CANCER PEDIA

CLINICAL SERVICES

OUTPATIENT / AMBULATORY CARE

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CHAPTER

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OUTPATIENT/AMBULATORY CARE

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A. INTRODUCTION

A large portion of the care that is provided in a cancer centre is offered on an outpatient basis, allowing patients to continue to live at home or in an environment of their choice. Outpatient care is also referred to as ambulatory care. For the purposes of this chapter, outpatient care is defined as a visit to the hospital or a clinic that does not require admission to an inpatient unit. Outpatient care can range from a short follow-up visit to a longer visit, during which treatment is provided in addition to assessment.

Outpatient care improves the patient experience and is safer for patients, who can remain at home or in another familiar and comfortable environment where they are at a much lower risk of hospital-acquired infections. From a systems perspective, outpatient care is less expensive than inpatient care based on staffing needs. Determining factors for delivering care on an outpatient basis include the treatment complexity, the expected or associated side-effects of treatment, and the extent of requirements for monitoring the patient over an extended period of time. With advances in treatment making outpatient care more amenable, patients are coming to the cancer centre for episodic care and returning home to continue with their routine as much as possible.

When planning outpatient care, it is important to consider the broader environment surrounding the patient and the cancer centre. The comprehensiveness of the overall health system and the services, support and access to medical care available to patients outside of the hospital often determine what care can be provided in an outpatient setting versus what care must be provided in an inpatient setting. Socio-economic factors are also important, as some populations may have fewer resources available to support self-management. It is essential that the health system offers appropriate social and environmental resources for patients undergoing outpatient care.

For a robust model of outpatient care, a smooth transition of care between the cancer center and primary care providers is important. This helps lessen the need for follow-up at a cancer centre, reducing patient costs associated with travel to the cancer centre as well as costs to the health system. For best practice outpatient care, the cancer centre should consider remote clinical support for symptom management as well as social supports, including housing and transportation. Additional social services may be utilized for patients that require additional support.

The following sections describe the clinical services provided in an outpatient setting, the resources and structures required to provide those services, and future trends in outpatient care.

B. CLINICAL SERVICES

1. SCOPE

The scope of outpatient care typically includes clinic visits with consultations and examinations, diagnostic procedures, treatments (e.g., chemotherapy, radiotherapy, day surgery) and treatment-related procedures, distress and symptom screening, supportive care and urgent care. Robust documentation is required across the scope of outpatient care to ensure that all patient information is captured and accessible to the healthcare team. This is a foundational requirement for outpatient clinics and minimizes the risk of errors, while increasing patient safety. See the *Cancerpedia: Health Records* chapter for more information.

2. PATHWAY

Figure 1 illustrates the typical patient pathway in an outpatient clinic. Each step of this pathway is described in greater detail below. For additional information related to specific clinical services, please see the appropriate *Cancerpedia: Clinical Services* chapter.

