COMPLIANCE CHECKLIST

IP23: Chemotherapy Infusion

The following checklist is intended to be used in the plan review applications for health care facilities submitted to the Massachusetts Department of Public Health. This checklist summarizes and references the applicable requirements from the Licensure Regulations and the 2014 Edition of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities. Applicants must verify compliance of the plans submitted to the Department with all referenced requirements from the Licensure Regulations and FGI Guidelines when completing this Checklist. A separate Checklist must be completed for each nursing unit, hospital or clinic department, or clinical suite.

Other jurisdictions, regulations and codes may have additional requirements which are not included in this checklist, such as:

- NFPA 101 Life Safety Code (2000) and applicable related standards contained in the appendices of the Code
- State Building Code (780 CMR)
- Joint Commission on the Accreditation of Health Care Organizations
- CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
- USP 797
- Accessibility Guidelines of the Americans with Disabilities Act (ADA)
- Architectural Access Board Regulations (521 CMR)
- Local Authorities having jurisdiction.

Instructions:

1. All requirement lines must be completed according to the following instructions and included in the plan submissions for Self-Certification Process or Part II of the Abbreviated Review Process.
2. This checklist must be completed by the project architect or engineer based on the design actually reflected in the plans at the time of completion of the checklist.
3. Each requirement line (___) of this Checklist must be completed exclusively with one of the following symbols, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the symbol "E" may be indicated on the requirement line (___) before the name of the functional space (associated requirements on indented lines below that name, or associated MEP requirements do not have to be completed in this case). If more than one functional space serves a given required function (e.g. patient room or exam room), that clarification should be provided in the Project Narrative, and the requirement lines are understood to only address the functional spaces that are involved in the project.

X = Requirement is met, for new space, for renovated space, or for existing direct support space for an expanded service.

☒ = Check box under section titles or individual requirements lines for optional services or functions that are not included in the project area.

E = Requirement relative to an existing suite or area that has been *licensed* for its designated function, is *not affected* by the construction project and *does not pertain to a required direct support space* for the specific service affected by the project.

W = Waiver requested for specific section of the Regulations or FGI Guidelines, where hardship in meeting requirement can be demonstrated (a Physical Plant Waiver Form must be completed for each waiver request).

4. All room functions marked with "X" must be shown on the plans with the same name labels as in this checklist.
5. Mechanical, electrical & plumbing requirements are only partially mentioned in this checklist. The relevant section of the FGI Guidelines must be used for project compliance with all MEP requirements and for waiver references.
6. Oxygen, vacuum, medical air, and waste anesthesia gas disposal outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", & "WAGD".
7. Requirements referenced with "FI" result from formal interpretations from the FGI Interpretations Task Group.
8. The location requirements including asterisks (*) refer to the definitions of the Glossary in the beginning section of the FGI Guidelines.

Facility Name: _____

DoN Project Number: (if applicable) _____

Facility Address: _____

Satellite Name: (if applicable) _____

Building/Floor Location: _____

Satellite Address: (if applicable) _____

Submission Dates:

Project Description: _____

Initial Date:

Revision Date:

