

7.8.6.3

In pediatric settings, parents of the children often provide a lot of the care to their children, amenity space should be provided for parents and siblings of children. The following should be considered:

- a) family lounge (which can include a business centre), including a private area for communication or working remotely;
- b) exercise facilities;
- c) playpark (drop-off care for siblings during appointments);
- d) parent overnight;
- e) laundry facility;
- f) family dining and kitchen facility, food preparation and storage area;
- g) reading room (quiet room);
- h) short-term parking and parking concierge;
- i) patient play rooms (for small children); and
- j) general respite areas.

7.8.7 Signage

Signage and wayfinding systems shall be in accordance with the requirements in CSA B651 and CSA Z317.14, and shall comply with applicable requirements.

Note: Provincial/territorial and local regulations can apply.

7.8.8 Accommodation of bariatric persons

7.8.8.1 General

7.8.8.1.1

The HCF shall be designed to accommodate bariatric persons. The HCF's accessibility plans shall comply with CSA B651, and shall also include specific provisions for bariatric access. The bariatric access provisions should be formalized into a plan that addresses the specific needs of patients, family, staff, and the public who will be utilizing the facility, as determined through a systematic analysis and clear understanding of needs and demands of the catchment community.

Notes:

- 1) *The HCF should develop facility specific accessibility plans as part of their planning (see Clause 7.8.1.1). Federal, provincial/territorial, and local laws and regulations can also apply to the development of the bariatric strategy.*
- 2) *The clinical definition of a bariatric patient is "of or relating to persons with a body mass index greater than 30 or a weight above 182 kg" (see Definitions in Clause 3.1). Bariatric individuals range in size and weight and can be 453 kg (1000 lbs.) or more. The HCF should be aware that significant variation can exist in the type, range, and number of bariatric individuals who will use all or specific parts of their facility.*
- 3) *The bariatric requirements for the individual HCF's specific population should be defined in order to accurately determine the level of need with respect to bariatric paths of travel, fixtures (e.g. toilet, sink, grab bars, handrails) and equipment (e.g. scales and assisted lift devices) to accommodate bariatric persons.*
- 4) *The HCF should not assume a universal approach to the provision of bariatric needs in the facility. The purpose-built features that accommodate bariatric patients could be difficult for other populations to use (e.g., the frail elderly in particular might not be able to easily use a bariatric toilets or open wide/heavy doors). The HCF should establish its expected overall needs prior to estimating the demand for bariatric-specific facilities.*

7.8.8.1.2

A bariatric path of travel for the public shall be provided from the building entry(s) to all rooms and spaces used by bariatric patients. Within that path of travel, doors (including elevators) shall have a minimum width of 1220 mm. This width shall be increased as needed if any of the patient stretcher, bed, or equipment widths are greater than 1220 mm.

7.8.8.1.3

A door width of 1220 mm, in addition to a 305 mm side leaf, should be used in bariatric inpatient bedrooms, shower rooms, tub rooms, or similar to allow adequate clearance and maneuverability for staff when transferring bariatric patients in stretchers or beds.

7.8.8.1.4

Swing doors for bariatric patients shall have a clear floor area beside the latch edge that extends the full height of the door of 940 mm on the pull side and 640 mm on the push side. A clear dimension behind or in front of the door of 2440 mm on the pull side and 1725 mm on the push side for inpatient rooms and 1830 mm on the pull side and 1725 mm on the push side for other bariatric doors shall be provided. Sliding doors for bariatric patients shall have a clear floor area beside the latch edge that extends the full height of the door of 600 mm on both sides of the door.

7.8.8.1.5

Lounges and waiting areas shall include furnishings that are designed to accommodate bariatric persons.

7.8.8.1.6

In locations adjacent to bariatric rooms where there could be a need for frequent transfers of bariatric patients, corridors and spaces should allow a minimum clearance of 1800 mm. The use of mechanical patient transfer devices shall be considered.

Notes:

- 1) See CSA Z10535.2 for the design and installation of lifts.
- 2) Bariatric bed, stretcher, and wheelchair sizes vary by manufacturer and weight capacity and should be confirmed with the owner during the planning and design stages of the project.

7.8.8.1.7

The number of treatment spaces, consultation rooms, and inpatient bedrooms for bariatric patients shall be determined based on the functional program and the anticipated proportion of bariatric patients in relation to the total patient population. Inpatient bedrooms for bariatric patients shall meet the requirements of Clause 7.8.8.2 and Table 11.1. For other patient areas (e.g., medical imaging, emergency care), consideration for bariatric patients should follow the same general guidelines as listed for inpatient bedrooms.

Notes:

- 1) For the purposes of this Standard, bariatric individuals are considered to be those within the range of 182 kg to 453 kg. Such persons generally need larger furnishings, larger equipment, and larger physical spaces to manoeuvre. For bariatric patients, additional room is needed for staff (usually two or more) to assist them when providing care.
- 2) Consideration should be given to all areas where a bariatric patient could need to be accommodated, including outpatient clinics, personal services, or emergency care.

7.8.8.2 Patient areas

7.8.8.2.1

Patient areas for bariatric patients shall include the following:

- a) additional floor space and clear areas to accommodate larger furnishings and equipment, and to permit the maneuvering of items into and out of the room;
- b) additional space to allow for care by multiple caregivers when needed; and
- c) provision of areas between obstacles to facilitate righting a person who has fallen.

Note: *The family zone should be sufficiently sized to accept oversized seating and mobility clearances.*

7.8.8.2.2

Furniture and equipment shall be able to accommodate the weight of the bariatric patient. The manufacturer's specifications for space requirements shall be consulted prior to the design and construction of patient areas for bariatric patients.

7.8.8.2.3

Building elements and assemblies such as handrails, grab bars, millwork, and plumbing fixtures shall be able to accommodate the weight of bariatric patients. Lateral loads on building assemblies such as walls, glazed screens, and guardrails should be considered.

Note: *Local and provincial/territorial regulations and bylaws can apply.*

7.8.8.2.4

Inpatient bedrooms for bariatric patients shall be constructed according to the requirements in Table 11.1.

7.9 Catastrophic event management

7.9.1 General

7.9.1.1

A catastrophic event risk assessment shall be conducted prior to finalizing the HCF size and budget, to provide information for space planning and configuration.

7.9.1.2

The catastrophic event risk assessment shall take into account the role of the HCF, the services provided, and the availability of those services at alternate locations. Based on the context in which the HCF serves its catchment community, catastrophic event planning shall include an assessment of the utility needs of the HCF and the contingency plans or backups in the case of temporary or extended periods of loss thereof.

7.9.1.3

The HCF's catastrophic event management plan shall be coordinated with the HCF's accreditation plan (if any).

7.9.1.4

Catastrophic event management protocols shall be developed by staff and the design team to ensure alternate service delivery models for the HCF, including, but not limited to

- a) identification of adjacent soft areas to address the surge capacity issues;
- Note: Soft areas refers to spaces within the building that consist mainly of freestanding and movable furniture that require minimal fixed infrastructure and are easily relocatable.*
- b) development of clinical protocols to free up beds or space necessary to assist in addressing an emergency situation;
 - c) setting up arrangements with other HCFs, emergency medical services, and others for the transfer (in an evacuation) and protocols for the re-direction of ambulances and other incoming patients during an event to ensure existing and new patients are safely treated when the HCF cannot accommodate them; and
 - d) working collaboratively with adjacent health authorities, the respective health ministry, and local emergency management organizations to assist in handling capacity overflow and or the loss of essential services.

7.9.1.5

Soft spaces shall be strategically grouped and placed to accommodate areas with anticipated surge capacities in emergency situations.

7.9.1.6

In developing its catastrophic event management plans, the HCF shall include strategies for the following key components:

- a) surge capacity;
Note: Surge capacity planning should include support services and spaces such as food services and washrooms.
- b) access to additional skilled staff (and their safe passage to the site, if necessary);
- c) communication/command centre;
- d) maintenance of essential systems and services (e.g., through reserve capacities, redundancies, and backups);
- e) emergency care;
- f) emergencies that go on for extended periods;
- g) areas of refuge; and
- h) integration/utilization of mobile medical units, for those jurisdictions operating one.

7.9.1.7

For a HCF that has a disaster management role, catastrophic event management planning shall include provisions for crowd management in the event of a chemical/biological/radiation/nuclear/explosion (CBRNE) event. It shall also include procedures to be followed should it become necessary to provide decontamination services to large numbers of people.

7.9.1.8

Contingency planning for critical infrastructure elements shall be consistent with the expectations of the functionality of the HCF during a catastrophic event. The HCF shall plan to provide alternate means, where deemed necessary by the catastrophic event management plan, for the following:

- a) road access to the community and or facility;
- b) externally supplied power;
- c) natural gas;

- d) fuel for primary systems;
- e) other/emergency fuel sources;
- f) air conditioning and heating systems;
- g) water;
- h) sewage;
- i) communications (both wired and cellular) systems; and
- j) medical gases (either failure of internal systems or interruption in external deliveries).

Note: Planning should include a range of scenarios (e.g., the need for emergency supplies should be provided in the patient unit for short periods of interruption, as well as situations where the HCF would need to be resupplied for extended periods of operation).

7.9.2 Planning process

7.9.2.1

The catastrophic event management planning process for the HCF shall incorporate emergency management and response planning and shall be consistent with the HCF's role that has been coordinated with the facility's accreditation requirements, the local emergency measures organization, and neighbouring HCFs and funding agencies. The HCF's planning requirements shall consider the HCFs and their staffs' roles in sustaining patients in place, evacuating/transferring patients, and in receiving additional patients/evacuees in a variety of exceptional circumstances.

7.9.2.2

Catastrophic event management planning shall address the physical layout/spaces, equipment, and systems in the HCF. Each HCF shall develop an emergency response plan based on an all hazards approach for its particular environment.

Note: See CSA Z1600.

7.9.2.3

The plan shall address the following types of hazard:

- a) natural;
- b) human-induced; and
- c) technological.

7.9.2.4

The HCF shall be planned, designed, and constructed so that it can provide essential services for a defined period of time (i.e., as defined in the functional program) in the event of an emergency or catastrophic event.

Notes:

- 1) *The four pillars of an effective catastrophic event management plan include planning, prevention/mitigation, response, and recovery (both within and beyond the institution):*
 - a) *Planning encompasses decisions that can be made in the planning phase of capital development and/or redevelopment to support disaster management within the HCF and the facility's response to situations beyond its walls.*
 - b) *Prevention/mitigation includes measures to support infection prevention and control, fire safety, building codes, etc., with emphasis on internal prevention/mitigation strategies.*
 - c) *Response refers to the institution's actions to address an internal or external emergency. This Standard does not address the operational aspects of response; however, the capital planning process provides the HCF with the opportunity to include features that will enhance its response to a disaster.*

- d) Recovery encompasses the activities that will support the organization's return to pre-emergency conditions. It is also an opportunity to consider changes to the plant based on lessons learned in the response phase to enhance prevention/mitigation and/or response activities in the future.
- 2) When possible, system and infrastructure redundancy should be considered in respect of effective business continuity management practices. See Clauses 7.9.1.8 and 7.9.6.2.

7.9.2.5

The HCF catastrophic event management process shall include purpose-built emergency response features consistent with the expected role and functional level of the HCF in an emergency, i.e., systems and areas designed to support emergency response and with no other specific purpose intended. The HCF shall identify selected functions, features, services, and/or areas within the institution that have been purpose-built for emergency response.

7.9.2.6

All capital development and/or redevelopment should seek out opportunities to provide purpose-built emergency response features for use in urgent or emergency situations where the organization is impacted directly or indirectly.

7.9.2.7

The HCF shall be designed to facilitate prompt horizontal or vertical evacuation of all or part of the patient population, e.g., through fire zones, by elevators, stair locations for patient handling, etc. Strategies for managing evacuated patients and staff and the activity associated with their transfer to ambulances, buses, or other temporary shelters shall be considered as part of the evacuation plan.

Note: When planning a HCF, site area designated for the purposes of managing evacuated patients and staff can significantly facilitate efforts at time of evacuation.

7.9.3 Duration of catastrophic events

In locations where there is potential for flooding, heavy snowfalls, ice storms, forest fires, hurricanes, tornadoes, earthquakes, or other regional disasters, the HCF design shall include provisions to protect the life safety of the HCF occupants, and the continuation of services following such a disaster.

Catastrophic event management plans shall address at least the following:

- a) a disaster that takes place elsewhere and the additional patients arriving at the HCF exceed its normal capacity; or
- b) a disaster that takes place within or near the HCF and patients need to be transferred to other HCFs.

7.9.4 Command centre

7.9.4.1

A command centre location shall be determined during the design. The command centre should be in close proximity to an eating area and a kitchen/kitchenette.

Note: This allows the HCF to quickly react to emergency situations and create a command centre for crisis management for situations that could last for relatively long periods.

7.9.4.2

The HCF shall have a command centre for catastrophic event management situations. The command centre shall function as the primary zone from which the administration will manage the disaster, make decisions, communicate with authorities, and broadcast updates to patients, staff, families, and the

broader community. The HCF should designate another area that can be used as an alternate command centre if the primary command centre cannot be used.

