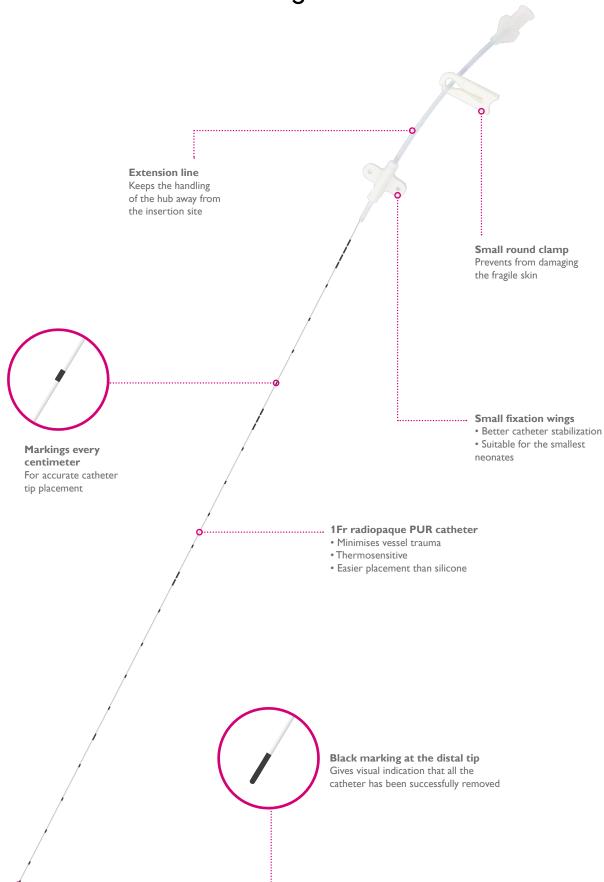




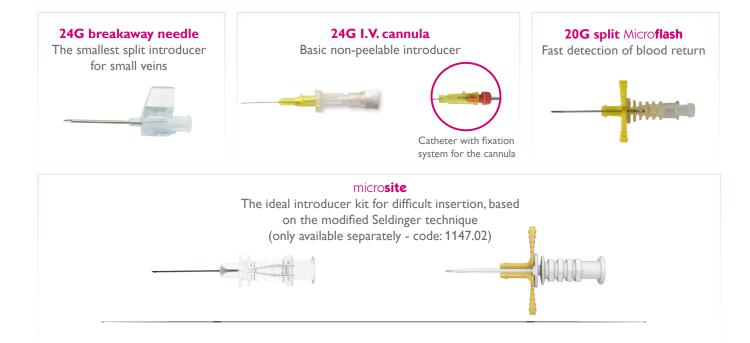
A 1Fr PICC specially designed for newborns under 1kg





premicath

A large choice of introducers to suit all users



Premicath without stylet

	C	atheter (1Fr in PUF	3)	Introducer				
Codes	Length cm	Flow rate ml/min (pressure 1 bar)	Prim. vol. ml	Туре	Size	Other feature	Quantity	
1261.080	8	1.6	0.07	Breakaway needle	24 G	-	10/box	
1261.152	15	0.9	0.08	I.V. cannula	24G	-	10/box	
1261.20	20	0.7	0.09	Breakaway needle	24 G	-	10/box	
1261.21	20	0.7	0.09	Breakaway needle	24 G	Supplied with syringe adaptor	10/box	
1261.22	20	0.7	0.09	micro flash	20 G	-	10/box	
1261.201	20	0.7	0.09	Without introducer	-	-	10/box	
1261.302	30	0.6	0.11	I.V. cannula	24 G	-	10/box	

*Premi**cath** with stylet

	C	atheter (1Fr in PUF	R)	Introducer				
Codes	Length cm	mi/min vol.		Туре	Size	Other feature	Quantity	
1261.102	10	1.4	0.08	I.V. cannula	24G	-	10/box	
1261.153	15	0.9	0.08	I.V. cannula	24G	-	10/box	
1261.203	20	0.7	0.09	Breakaway needle	24 G	-	10/box	
1261.207	20	0.7	0.09	I.V. cannula	24G	-	10/box	
1261.206	20	0.7	0.09	Without introducer	-	-	10/box	
1261.208	20	0.7	0.09	micro flash	20G	-	10/box	
1261.210	20	0.7	0.09	Without introducer	-	Supplied with protective polyethylene sheath	10/box	
1261.306	30	0.6	0.11	Without introducer	-	-	10/box	
1261.307	30	0.6	0.11	I.V. cannula	24G	-	10/box	
1261.310	30	0.6	0.11	Without introducer	-	Supplied with protective polyethylene sheath	10/box	





