Enhanced Terminal Room Disinfection: A Qualitative Summary of Perspectives from Environmental Services (EVS) and Nurse Managers

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Abstract (Revised)

Background: The hospital environment is an established cause of healthcare-associated infections (HAI). Enhanced terminal room disinfection, including the use of UV-C emitters and/or bleach, has been proposed as a method to reduce the risk of HAIs caused by environmental contamination, but implementation of these methods is poorly described. We characterized the perceptions of EVS and nurses regarding enhanced disinfection strategies.

Methods: We administered surveys to EVS supervisors and nurse (RN) unit managers at the 9 hospitals in the BETR Disinfection study to assess perceptions about delays in room cleaning, odor, streaking and other unintended consequences based on type of terminal room disinfection method employed (quaternary ammonium [reference group], quaternary ammonium with the UV-C emitter, bleach alone, or bleach with UV-C). We compared responses a) during the use of quaternary ammonium versus bleach and b) with and without UV-C. Proportions were compared using the 2-tailed chi-square test.

Results: 433 survey answers were provided from 166 EVS staff (50% response rate) and 267 unit managers (56% response rate). EVS supervisors and housekeepers both perceived an increase in room cleaning/decontamination delays with the use of UV-C than without UV-C (Supervisors: 48 v. 29%, p<0.001; Housekeepers: 43 v. 28%, p<0.001). EVS supervisors received more complaints about delays from RNs (70 v. 59%, p<0.001) and bed control (51 v. 36%, p<0.001) with the use of UV-C than without UV-C. Regardless of cleaning strategy, EVS believed that delays in the Emergency Department were the primary cause of delays in hospital room turnover, whereas RNs perceived that room disinfection was the principal source of delay. EVS Supervisors & Nurse managers perceived an increase in room cleaning delays with UV-C and received more complaints from housekeepers, nurses and bed control. No significant differences were found with the use of quaternary ammonium vs. bleach among either group.

Conclusions:

• Differences about perceived hospital room cleaning delays and cleanliness exist between EVS and nursing.

• The successful implementation of enhanced terminal room disinfection strategies must address the barrier of perceived increases in cleaning times.