7.9.4.3

The area selected for the command centre should include permanent features that have been incorporated into the space. The command centre shall be designed to function during situations that could last for extended periods.

Note: *This allows the HCF to quickly react to emergency situations and activate the designated command centre for crisis management, rather than be transported to the centre in the initial stages of the crisis.*

7.9.4.4

The designated command centre may either be planned as a single use/purpose-built space, incorporated into another staff work area (e.g., security area, switchboard, etc.), or in a designated space normally used for other purposes (i.e., that can be quickly converted).

The space shall include

- a) suitable space for emergency management activities and to allow press briefings, staff meetings, and other meetings;
- b) electrical receptacles connected to both the normal and essential electrical system;
- c) adequate communications ports;
- d) direct telephone lines bypassing the main HCF switchboard for use in internal and external emergencies or when the HCF telephone system is out of service; and
- e) resources necessary to sustain an extended occupancy of the area by a large team (e.g., washroom, an eating area, and a kitchen/kitchenette).

Note: *For a HCF that will play a central role in emergency or disaster response, incorporation of an emergency operations centre should be considered. Such a centre would have adequate space, communication and technology infrastructure, videoconferencing capabilities, a radio system base station, and supportive features needed to operate 24/7 (i.e., washrooms/showers, food and nutrition, break-out rooms, sleep room, etc.).*

7.9.4.5

The HCF shall develop procedures to ensure the patients, staff, families, and the broader community have accurate, up-to-date information throughout the operational timeframe.

Note: *In any emergency, and in particular in a catastrophic event, communication within and outside the HCF is of paramount importance.*

7.9.5 Areas of refuge

The HCF emergency plan shall provide for areas of refuge to support evacuation strategies for vulnerable populations (e.g., patients in the midst of receiving long duration treatment such as chemotherapy, blood transfusions or dialysis, patients rendered incapable of self-preservation as a result of their medical condition or treatment such as those in the operating room, ICU, or patients with dementia or acquired brain injury). Particular attention shall be paid to means of evacuation of infants in an emergency when there is limited time.

Note: *Areas of refuge provide fire/smoke separation from the surrounding rooms, and can shelter occupants until the decision is made to evacuate.*

7.9.6 Operational continuance timeframe

7.9.6.1

The HCF master plan shall specify the minimum timeframe for continued operation for each component during a catastrophic event, including the supplies and services that will need to be maintained during that period. The following minimums shall apply:

- a) HCF Class A-1: 72 h (see CSA Z32);
- b) HCF Class A-2: plan to operate for 72 h;
- c) HCF Class B: plan to operate for 72 h if patients are continuously housed (i.e., 24 h/day); and
Note: If patients are not continuously housed, then operations should continue for as long as necessary to allow for the orderly winding down of services.
- d) HCF Classes C-1 and C-2: plan to operate as long as necessary to allow for the orderly winding down of services.

7.9.6.2

Catastrophic event management planning for a Class A or B HCF shall include provisions to ensure an uninterrupted supply of the materials and services necessary to sustain the operations for a period of 72 h. These include but are not limited to

- a) food;
- b) medications;
- c) specialized supports for clinical and diagnostic services;
- d) staff, general and specialized; and
- e) PPE.

7.9.6.3

Storage space for supplies identified in Clause 7.9.6.2 shall be included in the HCF design.

Note: Such storage space may be used to store supplies for the response to catastrophic events.

7.9.7 Redundancy

7.9.7.1

The HCF shall have duplicate or back-up systems and supplies to provide the essential services listed in Clause 7.9.1.5 in the event of failure of the primary systems.

Notes:

- 1) Refer to CAN/CSA-Z317.2 for requirements related to HVAC systems.
- 2) Reserve capacity for oxygen supplies may be provided by means of storage tanks, cylinders, or oxygen concentrators. See CSA Z7396.1.

7.9.7.2

Additional equipment and beds should be available within component storage areas or centrally in the HCF to help mitigate disasters.

7.9.8 Surge capacity

7.9.8.1

The catastrophic event management plan shall include provisions for surge capacity, i.e., management of situations where there is a significant increase in the number of patients due to a disaster or other cause.

7.9.8.2

The design for surge capacity shall be consistent with the HCF's catastrophic events risk assessment.

7.9.8.3

In preparation for the emergence of highly infectious patients, hospitals should have the capacity to handle a surge of several times the normal emergency care capacity for such patients.

Note: *The number of patients to be accommodated should be determined through a risk analysis exercise and specified in the catastrophic event management documents.*

This preparation should include the provision of adjacent space for triage and management of infectious patients. Utility upgrades for these areas (oxygen, water, electrical) should be considered.

Notes:

- 1) *HCF plans for surge capacity involve a wide range of activities and arrangements, including a review of bed capacity, triage, assessment facilities, staff, supplies (including PPE), and medication. Many of these are outside the scope of this Standard. The intent of this Standard is to ensure that the HCF has the necessary physical spaces, systems, and reserve supplies to allow it to operate as specified in its emergency plan.*
- 2) *There are several strategies available to the HCF when planning for surge capacity, including the following:*
 - a) *purpose-built emergency response features;*
 - b) *conversion of spaces intended for other uses to clinical space in an emergency (e.g., an enclosed/heated ambulance drop-off that can be converted to a mass casualty treatment area);*
 - c) *contiguous space; and*
 - d) *partnerships with local transit, EMS, and others for the supply of vehicles or other temporary enclosures that will temporarily accommodate patients on the site.*
- 3) *When included as a part of a larger HCF, the ambulatory care area has a number of attributes that make it potentially very useful in a disaster situation, which include the following:*
 - a) *access to the area is usually available from ground floor level;*
 - b) *it is often located close to the main entrance or has its own separate entrance;*
 - c) *it is often in close proximity to key clinical support services such as medical imaging, etc.; and*
 - d) *it is often close or adjacent to the emergency care.*

These issues should be considered in the planning of this service, including its proximity to other services.

7.9.8.4

The following activities regarding surge capacity should be incorporated into any capital development/redevelopment plan:

- a) development of a surge capacity plan prior to finalizing capital development or redevelopment plans;
- b) identification of public spaces or service spaces within the institution that can be part of the surge capacity plan;
- c) consideration of additional features that would be needed in non-clinical spaces to facilitate their use as surge capacity, including
 - i) access to additional electrical receptacles;
 - ii) access to medical gases (e.g., by means of tanks or additional terminal units); and
 - iii) installation of ceiling tracks;
- d) consideration of the need for storage of supplies and equipment that will allow the quick and easy conversion of public and other space to provide surge capacity. Storage features should include
 - i) proximity to point-of-use;
 - ii) ease of access; and
 - iii) portability.

7.9.8.5

The HCF shall plan for control points, screening areas, and other measures necessary when areas are converted for surge capacity or re-purposed.

Note: *During a catastrophic event, building access controls might need to be modified (patients and staff may be controlled leaving or entering the site).*

7.9.8.6

Planning for surge capacity shall include contingency plans when access to ventilator-assisted beds is overwhelmed in a disaster. All areas within the institution that have ventilator-assisted capacity as part of their normal operations shall be identified and should be upgraded to permit extended operation. Areas identified for surge capacity should be able to provide augmented services for a continued period of time.

Note: *Some areas could be designed for patient support for limited periods, e.g., a post-anaesthetic recovery room, and will need additional features to allow extended use.*

7.9.8.7

When planning for surge capacity, consideration should be given to spaces contiguous to areas that could be overwhelmed in an emergency. Such spaces, if designed for easy conversion in an emergency, can help to minimize disruption of the rest of the facility.

7.9.8.8

Additional equipment and beds should be available within service storage areas or centrally in the HCF consistent with the surge plan.

Note: *Access to the necessary equipment and beds can help to manage additional activities associated with disasters.*

7.9.9 Emergency care

7.9.9.1

Where emergency care is provided, the catastrophic event management plan shall focus on strategies that can be incorporated in the design of the area for emergency care (emergency department). Emergency care shall have sufficient space, flexibility, and storage capacity to accommodate the large workloads, critically ill and/or infectious patients, relatives, friends, and HCF staff involved in managing a disaster situation. The flexibility to expand into adjoining areas, such as outpatient clinics or the main entry, should be considered.

Note: *The emergency care service is typically the "front line" of the HCF in the case of a disaster.*

7.9.9.2

The design of the emergency care HVAC system should allow the isolation of regions so that air containing potentially dangerous chemical or biological agents can be contained within an area.

7.9.9.3

Emergency care areas shall be designed with relative pressurization as specified in CAN/CSA-Z317.2. Adjacent surge areas should have provision for depressurization to help control aerosolized infectious particles with 100% exhaust capability.

In cases where 100% exhaust cannot be achieved, the recirculated air shall be HEPA filtered.

7.9.9.4

When patient care areas are to be utilized in the HCF to house a surge of infectious patients, the route to the patient care unit should minimize the potential for cross-contamination. Air-handling systems should be designed to provide required pressure differentials. Written protocols shall be developed to ensure proper performance of the means to accomplish the intended goals.

Note: Existing smoke control areas could be utilized to meet the ventilation requirements. Air handling systems with 100% outdoor air capability can facilitate conversion.

7.9.9.5

If outdoor spaces will be used, consideration of temperature extremes in Canada should be factored into these plans.

7.9.9.6

Storage shall be provided for CBRNE equipment and supplies, such that it can be easily accessed by emergency personnel, is close to the point of use or deployment, and is also secure from unauthorized access. Site planning shall also consider the space necessary to accommodate the CBRNE equipment in the appropriate location to function with the internal flow.

7.9.9.7

The emergency care area plan shall also accommodate storage areas for supplies and equipment so that they are easily accessible. Storage areas shall contain sufficient supplies to fully equip the disaster team for either on-site or off-site function. Storage areas shall include separate areas for pandemic and epidemic supplies.

7.10 Flexibility and adaptability

7.10.1

Each HCF service shall be planned, designed, and constructed to allow for future modification. Plans should consider what could be reasonably expected in terms of

- a) changes in service delivery;
- b) adaptation of existing services or spaces to other uses;
- c) expansion; or
- d) contraction.

Strategies shall be developed to accommodate these needs to the extent possible without compromising current effectiveness.

7.10.2

The HCF should be designed with the following measures to provide for future changes in use; the long-term plan for the HCF should also be consulted in making decisions on these items:

- a) evaluating structural grid spacing and floor-to-floor heights to ensure they will be able to accommodate changes over the life of the building;
- b) locating key areas adjacent to another soft exterior wall area;
- c) providing soft space, within and adjacent to the services, to facilitate expansion;
- d) using flexible systems furniture, cabinets, counters, and workstations rather than fixed millwork;
- e) considering the number and location of data ports that would be needed in different room configurations;

Note: Wireless connections may be considered as an alternative to additional data ports.

- f) providing medical gas connections, oxygen, and medical vacuum in all patient/testing rooms;
- g) roughing in medical gas piping, electrical, plumbing, and other services during new construction for areas where future expansion might need these services;
- h) defining routes for utility services that would be needed to serve future additions or major renovations;
- i) building in allowances in the sizing of equipment and distribution systems (ducts, etc.) for each service to accommodate the potential need for increased capacity to serve newly constructed or renovated areas;
- j) designing work areas and zones with similar layouts, configurations, furniture, equipment, casework, and services to allow for maximum flexibility now and in the future;
- k) organizing treatment areas into pods or zones that can be modified to meet future needs;
- l) avoiding the use of fixed workstations and designing service utilities to be adaptable to different room configurations;
- m) grouping vertical services together and locating adjacent structural elements to allow reconfiguration of the space with minimal disruption;
Note: Additional sleeves at each column for future services should be considered.
- n) constructing new areas in accordance with standards for full-service or acute care areas, especially in spaces that are adjacent to clinical areas; and
- o) considering the potential need for access by construction equipment in a functioning facility.
Note: See CAN/CSA-Z317.13.

7.10.3

The HCF design shall provide for optimal use and sharing of equipment. The use of space should be carefully managed and the design shall ensure that there are opportunities to adapt and expand the facility as more services are located and added to the HCF.

7.10.4

Exam/treatment/consulting rooms should have similar layouts, configurations, and services to allow for maximum flexibility and future flexibility in changing use.

7.10.5

Procedure rooms, prep/recovery spaces, and other repeated functions should have similar layouts, configurations, and services to allow for a maximum number of procedure types and flexibility in future use.

7.10.6

Soft spaces shall be strategically grouped and placed to accommodate

- a) areas with anticipated surge capacities; and
- b) areas with projected internal planning reconfiguration that could be required within 5 to 10 years of opening day.

7.11 Logistics

7.11.1

The planning and design process shall include an evaluation of the logistics needs of the HCF, and plans for how materials in the HCF will be received, stored, moved, and disposed of. This planning shall take into account the needs of the HCF's environmental services, nutrition, materials management, and

medical device reprocessing functions. It shall also consider how logistics systems will affect elevator capacity and utilization.

7.11.2

Consideration should be given to the planned use of automated technologies for logistics, materials management, and other HCF support functions in overall HCF design.