Neonatal PICC placement kit

- Saving time and money: Reducing preparation time, improving stock management and reducing waste.
- Improving safety: Reducing the risk of infection, simplifying procedures and traceability.
- Instruments dedicated to neonates: Non adhesive drapes respectful of the fragile skin of the newborns, neonatal tourniquet designed to reduce skin trauma...
- 1 Preparation and disinfection



Illustrated





2 Positioning of drapes





Fenestrated transparent drape $(40 \times 40 \text{ cm})$ with easy peel technology



4 Catheter fixation





Code	Product
80199.519	Neonatal PICC Placement kit

R Vyset is a Vygon activity, which customizes specific sets according to your hospital procedures and your needs.

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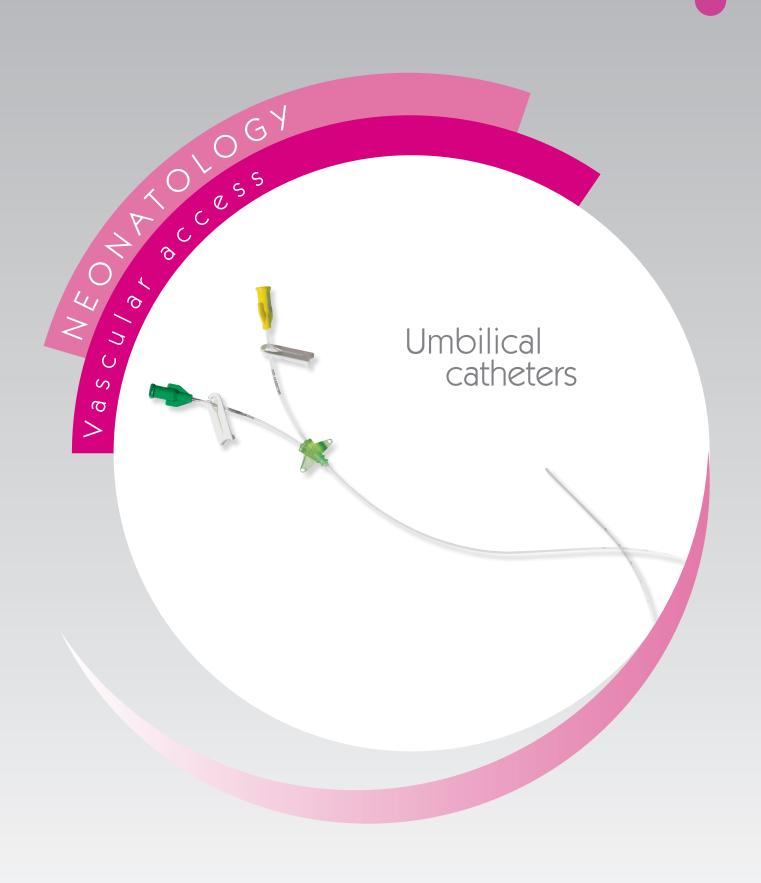
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Single-lumen umbilical catheters

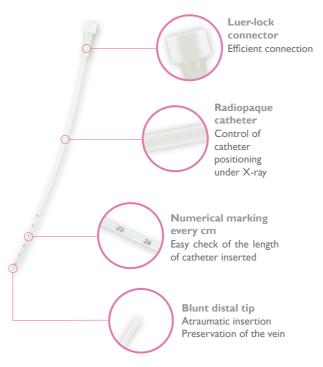
Umbilical venous catheters are used for:

- Parenteral nutrition & fluid administration
- Drugs administration
- Venous blood sampling
- Transfusion of blood or blood products
- Exchange transfusion

