutic equipment technicians (e.g., radiographers, radiation therapists) • Laboratory technologists and technicians • Physiotherapy technicians and assistants • Medical assistants • Pharmacy technicians and assistants • Nursing associate professionals • Dental assistants and therapists • Traditional and complementary medicine associate professionals • Environmental and occupational health inspectors and associates • Infection control practitioners • Medical and dental prosthetic technicians • Ambulance workers • Medical records and health information technicians
Personal Care Workers in Health Services	• Health care assistants • Personal care workers • Phlebotomists
Health Management and Support Personnel	• Health service managers • Social workers • Vocational therapists • Physicists • Statisticians • Life science professionals / researchers • Counsellors and therapists • Spiritual care specialists • Biomedical engineers • Administrative and clerical support staff • Services and sales workers (e.g., facilities staff, cooks, security guards, retail stop cashiers) • Transportation services staff (e.g. patient porters)
Other	• Medical trainees (i.e., undergraduate medical students, residents and fellows) • Volunteers

3. PHYSICIANS

Comprehensive cancer care requires the involvement of a number of highly-skilled medical professionals. The main components of active cancer care are provided by surgical oncologists, clinical oncologists with training in both medical and radiation oncology, radiation oncologists, and hematologic and medical oncologists. In addition, radiologists, nuclear medicine specialists, pathologists, palliative care physicians, and psychiatrists are indispensable to cancer care. Cancer affects all parts of the body and treatment affects all body systems. Oncologists must be supported by infectious disease specialists, cardiologists, respirologists, nephrologists and a wide variety of other specialists to optimize care.

4. NURSES

Nurses constitute the core of cancer healthcare team. They are critical to the provision of direct, high-quality, patient-centered and co-ordinated care. Several types of nurses may provide care to cancer patients: the generalist nurse, the specialized oncology nurse and the advanced oncology nurse.7 When first entering into a setting where the primary focus is cancer care, the nurse is designated as a generalist nurse. Once the nurse has acquired additional knowledge – through in-service programs, continuing education, skills development and practice – and has gained clinical experience in a setting where individuals with cancer and their families are the prime focus of care, he or she may become a specialized oncology nurse. The specialized oncology nurse may become an advanced oncology nurse with additional subspecialty training and education.

The generalist nurse has a diploma or university degree in nursing. The nursing curriculum prepares the generalist nurse to work in a variety of settings, including acute or chronic care, community or primary health, or long-term care. Generalist nurses possess the standard base of knowledge, skills and problem-solving abilities required to care for patients. Due to a general knowledge and skill set, generalist nurses are valuable team members in settings where people with cancer receive care alongside other patient populations, such as in surgical or emergency care settings or in the community. Generalist nurses working in hospital settings are encouraged to be medical-surgical generalists and provide care to a variety of patients. A generalist nurse may also be defined as someone who is new to the knowledge and skills associated with cancer care, but is working in a setting where individuals with cancer and their families are the primary focus of care.[7]

The specialized oncology nurse has additional education focused on cancer, as well as experience working in a setting where cancer care is the prime focus. Speciality education can be acquired through enrolment in an undergraduate nursing program, completion of an oncology certificate program, distance specialty education or registration in and completion of a certification exam, that results in the attainment of the distinction CON(C).[7] Specialized oncology nurses are valuable in specialized inpatient settings, hematopoietic stem cell transplant units, outpatient clinics, screening programs, supportive care environments or community settings offering palliative care. Their enhanced, specialized knowledge and skills can be utilized to manage symptoms and the side-effects of treatment, counsel patients in coping strategies, teach self-care behaviours, and monitor patient responses to treatment and interventions.[7]

The advanced oncology nurse is prepared with a master's degree in nursing, ideally from a program focused in oncology nursing and with a specialization in a subpopulation or area of care. The domains of the advanced oncology nurse include advanced clinical practice, education, research, scholarly or professional leadership, and organizational leadership.[7] Additional certification may be acquired by the advanced oncology nurse, either within their master's program or through postgraduate courses and certification. Advanced practice roles include titles and designations such as clinical nurse specialist (CNS) and nurse practitioner (NP). The CNS commonly has expertise in a clinical area.[8] For example, a CNS may subspecialize in the management of malignant skin tumours, graft-versus-host skin lesions or radiation skin reactions, or attend to the special needs of young adults or geriatric patients with cancer.

