VASCULAR ACCESS

Paediatric Central Venous Catheter

multi**cath** & multi**star**

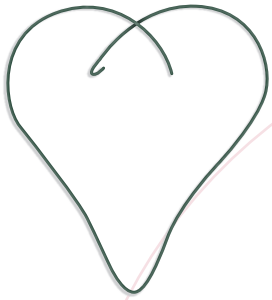
Strong range for fragile patients

VYGON

Value Life

Paediatric multicath

Superior insertion by design



Highly kink resistance
"J" Nitinol guidewire coated with Teflon for ultra low resistance

Insertion
Adapted to your practice

A choice of a **short IV cannula** or **introducer needle**

2 lengths of dilators :
- 3 & 5 cm for 3 Fr
- 4 & 6 cm for 4.5 Fr & 5.5 Fr

Low friction
Highly echogenic introducer needle

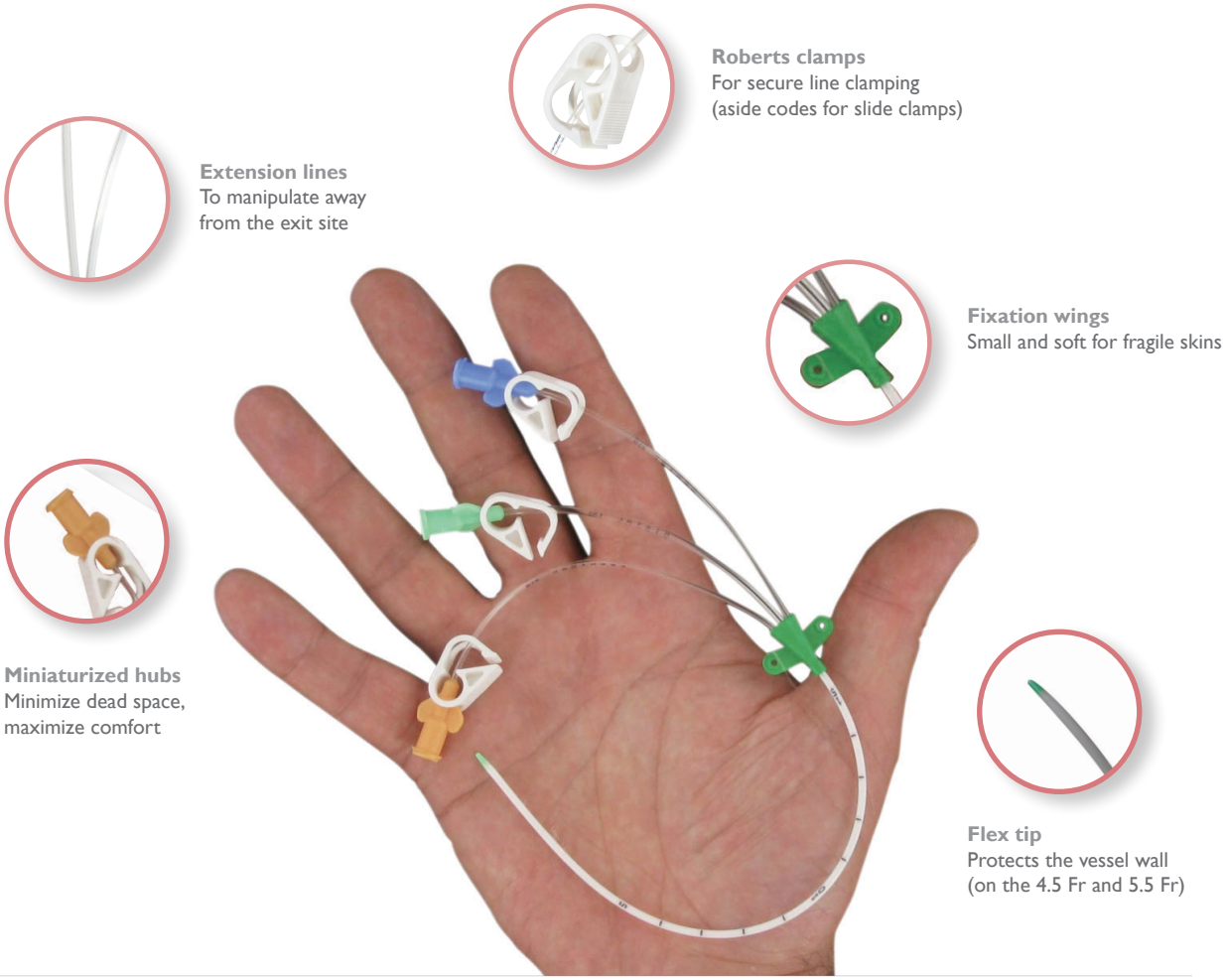
'Bin' the wing

Our extensive range of catheter lengths (6, 8, 10, 12.5, 15, 20, 30 cm) allows you to choose the exact length of catheter required:
- Reduced catheter movement
- Decreased risk of infection
- Reduced risk of cardiac tamponade

