

NEW



PRESCRIPTION

PATIENT ACCESS

PREPARATION

APPLICATION

DISCHARGE
MANAGEMENT

Advanced Application of Blood & Blood Products with Sangofix[®]

Hygienic transfusion set with improved design

Advanced and Hygienic Blood Application

Supports clean processes



Blood plays an important role in maintaining the body's systems

Blood performs three major functions:¹

- Blood is the primary means of **transporting** oxygen, nutrients and hormones through our body and, in exchange, carries waste products to the eliminating organs.
- Blood helps to **regulate** many functions in our body. For instance it helps to maintain the correct body temperature.
- As a part of our immune system, blood helps to **protect** our body from pathogens and exogenous substances. In the case of vascular injuries, it protects from blood loss by coagulating and sealing the wound.²

Blood components are used to correct abnormalities in the blood, which cannot be corrected by any other means. Common reasons for blood transfusions are:

- Severe blood loss caused by an accident or surgery,
- Chronic anemia or
- Bleeding and clotting disorders.³

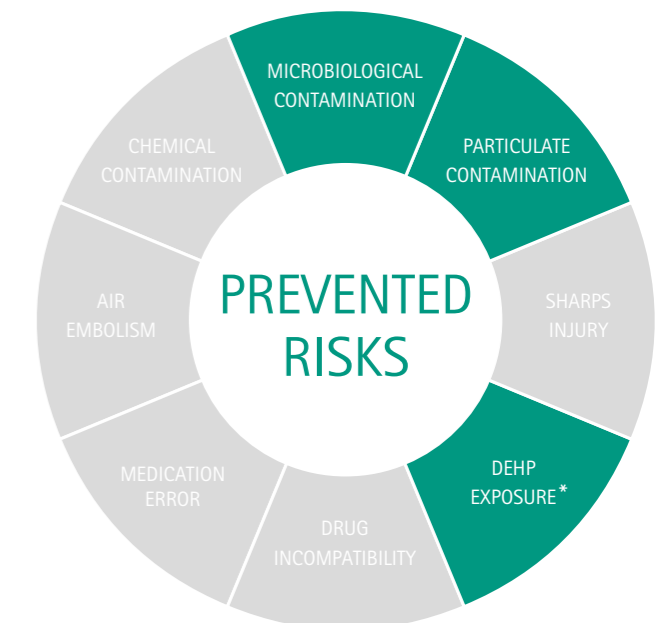
Blood spillages during transfusion interrupt your clinical process

Blood or blood products are frequently given to your patients in **emergency situations** to sustain or save their lives. These situations **put pressure on you as a health-care worker** and may lead to complications, such as blood exposure.

Coming in **contact with blood interrupts the clinical process** and is therefore a major inconvenience to yourself and your patient. Any blood that leaks during the transfusion can end up on the bed, floor, shoes, clothing, unprotected skin or gloves. Changing bed linen, changing your uniform, cleaning the environment and /or disinfecting your skin are some of the consequences of having blood present in your daily work.⁴

If you are the person experiencing the event, you need to deal with spills immediately,⁵ which can result in less time dedicated to patient care.

Sangofix® comes with the PrimeStop cap and Spin-Lock® Connector to reduce blood spills while priming the set as well as accidental leaks during the application. The **improved design supports clean processes** with less risk of contamination as well as reduced clean-up time and use of material.



* DEHP-free (Remark: Sangofix® sets with hand pump contain DEHP, Ref. 4050192, 4050192H, 4050193, 4050193H)

Sangofix® – Improved Design

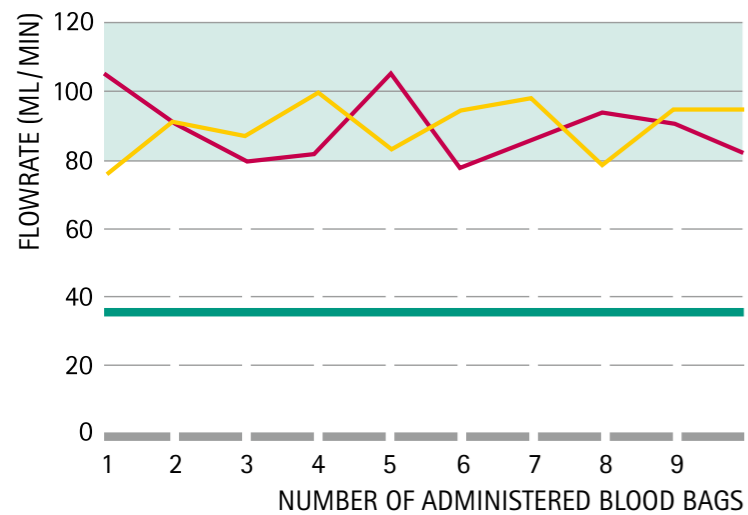
Designed to avoid transfusion of clots and leaks

Filter capacity

Due to its high viscosity and the coagulation effect, the administration of blood or blood products requires an integral filter of 170-200 µm. Sangofix® has a 200 µm blood filter, complying with ISO standards for transfusion equipment for medical use.⁶ It prevents particulate contamination by retaining particles >200 µm and consequently helps to avoid transfusion of blood clots and cellular debris resulting from storage. The hanging filter basket arrangement supports a soft impingement of blood drops.