	Architectural Requirements	Building Systems Requirements	
2.2-3.12	**CHEMOTHERAPY INFUSION**		
2.2-3.12.2	___ Treatment Area		
2.2-3.12.2.1(3)	___ separate from administrative & waiting areas		
2.2-3.12.2.2	Space Requirements: ___ patient bays* ☐check if not included in project ___ min. clear floor area 70 sf ___ 5'-0" between sides of patient beds/stretchers ___ min. clearance 3'-0" on at least three sides of bed or lounge chair ___ patient cubicles* ☐check if not included in project ___ min. clear floor area 80 sf ___ min. clearance 3'-0" on at least three sides of bed or lounge chair ___ single-bed rooms ☐check if not included in project ___ min. clear floor area 100 sf ___ min. clearance 3'-0" on at least three sides of bed or lounge chair	Ventilation: ___ Min. 6 air changes per hour	Table 7.1
2.2-3.12.2.4	___ Each patient station has provisions for visual privacy from observation by other patients & visitors		
2.2-3.12.2.5	___ Handwashing stations		
2.1-7.2.2.8(1)	___ handwashing stations in patient care areas located to be visible & unobstructed		
2.1-2.6.5.3	___ handwashing stations that serve multiple patient care stations ☐check if not included in project:		
(1)	___ at least one handwashing station for every 4 patient care stations or fewer & for each major fraction thereof		
(2)	___ evenly distributed ___ provide uniform distance from two patient care stations farthest from handwashing station		
2.2-3.12.2.5 (2)	___ handwashing station located in, next to, or directly accessible* to nurse station		
2.2-3.12.2.6	___ Patient toilet room ___ located in treatment area ___ handwashing station	Ventilation: ___ 10 air changes per hour ___ Exhaust	Table 7.1
2.2-3.12.2.8	___ Nurse station ___ located in treatment area		
(1)	___ designed to provide visual observation of all patient care stations		
(2)	___ nurse station out of direct line of traffic		

	Architectural Requirements	Building Systems Requirements	
2.2-3.12.4.2	___ Airborne infection isolation (AII) room ☐check if not included in project		
2.1-2.4.2.2		Ventilation:	
(1)	___ single-bed room	___ Min. 12 air changes per hour	Table 7.1
(2)	___ provision made for personal protective equipment storage at entrance to room	___ Exhaust ___ Negative pressure	
(3)	___ handwashing station in each patient room	___ No recirculating room units	
2.1-7.2.3.1(6)	___ monolithic floors with integral coved 6" high wall base	___ Space ventilation & pressure relationship maintained in event of loss of normal electrical power	4/6.1.1
		___ Exhaust air from AII rooms, associated anterooms & toilet rooms discharged directly to outdoors	4/7.2.1
		___ Exhaust grilles or registers located directly above patient bed on ceiling or on wall near head of bed	
		___ Permanent device monitoring differential air pressure between AII room & corridor	
2.1-2.4.2.2(4)	___ separate room with toilet & handwashing station	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust	Table 7.1
2.1-2.4.2.3	Anteroom: ☐check if not included in project		
(1)	___ for persons to don personal protective equipment before entering patient room	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust	Table 7.1
(2)	___ all doors to anteroom have self-closing devices	___ Negative pressure to corridor ___ No recirculating room units	
2.1-2.4.2.4(1)			
(b)	___ self-closing devices on all room exit doors		
(c)	___ doors has edge seals		
2.2-3.12.6	**SUPPORT AREAS FOR CHEMOTHERAPY INFUSION CENTER**		
2.2-3.12.6.6	___ Medication safety zone - medication preparation room		
2.1-2.6.6.2(1)			
(a)	___ under visual control of nursing staff		
(b)	___ work counter ___ handwashing station ___ lockable refrigerator ___ locked storage for controlled drugs	Ventilation: ___ 4 air changes per hour Nurse Call System: ___ Duty station	Table 7.1 Table 2.1-2
(c)	Sharps Containers: ☐check if not included in project ___ sharps containers placed at height that allows users to see top of container		
(d)	___ space to prepare medicines in addition to any self-contained medicine-dispensing unit		

