Environmental Cleaning Program Improvement Toolkit:
Section A—Tools

A2-1 Risk-assessment categories and scoring instructions

[Reproduced directly from PIDAC: Best Practices for Environmental Cleaning for Prevention and Control of Infections—January 2018 (publichealthontario.ca) https://www.publichealthontario.ca/-/media/documents/B/2018/bp-environmental-cleaning.pdf

Note: this risk assessment has primarily been developed to help determine minimum routine cleaning frequencies based on risk level, rather than to help prioritize where to focus interventions. Because of this, the application of the risk matrix at the patient care area level (i.e., not differentiating by high- and low-touch surfaces, just using 'high-touch' as these will exist in every patient care area) will likely be most useful for the purpose of determining the priority ward for the toolkit process implementation (Step 2B below).

Step 1: Categorize the area based on the three risk factors that determine the need for environmental cleaning:

A. Probability of Contamination with Pathogens

Heavy Contamination (score = 3)

An area is designated as being heavily contaminated if surfaces and equipment are routinely exposed to fresh blood or other body fluids (e.g., birthing suite, autopsy suite, cardiac catheterization laboratory, hemodialysis station, Emergency room, client/patient/resident bathroom if visibly soiled).

Moderate Contamination (score = 2)

An area is designated as being moderately contaminated if surfaces and equipment do not routinely (but may) become contaminated with blood or other body fluids and the contaminated substances are contained or removed (e.g., wet sheets). All client/patient/resident rooms and bathrooms should be considered to be, at a minimum, moderately contaminated.

Light Contamination (score = 1)

An area is designated as being lightly contaminated if surfaces are not exposed to blood, other body fluids or items that have come into contact with blood or body fluids (e.g., lounges, libraries, offices).

B. Vulnerability of Population to Infection

More Susceptible (score = 1)

Susceptible clients/patients/residents are most susceptible to infection because of their medical condition or lack of immunity. These include those who are immunocompromised (oncology, transplant and chemotherapy units), neonates (level 2 and 3 nurseries), and those who have severe burns (i.e., requiring care in a burn unit).

Less Susceptible (score = 0)

For the purpose of risk stratification for cleaning, all other individuals and areas are classified as less susceptible.

C. Potential for Exposure

High-touch surfaces (score = 3):

High-touch surfaces have frequent contact with hands. Examples include doorknobs, telephone, call bells, bedrails, light switches, wall areas around the toilet and edges of privacy curtains.

Low-touch surfaces (score = 1)

Low-touch surfaces have minimal contact with hands. Examples include walls, ceilings, mirrors.

Step 2: Determine the Total Risk Stratification Score:

The score is simply the summation of the three risk factors from Step 1 (A+B+C). It can be used to determine a required minimum cleaning frequency for either a surface type (e.g., high or low-touch surface) or a type of patient care area (e.g., burn unit).

A. If the purpose is to determine cleaning frequency of high- and low-touch surfaces within a given patient care area, then it may be useful to stratify according to the surface type, as shown below:

Risk Stratification Scores for *High-Touch Surfaces* (Score for Potential for Exposure = 3)

Probability of contamination with pathogens	More susceptible population (score = 1)	Less susceptible population (score = 0)
Heavy (score = 3)	7 (3+3+1)	6 (3+3+0)
Moderate (score = 2)	6 (3+2+1)	5 (3+2+0)
Light (score = 1)	5 (3+1+1)	4 (3+1+0)

Risk Stratification Scores for *Low-Touch Surfaces* (Score for Potential for Exposure = 3)

Probability of contamination with pathogens	More susceptible population (score = 1)	Less susceptible population (score = 0)
Heavy (score = 3)	5 (1+3+1)	4 (1+3+0)
Moderate (score = 2)	4 (1+2+1)	3 (1+2+0)
Light (score = 1)	3 (1+1+1)	2 (1+1+0)

B. If the purpose is to determine the routine cleaning frequency of a given patient care area (which would typically just focus on high-touch surfaces; therefore Potential for Exposure = 3), then the score can be presented according to patient care area, as shown below:

