

How solidifiers reduce the risk of infection in fluid waste disposal

Biohazardous liquid medical waste is a potential source of infection and cross-contamination in healthcare organizations. Too often, employees don't follow protection protocols during waste disposal, creating safety risks.

Healthcare providers do not always know when a patient is infected with a bloodborne pathogen. Fluid collection and disposal present the risk of exposure to a range of bloodborne pathogens, including hepatitis B virus, HIV, staph infections, and other organisms. The Joint Commission estimates that medical waste can transmit as many as 26 types of infections. Therefore, the [Occupational Safety and Health Administration \(OSHA\)](#) guidelines for disposal treat all blood and bodily fluids as though they're contaminated.^{1,2,3}

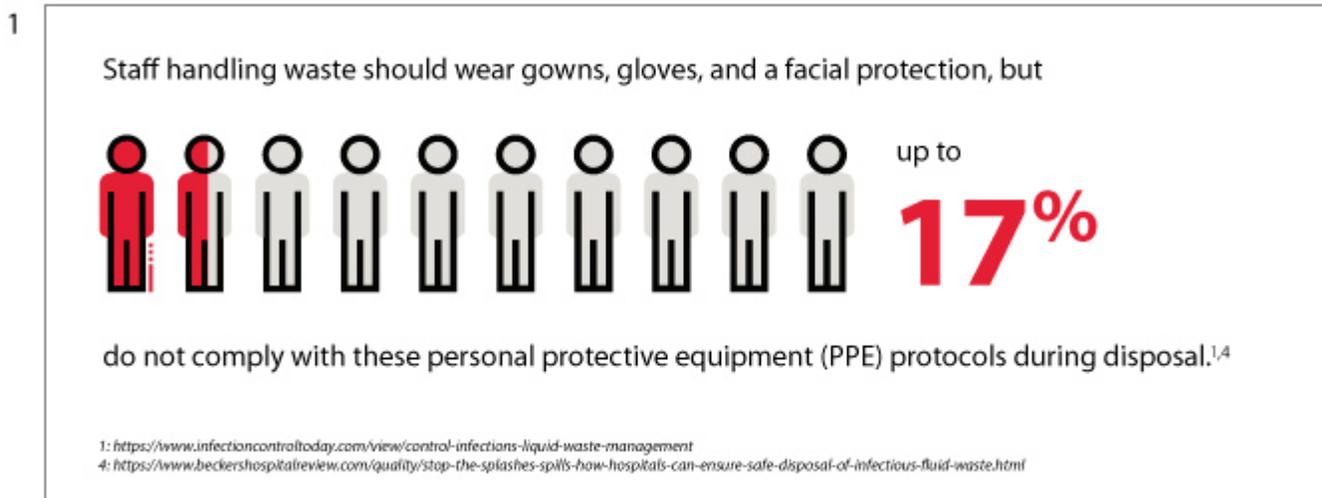
Taking the precautionary step of solidifying waste can improve safety for staff and lower costs associated with employee exposure to contaminated waste.

Risks associated with fluid disposal

Healthcare staff is expected to act in accordance with best practices during waste disposal, but research has found that up to 17% of waste disposal handlers do not follow proper protocols. Staff handling waste should wear gowns, gloves, and a facial protection, but up to 24% do not comply with these personal protective equipment (PPE) protocols during disposal.^{1,4}

Staff handling medical waste are at risk of exposure to harmful pathogens through airborne contaminants, as well as splashes and spills. These risks, combined with a lack of proper PPE use, can create immediate – but generally preventable – problems within healthcare facilities. A Becker's Hospital Review article noted that one incident of exposure to liquid medical waste can cost up to \$3,000 to cover the staff treatment, employee time off and follow-up. In addition, hospitals face fines for not managing medical waste properly.⁴

Through proper waste management handling, healthcare facilities can reduce the risks associated with the fluid disposal process.



