

When to use this checklist: **Commissioning phase**

Commissioning is the process used to ensure tasks are assessed, completed and various building and mechanical components validated prior to occupancy. As a member of the operational project team, use this checklist to ensure that all tasks and components are completed and in operation prior to occupancy and to identify and determine required corrective actions.

DATE: \_\_\_\_\_

AREA/UNIT: \_\_\_\_\_

COMPLETED BY: \_\_\_\_\_

		Yes	No	N/A	Comments	
<b>PRE-OCCUPANCY</b>	<b>Air Balancing, Heating, Ventilation, and Air Conditioning (HVAC)</b> <i>Refer to CAN./CSA 317.2 Special Requirements for Heating, Ventilation and Air-Conditioning (HVAC) Systems in Health Care Facilities</i>					
	**Air-balancing systems. Tested as needed to confirm airflow as given in the building/space specifications					
	**Relative air pressures for all patient care spaces. Documented evidence verified					
	All high-efficiency air filters: <ul style="list-style-type: none"> <li>▪ Checked to ensure functioning</li> <li>▪ Checked to ensure manometers present</li> <li>▪ Cleaning/changing schedules established</li> </ul>					
	Location for air intakes/exhaust vents. Accomplished as per CSA Standards					
	Air intakes. Separated from sources of contamination					<i>i.e., exhaust fans, boiler or incinerator stacks are separated by at least 25 feet horizontal distance</i>
	<b>The Plumbing System</b> <i>Refer to CAN/CSA Z317.1 – Special Requirements for Plumbing Installations in Health Care Facilities and CAN/CSA Z8000 Canadian Health Care Facilities</i>					
	Sink design. Reflects parameters in hand-hygiene sink design requirements outlined in CSA standards					
	All faucets. Opened simultaneously to test drain effectiveness					<i>To ensure drains are able to accommodate the amount of water going down the drain without backing up</i>

## CRMD Checklist: Commissioning

	Yes	No	N/A	Comments
Water supply. Disinfected before put into service				
Backflow preventers. Installed on all water supply outlets to prevent backflow of water				<i>In accordance with CAN/CSA-B64 Series</i>
<b>Traffic Patterns for Patients, Visitors, Staff, Supplies, Equipment, Linen and Waste</b> <i>Further information on the requirements in this section can be found in the CAN/CSA Z8000 Canadian Health Care Facilities</i>				
Patient movement. Designed to cause minimal exposures (patient-to-patient and patient-to-visitors)				
Clean and sterile supplies and equipment. Transported and stored to prevent cross-contamination				
Movement and transport of all wastes. Designed to prevent minimal exposure to patients and visitors				
<b>Housekeeping</b>				
Cleaning and staffing schedules. Established to maintain the area as per Environmental Services Best Practice Guidelines				
Adequate number of: <ul style="list-style-type: none"> <li>▪ Linen hampers</li> <li>▪ Waste containers for biohazard waste</li> <li>▪ General waste are provided</li> </ul>				
All light pulls/emergency pull cords. Compatible with hospital-grade disinfectants				
<b>Plant Engineering</b>				
Written schedules and procedures established for routine preventative maintenance of: <ul style="list-style-type: none"> <li>▪ HVAC systems</li> <li>▪ Cooling towers</li> <li>▪ Clinical suctioning systems</li> </ul> (should be planned but not necessarily completed before occupancy)				

# CRMD Checklist: Commissioning

				Yes	No	N/A	Comments
<b>Architectural</b>							
<i>Refer to CSA Z8000 Canadian Health Care Facilities</i>							
Ceiling, wall and floor surfaces:							
<ul style="list-style-type: none"> <li>▪ Properly finished</li> <li>▪ Are appropriate to areas and usage (includes finishes)</li> <li>▪ Compatible with hospital-grade disinfectants</li> </ul>							
Pipe and ductwork penetrations. Sealed properly							
Plumbing fixtures, window and door frames, kitchen and work counters. Caulked to the wall or floor surface to prevent water seepage and subsequent mold growth							
<b>Mechanical</b>							
<i>Refer to CSA Z8000 Canadian Health Care Facilities and CSA Z317.2 Special Requirements for Heating, Ventilation and Air-Conditioning (HVAC) Systems in Health Care Facilities</i>							
Mechanical systems. Equipped and designed to include:							<i>Examples are airborne isolation rooms, for which particular requirements for HVAC and plumbing systems apply</i>
<ul style="list-style-type: none"> <li>▪ Easy access and maintenance, especially with systems needing frequent maintenance or where infection control is a concern</li> <li>▪ System equipment maintenance and repair can be achieved with minimal disruption to patients</li> <li>▪ HVAC systems have the capacity to be isolated into zones to respond to emerging infectious diseases</li> </ul>							
Hand-hygiene sinks. Wrist blades or foot water- volume controls are properly adjusted							
<b>Electrical</b>							
Fans, air handling units, special equipment, etc. identified on electrical circuitry and backup systems							
<b>Furniture, Finishes and Surfaces</b>							
Furniture, finishes and surfaces:							
<ul style="list-style-type: none"> <li>▪ Promote easy maintenance/repair and cleaning (must withstand facility-approved cleaning and disinfectant products)</li> <li>▪ Do not support microbial growth</li> <li>▪ Non-porous, smooth surfaces</li> <li>▪ Monolithic ceilings (i.e., constructed without fissures, cracks and crevices)</li> </ul>							

