

Because so much is on the line

Experience the BD® PosiFlush™ Prefilled Flush Syringe difference with a portfolio of products designed to help you deliver high quality care to your patients

BD

Every day, thousands of hospital patients depend on IV therapy

for critical treatments, hydration and nutrition. With so much at stake, ensuring the safety and effectiveness of IV access is crucial. Proper IV catheter care and maintenance are an essential part of preventing complications and protecting patients from potential infections.



Up to **90%** of hospital inpatients require IV therapy[1]



35-50% of these patients experience complications including occlusions, phlebitis, CRBSIs and CLABSIs[1]



Up to **50%** of peripheral IVs don't meet their intended dwell time and need to be removed prematurely[2]



63% of peripheral IV catheters fail prematurely[1]

Catheter-related complications may have a meaningful impact on both patients and hospitals

Patients

- Up to 2.75x increased chance of mortality in the ICU[3]
- Up to 15 days increased hospital length of stay (LOS)[4]
- Up to 25% mortality rate related to central line infections[5]
- Increased pain and discomfort[1]

Hospitals

- Catheter-related complications cost hospitals an average of $45,814 per episode[6]
- Reduced clinical efficiency
- Costly catheter re-starts
- +2 days longer length of stay vs. patients without complications[7]

Flushing, as part of proper catheter care and maintenance, may help prevent these complications

CRBSI: Catheter-related bloodstream infection
CLABSI: Central line-associated bloodstream infection

A comprehensive prefilled flush syringe portfolio delivering

Performance you can rely on



BD® PosiFlush™ Sterile Path (SP) Saline Prefilled Syringes are intended to be used for the flushing of indwelling vascular access devices to help support maintaining patency as part of medication delivery. They are designed for use outside of sterile areas only.



BD® PosiFlush™ Sterile Field (SF) Saline Prefilled Syringes are intended to be used for the flushing of indwelling vascular access devices to maintain patency and support medication delivery. May be used on a sterile field.



BD® PosiFlush™ SafeScrub Prefilled Saline Flush Syringes that scrub the hub and flush indwelling vascular access devices, and are demonstrated to significantly reduce microbial growth associated with potentially serious CRBSIs.*



BD® PosiFlush™ Prefilled Heparin Lock Flush Syringes may help maintain catheter patency by locking vascular access devices. They are available in two concentrations—10 USP units per mL and 100 USP units per mL—to help support your catheter maintenance practice.

*In vitro test results may not be predictive of clinical performance. Demonstrated reduction of the most common causative agents of CRBSI including Staphylococcus aureus, Staphylococcus epidermidis, Pseudomonas aeruginosa, Escherichia coli, Candida glabrata, Candida albicans and Acinetobacter baumannii.



Designed with quality and improved outcomes in mind*

Helps reduce occlusions and catheter damage

- **3-rib stopper:** Designed to reduce the likelihood of syringe-induced catheter reflux**
- **Consistent 10 mL syringe barrel diameter:** May help lower the risk of catheter damage due to injection pressure and may reduce the likelihood of damage to the vein

Helps reduce IV catheter-related infections

- **BD® Luer-Lok™ Tip Cap:** Robust seal for closure integrity helps prevent touch contamination and infection, supporting clinician and patient safety
- **Retaining ring:** Eliminates ability to pull plunger back, preventing solution from entering non-sterile area of syringe, helping to reduce the risk of solution contamination

Helps reduce risk of medication errors

- **Clear labeling and bold print:** Enables easy identification of syringe volume, lot number and expiration date, and distinguishes heparin syringes; complies with Joint Commission and ISMP medication labeling guidelines

*Benchtop testing may not be indicative of clinical results
**As compared to previous PosiFlush™ Prefilled Flush Syringe designs

Quality you can trust

Every time you flush a patient's line, you're injecting saline directly into their bloodstream. Quality defects and bacterial contamination in prefilled flush syringes have seriously harmed patients:[1,3,4]



Catheter-related infections[8]



Permanent brain damage[8]



Spinal meningitis[8]



11 deaths, including a 2-year old child[2,9]

With PosiFlush™ Prefilled Flush Syringes, you can flush with confidence



Legacy

- 20+ years in the market as a partner, supporting the needs of patients globally
- 18 billion+ syringes produced and sold to date—more than any other prefilled flush brand
- 13,000+ customers around the world use PosiFlush™ Prefilled Flush Syringes



