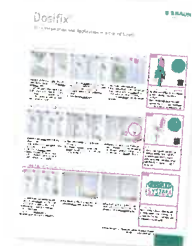


REFERENCES:

- Höhle M, Mehlmann A, Reuter M. (2008): Anonymes Meldesystem für kritische Ereignisse. *Ärzteblatt* 87(9), pp. 920-922
- Ger G, L. Ganagidharan S. (2018): Management of Fluid Overload in the Pediatric ICU. *Pediatric Critical Care*, 40, 2018, pp. 193-209.
- Friano J. A., Forcenherry J. D., Warsaw B. L. et al. (2004): Fluid overload before continuous renal replacement on renal survival in critically ill children: a retrospective analysis. *Crit Care Med.*, 32(8), pp. 1771-1776.
- Dei G, Giamberini R. C., Mendola P. C. (2016): Fluid overload in the ICU: evaluation and management. *Neonoticias*, 17, p. 109.
- WHO (2013): Hospital Care for Children, Guidelines for the Management of Common Childhood Illnesses, 2nd edition, Geneva.
- Institute of Medicine (2007): Preventing Medication Errors. Washington, DC, The National Academies Press, p. 11
- Cousins, D. H., Sabatier B., Briquet D. et al. (2005): Medication errors in intravenous drug preparation and administration: A multicenter audit in the UK, Germany and France. *Qual Saf Health Care*, 14(3), pp. 190-195.
- Plaqué, H., Galmich J., Branaud, D., et al. (2010): Evaluation of the dead volume in intravenous short-term infusion. *Pharma Publishing and Media Europe*, 16(2), pp. 31-37.
- Federal Institute of Drugs and Medicinal Devices (2015): The Forgotten Residue: Dead Volumes of Short-term Infusions. Pub. No. 2.
- Agency for Toxic Substances and Disease Registry (2019): ATSDR's Substance Priority List: <https://www.atsdr.cdc.gov/sppl/index.html> (last accessed on March 29th, 2021).
- Allegranzi, B. et al. (2007): The First Global Patient Safety Challenge: "Clean Care is Safer Care": from launch to current progress and achievements. *Journal of Hospital Infection*, 65(2), pp. 115-123.
- WHO (2002): Prevention of hospital-acquired infections. A practical guide, 2nd edition.
- Ho, A. M. (1999): Is Emergency Thoracotomy Always The Most Appropriate Immediate Intervention for Systemic Air Embolism After Lung Trauma? *Chest*, 116(1), pp. 234-237
- Riemann, T. (2004): How many „milliliters“ of air will lead to an air-embolism? *Die Schwester - Über Pfleger* 8, pp. 594-595.
- Himmelreich H., Rabenau, H. F., Rindermann, M., et al. (2013): The management of needlestick injuries. *Dtsch Arztebl Int*, 110(5), pp. 61-67.
- National Institute for Occupational Safety and Health (2004): NIOSH alert 2004-165. Preventing occupational exposures to antineoplastic and other hazardous drugs in health care settings. CDC, Cincinnati OH (<http://www.cdc.gov/niosh/docs/2004-165/index2-04-165.pdf>, last accessed on March 29th, 2021).



For detailed instructions on how to handle Dosifix®, review the specific B. Braun instructional posters or please ask your B. Braun representative for detailed information.



B. Braun Melsungen AG | Hospital Care | 34209 Melsungen | Germany
Tel. +49 5661 71-0 | www.bb Braun.com

Dosifix®

Drug Preparation and Application in a Closed System



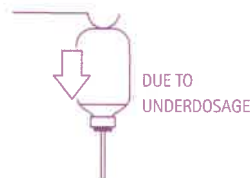
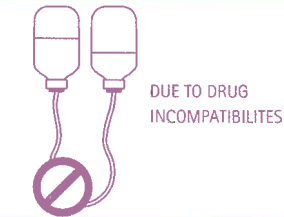
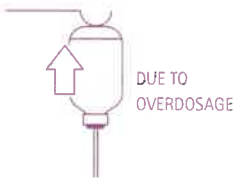
TRƯỜNG PHÒNG ĐĂNG KÝ
Lê Thị Hương



Risk Prevention and Safety

Infusion therapy is a beneficial treatment with a high risk potential. Almost **50 %** of the critical events occur during fluid management and medication application, as shown by incident reporting systems.¹

MEDICATION ERROR



Fluid overload in critical illness can have harmful effects and contribute to **morbidity and mortality.**^{2,3,4}

Every day **1 out of 4** patients suffers from a medication error due to drug incompatibility.^{5,7}