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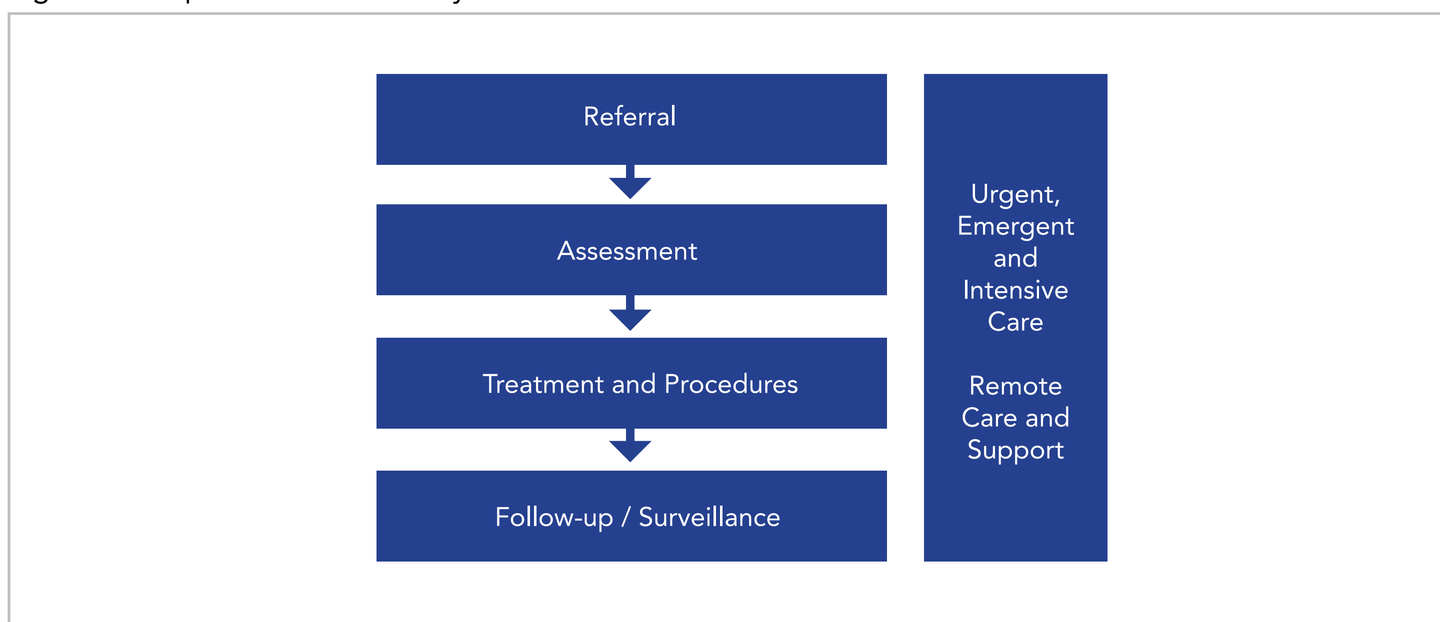
Figure 1: Outpatient Care Pathway



Referral

A cancer centre is part of a broader healthcare system in which patients receive care for cancer. Patients are generally referred to the cancer centre by their primary care provider, an emergency department or other hospital, or a surgeon, oncologist or other specialist. In some jurisdictions, patients can refer themselves directly to the cancer centre. Patients may be referred to a cancer centre for diagnosis, treatment, symptom management, palliative care, a second opinion or clinical trials. In some cancer systems, screening for cancer and long-term surveillance for the late effects of cancer are also part of the role of the cancer centre.

Depending on the size and resources of the cancer centre, a centralized referral management system may be used to streamline patient flow and ensure timely access to care. Outpatient clinics should define timely access to care and a process should be in place to ensure that referrals are triaged, with consideration of the patient's acuity and care required. Pre-referral instructions may be helpful to enable more appropriate referrals. For more information, see the *Cancerpedia: Clinical Management* chapter.

Depending on the nature of the broader health system, the patient and/or their referring healthcare provider are contacted to schedule an initial appointment. Many systems can be used to schedule appointments; ideally, the system used is linked to an electronic health record so that all upcoming appointments can be reviewed and confirmed with ease by the patient (i.e., if they have remote access) and any member of the healthcare team within the patient's circle of care.

Assessment

During an outpatient care visit, the patient is assessed by a multidisciplinary/interprofessional team, including one or more physicians, nurses, and other healthcare professionals, such as social workers or dietitians. The initial consultation appointment may include a physical assessment (e.g., vital signs, height, weight), screening for symptoms and distress, and diagnostic tests. Additional appointments and tests may be booked as required. It is optimal to co-ordinate multiple appointments with different healthcare providers to decrease the number of visits the patient must make to the cancer centre.

If all of the necessary information is available and confirmed at the initial assessment appointment, a plan of care will be developed jointly between the healthcare team. Ideally, diagnosis and treatment options are discussed with the patient during their initial assessment appointment. The patient should be treated as a partner, and decisions about how he or she would like to proceed should be respected. For more information about patient-centred care, see the *Cancerpedia: Patients* chapter.