Manufacturing

- Fully automated manufacturing process ensuring that the clinician is the first person to touch the syringe
- Rigorous, multi-step inspection process to meet the highest quality standards and safety for our customers and patients
- PosiFlush™ Prefilled Flush Syringes are inspected using a rigorous, multi-step, end-to-end process to meet the highest quality standards for our customers and patients



Best Practice Adherence

- Meets health organizations' flushing best practice guidelines (INS, RNC, NICE, epic3, INICC, ISMP)[6,10-15]
- ISO-compliant quality management systems with relevant standards for quality assurance[16] and environmental best practices[17]



Evidentiary Support

- PosiFlush™ Prefilled Flush Syringes are supported by 20+ clinical studies—more published clinical study support than any other product in the prefilled flush syringe category*

INS: Infusion Nurses Society, **RCN:** Royal College of Nursing, **NICE:** National Institute for Health and Care Excellence, **INICC:** International Nosocomial Infection Control Consortium, **ISMP:** Institute for Safe Medication Practice.
*Based on a Pubmed literature search of key saline flush competitors as of July 2023



Committed to customer partnership

We provide evaluations to help you and your team elevate clinical practice, best-in-class support to ensure smooth product adoptions and educational tools to support continued learning

Clinical assessments

- Review of existing outcomes data
- Clinical observation and assessment of focus care areas
- Actionable recommendations to drive improved practice
- Clinical training to support product integration

Clinical support

- Customized clinical inservice training
- Follow up evaluation to check for best practice, identify departments/ clinicians needing support
- Re-training, as needed
- Troubleshooting support

Training and education

- Ongoing training to improve practice (e-learning modules)
- Troubleshooting support

Contact your BD sales representative or visit **bd.com** to learn more

US SKU's

SKU no.	Product Description	Fill Vol / Syringe Vol	Liquid Concentration	Shelf Life	Units / Box	Units / Case
306544	BD® PosiFlush™ SP 3 mL Saline Prefilled Syringe	3 mL / 3 mL	0.9% Sodium Chloride	3 years	30	480
306545	BD® PosiFlush™ SP 5 mL Saline Prefilled Syringe	5 mL / 5 mL	0.9% Sodium Chloride	3 years	30	480
306546	BD® PosiFlush™ SP 10 mL Saline Prefilled Syringe	10 mL / 10 mL	0.9% Sodium Chloride	3 years	30	480
306547	BD® PosiFlush™ SP 10 mL Saline Prefilled Syringe (1D linear barcode)	10 mL / 10 mL	0.9% Sodium Chloride	3 years	30	480
306413	BD® PosiFlush™ 3 mL Heparin Lock Flush Syringe	3 mL / 3 mL	30 USP units / 3 mL (10 USP units / mL)	18 months	30	480
306414	BD® PosiFlush™ 5 mL Heparin Lock Flush Syringe	5 mL / 5 mL	50 USP units / 5 mL (10 USP units / mL)	18 months	30	480
306423	BD® PosiFlush™ 3 mL Heparin Lock Flush Syringe	3 mL / 3 mL	300 USP units / 3 mL (100 USP units / mL)	2 years	30	480
306424	BD® PosiFlush™ 5 mL Heparin Lock Flush Syringe	5 mL / 5 mL	500 USP units / 5 mL (100 USP units / mL)	2 years	30	480
306493	BD® PosiFlush™ SP 3 mL Saline Prefilled Syringe (short plunger rod)	3 mL / 10 mL	0.9% Sodium Chloride	3 years	30	480
306495	BD® PosiFlush™ SP 5 mL Saline Prefilled Syringe (short plunger rod)	5 mL / 10 mL	0.9% Sodium Chloride	3 years	30	480
306499	BD® PosiFlush™ SP 10 mL Saline Prefilled Syringe (short plunger rod)	10 mL / 10 mL	0.9% Sodium Chloride	3 years	30	480
306553	BD® PosiFlush™ SF 10 mL Saline Prefilled Syringe	10 mL / 10 mL	0.9% Sodium Chloride	3 years	30	240
303191	BD® PosiFlush™ Safescrub Prefilled Saline Syringe with Disinfection Unit	10 mL / 10 mL	0.9% Sodium Chloride	3 years	30	480

PosiFlush™ Prefilled Flush syringes are autoclave sterilized
The syringe portion of PosiFlush™ SafeScrub is autoclave sterilized



