Purpose

This documents provides Infection Prevention and Control direction on conducting environmental marking audits to provide quality assurance and improvement.

Scope

This document is applicable to all Fraser Health owned and operated and affiliated long-term care providers as well as assisted living facilities.

Environmental Marking Audits

Environmental marking audits can assist in reducing transmission by assessing cleaning practices. Environmental marking involves placing "markers," that are not visible to the naked eye on surfaces that are expected to be cleaned. Following cleaning, the markers are checked using an UV light or detector to assess whether effective cleaning (defined as full removal of the marker) has occurred. The continued presence of the marker infers continued presence of organisms, and therefore inadequate cleaning. In most cases, we are satisfied with an 80% pass rate for cleaning (80% of markers no longer visible following cleaning). For COVID-19, we are requesting a 90% pass rate.

Frequency: Monthly and twice a week during outbreaks

Suggested Products: UV Gel or ASSURE tracer

Supplies required:
- UV LED Light
- UV Marking Gel (i.e. Fluorescent lotion or powder), or ASSURE Tracer (Step 1), Detector (Step 2)
- Gloves
- Record of where markers were placed (10 markers are recommended but more may be used, see Marking Documentation in Appendix 1)

Steps for marking:

1. Inform unit manager, CNE, PCC and housekeeping that UV marking will be occurring.
2. Gather supplies listed above and ensure that items are in good working condition.
3. Review Environmental Marker High Touch Points Checklist (Appendix 1) and unit layout to determine high touch points on unit that would be significant to highlight/place the markers.
4. Go to the unit that is receiving the marking.
5. Perform hand hygiene and don gloves if using UV Marking Gel. Gloves are not required for ASSURE.
6. Using a gloved hand, apply UV Marking Gel to finger and proceed to place UV marks (~10) on the unit without identifying the location to the other parties.
7. Record the location of the markers on the Marker Audit Tool (Appendix 2).
8. Next day, go to environmental marked areas/items and determine if placed marker is still present.
9. For every environmental marker that was placed, record (Appendix 2) if it remains present (fail) or not (pass) by using the UV light or ASSURE detector.
10. Once you have completed revisiting all the placed markers, add up the number of markers that were no longer present.

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11. Divide the number of placed but not found markers by the number of placed markers (i.e. if you placed 25 markers and were not able to find 22 of those, but did find 3 that remained, then you would divide 22/25= 88%).
12. Determine if the cleaning has successfully passed. A minimum of 80% is considered a passing score. For COVID-19 we are requesting a 90% pass rate.
13. If the unit does not achieve the minimum pass rate, request a second clean and reassess missed markers using UV light or ASSURE.
14. If a passing score was achieved, if there are any items that may have failed, request that those items are re-cleaned and then reassess.

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Appendix 1: Environmental Marker High Touch Points Checklist

Auditor to select high touch points from the list below for marking (do not need to mark all items listed).

High-Touch Surfaces in Resident/Tenant Rooms	
☐ Nurse call button and cord	☐ Hand sink (including counter, faucet and handles and sink basin)
☐ Light switches	☐ Under sink
☐ Television	☐ Telephones
☐ Television remote control	☐ ABHR dispenser
☐ Chair	☐ Glove dispenser
☐ Bed hand rails and controls	☐ Door knobs and plate (inner and outer)
☐ Bed footboard and controls	☐ Resident/tenant equipment (e.g., dynamap, thermometer, etc.)
☐ Bed headboard	☐ IV pump
☐ Nightstand	☐ IV poles
☐ Over bed table	☐ Resident/tenant monitor (including controls, screen and cables)
☐ Mirrors	☐ Ventilator control panels
☐ Storage locker	

Resident/Tenant Bathrooms	
☐ Nurse call button and cord	☐ Grab bars/hand rails
☐ Light switches	☐ Hand sink (including counter, faucet and handles and sink basin)
☐ Toilet bowl	☐ Under sink
☐ Toilet seat	☐ Soap dispenser
☐ Toilet flush handle	☐ Bathroom inner door knob and plate

Non-Resident/Tenant Care Areas	
☐ Resident/tenant charts	☐ Pill crusher
☐ Resident/tenant chart rack	☐ Medication room sink (counter, faucets, handles)
☐ Resident/tenant MAR's	☐ Medication carts/Pyxis machine
☐ Whiteboard markers	☐ Whiteboards at nursing station
☐ Couch/seating	☐ Staff bathroom
☐ Computer keyboard	☐ Staff break room Television and control
☐ Computer mouse	☐ Desk surfaces at nursing station
☐ Clean linen cart	☐ Telephone at nursing station
☐ Television remote	☐ Clean equipment (e.g. wheelchair, walkers etc.)
☐ Resident/tenant lounge area	☐ Glucometer machine/supplies
☐ Visitor chairs	

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Appendix 2: Environmental Marking

Date & Time:_____ Unit/Neighbourhood/Room_____			
Location	**Marked**	**Pass/Fail**	**Comments**
MAIN ROOM			
Door handle			
Light switch			
HH sink handle			
HH sink counter			
RESIDENT BED SPACE			
Overbed Table			
Bed Rail			
Call button			
RESIDENT WASHROOM			
Light switch			
Door handle			
Sink handle			
Sink counter			
Hand Rail			
Toilet Flusher			
Toilet Seat			
Other?			
Compliance rate			

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