Note: *Design considerations should include*

- a) *effect of automated technology (e.g., automated guided vehicles) on overall layout, size, and use of space;*
- b) *planning of space outside elevator core;*
- c) *parking spaces for automated equipment; and*
- d) *effect on general circulation to minimize interference/interaction between humans and vehicles.*

8 Inpatient and related services

Notes:

- 1) *The requirements in Clause 8 are intended to encompass the total needs of medical/surgical, complex care and long-term care patients/residents and their families, including the physical, educational, and psychosocial requirements, irrespective of the care setting.*
- 2) *This Clause addresses services that are either exclusively or primarily provided on an inpatient basis and those services for complex and continuing care residents. For some services, such as mental health and addictions, the continuum of care is provided by both inpatient and outpatient facilities. Clause 8.4 addresses both types of HCF.*
- 3) *Consistent with patient safety and the OASIS principles, the HCF should consider how planning and purchasing decisions made in the design of these services will affect the operating budget of the facility.*

8.1 Medical/surgical inpatient

8.1.1 General

8.1.1.1

Medical/surgical inpatient units typically address the needs of a range of medicine and surgery subspecialties (e.g., dermatology, gastroenterology, internal medicine, nephrology, ophthalmology, general surgery, and plastic surgery).

Medical/surgical services for inpatients can include

- a) examination;
- b) assessment and diagnosis;
- c) treatment/procedures;
- d) health education and discharge planning;
- e) isolation and protective environment rooms;
- f) palliative care;
- g) step-up care (i.e., care for patients who do not require the level of technology or care provided in a critical care unit but still require a greater level of care than in medical/surgical units);
- h) interdisciplinary care;
- i) step-down/high-dependency care; and
- j) bedside physiological monitoring and telemetry.

8.1.1.2

Medical/surgical inpatient units for the care of patients admitted to the HCF for general diagnosis, observation, or treatment shall be designed and constructed in accordance with Clause 8.1.

Note: See Clauses 8.2 to 8.8 for specialized medical/surgical inpatient units for the following programs:

- a) critical care (see Clause 8.2);
- b) maternal and newborn (see Clause 8.3);
- c) mental health and addictions services (see Clause 8.4);
- d) pediatric and adolescent (see Clause 8.5);
- e) rehabilitation care (see Clause 8.6);
- f) burn unit (see Clause 8.7);
- g) inpatient continuing care (see Clause 8.8);
- h) complex care (see Clause 8.8); and
- i) long-term care (see Clause 8.9).

8.1.2 Functional requirements

8.1.2.1

Inpatient bedrooms shall be designed to provide a comfortable, healing environment, consistent with the OASIS principles:

- a) operational efficiency;
- b) accessibility;
- c) safety and security;
- d) infection prevention and control;
- e) sustainability; and
- f) privacy.

Note: See Clause 4.1.

8.1.2.2

Supplies for use in inpatient bedrooms shall be conveniently located and secure against theft or tampering.

8.1.2.3

Family support and participation shall be recognized as an integral component of care and be accommodated in the environment.

8.1.2.4

Each inpatient bedroom shall have natural light. Windows shall be positioned so that the patient has a view to the exterior when lying in the bed.

Note: Windows that have high sills or are located in alcoves can obstruct the patient's view.

8.1.2.5

Patients should have control of personal lighting wherever practical.

8.1.2.6

Dedicated workspace should be provided within the inpatient unit for support service staff, such as clinical pharmacists and therapists.

8.1.2.7

Charting alcoves should be provided at convenient locations near inpatient bedrooms.

8.1.2.8

Alcoves for patient observation, if included in the functional program, should be located on the corridor side of, and between two, inpatient bedrooms.

8.1.3 Technical requirements

8.1.3.1

The internal zones of staff/support, patients, and visitors should be designed to have the following key relationships:

- a) The primary staff work zone (e.g., a nursing station) should be close to the entry for control of individuals coming into the unit.
- b) The patient care areas should be co-located with the staff work area (nursing station) while recognizing that satellite staff work areas will be necessary to ensure that staff have workspaces at each patient location.
- c) AIR(s), when present, should be located close to the patient entry and away from the main corridor and other patient cubicles to limit the travel distance into the main unit by immunosuppressed/infectious patients.
- d) The visitor entry should be adjacent to the visitor waiting area, but external to the patient care zone.
- e) The medication dispensing area or room shall be easily accessible from the patient care areas.

8.1.3.2

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

8.1.3.3

The design of the inpatient bedroom should organize the room into three separate functional zones: patient, family, and staff, and should try to minimize overlap and conflict between the activities in each zone.

Note: See Clause 11.

8.1.4 Space details

Table 8.1 presents the standard requirements for key spaces in the inpatient bedroom areas. Common areas are detailed in Clause 11.

Table 8.1
Key space requirements and recommendations — Inpatient bedrooms
(See Clause 8.1.4.)

Item no.	Room or area	Net area, m ²	Requirements and recommendations
1	Reception/ control desk	4.6 per workstation and additional circulation space	<p>See Table 11.1, Item 37 for common requirements and recommendations for a reception/control area.</p> <p>Mandatory: The reception desk shall be located at the entry to the unit so that staff can control access and provide information to visitors and staff. The space shall include a workstation.</p> <p>Note: <i>This function may be accommodated as an independent kiosk or as part of a nursing station.</i></p> <p>Advisory: Depending upon the physical layout of the unit, second entry should be considered for the movement of supplies and waste, and for the transfer of patients (i.e., new admission, to/from procedures and tests) away from general visitors.</p>
2	Staff work area	Varies, 4.6 for each workstation and additional circulation space	<p>See Table 11.1, Item 3 for common requirements and recommendations for a primary staff station.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Workspace for nursing, allied health professionals, clinicians, and clerical staff shall be provided in correlation with the activity of the unit. b) Secure drug storage shall be provided if separate medication/pharmacy areas are not part of selected care model. <p>Advisory:</p> <ul style="list-style-type: none"> a) An area should be provided close to the staff work area that has electrical receptacles to store and charge small electrical equipment (i.e., portable monitors). b) There should be a cleanable display board (e.g., tack or magnetic white board) for display of patient-received cards and photos. c) There should be a cleanable magnetic white board for the staff to diagram and communicate information to the patient, staff, and visitors (e.g., introduction to care providers for the shift and medical information relating to the specific patient). d) A TV and multi-media player (wall or ceiling mounted) should be provided.
3	Inpatient bedroom		See Table 11.1, Item 24 for common requirements and recommendations for an inpatient bedroom.
	Bed area	15.0	See Table 11.1, Item 25 for requirements and recommendations for patient washrooms.
	Washroom	5.6	See Clause 7.6.6.2 for requirements for patient lifts.
	Vestibule	5.0	See Clause 7.5.11 and Table 11.1, Item 19 for requirements relating to hand hygiene sinks.

(Continued)

Table 8.1 (Continued)

Item no.	Room or area	Net area, m²	Requirements and recommendations
	Family zone	Included in bed area	
	Staff zone	Included in bed area	
	Supply alcove	1.4	
	Two-bed room (if allowed as per Clause 7.5.2.2)		
	Bed area	26.0	
	Washroom	5.6	
	Vestibule	7.0	
	Family zone	Included in bed area	
	Staff zone	Included in bed area	
	Supply alcove	1.4	
4	Staff workstation	Varies	Advisory A staff workstation might be needed, for example, in an inpatient bedroom that is used for patients transitioning from critical care (and therefore requiring more constant observation and monitoring). This may be accomplished in an inpatient bedroom with temporary enhancements such as a charting station, monitors, etc. The workstation may be portable or wall-mounted.
5	Tub room		See Table 11.1 for requirements and recommendations.
6	Stretcher shower room		
7	Circulation		
8	Team station		
9	Outdoor space		
10	Storage		
11	Clean supply		
12	Soiled utility/ storage		
13	Medication		
14	Patient bed room suite, AIR isolation		Mandatory: a) All elements listed in Item No. 3 shall be provided. b) Clearances around and between beds shall be in accordance with Table 7.1.

(Continued)

Table 8.1 (Concluded)

Item no.	Room or area	Net area, m²	Requirements and recommendations
Bed area	25.0		Advisory: a) A three-piece washroom may be planned (in lieu of the two-piece). Three-piece washroom with shower stall — 5.6 m ² . b) At least one room should be sized to accommodate a bariatric patient.
Anteroom	7.5		
Supply alcove	1.0		
Washroom (Three piece)	7.5 (5.6 if shower stall is supplied instead of bath)		See Table 11.1, Item 26.
Family zone	included in bed area		
Staff zone	included in bed area		

8.2 Critical care

8.2.1 Description

8.2.1.1

Critical care services can include medical and surgical intensive care and cardiac care for adults, children, and infants. These services provide care to patients who have a life-threatening disease or injury. Care for critically ill patients involves specialized multi-disciplinary staff (i.e., physicians, nurses, pharmacists, respiratory therapists), advanced therapies (e.g., mechanical ventilation, heart perfusion, kidney dialysis), and specialized drugs.

8.2.1.2

Patient services provided on critical care units can include, but are not limited to,

- a) assessment and diagnosis;
- b) interdisciplinary care;
- c) examination;
- d) treatment/procedures;
- e) isolation and protective environment rooms;
- f) education and research; and
- g) discharge planning.

8.2.1.3

In addition to basic medical and surgical care services, critical care units can accommodate sub-specialty care, for example

- a) coronary, including use of telemetry and physiological monitoring;
- b) trauma;
- c) neurology/neurosurgery;
- d) infectious diseases;
- e) burn care;

- f) post-anaesthesia — high dependency care (i.e., transplant);
- g) continuous renal replacement therapy (CRRT);
- h) dialysis (haemodialysis or peritoneal dialysis);
- i) extended ventilatory care; and
- j) neonatal/pediatric care.

8.2.1.4

In addition to dedicated critical care services, a HCF could have a need for transitional services to accommodate patients who are moving from the more acute services provided in critical care to those of a typical inpatient unit. Designated rooms may be provided and equipped to facilitate the stepping down process without creating risk to patients. By ensuring these step-down facilities are adequately equipped, HCFs can reduce the demands on the critical care services.

Step-down units can provide certain types of sub-specialty care, for example

- a) coronary, including use of telemetry;
- b) trauma;
- c) neurology/neurosurgery;
- d) infectious diseases;
- e) post-anaesthesia — high dependency care;
- f) dialysis (haemodialysis or peritoneal dialysis); and
- g) extended ventilatory care.

Step-down facilities may be co-located with the critical care unit, created as a standalone unit or developed as a specialized zone within the inpatient unit.

Note: Facilities designed to assist in the transition from critical care can be referred to by one of several names, including step-down/up unit, progressive care unit, intermediate care unit, high-dependency unit, or close observation unit.

8.2.2 Functional requirements

8.2.2.1

Critical care units shall include sufficient space and facilities to permit additional family support for patients. The design should provide for additional space around the bed to allow for the storage of special equipment. Equipment not being used should not be stored around the patient's bedside, but be stored out of the way of direct patient care.

8.2.2.2

All units shall be designed to provide direct, one-to-one observation from staff workstation to patient room or provide direct observation from an adjacent location. Step-down facilities may be planned to increase observation as needed through the use of portable staff work areas.

8.2.2.3

The design of the physical environment in a critical care unit shall address both the physical and psycho-social requirements of patients and their families.

Note: An integrated approach is needed due to the complexity of care in a critical care service.

8.2.2.4

There shall be a conference room/teaching room for multi-disciplinary staff education.

Additional space for research or teaching shall be provided if this is a component of the functional program.

Note: A mock-up ICU set-up should be considered for research or teaching.

8.2.2.5

Each critical care patient room shall have natural light. Windows shall allow for an exterior view while the patient is lying in bed.

Note: The day/night light natural cycle is an important indicator for patients in an area with 24 h constant activity.

8.2.2.6

There shall be a staff respite space, staff team room space, and staff facilities. Space shall be provided for staff paperwork, such as charting. Office space for the intensivist shall be provided.

8.2.2.7

The security provisions shall be designed so that the public does not have free access into the unit, but that families are accommodated (within reason) and made to feel welcomed.

8.2.2.8

There shall be a family lounge. Consideration should be given to furnishings that allow an adult to lay down.

8.2.2.9

There shall be private room(s) for discussion between staff and patients' families, preferably near the family lounge.

8.2.2.10

Spaces shall be provided for PPE equipment/supplies, crash carts, and other procedure carts.

8.2.3 Technical requirements

Note: Specific technical requirements can vary depending on the size and scope of the facility or program.

8.2.3.1

The internal zones of staff/support, patients, and visitors should be designed to have the following key relationships:

- a) The primary staff work zone (e.g., a nursing station) should be close to the entry for control of individuals coming into the unit.
- b) The patient care areas should be co-located with the staff work area (nursing station) while recognizing that satellite staff work areas will be necessary to ensure that staff have workspaces at each patient location.
- c) AIR(s), when present, should be located close to the patient entry and away from the main corridor and other patient cubicles to limit the travel distance into the main unit by immunosuppressed/infectious patients.
- d) The visitor entry should be adjacent to the visitor waiting area, but external to the patient care zone.

The medication dispensing area or room shall be easily accessible from the patient care areas.

8.2.3.2

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

8.2.3.3

The design shall allow for access to personal protective equipment (PPE) adjacent to each inpatient bedroom entrance.

8.2.3.4

Utility and clean supply rooms may be centralized or decentralized based on unit design. The design shall provide for direct access from the unit corridor to the patient areas served.

