Quality time for better care

"Quality time for better care" is the brand promise of Terumo Medical Care Solutions.

TERUMO
MEDICAL CARE SOLUTIONS

HOSPITAL CARE

Terufusion™

Infusion System

EASY HANDLING
ENHANCED SAFETY
Terufusion™
OPTIMIZED WORKFLOW

Infusion and Syringe Pumps

Terufusion™ Infusion System
A clear view on infusion

Hospitals, in their quest for optimization of patient treatment, are faced with the difficulty of combining the safest and the most accurate treatments with a simple workflow. High-tech equipment often lacks ease-of-use, resulting in stress and risks, whilst simplicity might not bring the dedicated treatment to the optimal level.

Concept of Advanced Infusion System

Core elements are further defined and explained in the respective chapters.

Terumo's Terufusion Advanced Infusion System offers accurate, reliable and innovative syringe and volumetric pumps, without putting an extra burden on healthcare professionals. We combine sophisticated technologies with stress-free, easy-to-use functionalities to facilitate them to pursue the best patient outcomes.

Using leading-edge technologies, SMART Terufusion pumps facilitate easy and secure drug management, provide enhanced infusion capabilities, and opens a way to hospital network integration.
Standard Terufusion Syringe Pumps simplify workflows without compromising safety and quality of treatment.
Completing the line-up with syringes, infusion sets and accessories, Terufusion Advanced Infusion System is a comprehensive and reliable partner for infusion management optimization.
Terufusion Advanced Infusion System: successful integration of ease-of-use, safety and professionalism.

Standard Pump

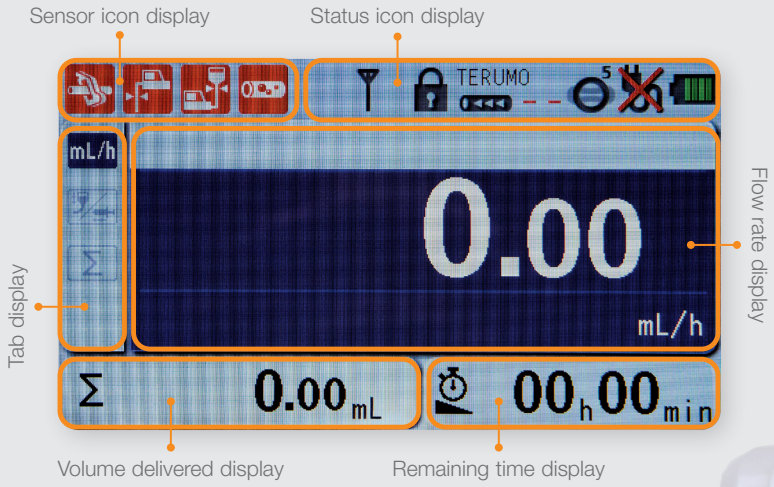
Volumetric Infusion Pumps	Syringe Pumps
 FULL PRESS TE-LF630	 TE-SS730

SMART Pump

Volumetric Infusion Pumps	Syringe Pumps
 MID PRESS TE-LM835	 TE-SS835

Concept of Advanced Infusion System
Easy Handling

All-in-one information at a glance



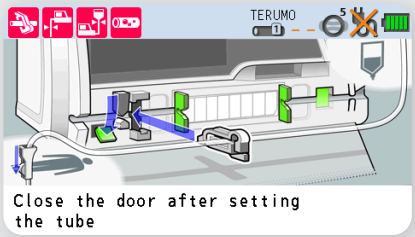
Healthcare professionals need to see all the important information in an efficient, correct and fast way.

All-in-one information on big 4.3 inch colour screen helps healthcare professionals to receive such information in vivid colour, with comprehensive illustration.

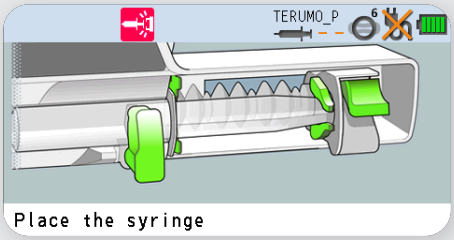
Easy disposable settings

First-time users are in need of simple instructions to start up pumps.

To facilitate this, visual instructions on how to set an infusion set or a syringe are shown on the large coloured screen.