References

1. Helm RE, Klausner JD, Klemperer JD, Flint LM, Huang E. Accepted but unacceptable: peripheral IV catheter failure. *J Infus Nurs*. 2015;38(3):189–203. doi: 10.1097/NAN.0000000000000100. **2.** Centers for Disease Control and Prevention. *Multistate Outbreak of Burkholderia cepacia Bloodstream Infections Associated with Contaminated Prefilled Saline Flush Syringes.* 2017. Accessed March 7, 2024 at https://www.cdc.gov/hai/outbreaks/b-cepacia-saline-flush/index.html. **3.** Ziegler MJ, Pellegrini DC, Safdar N. Attributable mortality of central line associated bloodstream infection: systematic review and meta-analysis. *Infection*. 2015;43(1):29–36. doi: 10.1007/s15010-014-0689-y. **4.** Hu B, Tao L, Rosenthal VD, et al. Device-associated infection rates, device use, length of stay, and mortality in intensive care units of 4 Chinese hospitals: International Nosocomial Control Consortium findings. *Am J Infect Control*. 2013;41(4):301–6. doi: 10.1016/j.ajic.2012.03.037. **5.** Vital signs: central line-associated bloodstream infections. Centers for Disease Control and Prevention (CDC) website. https://www.cdc.gov/vitalsigns/pdf/2011-03-vitalsigns.pdf. Published March 1, 2011. Accessed October 18, 2017. **6.** Nickel B, Gorski L, Kleidon T, et al. Infusion Therapy Standards of Practice, 9th Edition. *J Infus Nurs*. 2024;47(1S Suppl 1):S1-S285. doi:10.1097/NAN.0000000000000532. **7.** Bahl A, Haddad L, Hoerauf K, Mares A, Alsbrooks K. The Clinical and Economic Burdens of Infiltration and Extravasation with Peripheral Intravenous Catheters: A Contemporary Narrative Review. *Int J Nurs Health Care Res.* 2023;6:1436. https://doi.org/10.29011/2688-9501.101436. **8.** Massoomi F, Arruda J. A Closer Look at Prefilled Flush Syringe Safety. *Pharmacy Practice News*. February 15, 2018. Accessed on May 19, 2023, at https://www.pharmacypracticenews.com/Clinical/Article/02-18/A-Closer-Look-at-Prefilled-Flush-Syringe-Safety/46801?sub=C63733F385E1FD4090EBC251E2F1174E9B162D4541C3E518622EA66D7AFC67F&enl=true%3Fses%3Dogst. **9.** Jewett C, Nguyen D. Timeline: How Contaminated Syringes Got From Factory to Patients. June 6, 2009. Accessed May 2, 2023 at https://www.propublica.org/article/timeline-am2pat. **10.** Denton A, Bodenham A, Conquest A, et al. Royal College of Nursing. Standards for Infusion Therapy, 4th Edition. https://www.rcn.org.uk/-/media/royal-college-of-nursing/documents/publications/obselete/005704.pdf?la=en. Published December 12, 2016. Accessed June 2, 2021. **11.** Loveday HP, Wilson JA, Pratt RJ, et al. epic3: national evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. *J Hosp Infect.* 2014;86 Suppl 1:S1-S70. doi:10.1016/S0195-6701(13)60012-2. **12.** Rosenthal VD, Bat-Erdene I, Gupta D, et al. International Nosocomial Infection Control Consortium (INICC) report, data summary of 45 countries for 2012-2017: Device-associated module. *Am J Infect Control.* 2020;48(4):423-432. doi:10.1016/j.ajic.2019.08.023. **13.** National Patient Safety Agency. NPSA Alert - Promoting safer use of injectable medicines (NPSA 20). Published March 28, 2007. Updated August 22, 2018. Accessed October 4, 2019 at https://www.sps.nhs.uk/articles/npsa-alert-promoting-safer-use-ofinjectionmedicinesnpsa-20-2007/. **14.** The Institute for Safe Medication Practices. ISMP Safe Practice Guidelines for Adult IV Push Medications. *ISMP.* Published July 14, 2015. Accessed October 20, 2020 at http://www.ismp.org/sites/default/files/attachments/2017-11/ISMP97-Guidelines-071415-3.%20FINAL.pdf. **15.** The Joint Commission. National Patient Safety Goals Effective July 2020 for the Hospital Program. *The Joint Commission.* Accessed October 20, 2020 at http://www.jointcommission.org/-/media/tjc/documents/standards/national-patientsafetygoals/2020/npsg_chapter_hap_jul2020.pdf. Published March 26, 2020. **16.** International Organisation for Standardisation (ISO) 13485 standard on Medical devices – Quality management systems – Requirements for regulatory purposes. **17.** International Organisation for Standardisation (ISO) 14001 standard on Medical devices – Environmental best practices – Requirements for regulatory purposes.

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