8.2.3.5

Cleaning, testing, and storage facilities for respiratory therapy services shall be readily accessible. If RT equipment will be cleaned, decontaminated, or maintained within the unit, the space for these activities shall be designed in accordance with CAN/CSA-Z314.

8.2.3.6

Equipment storage and electrical receptacles for charging of equipment shall be provided to accommodate the expected volume of activity on the unit. Equipment storage space should not be minimized or used for other purposes.

8.2.3.7

A room local to where dialysis treatment takes place shall be provided for the equipment necessary to provide and circulate purified water. The room construction shall take into account the space needed for the installation and service of the reverse osmosis membranes and other components. Provisions shall be made to waterproof and drain the room. A storage room shall be provided local to the treatment area for the storage of dialysis chemicals in a safe environment.

8.2.3.8

Additional storage shall be provided as necessary depending upon the unit requirements (e.g., storage for large volumes of water and chemicals for dialysis, large equipment for orthopedic use, etc.).

8.2.3.9

Alcoves shall be designed to provide the necessary storage for equipment and reduce staff travel distances for commonly used supplies and equipment. Equipment shall not be kept in corridors.

Note: Commonly used supplies and equipment can include the drug dispensing equipment, non-invasive blood pressure monitoring, supply carts, medical imaging equipment, warming cabinet, miscellaneous portable equipment, etc.

8.2.3.10

Areas for family, caregivers, and visitors shall provide a calming environment with additional space and amenities as required to meet the needs of visitors who stay in the area for extended periods of time.

8.2.4 Space details

Table 8.2 presents the standard requirements for key spaces in the critical care area. Common areas are detailed in Clause 11.

Table 8.2
Key space requirements and recommendations — Critical care
(See Clause 8.2.4.)

Item no.	Room name	Net area, m ²	Requirements and recommendations
1	Reception/control desk	4.6 per workstation and additional circulation space	<p>See Table 11.1, Item 36 for common requirements and recommendations for a reception/control area.</p> <p>Mandatory: The reception desk shall be located at the entry to the unit so that staff can control access and provide information to visitors and staff. The space shall include a workstation.</p> <p>Note: <i>This function may be accommodated as an independent kiosk or as part of a nursing station.</i></p> <p>Advisory:</p> <ul style="list-style-type: none"> a) Depending upon the physical layout of the unit, second entry should be considered for the movement of supplies and waste, and for the transfer of patients (i.e., new admission, to/from procedures and tests, morgue) away from general visitors. b) All entry points should be secure and require controlled access. An intercom system between the visitor area and staff work area should be considered so that staff can interview visitors to ensure appropriate entry into the area.
2	Staff work area	Varies, 4.6 for each workstation and additional circulation space	<p>See Table 11.1, Item 3 for common requirements and recommendations for a primary staff station.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Workspace for nursing, allied health professionals, clinicians, and clerical staff shall be provided in correlation with the activity of the unit. b) Secure drug storage shall be provided if separate medication/pharmacy areas are not part of selected care model. <p>Advisory:</p> <ul style="list-style-type: none"> a) An area should be provided close to the staff work area that has electrical receptacles to store and charge small electrical equipment (i.e., portable monitors). b) There should be a cleanable display board (e.g., tack or magnetic white board) for display of patient-received cards and photos. c) There should be a cleanable magnetic white board for the staff to diagram and communicate information to patients, staff, and visitors. d) A TV and multi-media player (wall or ceiling mounted) should be provided.
3	Patient bed room suite, adult and child		<p>See Table 11.1, Item 24 for common requirements and recommendations for an inpatient bedroom.</p> <p>Mandatory: In addition to the common requirements and</p>
	Bed area	22.7	

(Continued)

Table 8.2 (Continued)

Item no.	Room name	Net area, m²	Requirements and recommendations
	Washroom (2 piece)	4.6	recommendations for an inpatient bedroom in Table 11.1, the critical care inpatient bedroom shall have a) a clear area exclusive of washroom, closet/locker; b) a water/drain connection for a portable dialysis machine;
	Family zone	included in bed area	c) a patient care zone of a minimum 4.5 m ² ; d) a family zone with seating/sleeping/work area that does not interfere with patient care activities;
	Staff zone	included in bed area	e) a staff zone with a hand-washing hygiene station. The computer station which shall not interfere with patient care functions;
	Waste disposal system area	0.5	f) space for a bed, equipment (i.e., monitor, ventilator, supply cart), furnishings (i.e., side chairs, recliner chair, over bed table), staff, and visitors; and g) lockable storage for patients' personal belongings. Note: Some HCFs may elect to use the patient bedroom for step-down/high-dependency care (i.e., for patients requiring more monitoring/observation as they are transitioned from critical care to an inpatient unit). The minimum clearances around and between beds shall be in accordance with Table 7.1.
	Charting area	1.4	
	Supply alcove	1.4	
4	Patient bed room suite, AIR isolation, adult and child		Advisory: a) A workspace for soiled items may be added, and this space may be shared between two to three rooms. If this room is added, the net area shall be not less than 3.0 m ² . b) Other washroom types may be used instead of the regular three-piece washroom with shower, as follows: i) a three-piece washroom with sink, toilet, and tub with shower — 7.0 m ² ; and ii) a three-piece washroom with hand-held wand — 4.6 m ² . c) Consideration should be given to providing a three-piece washroom in one AIR. Note: Although critical care patients are rarely capable of being showered, a critical care patient in an AIR could have some mobility, and there should be means to allow them to shower without having to pass through common areas.
	Bed area	25.0	Mandatory: All elements listed in Item No. 3 shall be provided. Clearances around and between beds shall be in accordance with Table 7.1.
	Anteroom	7.5	
	Supply alcove	1.0	Advisory: a) A three-piece washroom may be planned (in lieu of the two-piece). Three-piece washroom with shower stall — 5.6 m ² b) At least one room should be sized to accommodate a bariatric patient.

(Continued)

Table 8.2 (Concluded)

Item no.	Room name	Net area, m²	Requirements and recommendations
	Washroom (three piece)	7.5 (5.6 if shower stall is supplied instead of bath)	
	Family zone	included in bed area	
	Staff zone	included in bed area	
5	Patient bed room suite, infant, private (neonatal intensive care unit)		Mandatory: a) Clauses 4.5.3.1 and 4.5.3.2 apply. b) In a shared room (i.e., for mother and infant or for multiple births) the newborn infant(s) shall (each) have a separate and dedicated station for the bassinet following established infection prevention and control guidelines for configuration of layout. c) There shall be a hand hygiene sink. d) Medical gases (oxygen, medical vacuum, and medical air) shall be provided for each infant station. e) Lights at infant stations shall be on separate switches with dimmers. f) Clean and soiled utility rooms shall be provided.
	Bed area — enclosed on four sides	20.0	
	Bed area	11.0	
	Family zone	included in above space	
	Staff zone	included in above space	Advisory: a) Suitable furnishings for breastfeeding/family-provided care should be provided. b) A work area should be adjacent and shared on a ratio of one work area to two infant stations. c) Audio privacy should be provided.

8.3 Maternal and newborn

8.3.1 Description

8.3.1.1

Maternal and newborn services provide care for the expectant mother (antenpartum), labour and birth (intrapartum), and recovery (postpartum), as well as the care for the healthy newborn. Services can include inpatient care and/or outpatient care. (For guidelines related to premature or medically unstable infants (see Clause 8.2). The extent of the services can vary dependent upon the role of the HCF, the lead caregiver involved (e.g., physician or midwife), and the needs of the mother and infant.

8.3.1.2

The antepartum service can include

- a) prenatal clinics:
 - i) assessment;
 - ii) patient and family education; and
 - iii) perinatal bereavement counselling;
- b) diagnostic obstetrical testing:
 - i) ultrasound;

- ii) biophysical profiles; and
- iii) genetics;
- c) pre-admission triage and assessment; and
- d) inpatient care for women with medical, obstetrical, or fetal complications.

8.3.1.3

Depending on the service model, patients could receive antepartum services in a Class A-1, A-2, or C facility. Jurisdictional requirements can apply regardless of the setting. See Clause [6.3.9](#) for additional requirements.

Patients might or might not be moved between rooms during the labour/delivery process, depending on the service model. The intrapartum (labour, birthing) and recovery service could use the following options:

- a) patient room for labour period only (i.e., use of a delivery room for the birth);
- b) patient room for labour, birthing, and recovery period only (LBR); or
- c) patient room for labour, birthing, recovery, and postpartum period (LBRP).

Note: *For a caesarean birth, a caesarean delivery room or operative birthing room may be used. For recovery (postpartum), the labour or delivery room of a dedicated recovery room may be used.*

8.3.1.4

The postpartum service can include

- a) combined care for women and their healthy babies;
- b) teaching opportunities, including breastfeeding and mother/baby care support (e.g., baby bathing, mother's physical recovery); and
- c) bereavement counselling.

8.3.1.5

The newborn service can include

- a) healthy newborn holding nursery (used to accommodate healthy newborns for short periods when not with the mother during the postpartum period); and
- b) premature, medically unstable, or ill newborn nurseries (used to accommodate those newborns who require observation, specific care, procedures, respiratory support, or other interventions. See Clause [8.2.1.1](#)).

8.3.2 Functional requirements

8.3.2.1

The design of the maternal/infant care area shall recognize the pivotal role of family members as part of the mother and baby's care team.

8.3.2.2

For facilities in an inpatient setting, services shall be located adjacent to each other to allow immediate access during the course of care:

- a) antepartum;
- b) intrapartum;
- c) postpartum and newborn care;
- d) special care nursery; and
- e) neonatal ICU.

8.3.2.3

Appropriate emergency access and security elements shall be available on a 24/7 basis to address the control and safety of patients and staff.

Note: *Maternal and infant care services operate continuously.*

8.3.2.4

Within the antepartum, intrapartum, and postpartum areas, there should be additional (i.e., greater than usual) acoustic separation to address the increased noise level from patients in labour and newborn babies. See Clause 12.2.7.

8.3.2.5

The unit design should allow separation between general maternity patients and patients who have had perinatal loss (e.g., still birth, neonatal death, miscarriage, and termination).

Note: *Women who have had perinatal loss or who are relinquishing a baby for adoption need privacy and sight and sound isolation from live babies. Ideally, they should be able to stay in the delivery/birthing room until ready for discharge, but if transfer to a ward bed is necessary, it should not be in a ward with other mothers and babies.*

8.3.2.6

The unit design shall include provision for continuing access to midwifery/obstetric care for patients who have lost or are relinquishing their babies.

8.3.3 Technical requirements

8.3.3.1 General

8.3.3.1.1

Maternal and newborn services shall include

- a) provision for overnight accommodation for the family (depending upon model of care);
- b) dedicated facilities (with a private washroom) for counselling, grieving, and care planning;
- c) provisions for security and monitoring of all areas within the service to address the issue of baby abduction; and
- d) capability to secure or restrict access to fridges and freezers used for storage of breast milk.

Note: *Areas used for storage of breast milk and formula can require additional security (e.g., locking of the milk and formula room or restricting access only to staff and to mothers under staff supervision) to ensure that the correct milk is issued to the right infant.*

8.3.3.1.2

All rooms used for labour, delivery, and recovery shall have natural light and access to exterior views; however, special care nurseries may be exempted if there is a clinical reason to do so (e.g., if clinical staff decide that high levels of natural light could affect patient health or quality of care).

8.3.3.1.3

Birthing rooms, delivery rooms, and nurseries in maternal and newborn services shall be designed to achieve a non-clinical ambience. Built-in services such as medical gas terminal units and equipment connections may be encased in joinery panels. Storage space shall be provided for portable equipment.

This space should be unobtrusive, but allow for rapid retrieval of equipment when needed, e.g., in the room, but stored behind folding/sliding doors or screens.

Notes:

- 1) Consideration should be given to the use of furniture, fittings, and equipment that can be converted from a "home-like" aesthetic to more technical use.
- 2) Care should be taken with the reflective quality of colours (e.g., the effect of yellow on jaundiced babies).

8.3.3.2 Intrapartum

The following elements should be provided in intrapartum care service, consistent with the functional program:

- a) labour lounge (for use in early stages of labour);
- b) whirlpool tub (for mothers during early labour but not birthing);
Note: Whirlpool tubs, if used, should be of a design that permits cleaning and disinfection of the tub, nozzles, and any part of the circulation or impeller system that comes in contact with water.
- c) birthing room (LBR/LBRP);
- d) operative birthing room (caesarean delivery room); and
- e) infant resuscitation area — with stations for multi-births.

8.3.3.3 Postpartum

8.3.3.3.1

Areas for postpartum care shall include the following elements:

- a) a comfortable, quiet room for bonding, feeding, and expressing milk with assistance and supervision from staff; and
- b) an infant nutrition preparation area (see Clause 8.3.3.12).

8.3.3.3.2

The postpartum care area shall also include a separate, quiet room with decor appropriate for grieving. This room may be designated a SARDS room (stillbirth and neonatal death support).

Note: This room may also be used for teaching parents and family members.

8.3.3.3.3

Sterilization of bottles should be performed in a separate specified area.

8.3.3.4 Newborn

There shall be a nursery area for the temporary accommodation of healthy newborns.