Volumetric

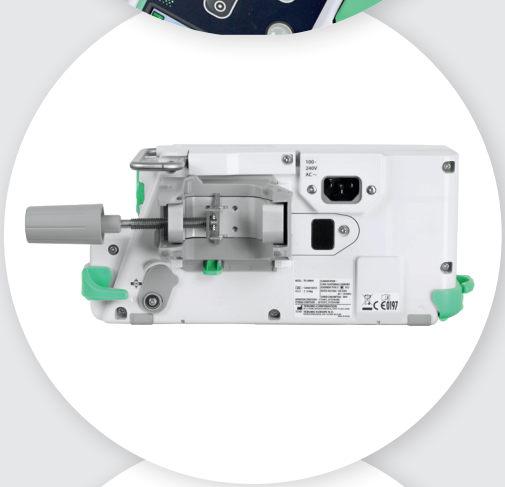


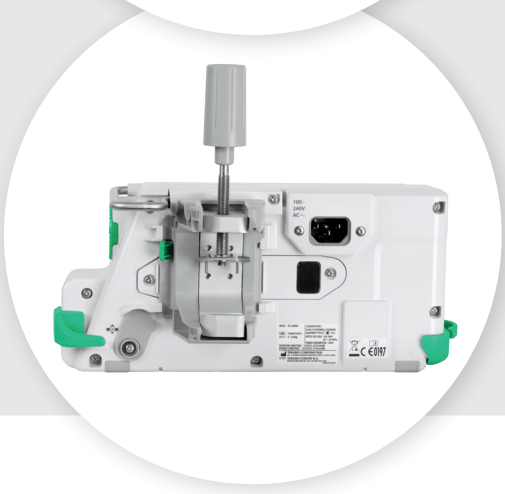
Syringe

Mobile, portable & flexible

Healthcare professionals like to move pumps around, attaching and removing them easily and quickly.

By using the integrated handle and the flexible pole clamp, it is easy for healthcare professionals to quickly attach or remove pumps from a pole or Terufusion rack.





Concept of Advanced Infusion System
Enhanced safety

Fast classification and recognition of drugs

Many drug names look alike with each other, and healthcare workers are constantly under stress not to make mistakes.

Terufusion Drug Library Manager enables healthcare workers to define 16 different colours out of 96 combinations of colours and patterns. In addition, drug names can be defined in Tall Man letters in compliance with FDA recommendation, and are shown on the screen with colours.

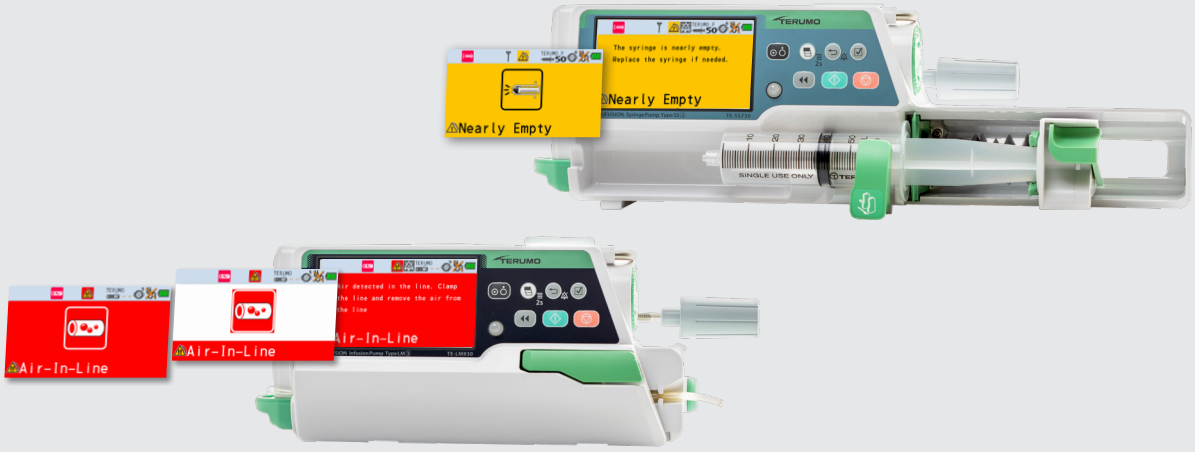
Drug name with Tall Man letters	To distinguish from
DOBUtamine	DOPamine
buPROPion	busPIRone
chlorproMAZINE	chlorproPADIME
CEFOtaxim	CeftAZIdim
ATEnolol	AceBUTolol
cycloSPORINE	CYCLOserine
DimenhyDRINATE	DIPHENHYDRamine

No.	1	2	3	4	5	6	7	8	Edit
Colour	9	10	11	12	13	14	15	16	

Safety first

Healthcare professionals need to see at a glance which alarm or warning has been activated.