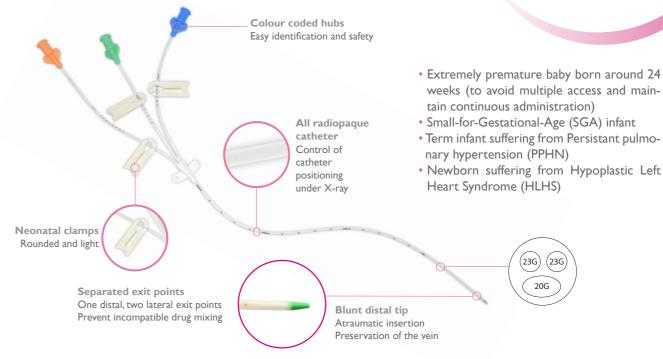
	Code	Size	Length	Flow rate	
	1270.02	2.5Fr	30 cm	> 3 ml/min	
~	1270.03	3.5Fr	40 cm	> 10 ml/min	
PUR	1270.04	4Fr	40 cm	> 10 ml/min	
	1270.05	5Fr	40 cm	> 23 ml/min	
	1270.08	8Fr	40 cm	> 100 ml/min	
	270.03	3.5Fr	37 cm	> 6 ml/min	
	270.04	4Fr	37 cm	> 16 ml/min	
PVC	270.05	5Fr	37 cm	> 31 ml/min	
۵	270.06	6Fr	37 cm	> 52 ml/min	
	270.07 7Fr		37 cm	> 80 ml/min	
	270.08	8Fr	37 cm	> 106 ml/min	

Umbilical arterial catheters are used for:

- Arterial blood sampling
- Arterial pressure measurement
- Blood pH and blood gas analysis
- Fluids and drugs administration

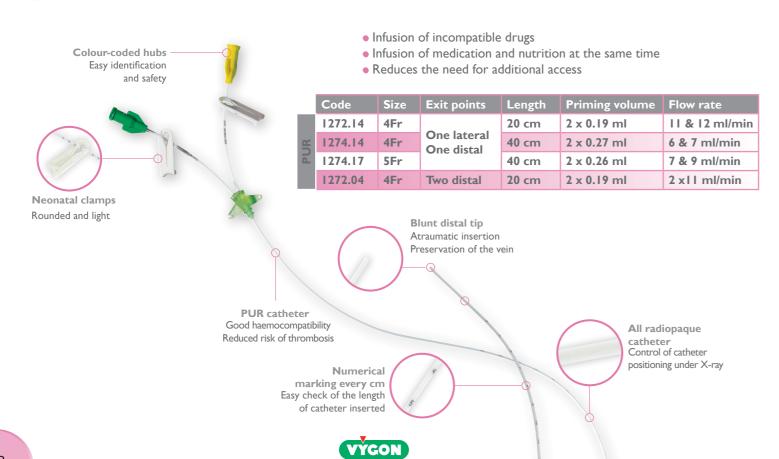


Triple-lumen umbilical catheter



		Catheter		Distal lumen		Medial lumen			Proximal lumen				
PUR	Code	Fr	Length	Ext. Ø mm	G	Flow rate ml/min	Prim. vol. ml	G	Flow rate ml/min	Prim. vol. ml	G	Flow rate ml/min	Prim. vol. ml
	V02127315	4.5	20	1.5	20	7.4	0.20	23	2	0.17	23	2.1	0.17

Double-lumen umbilical catheters



Insertion technique

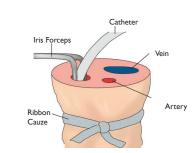
- 1. Use strict aseptic technique, disinfect the abdominal wall and cord stump. Place a sterile drape with central opening.
- 2. Loosely tie an umbilical tape around the cord stump to control bleeding. Cut the umbilical cord horizontally I cm above the skin, remove any clots which may obstruct
- 3. Identify the vessels: arteries are small, thick walled spiralling vessels and vein is larger and
- **4.** Prime the catheter and if required dilate the vessel using iris forceps.
- **5.** Advance the catheter using short, smooth strokes.
- **6.** Use the cm markings on the catheter to note the length of catheter inserted.
- 7. Place a suture in the wall of the cord taking care not to puncture the catheter.
- 8. Dress the catheter according to your local policies.

