

Infection Prevention and Control (IPAC) Healthcare Design Considerations in Patient Care Areas – Furniture and Furniture Finishes in all Healthcare Settings

References:

CSA Group – Z8000:24 Canadian Health Care Facilities
 CSA Group – Z8004:22 Long-Term Care Home Operations and Infection Prevention and Control
 CSA Group – Z3174.12:20 Cleaning and Disinfection of Health Care Facilities
 Provincial Infection Control Network of British Columbia (2016). [British Columbia Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Healthcare Settings and Programs](#).
[Vancouver Coastal Health Long-Term Care Design Guidelines \(2020\)](#)

General Recommendations:

- IPAC is supportive of patient-centered care and the needs of the given patient population. Furniture selection shall be appropriate to the service delivery model and model of care used in the area. Careful consideration should be given when determining what best suits the intended function, the environment and the approach to care.
- Furnishings shall be robust, consistent with institutional grade quality.
- Stain blocking finishes may be utilized but are no substitute for good cleaning and disinfection practices/routines.
- Manufacturers cleaning instructions geared to actual use and clinical practice should be provided for all product materials and finishes.
- Materials and surfaces should be compatible with cleaning and disinfecting products and adjunct disinfection methods used throughout Vancouver Coastal Health (e.g. Accelerated Hydrogen Peroxide, UV Disinfection, Ethanol Alcohol).
- Consider furnishings and finishes that permit ease of maintenance and repair.
- Where possible, parts (e.g. cushions, arm pads, etc.) should be easily removable to facilitate replacement/repair when damaged.

Non-Upholstered Surfaces:

- Surfaces should be solid, smooth, non-porous, water-impervious and scratch resistant (e.g. laminate, poly resin products, metal).
- Surfaces and finishes must be able to withstand frequent cleaning and disinfection.
- Must be compatible with the clinical practice area and Health Authority approved detergents, cleaners and disinfectants.
- Minimal surface joints, seams and exposed hardware.
- Abutting surfaces should have minimal space to avoid creation of crevices that are difficult to clean.
- A space between the chair back and seat can facilitate cleaning and prevent build-up of foreign materials in crevices.
- Arm rests should be rounded with large radii along edges to facilitate easier cleaning and disinfection.
- Avoid finishes on hard surfaces that can easily chip or scratch as this allows for accumulation of microorganisms making cleaning and disinfection difficult.
- Organic substrates (e.g. unfinished wood, granite) should be avoided. Even if these surfaces are laminated, varnished or sealed, they do not stand up to repeated cleaning and disinfection over time which leads to exposure of porous surfaces.
- Cellulose-based materials shall not be used for surfaces that are subject to wear or excessive moisture.
- Materials such as metals and hard plastics are less likely to support microbial growth.
- Use of copper surfaces for high-touch points (e.g. door handles, light switches, arm rests) may be beneficial due to intrinsic broad spectrum anti-microbial activity.

Upholstered Surfaces:

- Upholstery should be durable, stain-resistant and easy to clean using Health Authority approved cleaning and disinfecting products and adjunct methods of disinfection (e.g. UV light, steam cleaning).
- Depending on the demands of the space, the following materials may be appropriate:
 - Coated fabrics such as PVC (vinyl), and silicone.
 - Woven fabrics treated with stain-resistant finishes and fluid barriers that are designed to prevent moisture and liquids from penetrating the fabric.
 - 100% polyester woven fabrics that utilize high-energy dyes, stain-resistant finishes and fluid barriers.
- Avoid using porous fabrics in any health care setting which promote survival of microorganisms including cotton, cotton terry, nylon, polyester.
- Some plastic surfaces such as polyurethane and polypropylene can be porous depending on the manufacturing process and may need to be avoided as an upholstered surface due to the risk of supporting microbial growth.
- Upholstered surfaces used in patient care areas should be impervious (nonporous).
- Untreated (non-high performance) woven (cloth) fabrics should not be used in patient care areas.
- Upholstered fabrics should be durable and resist tearing, peeling, cracking or splitting. Damaged surfaces cannot be effectively cleaned and disinfected.
- Upholstery that is smooth and non-textured is easier to clean and disinfect.
- Surfaces should be uninterrupted whenever possible, avoid seams, crevices, reveals, piping, zippers and other areas that trap dust, dirt and other contaminants.
- Avoid the use of Velcro™ closures.
- If zippers are used:
 - they must be sealed AND,
 - on surfaces away from direct person contact AND,
 - barrier materials should be used (behind the zipper) to minimize liquid penetration into the cushioning/filling materials.
- Foam and filling materials must not be exposed.
- Avoid mesh backing for seating as it is very difficult to clean.

Setting Specific Recommendations:

Long-Term Care (LTC):

- LTC homes may accept resident-owned furniture that is made of cloth materials as long as the item:
 - is not shared between residents;
 - remains in the resident bedroom;
 - is not donated back to the LTC home; and
 - does not pose a risk or barrier to a resident's ability to perform a sit-to-stand motion or impedes their ability to be continent.

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