VYGON

Catheter design

Designed with children in mind



Roberts clamps
For secure line clamping
(aside codes for slide clamps)

Extension lines
To manipulate away
from the exit site

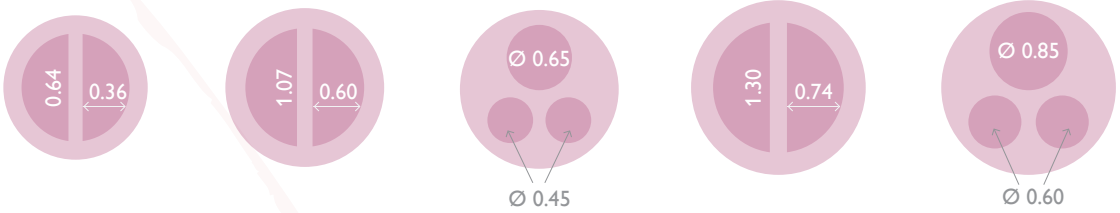
Fixation wings
Small and soft for fragile skins

Miniaturized hubs
Minimize dead space,
maximize comfort

Flex tip
Protects the vessel wall
(on the 4.5 Fr and 5.5 Fr)

A catheter for every patient

multi**cath** gives you the ability to match the size of the patient depending on its age, weight and therapy needs in terms of flow rates and number of lumens.



3Fr **4.5Fr** **4.5Fr** **5.5Fr** **5.5Fr**

Procedure pack

Saving time and money

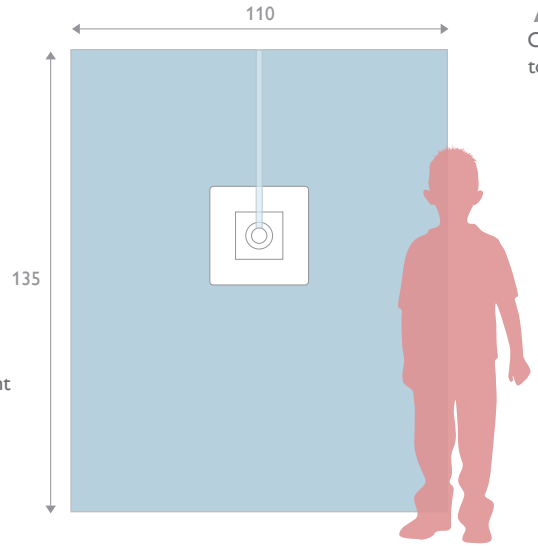
International guidelines [1] [2] [3] clearly demonstrate that use of a comprehensive procedure pack with maximum sterile barrier protection significantly reduces the risk of catheter related blood stream infection.

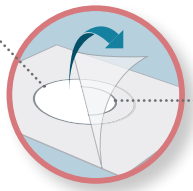
The Vygon Paediatric CVC insertion pack provides everything the clinician requires for safe catheter placement:

Full body drape

Peelable edge
Facilitates the removal of the drape with the CVC in place

Transparent window
Provides excellent patient visibility





Adjustable window
Offers choice to adapt to the size of the child

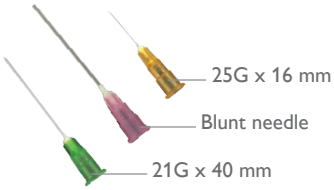
Adhesives
Prevents drape movement during placement and bacteria migration to the site

Absorbent non-woven
Material provides great absorption

Skin preparation

Ultrasound probe cover with gel

Pre-filled syringes with saline (10ml Luer lock)

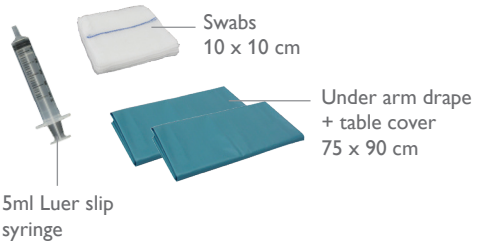


Needles

Disposafe – needle protector

Gown

Tray



Ordering code: 80199.2215
Minimum order: 8 units

Quantity: 8 units per box
Pack size: 39 x 27 x 11 cm

[1] 2011 Guidelines for the Prevention of Intravascular Catheter-Related Infections (Center for Disease Control)
[2] Matching Michigan
[3] Pratt R. J., et al. (2007) epic2: National evidence-based guidelines for preventing healthcare-associated infections in NHS hospital in England. Journal of Hospital Infection. 65S, S1-64.