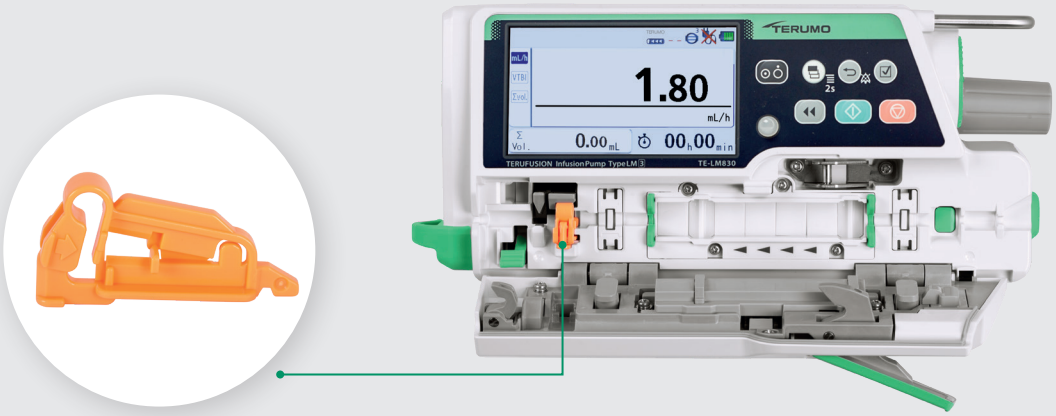
By colours and realistic illustrations, the Terfusion pump allows to differentiate instantly between high (red) and low (yellow) priority of alarms.



Precaution against unintended infusion

If a healthcare professional forgets to close the roller clamp when removing the tube from the infusion pump, the risk of free flow is quite high.

The Anti Free Flow (AFF) function is aimed at preventing inadvertent excess infusion by automatically closing the tube with the anti-free flow clip when the door is opened.

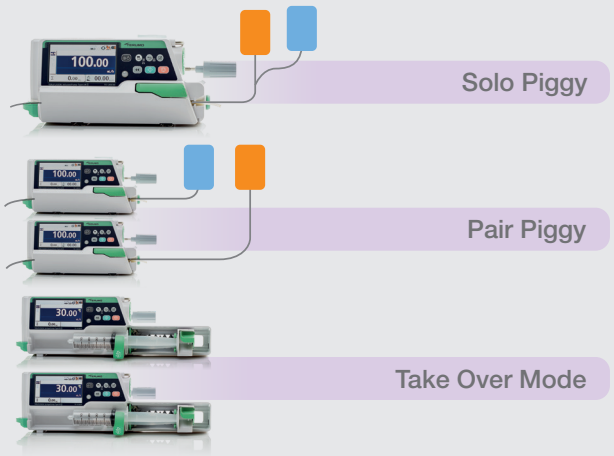


Concept of Advanced Infusion System
Optimized workflow

Optimizing patient treatment

To optimize patient treatment a balanced and continuous infusion of multiple medications is imperative.

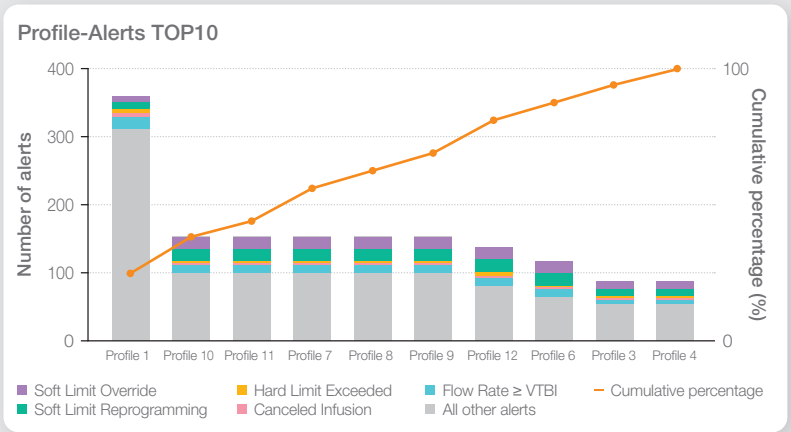
Internal communication between Terufusion SMART pumps stationed in a Terufusion communication rack system provides special functions like Piggy and Take Over Mode for a balanced continuous infusion.



