

Table 9.3 (Continued)

Item no.	Room name	Net area, m²	Requirements and recommendations
			<p>Advisory: Provision should be made for a remote printout or data transmission.</p>
9	Waiting	Varies; assume:	<p>See Table 11.1, Item 48 for common requirements and recommendations for a waiting room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Space shall be provided for family members. b) The waiting area shall be directly viewable by dialysis staff (e.g., clerk, receptionist, etc.) or be remotely monitored by closed-circuit TV or equivalent, so that staff can be aware of patients in medical distress. c) Capacity to summon assistance from the treatment area shall be provided. <p>Advisory: Provision should be made for other seating needs, depending on expected patient community.</p>
10	Mobility aid storage alcove	0.5 per chair	<p>Mandatory: Electrical receptacles for battery charging shall be provided.</p> <p>Advisory:</p> <ul style="list-style-type: none"> a) The alcove should be located for convenient access from each pod/grouping of treatment stations. b) Capacity for two wheelchairs and two rollators should be provided per six treatment stations.
11	Soiled utility room	Varies according to delivery model	<p>See Table 11.1, Item 40 for common requirements and recommendations for a soiled holding room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) A hopper (i.e., clinical service sink) for disposal of chemical waste shall be provided. b) Provision shall be made for very high volumes of biomedical and regular waste. c) If supplies are not broken down on delivery, provision shall be made for very high volumes of cardboard.
12	Clean supply room	Varies according to delivery model	<p>See Table 11.1, Item 8 for common requirements and recommendations for a clean supply room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) A counter for dialysis supply preparation (150 mm × 700 mm) shall be provided. b) A hand hygiene sink shall be provided. c) Access shall be controlled. d) The dialysis concentrate storage space shall be large enough to accommodate a backup supply to cover possible delays in delivery. <p>Note: <i>The amount of backup depends on the size of facility, the reliability of supply, and the time that would be needed to bring in new supplies. This should be in accordance with the functional program.</i></p>

(Continued)

Table 9.3 (Concluded)

Item no.	Room name	Net area, m²	Requirements and recommendations
			<p>Advisory: Space for 0.03 m³ of supplies should be provided per patient treatment.</p>
13	Chart storage	Varies according to program size	<p>Mandatory: Space shall be allowed for one 50 mm binder per patient, with remaining documentation in health records (six binders per treatment station).</p> <p>Advisory:</p> <ul style="list-style-type: none"> a) Mobile filing/track storage should be considered. b) The location and organization of this space should provide for reallocation to another function when electronic documentation system is in place.
14	Medication room	Varies according to delivery model	<p>See Table 11.1, Item 32 for common requirements and recommendations for a medication room.</p> <p>Mandatory: A scientific refrigerator/freezer shall be provided.</p>

9.5 Oncology services

9.5.1 Description and application

9.5.1.1

All HCFs that provide oncology services shall comply with Clauses 9.1, 9.3, and 9.5. Ambulatory facilities shall also comply with Clause 9.2.

9.5.1.2

In most jurisdictions in Canada, cancer care is publicly governed and funded by organizations generally separate from hospital governing authorities, such as Cancer Care Ontario, BC Cancer Agency, Saskatchewan Cancer Agency, etc. Typically these agencies are responsible for population-based cancer control, which comprises the provision of clinical services (interventions) across a spectrum of prevention, early detection, treatment and support, rehabilitative and palliative/end-of-life care, cancer research, and education directed toward both the public and health professionals. In most instances, provincial cancer control activities are linked and integrated through regional cancer centres, community cancer centres/programs and clinics, and provincial networks.

9.5.1.3

Essential elements of a comprehensive cancer program include radiation and systemic therapy, pharmacy, outpatient clinics, specimen collection, supportive care, amenity services, and access to diagnostic and inpatient oncology services. An interdisciplinary care delivery approach is fundamental to achieving patient and family-centred care and efficient operations. Adjacencies among the essential elements of the cancer program are required to support both the interdisciplinary care delivery approach and effective systems and processes. These requirements apply to all services, regardless of whether they are delivered in an inpatient setting or an outpatient setting (and regardless of where the services are delivered).

9.5.1.4

Core elements of a cancer program requiring a direct connection include

- a) radiation therapy (including assessment, treatment planning, treatment and review);
- b) systemic therapy (including pharmacy support);
- c) outpatient oncology clinics;
- d) pharmacy; and
- e) rehabilitation services.

9.5.1.5

Radiation therapy is the use of ionizing radiation to treat patients with cancer and other diseases within a radiation oncology program. The process includes

- a) assessment;
- b) treatment planning;
- c) treatment delivery; and
- d) additional services, such as
 - i) magnetic resonance (MR) simulation; and
 - ii) non-isocentric radiation treatment (e.g., gamma or tomotherapy).

9.5.1.6

Systemic therapy or chemotherapy is often given in cycles that include treatment periods alternating with rest periods. The length of the patient's cycle and the number of cycles in the treatment plan will be determined by an oncologist.

Chemotherapy is given in several ways: intravenously (through a vein), orally, through an injection (i.e., intrathecal, intramuscular, subcutaneous, etc.), or topically (applied on the skin). The most common method of delivering chemotherapy is intravenously (IV). This is done either in the form of fluid drip or as an IV push. Procedures range from 15 min to 10 h or longer.

The range of procedures and activities carried out include, but are not limited to

- a) chemotherapy infusions and pushes;
- b) examinations;
- c) intrathecal and subcutaneous injections;
- d) lumbar punctures;
- e) PICC line access/dressing/removal; and
- f) patient and family/caregiver education.

Oncology pharmacy services are required in support of systemic therapy and these services are often located integral to the chemotherapy treatment area.

9.5.1.7

Outpatient oncology clinics can provide

- a) examination, consultation, and treatment of new patients (including full history and physical exam for initial management and determination of care pathway);
- b) follow-up assessment for medical oncology, radiation oncology, surgical oncology, and in some instances hereditary high-risk surveillance, pain and symptom management, and palliative care; and
- c) consultation with nurses, pharmacists, social workers, psychologists, dieticians, and possibly others.

9.5.1.8

Rehabilitation or supportive services typically include a range of rehabilitation services as a component of comprehensive cancer care, such as

- a) social workers and clinical counsellors;
- b) nutritionists;
- c) creative art and music therapy programs;
- d) psychiatric counselling;
- e) group therapy sessions; and
- f) outpatient rehabilitation services and exercise programs.

9.5.2 Functional requirements

9.5.2.1 Patient management

9.5.2.1.1

Care shall be provided in a supportive and caring environment for patient and families. The design of the service shall

- a) create a calm, healing, and pleasing environment;
- b) support patient dignity, confidentiality, and privacy;
- c) include provisions for patient access to relevant health information and resources; and
- d) include nourishment and washroom facilities.

9.5.2.1.2

Rooms and connecting spaces shall be provided as necessary to accommodate the functional program.

9.5.2.1.3

Simulator, accelerator, and cobalt rooms shall be sized to accommodate

- a) the equipment;
- b) patient access on a stretcher;
- c) medical staff access to the equipment and patient; and
- d) service access.

Equipment manufacturers' recommendations should be sought and followed, since space requirements can vary from one machine to another and from one manufacturer to another.

9.5.2.1.4

The radiotherapy suite may contain electron beam therapy or radiation therapy, or both.

9.5.2.1.5

The primary staff work zone (e.g., a team charting station) should be close to the entry for control of individuals coming into the area.

9.5.2.1.6

The patient care areas should be co-located with the staff work area (care station), which can necessitate sub/satellite staff work areas to ensure that staff have workspaces in close proximity to a given number of patients.

9.5.2.1.7

AIRs or protective environment rooms, if required under the functional program, should be located close to the patient entry and away from the main corridor/other patient cubicles to limit the travel distance to the main area by infectious/immunosuppressed patients.

9.5.2.1.8

The medication dispensing area/rooms shall be easily accessible from the patient care areas.

9.5.2.1.9

All chemotherapy areas shall be designed to provide direct observation from a staff workstation to the patient chairs/stretchers.

9.5.2.1.10

Patient and family safety shall be provided through facility and equipment design, and compliance with applicable requirements.

Notes:

- 1) *In Canada, consult the Canadian Nuclear Safety Commission and the Government of Ontario's Healing Arts Radiation Protection Act for radiation safety legislation.*
- 2) *Operational processes can enhance safety, but effective design provides the necessary physical and technological context within which safe operations can be practiced.*

9.5.2.1.11

Design decisions, selection of materials, and construction decisions shall be made in consultation with the HCF's radiation safety officer (RSO) or equivalent.

9.5.2.2 Workflow**9.5.2.2.1**

The visitor entry should be adjacent to the visitor waiting area, but external to the patient care zone.

9.5.2.2.2

Utility and clean supply rooms shall be centralized or decentralized based on the functional program requirements and design and have direct access from an internal corridor for ready access from the patient areas served.

9.5.2.2.3

Staff areas shall be discrete from patient areas to allow for security, privacy, and confidentiality.

An interdisciplinary care delivery approach, involving all members of the care team (e.g., radiation, medical, surgical oncologists, nurses, medical physicists, dosimetrists, radiation technologists, social workers, dieticians, etc.) is a fundamental characteristic of cancer care programs and shall be embedded in all aspects of planning and design.

9.5.2.3 Support service delivery

9.5.2.3.1

Enclosed patient waste disposal units shall be readily accessible from patient care areas. Provisions for the management of hazardous waste (e.g., from chemotherapy) shall be in accordance with CSA Z317.10.

9.5.2.3.2

Within rooms, enclosed storage units shall be used to achieve infection control, patient-focused care, and flexibility.

9.5.2.3.3

Radioisotope storage shall be provided adjacent to the high dose rate (HDR) brachytherapy room and the PET simulation suite.

9.5.2.3.4

Ease of replacement of linear accelerators and simulators shall be provided through unobstructed routes.

9.5.3 Technical requirements

9.5.3.1 Radiation treatment room construction

- a) The radiation shielding of the rooms shall be designed for a minimum of 18 MV photons.
- b) The radiation treatment rooms shall have a maze access designed such that a heavy door is not required for energies up to 18 MV photons.
- c) Neutron absorbing materials such as polyethylene and boreated, polyethylene shall be installed in the maze to reduce the neutron levels to an acceptable level.
- d) The room shall be designed to accommodate equipment from all major vendors for high-energy treatment. Room structure shall include a removable plug that can facilitate installation of future technologies.

Note: Lists of approved vendors in the provincial/territorial jurisdiction should be consulted, if available. In Canada, the Canadian Nuclear Safety Commission is the authority having jurisdiction.

- e) Density testing results for all products, such as prefabricated ilmenite or hematite blocks used in the plug area of the room, shall be provided to the RSO for approval.
- f) An independent observer who reports to the RSO shall be available during the concrete pour to ensure that voids, marbling, and other problems do not occur.
- g) Concrete used for shielding shall meet all density checks, construction specifications, and other applicable requirements.

9.5.3.2 Radiation treatment room millwork

9.5.3.2.1

Millwork shall comply with CAN/CSA-Z317.13 and be provided in radiation treatment rooms to house accessory equipment for treatment delivery, including

- a) patient immobilization and positioning devices, such as
 - i) medical vacuum cushions;
 - ii) breast and lung boards; and
 - iii) thermoplastic shells;

- b) shielding;
- c) collimating devices, such as
 - i) cerrobend cut-outs and applicators for electron therapy; and
 - ii) cerrobend shields for protection and treatment area shaping; and
- d) clinical supplies including linens, support pillows, and technical accessories.

9.5.3.2.2

Millwork shall not be installed in a way that impedes placement or viewing of the lateral lasers mounted on the sidewalls of the room. If these devices are covered, there shall be a means to facilitate easy access to the device for adjustment and maintenance. There shall also be a portal for the laser beam to exit to the isocentre of the room.

9.5.3.2.3

A range of locally determined sizes shall be provided to support clinical processes.

9.5.3.2.4

Storage for safely mounted electron applicators shall be provided at a reasonable working height for repeated, daily use.

9.5.3.2.5

Surfaces shall be readily cleanable with hospital grade cleaning products.

9.5.3.2.6

The hand hygiene sink shall be located at the entry to the room and shall include a small shelf for patient-specific denture pots.

9.5.3.2.7

The space shall have at least two linear metres of counter. Fully adjustable horizontal shelves shall be provided.

9.5.3.2.8

Some storage of vertical devices, as determined by local staff, shall be provided. Ergonomically placed shelves shall be provided for heavy and awkward items such as breast boards and cerrobend shielding products. Shelves shall be deep enough for radiation therapy accessory devices such as chest and head and neck shells. A storage system (rack or shelf) for medical vacuum cushions shall be provided.

