LifeFlow®

EARLIER. FASTER. CONTROLLED.

Help Protect Your Patients Against Hospital-Acquired Infection

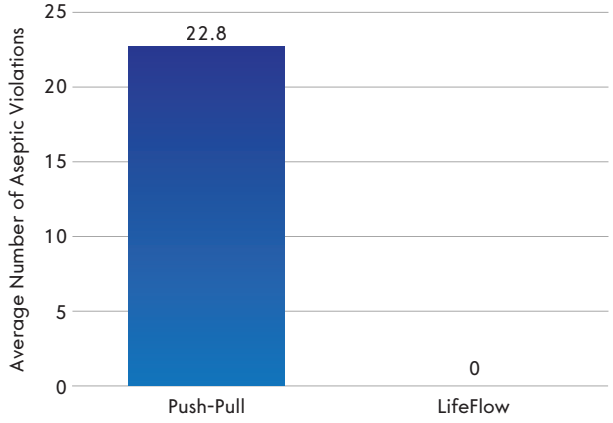
LifeFlow is designed to protect the syringe from bacterial contamination.

Catheter-associated bloodstream infections (CA-BSIs) are a major cause of hospital-acquired infection.[1]

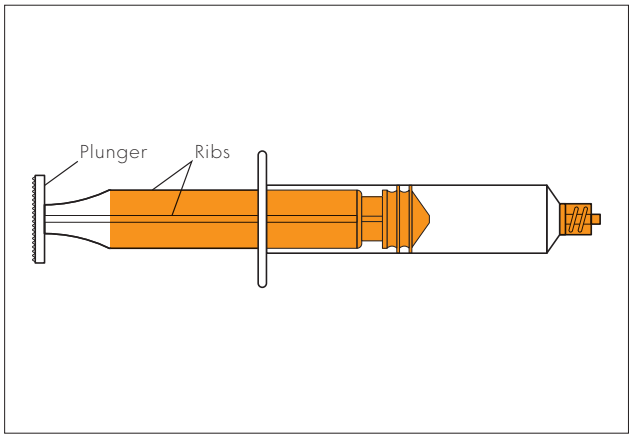
DID YOU KNOW:

- Each manual syringe stroke can introduce bacteria into the syringe barrel.[2, 3, 4]
- Syringes used multiple times on the same patient have been observed to have a 26.5% contamination rate.[5]
- CA-BSIs occur more than twice as frequently with manually-filled syringes compared to manufacturer pre-filled syringes.[6]

FREQUENCY OF CONTACT WITH STERILE SYRINGE PLUNGER DURING 500ML INFUSION



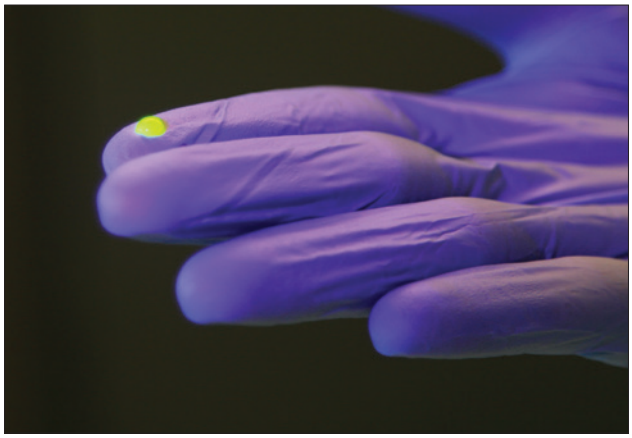
Improper syringe use is a source of hospital-acquired infection.



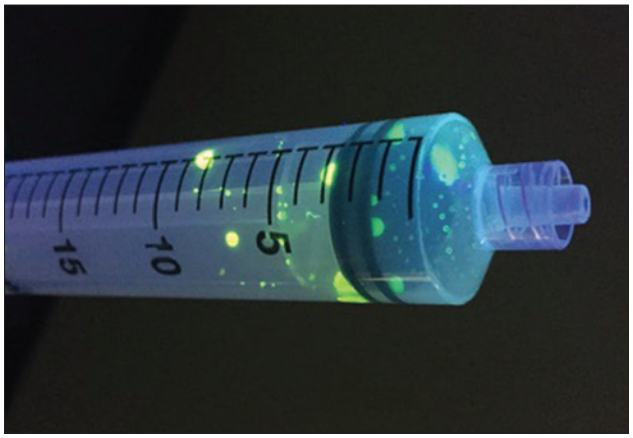
■ Should remain sterile

Bacteria from the provider's hand may be carried into the syringe

410 Medical Manual Syringe Infusion Study: To visually demonstrate the results of similar studies, fluorescein was applied to a gloved hand. With repeated emptying and refilling of the syringe, fluorescein traveled past the plunger. **Repeated use of the same syringe in a single patient is not recommended.**[7]



Fluorescein on index finger



Droplet migration after simulating a 1L infusion

1. CDC: https://www.cdc.gov/hai/bsi/bsi.html
2. Olivier LC, Kendoff D, Wolfhard, et al. Modified syringe design prevents plunger-related contamination: results of contamination and flow rate test. J Hosp Infect. 2003; 53: 140-143
3. Blogg CE, Ramsay MA, Jarvis JD. Infection hazard from syringes. Br J Anaesth 1974; 46: 260-262
4. Chatrath M, et al. Intraoperative Contamination of Fluids by Anesthesia Providers. Presented at the 2012 Society of Pediatric Anesthesia. http://www2.pedsanesthesia.org/meetings/2012winter/posters/uploads/136--SO1-109.pdf
5. Heid, Florian, et al. "Microbial contamination of anesthetic syringes in relation to different handling habits." American journal of infection control 44.3 (2016): e15-e17
6. Bertoglio, S., et al. "Pre-filled normal saline syringes to reduce totally implantable venous access device-associated bloodstream infection: a single institution pilot study." *Journal of Hospital Infection* 84.1 (2013): 85-88
7. American Society of Anesthesiologists, Infection Control Committee, Committee on Occupational Health. Recommendations for infection control for the practice of anesthesiology, third edition. Available from: http://www.asahq.org/resources/resources-from-asa-committees. Accessed June 23, 2015

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