Positioning:

Always check the location of the catheter by radiography.

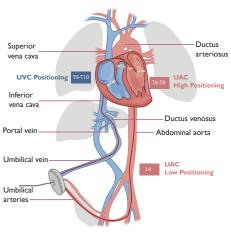
For arterial catheterization: Umbilical arterial catheter can be sited either in the high position or the low position though the higher position is associated with lower complication Portal vein rates (1,2,3). Use of high positioning of umbilical arterial catheter is recommended (4).

For venous catheterization, the catheter tip should be placed beyond the ductus Umbilical vein venosus in the central venous system (inferior vena cava). In emergency situations, the catheter can be inserted 2-3 cm (until blood is returned) and emergency meds can be arteried given. The catheter should not be left in this location and should be removed after giving emergency medications.



Umbilical

catheters







Umbilical Placement Set

The umbilical placement set is a procedure pack containing all the necessary material to place an umbilical catheter

- Save time and money by reducing preparation time / Improving stock management/ Reducing waste
- Increase safety by reducing the risk of infection / Simplifying procedure / Traceability
- Instruments dedicated to neonates: Neonatal tourniquet designed to reduce skin trauma / Non adhesive drapes respectful of the fragile skin of newborns.



- 18 G hypodermic safety needle
- 20 G hypodermic safety needle
- Scalpel
- Drapes without adhesive
- 40x40cm fenestrated transparent drape with "Easy-peel"
- Drape towels
- I pair of suture scissors
- 10 swabs 10 x 10, 8-ply
- 10 swabs 5 x 5, 8-ply
- I transparent gallipot 60 ml

- I red gallipot 60 ml
- Outer wrap
- Instructions for use
- Umbilical tape
- Measuring guide
- Mosquito haemostat curved
- Mosquito haemostat ,straight
- Iris forceps, "full curved"
- Iris forceps, half curve
- Iris forceps, straight
- Iris forceps, straight with teeth

- Needle holder
- Measuring tape
- I ml syringe
- 3 ml syringe
- 5 ml syringe
- Vessel dilator probe
- 3.0 silk suture with curved cutting needle
- Tray 20 x 15 x 4 cm
- 2 fixation strips

Bibliography

- I. Sawyer, T.L. (2011) Umbilical Arterial Catheterization Accessed
- 2. Kuschel, C. (2011) Newborn Services Clinical Guideline Umbilical Artery and Vein Catheterisation
- 3. McCormick, P.C. Stein, B.M. (1990) Functional anatomy of the spinal cord and related structure, Journal of Neurosurgery, Vol 1, pp:469-89
- 4.Kaleidoscope Hunter Children's health Network, Guideline Umbilical Arterial Catheter in NICU August 2009



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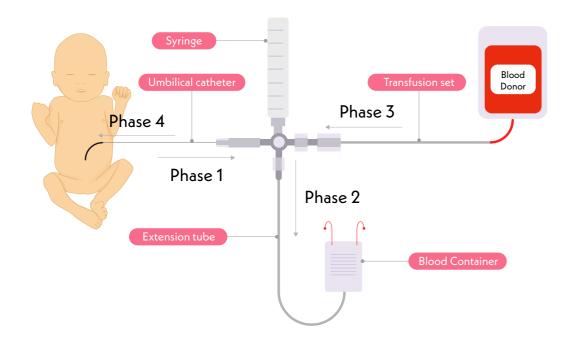






Global overview

Exchange transfusion is indicated for the management of hyperbilirubinemia and haemolytic disease of the newborn.



VYGON

The aim of an exchange transfusion is mainly to:

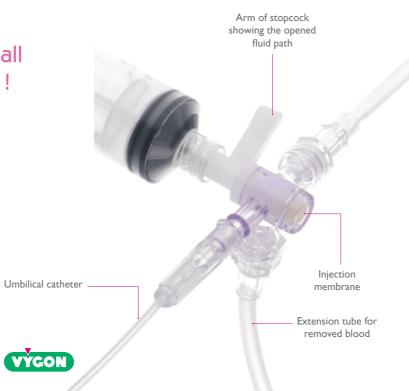
- ✓ Remove the infants' affected red blood cells and circulating maternal antibodies to reduce red cell destruction (1)
- ✓ Lower the serum bilirubin level (1) and reduce the risk of brain damage (2)
- ✓ Correct anaemia (3)
- ✓ Manage polycythemia ⁽⁴⁾

The technique consists in replacing most of the newborn blood with donor blood.