Incomplete delivery of the container content is one of the four most frequent causes. In the case of 50 ml infusions, up to **32.2 %** of active agent in the residual volume remains in the IV line.^{8,9}

To prevent the accidental over-infusion of large volumes of fluid, intravenous fluids and transfusions should be given with an in-line burette to ensure that the exact doses of fluids prescribed are administered, especially for neonates and paediatric patients.⁵

With the possibility to flush the entire IV line after each drug, **the incompatibilities of different medications can be reduced.**

With the possibility to flush the entire IV line after each drug, **the full dosage of medication can be administered.**

CHEMICAL CONTAMINATION



Every day, millions of health care workers handle drugs. These include more than **200** known **POTENTIALLY HAZARDOUS** substances. Even though precautionary measures are widely available, a high risk of exposure remains.¹⁰

Drug preparation, the application of several medications, bolus injection and flushing within a Closed System acc. to NIOSH¹⁰ **prevents the escape of hazardous contaminants into the adjacent environment.**

MICROBIOLOGICAL CONTAMINATION



1,400,000 people worldwide suffer from infectious complications associated with healthcare.¹¹ **8.7 %** of patients staying in an ICU for >2 days acquire at least one HAI (Healthcare-Associated Infection).¹²

Drug preparation, the application of several medications, bolus injection and flushing within a Closed System acc. to NIOSH¹⁶ **prevents microbial ingress.**

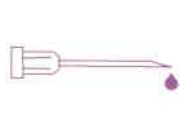
AIR EMBOLISM



0.5 - 1 ml of air in the pulmonary vein can cause a cardiac arrest.^{13,14}

IV lines that prevent air from entering the line help to **reduce the risk of air embolism.** In addition, self-sealing valves avoid the intake of air into the system.

SHARP INJURIES



1,000,000 NSIs are estimated to occur in Europe each year.¹⁵

Needle-free application possibilities help to **protect against needle-related injuries.**

0114
CÔNG
NHỆM
BR/
MIỆT M
HOAI

Product Features and Benefits

Dosifix® helps to reduce the risk of medication error during drug preparation and application

In gravity infusion, Dosifix® allows a precise dosage of solution which is given to the patient (**Dosage Function**) and thus reduces the risk of overdosage. This functionality is particularly important for neonatal, pediatric and geriatric care. Dosifix® contains a semi-rigid, calibrated 150 ml-burette that can be used as a dosing container. By closing the roller clamp positioned above the burette additional volume is prevented from flowing into it.

Due to the needle-free Safeflow port on the top of its burette, Dosifix® can also be used for an intermittent infusion of medication in its correct dilution (**Admixture Function**) with the ability to flush the IV line after each application (**Flushing Function**). Flushing helps to prevent the risk of drug incompatibilities when giving multiple doses of intermittent infusions of different drugs and reduces the residual volume of highly effective medication, which decreases the risk of therapy failure caused by substance loss.

Dosifix® provides the important **AirStop function**, which helps to protect against air infusion. A hydrophilic depth filter membrane inside the drip chamber maintains a constant fluid level when the burette has run empty and prevents the infusion line from running dry.

Being already connected to an IV container with neutral solution (e.g. NaCl 0.9%) and equipped with the needle-free, self-sealing Safeflow port on top of the burette as well as the AirStop filter inside the drip chamber, Dosifix® allows drug preparation and application, flushing, as well as refilling of the burette for additional drug infusions in a **Closed System**. There is no need to re-spike into another IV container or to disconnect from the cannula.

CLOSED SYSTEM Dosifix® helps to reduce the risk of microbiological and chemical contamination: Dosifix® forms a Closed System acc. to NIOSH, as it prevents microbial ingress and the escape of any solution or contaminants into the adjacent environment.

Functional hanger for stabilization

Dosing function: Calibrated dosing container 150 ml to limit the volume to be infused

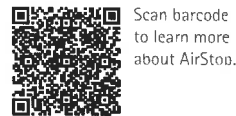
Admixture function: Safeflow admixture port for needle-free drug admixture in dosing container

Flushing function: Being connected to an IV container allows flushing without the need to re-spike

NEW



AirStop to prevent air from entering the system



Scan barcode to learn more about AirStop.