C. RESOURCES

Healthcare team members work in a range of inpatient, outpatient and emergency care settings. Their need for facilities and equipment is dependent on the setting in which they are providing care, as well as the specific roles and responsibilities of their profession. For information about the physical infrastructure requirements of inpatient care, outpatient care and a range of specialized cancer services and professions, see the *Cancerpedia: Clinical Services* and *Cancerpedia: Physical Facilities and Support Services* chapters.

Standardized and thorough documentation of patient information is vital, regardless of whether paper or electronic health records are in use. Health records allow all members of the healthcare team to access and share the patient's history, assessment information, care plans and results, thereby improving patient safety and enabling collaborative practice. Healthcare providers and clerical staff must be able to update health records regularly based on new information. See the *Cancerpedia: Health Records* chapter for additional information.

D. MANAGEMENT

Clinical staff should report directly to the director/manager of their clinical practice area. In turn, these directors/managers must report to the executive team of the cancer centre or hospital. Medical staff are represented at the executive level by a chief of staff or equivalent, who may also serve as the chair of the medical advisory committee (MAC). In some hospitals, nursing staff are represented by a chief nursing executive. All other hospital staff are ultimately accountable to the chief executive officer (CEO). The CEO and the chief of staff may report to a board of directors and have complementary roles in the hospital. For more information about the roles, responsibilities and reporting relationships of specific healthcare team members, see the *Cancerpedia: Clinical Services* and *Cancerpedia: Core Services/Infrastructure* chapters. For more information about hospital governance, see the *Cancerpedia: Governance and Management* chapter.

Every cancer centre should establish medical staff bylaws that describe the organizational structure of clinical staff and their rules for self-governance. In addition, medical staff rules, regulations and policies are required to address processes and considerations relating to patient care, as well as administrative procedures (e.g., appointments, hearings, appeals). These bylaws, rules, regulations and policies are developed and governed by the MAC, which includes multidisciplinary/interprofessional leadership from across the healthcare team.

Clinical hiring is largely managed by individual clinical practice areas, with appropriate adherence to the corporate hiring structures and policies set by the human resources department. Many members of the healthcare team are hired as employees of the hospital. The hiring of medical staff requires special consideration.

Credentialing is a formal aspect of the medical staff hiring process, also managed by the MAC. Through credentialing, the education and training, licensing, special certificates, qualifications and career history of incoming physicians and dentists are reviewed and verified. In some jurisdictions, credentialing is extended to nurses and certain allied health professionals; in these cases, a nursing or allied health credentialing committee may be needed.[9] Medical credentialing is not only essential to ensuring the quality and safety of patient care, it is also necessary for insurance reimbursement to professionals in many jurisdictions. Following credentialing, appointments can be made. Typically, physicians are not employed by the hospital, but provided with specific privileges that define their scope of work and care at the cancer centre. Re-credentialing may occur on an annual basis and involves a review of all credentialed healthcare professionals associated with the cancer centre, including their privileges.

All clinical staff – regardless of their working arrangement with the hospital – should be given a detailed job description that outlines clear roles, responsibilities and reporting relationships. For more information about supports and best practices relating to human resources, see the *Cancerpedia: Human Resources* chapter.