During a laboratory test, Sangofix® with a filter surface of 11 cm² was used to successively administer 10 erythrocyte concentrates. The flow rate of each administration was measured. All measurements fulfilled the DIN EN ISO 1135-4 requirements.*

With the newly designed Sangofix® it was possible to downsize the drip chamber and consequently to **decrease waste products** without impairing the filter capacity, relative to B. Braun's well established Sangofix® ES.**



— min. requirement acc. to DIN EN ISO 1135-4
 — Sangofix® (size of filter=11 cm², size of mesh=200 µm)
 — Sangofix® ES (size of filter=22 cm², size of mesh=200 µm)

200 µm / 11 cm² particle filter

- Retains larger particles >200 µm to help to avoid blood clots and cellular debris resulting from storage while providing a higher flow rate than required by ISO 1135-4
- Hanging filter basket arrangement for soft impingement of blood drops



CLOSED SYSTEM

Roller clamp

- Integrated spike protection at roller clamp for disposal
- Parking position to attach the patient connector to roller clamp

* Lab Test. The erythrocyte concentrates had the blood group AB rh⁺, an age of 34 to 42 days and a volume of 312-367 ml. Massive transfusions have to be conducted according to the national blood transfusion and hygienic guidelines.

** Reducing the size of the drip chamber achieved a weight reduction of 52.4%.

Clear, non-vented piercing spike with blunt tip to prevent puncturing of bag

Fully transparent dome offers visibility for constant visual monitoring of flow rate

Elastic pump chamber allows easy and quick set-up of fluid level



Spin-Lock® with PrimeStop cap

Sangofix® is equipped with the PrimeStop cap and Spin-Lock® Connector, specifically set up for the administration of blood and blood products.

The PrimeStop cap stops blood leaks while priming the set and thus **lowers the risk of blood exposure which could lead to microbiological contamination**. Lined with a hydrophobic, bacteria-tight membrane, the protective cap stops fluid but allows air to go through. It prevents the escape of any solution or contaminants into the adjacent environment and is thus a closed system referring to NIOSH 2004 definition.⁷ In addition the screw-tight SpinLock® connector helps to avoid accidental disconnection during transfusion which could also lead to microbiological contamination. It's rotating collar prevents twisting of the IV line during connection.

NEW

Spin-Lock® Connector with PrimeStop

- Rotating collar of Spin-Lock® Connector prevents twisting of IV line during connection
- Protective PrimeStop cap lined with a hydrophobic, bacteria-tight membrane stops blood leaks while priming the set
















YOUR BENEFITS

- Supports clean processes with less risk of microbiological contamination
- Helps to prevent particulate contamination while maintaining a flow rate even higher than required by ISO Standard 1135-4
- Decrease of waste products without impairing the filter capacity

Product Specifications

Sangofix® blood administration sets and complementary products

Blood administration sets	Description	Units per box	Code No. (REF)
Gravity Sets			
	Sangofix® <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Non-vented Spin-Lock® Connector with PrimeStop Length 150 cm DEHP-free 	100	4117301
	Sangofix® <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Non-vented Spin-Lock® Connector with PrimeStop Length 180 cm DEHP-free 	100	4034228
	Sangofix® Air <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Vented Luer-Lock Connector Length 180 cm DEHP-free 	100	4116011F
	Sangofix® Air Piggy Back <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Vented Luer-Lock Connector Length 40 cm PVC-free, DEHP-free 	25	4062866
Perfusor® Space Sets			
	Sangofix® Pediatrics Set <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Non-vented Female Luer-Lock Connector Length 4 cm DEHP-free 	50	4146492

Blood administration sets	Description	Units per box	Code No. (REF)
Infusomat® Space Lines			
	Infusomat® Space Line for blood administration <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Vented Luer-Lock Connector Length 250 cm DEHP-free 	100	8270066SP
	Infusomat® Space Line for blood administration <ul style="list-style-type: none"> 200 µm / 11 cm² blood filter Vented Needle-free injection port Luer-Lock Connector Length 250 cm DEHP-free 	100	8270074SP
Complementary Products	Description		
	Introcan Safety® 3 Introcan Safety® 3 is equipped with a multi-access septum to protect clinicians and patients from blood exposure. The integrated stabilization platform is designed to reduce complications resulting from movements and dislodgements.		
	Caresite® extension set Extension sets with Caresite® valve enable needle-free handling which helps to prevent needle-stick injuries. They allow manipulation away from the insertion site and reduce movement of the IV catheter inside the patient's vein.		
	Askina® dressing portfolio The Askina® dressing portfolio offers fixation solutions of the catheter to help minimizing catheter movement.		
	Combi-Stopper Combi-Stopper closing cones can be used to seal male and female ports such as the line at the patient connector or the filled syringe, which helps to reduce the risk of microbial contamination.		
	Omniflush® Omniflush® is a ready-to-use flush syringe, which supports the flushing process of IV access devices. It reduces 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 which acts as a physical barrier to touch and airborne contamination between line accesses. Softa® Cloth CHX 2% is a ready-to-use tissue which can be used as a disinfecting cleaner prior to line access.		

For specific ordering informations please ask your B. Braun representative or see the respective product brochures.

LITERATURE

1. Thews, G. (1999): Anatomie, Physiologie, Pathophysiologie des Menschen, Stuttgart, p. 109
2. Faller, A., ed. by M. Schünke (2016): Der Körper des Menschen, 17th edition (1st edition in 1966), Stuttgart New York, p.120-161
3. Guidelines for the Administration of Blood and Blood Components Issued by the National Blood Users Group, 2004
4. Reducing blood exposure, risks and costs associated with SPIVC insertion. By Deborah Richardson, MS, RN, CNS and Louis Kaufman, PhD
5. NHS: The Revised Healthcare Cleaning Manual. Last accessed. 01.12.2016. Link: <http://www.nrls.npsa.nhs.uk/EasySiteWeb/getresource.axd?AssetID=61814>
6. DIN EN ISO 1135-4 – Transfusion Sets for Single Use
7. Quality Labs Biomaterial testing: Test Report: Closed System test by means of Sodium Fluorescein for PrimeStop Cap of Sangofix®