Roller clamp for the flexible adjustment of flow rates

Spike cover at roller clamp for safe disposal

P Compatible with non-dedicated infusion pumps. e.g. Infusomat® Space P or Infusomat® compact^{plus} P

Available with 60 ml and 20 ml dropper

Highlighted scaling values and floating swimmer for the visualization of fluid level

Piercing spike with bacteria-tight air vent for usage with all types of containers



PrimeStop for leakage-free priming



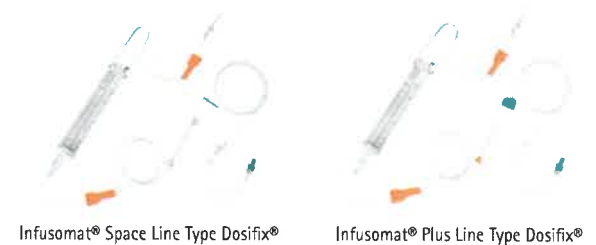
Scan barcode to learn more about PrimeStop



Safeflow Y-injection port for needle-free bolus injection

Back Check Valve to prevent back-flow during bolus injection









Available as dedicated sets for Infusomat® Space and Infusomat® compact^{plus}












34-CT...
TY
UHAN
UN
AM
TP.HA...

Product Portfolio

Dosifix® IV Sets for Gravity / Pressure Infusion and Automated Infusion Systems

Dosifix®	Type	Gravity/ Pressure	Drops / ml	Admixture / Injection Port	BCV	Not made with PVC	UV-protect	Total Set Length	Units per box	Code no. (REF)
Non-Dedicated Dosifix® IV Sets										
	Dosifix® Safeset	Gravity/ Pressure	60	Needle-based	■	-	-	250 cm	25	4037011
	Dosifix® Safeset	Gravity/ Pressure	60	Needle-free Safeflow	■	-	-	250 cm	25	4037012
	Dosifix® Safeset	Gravity/ Pressure	60	Needle-free Safesite®	■	-	-	250 cm	25	4037013
	Dosifix® Safeset	Gravity	60	Needle-free Safeflow	■	■	■	250 cm	25	4037016
	Dosifix® Safeset	Gravity/ Pressure	20	Needle-free Safeflow	■	-	-	250 cm	25	4037032
	Dosifix® Inline	Gravity	n.a.	Needle-free Safeflow	-	-	-	70 cm	25	4037033
	Dosifix® Inline	Gravity	n.a.	Needle-free Safesite®	-	-	-	70 cm	25	4037034
	Dosifix® Blood Admin. Set	Gravity	20	-	-	-	-	250 cm	25	4037031

Dosifix®	Type	Gravity/ Pressure	Drops / ml	Admixture / Injection Port	BCV	Not made with PVC	UV-protect	Total Set Length	Units per box	Code no. (REF)
Infusomat® Space Line Type Dosifix®										
	Infusomat® Space Line	Pressure	20	Needle-based	-	-	-	320 cm	25	8700140SP
	Infusomat® Space Line	Pressure	20	Needle-free Safeflow	-	■	-	300 cm	25	8700141SP
	Infusomat® Space Line	Pressure	20	Needle-free Safeflow	-	■	■	300 cm	25	8700142SP
Infusomat® Plus Line Type Dosifix®										
	Infusomat® Plus Line	Pressure	20	Needle-based	-	-	-	320 cm	25	8700390
	Infusomat® Plus Line	Pressure	20	Needle-free Safeflow	-	■	-	300 cm	25	8700391
	Infusomat® Plus Line	Pressure	20	Needle-free Safeflow	-	■	■	300 cm	25	8700392
Complementary products										
	Ecoflac® plus 500 ml or 1,000 ml A wide range of B. Braun solutions is available in Ecoflac® plus, which are used for the administration of fluid and essential electrolytes for maintenance, correction, and replacement and for compatible drugs as a carrier. The germ-free port under the aluminum foil can be used without prior disinfection and, thanks to its design, protects from potential microbial ingress into the IV solution.									
	Omniflush® with SwabCap® (1) and Omniflush® (2) Omniflush® is a ready-to-use flush syringe that supports the improvement of the flushing process of IV access devices. It avoids unnecessary preparation steps and thus helps to prevent the risk of contamination during preparation of the flush solution.									
	SwabCap® (1) and Softa® Cloth CHX 2% (2) SwabCap® is a disinfection cap for needle-free swabable valves that acts as a physical barrier to touch and airborne contamination between line accesses. Softa® Cloth CHX 2% is a ready-to-use tissue that can be used as a disinfecting cleaner prior to line access.									
	Safeflow Extension Set Safeflow is a luer-activated needle-free swabable valve that provides needle-free IV access. It is compatible with Luer-Lock and Luer-Slip counterparts. Safeflow Extension Sets allow the manipulation of the catheter away from the insertion site to help to reduce movement of the IV catheter inside the vein.									