multi**cath** &
multi**star**

Paediatric catheters

Breakthrough in antimicrobial technology

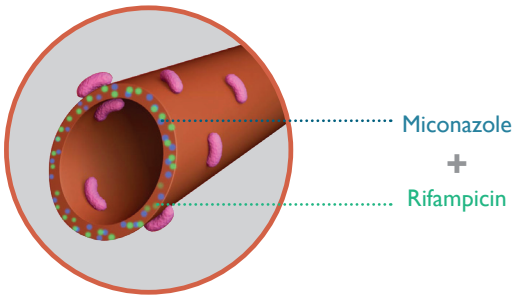
"Rifampicin-Miconazole supersaturated CVCs have demonstrated the potential to prevent catheter-associated colonization, local infection and bloodstream infection even in long-term application." [4]

The combination of Rifampicin and Miconazole leads to protection against a broad spectrum of microorganisms such as Staphylococci, Enterobacterial and Candida. [5]

"The use of a rifampicin-miconazole-impregnated catheter (RM-C) has been suggested to have the greatest benefit in femoral access." [6]

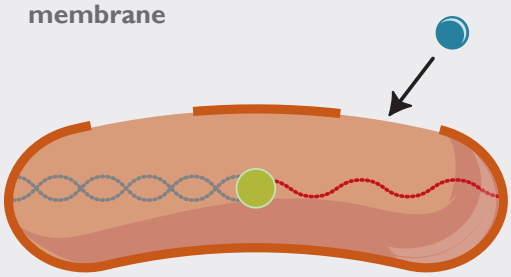
Multi**star** is the innovative combination of two active ingredients: **Rifampicin** and **Miconazole**, chosen for their synergic properties:

- Efficacy on a large spectrum of microorganisms [4]
- Low risk of bacterial resistance development [4]
- High physico-chemical compatibility with polyurethanes [7]



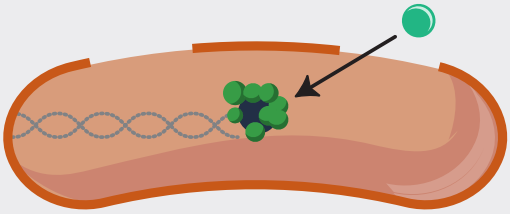
Miconazole

- Synthetic antifungal
- Wide spectrum of antimicrobial activity
- Low toxicity
- Mechanical action : **weakens the bacterial membrane**



Rifampicin

- Highly effective against gram-positive as well as gram-negative microorganisms
- Mechanical action : **inhibits RNA synthesis**



Bacterial resistance to antibiotics ?

A pharmacokinetic analysis conducted by Rump concluded that "Maximal concentrations of Rifampicin or Miconazole resulting from the insertion of a polyurethane catheter loaded with these antibiotics are therefore, far below the concentrations resulting from a systemic therapy with the same antimicrobial agents. Even in the worst case, the danger of selecting resistant bacterial strains seems remote because the systemic drug levels are magnitudes of order below subinhibitory concentrations." [7]

[4] Schierholz J, Nagelschmidt K, Nagelschmidt M, Lefering R, Yücel N, Beuth J, Antimicrobial central venous catheters in oncology: efficacy of a rifampicin-miconazole-releasing catheter, Anticancer Research 30: 1353-1358, 2010.
[5] Schierholz J, Summary of the issues associated with catheter related blood stream infections with special consideration given to catheters incorporating Rifampicin and Miconazole, 2011.
[6] Lorente L, Lecuona M, Ramos M.J, Jiménez A, Mora M, Sierra A, Association for Professionals in Infection Control and Epidemiology, Inc., 2011.
[7] Rump A.F.E, Güttler K, König D.P, Yücel N, Korenkov M, Schierholz J, Pharmacokinetics of antimicrobial agents rifampicin and miconazole released from a loaded central venous, Journal of Hospital Infection 53; 129-135, 2003.

