

1.2 PLANNING/PREDESIGN PROCESS

- (b) Remain an active component of all project documents
 - (i) Planning, design, equipment and furniture specifications
 - (ii) Construction documentation
 - (iii) Commissioning records
 - (iv) Postoccupancy evaluation documents
- (3) Changes to the original design plans and as-built documentation, including changes in identified risks and solutions, shall be recorded, updated, and shared among RSRA team members throughout project design, construction, and commissioning.

1.2-3.2 Infection Control Risk

*1.2-3.2.1 Infection Control Risk Assessment

For a facility project to support safe designs, finishes, surfaces, and HVAC/plumbing systems, an infection control risk assessment (ICRA) shall be part of the resident safety risk assessment.

1.2-3.2.2 Elements to Be Assessed

The care provider shall provide the results of an evaluation of infection control risk for the following elements for incorporation into the functional program:

*1.2-3.2.2.1 Design elements

- (1) Heating, ventilation, and air-conditioning (HVAC) systems
 - (a) If airborne infection isolation (AII) rooms are required, the number, location, and type shall be identified in the functional program.
 - * (b) Special HVAC needs to accommodate the services provided in or affected by the project (e.g., HVAC needs for AII rooms, pharmacies, local exhaust systems for areas where hazardous agents are present, and other special areas) shall be identified in the functional program.
 - (c) Strategies for design of HVAC systems, including those intended to reduce energy costs, shall include development of designs that minimize the risk of airborne transmission of biological agents.
- (2) Water/plumbing systems
 - * (a) The number, location, and type of hand-washing stations, hand sanitation dispensers, and emergency first-aid equipment (eyewash stations and deluge showers) needed shall be identified in the functional program.
 - * (b) Strategies for design of water systems or water conservation systems shall include development of designs that minimize the risk of

APPENDIX

A1.2-3.2.1 Infection control risk assessment. The ICRA is an interdisciplinary, documented process intended to identify and mitigate risks from infection that could occur as a result of design and construction activities, taking into account:

- a. The resident population at risk
- b. The nature and scope of the project
- c. The functional program of the health, care, or support facility
- d. The potential risk of transmission of various airborne and waterborne biological contaminants in the facility

A1.2-1.2-3.2.2.1 Design elements. Provision of single-resident rooms may reduce health care-associated infections (HAIs).

A1.2-3.2.2.1 (1)(b) Special HVAC needs. Airborne contamination can result when HVAC systems are improperly designed, built, or maintained. In addition to providing comfort and minimizing exposure to chemical pollution, ventilation systems are an important means of preventing infection. An HVAC system expert, whether an independent engineer or an employee of the care provider, should determine which of the following HVAC design considerations should be covered in the ICRA:

- a. Characteristics of overall system design as well as design for specific sensitive areas, including components, capacity, filtration, air changes, pressure relationships, and directional flow
- b. Ease of access for system maintenance
- c. Ease of general maintenance activities and system cleaning
- d. Selection of air distribution devices that allow for minimal or easy cleaning
- e. Location of air intakes and exhaust outlets to prevent cross-contamination
- f. Redundancy in equipment and systems
- g. Plan for system outages and maintenance (planned and unplanned)

A1.2-3.2.2.1 (2)(a) Location of hand-washing stations. Locating hand-washing stations in the sight lines of staff may reduce HAIs.

A1.2-3.2.2.1 (2)(b) Water conservation systems. Providing touch-point cleaning that uses microfiber technologies may reduce HAIs as well as chemical and water use.