	Architectural Requirements	Building Systems Requirements	
2.1-4.2.3.2	___ Sterile IV preparation room ☐check if not included in project		
	___ separate sterile work room with laminar-flow workstation designed for product protection		
(1)	___ laminar-flow workstation includes non hydroscopic HEPA filter		
(2)	___ laminar-flow workstation includes visible pressure gauge for detection of filter leaks or defects		
DPH-BRP Policy	___ ISO Class 7 clean room (as defined by USP 797)	Ventilation: ___ Min. 30 air changes per hour ___ Positive pressure ___ HEPA filter	USP 797
USP 797	___ Access to sterile IV preparation room through ISO Class 7 anteroom	Ventilation: ___ Min. 30 air changes per hour	USP 797
2.1-4.2.6.5	___ handwashing station	___ HEPA filter	
2.1-4.2.3.3	___ Cytotoxic IV preparation room. ☐check if not included in project		
	___ separate room for preparation of cytotoxic IV admixtures under Class II (Type A2, BL, or B2) or Class III biological safety cabinet.		
DPH-BRP Policy	___ ISO Class 7 clean room (as defined by USP 797)	Ventilation: ___ Min. 30 air changes per hour ___ Negative pressure ___ Contaminated exhaust	USP 797
USP 797	___ Access to sterile IV preparation room through ISO Class 7 anteroom	Ventilation: ___ Min. 30 air changes per hour	USP 797
2.1-4.2.6.5	___ handwashing station	___ HEPA filter	
2.2-3.12.6.7	___ Nourishment area or room		
(2)	___ drinking water-dispensing unit for patient use separate from handwashing station		
2.1-2.6.7.2		Ventilation:	
(1)	___ handwashing station	___ 2 air changes per hour	Table 7.1
(2)	___ work counter		
(3)	___ refrigerator		
(4)	___ microwave		
(5)	___ storage cabinets		
(6)	___ space for temporary storage of unused & soiled food service implements		
2.1-2.6.7.3	___ provisions & space for separate temporary storage of unused & soiled meal trays not picked up at mealtime		
2.1-2.6.9	___ Clean workroom or clean supply room		
2.1-2.6.9.1	___ clean workroom used for preparing patient care items	Ventilation: ___ 4 air changes per hour ___ Positive pressure	Table 7.1
(1)	___ work counter		
(2)	___ handwashing station	Nurse Call System:	
(3)	___ storage facilities for clean & sterile supplies	___ Duty station	

	Architectural Requirements	Building Systems Requirements	
	or		
2.1-2.6.9.2	___ clean supply room used only for storage & holding as part of system for distribution of clean & sterile supplies	Ventilation: ___ 4 air changes per hour ___ Positive pressure	Table 7.1
2.1-2.6.10	___ Soiled workroom or soiled holding room		
2.1-2.6.10.1	___ soiled workroom room	Ventilation:	
(1)	___ handwashing station	___ 10 air changes per hour	Table 7.1
(2)	___ flushing-rim clinical service sink with bedpan washer	___ Exhaust ___ Negative pressure	
(3)	___ work counter	Nurse Call System:	
(4)	___ space for separate covered containers	___ Duty station	
	or		
2.1-2.6.10.2	___ soiled holding room	Ventilation:	
(1)(a)	___ handwashing station or hand sanitation station	___ 10 air changes per hour ___ Exhaust	Table 7.1
(1)(b)	___ space for separate covered containers	___ Negative pressure	
2.2-3.12.6.11	___ Stretcher/wheelchair storage		
2.2-3.12.6.12	___ Environmental services room		
	___ located in chemotherapy infusion unit		
2.1-2.6.12.2		Ventilation:	
(1)	___ service sink or floor-mounted mop sink	___ 10 air changes per hour	Table 7.1
(2)	___ provisions for storage of supplies & housekeeping equipment	___ Exhaust	
(3)	___ handwashing station or hand sanitation station		
2.2-3.12.7	**SUPPORT AREAS FOR STAFF**		
2.2-3.12.7.1	___ Staff lounge facilities		
2.2-3.12.7.1(1)	___ located on same floor as cancer treatment/infusion therapy unit & convenient to unit		
2.1-2.7.1	___ min. 100 sf	Nurse Call System: ___ Duty station	Table 2.1-2
2.2-3.12.7.2	___ Staff toilet room	Ventilation:	
2.1-2.7.2.1	___ readily accessible* to chemotherapy infusion unit	___ 10 air changes per hour	Table 7.1
2.1-2.7.2.2	___ toilet & handwashing station	___ Exhaust	
2.2-3.12.8	**SUPPORT AREAS FOR PATIENTS**		
2.2-3.12.8.1	___ Waiting room		
(1)	___ toilet room with handwashing station		
(2)	___ drinking fountain		
(3)	___ public telephone		
(4)	___ seating accommodations for waiting periods		

