

Centers for Disease Control and Prevention (CDC)/Partnership for Quality Care (PQC) Best Practices: Environmental Services (EVS)

Effective EVS and Infection Prevention and Control communication

Best practice: EVS is represented on the Infection Prevention and Control Committee and Infection Preventionists (IPs) participate in EVS meetings.

Kaiser Permanente states the “[EVS] mission pertains to the wellness of our patients and not just the basic functions of the buildings”. Cleanliness of a hospital reflects the competency of the entire hospital staff.

Current practice: In many institutions EVS, Infection Prevention and Antibiotic Stewardship Program leaders are unaware of each other’s roles as well as the importance of the role of the Environmental Services staff in ensuring patient safety.

Front-line EVS staff acknowledge their significant role in patient safety

Best Practice: Front-line EVS view their work as critical in “saving lives.”

Kaiser Permanente offers an awareness campaign for EVS management and staff regarding their critical role in improving rates of healthcare-associated infections.

Maimonides Medical Center “relies on effective cleaning processes as control measures to prevent the spread of infection.” The Community of Workers (C.O.W.) approach was launched as a pilot project by 1199SEIU at Maimonides with two ultimate goals: to improve patient satisfaction and create a self-directed and self-managed labor force. To achieve these goals, the C.O.W. approach seeks to improve labor relations, improve communication between EVS staff, and improve communication between EVS staff and management. The C.O.W. approach aims to improve collaboration among EVS staff members with responsibilities on the same patient care units resulting in increased respect and value for EVS staff members and improved cleanliness of the facility.

Current Practice: In many cases, while EVS leadership understands its role in patient safety, the patient safety messaging does not reach front-line staff. Steward notes that data is often not shared with front-line staff which contributes to the problem.

Strict performance metrics are used to monitor EVS staff cleaning

Best practice metrics include:

- Aware point indicator trends: hospital staff and/or patients can press a button to electronically indicate an area of the hospital that needs to be cleaned. These data assist EVS management direct available staff to presumptively clean highly utilized areas of the hospital.
- Adenosine Triphosphate (ATP) testing or biological marker or bioluminescence swabbing are used to determine whether a surface has been adequately cleaned after EVS has cleaned the surface. This helps provide feedback to the EVS staff member on their thoroughness and compliance with current standards.
- Healthcare-associated *Clostridium difficile* (*C. diff*) rate trends

Current practice: Current metrics include ability to complete tasks, room turnaround time and spot checks of surfaces using direct observation via swab cultures.

Comments: Often EVS staff are rushed due to surges in ER and inpatient volumes requiring a fast turnover. Turnaround time may become less than optimal for dedicated EVS staff trying to provide the best possible service. Therefore turnaround time may not be a reliable EVS performance metric.

Implementation of new EVS technologies to enhance cleaning and disinfection

Best practice includes:

- Use of Oxycide for routine cleaning of patient rooms and other surfaces in the hospital
- Use of microfiber mops for cleaning
 - The efficacy of a microfiber mop is 99.9% vs. 92.0% for a string mop.
 - One microfiber mop is used per room verses using the same mop for several rooms.
 - Microfiber mops are ergonomically better for the staff because they weigh significantly less than the conventional mop. There is data that microfiber mops reduce the number of back injuries.
 - The string mop requires EVS staff to change the mop water every three rooms or sooner if the mop water is visibly dirty. The microfiber mop eliminates subjectivity because a new mop is used for each room.
 - The microfiber mop is green-processed because less than a gallon of chemicals is used by each EVS staff. When using the string mop method an average of 25 gallons of chemicals are dumped into the sewer system when changing the mopping solution after three rooms. The secondary benefit of eliminating the changing of mopping solution is that EVS staff is not as tired and injury risk is reduced.
 - The dry time for microfiber mops is an average of two to three minutes vs. eight to ten minutes for a string mop. This reduces the risk of falls and allows quicker access to patient rooms.
- Use of infrared lights or UV lights for disinfection. At Kaiser Permanente UV lights are used for terminal cleaning of known *C. diff* rooms providing a greater certainty that the room is ready for the next patient.

Current practice: Many institutions are still evaluating new EVS tools and technologies but have not begun implementation. EVS staff often find it challenging to effectively assess whether a new technology brings about better results. This is especially difficult in the EVS arena since there can be a significant time lag in processing change, obtaining relevant data and quantifying whether the change has produced the desired results.

Redefining the EVS staffing model

Best practice: Unclear. One approach is to review how much time it takes to perform cleaning, evaluate the industry standard and then determine how many FTEs are required.

Current practice: EVS are rarely fully staffed. Issues in staffing are due to outsourcing of management vendors to the lowest bidders as well as high turnover of staff requiring constant re-training. Staffing is traditionally based on square footage per facility but due to census changes and surge in inpatient volumes, it is difficult to predict proper EVS staff needs at all times. Kaiser Permanente EVS Director reports “If there were a more consistent way to schedule elective surgeries to balance out the use of our patient rooms, we could better align [EVS] staffing levels.”

Other Best Practices in EVS:

- The 7 step cleaning process used in both daily cleaning and terminal cleaning (7 steps include removing trash and linen, high dusting, damp wiping with germicidal products, dust mopping the floor, cleaning bathrooms, damp mopping the floor and then having a supervisor inspect the work.)
- As *C. diff* positive patients travel to other parts of the hospital for testing/treatment, EVS actively follows with cleaning and disinfection behind the patient to prevent transmission of the infection.
- An active EVS peer group that meets monthly to review best practices supported by management.