The value of solidifiers

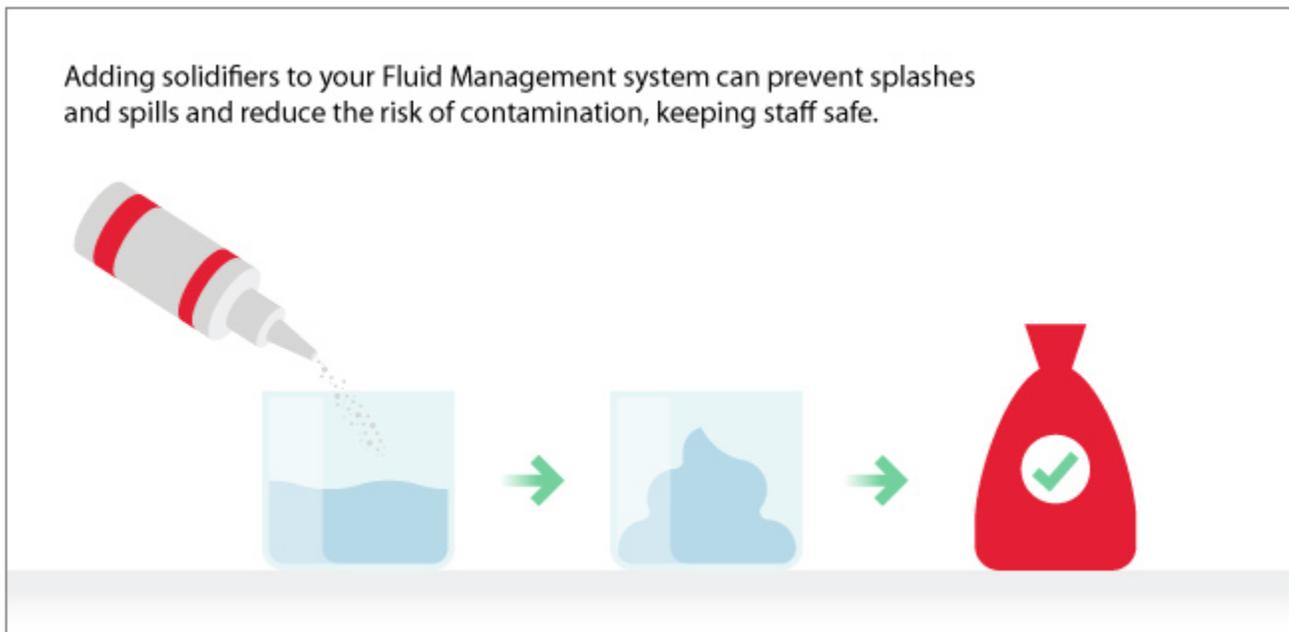
Fluid management products are used to remove, collect, and dispose of bodily fluids and debris. Liquid medical waste is collected in suction canisters, which are located throughout the hospital. Medical waste can contain pathogens and contaminants that put staff at risk if they're exposed. General waste management practice recommends changing these canisters, along with the connectors and tubing, every 24 hours.⁵

Solidifying liquid medical waste can protect staff by preventing spills, splashes, or inhalation of airborne contaminants during disposal. Solidifiers are a super absorbent polymer powder that turns liquid into a gel-like substance, which can then be disposed of safely in the appropriate waste receptacles.²

Solidifiers can be added to any size canister and continue solidifying the waste even as new fluid is added. Cardinal Health™ solidifiers continue to solidify fluid waste for up to 48 hours. Additionally, a solidifier may be placed in a canister at the start of a procedure to maintain a closed suction system.

Adding solidifiers to your fluid management portfolio will require additional costs upfront, but they can provide potential cost savings to your facility in the long run. Solidifying liquid medical waste can reduce costs by preventing the risks of exposure to bloodborne pathogens, as well as enforcing safer waste management practices. The use of treated solidifiers can also greatly reduce waste disposal costs for many facilities.⁴

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Treated versus untreated solidifiers

While untreated solidifiers can be implemented into any facility's fluid management system, treated solidifiers are an option in all but 8 states. Untreated solidifiers convert fluid to a gel-like substance, virtually eliminating splashes and spills. Although solidified, this waste is still infectious and must be disposed of in regulated red bag waste.

Treated solidifiers, on the other hand, decontaminate the waste as it solidifies, further reducing the risk of bloodborne pathogens. This decontaminated waste can be disposed of in a non-regulated white bag trash, which is much more cost effective than a red bag disposal. In states where permitted, using treated solidifiers has the potential to reduce disposal costs.

Regardless of whether your facility uses treated or untreated solidifiers, the Joint Commission International reiterates that adding solidifiers can reduce risks associated with the disposal of medical waste and help keep your staff safe from exposure and cross contamination.² These precautionary steps combined with adherence to protocols for PPE and safe handling can protect your facility and provide better, safer fluid management practices in the long run.

1. Tydell P, Donaldson J. Control of Infections in Liquid Waste Management. *Infection Control Today*. January 1, 2001. <https://www.infectioncontrolday.com/view/control-infections-liquid-waste-management>. Accessed November 18, 2022.

2. Joint Commission International. Medical Suction and Fluid Waste Management: Patient and Workplace Safety Considerations for Health Care Organizations. *Jointcommissioninternational.org*. 2017. [https://store.jointcommissioninternational.org/assets/3/7/jci_wp_med_suction_and_fluid_waste_mgt_final_\(1\).pdf](https://store.jointcommissioninternational.org/assets/3/7/jci_wp_med_suction_and_fluid_waste_mgt_final_(1).pdf). Accessed November 18, 2022.

3. Bloodborne pathogens. Occupational Safety and Health Administration. <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030>. Accessed November 18, 2022.

4. Bean M. Stop the splashes, spills: How hospitals can ensure safe disposal of infectious fluid waste. *Becker's Hospital Review*. January 9, 2018. <https://www.beckershospitalreview.com/quality/stop-the-splashes-spills-how-hospitals-can-ensure-safe-disposal-of-infectious-fluid-waste.html>. Accessed November 18, 2022.

5. Scala M. Reducing the HAI Risk Attributable to Hospital Suction Canisters: an Evidence Based Approach. *Boehringer Labs*. June 27, 2011. <https://www.boehringerlabs.com/wp-content/uploads/2017/04/0000120.pdf>. Accessed November 18, 2022.