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	Code	Catheter Information									Guidewire		Introducer needle		Introducer cannula	Unit of sale
		Size (Fr)	L. (cm)	Ø (mm)	Priming Volume (ml)			Flow Rate (ml/min)			L. (mm)	Ø (mm)	L. (mm)	G	G	
					Dist.	Med.	Prox.	Dist.	Med.	Prox.						
Paediatric multicath																
2 Lumens	157.064	3	6	1.05	0.09	-	0.09	4.4	-	4.4	500	0.3	40	21	24	10/box
	157.084	3	8	1.05	0.08	-	0.08	4.2	-	4.2	500	0.3	40	21	24	
	157.114	3	10	1.05	0.07	-	0.09	3.1	-	3.1	500	0.3	40	21	24	
	157.124	3	12.5	1.05	0.10	-	0.10	3	-	3	500	0.3	40	21	24	
	157.154	3	15	1.05	0.11	-	0.11	2.3	-	2.3	500	0.3	40	21	24	
	157.204	3	20	1.05	0.15	-	0.13	1.8	-	1.8	500	0.3	40	21	24	
	1202.062	4.5	6	1.5	0.20	-	0.20	22	-	24	400	0.46	40	21	22	
	1203.082	4.5	8	1.5	0.22	-	0.22	19	-	22	400	0.46	40	21	22	
	1203.122	4.5	12.5	1.5	0.25	-	0.25	15	-	18	400	0.46	40	21	22	
	1203.202	4.5	20	1.5	0.34	-	0.34	12	-	15	700	0.46	40	21	22	
	1203.302	4.5	30	1.5	0.37	-	0.37	9	-	11	700	0.46	40	21	22	
	157.508	5.5	8	1.8	0.34	-	0.38	46	-	77	400	0.46	40	21	22	
	157.512	5.5	12.5	1.8	0.36	-	0.38	43	-	64	400	0.46	40	21	22	
	157.515	5.5	15	1.8	0.38	-	0.42	39	-	57	400	0.46	40	21	22	
	157.520	5.5	20	1.8	0.43	-	0.45	26	-	46	700	0.46	40	21	22	
	157.530	5.5	30	1.8	0.46	-	0.53	21	-	35	700	0.46	40	21	22	
3 Lumens	1233.062	4.5	6	1.5	0.12	0.11	0.11	14.8	7.1	8.1	400	0.46	40	21	22	10/box
	1233.082	4.5	8	1.5	0.14	0.12	0.12	14.4	6.7	7.5	400	0.46	40	21	22	
	1233.102	4.5	10	1.5	0.16	0.14	0.14	13.5	5.8	6.1	400	0.46	40	21	22	
	1231.122	4.5	12.5	1.5	0.18	0.16	0.16	10	3	4	400	0.46	40	21	22	
	1233.202	4.5	20	1.5	0.20	0.17	0.17	7.4	2	2.1	700	0.46	40	21	22	
	1233.302	4.5	30	1.5	0.24	0.19	0.19	5.8	1.5	1.6	700	0.46	40	21	22	
	155.508	5.5	8	1.8	0.22	0.21	0.24	27	16	17	400	0.46	40	21	22	
	155.512	5.5	12.5	1.8	0.24	0.23	0.23	24	12	13	400	0.46	40	21	22	
	155.515	5.5	15	1.8	0.37	0.30	0.36	23	11	11	400	0.46	40	21	22	
	155.520	5.5	20	1.8	0.28	0.26	0.27	20	8.4	8.8	700	0.46	40	21	22	
	155.530	5.5	30	1.8	0.39	0.28	0.29	17	5.5	5.8t	700	0.46	40	21	22	
Paediatric multistar																
2 L.	6202.063	4.5	6	1.5	0.2	-	0.2	22	-	24	400	0.46	40	21	22	10/box
	6203.083	4.5	8	1.5	0.22	-	0.22	19	-	22	400	0.46	40	21	22	
	6203.123	4.5	12.5	1.5	0.25	-	0.25	15	-	18	400	0.46	40	21	22	
3 L.	6233.063	4.5	6	1.5	0.12	0.11	0.11	14.8	7.1	8.1	400	0.46	40	21	22	
	6231.083	4.5	8	1.5	0.14	0.12	0.12	14.4	6.7	7.5	400	0.46	40	21	22	
	6231.123	4.5	12.5	1.5	0.18	0.16	0.16	10	3	4	400	0.46	40	21	22	

CRITICAL CARE

For further information, please contact: questions@vygon.com

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Vygon – 5, rue Adeline • 95440 ECOUEN • FRANCE
Reception: +33 (0)1.39.92.63.63 – Service clients France: +33 (0)1.39.92.63.81
Export customer service: +33 (0)1.39.92.64.15
Fax: +33 (0)1.39.92.64.44 • www.vygon.com

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