9.5.3.2.9

Space shall be provided for a linen hamper against the wall.

9.5.3.2.10

Access to emergency off buttons shall not be impeded by doors in the open or closed position.

9.5.3.2.11

A space should be provided for a patient chair near the exit to the room.

9.5.3.2.12

A series of drawers shall be provided for housing of specialty products and equipment.

Note: The size, shape, and configuration of storage units in the radiation treatment room should be determined in consultation with the HCF (including clinical staff). Flat drawers are generally needed for items such as clinical dressings, flexible shielding materials, tattooing equipment, and skin markers.

9.5.3.2.13

A location, with power and data available, shall be provided for placement of two flat-panel non-glare monitors, one on either side of the room, outside the primary beam towards the maze end of the space. The exact location shall be as specified by the user.

9.5.3.3 Radiation treatment room flooring

To minimize damage to flooring, the flooring in the maze and the treatment room should be installed after machines have been installed and commissioned.

9.5.3.4 Radiation treatment room compressed air

A central compressed air source with heated desiccant dryer shall be used to provide instrument quality air at 690 kPa to the radiation treatment machine.

9.5.3.5 Radiation treatment room plumbing

9.5.3.5.1

Floor drains shall be provided in the pit and modulator room.

9.5.3.5.2

Floor drains shall be designed to minimize the risk of backflow.

9.5.3.6 Radiation treatment and simulation room laser

Provision shall be made for the mounting of lasers to steel mounts affixed to structural concrete to prevent drifting due to vibration or environmental causes.

9.5.3.7 Radiation room cooling water

9.5.3.7.1

The radiation room cooling water circuit shall have a central year-round cooling source, pump, and distribution system.

9.5.3.7.2

The circuit shall have a 100% redundant cooling source and pump.

9.5.3.7.3

In a system that utilizes domestic cold water as a back-up cooling source, there shall be a means to maintain the separation of the systems.

9.5.3.7.4

Piping material, instrumentation and alarms, filtration, flow, pressure, and cooling fluid shall be in accordance with equipment suppliers' recommendations.

9.5.3.8 Radiation safety devices

9.5.3.8.1

Radiation safety devices in the simulator room and control area shall meet applicable requirements.

Note: In Canada, radiation safety devices are specified within the Canadian Nuclear Safety Commission application and the number and exact locations of all of these devices are specified by the provincial/territorial authority.

9.5.3.8.2

Radiation safety devices shall include

- a) door interlock devices (e.g., door contacts, optical sensors, motion sensors, electric door strikes, and emergency off buttons);
- b) warning lights;
 - Note:** The X-ray on warning light requires a relay and power source to operate the relay, since simulators will only provide a contact that is made when the X-ray beam is on.
- c) emergency battery-powered lights;
- d) emergency buttons, which shall be self-latching when pressed;
- e) radiation monitors, independent of the machine, which monitor radiation levels in the simulator room and will alert the operator of high radiation levels;
- f) a dedicated system of cameras and monitors for each room, with monitors in the control area; and
- g) emergency battery-powered lights that will turn on immediately when a power failure occurs.

9.5.3.9 Infection prevention and control

9.5.3.9.1

Hand hygiene sinks shall be directly accessible and distributed uniformly as follows:

- a) within treatment areas at a minimum ratio of 1:3 stations;
- b) within all enclosed treatment, exam, and procedure rooms;
- c) convenient to/from medication cart space; and
- d) within clean supply rooms.

9.5.3.9.2

Hand hygiene stations shall be at the entrance of each treatment room. There shall be one hand hygiene station for each chair or bed.

9.5.3.9.3

Capacity shall be provided to separate infectious patients in delivering treatment and support services.

9.5.3.9.4

A means for providing patient privacy that can be cleaned between patients (e.g., between-glass blinds) shall be used in precaution rooms and AIRs in lieu of cubicle curtains.

9.5.3.9.5

If an AIR is provided, it shall be as specified in Clause 7.5.5.1.

9.5.3.9.6

If an AIR is provided, there shall be a PPE alcove located immediately outside the room to hold gloves, goggles, face shields, masks, respirators, and gowns. The alcove shall be able to accommodate a supply cart. A hand hygiene sink is not required in the alcove.

9.5.3.9.7

A PPE alcove may be shared between two single rooms used for patients on precautions.

9.5.4 Space details

Table 9.4 presents the standard requirements for key spaces in the oncology ambulatory care areas. Common areas are detailed in Clause 11.

Table 9.4
Key space requirements and recommendations —
Ambulatory care — Oncology
 (See Clause 9.5.4.)

Item no.	Room names	Net area, m ²	Guidelines and comments
1	Radiation treatment room (high-energy or low-energy linear accelerator), including maze and modulator room, but excluding control	99.4	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be designed to accommodate equipment from all major vendors for high-energy treatment. Room infrastructure shall include a removable plug that can facilitate installation of future technologies. <p><i>Note: Lists of approved vendors in the provincial/territorial jurisdiction should be consulted, if available. In Canada, the Canadian Nuclear Safety Commission is the authority having jurisdiction.</i></p> <ul style="list-style-type: none"> b) One paper towel dispenser, one mirror, one coat hook, one soap dispenser, and a hook for a lead apron shall be provided. c) Oxygen and medical vacuum shall be provided. d) A hand hygiene sink shall be provided. e) Telephone, data, and emergency power connections shall be provided. f) Nurse call, intercom, and VSS shall be provided. g) Dimmable lighting, a warning light system, and a radiation monitor and slave shall be installed. h) Room sizes shall meet applicable requirements. i) A double interlocked, pre-action sprinkler system shall be installed. j) Storage for PPE shall be provided. <p><i>Note: See CNSC and provincial/territorial authorities.</i></p>
2	Control room	14.0	
3	Radiation treatment room, multi-purpose (orthovoltage, superficial, HDR brachytherapy),	63.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The multi-purpose radiation treatment room shall be equipped with general-purpose millwork with stainless steel countertops. b) Under-counter storage shall have solid fronts. c) Over-counter storage shall have solid doors. d) Adjustable general-purpose shelving shall be provided.

(Continued)

Table 9.4 (Concluded)

Item no.	Room names	Net area, m²	Guidelines and comments
	including maze, but excluding control		<ul style="list-style-type: none"> e) Special storage shall be provided for X-ray applicators. f) One paper towel dispenser, one mirror, one coat hook, one soap dispenser, and a hook for a lead apron shall be provided. g) Oxygen and medical vacuum shall be provided. h) A hand hygiene sink shall be provided. i) Telephone, data, and emergency power connections shall be provided. j) Nurse call, intercom, and VSS shall be provided. k) A door interlock system shall be provided. l) Dimmable lighting, a warning light system, and a radiation monitor and slave shall be installed. m) Room sizes shall meet applicable requirements. <p>Note: See CNSC and provincial/territorial authorities.</p>
4	Radiation treatment simulation room, excluding control	59.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) All radiation treatment simulation suites shall be designed in such a way that the shielding and dimensions of the simulator room and adjacent areas can accommodate emergent radiation treatment simulation. b) The radiation treatment simulator room shall have a maze access that is designed such that a shielded door is not required between the simulator room and the control area. c) The room shall be designed to accommodate equipment from all major vendors for computed or positron emission tomography and combinations of both technologies. <p>Note: Lists of approved vendors in the provincial/territorial jurisdiction should be consulted, if available.</p> <ul style="list-style-type: none"> d) Concrete used for shielding shall meet all density checks and construction specifications and other applicable requirements. <p>Note: Building codes and licensing requirements can apply.</p> <p>Advisory: Consideration should be given to including a washroom adjacent to the room.</p>
5	Machine shop	Varies	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The machine shop shall be equipped with general-purpose millwork, with stainless steel countertops. b) Under-counter storage shall have solid fronts. c) Over-counter storage shall have solid doors. d) Lockable, adjustable, general-purpose storage shall be provided. e) One paper towel dispenser and one white board shall be provided. f) Compressed air shall be equipment grade (desiccant dryer with heating element, non-medical type). g) Natural gas shall be provided to the welding hood. h) Medical vacuum shall be provided at the computer numerical control (CNC) mill. i) A fume hood shall be provided. j) A hand hygiene sink, special equipment stainless steel wash sink, and an eyewash station shall be provided.

(Continued)

Table 9.4 (Continued)

Item no.	Room names	Net area, m²	Guidelines and comments
			<ul style="list-style-type: none"> k) A central medical vacuum system shall be provided. l) High-frequency fluorescent light fixtures shall be provided. m) Telephone and data connections shall be provided. n) Three-phase power at 600 V and 208 V shall be provided.
6	Radioisotope room, HDR brachytherapy	12.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be provided with a fully shielded door. b) General-purpose millwork with stainless steel counter tops shall be provided. c) A stainless steel hand hygiene sink shall be provided. d) A paper towel dispenser and soap dispenser shall be provided. e) Open shelving shall be provided along one wall. f) An isotope safe shall be provided. g) Telephone and data connections shall be provided. h) Warning lights, radiation monitor, and slave shall be provided. i) Floor and work surfaces shall meet applicable requirements. <p>Note: See CNSC and provincial/territorial authorities.</p>
7	Radioisotope room, PET	11.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Construction of this room shall meet applicable requirements. <p>Note: In Canada, CNSC license requirements apply.</p> <ul style="list-style-type: none"> b) The room shall be provided with a fully shielded door. c) The walls shall be lead lined, as per applicable requirements. <p>Note: In Canada, CNSC requirements apply.</p> <ul style="list-style-type: none"> d) General-purpose millwork with stainless steel counter tops shall be provided. e) A stainless steel hand hygiene sink shall be provided. f) A paper towel dispenser and soap dispenser shall be provided. g) An isotope safe shall be provided. h) Telephone and data connections shall be provided. i) Warning lights, radiation monitor, and slave shall be provided. j) Floor and work surfaces shall meet applicable requirements. <p>Note: See CNSC and provincial/territorial authorities.</p>
8	Recliner chair area, open	7.5 per chair	<p>See Table 11.1, Item 14 for common requirements and recommendations for treatment rooms.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) An alcove for wheelchair/scooter access shall be provided nearby. b) Rooms used for separation/precaution shall be enclosed and allow for observation (e.g., glass door). Directional air flow shall be considered. c) Clearance between stations shall be at least 1500 mm. d) The distance from centre to centre of beds, chairs, or bed-stretchers shall be at least 2400 mm.
9	Bed cubicle area, open	9.5 per bed	
10	Examination room	12.0	See Table 11.1, Item 14.

(Continued)

Table 9.4 (Concluded)

Item no.	Room names	Net area, m²	Guidelines and comments
11	Examination room, stretcher	13.0	See Table 11.1, Item 14.
12	Treatment area (chemotherapy, IV therapy, etc.), open	12.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The staff workstation, hand hygiene sink, and supplies shall be convenient, provided at a ratio of one per maximum four patient treatment spaces, and be uniformly distributed for equivalent access. b) Additional supports (warming cabinet, nourishment station, medication cabinet, procedure carts, clinical scale, linen hamper, mobile lights, patient washrooms, and clean supply and soiled utility rooms) shall be convenient to the overall treatment area. c) If a C-arm is included, the floor area shall be increased by 4.0 m² to accommodate the additional requirements. <p>Advisory:</p> <ul style="list-style-type: none"> a) Patient amenities (TV, music, natural light, and view) should be provided. b) If radioisotope therapy is to be conducted in the treatment space, appropriate shielding should be provided.
13	Treatment area (chemotherapy, IV therapy, etc.), enclosed	9.5 for an open cubicle Assume 11.0 m ² for partial walls (on 3 sides) and 13.0 m ² for a fully enclosed room	<p>Mandatory:</p> <ul style="list-style-type: none"> a) A minimum 800 mm clearance shall be provided on both sides of the patient to allow IV starts on either side, and 600 mm behind the patient chair, when in fully reclined position, shall be provided. b) Glazing in the wall and door shall be provided to ensure visibility from the staff work area. <p>Advisory:</p> <ul style="list-style-type: none"> a) Patient amenities (TV, music, natural light, and view) should be provided. b) If radioisotope therapy is to be conducted in the treatment space, appropriate shielding should be provided.

9.6 Endoscopy services

Note: Requirements specific to this service are outlined in Clause 9.6. See Clauses 9.1 and 9.3 for additional information.

9.6.1 Description and application

Clause 9.6 provides specific requirements for endoscopy suites. These requirements are in addition to those in Clauses 9.1 to 9.3. Endoscopy is often conducted under conscious sedation or general anaesthesia requiring medical and/or nursing support, and the pre- and post-procedural management of patients undergoing procedures.

