Comparative analysis of bedpan processing equipment

Authors' conclusions

Analysis of the literature revealed that both types of bedpan processing equipment – bedpan washers and macerators – have benefits and drawbacks. The data helped identify the issues specific to each type of equipment, without determining the best choice for hospitals. Although consultation with professionals in the field shed light on several relevant aspects, it did not help establish a consensus guideline. The lack of clinical practice guidelines means that each health-care facility must make choices that meet their needs and means. Nevertheless, all the practitioners we met expressed a willingness to agree on procedures meeting acceptable infection-control standards. Beyond the economic and environmental aspects, the main issues consistently raised by practitioners was the effectiveness of the equipment or procedures to reduce the risk of infection and to optimize work planning.

It is up to the infection prevention and control team at each health-care facility to make an informed decision about the method to adopt, in conjunction with management and the rest of the medical and professional staff. For the purpose of guiding that choice, the following basic principles apply:

Manual bedpan cleaning must be proscribed because it poses a very high risk of infection: staff must not empty bedpans into sinks or toilets and must no longer use spray wands.

Use of automated bedpan washers or macerators for processing bedpans is recommended if it follows stringent infection prevention procedures.

Bedpan washers and macerators must be installed in dirty utility rooms located a reasonable distance away from patients’ rooms (to reduce the risk of workplace contamination) and soiled bedpans must always be covered during transport to reprocessing equipment.

Dirty utility rooms must be large enough to house the reprocessing equipment and to allow supplies to be properly stored. The area provided for dirty supplies must be physically separate from that for clean supplies.

Reusable bedpans must be disinfected after each use. Leaving soiled bedpans to pile up on counters must be avoided by making sure that each care unit has enough reprocessing equipment.

Sterilization of reusable bedpans between patients must be considered if the aim is to have bedpans free of bacterial spores in order to better control sources of C. difficile infection.

After patient discharge, disposable bedpan supports must be transferred to a centralized sterilization area for disinfection in a washer-disinfector.

If the use of bedpan washers is adopted, a backup option must be planned for isolated cases or outbreaks of diarrhea associated with C. difficile (disposable bedpans, hygienic bags) especially when reusable bedpans are not sterilized after use.

Installation of modular bedpan-washer units or macerators in the washrooms of isolation rooms should be considered in order to minimize workplace contamination during bedpan transport to dirty utility rooms, and to monitor highly contaminated bedpans.

Staff must be properly trained and must consistently comply with procedures for human waste management, bedpan reprocessing and equipment operation.

The use of hygienic bags for all patients should be considered in the critical conditions of a C. difficile outbreak.

Preventive maintenance and verification of the equipment’s operational parameters must be monitored on a regular and ongoing basis.

On the whole, any decision concerning infection prevention must be based on eliminating the sources of risk. Doing so...
starts with reducing the handling, transport and processing delays related to soiled supplies. Manual bedpan cleaning and disinfection must be avoided because the risk of contamination is too high. Recommending a single bedpan processing method would be inappropriate. Several variables come into play in that choice, primarily, bedpan use requirements, risk of infection and outbreaks, staff availability, possibility of redesigning infrastructures, geographic area and budgets. In considering the data gathered in this technical brief, health-care facilities must each define their own needs and make an informed and “green” choice.

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