8.3.3.5 Acoustics

8.3.3.5.1

Birthing rooms shall be constructed with a high level of sound isolation as listed in Table 12.1.

Note: This allows the woman in labour to vocalize as needed and affords her privacy while minimizing disturbance to other patients.

8.3.3.5.2

Infant care rooms shall also be constructed with high level of sound isolation as listed in Table 12.1 and have additional acoustic ceiling treatment.

Note: *Babies crying are a major source of noise and for mothers recovering from surgery or other conditions (e.g., pre-eclampsia) noise could be detrimental to their condition. Noise at night is of particular concern.*

8.3.3.5.3

Sound transmission for the special care nursery shall be minimized. Acoustic guidelines that promote healthy infant development should be considered. See Table 12.1 and Clause 12.2.7.3.2.

8.3.3.5.4

The following methods to reduce noise levels should be considered:

- a) sound absorbing materials and finishes;
- b) sound isolating construction;
- c) separate quiet areas from noisy areas;
- d) operational management (personal noise level restrictions); and
- e) noise attenuating building systems.

Note: *Noise is a frequent cause of complaint in newborn inpatient units. Noise sources can be either within or outside the unit and can include*

- a) *sanitary facilities;*
- b) *equipment;*
- c) *other patients;*
- d) *mechanical systems;*
- e) *staff activities (e.g., meetings, cleaning, cart traffic);*
- f) *areas of people movement, elevators, etc.;*
- g) *outside traffic and activity;*
- h) *nurse call and paging systems; and*
- i) *alarms.*

8.3.3.6 Lighting

Lighting provisions shall be as follows:

- a) Colour-corrected dimmable lighting shall be provided in all patient areas where high dependency care is provided. The lamp colour temperature and colour rendering index should be selected based on activities in the specific area.

Note: *This includes assessment rooms, birthing rooms, patient washrooms, nurseries, and baby bathing/examination/resuscitation areas.*

- b) Lighting levels for all inpatient bedrooms shall be zoned and separately switched for flexibility of different functions, with procedure lighting available directly above each patient.
- c) Lights in infant care areas shall be on dimmers.

Note: *Control of lighting levels is crucial for a calm atmosphere.*

8.3.3.7 Privacy

8.3.3.7.1

Communications, charting, and staff areas of the inpatient unit should be separate from common space.

8.3.3.7.2

Windows into corridors from open nursery bays, if provided, should be double glazed with integral blinds and controls accessible from within the nursery.

Note: This can help preserve family privacy.

8.3.3.7.3

The design of the assessment and delivery/birthing rooms should ensure that the foot of the bed does not face the door. Viewing panels in the delivery/birthing room door should be avoided.

8.3.3.7.4

Windows in labour rooms, if provided, shall be located, draped, or otherwise arranged to preserve patient privacy from casual observation from outside the labour room.

8.3.3.8 Infection prevention and control

8.3.3.8.1

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

- a) Hand hygiene sinks shall be in all rooms where infants are located and in the nursing station.
- b) A common central bathroom shall contain a bath, shower, toilets, hand basin, and baby bathing facilities provided for babies, toddlers, and younger children.
- c) Locations for baby bath demonstration shall have a hand hygiene sink.

Note: Mobile baby/infant baths should not be used.

8.3.3.8.2

Provision shall be made for the safe management of placental material. Placental material shall be treated as contaminated waste and shall be managed in accordance with CSA Z317.10; however, provision shall be made for the safe storage and transfer of placental material to the family if it is requested for cultural reasons.

Notes:

- 1) The installation of a dedicated refrigerator or freezer for storage while awaiting disposal or collection by families should be considered.
- 2) Placental macerators should not be used.

8.3.3.9 Occupational health and safety

The following occupational health and safety (OH&S) features shall be included in the maternal/infant unit design:

- a) Functional space for the use of equipment and storage space for all the equipment shall be provided in close proximity to the location of use.
- b) Functional space shall be provided for rapid patient handling.
- c) Door and corridor widths should allow for a patient's bed to travel rather than require a transfer to a stretcher.
- d) Storage space shall be provided for manual handling aids, such as patient lifts, commodes, wheelchairs, walking belts, slider boards, and patient scales.
- e) Leaning/squatting rails should be provided for active birth in birthing rooms.
- f) Eyewash stations and deluge showers shall be provided within the unit.

8.3.3.10 Safety and security — Maternal

In addition to the safety and security requirements in Clause 7.7, the design of HCFs with a maternal and infant care unit should

- a) allow staff to directly observe all persons entering the unit;
- b) provide visual control (including electronic surveillance) for nursing units, corridors, dining areas, and social areas such as dayrooms and activity areas. Hidden alcoves or blind corners or areas should be avoided;
- c) plan and arrange door swings so that there is no danger of hitting a small child on the other side;
- d) minimize entry and exit points (e.g., one entrance for patients and visitors to enter the birthing area);
- e) provide an access control system that uses card readers for all unit perimeter doors, including both internal and external access doors; and
- f) provide secured exits, with provision for delayed release in a fire or other emergency situation.

Notes:

- 1) *Delayed release, in accordance with Building and Fire Code provisions, allows staff to respond to fire signals and be in position to monitor exits.*
- 2) *Item a) may be accomplished using video intercoms for after-hours remote access.*

8.3.3.11 Safety and security — Newborn

8.3.3.11.1

The newborn infant population is recognized as especially vulnerable. In addition to the requirements in Clause 7.7, a HCF with a newborn unit shall be secured and shall be monitored to minimize and contain the risk of a child's abduction from the unit and prevent interference from unauthorized persons. Safety and security measures should include the following as appropriate to the HCF:

- a) direct staff observation;
- b) video surveillance;
- c) restricted window openings;
- d) high level door latches;
- e) horizontal split doors (sometimes referred to as dutch doors or stable doors);
- f) locked doors;
- g) monitoring unit access; and
- h) electronic abduction detection system.

Note: *These systems use an electronic tag on a band on the baby's ankle. The tag is detected by sensor panels located at unit/HCF exits. In the event of an alarm, the HCF's security team is alerted.*

See Clause 12.7.

8.3.3.11.2

Security and safety issues and preventative measures shall be evaluated as a whole to ensure that they do not conflict.

8.3.3.11.3

Staff emergency assistance alarm stations shall be located at reception and staff stations and neonatal intensive care units.

8.3.3.12 Infant nutrition preparation room

8.3.3.12.1

Space for preparation and storage of formula and additives to breast milk and formula shall be provided within the unit or other location that is away from the bedside.

8.3.3.12.2

When a separate room for infant feeding preparation is not merited due to infrequency of need, commercial preparation off premises, or other reasons, a separate area in the food services area or in the patient unit shall be designated for infant feeding preparation. Hospital food preparation design guidelines shall be followed.

8.3.3.12.3

Provisions shall be included for breast milk storage. Breast milk may be stored in a designated space in the infant feeding preparation room and in designated spaces on the patient unit.

8.3.3.12.4

Unless performed elsewhere in the hospital, a specialized feedings preparation area or room should be provided in the NICU, away from the bedside, to permit mixing of additives to breast milk or formula. Floor, wall, and ceiling surfaces shall be able to be easily cleaned and maintained. Adequate sinks, electrical receptacles, and storage should be provided based on the individual hospital facility needs.

8.3.3.12.5

If a specialized preparation area or room is used for infant feeding preparation, the space shall be designed and ventilated so as to prevent contamination of the items being prepared.

Note: *The ventilation system should have a minimum filtration of 90% or have a HEPA forced air filtration system. The exhaust system should provide a positive gradient in the preparation area. Alternatively, a laminar flow hood may be provided exclusively for use in infant feeding preparation.*

8.3.3.12.6

Commercially prepared chilled sterilized water should be provided for reconstituting concentrated or powder formula. If commercially sterile water is unavailable, the water supplied for preparation of formula shall meet recognized national standards for safety and quality of drinking water.

8.3.4 Space details

Table 8.3 presents the standard requirements for key spaces in the maternal and infant areas. Common areas are detailed in Clause 11.

Table 8.3
Key space requirements and recommendations — Maternal and infant care
(See Clause 8.3.4.)

Item no.	Room names	Net area, m ²	Requirements and recommendations
1	One-bedroom suite, antepartum	See Table 11.1, Item 24	See Clause 11 for common requirements and recommendations for a patient bedroom.
2	Triage/labour lounge Chair Stretcher	1.9 per person 7.5	Mandatory: a) A hand hygiene sink shall be provided. b) A nutrition area shall be provided. Advisory: a) Room lights should be on dimmer switches. b) A variety of soft and hard seating should be provided. c) The room decor should be relaxing. d) A separate quiet area or quiet lounge should be provided.
3	Intrapartum birthing room suite (LBR/LBRP) Bed area Washroom (three-piece) Supply/equipment storage Staff zone Family zone	32.0 5.6 1.5 Included in bed area Included in bed area	Mandatory: a) An exterior window shall be provided. b) A hand hygiene sink shall be provided. c) Equipment storage space with doors shall be provided to house items specifically used during the birth. d) The washroom (with shower) shall accommodate both the bassinet and parent or family member providing care. e) The infant area shall be on the same side of the room as the mother. Advisory: a) Ceiling-mounted birthing lights should be provided, but portable lights may be used. b) Depending upon model of care, a sleeping space for one family member should be provided. c) A lockable storage cupboard should be provided for patient personal items. d) Medical gas outlets should be unobtrusive. e) All lights should be on separate switches. f) Furnishings suitable for comfortable breastfeeding should be provided. g) Optional considerations may be provided, including i) a three-piece washroom with whirlpool tub — 8.0 m ² (in lieu of standard washroom) (see Clause 8.3.3.2); ii) a vestibule/entry area — 6.5 m ² ; and iii) a supply/equipment area — 4.5 to 6.0 m ² .

(Continued)

Table 8.3 (Continued)

Item no.	Room names	Net area, m²	Requirements and recommendations
4	Infant resuscitation/stabilization area	13.0 for each bassinet, plus sink, counter/workspace and circulation; may be increased depending on size of unit	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The area shall be located to allow for immediate care to the infant while maintaining a visual and auditory connection with the mother. <p>Note: Depending on the functional program, the resuscitation area may be a designated space within the operative birthing room(s) or a shared space that is contiguous with one or more birthing rooms.</p> <ul style="list-style-type: none"> b) A hand hygiene sink shall be provided. c) Medical gases shall be provided. d) All lights shall be on separate switches. e) Privacy shall be provided for each patient. f) Each resuscitation area shall be sized to accommodate the staff and equipment necessary for resuscitation and stabilization. g) Supplies and resuscitation equipment shall be stored within or immediately adjacent to the resuscitation area. h) An overhead infant warmer shall be provided. i) If multiple places are planned in a single room, each place shall be not less than 10.5 m² per place. <p>Advisory: Facility planning should consider a two-place resuscitation area (at a minimum) to accommodate multiple births.</p>
5	Holding nursery, healthy newborns infants	4.5 per infant station	<p>Mandatory:</p> <ul style="list-style-type: none"> a) There shall be a separate and dedicated station for each bassinet following established infection prevention and control guidelines for configuration of layout. b) There shall be one hand hygiene sink per four infant stations. c) Medical gases shall be provided per two infant stations. d) Lights at infant stations shall be on separate switches with dimmers. e) Clean and soiled utility rooms shall be provided. f) Audio privacy shall be provided. <p>Advisory:</p> <ul style="list-style-type: none"> a) A work area should be adjacent and shared on a ratio of one work area to four infant stations. b) Suitable furnishings for breastfeeding/family member care should be provided.
6	Infant nutrition preparation room	Varies by program,	<p>Mandatory:</p> <ul style="list-style-type: none"> a) A hand hygiene sink shall be provided.

(Continued)

Table 8.3 (Continued)

Item no.	Room names	Net area, m²	Requirements and recommendations
		minimum area shall be 16.5	<ul style="list-style-type: none"> b) Cleaning/sterilization of equipment shall occur in the MDR department. c) Counter space shall be provided for work to prepare product with separation of clean and soiled materials. d) When the functional program requires a separate room, the room shall include the following areas that can be separated in individual rooms or combined: <ul style="list-style-type: none"> i) ante area (3.5 m²); ii) preparation area (8.5 m²); iii) storage space for supplies, formula, and both refrigerated and frozen breast milk (9.5 m²); and iv) clean-up area (5.5 m²). e) Spaces shall include the following: <ul style="list-style-type: none"> i) hand hygiene station; ii) space for sterilization of bottles; and iii) chilled transportation system. f) Spaces and equipment shall be designed to ensure safe transport of infant feedings at an appropriate temperature (i.e., 4 °C) until it reaches the patient care unit refrigerator.
7	Infant support/teaching area	Varies by program; minimum area shall be 16.5 for larger centres	<p>Mandatory:</p> <ul style="list-style-type: none"> a) A hand hygiene sink shall be provided. b) The room layout and partitions shall permit the provision of privacy for individual mothers, if requested. <p>Advisory:</p> <ul style="list-style-type: none"> a) There should be a refrigerator for storage of breast milk. b) The area should have a window. c) Smaller centres may combine this function with the infant nutrition preparation room (item 6).
8	Operative birthing room (caesarean delivery)	60.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be identical in all aspects to the operating rooms specified in Clause 9.3 for equipment, medical gases, electrical receptacles, HVAC systems, and overall layout. b) The mother shall have a clear view to the infant resuscitation areas. c) There shall be a designated space, with seating, to accommodate a family member or other companion for the patient. <p>Advisory:</p> <ul style="list-style-type: none"> a) The infant resuscitation/stabilization area (item 4) may be combined with this room. b) The family member space within the OR should be at or near the head of the bed.