Architectural Requirements **Building Systems Requirements**

2.2-3.12.8.2 ___ Storage for patient belongings

2.2·3.12.9 Special Design Elements:

(1) ___ no decorative water features

(2) ___ no fish tanks

Architectural Details & MEP Requirements

2.1-7.2.2 ARCHITECTURAL DETAILS

2.1-7.2.2.1 NFPA 101

___ Aisles, corridors & ramps required for exit access in a hospital not less than 8'-0" in clear & unobstructed width

or

___ Code Review Sheet establishing compliance with NFPA 101 has been submitted

___ Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44” in clear width

2.1-7.2.2.2 CEILING HEIGHT:

(1) ___ Min. ceiling height 7’-6” in corridors & normally unoccupied spaces

(4) ___ Min. height 7’-6” above floor of suspended tracks, rails & pipes located in traffic path for patients in beds and/or on stretchers

___ Min. ceiling height 7’-10” in other areas

2.1-7.2.2.3 DOORS & DOOR HARDWARE:

(1)

(a) ___ Doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors

(b) ___ Sliding doors
☐check if not included in project

___ manual or automatic sliding doors comply with NFPA 101

___ code review sheet attached

___ no floor tracks

(2)

(a) ___ Min. 45.5” clear door width for diagnostic/treatment areas

___ Min. 83.5” clear door height for diagnostic/treatment areas

(b) ___ Swinging doors for personnel use in addition to sliding doors
☐check if not included in project

(3) ___ min. clear width 34.5”

___ Doors do not swing into corridors (except doors to non-occupiable spaces & doors with emergency breakaway hardware)

(4)

(b) ___ Lever hardware

(5) ___ Doors for patient toilet facilities

(a)

___ 2 doors separated by horizontal distance equal to one-half length of max. diagonal room dimension

or

___ door that swings outward

or

___ door equipped with emergency rescue hardware

or

(b) ___ sliding door

___ toilet room door opening in public area or corridor maintains visual privacy

2.1-7.2.2.7 GLAZING MATERIALS:

(4) ___ Glazing within 18” of floor
☐check if not included in project

___ safety glass, wire glass or plastic break-resistant material

2.1-7.2.2.8 HANDWASHING STATIONS:

(1) ___ Handw. stations in patient care areas located to be visible & unobstructed

(3) ___ Anchoring suitable for vertical or horizontal force of 250 lbs.

(4) Handwashing Station Countertops:
☐check if not included in project

(a) ___ porcelain, stainless steel or solid surface materials

(b) ___ plastic laminate countertops
☐check if not included in project

___ substrate marine-grade plywood (or equivalent) with impervious seal

(5) ___ Designed to prevent storage beneath sink

(6) ___ provisions for drying hands

(a) ___ hand-drying device does not require hands to contact

(d) dispenser

(7) ___ directly accessible* to sinks

___ Liquid or foam soap dispensers

2.1-7.2.2.9 GRAB BARS:
(2) ___ Grab bars anchored to sustain concentrated load of 250 lbs.

2.1-7.2.2.10 HANDRAILS:
(1) ___ Handrails installed on both sides of patient use corridors
(3) ___ Rail ends return to wall or floor
(4) ___ Smooth non-textured surface free of rough edges
(5) ___ Eased edges & corners
(6) ___ Finishes cleanable

2.1-7.2.2.12 NOISE CONTROL:
(2) ___ Partitions, floors & ceiling construction in patient areas conform to Table 1.2-6

2.1-7.2.3 SURFACES

2.1-7.2.3.1 FLOORING & WALL BASES:
(1) ___ Selected flooring surfaces cleanable & wear-resistant for location
(2) ___ Smooth transitions between different flooring materials
(3) ___ Flooring surfaces, including those on stairways, stable, firm & slip-resistant
(b) ___ Carpet
☐check if not included in project
___ provides stable & firm surface
(4) ___ Floors & wall bases of soiled workrooms, toilet rooms & other wet cleaned areas are not physically affected by cleaning solutions