Risk Stratification Scores for sample Patient Care Areas:

Location	Probability of Contamination	Potential for Exposure	Vulnerability of Population	Total Score
Burn unit	3	3	1	7
General inpatient	1	3	0	4

Step 3: Determine the risk level or cleaning frequency based on the risk stratification matrix:

Risk levels and corresponding cleaning frequencies are derived from the total score that results from the risk stratification matrix above:

Cleaning Frequencies Based on Total Risk Score

Total Risk Score	Risk Type	Minimum Cleaning[1] Frequency
7	High Risk	Clean after each case/event/procedure and Clean additionally as required
4–6	Moderate Risk	Clean at least once daily Clean additionally as required (e.g., gross soiling)
2–3	Low Risk	Clean according to a fixed schedule Clean additionally as required (e.g., gross soiling)

[1] 'Clean' is a general term in this column, which usually includes both cleaning and disinfection for high-touch surfaces in locations where routine cleaning procedures are recommended on a daily or more frequent (e.g., after each procedure) basis; in other words, in moderate or high risk areas.

A2-2 Example risk categorization table

Note: these are examples and would need to be determined specifically at a facility level. There may be differences according to local factors.

Note: 'Clean' is a general term in this column, which usually includes both cleaning and disinfection for high-touch surfaces in locations where routine cleaning procedures are recommended on a daily or more frequent (e.g., after each procedure) basis; in other words, in moderate or high risk areas.

Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
Admission/ discharge units (general inpatient)	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Cardiac catheterization and angiodynography area	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Chemotherapy unit	2	3	1	6	Clean at least once daily Clean additionally as required
Clean linen handling and storage area	1	1	0	2	Clean according to a fixed schedule
Cystoscopy suite or procedure room	3	3	0	6	Clean at least once daily
Dental procedure room	3	3	0	6	Clean at least once daily Clean additionally as required
Dental procedure room	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required

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Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
Diagnostic imaging suite	1	*1*	0 or 1	2 or 3	Clean according to a fixed schedule Clean additionally as required
Dining room/ cafeteria and food preparation areas	1	3	0	4	Clean at least once daily Clean additionally as required
Echocardiography suite	1	1	0 or 1	2 or 3	Clean according to a fixed schedule Clean additionally as required
Emergency room: patient cubicle	2	3	0 or 1	5 or 6	Clean at least once daily Clean additionally as required
Emergency room: patient cubicle	3	3	0	6	Clean at least once daily Clean additionally as required
Emergency room: patient cubicle	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Emergency room: trauma room	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Emergency room: other emergency areas	1	3	0	4	Clean at least once daily Clean additionally as required
Equipment reprocessing area (CPS/SPD)	3	3	0	6	Clean at least once daily Clean additionally as required
Hemodialysis: dialysis station	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required

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Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
Hemodialysis: other dialysis areas	2	3	0	5	Clean at least once daily Clean additionally as required
Intensive care unit	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Labour and delivery	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Laundry: soiled linen	3	3	0	6	Clean at least once daily Clean additionally as required
Nuclear medicine	1	1	0 or 1	2 or 3	Clean according to a fixed schedule Clean additionally as required
Occupational therapy	1	3	0	4	Clean at least once daily Clean additionally as required
Operating room suite	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Pacemaker insertion room	3	3	0	6	Clean at least once daily Clean additionally as required
Pacemaker insertion room	3	3	1	7	Clean after each case/event/ procedure and at least twice per day Clean additionally as required
Patient room	2	3	0 or 1	5 or 6	Clean at least once daily Clean additionally as required

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Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
Patient bathroom or toilet area	2 or 3	3	0 or 1	6 or 7	Clean at least twice per day Clean additionally as required
Pharmacy: admixture room	1	3	1	5	Clean at least once daily Clean additionally as required
Physical therapy	1	3	0	4	Clean at least once daily Clean additionally as required
Procedure room	3	3	0	6	Clean at least once daily Clean additionally as required