Facilities providing endoscopy can include ambulatory care centres, free-standing surgi-centres, and acute and long-term care HCFs.

9.6.2 Functional requirements

9.6.2.1 Patient management

9.6.2.1.1

Planning and design for patient management in endoscopic services shall be consistent with the requirements and recommendations in Clause 9.3.2.1.

9.6.2.1.2

If the unit treats pediatric patients, it shall have the appropriate accommodations to meet the particular needs of this patient group including space in all rooms to allow for families to accompany a child.

9.6.2.2 Workflow

9.6.2.2.1

Endoscopy services shall be designed so that the endoscopy suite is adjacent to a MDR area. Reprocessing areas shall be designed in accordance with CAN/CSA-Z314. The service shall be designed so that management of soiled scopes and storage for clean scopes and other equipment can be in accordance with CAN/CSA-Z314 and relevant infection prevention and control guidelines.

9.6.2.2.2

Endoscopy rooms shall have a direct connection to stage one recovery (PACU) through a restricted corridor.

9.6.2.3 Support service delivery

All reprocessing of endoscopes shall be performed in a MDRD complying with CAN/CSA-Z314.

9.6.3 Technical requirements for endoscopic procedure rooms

Planning and design for endoscopic procedure rooms shall be consistent with the requirements and recommendations in Clause 9.3.3.

9.6.4 Technical requirements for support areas

9.6.4.1 General

Planning and design for support areas in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.4.

9.6.4.2 Medical device reprocessing

9.6.4.2.1 Processing rooms

If reprocessing of medical devices will be performed near the procedures area rather than a centralized MDRD, dedicated processing room(s) shall be provided and these shall comply with CAN/CSA-Z314. A physical barrier shall be provided to prevent droplet contamination on the clean side. Clean equipment rooms shall protect the clean equipment from contamination. Clean and sterile medical devices shall be stored in a sterile storage area complying with CAN/CSA-Z314. A fume hood for the use of noxious cleaning and sterilizing chemicals shall be provided.

9.6.4.2.2 Decontamination

The decontamination area shall comply with CAN/CSA-Z314 and be equipped with the following:

- a) utility sinks as appropriate to the method of decontamination used;
- b) one freestanding hand hygiene sink;
- c) work counter space(s);
- d) space and utility connections for automatic endoscopic reprocessor, sonic cleaner, and sterilizers (where required by the functional program);
- e) a ventilation system in accordance with CAN/CSA-Z317.2;
- f) provision for suction and compressed air, using supplies that are separate from the HCF's medical vacuum and instrument air systems, but meet relevant requirements for quality, cleanliness, and humidity, as appropriate to the cleaning methods used; and
- g) flooring that is monolithic with an integral cove base of at least 150 mm high.

9.6.5 Telehealth

Planning and design for telehealth in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.5.

9.6.6 Lighting

Planning and design for lighting in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.5.

9.6.7 Infection prevention and control

Planning and design for infection prevention and control in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.7.

9.6.8 Occupational health and safety

Planning and design for occupational health and safety in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.8.

9.6.9 Technology considerations

Planning and design for occupational health and safety in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.9.

9.6.10 Safety and security

Planning and design for safety and security in endoscopy services shall be consistent with the requirements and recommendations in Clause 9.3.10.

9.6.11 Space details

Table 9.5 presents the standard requirements for key spaces in the endoscopic procedures area. Common areas are detailed in Clause 11.

Table 9.5
Key space requirements and recommendations — Endoscopy

Item no.	Room names	Net area, m ²	Requirements and recommendations
1	Endoscopic procedure room (four-side patient access with fixed imaging, including control)	38	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Each endoscopy procedure room shall have a minimum clear floor area according to the space requirements, exclusive of fixed casework. b) A wall-mounted hand hygiene sink shall be located adjacent the door along with a hand hygiene station. c) A privacy curtain shall be located adjacent to the door but away from the door swing; another curtain dividing space around exam table shall be provided. d) The exam table shall suit the function of the room. e) A blood pressure cuff, paper towel dispenser, sharps container, and hand hygiene station shall be mounted next to the exam table. f) A mirror above the sink and coat hooks shall be mounted adjacent to the door. g) A soiled linen hamper and soiled garbage container shall be provided. h) A nurse call system shall be provided. i) The minimum door width shall be 1050 mm (with 600 mm side leaf). j) A minimum 1800 mm turning circle shall be provided for standard wheelchair accessibility on one side of the therapy room. k) Multiple electrical receptacles shall be provided to allow flexibility in furniture/lighting placement, as well as for services for splinting, etc. l) Sharps disposal shall be provided in a safe location and near the point of use. m) Provision shall be made within the room for electronic charting and access to health records. n) Medical services (e.g., electrical connections, medical gases, medical vacuum) shall be provided through a medical supply unit.

(Continued)

Table 9.5 (Continued)

Item no.	Room names	Net area, m ²	Requirements and recommendations
			<p>Note: <i>Medical services may be provided from overhead articulating arm(s) or from a wall-mounted service panel.</i></p> <ul style="list-style-type: none"> o) The room arrangement shall provide for access and clearance (800 mm) on one side and at the foot of a patient accommodated on a HCF-sized stretcher. p) Medical gases, including oxygen and medical vacuum, shall be provided as specified in CSA Z7396.1. q) Provision should be made for telehealth (e.g., through room colour, lighting, acoustics, the selection and placement of furniture, and adequate space for telehealth equipment). r) An exam light shall be provided over the therapy area. s) A room for minor procedures shall have the dimensions shown, and access and clearance shall also be provided to two sides and the foot of the patient. t) Treatment/examination rooms used for pelvic exams shall allow for the foot of the examination table to face away from the door. u) Where renovation work is undertaken, every effort shall be made to meet these minimum standards. In such cases, each room shall have a minimum clear area of 9.0 m², exclusive of fixed or wall-mounted cabinets and built-in shelves. v) For special purpose examination rooms <ul style="list-style-type: none"> i) the room arrangement shall permit a minimum clearance of 800 mm at each side and at the foot of the examination table, bed, or chair; ii) minimum clearance around the treatment chair shall be 800 mm; and iii) space to transfer a patient from a stretcher shall be provided. w) Space shall be provided to permit safe and efficient endoscope reprocessing. This space shall be separate from the procedure room, but in close proximity, and it shall be consistent with CAN/CSA-Z314 and the HCF's infection prevention and control strategy. x) Clean endoscopes shall be stored in closed, continually ventilated HEPA filtered or special cabinets, which have been specifically designed for the storage of endoscopes. Endoscope storage cabinets shall not be in procedure room, and they shall be secured from unauthorized access if they are not in a protected area. Special cabinets, if used, shall have the following features: <ul style="list-style-type: none"> i) HEPA filtered; and ii) the door is interlocked so that one door will not open unless the other is closed. <p>Advisory:</p> <ul style="list-style-type: none"> a) Rooms should be laid out in similar configuration. b) Access should be provided at the left side of the stretcher. c) Other medical gases, as required by the room function, should be considered.

(Continued)

Table 9.5 (Continued)

Item no.	Room names	Net area, m ²	Requirements and recommendations
			<ul style="list-style-type: none"> d) For efficiency, scope reprocessing may be located adjacent to the procedure room(s) with direct access, but this shall be reviewed to confirm infection prevention and control protocols. e) Clean endoscope storage should be in a separate supply room in close proximity to the procedure room(s). f) Sufficient space should be provided for up to four or five people (i.e., providers, patient, family) in the exam/treatment room at a time. g) Consultation table and chairs should be provided for three people with a flat screen computer. h) Additional supports (including a warming cabinet, nourishment station, medication cabinet, procedure carts, clinical scale, linen hamper, mobile lights, patient washrooms, clean supply, and soiled utility rooms) should be convenient to the overall treatment area. i) Storage for staff-accessible patient supplies should be provided in the room. j) Counter- and wall-mounted cupboards for storage of supplies and linen should be provided. k) Each room should contain work counter(s); cabinets; supply storage facilities; examination lights; a desk, counter, or shelf space for writing; and a vision panel adjacent to and/or in the door. l) The door may be sliding glass with provisions for privacy (curtain or partition). m) For telehealth, attention should be paid to room colour, lighting, acoustics, and the placement of microphones, cameras, and monitors. n) TV/media for viewing of educational material may be provided. o) If required for consultation, only the examination table and chairs may be replaced with soft furniture. p) Dimmable light should be considered. q) Furniture in the room should be easily movable to accommodate a wheelchair. r) Based on program needs, a computer may be provided.
2	Scrub sink alcove	0.8/sink	<p>See Table 11.1, Item 19 for common requirements and recommendations for a hand hygiene sink.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Alcoves shall be provided in corridors, beyond the minimum 2440 mm corridor width, for storage of supplies. b) Provision shall be made to protect adjacent wall and floor surfaces from stains or damage by scrub chemicals (e.g., through sink design, choice of surface materials, or protective shielding).
3	Level one recovery (open curtained)	9.5	See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.

(Continued)

Table 9.5 (Continued)

Item no.	Room names	Net area, m ²	Requirements and recommendations
Mandatory: The minimum distances around and between beds shall be in accordance with Table 7.1.			
4	Level one recovery (partial walls)	11.0	See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.
Mandatory: The minimum distances around and between beds shall be in accordance with Table 7.1.			
5	Level one recovery (private/ separation)	13.0	<p>Mandatory: The minimum distances around and between beds shall be in accordance with Table 7.1.</p> <p>Advisory: Adding family space (2.0 m²) should be considered.</p>
6	Level one recovery (airborne isolation room)	13.0	See Table 11.1, Item 15 for common requirements and recommendations for an examination/procedure/treatment room.
<p>Mandatory:</p> <ul style="list-style-type: none"> a) Glass shall be provided between the recovery room and nursing area of the non-isolation recovery room. b) A clean area for staff to put on PPE before entering the procedure room shall be provided. c) A contained area outside the procedure room shall be provided for staff to wash up and remove PPE before entering public corridors. d) Door width shall be a minimum 1800 mm. e) The minimum distances around and between beds shall be in accordance with Table 7.1. <p>Advisory: Adding family space (2.0 m²) should be considered.</p>			
7	Sterile core supply area	Varies	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Direct access to central MDRD shall be provided. b) Adequate space shall be provided for <ul style="list-style-type: none"> i) two case carts per procedure room; ii) back-up supplies; iii) anaesthetic supplies; iv) emergency carts and supplies; v) a blood fridge; and vi) medication dispensing systems. <p>Note: These items and associated storage space may be shared between ORs in a pod arrangement.</p> <ul style="list-style-type: none"> c) At least one workstation with a computer, network printer, and phone shall be provided. <p>Advisory:</p>

(Continued)

Table 9.5 (Concluded)

Item no.	Room names	Net area, m ²	Requirements and recommendations
			<p>There should be a minimum width of 5500 mm (allows for two 1.5 m carts and 2400 mm to move them).</p> <ul style="list-style-type: none"> a) There should be a staging area/marshalling area for case carts. b) Depending on the program, space for an immediate use sterilizer could be needed. <p>Note: <i>An alternative arrangement would be to have an immediate use sterilizer in the MDRD and use the dedicated elevator, lift, or corridor to transport the item. If an immediate use sterilizer is located in the sterile core area, the requirements for reprocessing areas will apply.</i></p>
8	Pre-operative care/level two recovery —	7.5	See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.
	Chair (open/curtained)	9.5	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Door width on a fully-enclosed/private room shall be a minimum 1500 mm. b) The minimum distances around and between beds shall be in accordance with Table 7.1.
	Stretcher (open/curtained)		
	Stretcher (3-sided/ partial wall)	11.0	<p>Advisory:</p> <ul style="list-style-type: none"> a) An anteroom should be provided for a private room that will be used as an airborne isolation room. b) A two-piece washroom should be provided when a private room is used as an airborne isolation room (4.6 m² or 5.6 m² for accessible).
	Private/fully enclosed	13.0	
9	Decentralized equipment storage (within the services)	Varies	<p>See Table 11.1, Item 9 for common requirements and recommendations for a storage room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Storage room(s) shall be not less than 14.0 m² per surgical suite or 4.6 m² per OR, whichever is greater. b) Storage areas shall be provided for portable X-ray equipment, stretchers, warming devices, auxiliary lamps, etc. These areas shall be out of corridors and traffic. c) For medical gas storage, main storage of medical gases may be outside or inside the facility in accordance with CSA Z7396.1. Provision shall be made for additional separate storage of reserve gas cylinders necessary to complete at least one day's procedures. d) Emphasis shall be placed on decentralizing storage so that materials are close to the endoscopic procedure rooms. e) Linen alcoves shall be located outside procedure rooms. <p>Advisory: None.</p>
	Control desk	Varies, 4.6 for each workstation	See Table 11.1, Item 37 for common requirements and recommendations for a reception/control desk.