This replacement is made by split and successive volume-to-volume exchanges.

1 device to manage all the fluid directions!

The four-way stopcock designed especially for exchange transfusion's procedure.



Exchange transfusion set

Vygon's exchange transfusion set is meant to facilitate this procedure by bringing together all the necessary elements for:

- ✓ Stock management improvement ✓ Sterile barrier precautions
- ✓ Standardization of the procedure ✓ Reduced set-up time













Exchange transfusion set									
Code	With or without gloves	Shelf-life	Quantity Box/case						
275.00	1 pair (Synthetic - Medium)	< 36 months	1/8						
275.001	None	< 60 months	1/8						





- (1) Exchange Transfusion for Severe Neonatal Hyperbilirubinemia: 17 Years' Experience from Vojvodina, Serbia. N. Bujandric and J. Grujic. Published online 2015 Apr 2.
- (2) Neonatal Exchange Transfusion Guidelines of NSW Government Nick Evans, revised March 2011»
- (3) Hemolytic Disease of the Newborn Jayashree Ramasethu MD, FAAP, in Handbook of Pediatric Transfusion Medicine, 2004
- (4) Partial exchange transfusion to prevent neurodevelopmental disability in infants with polycythemia. E. Özek, R. Soll, M. S Schimmel. 10.1001 14651858. Published online first: 20 January 2010



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Pleural drainage

easydrain

For a quick and sterile drainage of the thoracic cavity: **Easydrain**, a safe and easy-to-use product.

Sterile protective sheath

- Ensures aseptic conditions when placing the drain.
- Helps identifying the emergence of the needle in the pleural space: the sheath either collapses or inflates depending on the pressure in the pleural space.





- Eases the connection of the drain on the 3-way-stopcock.
- Secures drain fixation; if the connection is done properly, there is no risk of disconnection.
- Avoids kinking of the tube during both connection on stopcock and drainage.

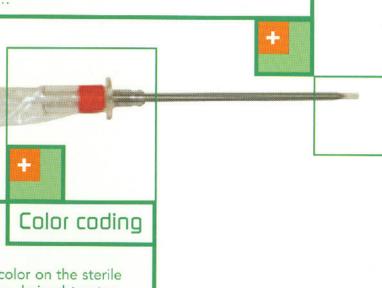
3-way słopcock

- For a better control of the position open / closed.
- The design of the stocpcock allows an easy handling.

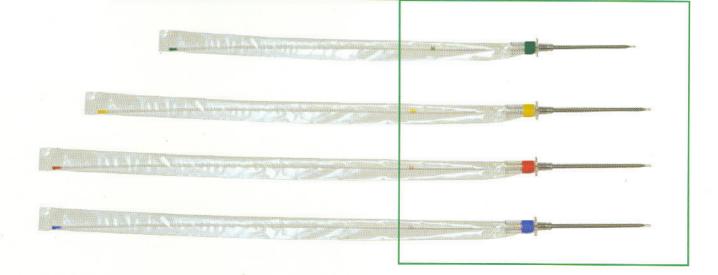


Easydrains are available in various lengths and configurations of perforations according to:

- The use on adult, pediatric or new-born patients
- The type of drainage to realize: pleural effusion, pneumothorax, ascites, pericardial effusion...



- One and same color on the sterile sheath fixation, the drain obturator and the stopcock.
- Allows a quick identification of the size requested for the procedure.





- Perforated catheter protected by a sterile sheath
- 3-way stopcock with handling sleeve
- Connection adapter for suctioning device, Heimlich valve...

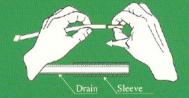


Easydrain, ready-to-use sets

Connection of the 3-way-stopcock on the drain using the handling sleeve



1 - Take the handling sleeve off the stopcock.



2 - Slide the sleeve onto the proximal end of the drain.