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		Yes	No	N/A	Comments
	<ul style="list-style-type: none"> <li>▪ Furniture upholstered with impervious material</li> <li>▪ Antimicrobial treated surfaces not used</li> <li>▪ Wall finishes washable</li> <li>▪ In areas where plumbing fixtures are present, wall finishes moisture resistant</li> </ul>				
	<b>Operational</b>				
	Personnel. Trained to use new equipment related to IPAC (e.g., macerators, room controls)				
	Final project systems and equipment. Reviewed and approved by facility infection- control department				

## Steps before occupancy

Develop checklists specific to the project for a walk-through just before occupancy.

Core IC issues for inclusion are listed below as applicable.

Stage	Task	Yes	No	N/A	Comments
<b>2 weeks before moving into new facility</b>	Processing packs. Used to check steam and gas sterilizers				<i>Refer to most recent CAN./CSA Z314.3 Effective sterilization in health care facilities by the steam process section 12.3 and CAN./CSA Z314.1 Ethylene oxide sterilizers for health care facilities, Annex A</i>
	Water temperatures. Verified correct				
	Transportation routes for patients, visitors, staff and clean/soiled items. Established				
<b>1 week before moving into new facility</b>	<p>**Evaluation of HVAC supplying special areas. Completed. To include:</p> <ul style="list-style-type: none"> <li>▪ Operating rooms</li> <li>▪ Interventional cardiology rooms</li> <li>▪ Bronchoscopy suites</li> <li>▪ Airborne-infection isolation (All) rooms</li> <li>▪ Protective isolation rooms</li> </ul>				
	Airborne isolation rooms. Tested to ensure airflow is negative to the hallway				

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Stage	Task	Yes	No	N/A	Comments
	**Laminar air hoods. Completed for effective operation and functioning according to manufacturer's specifications				
	Aerators removed from faucets in patient-care areas				
	Construction debris. Removed and contractors completed their own cleaning				
	Pre occupancy terminal clean and disinfection of area. Completed by Housekeeping department				
	Single use towel and soap dispensers. Installed in appropriate locations adjacent to handwashing sinks				
	Hand hygiene sinks: <ul style="list-style-type: none"> <li>▪ Approved products installed</li> <li>▪ Dispensing container properly assembled</li> <li>▪ Excess tubing connecting to foot pumps removed</li> </ul> Paper towel dispenser properly mounted, filled and dispensing				<i>Refer to CSA Z8000 Canadian Health Care Facilities</i>
	Location of waste receptacle for paper towels: <ul style="list-style-type: none"> <li>▪ Waste bins placed closely to hand hygiene sink as per CSA Z8000</li> <li>▪ Lidded bins are foot-pedal operated</li> </ul> Paper-waste receptacles made of corrosion-free material and have wide-mouth design				<i>Refer to CSA Z8000 Canadian Health Care Facilities</i>
	PPE and waste receptacle. Readily accessible in patient-care areas				
	Sharps containers: <ul style="list-style-type: none"> <li>▪ Located at point-of-use</li> <li>▪ Puncture resistant, tamper resistant, leak proof and designed so used sharps can be discarded with one hand</li> <li>▪ Clearly identified as biological hazard</li> </ul> Have a carrying handle with lid that is securely attached to container and can be closed and locked when container full				

**\*\*Objective evidence should be requested from contractor that HVAC is providing air exchanges and filtration as designed, before owner acceptance**

## References

1. Cotten B. Construction and renovation. In: Association for Professionals in Infection Control and Epidemiology. APIC text online [Internet]. Washington, DC: Association for Professionals in Infection Control and Epidemiology; c2015 [cited 2015 Mar 30].
2. Bartley JM. APIC state-of-the-art report: the role of infection control during construction in health care facilities. *Am J Infect Control*. 2000;28(2):156-69. Available from: [http://www.apic.org/Resource\\_/TinyMceFileManager/Practice\\_Guidance/IC-During-Construction-HC-Fac.pdf](http://www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/IC-During-Construction-HC-Fac.pdf)
3. Ontario. Ministry of Health and Long-Term Care. Space planning guide for community health care facilities. Toronto, ON: Queen's Printer for Ontario; 2015. Available upon request from: [HealthCapitalInvestmentBranch@ontario.ca](mailto:HealthCapitalInvestmentBranch@ontario.ca)
4. CSA Group. CSA Z8000-11: Canadian health care facilities. Toronto, ON: CSA Group; 2011.
5. CSA Group. CSA Z317.13-12: Infection control during construction, renovation, and maintenance of health care facilities. Toronto, ON: CSA Group; 2012.
6. CSA Group. CAN/CSA Z317.2-10: Special Requirements for heating, ventilation and air-conditioning (HVAC) systems in health care facilities. Toronto, ON: CSA Group; 2010.
7. CSA Group. CSA Z317.1-09(R2014): Special requirements for plumbing installations in health care facilities. Toronto, ON: CSA Group; 2009.