(Continued)

Table 9.5 (Continued)

Item no.	Room names	Net area, m ²	Requirements and recommendations
		and additional circulation space	<p>Mandatory:</p> <p>To control access to and provide organization of the procedure rooms,</p> <ul style="list-style-type: none"> a) the desk shall be located on the perimeter of the procedure rooms to have direct access to the restricted and semi-restricted areas, as well as an ability to receive and control access from outside the procedure room core; and b) OR communication systems shall be located at the desk, including <ul style="list-style-type: none"> i) an OR tracking system — video systems shall comply with applicable requirements; ii) local cardiac arrest/staff assist communication system; iii) a pneumatic tube system; iv) telephones; v) computers with ergonomic workstations; and vi) an intercom system or similar wireless staff communication system. <p>Note: Applicable requirements can include patient privacy legislation.</p>
11	Physician/ image workstation	Varies, 4.6 for each workstation and additional circulation space	<p>Mandatory:</p> <ul style="list-style-type: none"> a) At least one workstation shall be provided for every four procedure rooms. b) A 1220 mm desk shall be provided. c) A telephone shall be provided. d) Access to the HCF dictation system shall be provided. e) The workstation shall have a HCF system computer. f) PACS shall be provided. g) Acoustic separation shall be provided. <p>Advisory: The workstation should be positioned in a convenient location, such as</p> <ul style="list-style-type: none"> a) between procedure rooms and the PACU; b) near the OR control desk; c) near the staff lounge; or d) an alcove off the OR corridor.
14	Soiled wash-up and work area	Varies	<p>See Table 11.1, Item 40 for common requirements and recommendations for a soiled holding room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Ventilation (air changes and pressure) shall be in conformance with CAN/CSA-Z317.2. b) Usage and storage for hazardous chemicals shall be in conformance with SDS criteria and occupational health and safety requirements. c) Eyewash stations shall be located to meet occupational health and safety requirements.
15	Clean scope storage cupboards	Varies, each cupboard not less than	See Table 11.1, Item 8 for common requirements and recommendations for a clean supply room.

(Continued)

Table 9.5 (Concluded)

Item no.	Room names	Net area, m²	Requirements and recommendations
		450 mm wide and 550 mm depth	<p>Mandatory: Clean endoscopes shall be stored in closed, continually ventilated HEPA filtered cabinets, which have been specifically designed for the storage of endoscopes.</p> <p>Advisory Clean endoscope storage should be in a separate supply room in close proximity to the procedure room(s). Storage shall be consistent with the organization's infection prevention and control strategy and guidelines. See Item 1 for further information and requirements regarding scope reprocessing.</p>
16	Sub-sterile supply/case cart holding area	1.2/cart	

9.7 Emergency care

9.7.1 Description and application

9.7.1.1

All HCFs that provide emergency care services shall comply with Clauses 9.1 to 9.3 and 9.7.

9.7.1.2

Emergency care refers to the assessment, treatment, and stabilization of patients who present on an unscheduled basis seek emergency medical assistance and who could have a wide variety of conditions of varying urgency and complexity.

Although the basic nature of the service can be the same, there are different community needs and expectations for remote/rural facilities, major referral HCFs, community HCFs, major trauma centres, and pediatric specialist HCFs. These requirements apply to a traditional emergency department located within a major trauma centre and to standalone urgent care centres (which may be located within commercial/rental properties).

Depending on community needs, the extent and type of emergency health services provided can range from initial trauma assessment and stabilization services to comprehensive emergency health services.

Additional emergency health care provided by some health care facilities can include

- a) provision of critical care transport to emergency health services;
- b) counselling, social work, and/or psychiatric services;
- c) diagnostic imaging, labs, and other diagnostic services;
- d) targeted care for particular populations (e.g., pediatrics; frail elderly; stroke, asthma, or chronic obstructive pulmonary disease [COPD] patients, etc.);
- e) casting clinics;
- f) IV and other scheduled therapies;
- g) provision of isolation rooms or protective environment rooms;
- h) observation or clinical decision units;

- i) trauma centre; and
- j) teaching and research.

9.7.1.3

The Canadian Triage and Acuity Scale (CTAS) for emergency departments is designed to assist urban hospitals in managing their patient wait-times. Rapid triage allows hospitals to identify patients with urgent, life threatening conditions; determine the most appropriate treatment area for patients presenting to the emergency care service; decrease congestion in emergency treatment areas; provide a standard tool for the ongoing assessment of patients; and provide information to patients and families regarding services expected care and waiting times. Smaller hospitals are not always equipped to care for the more acute cases, and these patients would be referred to other centres in the region for urgent care. For example, a patient at CTAS Level III, II, or I who arrives at such a facility would be stabilized and transferred to a neighbouring emergency department that is equipped for such a case.

9.7.2 Functional requirements

Note: Emergency care generally comprises reception, assessment, stabilization, and treatment; however, there are various ways in which these components of the service can be provided for different groups of patients.

9.7.2.1 General

The design of the service shall provide for rapid access between functional areas with a minimum of cross traffic. The design should support an assessment and treatment flow that includes screening, triage, registration, initial assessment, secondary assessment areas, and pharmaceutical dispensing. The design shall include provisions for surge capacity.

Note: The service is a busy area, with a wide variety of activities and people, where time delays can be life threatening.

9.7.2.2 Entrance, reception, and triage

9.7.2.2.1

The entrance, reception, and triage areas should be designed to support a logical flow for patients who present at emergency care.

Note: The security area is critical with regards to security access, parking, general information, and potential screening of all patients. The security area should be located near the triage area or have a clear line of sight to the triage area. The triage area should be the next step for all patients. This allows for the fastest identification of emergent presentations by the medical team, as opposed to registration prior to seeing a triage nurse/health care provider. The last step would be registration.

9.7.2.2.2

The service should be accessible by two distinct entrances: one for ambulance patients (where applicable) and the other for ambulatory patients.

The ambulance entrance and the walk-in entrance shall be visible to triage staff. If the entrances are not in their direct line of sight, there shall be a means to communicate between the entrances and triage.

9.7.2.2.3

Space shall be provided for police and ambulance staff to take notes.

9.7.2.2.4

The walk-in entrance shall be screened for sight and sound from the ambulance entrance.

9.7.2.2.5

Clear and separate traffic flows shall be provided for ambulance traffic and public traffic. These should not interfere with other traffic patterns on the site. The ambulance area should utilize drive-through bays with a one-way flow in order to minimize accidents.

9.7.2.2.6

The registration/triage area shall be located as to have unobstructed visibility of the waiting room, the children's play area (if provided), and the ambulance entrance, and to control access to clinical areas.

9.7.2.2.7

The reception/triage area shall be adjacent to walk-in and ambulance entrances.

Note: As the first point of address for visitors to the service, the reception/triage area is a high risk area for violence.

9.7.2.2.8

The entire triage area shall be designed and ventilated to reduce exposure of staff, patients, and families to airborne infectious diseases (see Clause 7.5). A physical barrier shall be located at the triage desk and any other area where initial screening for infectious diseases will occur. The barrier shall be located between the health care provider and patient with dimensions sufficient to prevent droplet spread and physical contact. The barrier shall be designed to allow for confidential communications between staff and patients using wheelchairs and other mobility devices. A small space between the triage desk and the bottom edge of the barrier may be provided to allow for exchange of documentation.

The material and design should provide visibility and allow communication between health care provider and patient. The material shall meet requirements for materials and finishes and dimensions shall be sufficient to prevent droplet spread from patients in both sitting and standing positions to the health care provider at triage and the area in which infectious disease screening may occur. A mechanism for access to triage once screening has occurred (e.g., a door that is wheelchair accessible) should be incorporated into the design.

Note: Consideration should be given to providing a door or vestibule at the entrance to emergency care at the security area that opens to the ambulance bay. This would allow for personnel to screen patients as they enter the ED and redirect patients through the ambulance bay into a decontamination or isolation area.

9.7.2.2.9

A triage cubicle for taking a patient's history shall be located immediately adjacent and connected to the reception/triage area. Provision shall be made for the segregation of patients presenting with infectious symptoms. See Clause 9.7.3.3.

9.7.2.2.10

A decontamination area shall be provided directly accessible from the ambulance entrance without entering any other part of the unit (see Table 9.6 and Clause 6.1.7.3.11).

9.7.2.2.11

A biohazard containment area shall be provided for infection prevention and control and decontamination activities. This area shall have a graded and levelled anti-slip flooring with a sump to facilitate floor drainage into a separate holding tank for waste water.

9.7.2.2.12

In HCFs that can only accommodate CTAS Level IV and V cases, an area shall be provided for the transfer of emergent patients arriving independently and requiring higher acuity care (e.g., CTAS Level III, II, and I patients that will need to be directed to neighbouring emergency departments). This transfer area shall include provisions to accommodate an ambulance.

9.7.2.3 Public waiting areas**9.7.2.3.1**

Patients waiting for triage shall be in a secure area that is clearly visible from the triage station. This area shall be separate from the post-triage waiting area to limit the spread of contamination and/or contagion.

9.7.2.3.2

The waiting area shall be visible from the triage area and shall be located separate from treatment areas.

9.7.2.3.3

The waiting area should have a washroom. Additional washrooms should be provided depending on anticipated occupancy.

9.7.2.3.4

The waiting area should be adjacent to a vending area and a public telephone. Visitor and patient access to all areas should not traverse clinical areas.

9.7.2.3.5

Public access points to the clinical areas shall be minimal in number and under direct observation by the reception and control or security function.

9.7.2.3.6

A designated area should be available for the segregation of patients suspected to have a communicable disease (e.g., measles, influenza, Norovirus, MERS-Cov).

9.7.2.4 Clinical areas**9.7.2.4.1**

Acute patient treatment spaces shall be situated where they can be observed from the nursing/staff station.

9.7.2.4.2

Patient treatment spaces shall be convenient to the clean and soiled utility rooms, procedure room, medication room, and patient washroom and shower.

9.7.2.4.3

Patients who need to be transferred to other areas of the HCF, such as imaging or inpatient care, should not traverse other clinical areas of the emergency service.

9.7.2.4.4

Non-acute patient treatment spaces shall be in a central location that is visible from the nursing/staff station.

9.7.2.4.5

At least one treatment/examination room should be designated for pelvic examinations.

9.7.2.4.6

The resuscitation/trauma room(s) shall have immediate access from the ambulance entrance with easy access to the nursing/staff station and other parts of the acute treatment beds.

9.7.2.4.7

A bereavement/quiet room shall be provided and accessible from the waiting and resuscitation/trauma room(s).

9.7.2.4.8

At least one airborne infection isolation room shall be provided (with an additional AIR provided based on the ICRA) with easy access to the nursing/station and entry points.

9.7.2.4.9

A safe room shall be provided for patients presenting with psychosis, delirium, suicidal, or aggressive behaviour.

The safe room shall be adjacent to a staff area and able to be accessed without traversing other patient zones.

9.7.2.4.10

There shall be a minimum of one patient toilet room per eight treatment spaces or fraction thereof.

9.7.2.5 Support and staff areas

A staff/nursing station(s) for staff work and charting shall be located where it allows line of sight of all patient and visitor traffic in the emergency service.

A security station should be located with visibility of waiting areas and all entrances.

Storage for general medical/surgical emergency supplies, medications, and equipment such as ventilator, defibrillator, splints, etc. shall be located out of traffic, under staff control, and within easy access of treatment areas.

A staff washroom should be provided.

Note: *Support and staff areas should be accessible to the clinical areas.*

9.7.3 Technical requirements

9.7.3.1 Planning for emergency care/triage area impact

In recognition that in any external catastrophic event impacting the institution, the area most immediately impacted will be the emergency care/triage area. The planning shall include

- a) special attention or HVAC systems so as to allow expedited ability to isolate air handling system in the emergency care if individuals exposed to noxious gases, other forms of contamination, or infectious disease outbreaks are to be admitted in isolation in order to protect the rest of the institution (see CAN/CSA-Z317.2);
- b) planning for use of adjacent ambulance garage/drop-off space for crowd management, decontamination in a chemical/biological/radiation/nuclear/explosion (CBRNE) event, extended triage, etc. Consideration of climate conditions year round (i.e., temperature extremes) should be factored in to designs; and
- c) storage for easy access to CBRNE equipment and supplies.

Pre-planning of temporary facilities should be done to ensure that the HCF can accommodate surge and provide the necessary triage and decontamination.