3 - By rotating slightly the stopcock and pushing it gently, insert the stainless steel tube into the drain until it reaches the hub of the stopcock. If necessary, move the sleeve back and repeat the procedure. Check the drain covers the stainless tube.



4 - Then push the handling sleeve until it reaches the end of the stopcock.

			Jrain		N6	Codes		
	ext.ø mm	mm Fr Length cm Perf. On ext.ømm Fr		Fr	Length cm	Codes		
Neonatology >	2,0	6	30	3 cm	2,42	13	57	681.06
Pediatric 📂	2,7	8	40	4 cm	3,32	10	77	681.082
Adult	2,7	8	50	10 cm	3,32	10	77	681.08
Adult	3,3	10	50	10 cm	4,00	8	77	681.10

For more information, contact our "information and technical" department Tel: (+33) 1 39 92 63 33 - email address: questions@vygon.com



Laboratoires Pharmaceutiques VYGON 5 à 11 rue Adeline 95440 Ecouen France Tél. : (+33)1 39 92 63 63 Fax : (+33)1 39 90 29 37 www.vygon.com

THERAPIES access smart**midline**TM CT-rated midline



Why a midline?

More than 250 million PIVs* and 300,000 PICC are placed each year in Europe.1

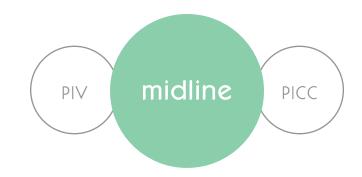
But are they always the most suitable devices?

First-attempt insertion of **PIV** is unsuccessful in **12-54%** of patients²... while repeated insertion attempts lead to vein trauma and increase the risk of complications.

Up to 69% of PIVs fail before therapy is complete.3

43% of **PICCs** are inappropriately used⁴... while with a PICC, the risk of CLABSI and DVT** is increased.²

Midline are the perfect alternative...



Midline versus PIV

- √ Only 1 puncture
- √ Less failure rate

Midline versus PICC

- √ More cost effective
- √ Preservation of central veins

Midline: the right indications

Patients with difficult venous access or those who require more than 6 days of treatment without indications for central venous access

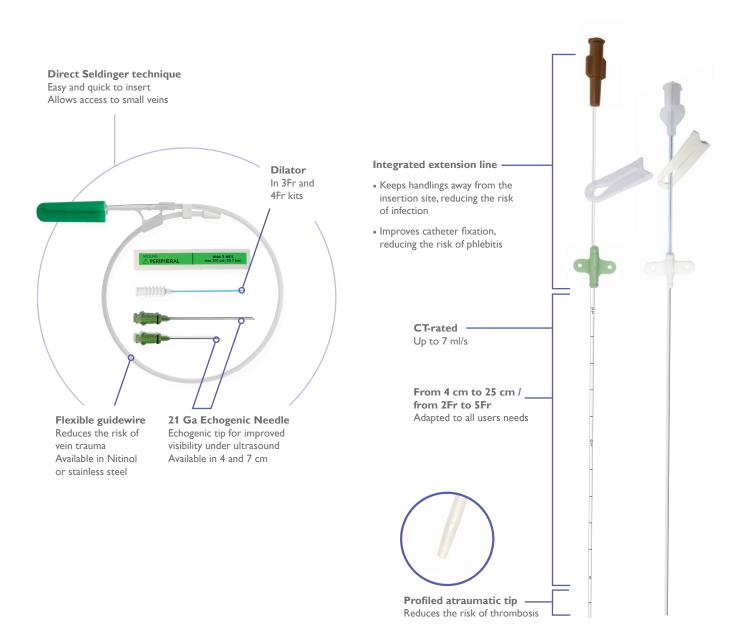






Introducing smartmidlineTM

Easiest insertion, multiple sizes, CT-rated



For optimal outcomes, to be used with:



vysion XS Ultrasound System

Code U-Lite



VYSET insertion Sets Codes V02771713 (basic), V02771714 (complete), V02771818 (max. barrier)