Cancer centres must adhere to the medical staff standards set by their jurisdiction. Additional information about medical staff governance, management and appointment can be found in the following resources:

- The Joint Commission's *Medical Staff Essentials* (United States)[10]
- The Ontario Hospital Association's *Professional Staff Credentialing Toolkit* (Canada)[11]
- The Australian Commission on Safety and Quality in Health Care's *Credentialing health practitioners and defining their scope of clinical practice* and other resources[12]

E. QUALITY

5. STANDARDS, GUIDELINES AND BEST PRACTICES

Professional Human Resources

High-quality care requires that healthcare professionals are properly educated. Specialized education must be undertaken by every member of the healthcare team to acquire the knowledge, skills, and competencies unique to caring for cancer patients and their families. Continuing education and development is also needed for healthcare professionals to grow and enhance their knowledge and practice base; this lifelong learning supports excellence in practice. In addition to traditional healthcare professional education, which focuses on the training of individual professions in isolation from each other, multidisciplinary/ interprofessional education – where "two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes"– is essential in the healthcare setting. For more information, see the *Cancerpedia: Education* chapter.[13]

Healthcare professionals must meet their profession-specific standards, as set out in legislation, by their regulatory licensing bodies and by the cancer centres in which they work. Professional bodies and associations that develop human resource standards, practices and education for specific members of the healthcare team can be found in the *Cancerpedia: Clinical Services* and *Cancerpedia: Core Services/ Infrastructure* chapters. Professional bodies and associations that develop human resource standards, practices and education for nursing can be found through the International Council of Nurses, whose membership includes national nursing associations around the world.

Every member of the healthcare team should receive ongoing training in quality improvement and patient safety, including best practices, adverse events (i.e., recognize, respond, report, disclose) and human factors. The latter includes factors that can influence people and their behaviour. In the cancer centre, these factors may be environmental, organizational or job factors, or individual characteristics that influence behaviour at work.[14] Incidents, adverse events and near misses should be used as teaching opportunities.

High-Functioning Teams

Effective teamwork is a key predictor of organizational success and high-quality, safe patient care. Teams offer the promise to improve clinical care through their collective intelligence. A group of professionals offers a "variety of knowledge in order to make decisions, solve problems, generate ideas, and execute tasks more effectively and efficiently than any individual working alone."[15] Healthcare providers who work on high-functioning teams are less likely to experience burnout and are more satisfied with their work.[16,17] Teams also provide a more positive patient experience, offering a co-ordinated multidisciplinary/interprofessional approach to complex care needs and an improved ability to understand and address diversity.[18] Patients who are cared for by high-functioning teams report a greater acceptance of their treatments and a more satisfying care experience.[19,20]

Conversely, the absence of high-quality teamwork may cause harm. An analysis of malpractice claims pinpointed poor teamwork and communication as a root cause in 52 to 70 per cent of adverse events, particularly hand-offs between healthcare providers.[21] Lack of purposeful teamwork can also contribute to unnecessary waste and cost.[22]

While each healthcare team is unique and there are many models to describe effective teamwork, most high-functioning healthcare teams share the following set of core principles:[22]

- ***Shared goals***: The team – including the patient and, where appropriate, family members or caregivers – works to establish shared goals that reflect patient and family priorities, and that can be clearly articulated, understood and supported by all team members.

- ***Clear roles***: There are clear expectations for each team member's functions, responsibilities and accountabilities. These optimize the team's efficiency and often make it possible for the team to take advantage of a division of labour, thereby accomplishing more than the sum of its parts.

- ***Mutual trust***: Team members earn each other's trust, creating strong norms of reciprocity and greater opportunities for shared achievement.

- ***Effective communication***: The team prioritizes and continuously refines its communication skills. It has consistent channels for candid and complete communication, which are accessed and used by all team members across all settings.
- ***Measurable processes and outcomes***: The team agrees on and implements reliable and timely feedback on successes and failures with respect to both the functioning of the team and the achievement of the team's goals. These are used to track and improve performance immediately and over time.

A number of quality practices and tools can also help to support effective clinical management and integration through multidisciplinary/interprofessional care. These include the use of evidence-based guidelines, clinical decision support tools, multidisciplinary cancer conferences, centralized intake processes, care pathways and protocols, shared treatment plans and peer review devices, such as quality of care conferences and audits. For more information, see the *Cancerpedia: Clinical Management* chapter.