Note: *Preparations could include, for example,*

- a) *fitting the area with a level surface with adequate drainage to support tents, trailers, or other temporary structures;*
- b) *adding infrastructure to support these types of temporary facilities (e.g., a tie-in box at the front entrance that includes power, hot and cold water, drainage, and communication lines); and*
- c) *sufficient hot and cold water supply for gross decontamination of multiple casualties, with consideration of management of waste water.*

See Clause 6.1.11.

9.7.3.2 Privacy

Patient privacy and confidentiality are important considerations to be addressed.

The HCF should be designed to

- a) ensure confidentiality of patient discussions and records and provide discrete sub-waiting areas for patients wishing or needing to be separated;
- b) keep the reason for attendance confidential (e.g., through use of generic consultation rooms). This is particularly important for services such as mental health, sexual health, drug and alcohol, etc.; and
- c) appropriately locate windows and doors to ensure privacy of patients.

9.7.3.3 Infection prevention and control

In addition to the general list of infection prevention and control requirements, the following shall be made in this service:

- a) partitions or single rooms separating patients from each other;
- b) designated waiting areas for patients and their family members presenting with infectious disease symptoms;
- c) decontamination areas in or directly adjacent to the ambulance garage;
- d) AIRs and protective environment rooms (if provided) located to minimize passing traffic and meeting the HVAC requirements in CAN/CSA-Z317.2; and
- e) the design and layout allowing for the movement of patients to an airborne isolation room within the unit due to suspected or known infectious disease.

9.7.3.4 Materials and finishes

9.7.3.4.1 General

In addition to the general list of materials and finishes requirements, the provisions in Clauses 9.7.3.4.2 to 9.7.3.4.4 shall be made in this service.

9.7.3.4.2 Decor

Decor includes furnishings, style, colour, textures, ambience, perception, and taste. Decor can assist in relaxing patients and preventing an institutional atmosphere. However, cleaning, infection prevention and control, fire safety, patient service, and the patient's perception of a professional environment shall take priority over aesthetics.

9.7.3.4.3 Wall protection

Due to the large number of users and stretcher movements in the emergency care service, particular care shall be taken to provide appropriate wall protection.

The walls shall be resistant to damage by aggressive persons who kick, punch, or throw items against the walls. This shall apply particularly in areas where behaviourally disturbed patients can be managed.

9.7.3.4.4 Flooring

Flooring shall be in accordance with CSA B651 and shall be consistent with infection prevention and control considerations.

9.7.3.5 Occupational health and safety

9.7.3.5.1

Provisions for occupational health and safety shall include the following:

- a) Functional and storage space shall be provided for chemicals used in the unit.
- b) Functional and storage space shall be provided for patient handling devices.
- c) Functional and storage space shall be provided for sharps disposal containers.
- d) Eyewash facilities shall be provided when chemicals are being used.

9.7.3.5.2

Areas should be designed to

- a) facilitate the movement of stretchers in and out;
- b) provide sufficient space for portable equipment at the bedside;
- c) minimize sharp corners; and
- d) minimize the need to lift patients (i.e., through the provision of overhead lifting devices).

9.7.3.6 Furniture, fittings, and equipment

Provision shall be made for examination equipment, such as the following:

- a) exam table with multiple position settings;
- b) exam stretchers; and
- c) exam chair.

9.7.3.7 Technology considerations

Note: As a rapid patient turnover and multidisciplinary work environment, emergency care services are high volume users of a wide range of telecommunications and information technology tools.

Communications functions include both auditory and visual, and include interactions both within and outside the ED. Communications functions relate to both patient care and to services administration.

Communications requirements and the associated technology are rapidly growing and developing. Planning should anticipate new and developing technologies and future functions, and make allowances for growth and development in this area. In particular, the provision of data connection points should be sufficient to allow unimpeded access and to anticipate future needs.

9.7.3.7.1

The following provisions shall be made in this service:

- a) a dedicated direct phone line for referring medical practitioners;
- b) a dedicated cordless phone or phone jack for access to patients' bedsides;
- c) public telephones with acoustic hoods in the waiting area;
- d) a direct line to a taxi company;
- e) systems for physical transfer such as pneumatic tubes or automated trolley systems; and
- f) patient emergency system.

9.7.3.7.2

The technology and communications design should be based on current best practices in health technologies and access to electronic information for care providers.

9.7.3.7.3

To facilitate a less stressful environment, alternatives to paging systems should be used where possible.

9.7.3.7.4

An emergency care service in a large HCF shall have an electronic information system to support clinical management, patient tracking, and services administration. Sufficient terminals for staff should be available to ensure that queuing does not occur, even at peak times. Computers should be available for use at each bedside.

9.7.3.7.5

Workspace design should include sufficient bench-widths or suitable suspension devices for terminals, keyboards, drives, and printers. Additional computer terminals, software and peripheral devices should be installed to enable other services functions. In smaller emergency care services, especially in more remote areas, telemedicine is becoming increasingly common and important for day-to-day operation. Allowance should be made for connection of portable telemedicine equipment in all treatment areas.

9.7.3.8 Safety and security

9.7.3.8.1

Emergency care services shall be designed to provide safety and security for patients, visitors and staff, in order to avoid injuries, psychological trauma, and the damage or loss of property.

Notes:

- 1) *Emergency care receives a large number of patients and their visitors. A number of these individuals can be distressed, intoxicated, or involved in violence.*
- 2) *See Clause 7.7.1 for common requirements for safety and security.*

9.7.3.8.2

The base for security personnel should be positioned either within or immediately adjacent to the emergency care service, with rapid communication links.

9.7.3.8.3

There shall be an emergency call system, with actuators located as follows:

- a) in each examination and treatment area, including toilets and bathrooms;
- b) at triage and reception counters; and
- c) on mobile units for staff who do not work in a fixed location (e.g., clinicians).

Note: Systems with mobile actuators should be able to indicate the location of the unit sending an alarm.

9.7.3.8.4

The emergency call system shall annunciate visibly and audibly to a central module situated adjacent to the staff station, as well as the following areas as applicable to the HCF:

- a) nursing station;
- b) staff room;
- c) tutorial room;
- d) clean workroom;
- e) soiled workroom;
- f) medication area;
- g) charting area;
- h) clean linen storage;
- i) nourishment;
- j) equipment storage; and
- k) other examination/treatment room(s).

9.7.3.8.5

Emergency care services should have a video security system. Ambulance entrances and after-hours patient entrances should have the same level of video security protection as the main entrance.

9.7.3.8.6

Emergency care services should be designed to accommodate the special needs and concerns of pediatric patients. There should be sufficient visitor space in all treatment spaces and facilities for parents, siblings, and caregivers, and pediatric patients should be protected from potentially disturbing sights or sounds from other patients in the service. In addition, the following design features should be considered:

- a) dedicated interview rooms for parents and health care provider for discrete conversations (not including child);
- b) a separate waiting space, protected from the sights and sounds of the general waiting area (but still observable by staff);
- c) a colourful and welcoming physical environment, with appropriate furniture and colour treatments to allow for distraction- and anxiety-reducing space, provide quiet spaces, and appropriate seating for children to sleep;
- d) clustering of waiting room spaces to separate patients by age, for noise control, and to control transmission of infection;
- e) ability to manage repeat complex chronic patients during a visit (pre-screen, or e-chart coordination of personalized medicine);

- f) close access to separate procedure areas for simple procedures which can be upsetting to other children;
- g) transit routes to radiology or inpatient units that do not traverse other clinical areas; and
- h) a separate bathroom, within or adjacent to the pediatric clinical area, with a size-appropriate toilet and bathtub.

9.7.3.8.7

The decision whether to include a secure/observation room for mental health patients shall be made with the following inputs:

- a) the class of HCF;
- b) a community assessment of the patient population; and
- c) the defined role of the HCF in relation to nearby institutions (if present).

Note: *It is recognized that any HCF could encounter a patient with a mental health condition that poses risks for themselves or others. If the regional health services plan includes an expectation that the HCF would house that patient for a significant time, a secure/observation room could be needed. If the HCF's role is only to manage the patient until they can be transported, alternative means of ensuring safety could be used.*

9.7.4 Space details

Table 9.6 presents the requirements for spaces within emergency care.

The number and type of spaces shall be contingent on the type of emergency management/care based on community needs, the availability of other services in the area, and the role delineation of the HCF.

Table 9.6
Key space requirements and recommendations — Emergency care
(See Clauses 9.7.2.2.10 and 9.7.4.)

Item No.	Room names	Net area, m ²	Requirements and recommendations
1	Triage/interview/exam room	N/A	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Storage for PPE shall be provided at the triage workstation. b) Hand hygiene shall be provided by means of a wall-hung sink adjacent to the triage workstation. c) Sharps disposal shall be provided in a safe location and near the point of use. d) Acoustic privacy, both for exchange of information and critical listening during the triage process, shall be provided. e) Storage for clean wheelchairs and stretchers shall be provided adjacent to triage. f) Space for portable oxygen tanks shall be provided near triage, especially for walk-in patients. g) While separate, both the ambulance entry and walk-in entry shall be served by and converge at the same triage workstation. <p>Advisory:</p> <ul style="list-style-type: none"> a) Accessible washrooms (with baby changing facilities and provisions for specimen taking) should be located near triage.

(Continued)

Table 9.6 (Continued)

Item No.	Room names	Net area, m²	Requirements and recommendations
			<p>b) The design should facilitate the transporting of specimens and samples to the lab.</p>
2	Resuscitation/trauma	28.0 per bay, without radiology 35.0 with built-in radiology	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Overhead procedure lights shall be provided. b) Medical gas, medical vacuum, and electrical receptacles shall be provided. <p>Note: <i>These are generally provided through a medical supply unit (e.g., articulating arm, head wall, or pillar).</i></p> <p>Advisory:</p> <ul style="list-style-type: none"> a) Ceiling-mounted radiology equipment may be provided; where provided, the space, service, and control provisions shall be in accordance with the equipment vendor's installation recommendations. b) Provision should be made for telehealth (e.g., through room colour, lighting, acoustics, and the placement of microphones, cameras, and monitors). c) At least one AIR with anteroom should be provided (4.6 m²).
3	All exam/treatment rooms	13.0	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) The door shall be sliding glass with provisions for privacy (curtain). b) Provisions shall be made in the room for common procedure supplies. c) Additional supports (i.e., a warming cabinet, nourishment station, medication cabinet, procedure carts, clinical scale, linen hamper, mobile lights, patient washrooms, clean supply, and soiled utility rooms) shall be convenient to the overall treatment area. <p>Advisory:</p> <ul style="list-style-type: none"> a) Telehealth provisions should be considered, with particular attention paid to room colour, lighting, acoustics, and the placement of microphones, cameras, and monitors. b) Rooms should be laid out in similar configurations. c) Providing a ceiling-mounted or portable patient lift should be considered. d) IV may be mounted on a mobile pole or on a ceiling track.
4	Acute care cubicle critical care room	16.5 for 3-sided access	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory: At least one of the critical care rooms in the emergency care shall be equipped with a ceiling-mounted patient lift track.</p> <p>Advisory:</p>

(Continued)

Table 9.6 (Continued)

Item No.	Room names	Net area, m²	Requirements and recommendations
As noted in Item 3.			
5	Examination cubicles — Large (open with partial walls)	11.0	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory: As noted in Item 3, except a curtain track shall be provided in lieu of a sliding glass door.</p> <p>Advisory: As noted in Item 3.</p>
6	Examination/ treatment cubicle (open)	9.5	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) As noted in Item 3 for all rooms, except a curtain track shall be provided around three sides. b) The staff workstation, hand hygiene sink, and supplies shall be convenient and provided at a ratio in accordance with current infection prevention and control guidelines. c) Additional supports (i.e., a warming cabinet, nourishment station, medication cabinet, procedure carts, clinical scale, linen hamper, mobile lights, patient washrooms, clean supply, and soiled utility rooms) shall be convenient to the overall treatment area. <p>Advisory: As noted in Item 3.</p>
7	Examination/ treatment chair (open)	7.5	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory: Spacing between treatment chairs shall be in accordance with current infection prevention and control guidelines.</p> <p>Advisory: As noted in Item 3.</p>
8	Exam/ treatment eye/ENT	15.5	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory: As noted in Item 3.</p> <p>Advisory:</p> <ul style="list-style-type: none"> a) As noted in Item 3. b) Depending on the HCF's operational model and instrument handling protocols, a utility sink in the work counter may be provided in addition to the hand hygiene sink.
9	Exam/ treatment fracture	16.5	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) As noted in Item 3.