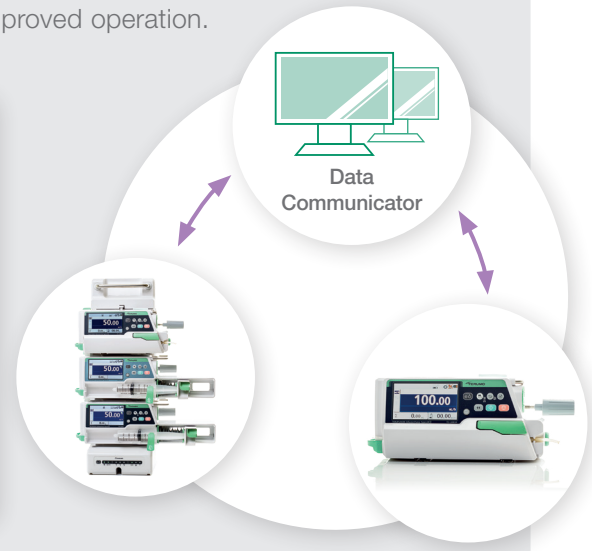
Extensive communication capability

In addition to connectivity via SMART racks (WIFI, Wired LAN & RS-232C), Terufusion SMART pumps offer stand-alone WIFI connectivity.

Hospital professionals can not only upload drug libraries to pumps, but also download History data, analyse them in graphical format, and feedback for improved operation. Pumps can also be integrated into hospital information systems.



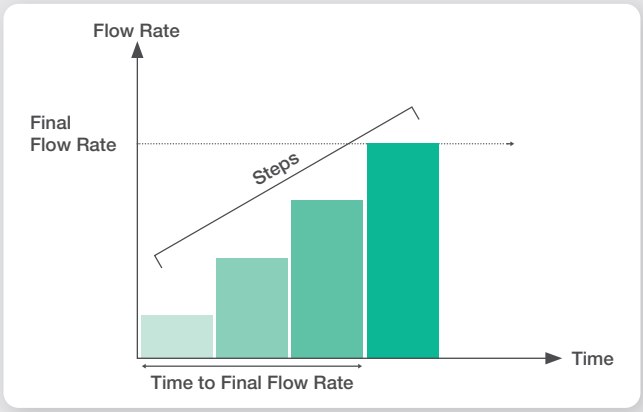
Example of a graph generated by the software.

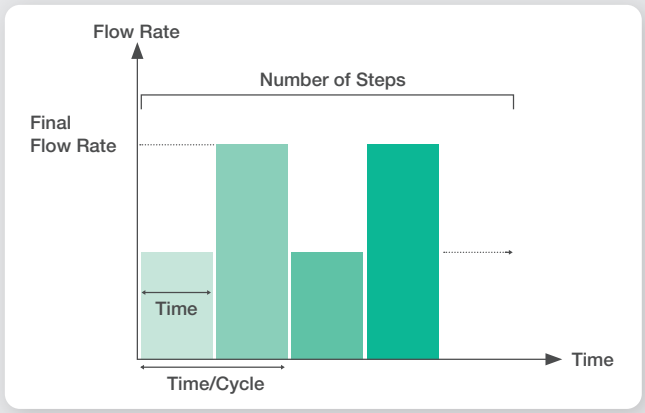


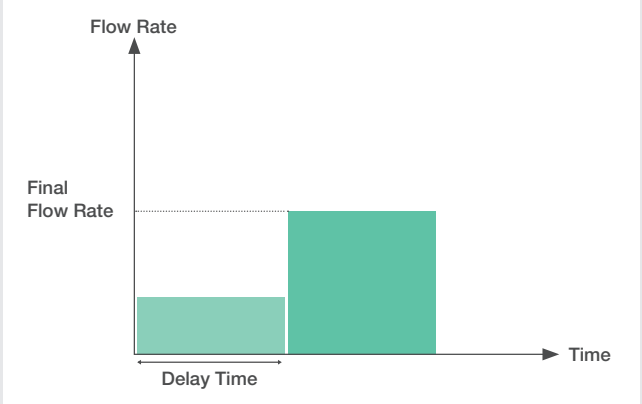
Advanced application

Different drugs have different ways of taking effect.

