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Health**

Mount Sinai Hospital
Joseph & Wolf Lebovic Health Complex

Adaptation and implementation of an IPAC audit tool of the physical environment on in-patient medical and surgical units

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Background and Issue

- Continuous IPAC assessment of the physical environment on in-patient units is critical to help minimize the risk that the physical environment will contribute to healthcare associated infections.
- Rounding on in-patient units by Infection Control Practitioners (ICPs) is a common approach used to identify concerns and evaluate the implementation of IPAC recommendations, but may be subject to variability depending on the observer.
- Without a standardized format, it can be challenging to capture data in a manner that can be easily disseminated to stakeholders and collated to identify commonalities across units.



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Project

Adapt and implement an audit tool of the physical environment on in-patient units to systematically assess adherence to IPAC best practices across 7 in-patient medical and surgical units at Mount Sinai Hospital, an acute care hospital in Toronto, Ontario.

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Methods

Patient Care Unit Demographics			
UNIT:			
Patient Care Manager:		Clinical Educator(s):	
Auditor:		Date of Audit:	
Number of clinical staff/shift (refers to MD, RN, RPN, allied health)		Number of environmental staff/shift	
Days:	Evenings:	Nights:	Days: Evenings: Nights:
# Private rooms:	# Semi-private rooms:	# Ward rooms:	# Negative pressure rooms:

1.0 Nursing Station				
	Compliance			Comments
	Yes	No	N/A	
1.1 There is hospital-approved alcohol hand rub at the nursing station				
1.2 There is a hand hygiene sink at or within 6m of the nursing station				
1.3 The unit has a clean, orderly appearance. There is no food at the nursing stations, and no personal staff items				
1.4 There is a schedule for cleaning the area, including high-touch surfaces (e.g. keyboards, phones, charts)				
1.5 The nursing station furniture is made of materials which are washable				
1.6 Torn, broken and/or heavily soiled furniture is repaired, replaced or cleaned as required				
1.7 Chairs that are not in use are stored in a designated place (such as a rack/shelf) and binders are cleaned at least daily				
1.8 There is no usability PPE in the nursing station				

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- Adapted tool from Trillium Health Partners to assess compliance to CSA standards and IPAC best practices
- Audited 7 in-patient medical and surgical units
- Assessed 179 indicators on each unit
- Audits included communication station, hallway, patient rooms, soiled utility, clean supply, HH sinks, kitchen, AIIRs, med room, EVS room, shower room, respiratory equipment, lounge
- Conducted by multi-disciplinary team

Deficiencies stratified by location

Table 1: Total deficiencies identified by audit location

Location	Deficiencies Identified	
	n	% *
Hallway and Corridor	38	39%
Nursing Station	40	32%
Environmental Services Room	14	29%
Patient Rooms	79	28%
Soiled Utility	29	24%
Clean & Sterile Supply Rooms	34	22%
Medication Room	24	20%
Shower/Tub Room	12	17%
Hand Hygiene Sinks	5	12%
Shared Kitchen	6	9%
Airborne Infection Isolation Rooms (AIIRs)	3	6%
Respiratory Equipment in Pt Rooms/Bays	1	3%
Waiting Room, Lounges & Common Areas	0	0%

- Areas with the highest prevalence of deficiencies: hallway & corridor, nursing station, EVS room and patient rooms
- Waiting rooms/lounges, respiratory equipment, and AIIRs had none to few deficiencies identified



Matrix for prioritization of deficiencies

Risk frequency (units with deficiencies)	Risk impact			
		Low impact (1)	Moderate impact (2)	High impact (3)
	1	1	2	3
	2	2	4	6
	3	3	6	9
	4	4	8	12
	5	5	10	15
	6	6	12	18
	7	7	14	21

- Scoring system designed to quantify priorities based on perceived infectious risk to patients and the frequency indicator was found to be deficient
- Stratified risk into three categories: low, moderate, high risk



Audit tool adapted into IPAC rounding tools

Example excerpt from tool:

LOCATION	INDICATOR	Pass	Fail
Patient Rooms	There is a clear separation between clean and dirty equipment		
	PPE carts are dedicated with no additional non-PPE supplies		
	There is a clear doffing station including a waste container and linen hamper in every room, with clear doffing signage		
	Any commodes being used are kept in the patient space (not bathroom)		
	There is a stocked PPE cart with donning signage located outside of rooms that require additional precautions		
	Each room has a sign clip on the door frame/wall (standardized location throughout unit)		
	Staff complete cleaning sign off on green sheets		
	Green sheets are posted for patient spaces that require additional cleaning		
	Waste containers are not over-filled		
	Linen bag/container is not over-filled		
	A linen bag/container is readily available for each patient room for soiled linens		
	Equipment, supplies and supply carts are not stored in corridors unless approved by IPAC.		
	The hallway is free of clutter, clean and has orderly appearance, supplies are not stored on hand rails		
Hallway and Corridor	There is hospital-approved alcohol hand rub throughout the hallway and it's being refilled regularly.		
	If Workstation on Wheels (WOW) carts are used, they appear clean with no unnecessary items (e.g. coffee cups) or overstocking		

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Future directions

- Continuously collect physical environment data for in-patient units using IPAC rounding tools
- Create reports that will be communicated to stakeholders at pre-defined frequencies
- Utilize data to inform and evaluate QI projects

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