(Continued)

Table 8.3 (Concluded)

Item no.	Room names	Net area, m²	Requirements and recommendations
9	One-bed room suite, postpartum (care by parent/family member)		<p>See Table 11.1, Item 24 for standard inpatient bedroom.</p> <p>Advisory:</p> <ul style="list-style-type: none"> a) A care-by-parent room may be provided for day use (not intended for overnight accommodation) — minimum size: 7.5 m². b) The room should be arranged so there is continued visibility between infant and parent and privacy from the corridor. c) Infant bathing facilities should be provided. d) Discharged patients may be offered care-by-parent functions in a non-inpatient room with capacity for overnight stay — minimum size: 11.0 m².
10	Breastfeeding room	7.5	<p>Mandatory</p> <ul style="list-style-type: none"> a) A wall-mounted hand hygiene sink shall be provided adjacent to the door. b) The room shall include a change table. <p>Advisory</p> <ul style="list-style-type: none"> a) Comfortable furniture including a rocking chair should be included in the room. b) Dimmable lights should be provided. c) A base cabinet of 1500 mm and wall cabinets above should be provided for storage of supplies and equipment. d) Equipment for music should be provided to enable mothers to bring their own music.

8.4 Mental health and addictions services

8.4.1 General

8.4.1.1 Description

Clause 8.4 outlines the specific requirements for the planning of inpatient and outpatient mental health and addictions units for adult patients, and the planning of these units for pediatric and adolescent patients. It addresses psychiatric intensive care units, a tertiary level service that admits acute mental health and addictions patients requiring containment, security and intensive clinical management, and observation. It also addresses forensic patient care units, which have specialized security requirements. Clause 8.4 also recognizes the needs of staff providing mental health and addictions services and the multiplicity of their roles in delivering services on a day to day basis. All proposed security measures should be sensitive to therapeutic impact and the needs of forensic patients. All therapeutic endeavours should consider the security implications of that endeavour.

The requirements for optimal environmental care, advances in assessment and treatment, and delivery of mental health and addictions care are reflected in this Standard. Inpatient care can be required for people who exhibit symptoms of acute psychosis or acute substance withdrawal, as well as those with imminent tendencies for suicide or aggression, requiring timely assessment in order to be provided with

effective diagnosis and treatment. The programming and resulting design takes into account psychological and emotional considerations for the patient population.

This Clause reflects the need for settings that are consistent with currently available evidence on compassionate and effective mental health and addictions inpatient care.

Mental health and addictions patients are potentially a risk to themselves and others. It is essential that the building design, maintenance, and built environment are based on the potential risk to the patient population it is serving. It is important that support is offered not only to the patient with mental illness or addictions, but to the entire family.

There are many types of mental health and addictions services to serve a range of patients with conditions of varying levels of acuity. These services represent continuum of care, from inpatient units to outpatient clinics. Each facility is designed for its population, and depending on its type, will provide some or all of the services outlined in this Clause.

8.4.1.2 General services

Services generally provided by mental health and addictions units include

- a) caring for patients referred from emergency, crisis, and other services;
- b) assessment, diagnosis, treatment (e.g., pharmacotherapy, psychotherapy, electroconvulsive therapy [ECT], physical therapy, education, among others), and rehabilitation;
- c) providing a safe environment for patients who pose a risk of harm to self and others;
- d) stabilization and/or amelioration of acute symptoms;
- e) involving patients' families/community in establishing the care plan;
- f) constant 24-hour observation for psychiatric intensive care patients;
- g) close observation for other acute patients;
- h) management of co-morbid medical disorders;
- i) services based on recovery principles of care; and
- j) patient-centred care.

8.4.1.3 Pediatric and adolescent services

Services that can be provided by mental health and addictions units for pediatric and adolescent patients include

- a) system interruption or improving level of functioning;
- b) assessment, diagnosis, treatment, and rehabilitation;
- c) providing a safe environment to prevent self-harm or harm to others;
- d) stabilization and amelioration of acute symptoms;
- e) constant 24-hour observation for psychiatric intensive care unit patients; and
- f) close observation of non-intensive-care patients.

8.4.1.4 Specialized services

Mental health and addictions units can also provide one or more of the following specialized services:

- a) socialization;
- b) accommodation and treatment of forensic patients;
- c) longer term, more intensive rehabilitation;
- d) normalization; and
- e) involving families, community agencies, and other key stakeholders in care.

8.4.1.5 Other services

Subject to local conditions, some mental health and addictions units will provide additional services, such as

- a) electroconvulsive therapy (ECT), which can be provided, depending on volume, either in a dedicated suite or a surgical day care unit (SDCU);
- b) transcranial magnetic stimulation (TMS);
- c) electrocardiograph (ECG);
- d) electroencephalogram (EEG);
- e) classroom education in collaboration with external providers, such as boards of education colleges and universities;
- f) providing secure/observation rooms;
- g) review board or review panel hearings;
- h) research;
- i) professional education;
- j) vagal nerve or other implant;
- k) psychological testing; and
- l) occupational therapy assessment rooms including access to kitchen, computer lab, etc., in order to complete appropriate assessments of functional skills.

8.4.2 Functional requirements

8.4.2.1 General

8.4.2.1.1

Mental health and addictions units shall be designed to maintain separation between patients in different age groups [i.e., pediatric, adolescents, adults, and geriatric populations (where volumes allow)]. Separate facilities should be provided for men and women. Children and adolescents may be in separate units or in fully integrated units only separated by activities/programming.

8.4.2.1.2

The mental health and addiction unit shall have the capability to treat patients safely who have medical co-morbidities, including co-morbid substance abuse and medical emergencies that can arise (e.g., a secured crash cart nearby).

Note: Many mental health and addiction patients have co-morbidities and will require services such as medical gases and suction.

8.4.2.1.3

The following strategies and principles shall be implemented in all areas for mental health and addictions patients in HCFs:

- a) Patient safety shall be provided for in all locations (e.g., by providing anti-ligature breakaway design features).
- b) Secure observation rooms shall be provided.
- c) Good visibility of patient activity areas (i.e., good sightlines, avoidance of blind corners) shall be provided for staff.
- d) Anti-damage strategies shall be implemented.
- e) Anti-barricade measures shall be implemented (this applies especially to doors at bedrooms and washrooms, but may apply to other patient treatment areas such as offices).
- f) Anti-concealment measures (e.g., for contraband and potential weapons) shall be provided.

- g) Spaces should be designed to reduce anxiety and fear.
- h) Patient containment strategies, such as “fail secure” design (e.g., maglocked doors remain locked in event of power failure) and “movable perimeter” concepts (i.e., variable secure perimeter location) shall be implemented.
- i) Staff safety shall be supported (e.g., by providing a clear path to the door or two doors and by providing a staff alarm system).
- j) Facilities shall be planned to minimize staff response time in emergencies.
- k) Furniture, fittings, and equipment shall be selected to reduce the risk of patient self-harm, harm to other patients and staff, and property damage.
- l) The design shall include the selection of finishes and fixtures that maximize ability to reduce infection and disease transmission and the safe placement of hand hygiene stations and clean/soiled utility rooms.
- m) A risk assessment shall be performed to determine locations where it is safe to install hand hygiene sinks in mental health facilities. Consideration should be given to scope of care provided (solely mental health/counselling activities versus facilities that also provide care for physical co-morbidities), appropriate and safe placement of sinks, and staff flow.
- n) Rooms shall have door assemblies with continuous hinges with rounded tips that minimize ligature opportunities.
- o) Hand sanitizer dispensers and soap dispensers shall have sloped tops to prevent tying anything around the dispenser.
- p) Where mirrors are required, mirrors shall have framed polycarbonate mirrors with rounded corners and vandal-resistant mounting.
- q) Paper towel dispensers shall be recessed, non-loopable, lockable, and without serrated edges.
- r) Robe hooks shall be collapsible with a pivoting ball joint and tamper-proof hardware.
- s) Toilet paper holders shall be fully recessed without a spindle.
- t) Stainless steel grab bars shall have welded flanges to prevent threading, and concealed, tamper-proof mounting hardware.
- u) Shelves shall be wall-to-wall or recessed to ensure anti-ligature properties.
- v) Pick-proof caulking shall be provided to seal gaps.

8.4.2.1.4

ECT procedures, if performed, shall take place in a dedicated ECT suite or in a procedure room that meets the space and technical requirements for an ECT suite as specified in Table 8.4.

Note: A post-anaesthetic care unit may be used, provided it meets the necessary space and technical requirements.

8.4.2.2 Inpatient

The following standard principles for all inpatient mental health and addictions units should be included in planning and design:

- a) The design of the unit should minimize the need for support and maintenance staff to access patient areas.
- b) The focus and flow of support services should be designed to operate as efficiently as possible.
- c) The flow of support services and patients and clinical staff should be separated to the greatest extent possible.
- d) Food services should be designed to facilitate as normal a dining experience as possible.
- e) Adequate and appropriately positioned and provisioned facilities shall be provided for support functions.

8.4.2.3 Outpatient

The following principles are standard for all outpatient mental health and addictions services and shall be included in planning and design:

- a) Staff shall have convenient access to pharmacy and diagnostic services.
- b) Support services, staff processes, and space shall have adequate safety and security to ensure patients cannot access harmful materials or objects.
- c) The unit shall be designed to minimize the need for support and maintenance staff to access patient areas.
- d) Sufficient space and equipment shall be provided for support services and support services shall be designed to operate as efficiently as possible.
- e) The flow of support services shall be separated as much as possible from patients and clinical staff.

8.4.3 Technical requirements

8.4.3.1 General

8.4.3.1.1

Mental health service shall be designed in accordance with written safety and risk mitigation guidelines, which shall be developed by planners in consultation with staff and other experts.

8.4.3.1.2

The safety and risk mitigation guidelines shall apply to all inpatient and outpatient mental health and addictions services, to all facilities where mental health and addictions patients/clients receive care and treatment, and to all facilities where mental health and addictions patients/clients could be unsupervised. The planning and design of facilities shall address the need for safety and risk mitigation while providing environments that are supportive of the therapeutic model of care including non-institutional in appearance and finishes, scaled for human interaction, and calming, among others.

8.4.3.1.3

Spaces for services shall be designed based on the principles of patient-centred care. Environments shall be safe and structured, and designed to facilitate patient control.

Notes:

- 1) *For specialized units, this can include the grounds and facility.*
- 2) *An environmental approach to mental health and addictions service design can provide an effective tool in the pursuit of humane and efficient containment and the reduction of severe physiopathology. This can be achieved through design and construction by creating a user-friendly healing environment.*

8.4.3.2 Safety/risk mitigation

8.4.3.2.1

Safety and risk mitigation guidelines shall be applied to all aspects of design for mental health and addictions services. Design features and precautions shall include the following:

- a) A staff alert system shall be provided in all rooms if a personal alarm system is not provided.
- b) For exterior windows, an impact test standard (e.g., BS 6206, 100 kg sandbag, 1220 mm drop) shall be specified for the interior glazing light and a full scale mock-up test of the proposed glazing system shall be carried out.
- c) Exterior windows should have a restricted opening of no more than 125 mm.

- d) Secure exterior glazing and frames shall be provided in all rooms where mental health and addictions patients receive care and treatment or could be unsupervised. Exterior and interior glazing and frames shall be constructed and secured to withstand high impact.
- e) Solid (monolithic) ceilings shall be provided in bedrooms, washrooms, and other areas where mental health and addictions patients receive care and treatment or could be unsupervised.
- f) Ceiling heights shall be as specified in Clause 12.2.2.
- g) Double acting doors shall be provided for washrooms, tub rooms, and shower rooms. Doors shall open outward by releasing a retractable stop or by other means. An exterior lock shall also be provided to secure the room when it is out of use.
- h) Water sources (e.g., sink, toilet, shower) should have individual controls such as a tamper-proof shutoff at valves, valves located behind lockable panels, or remotely controlled shutoff to control hydrophilic behaviour.
- i) Ligature attachment points shall be avoided.
- j) Materials and components that could become weapons shall be avoided.
- k) Trim strips between assemblies shall be avoided or securely attached.
- l) Sharp edges shall be avoided.
- m) Fasteners shall be safe and non-removable.
- n) Sealants/caulk shall be non-removable.
- o) Durable, washable finishes shall be provided.
- p) Impact-cushioning or impact-resistant finishes shall be provided.
- q) Mental health and addictions inpatient units of HCFs should be designed to provide secure storage space for sharps disposal and patient waste disposal. Eyewash stations shall be provided in the unit.
- r) All consult/examination rooms shall have two exit doors and a staff emergency assistance alarm station.
- s) The unit should be on the ground floor of the HCF. Where this cannot be achieved, unauthorized access to external spaces such as balconies or roof shall be prevented.