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Treatment and Procedures

After the initial assessment, patients continue with their plan of care and undergo exams, treatments and procedures, as required. Increasingly, chemotherapy, radiotherapy and surgery are being provided on an outpatient basis. Other services that may be provided in outpatient clinics include dressing changes, injections, and tube and drain checks. Minor procedures may also be performed, such as paracentesis, thoracentesis, peripheral central line (PIC) insertion or removal, tunnelled central catheter removal and biopsies (e.g., skin and bone marrow). Some minor procedures may be done in a separate procedure clinic, depending on the availability of resources and clinic flow. In centres that treat children with cancer, minor procedures are often performed differently and include local or conscious sedation.

If the cancer centre conducts clinical trials, it is important to integrate clinical trials protocols into outpatient care. One way to do this is to have a clinical trials team embedded in the clinics to review patient charts, carry out patient assessments and ensure that clinical trials protocols are being followed. See the *Cancerpedia: Research* chapter for more information.

Treatment plans are individualized and, where possible, developed in conjunction with patients and their families. If a treatment plan includes multiple modalities, treatment visits may be grouped together to decrease the number of visits the patient must make to the cancer centre.

Patient education and supportive care are embedded into outpatient care delivery. Patients are provided with education on how to manage symptoms related to their disease and treatment, as well as common issues they may encounter, self-management techniques, and symptoms that require urgent or emergent care. Screening for distress and symptoms can help ensure patients receive the appropriate support and services. It is encouraged that a family member or friend accompany the patient to the cancer centre for appointments, particularly if the patient is physically weak or is undergoing a procedure. See the *Cancerpedia: Supportive Care* and *Cancerpedia: Patients* chapters for more information.

Day Hospital

A day hospital is a day unit staffed with specialized oncology nurses, nurse practitioners and/or an oncologist. Day hospital patients require complex monitoring; they check in daily, are assessed, and may receive chemotherapy, blood transfusions, hydration or other care. Some remain for longer durations of treatment, or to manage expected and unexpected symptoms related to treatment. Once care is completed and it is determined the patient is safe to return home, the patient is discharged from the day hospital, often accompanied by a family member or friend. Daily access to inpatient beds are intentionally reserved for day hospital patients to ensure access to increased monitoring and additional treatments if healthcare providers determine it is not safe for a patient to return home.

Follow-up / Surveillance

The patient may be followed-up by healthcare providers at the cancer centre or, where appropriate, by the primary care provider. It is common to schedule a follow-up visit prior to transferring care back to the patient's primary care provider, to ensure the patient and their family receive appropriate follow-up instructions and are supported during the transition of care. In some jurisdictions, follow-up phone calls or video technology can eliminate the need for a hospital visit.

Urgent, Emergent and Intensive Care

Due to the large number of outpatients receiving complex treatment, there is a need to ensure that patients who experience urgent or emergent symptoms have access to timely care. The healthcare team must have access to intensive care services in the event of complications requiring advanced airway or circulation management. It is also important to ensure patients receiving outpatient care know how and when to access these services.

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Urgent care can be provided in a designated space at a cancer centre. Patients may require urgent care to help manage symptoms related to their disease or treatment; this may include intravenous therapy, acute pain management, acute nausea management or procedures (e.g., paracentesis, thoracentesis). The purpose of an urgent care clinic is to provide treatment for urgent symptoms and then discharge the patient home or to an inpatient area, if required. At a minimum, an urgent care clinic should be available during the same hours as outpatient chemotherapy, radiotherapy and other clinics. Ideally, the urgent care clinic is open 24 hours a day, seven days a week, with an option for patient self-referral.

Access to emergency care for life threatening issues is important, should a care situation become unmanageable in the urgent care clinic. See the *Cancerpedia: Emergency Care* and the *Cancerpedia: Surgery* chapters for more information.

Remote Care and Support

Remote care and support refers to services provided to patients outside of the cancer centre using simple technology, such as a phone, or more complex technology, including web- or cloud-based applications on hand-held devices or tablets. Proactive phone calls or designated call-in phone lines managed by specialized oncology nurses can provide patients with access to the multidisciplinary/interprofessional healthcare team for assessments, check-ins, the resolution of issues, or questions and advice on where to go for appropriate care. With help and advice, patients can sometimes manage their symptoms virtually.