The *Team Strategies and Tools to Enhance Performance and Patient Safety* (TeamSTEPPS) program – developed by the Department of Defense's Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (United States) – provides a set of materials and a training curriculum to integrate teamwork principles into healthcare systems.[23] Additional resources to support the development and management of high-functioning teams can be found in the following:

- The Royal College of Physicians' *improving teams in healthcare* resources (United Kingdom)[21]
- The World Health Organization's *Patient Safety Curriculum Guide*[5]

6. PERFORMANCE MONITORING, REPORTING AND QUALITY IMPROVEMENT

To promote transparency and continuous quality improvement, performance information should be collected and communicated to members of the healthcare team and, more broadly, to everyone in the cancer centre. Evaluation of the healthcare team's performance should include the following dimensions:[24]

- ***Organizational benefits***: reduced hospitalization time and costs; reduced unanticipated admissions; better accessibility for patients
- ***Team benefits***: improved co-ordination of care; efficient use of healthcare services; enhanced communication and professional diversity
- ***Patients***: enhanced satisfaction with care; acceptance of treatment; improved health outcomes and quality of care; reduced medical errors
- ***Team members***: enhanced job satisfaction; greater role clarity; enhanced well-being

The communication of performance information should include commentary on the data, expected plans of action and successes in improving performance. It is important to consider national or subnational requirements for reporting when selecting performance indicators.

F. THE FUTURE

Workforce shortages in the global health labour market will continue to require effective human resource planning that minimizes staff shortages and surpluses, and lessens misalignments between available positions and the skills and abilities of incumbents.[25] While new healthcare provider technologies – such as voice recognition – are eliminating manually intensive and administrative tasks, there is an increasing need to bring together clinicians, bioinformatics experts, data and implementation scientists and educators to advance data science for the benefit of the cancer centre. The World Health Organization's Report of the High-Level Commission on Health Employment and Economic Growth, *Working for health and growth: investing in the health workforce*, provides recommendations on how to stimulate and guide the creation of jobs in healthcare.[25] Frequent evaluation and adjustment of the healthcare team's composition, development and training can also help to mitigate workforce shortages and ensure that professionals are working to their maximum scope of practice and level of expertise.

The scope of nursing, pharmacy and allied health professional practice continues to increase to meet health system needs. Pharmacists and advanced practice nurses are increasingly taking on direct patient care roles previously reserved for physicians, including delivering diagnoses, ordering and interpreting diagnostic tests, and prescribing medications and other treatments for patients. In addition, the increased specialization of nurses, pharmacists and allied health professionals in cancer care and subspecialty cancer services are making these professionals increasingly valuable members of the healthcare team. This trend is likely to continue into the future.

As a range of professionals take on a broader role in cancer care, the importance of multidisciplinary/interprofessional education must be recognized, promoted and developed as an integral part of the healthcare learning culture and the cancer centre's formal health professions, continuing education and professional development training. This may include more structured multidisciplinary/interprofessional education clinical placements for students and more multidisciplinary/interprofessional team rounds, family meetings, education rounds and workshops as common practice throughout the centre.

The increased use supportive care professionals in direct patient care is also allowing for more proactive engagement with cancer patients and families. Pharmacists, nurses and allied health professionals are increasingly engaged in patient navigation, disease education, ongoing symptom assessment and management, active follow-up, confidence- and competence-building within the patient's natural supports (e.g., family, friends and caregivers), and coaching and guiding patients towards self-management. This approach is improving both the quality of care and patient and family satisfaction.

Patients, families and caregivers will continue to act as important partners of the healthcare team. The increased availability of personal devices, communication technologies and electronic health applications is allowing for more robust and accessible patient self-monitoring and self-management, as well as the continuous and remote sharing of important health information and updates between patients and providers. These technologies will continue to enable patient- and family-centred care and engagement, thereby supporting the ongoing trend towards decreased hospital-based inpatient care and increased outpatient and community-based care.

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