Terufusion SMART pumps provide not only Dose Mode options (ml/h, µg/kg/min, mg/kg/h), but also Advanced Modes such as ‘Intermittent’, ‘Multi-Step’ and ‘Delayed Start’. All these can be selected and applied, depending on the type of medication.







Technical data

	TE-SS73X series	TE-SS83X series
Model	TE-SS730	TE-SS830
Type of device	Syringe pump	
Catalogue number	TE-SS730xxx	TE-SS835xxx
Classification & compliance to standards	Class I and internally powered equipment, Defibrillation-proof type CF applied part (according to IEC/EN 60601-1) Class IIb medical device (according to Council Directive 93/42/EEC) IEC/EN 60601-1-2, IEC/EN 60601-2-24	
Protection against harmful ingress of water or particulate matter	IP 24	
Dimensions / Weight	381 mm (W) x 120 mm (H) x 112 mm (D), approx. 2.0 kg	
Compatible disposables	Luer lock syringes (TERUMO and other specified brands)Sizes: 5, 10, 20, 30, 50/60 mL	
Flow rate setting range	0.01 - 150 mL/h (for 5 mL syringes) 0.01 - 300 mL/h (for 10, 20 and 30 mL syringes) 0.01 - 1200 mL/h (for 50/60 mL syringes)	
Flow rate display change	0.01 mL/h step (0.01 to 10.00 mL/h) 0.10 mL/h step (10.00 to 100.00 mL/h) 1.00 mL/h step (100.00 to 1200.00 mL/h) (Will be 0.00 mL/h when power is turned on)	
Dose mode	mL/h, µg/kg/min, mg/kg/h	mL/h, µg/kg/min, mg/kg/h, Drug Library
Advanced dose mode	N/A	Interval/intermittent mode. Multi-step mode. Delayed start mode. (To be able to use the advanced mode, the drug library[2] needs to be installed.)
Combination dose mode	N/A	Pair Piggyback mode / Take Over mode
KVO[1]	Configurable: 0.1 mL/h - 3.0 mL/h, 0.1 mL/h step	
Drug library[2]	N/A	Up to 3000 drug entries. Up to 30 user defined profiles.
Free flow protection	N/A	
Alarms	Occlusion, Nearly Empty, Slider Displacement, Syringe Barrel Detection, Syringe Displacement, Plunger Displacement, Battery, Re-alarm, Start Reminder, No Flow Rate, No VTBI[4], Completi-on[4], Power failure, Shutdown Notice	Occlusion, Pressure[2], Nearly Empty, Slider Displacement, Syringe Barrel Detection, Syringe Displacement, Plunger Displacement, Battery, Re-alarm, Start Reminder, No Flow Rate, No VTBI[4], Completion[4], Link Interruption[2], Power failure, Shutdown Notice
Power supply	AC 100-240V, 50-60 Hz, Internal battery (Lithium ion battery), Sub-battery (NiMH)	
Main battery operating time	Approx. 12 hours (at 5 mL/h and 25°C with a new fully charged battery)	
Main battery recharching time	≥8 hours (when charged with AC power supply with the power turned off), battery can be charged to 80% in 3 hours	
External communication function		IrDA and Wireless LAN IEEE802.11b/g/n

1 Keep vein open: special function that can be enabled by TERUMO trained service technicians by changing the internal settings of the pump.
2 Dedicated software is required - please contact your local Terumo office.