2.1-7.2.3.2 WALLS & WALL PROTECTION:
(1)
(a) ___ Washable wall finishes
(b) ___ Wall finishes near plumbing fixtures smooth, scrubbable & water-resistant
(2) ___ Monolithic wall surfaces in areas routinely subjected to wet spray or splatter
(5) ___ No sharp, protruding corners
(6) ___ Wall protection devices & corner guards durable & scrubbable

2.1-7.2.3.3 CEILINGS:
(1) Ceilings in areas occupied by patients, in clean rooms & soiled rooms:
(a) ___ cleanable with routine housekeeping equipment
(b) ___ acoustic & lay-in ceilings
☐check if not included in project
___ do not create ledges or crevices

2.1-8.2 **HEATING, VENTILATION, & AIR-CONDITIONING (HVAC) SYSTEMS**

4/6.3.1 Outdoor Air Intakes:
4/6.3.1.1 ___ Located min. 25 feet from cooling towers & all exhaust & vent discharges
___ Bottom of air intake is at least 6'-0" above grade
4/6.3.1.2 Roof Mounted Air Intakes:
☐check if not included in project
___ bottom min. 3'-0" above roof level
4/6.3.2 Exhaust Discharges for Contaminated Exhaust Air:
☐check if not included in project
___ Ductwork under negative pressure (except in mechanical room)
___ Discharge in vertical direction at least 10'-0" above roof level
___ Located not less than 10'-0" horizontally from air intakes & operable windows/doors
4/6.4 Filtration:
___ Filter banks conform to Table 6.4
4/6.4.1 ___ Filter Bank #1 placed upstream of heating & cooling coils
4/6.4.2 ___ Filter Bank No. 2 installed downstream of cooling coils & supply fan
4/6.7 Air Distribution Systems
4/6.7.1 ___ Ducted return or exhaust systems in spaces listed in Table 7.1 with required pressure relationships
___ Ducted return or exhaust systems in inpatient care areas
4/6.7.3 Smoke & Fire barriers:
___ HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers
4/6.8 Energy Recovery Systems:
4/6.8.2 ___ Exhaust systems serving potentially contaminated rooms are not used for energy recovery
4/6.9 Duct Lining:
___ No duct lining in ductwork located downstream of Filter Bank #2
4/7. Space Ventilation:
4/7.1 ___ Spaces ventilated per Table 7.1
___ Air movement from clean areas to less clean areas

___ Min. number of total air changes indicated either supplied for positive pressure rooms or exhausted for negative pressure rooms

___ Recirculating room HVAC units
☐check if not included in project

___ each unit serves only single space

___ min. MERV 6 filter for airflow downstream of cooling coils

4/7.2 Additional Room-Specific Requirements:

2.1-8.2.1.1 Acoustic Considerations:

(5) ___ Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade

2.1-8.2.1.2 Ventilation & Space-Conditioning:

(1) ___ All rooms & areas used for patient care have provisions for ventilation

(2) ___ Mechanical ventilation provided for all rooms & areas in facility in accordance with Table 7.1 of Part 4

2.1-8.3 **ELECTRICAL SYSTEMS**

2.1-8.3.2 **ELECTRICAL DISTRIBUTION & TRANSMISSION**

2.1-8.3.2.1 Switchboards Locations:

(1)

(a) ___ Located in areas separate from piping & plumbing equipment

(b) ___ Not located in rooms they support

___ Accessible to authorized persons only

(c) ___ Located in dry, ventilated space free of corrosive gases or flammable material

2.1-8.3.2.2 Panelboards:

(1) ___ Panelboards serving life safety branch emergency circuits only serve same floor, floor above & floor below

(2) ___ Panelboards serving critical branch emergency circuits only serve same floor

(3) ___ New panelboards not located in exit enclosures

2.1-8.3.3.1 **EMERGENCY ELECTRICAL SERVICE**

(1) ___ Emergency power per NFPA 99, NFPA 101 & NFPA 110

2.1-8.3.5 **ELECTRICAL EQUIPMENT**

2.1-8.3.5.2 ___ Required handwashing station or scrub sink tied to building electrical service
☐check if not included in project