(Continued)

Table 9.6 (Continued)

Item No.	Room names	Net area, m²	Requirements and recommendations
			<p>b) A utility sink with a plaster trap shall be provided in addition to the hand hygiene sink.</p> <p>c) Services for the safe disposal of casting products (fibreglass and plaster) shall be provided.</p> <p>Advisory: As noted in Item 3.</p>
10	Exam/treatment with adjacent washroom Two-piece washroom	13.0 4.6	<p>See Table 11.1, Item 16 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <p>a) As noted in Item 3.</p> <p>b) This room type shall be provided for gynaecological exams and also for patients suspected of having non-airborne infections.</p> <p>c) A clean area for staff to put on PPE before entering the procedure room shall be provided and may be shared by up to four rooms provided the distance to the room is not more than 3.6 m.</p> <p>Advisory:</p> <p>a) As noted in Item 3.</p> <p>b) For gynaecological exams, the layout for this room should have the foot of the patient stretcher oriented away from the door.</p> <p>c) Consideration should be given to accommodating other needs [e.g., two-piece bariatric washroom (5.6 m²)].</p> <p>d) Preparation/supply alcove may be included outside exam rooms.</p> <p>e) Alcoves may be shared (by up to 4 rooms); 1.4 m².</p> <p>f) A three-piece washroom may be planned (in lieu of the two-piece), at the following sizes:</p> <ul style="list-style-type: none"> i) three-piece washroom — traditional (sink, toilet and tub with shower) — 7.0 m²; ii) three-piece washroom with shower stall — 5.6 m²; and iii) three-piece washroom with hand-held wand — 4.6 m².
11	Airborne isolation room	Room area: Ante room: Washroom: 5.6 for three-piece	<p>See Table 11.1, Item 15 for common requirements and recommendations for an airborne isolation room.</p> <p>Mandatory:</p> <p>a) A clean area for staff to put on PPE before entering the procedure room shall be provided.</p> <p>b) A contained soiled area shall be provided outside the procedure room for staff to wash up and remove PPE before entering a public corridor.</p> <p>c) At least one of the AIRs in emergency care shall be equipped with a ceiling-mounted patient lift track.</p> <p>d) Layout and service requirements shall conform to current infection prevention and control guidelines.</p> <p>e) A washroom shall be provided for isolated patients.</p> <p>Advisory:</p> <p>a) As noted in Item 3.</p>

(Continued)

Table 9.6 (Continued)

Item No.	Room names	Net area, m²	Requirements and recommendations
			<ul style="list-style-type: none"> b) An anteroom should be provided outside the treatment room area to improve separation. c) A washroom should be considered for the isolated patient, as follows: <ul style="list-style-type: none"> i) 4.6 m² for a two-piece washroom; and ii) 5.6 m² for a three-piece washroom. d) Consideration should be given to accommodating other needs [e.g., two-piece bariatric washroom (5.6 m²)]. e) A preparation/supply alcove may be included outside airborne isolation rooms (2.0 m²).
12	Exam — Safe room	13.0	<p>See Table 11.1, Item 17 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Mental health safety and risk mitigation guidelines shall be applied, especially <ul style="list-style-type: none"> i) vertical projections and corners that could cause self-harm shall be avoided; ii) all horizontal projections that could allow climbing or cause self-harm shall be avoided; and iii) a flush protective glazing panel shall be provided at the window (if present). b) Direct access from triage shall be provided, with good access for emergency medical staff. c) Adjacency to the emergency entrance shall be avoided. d) Storage shall be provided nearby for restraints (restraint use will depend on HCF policies and patient disorders). e) A patient washroom shall be provided nearby. f) Convenient access to a staff hand hygiene sink shall be provided, as determined by an ICRA. g) An observation window with one-way vision (mirrored) glass of appropriate size, sill height, and location shall be provided to allow standing or sitting observation. The door shall be wide enough to allow entry for a restraint bed (minimum 1100 mm, preferably 1220 mm). h) Multi-point door locking with automatic locking function when closed, shall be provided. i) The stretcher position in the room shall be located to optimize patient privacy. j) Acoustic separation from other emergency areas shall be provided. k) Examination lighting shall be provided, along with general lighting, with level control by staff from outside the room, to provide a quiet mood. l) Temperature control by staff outside the room shall be provided. m) Special finishes shall be provided, as follows: <ul style="list-style-type: none"> i) they shall be easy to maintain and repair without generating toxic fumes, in order to minimize downtime of rooms; and ii) floor and wall finishes shall be washable.

(Continued)

Table 9.6 (Continued)

Item No.	Room names	Net area, m²	Requirements and recommendations
			<ul style="list-style-type: none"> n) A stretcher with restraint capability and locking wheels shall be provided. o) Medical gases shall be provided, if the room is to serve as an exam room, and shall be located within a securable, tamper-resistant cabinet. <p>Advisory:</p> <ul style="list-style-type: none"> a) Providing a second exit door should be considered. b) Finishes should be sound absorptive, tamper-resistant, and cleanable.
13	Exam/treatment Short stay-CDU	9.5 (2-sided access) 13.0 (3-sided access)	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) As noted in Item 3. b) A support area (i.e., chair) for the patient's companion shall be provided. <p>Room lighting control appropriate for longer stays shall be provided.</p> <p>Advisory:</p> <ul style="list-style-type: none"> a) As noted in Item 3. b) The patient may be on a HCF bed or a stretcher.
14	Ambulance garage	According to demand and applicable requirements Minimum 80 Note: Local bylaws can apply.	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Sizes may vary depending on the size of vehicle, number of vehicles, required clearances, and degree of enclosure (canopy or fully enclosed). b) Note: For two vehicle bays, at least 80 m² should be allocated. There shall be easy identification for separating ambulance from walk-in traffic. c) Access directly to the triage area, separate from walk-in, shall be provided. d) An entrance to the decontamination room shall be provided from the ambulance garage. e) Adequate ventilation for vehicle exhaust shall be provided. f) Storage for clean equipment and supplies shall be provided. g) Separate storage for contaminated equipment shall be provided. h) A hose to clean the ambulance(s) shall be provided. i) Flooring should be non-slip, durable, and impervious to oil and grease. <p>Advisory: Use of this space for mass triage and potential decontamination showers should be considered.</p>
15	Ambulance entrance	Vestibule minimum 11.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) An easy, visible connection to triage shall be provided, with bypass to trauma, resuscitation, and acute care. b) An assessment area shall be provided near triage, with easy access for emergency medical staff.

(Continued)

Table 9.6 (Concluded)

Item No.	Room names	Net area, m²	Requirements and recommendations
16	Office — EMS and police	9.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The area shall be located next to the ambulance entrance, separate from triage. b) A hand hygiene sink with paper towel dispenser and waste container. c) Floors shall be non-slip, durable, and impervious to oil and grease. <p>Advisory: Space may be used for EMS supply storage for restocking ambulances. Capacity for storage will influence room size. Note: Room size assumes small reporting workspace for 2–3 individuals (this is a short-term occupancy).</p>
17	Walk-in entrance	Varies	<p>See Table 11.1, Item 37 for common requirements and recommendations for a reception/control area.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Sufficient vestibule size shall be provided to minimize cold air entry to the services. b) Security shall be adjacent to the walk-in entrance. c) The reception/triage area shall be designed to protect against violence. d) The reception/triage area shall be designed to prevent transmission of communicable diseases. <p>Advisory: Sufficient space for screening entrants to the services should be considered.</p>
18	Triage waiting general	Varies; assume 1.5 per seat	<p>See Table 11.1, Item 48 for common requirements and recommendations for a waiting room.</p>
	Wheelchair/scooter/bariatric	3.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The area shall be located to ensure visibility from the triage desk. b) Triage waiting shall be separate from the main waiting area.
	Stretcher	5.0	<p>Advisory:</p> <ul style="list-style-type: none"> a) Acoustic separation for privacy and confidentiality should be considered. b) Provision should be made for other seating needs, depending on catchment community.
19	Medication area	Varies depending on delivery model	<p>Mandatory: The necessary security for narcotics shall be provided.</p>
	Not less than 9.5		<p>Advisory:</p> <ul style="list-style-type: none"> a) Ease of access for staff should be considered. b) Drug dispensing systems should make use of technology (e.g., bar coding) to facilitate safety and security.

(Continued)

Table 9.6 (Continued)

Item No.	Room names	Net area, m²	Requirements and recommendations
20	Staff station	4.6 for each workstation and additional circulation space	<p>See Table 11.1, Item 3 for common requirements and recommendations for a primary communication station.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Central staff areas shall be provided for each area within the services, located to accommodate visibility. b) The station shall be sized to accommodate anticipated staffing arrangements, and the requirements for confidentiality, consulting, and charting. c) The station shall have a radio, telephone, and intercommunication systems. <p>Advisory: Pneumatic tubes should be considered for direct connections to the laboratory and pharmacy.</p>
21	Physician's consult room open/ workstation	4.6	<p>See Table 11.1, Item 12 for common requirements and recommendations for a consultation room.</p> <p>Mandatory: The technology necessary for consultation, dictation, and PACS shall be provided.</p>
	Private office (1 physician)	9.0	<p>Advisory: Provision should be made for telehealth (e.g., through room colour, lighting, acoustics, the selection and placement of furniture, and adequate space for telehealth equipment).</p>
	Shared office (2 physicians — add 4.6 for additional)	12.0	<p>Note: Sizes are based on the assumption that patients are not seen in these rooms.</p>
22	Equipment holding alcove/room	Varies	<p>See Table 11.1, Item 45 for common requirements and recommendations for a storage room.</p> <p>Mandatory: The alcove/room shall be located to minimize travel distance for staff (decentralized for large services).</p> <p>Advisory: All potential equipment storage needs and service requirements should be considered.</p>
23	Staff room		<p>See Table 11.1, Item 44 for common requirements and recommendations for a departmental/staff lounge.</p>
	Minimum (small centre)	10.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The staff room shall be located within the services but away from the main activity and patient areas. b) Kitchenette equipment shall be provided.
	Maximum (larger centre)	Varies	<p>Advisory:</p> <ul style="list-style-type: none"> a) Natural light should be considered.

(Continued)

Table 9.6 (Concluded)

Item No.	Room names	Net area, m²	Requirements and recommendations
			<p>b) Minimum areas should be based on the calculation of 2.5 m² per occupant (including circulation)</p> <p>Note: If a separate lounge area is provided, it should be a minimum of 10.0 m².</p>
24	Change/locker room Purse Half-locker Full height locker	Varies 0.15 0.4 0.7	<p>Mandatory:</p> <p>a) The room shall be located near the staff room for shift changes.</p> <p>b) Change cubicles, shower facilities, and washroom facilities shall be provided.</p> <p>Advisory:</p> <p>a) Security needs should be considered.</p> <p>b) Collocation of lockers and the staff room/lounge should be considered.</p> <p>c) Adding a washroom and shower to change/locker rooms should be considered.</p>
25	Bereavement room	11.0 (minimum)	<p>Mandatory:</p> <p>a) There shall be a quiet room appearance.</p> <p>b) The room shall be located near trauma resuscitation, with discrete access/egress.</p> <p>Advisory:</p> <p>a) The potential for family viewing should be considered.</p> <p>b) The room should be located near a separate/private washroom.</p>
26	Crisis interview room	11.0	<p>Mandatory:</p> <p>a) A safe staff exit path to the door shall be provided by locating the interview table at the back of the room; the staff task chair may be used in an interview position closest to the door.</p> <p>b) A workstation, task chair, three interview chairs, and coffee table (or no table) shall be provided.</p> <p>c) There shall be a quiet room appearance.</p> <p>d) The room shall be located near the exam/treatment safe room.</p> <p>Advisory:</p> <p>A second exit door should be considered.</p>
27	Decontamination room	7.5 clear floor area	<p>Mandatory:</p> <p>a) Direct access from the ambulance entrance or exterior of the building shall be provided.</p> <p>b) Water- and chemical-resistant surfaces and sealed doors shall be provided.</p> <p>c) Showers shall comply with CSA Z317.1.</p> <p>d) Shower drains shall not be connected to the building drainage system.</p> <p>e) Showers shall drain to a designated holding tank suitable for contaminated wastewater. Tank level indication and alarms shall be provided. Provisions shall be made for pumping out and cleaning the tank.</p> <p>Advisory:</p> <p>a) An anteroom accessed from within the services, for staff gowning, should be considered.</p> <p>b) Direct access should be considered for patient transfer from the decontamination room to the airborne isolation room.</p>

9.8 Allied health services

9.8.1 Description

9.8.1.1

Allied health services refers to a range of clinical support services that complement and work in conjunction with clinical care teams contributing to the patient's health and well-being as part of the multi-disciplinary team. Services may be provided in an inpatient setting or as part of a comprehensive ambulatory care centre.