8.4.3.2.2

In addition to the specific requirements in Clause 8.4.3.2.1, the following building elements and systems shall be designed in accordance with the safety and risk mitigation guidelines developed under Clause 8.4.3.1.1:

- a) materials and finishes:
 - i) floor, wall, base, and ceiling finishes and components;
 - ii) window frames and glazing at exterior and interior locations;
 - iii) door hinges, closers, knobs/levers, and bumpers; and
 - iv) wall and corner protection materials;
- b) mechanical and electrical systems:
 - i) heating systems (in particular, avoid cabinets that could provide places for concealment or present infection control problems);
 - ii) HVAC terminal devices and covers;
 - iii) access doors;
 - iv) fire alarm system components and sprinklers;
 - v) fire extinguisher and hose cabinets;
 - vi) shower heads, shower actuators, and shower curtains;
 - vii) washroom sinks, faucets, and valves;
 - viii) toilet seats, toilet partitions, and toilet operator valves;
 - ix) plumbing traps and piping;
 - x) light fixtures;

- xi) electrical receptacles (tamper-proof GFI-protected units shall be provided); and
 - xii) thermostats;
- c) specialties, furniture, and equipment:
- i) furniture;
 - ii) cabinetry;
 - iii) cabinet hardware;
 - iv) equipment, including beds;
 - v) grab bars, handrails, crash rails, and rub rails;
 - vi) washroom accessories;
 - vii) clothes hooks and hanger rods;
 - viii) mirrors;
 - ix) bulletin boards;
 - x) artwork hanging systems;
 - xi) window treatments; and
 - xii) bed curtains.

8.4.3.3 Specialized and acute inpatient care

8.4.3.3.1

Most activities will be carried out in designated activity or group spaces in the inpatient unit. All patient-accessible spaces within the unit shall be understood and designed as part of the treatment milieu. Special consideration shall be given to the needs and care of specific populations such as geriatric and adolescent patients.

The following planning parameters shall be incorporated into the planning and design of inpatient mental health and addictions units.

8.4.3.3.2

To contribute to the philosophy and practice of patient-centred care, the environment should be non-institutional, residentially-scaled (i.e., as home-like as possible), and conducive to wellness. This includes the inclusion of elder-friendly design to address such features as signage, lighting, colours, and floor surfaces.

8.4.3.3.3

Patient bedrooms shall be arranged into groupings of 6 to 8 bedrooms with an adjacent recreational space. Living unit areas may be divided into smaller clusters of living areas. Patients shall have single rooms with washrooms attached.

8.4.3.3.4

The design shall provide a high level of privacy and confidentiality for patients and staff.

8.4.3.3.5

An ambulation (“wandering”) corridor or path, with identifiable focal points, shall be provided for patients. This shall be visible to staff and able to be monitored.

8.4.3.3.6

The organization and layout of the unit should provide choice for patients to participate in individual activities such as sitting, reading, conversing, watching TV, or playing games.

8.4.3.3.7

The layout of the unit shall facilitate members of the care team being able to make visual contact with each patient as required by the level of patient acuity.

Note: *This can be accomplished by avoiding designs with a long circuitous system of corridors, blind corners, etc.*

8.4.3.3.8

Access to enclosed exterior environments shall be provided that contrast with the interior spaces and extend the therapeutic environment to the outside. A variety of outdoor spaces should be provided. These may take the form of, for example, a front porch, roof garden, terrace, courtyard, or veranda and should be designed to promote a sense of security, serenity, and safety.

8.4.3.3.9

Access shall be provided to a patient telephone and other communications devices that can be controlled by staff when necessary. Telephones should be located in an area that can be observed, but has privacy for personal discussions.

8.4.3.3.10

Informal patient seating opportunities, such as benches and sitting alcoves, shall be provided along the corridors of inpatient spaces. Sitting alcoves should not obstruct the staff's views nor provide nooks for hiding from staff.

8.4.3.3.11

Privacy control at all interior and exterior glazed areas shall be provided, with no view into the patient rooms by casual observers from outside of the building.

8.4.3.3.12

Unit planning, including both external and internal relationships, should minimize staff response time in emergencies.

8.4.3.3.13

Safety shall be a high planning and design priority. Staff should be provided with direct views of patient activity areas.

8.4.3.4 Psychiatric intensive care unit — Acute care**8.4.3.4.1**

The psychiatric intensive care unit is a secure (locked) unit for patients requiring the highest level of observation and containment. These could be patients at high risk for harming themselves, harming others, or elopement, or patients who would be disruptive on the general inpatient ward. Patient bedrooms shall meet the requirements for a 1-bed secure/observation room. (see Table 8.4).

8.4.3.4.2

There shall be direct access from the corridor into the secure (locked) psychiatric intensive care unit staff station.

8.4.3.4.3

There shall be direct access from the patient corridor into the psychiatric intensive care unit sub-team staff station. There should be a separate means of egress from this station.

8.4.3.4.4

Direct access should be provided from the emergency care unit. An elevator may be used for this access.

8.4.3.4.5

The team observation centre shall have a view into all rooms.

8.4.3.4.6

The psychiatric intensive care unit staff station shall control all lighting, door locking, electrical supply to receptacles, security camera system, etc.

8.4.3.4.7

All rooms shall be single and lockable.

8.4.3.5 Psychogeriatric care unit**8.4.3.5.1**

The psychogeriatric care unit (PCU) is a secure (locked) unit for patients with dementia requiring a high level of observation and containment. These could be patients at high risk for harming themselves, harming others, or elopement, or seniors who do not mix well with young adults with psychosis on the general inpatient ward.

8.4.3.5.2

There shall be direct access from the patient corridor into the secure PCU sub-team staff station. There should be a second means of egress from this station.

8.4.3.5.3

Direct access should be provided from the emergency care service. An elevator may be used for this access.

8.4.3.5.4

The team observation centre shall have a view into as many rooms as possible, but all corridors should be observable.

8.4.3.5.5

The corridor should be without any alcoves or niches that could allow patients to hide from the view of the staff.

8.4.3.5.6

The sub-team staff station shall control all lighting, door locking, electrical supply to receptacles, security camera system, etc.

8.4.3.6 Forensic patient care unit — Specialized care

8.4.3.6.1

If a forensic patient care unit is provided, it shall have a well-defined, secure, and controlled perimeter, equivalent to or exceeding a “medium security” level in a correctional institution.

Note: *Medium security perimeter characteristics include*

- a) *robust construction to deter and delay determined escape;*
- b) *access by sally port (i.e., two-door system) with keypad or proximity card entry, reinforced doors, and alarms; and*
- c) *reinforced windows with anti-smudging grid on external windows.*

8.4.3.6.2

Facilities for high-security forensic patients shall meet applicable requirements.

Note: *Federal and provincial/territorial correctional laws and regulations can apply.*

8.4.3.6.3

The design shall allow containment of patients, a physical barrier with penetration resistance, and the capability of locking openings. All penetrations through this perimeter, such as ductwork and shafts, shall be protected with equivalent barriers.

8.4.3.6.4

Sally ports shall be provided at all entrances to the unit through the medium security perimeter, including vehicular entrances and entrances from outdoor courtyards where patients from other forensic units could be present. Doors shall be remotely controlled and camera-monitored. The sally port enclosure shall meet “medium security” perimeter standards. Sally port enclosures for high-security forensic patients shall meet applicable requirements.

8.4.3.6.5

Additional secure perimeters may be provided within the unit around rooms or clusters of rooms.

8.4.3.7 Outpatient services

8.4.3.7.1

The outpatient component of HCF’s mental health and addictions service can include a wide range of specialized mental health and addictions treatment settings, including, but not limited to, the mental health clinic, substance abuse clinic, day treatment, and day hospital, which promote recovery in patients with serious mental illness.

8.4.3.7.2

To contribute to the philosophy and practice of patient-centred care, the environment in an outpatient mental health unit should be non-institutional, residentially-scaled (i.e., as home-like as possible), conducive to wellness, and appealing to a broad range of patients from teenagers to the elderly.

8.4.3.7.3

The design shall provide a high level of privacy and confidentiality for patients and staff, including private offices for patient assessment and therapy. Offices should be designed to ensure sound proofing (i.e., through insulation and noise baffling).

8.4.3.7.4

There shall be arrival and waiting areas for patients and families. There shall be one point of entry to enable staff monitoring of access to the areas.

8.4.3.7.5

There shall be an identifiable area for reception and registration, adjacent to the waiting area.

8.4.3.7.6

Corridors and other circulation areas should be open and easily observed from the reception area.

8.4.3.7.7

There shall be examination/treatment rooms.

8.4.3.7.8

There shall be individual and group therapy rooms.

8.4.3.7.9

Camera monitoring shall be provided at main entrances, patios, and other non-clinical areas not directly visible by staff. All offices and rooms should be equipped with staff emergency assistance alarms so that staff can summon assistance as required.

8.4.3.7.10

Outpatient mental health and addictions services should not be located near maternal/child services or critical care services.

8.4.3.7.11

Where community-based services are coordinated by the HCF, provision shall be made for appropriate office spaces and conferences rooms.

8.4.3.7.12

Where a day hospital is provided by HCFs, it shall include at least the following elements:

- a) at least two distinct waiting areas, to separate patients undergoing medically supervised withdrawal management from patients being treated at the facility through intensive counselling;
- b) a staff station — an area adjacent to the waiting room that includes space for secretary/receptionist, office supplies, copy machine/fax, file room storage;
- c) a full kitchen with major appliances and commonly used amenities (stove, microwave, dishwasher, double sink, refrigerator, cabinets) as relevant to the form and focus of the day treatment provided;
- d) large multi-purpose room for multi-family therapy sessions;
- e) exam/treatment room for health screenings; and
- f) interview room/treatment room that can be used by all staff for their work.

8.4.3.7.13

Where provided, ECT suites should not be located in highly visible areas.

8.4.3.7.14

The safety and risk mitigation guidelines referenced in Clause 8.4.1.1 shall apply to all outpatient mental health and addictions services, as well as other rooms where mental health and addictions patients receive care and treatment or might be unsupervised. To reduce the risk of patient self harm, harm to other patients and staff, and property damage, the safety and risk mitigation guidelines reference in Clause 8.4.3.1.1 shall be applied as appropriate to

- a) design strategies;
- b) design principles;
- c) the selection of walls, floors, ceilings, doors, and finishes;
- d) mechanical and electrical systems;
- e) accessories;
- f) furniture; and
- g) equipment.

8.4.4 Space details

Table 8.4 presents the standard requirements for key spaces in the mental health and addictions services area. Common areas are detailed in Clause 11.

Note: *The specific requirements and recommendations for mental health and addictions services are intended to provide additional security and to prevent opportunities for self-harm. The room areas specified in Table 8.4 provide additional space for recreation and learning.*

Table 8.4
Key space requirements and recommendations — Mental health and addictions services
(See Clauses 8.4.2.1.4, 8.4.3.4.1, and 8.4.4.)

Item no.	Room name	Net area, m ²	Requirements and recommendations
1	Inpatient bedroom — Mental health and addictions services		<p>See Table 11.1, Table 24 for common requirements and recommendations for a patient bedroom.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Secure exterior glazing and frames shall be constructed to withstand high impact (see Clause 8.4.3.2.1). b) En suite bathrooms, with double-acting and staff-lockable doors, shall be provided. c) The bed in the room shall be located to optimize patient privacy. d) A circulation path that is safe and direct shall be provided between the bed area, washroom, and entry door. e) The following shall be provided for each patient: <ul style="list-style-type: none"> i) a desk 750 mm long (except in the psychogeriatric care unit); ii) storage — 1.2 m³ in specialized bedrooms, 0.6 m³ in acute bedrooms — which shall be fully accessible in all rooms; and iii) a comfortable chair that can be used at the desk or for reading. f) Where a bedroom has access to the bed area via an entry vestibule containing an en suite bathroom, approximately 4 m² of additional area shall be provided, compared to a bedroom layout with direct corridor access to the bed area (and with washrooms located between the two bedrooms). <p>Advisory:</p> <ul style="list-style-type: none"> a) A double-swing entry door should be considered. b) If larger beds will be provided, a door in keeping with Clause 7.8.8 should be considered. c) Operable windows that are staff-lockable, with a removable operator, restricted opening dimensions, and security screens should be provided. d) Individual temperature control should be considered in long stay bedrooms. e) Walls in patient and secure/observation rooms should be scratch and graffiti resistant. f) Washrooms may be planned (outside of the bed area): <ul style="list-style-type: none"> i) two-piece washroom — 4.6 m²; and ii) three-piece washroom with shower stall — 5.6 m². g) Depending on the washroom/bed area design, a vestibule may be added. h) Vestibule (assuming "inboard" washroom) should be 4.0 m².
2	One-bed secure/observation room	13.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The requirements and recommendations in Item 1 shall apply.