TE-LF63X series	TE-LM83X series
TE-LF630	**TE-LM830**
Volumetric infusion pump	
TE-LF630xxx	TE835xxx
Class I and internally powered equipment, Defibrillation-proof type CF applied part (according to IEC/EN 60601-1) Class IIb medical device (according to Council Directive 93/42/EEC) IEC/EN 60601-1-2, IEC/EN 60601-2-24	
IP 22	
253 mm (W) x 120 mm (H) x 102 mm (D), approx. 2.0 kg	
Infusion set (TERUMO)	TERUMO dedicated infusion sets (with Free Flow Protection)
3.00 to 300.00 mL/h (when setting is 20 drops/mL) 1.00 to 100.00 mL/h (when setting is 60 drops/mL)	When not using the drip sensor 0.10 to 1200.00 mL/h When using the drip sensor 0.10 to 1200.00 mL/h (when setting is 20 drops/mL) 0.10 to 300.00 mL/h (when setting is 60 drops/mL)
0.01 mL/h step (0.00 to 10.00 mL/h) 0.10 mL/h step (10.00 to 100.00 mL/h) 1.00 mL/h step (100.00 to 999.00 mL/h) (Will be 0.00 mL/h when power is turned on)	0.10 mL/h step (0.10 to 100.00 mL/h) 1.00 mL/h step (100.00 to 1200.00 mL/h) (Will be 0.00 mL/h when power is turned on)
mL/h	mL/h, µg/kg/min, mg/kg/h, Drug Library
N/A	Interval/intermittent mode. Multi-step mode. Delayed start mode. (To be able to use the advanced mode, the drug library[3] needs to be installed.)
N/A	Solo and Pair Piggyback mode
When using an infusion set of 20 drop/mL: 3.00 mL/h (Fixed) When using an infusion set of 60 drop/mL: 1.00 to 3.00 mL/h	0.10 to 3.00 mL/h (when not using the drip sensor (optional accessory)) When using the drip sensor (optional accessory): When using an infusion set of 20 drop/mL: 3.00 mL/h (Fixed) When using an infusion set of 60 drop/mL: 1.00 to 3.00 mL/h
N/A	Up to 3000 drug entries. Up to 30 user defined profiles.
Drip sensor can detect free flow (free flow alarm)	Anti-free flow clip installed inline
Battery, Shutdown Notice, Power Failure, Air-in-line, Upper Occlusion, Lower Occlusion, Nearly Empty[4], Door, Flow Rate Abnormality, Infusion Completion[4], Re-alarm, Start Reminder, Free Flow alarm, Line Empty, No Flow Rate alarm and No VTBI[4].	Battery, Shutdown Notice, Power Failure, Air-in-line, Upper Occlusion, Lower Occlusion, Pressure[2], Nearly Empty[4], Anti-free Flow Clip, Door, Flow Rate Abnormality[3], Completion[4], Link Interruption[2], Re-alarm, Start Reminder, Free Flow[3], Line Empty[3], Drip Sensor Dislocation[3], No Flow Rate and No VTBI[4].
AC 100-240V, 50-60 Hz, Internal battery (Lithium ion battery), Sub-battery (NiMH)	
Approx. 5 hours (at 25 mL/h at 25°C with a new fully charged battery)	
≥8 hours (when charged with AC power supply with the power turned off), battery can be charged to 80% in 3 hours	
	IrDA and Wireless LAN IEEE802.11b/g/n

3 Available only if the (optional) dedicated drip sensor is used.
4 Only if the VTBI setting function is enabled.

For your country's product codes, please contact your local Terumo office.

TERUMO
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Terufusion - Full focus infusion system

Administration Sets

- Easy setting following the instruction screen of the pump
- Adjustable roller clamp with notch to accurately control the priming of the infusion line
- AFF clip for prevention of accidental bolus infusion+
- Reliable high accuracy combination of Terumo pump & sets*
- Durable tubes for continuous accurate infusion#

* Flow rate accuracy: within ± 5% + Available on specific sets # Always consult the product label and IFU for a complete overview of warnings, cautions and/or precautions prior to actual use.

Hardware accessories

Included accessories

- AC power cable
- Pole clamp (screw type)
- Instruction manual

Optional accessories

- Drip sensor TE*977 (standard for LF series)
- One touch pole clamp TE*877

Terumo Luer-Lock syringes

- Available in all sizes
- Highly transparent barrel
- Bold, easy legible and accurate scale markings
- No Latex & PVC components
- Special silicone coating
- Double contact gasket

Terumo offers a comprehensive portfolio of solutions for the complete infusion line-up. User-friendly syringe and volumetric pumps and racks, as well as a wide range of highly accurate, easy-to-use disposables, such as an extended range of infusion sets and syringes.

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Your Terumo partner

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