C. RESOURCES

Resources include the facilities and equipment, human resources and information management infrastructure required to provide high-quality outpatient cancer care. The core resource elements required are fairly standard; however, various factors will impact the level and configuration of resources required for a specific cancer centre. Outpatient care also requires strong back-office support from finance, human resource and infrastructure departments. For additional information about specific core services, see the appropriate *Cancerpedia: Core Services/Infrastructure* chapter.

3. FACILITIES AND EQUIPMENT

The elements listed below should be considered when planning outpatient care facilities. Clinics may be general or specialized according to the disease site, depending on the organization, the availability of interdisciplinary human resources and the volume of patients requiring cancer care. See the *Cancerpedia: Physical Facilities and Support Services* chapter for general information on infrastructure and facilities planning.

Exam Areas

Outpatient care exam rooms should be designed in such a way that the space can be used for multiple purposes at various times, as required. The rooms should be able to accommodate stretchers and wheelchairs. Basic exam rooms require appropriate lighting and an examination table, preferably adjustable to high and low positions. A low position facilitates the patient getting onto the table and a high position allows for the healthcare provider to perform a thorough examination. Vital sign assessment equipment to measure temperature, blood pressure, and oxygen saturation, as well as chairs, a desk and a consultation area are all desirable for a basic examination room. Oxygen and suction equipment may also be considered.

Weight and height measurement equipment may be located in a central space within the clinic or in each exam room, if viable. Specialized equipment, such as lifts and ambulation devices, should also be available.

Clinics require access to a range of major and minor equipment. Equipment needs vary dependent on the nature of the clinic and its activities. Specialty clinics may require additional furniture and equipment. Clinics also require access to a range of consumables, such as protective clothing, gloves and masks, bandages and dressing supplies, and disposable syringes and needles. Each clinic should be stocked with procedure trays that are prepared for common procedures performed in that clinic. For more information about equipment

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requirements in a cancer centre, see *Cancerpedia: Equipment and Technology* chapter. For additional information about devices used for outpatient care, please see the World Health Organization's list of priority medical devices for cancer management.[1]

Examples of equipment required for a selection of specialized clinics are listed in Table 1 below.

Table 1: Examples of Equipment Required for Specialized Outpatient Clinics

Specialized Clinic	Considerations
Head and Neck Cancer	Head and neck cancer clinics are typically equipped with specialized reclining chairs and specialized endoscopy equipment.
Gastrointestinal Cancer	Gastrointestinal cancer clinics may require endoscopy equipment and specialty examination tables to facilitate safe and comfortable examination.
Genitourinary Cancer	Genitourinary cancer clinics have portable ultrasound and examination tables to facilitate safe and comfortable examination.
Gynecological Cancer	Gynecological cancer clinics require special equipment, including tables with stirrups, speculums and kits to collect samples for Pap tests, and biopsy equipment.
Eye Cancer	Eye cancer clinics are equipped with specialized equipment for eye examinations.
Palliative Care	Palliative care clinics require low examination tables and additional space for caregivers and family.

Support Areas

Separate space is required for medication preparation, the separation of clean and dirty equipment and supplies, and storage. These spaces should ideally be located in close proximity to patient examination rooms.

Environmental standards and processes for clean and dirty equipment and supplies must be established. Best practices for infection prevention and control should also be outlined to avoid cross-contamination with infectious diseases. See the *Cancerpedia: Physical Facilities and Support Services* and *Cancerpedia: Infection Prevention and Control* chapters for additional information.

Waiting Areas

Waiting rooms should be located near clinics and have comfortable seating for patients and their caregivers or family members, as well as space for wheelchairs and stretchers, as required. Ambience (e.g., artwork, lighting, noise reduction) can improve the patient experience and decrease stress and anxiety. Entertainment, such as televisions, magazines, wireless internet, computers or tablets, may also be considered to improve the patient experience.

A patient registration check-in area, with clear signage and space for staff to work, should be located near the waiting area. Depending on the volume of patients, a designated patient check-out area may be desirable and appropriate to facilitate clinic flow and the patient experience.