(Continued)

Table 8.4 (Continued)

Item no.	Room name	Net area, m²	Requirements and recommendations
			<ul style="list-style-type: none"> b) Vertical projections and corners that could cause self-harm shall be avoided. c) All horizontal projections that could allow climbing or cause self-harm, including window sills, shall be avoided (e.g., a flush protective glazing panel could be provided). d) The room shall have space and clearances for a full-size hospital bed. The bed shall be secured to the floor. e) Multi-point door locking with "slam-lock" function (locks automatically when closed) shall be provided. f) Washable floor and wall finishes, which shall be "repairable in the field" to minimize downtime of rooms, shall be provided. g) An observation window shall be provided of appropriate size, sill height, and location to allow a direct view from the sub-team communications station. An audio-video system may be used. <p>Note: This room may be used as a psychiatric intensive care unit. See Clause 8.4.3.4.</p>
	Bed area	13.0	<p>Advisory:</p> <ul style="list-style-type: none"> a) Impact-cushioning materials should be considered for wall finishes. b) Additional bed area may be provided (if 4-sided access is required for acute patients) — 3.0 m². c) A washroom may be planned (outside of the bed area): <ul style="list-style-type: none"> i) 2-piece washroom — 4.6 m²; and ii) 3-piece washroom — 5.6 m². d) Depending on the washroom/bed area design, a vestibule may be added. e) Vestibule (assuming "inboard" washroom): 4.0 m².
3	Two-bed room, specialized (if clinical justification supports this layout)		<p>Mandatory:</p> <ul style="list-style-type: none"> a) The requirements and recommendations in Item 1 apply. b) There shall be two washrooms, one for each patient (i.e., two three-piece washrooms at 5.6 m² each). <p>Advisory:</p> <ul style="list-style-type: none"> a) Additional bed area may be added (if four-sided access is required for acute patients) — 6.0 m². b) Depending on the washroom/bed area design, a vestibule may be added. c) Vestibule (assuming "inboard" washroom) — 4.0 m².
4	Activity room	Minimum 13.0; may be increased based on program needs.	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be located in, or adjacent to, the inpatient unit. b) Activities shall be visible from a staff care desk or from adjacent circulation. c) Space shall be provided for larger recreational equipment such as table tennis or pool tables. <p>Advisory:</p>

(Continued)

Table 8.4 (Continued)

Item no.	Room name	Net area, m²	Requirements and recommendations
			The room should be available for non-programmed leisure activities.
5	Group therapy room	2.0 per occupant	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be located in, or contiguous to, the inpatient unit. b) It shall be located next to an observation room. c) Acoustic separation from other areas shall be provided. <p>Advisory:</p> <ul style="list-style-type: none"> a) Natural light should be provided, but blackout capability shall also be provided. b) Individual armchairs for seating should be included.
6 Dining room			<p>Mandatory: See Table 11.1, Item 13.</p> <p>Advisory: A nourishment centre (kitchenette and table) should be included.</p>
7	Lounge, patient	2.5 per occupant, including circulation	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The lounge shall be in the inpatient unit. b) Visibility of activities from a staff care desk or other staff location shall be provided; camera observation is optional but less desirable than a direct view. c) Natural light and a view of the outdoors shall be provided. d) Separate areas shall be provided to isolate quiet and noisy activities; separate rooms should be provided. e) Adequate storage space shall be provided for activity equipment and supplies. f) Acoustic treatment to reduce ambient noise and acoustic separation from other areas shall be provided. g) All cooking appliances (ranges, microwaves, coffee makers, etc.) shall have key-operated lock-out switches to disable the appliance. h) All garbage disposal units shall have a key-operated lock-out switch to disable the device. <p>Advisory: If a separate quiet lounge is provided, it should be a minimum of 10.0 m².</p>
8	Observation room (staff viewing area)	5.5 (assumes seating for four. Add 1.4 m ² for each additional occupant)	<p>Mandatory:</p> <ul style="list-style-type: none"> a) 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 for up to four persons; 1.4 m² shall be added for each additional staff. b) Window treatments shall be provided in the observed room or other treatment room to conceal the window, when required. c) Furniture or surfaces for writing and recording equipment shall be provided. d) Furniture shall include task chairs or stools.

(Continued)

Table 8.4 (Continued)

Item no.	Room name	Net area, m²	Requirements and recommendations
			<p>Advisory:</p> <ul style="list-style-type: none"> a) The room may be associated with, for example, the interview/consult room, therapeutic playroom, or group room. b) Using other programmed rooms, such as adjacent group rooms, should be considered. c) The secure/observation room should not be located in close proximity to an elevator, stairs, exits, or common patient areas.
9	Multi-purpose room	Minimum 11.0; may be increased in accordance with program needs	<p>See Clause 11.</p> <p>Mandatory:</p> <ul style="list-style-type: none"> a) Standard size assumes four to six persons — 2.0 m² shall be added for each additional person expected to be accommodated. b) Shall be located adjacent to the observation room (see Item 8). c) Window treatments shall be provided to conceal the window, when required.
10	Multi-sensory room	Minimum 11.0; may be increased in accordance with program needs	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be in, or adjacent to, the inpatient unit. b) A high level of acoustic privacy shall be provided. c) If the room has windows, the window treatment shall have blackout capability. d) The ability to install ceiling-mounted weight-supporting equipment shall be provided. e) Concealed, unobtrusive storage shall be provided for large items and carts (minimum 1200 mm deep). <p>Advisory: The room can be used for relaxation or stimulation therapy and will be normally occupied by an individual patient plus staff member(s).</p>
11	Sally port (forensic units)	Varies by program; assume full enclosure of transfer vehicle in locked room, with minimum 2400 mm circulation on two sides and 1500 mm on the other sides	<p>Mandatory: Detention-grade doors shall be provided and shall be remotely controlled and camera-monitored from the security office.</p> <p>Note: <i>The sally port can contain different security equipment, lockers, access to other rooms, etc., all within a "medium security" perimeter.</i></p>
12	ECT procedure room	23.5	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall be in close proximity to Stage 1 ECT recovery room (or day surgery recovery area if the space is shared).

(Continued)

Table 8.4 (Continued)

Item no.	Room name	Net area, m²	Requirements and recommendations
			<ul style="list-style-type: none"> b) Decontamination of medical devices, if done, shall be performed in the MDR department or in a space that meets the requirements of CAN/CSA-Z314. c) Cardiac monitoring shall be available. d) Space shall be provided for a crash cart for emergency resuscitation when needed. e) Suction and oxygen services shall be available. f) Other medical gases shall be provided (cylinders or piped) as required by the functional program. <p>Advisory:</p> <ul style="list-style-type: none"> a) Use as a treatment room or for other functions, when not used for ECT, should be planned for. b) Use of the room for disaster planning should be considered. c) There should be sufficient space for the ECT device and for anaesthetic equipment. d) Visual and acoustic separation from the recovery areas should be provided.
13	ECT recovery room, Stage 1 (short term)	9.5 per stretcher	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room size assumes an open/curtained cubicle. Partial walls (on 2 sides) shall be minimum 11.0 m² and a fully enclosed room shall be a minimum of 13.0 m². b) The room shall be in close proximity to the procedure room. c) The exit route shall not be through the waiting area. d) The inpatient return route to units shall not be through the public area of the building. e) Cardiac monitoring shall be available. f) Suction and oxygen services shall be available. <p>Note: Recovery time in this unit is generally 30–60 min.</p>
14	ECT recovery room, Stage 2 (long term)	7.5 per stretcher (assumes recliner chair in open/ curtained cubicle)	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The exit route shall not be through the waiting area. b) There shall be meal service access to the Stage 2 recovery area. c) Recliner chairs and tables and chairs for snack/beverage service shall be provided. <p>Advisory:</p> <ul style="list-style-type: none"> a) The room should be in close proximity to the procedure room and short-term recovery. b) Recovery time of approximately 6 to 7 h duration should be planned for.
15	Office/ treatment room	14.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The seating area and desk locations shall allow a clear path to the door for staff. A high level of safety shall be provided. b) For safety reasons, the desk, table, and chairs shall be heavy to prevent their ready use as a weapon. <p>Advisory:</p> <p>An exterior window should be provided, permitting natural light and, if possible, a pleasant view.</p>

(Continued)

Table 8.4 (Concluded)

Item no.	Room name	Net area, m²	Requirements and recommendations
16	Transcranial magnetic stimulation (TMS) room	13.0	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room temperature control shall accommodate the TMS equipment heat load. b) A chair appropriate for patient positioning shall be provided. c) Space shall be provided for a crash cart to be used for emergency resuscitation when needed.
17	Classroom, including teacher space (pediatric and adolescents)	Varies by program; minimum of 23.3	<p>Mandatory: The room shall meet applicable requirements for classrooms. Note: Provincial/territorial or local laws and regulations can apply (e.g., a provincial Education Act).</p> <p>Advisory: Access to a common media room or multi-purpose room with a computer should be considered.</p>
18	Dining room/ kitchen/ refreshment centre	7.5 per person	<p>Mandatory:</p> <ul style="list-style-type: none"> a) The room shall provide a defined space for patients to eat at tables seating four and may be used for general activities outside of meal times. b) A unit kitchen or servery shall be provided for meal service. c) Lockable cupboards for sharps, supplies, etc., adequate secure storage for food and equipment, and sufficient space to store food trays and distribution trolleys shall be provided. <p>Advisory:</p> <ul style="list-style-type: none"> a) Self-serve beverage facilities including a refrigerator should be included in a large-scale dining room or in a centrally located "domestic scale" kitchenette and may be used to promote activities of daily living (ADL). b) Decor should reflect a "home-like" environment.
19	Medication room	Varies according to delivery model. Not less than 9.5	See Table 11.1, Item 32 for common requirements and recommendations for a medication room.

8.5 Pediatric and adolescent

8.5.1 Description

8.5.1.1

Pediatric and adolescent inpatient services provides care for infants, toddlers, children, and adolescents up to 18 years (up to day of 19th birthday), specifically designed to reflect the varying physical and psychological needs of this age group. The extent of the services can vary dependent upon the role of the HCF (i.e., dedicated or integrated care, critical care, etc.). An integral component of pediatric and

adolescent environments is the care and support provided by family members. As such, amenities are required to support them during their stay with their child.

Note: *It is a misconception to presume that because children are smaller, they will need less space. In fact, a greater amount of space is required to accommodate such activities as parent/family member participation in care, play by and between children, ambulation, and family support.*

8.5.1.2

The inpatient service can include

- a) patient rooms for medical/surgical/mental health sub-services;
- b) play areas;
- c) education activity area(s);
- d) procedure/treatment room(s);
- e) family support areas (e.g., patient washrooms, kitchenettes, respite, gym, business office, etc.);
- f) age appropriate social and support spaces (e.g., teen areas, reading room, etc.);
- g) patient support amenities (e.g., hairdressing salon, etc.); and
- h) staff support areas (e.g., storage, respite, charting, staff washrooms, team rooms, kitchenettes, etc.).

8.5.1.3

Various models can be used for treatment, and for coordination with other services in the HCF. Options for consideration include:

- a) treating the child in their own room;
- b) establishing a step-down unit within the unit itself;
- c) transferring to a HCF that specializes in pediatric services; or
- d) temporary transfer to an adult high dependency unit in using a neonatal emergency transport service when there is no other option.

8.5.2 Functional requirements

8.5.2.1 General

8.5.2.1.1

The design of pediatric and adolescent services shall recognize the role of the patient's family as part of the care team.

8.5.2.1.2

The pediatric unit should be located with the adjacencies specified in Clause 6.3.6. Access and routes to the pediatric unit should ensure minimal contact with sick or injured adult patients.

8.5.2.1.3

The services should be designed to support appropriate security elements so that the unit can be safely maintained and accessed on a 24/7 basis.

8.5.2.1.4

Dedicated facilities (including a private washroom) shall be provided for counselling, grieving, and care planning, including end-of-life care. These may be located at the perimeter of the inpatient unit.

8.5.3 Technical requirements

8.5.3.1 General

8.5.3.1.1

The unit design shall allow nursing staff to have optimal observation of all patient areas and for the children to be able to see the staff in order to feel reassured and safe. The need for observation and the safety of children shall, however, be balanced against the need to protect the privacy and the personal dignity of patients and their parents or family members. This can be achieved by curtains on windows and other glazed panels and the use of bed screens.

8.5.3.1.2

Space for education activities should be provided, depending upon the expected patient length of stay.

8.5.3.1.3

Indoor play activity areas shall be provided. An outdoor activity or equivalent play area should be provided.

Note: *Play areas are considered a zone free of any medical procedures so that patients are not fearful in a play setting.*

8.5.3.1.4

The indoor play space provides an area where patients can go for play and recreation activities. These spaces should be designed and built to avoid sharp edges. The space shall be accessible for children and adolescents using mobility devices. The design may provide for more than one room so that activities suitable for children are separate from activities suitable for adolescents. The following components should be provided:

- a) tables for sit-down activities (including board games, puzzles), art, and dining, including associated supports (if part of model of care);
- b) televisions and computers;
- c) creative arts centre;
- d) reading alcoves;
- e) open space for gross motor activities;
- f) storage for items;
- g) washrooms nearby; and
- h) access to natural light.

8.5.3.1.5

The outdoor play space provides an area where patients can go for play and recreation activities. The design of these spaces should consider accessibility for children and adolescents using mobility devices.

The following components should be provided:

- a) seating;
- b) a hard-surface for wheeled items (e.g., wagons, bikes);
- c) a soft-surface/grass for sitting (vegetation where appropriate);
- d) water/sand feature (if part of model of care);
- e) therapeutic spaces;
- f) gross motor activities;
- g) sports facilities (e.g., basketball court);