___ connected to essential electrical system

2.1-8.3.6 **ELECTRICAL RECEPTACLES**

2.1-8.3.6.2 Receptacles in Patient Care Areas:

___ receptacles provided according to Table 2.1-1

2.1-8.3.7 **CALL SYSTEMS**

___ Nurse call equipment legend includes patient stations, bath stations, staff emergency stations & code call stations

2.1-8.3.7.1

(1) ___ Nurse call system locations provided as required in Table 2.1-2

(2) ___ Nurse call systems report to attended location with electronically supervised visual & audible signals

(4) ___ Call systems meet requirements of UL 1069 *Standard for Hospital Signaling & Nurse Call Equipment*

(5) ___ Wireless system
☐check if not included in project

___ meet requirements of UL 1069

2.1-8.3.7.3 Bath Stations:

___ provided at each patient toilet

(1) ___ alarm turned off only at bath station where it was initiated

(3) ___ located to side of toilets within 12” of front of toilet bowl & 3'-0" to 4’-0” above floor

2.1-8.3.7.4 ___ Staff emergency stations for summoning local staff assistance for non-life-threatening situations at each patient care location

2.1-8.3.7.5 ___ Code call station equipped with continuous audible or visual signal at point of origin

2.1-8.4.2 **PLUMBING & OTHER PIPING SYSTEMS**

2.1-8.4.2.5 Heated Potable Water Distribution Systems:

(2) ___ systems serving patient care areas are under constant recirculation

___ non-recirculated fixture branch piping does not exceed 25’-0” in length

(3) ___ no dead-end piping

(4) ___ water-heating system has supply capacity at minimum temperatures & amounts indicated in Table 2.1-3

(5)
___ handwashing stations supplied as required above
or
___ handwashing stations supplied at constant temperature between 70°F & 80°F using single-pipe supply

2.1-8.4.2.6 Drainage Systems:
(1) ___ drainage piping above ceiling of, or exposed in electric closets
☐check if not included in project
___ special provisions to protect space below from leakage & condensation

2.1-8.4.3 **PLUMBING FIXTURES**

2.1-8.4.3.1
(1) ___ Materials material used for plumbing fixtures non-absorptive & acid resistant

2.1-8.4.3.2 Handwashing Station Sinks:
(1) ___ basins reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & medications are prepared
(2) ___ basin min. 144 square inches
___ min. dimension 9 inches
(3) ___ made of porcelain, stainless steel, or solid-surface materials
(5) ___ water discharge point of faucets at least 10 inches above bottom of basin
(7) ___ anchoring for sinks withstands min. vertical or horizontal force of 250 lbs.
(8) ___ fittings operated without using hands for sinks used by medical & nursing staff, patients, public & food handlers

(a)
___ blade handles or single lever
___ min. 4 inches long
___ provide clearance required for operation
or
(b)
___ sensor-regulated water fixtures
___ meet user need for temperature & length of time water flows
___ designed to function at all times & during loss of normal power

2.1-8.4.3.5 Clinical Sinks:
☐check if not included in project
(1) ___ trimmed with valves that can be operated without hands
(2) ___ handles min. 6 inches long
___ integral trap wherein upper portion of water trap provides visible seal

2.1-8.4.4 **MEDICAL GAS & VACUUM SYSTEMS**

___ Station outlets provided as indicated in Table 2.1-4

2.1-8.4.4.2
(2) ___ Vacuum discharge at least 25'-0" from all outside air intakes, doors & operable windows

2.1-8.6.2 **ELECTRONIC SURVEILLANCE SYSTEMS**
☐check if not included in project
2.1-8.6.2.1 ___ Devices in patient areas mounted in unobtrusive & tamper-resistant enclosures
2.1-8.6.2.2 ___ Monitoring devices not readily observable by general public or patients
2.1-8.6.2.3 ___ Receive power from emergency electrical system