grip**lok** Securement Device Code 5804.04



Range

Catheter size	Catheter length	M ax flowrate	Needle length	Dilator	Guid	ewire							
(Fr)	(cm)	(ml/s)	(cm)		Stainless steel	Nitinol**							
	4	4.5		Х	128.1204								
	6	1.5		X	128.1206	128.12062							
2	8	1	4.5	X	128.1208	128.12082							
2	10	'	4.5	X	128.1210								
	15	0.5	1	X	128.1215	-							
	20	0.5		X	128.1220	-							
	6			√	128.1306	-							
	8	1.5	- 4 and 7	✓	128.1308	128.13082 NEW!							
3	10			√	128.1310	128.13102 NEW!							
3	12			✓	128.1312	128.13122 NEW!							
	15	1		✓	128.1315	-							
	20			√	128.1320 NEW!	-							
	8			√	128.1408	128.14082 NEW!							
	10			√	128.1410 NEW!	128.14102 NEW!							
	12	_	_	√	128.1412	128.14122 NEW!							
4	15	5	7	√	128.1415	128.14152 NEW!							
	20			✓	128.1420	128.14202 NEW!							
	25			√	128.1425	128.14252 NEW!							
_	15	~			128.1515*								
5	20	20		128.1520*									

^{*5} Fr catheters are delivered without accessories. They must be used with a MST kit with 5.5 Fr introducer sheath, refVGAG1146-557.

INTRAVASCULAR THERAPIES

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^{** 2} Fr kits are supplied with J nitinol guidewires and 3 Fr and 4 Fr kits are supplied with straight nitinol guidewires.

¹ IData report 2014
2 Helm R. E., Klausner, J. D., Klemperer, J. D., Flint, L. M., & Huang, E. (2015). Accepted but Unacceptable. Journal of Infusion Nursing, 38(3), 189-203
3. Marsh N., Webster J., Flynn J., Mihala G., Hewer B., Fraser J., Rickard C.M. Securement methods for peripheral venous catheters to prevent failure: a randomised controlled pilot trial. J Vasc Access 2015; 16 (3): 237-244.

⁴ Chopra V, Flanders SA, Saint S. et al. The Michigan Appropriateness Guide for Intravenous Catheters (MAGIC): Results from a Multispecialty Panel Using the RAND/UCLA Appropriateness Method. Annals of Internal Medicine 2015; 163(6): Supplement.

⁵ Adams V.The midline catheter: a clinical review.The Journal of Emergency Medicine, Vol. 51, No. 3, pp. 252–258, 2016

AR RETESS ARRETES A arterial leader R Safe, simple, successful





The solution: Seldinger technique

arterial leader**ch** is placed using the tried and tested Seldinger techni ue. Once ash ac has een con rmed the Seldinger wire sta ilises the artery to offer successful catheter placement even when vessel conditions are less than ideal.

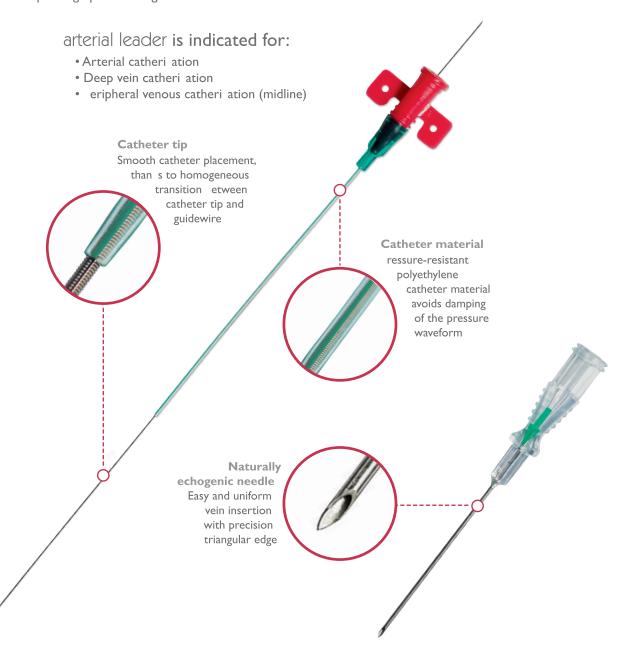
The classic use of naturally echogenic needle, a safety guidewire with a straight, exi le tip and a semi transparent, x-ray contrast-catheter made of pressure-resistant polyethylene **reduces the risk** of incorrect placement.