Patient education materials relevant to the site or department should be readily available in the clinic space. See the *Cancerpedia: Patients* chapter for additional information.

Staff Working Areas

Clinics require workspaces for the multidisciplinary/interprofessional healthcare team, including nurses, physicians, co-ordinators and clinical trials staff. These areas should accommodate computers or workstations and be large enough for staff education, multidisciplinary/interprofessional team communication and safety huddles. All staff should have access to common, shared areas to store personal belongings and take nutrition breaks.

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Special Facilities

The urgent care clinic should be designed to meet emergency room standards. The number of stretchers required depends on a variety of factors, predominately the clinic's volume of expected visits and hours of operation. Acute care monitoring and suction must be available, as well as specialized, pre-packaged trays for procedures, such as paracentesis trays and thoracentesis trays.

As a general consideration, it is convenient to locate the urgent care clinic in close proximity to an inpatient care area, to allow for safe transfers if patients require admission.

4. HUMAN RESOURCES

The team required to support outpatient care includes physicians, nurses, allied health professionals, pharmacy staff, clerical staff, administrators and managers, and a variety of support services. Ideally, outpatient clinics are comprised of multidisciplinary/interprofessional teams, so that patients may see a range of team members during the same visit. Ratios and generally accepted staffing principles may vary across jurisdictions; the team below reflects the human resources generally required for outpatient care.

Physicians are considered the most responsible provider/physician for the patient and the overall goals of his or her cancer treatment.

Within agreed upon guidelines and under specific medical directives, ***physician assistants*** (PAs) assess patients, formulate an accurate diagnosis and initiate a patient-centred management plan, in keeping with best practice guidelines and medical directives. Most commonly, the work of the PA is episodic and repetitive in nature (e.g., performing certain procedures or assessments during a particular episode of patient care). PAs must have the oversight of a physician. This physician must be consulted regarding the management and clinical status of patients. Most jurisdictions require PAs to have educational preparation for their role, and some have a related health professional designation.

Similarly, ***trainees*** must be supervised by a physician or other member of the healthcare team. Trainees are responsible for rotation assignments and on-call duties, as aligned with their academic program. They may include individuals from all disciplines.

Outpatient care nurses should ideally have foundational knowledge related specifically to cancer care, resulting in their designation as a specialized oncology nurse, or advanced education, resulting in their designation as a clinical nurse specialist or nurse practitioner. Outpatient nurses provide a range of care and support to patients, including: performing comprehensive health assessments and clinical care procedures; managing cancer symptoms and treatment side-effects; facilitating the continuity and navigation of care; supporting decision-making and advocacy; offering therapeutic relationships; and teaching and coaching.[2] For more information about nursing roles and responsibilities, see the *Cancerpedia: Healthcare Team* chapter.

Allied health professionals are regulated healthcare providers that include dietitians, respiratory therapists, social workers, physiotherapists, occupational therapists and speech language pathologists, to name a few.[3] These individuals are highly specialized in their area of expertise and able to perform comprehensive assessments, develop treatment plans related to their speciality and evaluate the patient's progress in relation to the care plan. Not all patients see all allied health professionals as part of their care. Referrals are made to appropriate allied health professionals based on patient needs, but in general referrals are only made when speciality knowledge is required beyond basic care needs. For more information about the roles and responsibilities of allied health professionals, see the *Cancerpedia: Clinical Services* chapters.

The ***outpatient pharmacy team*** ensures that outpatients receive the correct medications and medication instructions. They may also play a role in patient assessment, care planning and education. For more information, see the *Cancerpedia: Pharmacy* chapter.

Clerical support and reception staff co-ordinate patient diagnostics, appointments and clinic flow, and provide logistical support to those travelling for care.

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Managers manage the overall flow of patients through outpatient care, ensure team members are operating in accordance with their role, troubleshoot and ensure quality.

Facilities/environmental services staff ensure that outpatient care facilities are clean and in good condition. For more information, see the *Cancerpedia: Physical Facilities and Support Services* chapter.