9.8.1.2

Allied health services can include

- a) physiotherapy;
- b) occupational therapy;
- c) social work;
- d) chiropody;
- e) spiritual care;
- f) pain and function; and
- g) respiratory therapy.

9.8.1.3

Services provided by allied health professionals can include

- a) preventative;
- b) assessment/evaluation;
- c) identification/diagnosis;
- d) treatment;
- e) rehabilitation/habilitation;
- f) advocacy;
- g) promotion of health and well-being; and
- h) education and research.

9.8.2 Functional requirements

9.8.2.1 General

9.8.2.1.1

Outpatient allied health services shall provide convenient access for patients from

- a) the patient parking area and entrance;
- b) the drop-off/pick-up area used by private vehicles and public transport; and
- c) spaces or bays used for scheduled ambulance arrivals, for patients from non-acute facilities.

9.8.2.1.2

The spiritual care/multi-faith room shall be easily accessible by inpatients. It shall be located close to the visitor and patient elevators.

9.8.2.1.3

Access to the spiritual care/multi-faith room shall be direct from a main corridor and not through another service. The entrance should be located out of the main flow of traffic in the corridor.

9.8.2.2 Patient management

The chiropody room/suite may be conveniently located within or near the ambulatory clinic (specifically, near the diabetic clinic if the HCF provides this service) and/or the inpatient continuing care unit, depending on the patient base and needs of various programs.

9.8.2.3 Workflow

9.8.2.3.1

There shall be dedicated space on the inpatient unit(s) for allied health staff and students from their related disciplines. This shall include storage as well as workspace, in the form of dedicated office space or via access to hotelling (touch-down) workspaces.

9.8.2.3.2

When services are decentralized, shared meeting, conference, resource and documentation areas shall be centralized on the unit for staff access and to promote interaction between different professions.

9.8.2.3.3

The chiropody assessment rooms should have convenient access to the reception/waiting area, staff workstations, photocopy room.

9.8.2.3.4

The chiropody assessment rooms shall be located close to clean and soiled utility rooms in one of the following departments:

- a) ambulatory care (if a diabetic clinic is part of this area); or
- b) inpatient continuing care.

9.8.2.3.5

Medical devices used in chiropody services should be reprocessed in a centralized MDRD. If this is not possible, in-unit reprocessing facilities shall comply with the requirements of CAN/CSA-Z314.

9.8.3 Technical requirements

9.8.3.1 General

The following special requirements are particular to the allied health service areas and shall be reviewed in the course of design:

- a) Areas used for the reprocessing of any reusable medical devices shall meet the requirements in CAN/CSA-Z314.
- b) Multi-faith room:
 - i) In order to be supportive of all faiths, the multi-faith worship room shall be designated with signage that acknowledges its open, multi-faith nature and reflects the faith needs of the broadest possible constituency. The special needs of different cultural groups and inclusiveness should be considered.
 - ii) The multi-faith worship room shall be free of any sculptures, pictures, furniture, or other objects associated with one particular religion or group.
 - iii) The multi-faith worship room should be oriented facing east. If this is not possible, compass points shall be indicated in the room to orient individuals wishing to pray in that direction.

- iv) According to local needs, an outside multi-faith worship space may be provided as a ritual garden or labyrinth (e.g., for Buddhists, native Canadians, and others whose faith includes deep connections with nature).
- v) Adjacent to the spiritual care/multi-faith worship room, a storage room and a coat/anteroom that provides washing-up facilities shall be provided.
- c) Functional and storage space shall be provided for chemicals used in the unit.
- d) Functional and storage space shall be provided for patient handling devices.
- e) Functional and storage space shall be provided for sharps disposal containers.
- f) Eyewash facilities shall be provided when chemicals are being used.

9.8.3.2 Acoustics

Acoustic treatment is essential to allow for privacy and confidentiality in the counselling, treatment, and assessment areas.

Potential noise from therapy areas should be minimized.

Note: *Speech pathology rooms will have specific acoustic requirements.*

The audiology testing area shall be designed to provide acoustic privacy.

9.8.3.3 Lighting

The following lighting requirements shall apply to allied health services:

- a) Lighting levels shall be provided according to CSA Z317.5.
- b) Natural light should be provided.

Note: *It is especially desirable in high-activity areas such as counselling areas, rehabilitation exercise rooms, therapeutic recreation spaces, and the multi-faith worship room.*

- c) Areas such as multi-faith areas should have softer lighting.

Note: *The use of valences and incandescent sources on dimmers should be considered.*

9.8.3.4 Infection prevention and control

In addition to the general list of infection prevention and control requirements, the following provisions shall be made in this service:

- a) Provision for storing, cleaning, disinfection, and sterilization of reusable medical devices shall be provided in accordance with the functional program (see CAN/CSA Z314).
- b) Where decentralized reprocessing (high-level disinfection and sterilization) is required, the soiled and clean areas shall comply with CAN/CSA-Z314 including adequate separate space for storage of reprocessed items.

9.8.3.5 Furniture, fittings, and equipment

Equipment furniture, fittings, and equipment (FF&E) requirements vary depending on the services provided. However, the dimensions and design characteristics of the selected FF&E should be included in the plans for space allocation, circulation, and infrastructure.

9.8.4 Space details

Table 9.7 presents the standard requirements for key spaces in the allied health service areas. Common areas are detailed in Clause 11.

Table 9.7
Key space requirements and recommendations — Allied health
(See Clause 9.8.4.)

Item no.	Room names	Net area, m ²	Requirements and recommendations
1	Chiropody assessment room	13.0	<p>See Table 11.1, Item 14 for common requirements and recommendations for an examination/procedure/treatment room.</p> <p>Mandatory: Space within the room shall be adequate to permit the treatment chair to be reclined.</p>
2	Reprocessing area		<p>See Table 11.1, Item 40 for common requirements and recommendations for a soiled holding room. See Clause 10.7 for requirements for MDRD.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Separate clean and soiled utility areas shall be provided for support of reprocessing equipment. b) Dedicated cleaning sinks shall be provided close to the area where use of reusable equipment is ongoing. c) Dedicated hand hygiene sinks shall be provided in the soiled reprocessing room. d) Equipment (e.g., a counter top sterilizer unit, instrument cart, and specialty cart) shall be provided if sterilization is not offered by the central reprocessing area. <p>Advisory:</p> <ul style="list-style-type: none"> a) A hand hygiene sink should be provided in the clean room if work and preparation activities are taking place. b) Reprocessing areas may be shared by other programs.
3	Multi-faith worship room	Varies	<p>Mandatory: The room shall be sized according to the programs provided.</p> <p>Advisory:</p> <ul style="list-style-type: none"> a) A storage area for materials and artefacts associated with services delivered should be provided in an adjacent room. b) A quiet room of 12.0 m² may be utilized in lieu of a multi-faith room. c) Large rooms that can accommodate a range of ceremonies may be used in some centres (assume 37.0 m²). d) Flexible design/layout to accommodate a wide variety of ceremonies should be provided. e) Design of the space should assume a minimum of 2.5 m² per person.
4	Activity room	Varies	<p>Mandatory: A storage area for materials associated with programs delivered shall be provided in an adjacent room.</p>

9.9 Electrodiagnostic services

9.9.1 Description and application

9.9.1.1

All HCFs that provide electrodiagnostic services shall comply with Clauses 9.1, 9.3, and 9.9.

9.9.1.2

Electrodiagnostic services encompasses non-invasive cardiology diagnostics and neurology diagnostics both providing testing, patient, and family/caregiver education and consultation services to inpatients and outpatients. These services may be provided in a HCF or within an ambulatory care centre; they may be combined with other diagnostic services or developed as standalone centres. The requirements in Clause 9.9 are intended to apply to all areas where electrodiagnostic services are provided, wherever located in the HCF.

9.9.1.3

Many HCFs provide resting electrocardiography (ECG) services, but depending on local conditions, other cardiac diagnostic services that could be provided include

- a) stress electrocardiography;
- b) continuous outpatient (holter) monitoring/loop recorder;
- c) outpatient blood pressure monitoring;
- d) echocardiography (including stress, pharmacological stress, and transesophageal);
- e) pacemaker implantation;
- f) nuclear cardiology;
- g) arrhythmia devices service;
- h) heart function service; and
- i) cardiac rehabilitation (see also Clause 8.6).

9.9.1.4

Many HCFs provide resting electroencephalography (EEG) services, but depending on local conditions, other neurology diagnostic services that could be provided include

- a) outpatient EEG;
- b) electromyography (EMG) nerve conduction;
- c) evoked potential studies (including auditory, visual, electroretinograms, somatosensory);
- d) electronystagmography (ENG); and
- e) polysomnography.

9.9.2 Functional requirements

9.9.2.1 Patient management

Patient management provisions in electrodiagnostic services shall include the following:

- a) There should be an easily understood path of travel for patients to navigate.
- b) Privacy and confidentiality for patients shall be maintained throughout a patient's visit.
- c) The flow of inpatients and outpatients shall be separated to the highest degree possible.

9.9.2.2 Workflow

Health care practitioners shall be able to monitor testing yet undertake other activities, especially consultations (e.g., in room workstations for reporting).

9.9.2.3 Support service delivery

The design of support services in electrodiagnostic services shall include the following:

- a) The flow of patients shall, as much as possible, be separate from the flow of materials.
- b) The space for receiving and cleaning soiled materials shall be physically separated from the space for storage of clean equipment and supplies.

9.9.3 Technical requirements

9.9.3.1 General

The following provisions shall apply:

- a) EMG and evoked potential procedures shall be located away from electro-magnetic interferences. Electrical power lines serving EMG equipment shall be clearly separated from other electrical lines.
- b) EEG and sleep lab procedure areas should be located peripherally in less active areas and away from interference of other machines and human traffic. A computer link between EEG and the sleep lab shall be provided.
- c) Medical gas connections including oxygen and medical vacuum shall be provided in all patient/testing rooms.
Note: The availability of medical gases allows these rooms to be used in surge situations.
- d) Wireless ECG shall be provided outside the central service.
- e) PACS capabilities shall be provided for all modalities.
- f) Hands-free intercoms or wireless communication devices shall be provided.
- g) Local emergency call function shall be provided to physicians for stress testing.
- h) Treadmills shall have UPS and emergency power.

9.9.3.2 Acoustics

Design provisions for acoustics in electrodiagnostic services shall include the following:

- a) Acoustic privacy shall be provided in interview rooms and consultation areas.
- b) EMG and EEG rooms shall be separated to provide sound isolation between rooms and reduce vibration.

9.9.3.3 Lighting

Lighting design in electrodiagnostic services shall include the following:

- a) Generally, windows are not required for cardiac diagnostic spaces. If windows are unavoidable, window treatments shall avoid direct sunlight and glare.
- b) Echocardiology and trans-oesophageal echocardiogram (TEE) rooms shall be capable of being rendered completely dark (i.e., if windows are included, black-out blinds shall be used).
- c) Emergency lighting shall be located so that they do not affect procedures, but provide safe egress in case of a power failure.
- d) Non-reflecting baffles on fixtures shall be provided.
- e) Ambient light from the door shall not reflect on monitors.
- f) As the reading of PACS images is particularly sensitive to lighting conditions, dimmable indirect fixtures shall be provided wherever PACS images are read.
- g) Dimmable lighting shall be provided for the ultrasound room.
- h) Ceiling-mounted shadowless lighting shall be provided for CT and angiography rooms.
- i) In the diagnostic rooms, the emergency lighting should be switched so that it only comes on under emergency generator use.

Note: See CSA Z32.

- j) Windows shall not be provided in ultrasound, X-ray, fluoroscopy, mammography, and angiography rooms or in radiologists' reading/interpretation areas. If windows are considered, design shall take into account privacy of operations, radiation standards, and ability to read images. Window treatments shall be provided to avoid direct light and glare.
- k) Equipment in-use warning lights shall be provided outside MRI and X-ray rooms to prevent people from inadvertently entering the room.

9.9.3.4 Infection prevention and control

9.9.3.4.1

A hand hygiene sink shall be provided adjacent to the entrance of each procedure room and shall be arranged to minimize incidental splatter on nearby personnel, medical equipment, or supplies.

9.9.3.4.2

Reusable medical devices (e.g., ECG leads, TEE probes) shall be reprocessed in a centralized MDRD or a separate designated space in compliance with CAN/CSA-Z314.

9.9.3.4.3

Where disinfection and sterilization facilities are required, dedicated ventilation, cleaning sinks, and equipment shall be provided.

Clean and soiled areas of disinfection and sterilization shall be physically separated from each other.

9.9.3.4.4

The space for receiving and cleaning soiled materials shall be physically separate from the space for storage of clean equipment and supplies.