The precision grind of the insertion needle enables smooth accurate, percutaneous

arterial puncture. The exi le tip of the guidewire **adapts precisely to the structure of the vessel and aids safe advancement** of the catheter on insertion. Than s to the homogeneous transition from catheter tip to safety guide, catheter placement is largely **atraumatic**.

The combination of catheter material, catheter diameter and catheter length delivers consistent pressure signal transmission even for extended dwell times.

This catheter is suitalle for a variety of arterial and venous applications in oth adults and children depending upon the length and the sile of the catheter.







Fixation dressing with VE CRO® rand closure

Simple

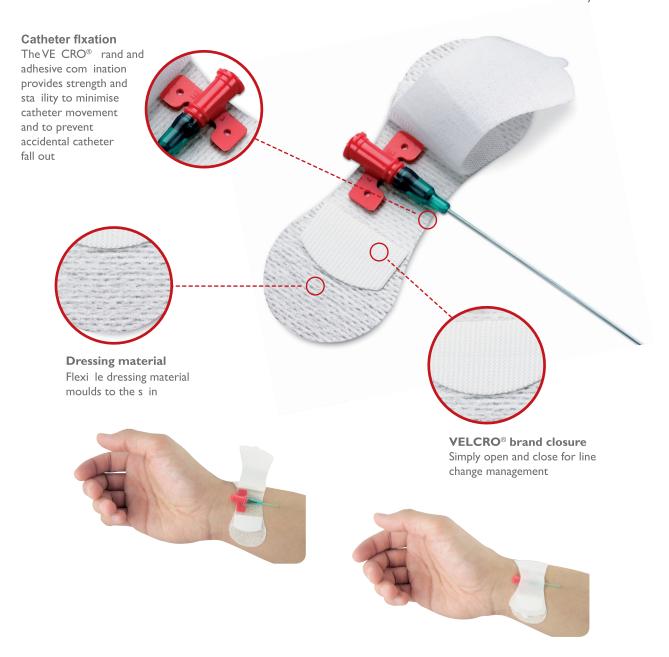
► VE CRO® rand closure provides simple, uic and secure xation.

Safe

- Sterile latex-free designed for use at the insertion point.
- ► Both the catheter wing and hu are safely secured within the dressing to minimise catheter movement at the insertion site.

Reliable

- Consistent and relia le catheter xation is achieved y using a high strength, hypoallergenic adhesive, to minimise movement and prevent accidental catheter fall out.
- gripk is designed to provide suture free catheter security.



gripk is availa le as part of a Vyset procedure pac , please contact your local Vygon representative for more information.





		Cath	neter		Punctur	e needle	Guid		
Product code	Ø (Fr)	Length (cm)	Int. Ø - Ext. Ø (mm)	Flow rate (ml/min)	Gauge (G)	Length (cm)	Ø (mm)	Length (cm)	Units per box
115.090	3	8	0.6 - 0.9	24	20	38	0.53	20	20
115.092	3	2	0.6 - 0.9	33	20	38	0.53	20	20
115.094	3	4	0.6 - 0.9	30	20	38	0.53	20	20
115.096	3	6	0.6 - 0.9	27	20	38	0.53	20	20
115.11	4	10	0.8 - 1.2	24	19	54	0.71	30	20
115.118	4	8	0.8 - 1.2	43	19	54	0.71	30	20
115.12*	4	18	0.8 - 1.2	34	19	68	0.71	46	5
115.15*	4.5	18	1.0 - 1.5	67	17	70	0.9	46	5
115.17*	5	18	1.2 - 1.7	109	16	70	1.1	46	5

Presented in a rigid blister pack containing:

- 1 transparent and RO catheter (E)
- 1 introducer needle
- 1 guidewire

arterial leader**cath** can also e ordered in **T** [®] pac s. Contact your Vygon representative for more information.

* CRITICAL CARE

Epiestirthe@infganation, please contact:

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^{*} these codes also contain: 1 polyethylene extension tube (30 cm), 1 syringe 5 ml and 1 three-way stopcock