Introduction/Problem

- BIDMC utilized Contact Precautions (CP) with gloves, gowns, and cohort or private room for admitted inpatients known to be colonized or infected with methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant *Enterococcus* (VRE) consistent with practices at similar medical facilities across the country.

- Most patients on medical-surgical units are admitted to multi-bed rooms, therefore CP may necessitate converting a multi-bed room to a private room, limiting the capacity of nursing units and impeding patient flow.

- Recently, multiple medical centers have discontinued the routine use of CP for MRSA/VRE without a subsequent change in the rate of MRSA or VRE acquisition by patients or new infections1-2.

- Use of CP has also been associated with increased risk of adverse events during hospitalization, including falls and pressure ulcers, and less frequent interaction with healthcare workers3-4.

- Based on this evidence, BIDMC discontinued the use of CP for MRSA and VRE in May 2016.

Aim/Goal

- Little is known about the impact on hospital operations-related metrics following the discontinuation of CP.

- We sought to quantify the effect of CP discontinuation on bed capacity, costs, and patient satisfaction.

References


Impact of Discontinuing Contact Precautions for MRSA/VRE on Hospital Operation Metrics

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Results/Progress to Date

- Occupancy was ≥90% for 75% of the months during the study period (Fig. 1). Prior to discontinuation of CP, 0.94 beds per 100 bed days (95% CI 0.85, 1.03) were closed to accommodate MRSA/VRE isolation.
- Institution-wide median monthly costs decreased for gowns by 59.9% (-$15,498) and for gloves by 11.1% (-$9,644).
- Patient satisfaction scores for the included units remained stable when compared before and after discontinuation of CP (Fig. 2).

Lessons Learned

- Discontinuation of CP resulted in increased available beds, thus opening private rooms for patients with more transmissible infections and potentially improving patient flow.
- Capacity remained steady implying that these beds filled immediately, possibly resulting in more admissions and increased revenue.
- Patient satisfaction remained stable after discontinuation of CP.

Next Steps

- Monitor bed closures, gown and glove costs, and patient satisfaction scores prospectively until at least 1 year following discontinuation of CP.
- Utilize administrative data for a before-and-after comparison of rates of MRSA and VRE infection, patient adverse events, outside hospital transfers, and wait times for emergency department admissions, outside hospital transfers, and ICU transfers.

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