Storage space for clean and sterile items shall comply with the storage requirements in CAN/CSA-Z314.

9.9.3.4.5

A restricted-access area outside of the procedure room shall be provided for immediate use sterilization, unless there is direct adjacency or dedicated corridor to the MDRD.

9.9.3.5 Materials and finishes

The selection of materials and finishes in electrodiagnostic services shall be in accordance with the following:

- a) Due to the high volumes of inpatient and outpatient services in the area, wall impact protection in areas of heavy stretcher and equipment traffic shall be provided.
- b) Frame/door protection should be provided in areas exposed to heavy traffic and/or carts.
- c) Only washable acoustic ceiling tiles should be used. Solid, painted wall surfaces should be used, except in public areas. Acoustic ceiling tiles should satisfy any cleanability or infection prevention requirements, depending on where they are deployed.

9.9.3.6 Technology considerations

The following technology considerations should be incorporated into the design of electrodiagnostic services:

- a) Teleconferencing and videoconferencing amenities should be used to either access information or provide information.

- b) A decision whether to include other telehealth technology (such as access to digital radiology or pathology systems) should be made early in the planning process.
- c) Physical transfer systems such as pneumatic tubes and automated trolley systems should be used for HCF-based programs if part of the campus-wide communications system.
- d) Closed-circuit television should be considered where the functional design of the program does not permit staff to oversee all necessary entry and egress points.

9.9.3.7 Technology requirements

The following shall be incorporated into the design of electrodiagnostic services:

- a) Phone, data, etc., shall be compatible with existing or planned overall HCF systems including staff and emergency call systems.
- b) A voice recognition dictation system shall be provided for patient records and clinical studies.
- c) Document scanners shall be provided.
- d) Multi-function scanner/copier/fax machines shall be provided.
- e) All treatment spaces should have access to a computer so staff can access urgent information.
- f) Wireless, handheld, and/or voice-activated devices shall be provided to all staff and physicians.
- g) Personal security systems shall be provided for night staff.

9.9.3.8 Safety and security

9.9.3.8.1

For electrodiagnostic services, Clauses **9.9.3.8.2** to **9.9.3.8.13** shall apply in addition to the requirements in Clause **7.7.1**.

Note: *Diagnostic areas have a high volume of outpatients. Many of the diagnostics require that the patient change into HCF clothes suitable for the diagnostic. This can be particularly difficult for patients who have physical, cognitive, or mobility impairments.*

9.9.3.8.2

There shall be controlled access to the electrodiagnostic service. Entry and exit doors shall be minimized and staff areas shall permit the viewing of entry and exit points.

Note: *This can be facilitated through the clustering of functional spaces or grouping of spaces.*

9.9.3.8.3

Closed-circuit television to monitor external areas should be considered during the detailed design phase of planning.

9.9.3.8.4

Provision shall be made for patient monitoring and security in patient areas.

9.9.3.8.5

Patient change areas shall permit privacy when changing into or out of HCF clothes.

9.9.3.8.6

Patient files shall be kept in a secure environment that prevents access by unauthorized persons.

9.9.3.8.7

There should be a non-removable "Asset Number" on all equipment above a predetermined value.

9.9.3.8.8

Lockers shall be provided for staff personal effects in a secure environment.

9.9.3.8.9

Sufficient space shall be provided to enable the activities in this service to be undertaken in a safe manner.

9.9.3.8.10

The service shall be fully accessible for persons in wheelchairs and for patients being moved on a patient trolley or patient bed.

9.9.3.8.11

The service should be designed to accommodate people with mental, physical, or sensory disabilities.

9.9.3.8.12

Provision shall be made for the safe and unobstructed movement of materials into and out of the service (e.g., palette lifters delivering supplies to the storeroom).

9.9.3.8.13

Space for a resuscitation cart shall be located within units where there is a risk of cardiac arrest during the procedure.

9.9.4 Space details

Table 9.8 presents the standard requirements for key spaces within electrodiagnostic services area. Common areas are detailed in Clause 11.

Table 9.8
Key space requirements and recommendations — Electrodiagnostic services
 (See Clause 9.9.4.)

Item no.	Room names	Net area, m ²	Requirements and recommendations
1	ECG testing room	12.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Stretcher access shall be provided to the room. b) Access shall be provided to the patient's left-hand side. <p>Advisory: The room should be accessible to patients who use a walker or wheelchair.</p>
2	Holter hook-up	10.0	<p>Advisory:</p> <ul style="list-style-type: none"> a) Stretchers or chairs may be used. b) This space may be sized at 12.0 m² (to match other testing room areas — for flexibility).
3	Holter scanning station	4.6	<p>Mandatory: The station shall be in an enclosed area, in a quiet space, but may be combined with other functions.</p> <p>Advisory:</p>

(Continued)

Table 9.8 (Continued)

Item no.	Room names	Net area, m²	Requirements and recommendations
Multiple holter scanning stations may be combined in one room.			
4	Echocardiology testing room	16.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Stretcher access to the room shall be provided. b) The door/width shall permit bed access. <p>Advisory: The room should be accessible to patients who use a walker or wheelchair.</p>
5	TEE testing room	16.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Stretcher access to the room shall be provided. b) The door/width shall permit bed access. <p>Advisory: The room should be accessible to patients who use a walker or wheelchair.</p>
6	TEE equipment cleaning room	Varies — minimum 4.6	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The space shall meet the design and ventilation requirements of CAN/CSA-Z314 and CAN/CSA-Z317.2 for device reprocessing areas. The design of this room shall be developed in conjunction with the MDRD. b) The need for additional safety measures (e.g., a fume hood) shall be determined in consultation with the HCF professionals responsible for occupational health and safety and infection control. c) The room shall be close to the echocardiology room and be accessible via a departmental staff/patient, rather than a public corridor. d) Surfaces shall be highly cleanable. e) Deep sinks with integral stainless steel counters shall be provided. f) A separate hand hygiene sink, in addition to an emergency eyewash station, shall be provided. g) There shall not be any storage of clean supplies in this room. <p>Advisory:</p> <ul style="list-style-type: none"> a) There should be convenient access to the MDRD for transporting of materials that require cleaning/sterilization. b) Cleaning and reprocessing of instruments may be done in the room, consistent with CAN/CSA-Z314, if there are particularly delicate instruments or if there are insufficient numbers of instruments to allow reprocessing in a central location.
7	Stress testing room	20.0, plus physician viewing area of 9.2	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be sized/configured to permit access to both sides of the patient on the treadmill. b) The door/width shall permit stretcher access to the room. See Clause 12.2.3.4. c) There shall be direct visibility into the room from the physician viewing area.

(Continued)

Table 9.8 (Continued)

Item no.	Room names	Net area, m²	Requirements and recommendations
			<p>d) The stress metabolic test system shall be on the patient's left-hand side when on the treadmill.</p> <p>e) If there are multiple rooms, they shall be same-handed.</p> <p>Advisory: Stress testing should be adjacent to the prep room.</p>
8	Stress echo/ metabolic room	24.0, plus physician viewing area of 9.2	<p>Mandatory:</p> <p>a) There shall be access to both sides of the stretcher.</p> <p>b) Stretcher access to the room shall be provided.</p> <p>c) There shall be direct visibility into the room from the physician viewing area.</p> <p>d) The stress metabolic test system shall be on the patient's right-hand side.</p> <p>e) Space shall be provided for an exercise bike, which can be moved out of the way.</p> <p>f) A resuscitation cart shall be located directly adjacent.</p> <p>g) The room shall be able to be completely darkened. Dimmers shall be provided on lights.</p> <p>h) If the room is to be used for nuclear cardiology,</p> <p>i) it shall be adjacent to the nuclear gamma camera room; and</p> <p>ii) the garbage receptacle shall be lead lined.</p> <p>Note: CNSC GD-52 guidelines can apply.</p> <p>Advisory: The room should be adjacent to the prep room.</p>
9	Arrhythmia devices clinic room	17.0	<p>Mandatory:</p> <p>a) Access to both sides of stretcher shall be provided.</p> <p>b) The door width shall permit stretcher access to the room. See Clause 12.2.3.4.</p> <p>c) Space shall be provided for pacemaker programmer cases.</p>
10	EEG testing Room	16.0	<p>Mandatory:</p> <p>a) The door/width shall permit stretcher access to the room. See Clause 12.2.3.4.</p> <p>b) Sufficient space shall be available at the head of the stretcher to facilitate clinician access.</p> <p>Advisory: The room should be accessible to patients who use a walker or wheelchair.</p>
11	EMG/ENG testing room	16.0	<p>Mandatory:</p> <p>a) The room shall be sized/configured to permit access to both sides of the patient stretcher.</p> <p>b) Door/width shall permit stretcher access to the room. See Clause 12.2.3.4.</p> <p>Advisory:</p> <p>a) The room should be planned and configured to allow space for reporting.</p>

(Continued)

Table 9.8 (Concluded)

Item no.	Room names	Net area, m²	Requirements and recommendations
			b) The room should be accessible to patients who use a walker or wheelchair.
12	Evoked potential	16.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) There shall be access to both sides of the stretcher. b) Stretcher access to the room shall be provided. c) There shall be space at the head of the stretcher. d) The room shall be able to be completely darkened. e) Dimmers on lights shall be provided. f) There shall be no windows in these rooms. g) Rooms shall be well isolated for sound and vibration shall be mitigated, as patients are sensitive to sound and vibration. <p>Advisory: The room should be located near the EEG technology/physician review workstation.</p>
13	Preparation room	7.5	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The prep room shall be located near ECG, echo, EEG, EMG, EVP, sleep, and stress rooms. b) There shall be one prep room for every three sleep rooms. <p>Advisory: Locations for leads for all modalities requiring them should be considered.</p>
14	Technologist/physician review/ quality assessment workstation	Varies, 4.6 for each workstation and additional circulation space	<p>Mandatory:</p> <ul style="list-style-type: none"> a) Special care shall be taken for lighting systems. b) Dimming of indirect fixtures shall be provided. c) Black baffles shall be provided on down lights. d) The room light shall match monitor brightness. <p>Advisory: Review workstations may be decentralized to test modality areas, based on volumes and configuration.</p>

9.10 Respiratory services

9.10.1 Description and application

9.10.1.1

Respiratory services provides diagnostic and therapeutic services used in treating cardiorespiratory conditions and illnesses. The type and extent of services provided can vary dependent on the role of the HCF and the location of the service (in-centre or as a standalone ambulatory service in the community).

HCFs providing cardiorespiratory services shall comply with Clauses 9.1 and 9.10. Ambulatory facilities shall also comply with Clause 9.2.

9.10.1.2

Respiratory diagnostic services may include

- a) pulmonary function testing, which can include
 - i) lung function and mechanics testing;
 - ii) methacholine challenge testing;
 - iii) arterial blood gas testing;
 - iv) pre-and post-bronchodilator spirometry;
 - v) 6-min walk test;
 - vi) spacer device and metered dose inhaler (MDI) instruction;
 - vii) capillary puncture for haemoglobin; and
 - viii) pulse oximetry and heart rate testing;
- b) asthma education;
- c) chronic obstructive pulmonary disease (COPD) education;
- d) sleep disordered breathing assessment;
- e) medical pleuroscopy (e.g., chest needling and chest tube insertion);
- f) fluoroscopic intervention;
- g) percutaneous tracheostomy insertions; and
- h) bronchoscopic procedures (see Clause 9.6).

9.10.1.3

Respiratory therapeutic services can include

- a) airway protection and trachea care;
- b) management of ventilation;
- c) response to critical care incidents and cardiac arrests;
- d) arterial blood gas (ABG) analysis;
- e) nebulizer and medical gas therapy (oxygen, heliox, nitric oxide); and
- f) other services as defined in the Canadian Society of Respiratory Therapists *National Competency Framework (Parts 1 and 2)*.

9.10.1.4

Subject to local conditions, additional services can be provided by some respiratory services, including

- a) pulmonary rehabilitation (see also Clause 8.6); and
- b) hyperbaric therapy services.

9.10.2 Functional requirements

9.10.2.1 Patient management

Patient management provisions in respiratory services shall include the following:

- a) if respiratory services such as testing and demonstration for outpatients are part of the program, facilities and equipment shall be provided as necessary for the appropriate function of the service;
- b) there should be an easily understood path of travel;

Note: *Patients could be coming for several tests, and need to be able to find their way between them.*
- c) privacy and confidentiality for patients shall be maintained throughout their visit; and
- d) the flow of inpatients and outpatients shall be separated to the degree possible.

9.10.2.2 Workflow

The following provisions shall apply:

- a) physicians shall be able to monitor testing yet undertake other activities, especially consultations;