Security staff ensure a safe environment for patients and staff. For more information, see the *Cancerpedia: Physical Facilities and Support Services* chapter.

Administrators manage elements of cancer centre operations and strategy, which can include financial, legal, human resource and quality management. For more information about the roles and responsibilities of administrators, see the *Cancerpedia: Governance and Management* chapter.

5. INFORMATION MANAGEMENT

Standardized and thorough documentation of patient information is vital, regardless of whether paper or electronic health records are in use. Health records allow healthcare providers to access the patient's history, assessment information, care plans and results, and improve patient safety. Health providers and clerical staff in the clinics must be able to access health records and update them based on new information. See the *Cancerpedia: Health Records* chapter for additional information.

Outpatients require access to information about their disease, treatment and care. In particular, it is important for them to know what to expect and what warrants a return to the cancer centre for additional care. For more information, see the *Cancerpedia: Patients* chapter.

Administrative data (e.g., workload, billing) should be collected and analyzed to inform planning and determine areas of improvement. For more information, see the *Cancerpedia: Quality* chapter.

D. MANAGEMENT

6. LEADERSHIP

Outpatient clinics are managed by a clinical manager, who should have some clinical training and expertise in oncology. The clinical manager has overall accountability for the daily operations of the clinics and oversees patient flow, including wait times and clinic utilization. It is the clinical manager's responsibility to ensure key quality indicators, such as wait times, are as close to target as possible, and that patients are being seen by the right person at the right time. The clinical manager may oversee the patient intake and referral process, ensuring referrals are triaged appropriately and meet admission criteria. They are also accountable for ensuring human resources, budgets and supplies meet the needs of healthcare providers and patients.

The clinic manager is accountable to senior leadership and accountable for the performance reviews of his or her direct reports. In most outpatient clinics, staff reporting to the clinical manager include nurses and patient flow staff, with other staff reporting to managers in their respective service areas; however, depending on the size and structure of an organization, the staff reporting to the clinical manager may include all health professions excluding medicine and pharmacy, housekeeping staff and volunteers.

7. POLICIES, PROCESSES AND PROCEDURES

In order to support reliability and standards of practice, standards of work (SOW) and standard operating procedures (SOPs) should be developed for outpatient clinics including, but not limited to, the following:

- Follow-up investigation of patients who miss an appointment, often referred to as "no shows"
- Notice of absence of clinical team members, particularly for teams dependent on a single physician
- Outpatient clinic patient registration
- Appointment scheduling for laboratory tests and medical imaging
- Interventional radiology central vascular access device insertions – e.g., implanted ports, tunnelled catheters, tubes and drains

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E. QUALITY

To ensure high-quality standards, the following metrics must be benchmarked and measured:

- Clinic wait times
- Patient experience
- Staff experience and engagement
- Clinic utilization
- Incidents (e.g., falls, incorrect medications)

Other metrics for consideration include access to information and missed appointments, which may inform the development of SOPs in these areas.

Metrics should be reported to a quality committee for analysis and the development of action plans, where improvements are required. See the *Cancerpedia: Quality* chapter for additional information.

F. THE FUTURE

Patient care continues to shift from inpatient to outpatient care, and from outpatient care to care in the community or at home. Technology is further enabling this trend via hand-held smart phone or tablet applications, which support patient access to telehealth services, information, and self-management techniques and strategies. As this trend continues, it is important to reinforce linkages with the primary healthcare system to support patients receiving care as outpatients and enable follow-up care in the community.

A focus on broader population health and the collection of long-term outcomes data is also an increasing focus at many organizations. This will be further enabled by advances in technology and big data, and will help shape the cancer centres of the future. For more information, see the *Cancerpedia: Research* chapter.

Other trends include an increased number of patients receiving access to clinical trials and the increased engagement of patients as vital partners in their care and self-management (e.g., recording and tracking symptoms, using algorithms to manage mild symptoms, using personal support systems such as family and friends in a more intentional and meaningful way, and engaging various healthcare professionals for moderate to severe symptom management concerns). For more information, see the *Cancerpedia: Patients* chapter.

G. REFERENCES

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