

A full spectrum of acute care catheters

for use in hemodialysis, apheresis, infusion, renal replacement therapy, high pressure contrast injection and central venous pressure monitoring.



MAHURKAR™* Acute Care Catheter Family

Ease of insertion. Optimal flow rates. Patient comfort. A variety of options. For acute dialysis care the choice is Covidien. Building on a strong history of more than 30 years of quality and innovation that began with the MAHURKAR** 11.5Fr acute hemodialysis catheter, Covidien continues to provide innovative features to optimize patient benefits.

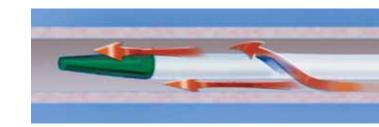
Exceptional Performance

- Maximum Flows, Minimal Pressures
 Double-D™ lumen design maximizes internal diameter to provide consistent and equal flow rates with lower arterial pressure.
- Ease of Insertion
 Thermosensitive material provides optimal stiffness during insertion, and softens up to 50% post-insertion for vessel conformity and patient comfort. The conical tip facilitates smooth transition through tissue.
- Dependable Adapters and Extensions
 Durable Ultem[™] adapters and silicone extensions withstand repeated use and cleaning, while providing improved kink resistance.



Reduced Patient Complications

- Maintain Patency by Decreasing the Likelihood of Clot Formation
 - **Laser-cut side slots** with smooth edges decrease the likelihood of clot formation by minimizing debris attachment.
- Reduce Vessel Wall Occlusion
 Larger slot shape reduces the likelihood of vessel wall occlusion, while the orientation maximizes the open passageway for fluid flow.



12Fr

MAHURKAR™ 12Fr High Pressure Triple Lumen Catheter

- Third lumen (19G) facilitates infusion of fluid, blood products, medication or blood sampling
- Preserves patient vascular access. Avoids the need for PICC line placements in CKD patients in accordance with NKF-KDOQI guidelines¹
- Soft, green, atraumatic tip to reduce likelihood of vessel trauma in situ
- Facilitates continuous renal replacement therapies in the ICU
- Reinforced hub minimizes kinking in difficult vasculature

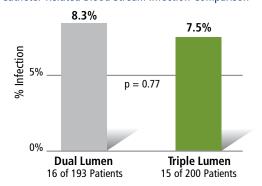
 ideal for femoral and left-sided placements
- Modified Double-D™ lumen design maximizes area for high flow rates in dialysis lumens
- · Radiopaque allows for quick visualization

Clinically Proven

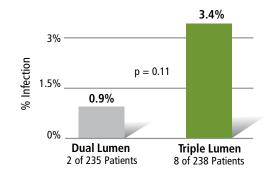
Multi-centered, randomized clinical study comparing the MAHURKAR™ double lumen and to the triple lumen catheters demonstrated:

- 1 No increase in incidence of CRBSI (catheterrelated bloodstream infection)²
- 2 No significant difference in incidence of exit-site infections ³
- 3 Desired flow rates achieved 100% of the time

Catheter-Related Blood Stream Infection Comparison²



Exit Site Infection Comparison³



13.5Fr

MAHURKAR™ 13.5Fr High-flow Catheter

Optimal high-flow catheter
– consistently achieves flow
rates up to 450mL/min

- Soft, green, atraumatic tip reduces likelihood of vessel trauma in situ
- Larger Double-D[™] lumen design optimizes flows with lower arterial pressure
- Less force required to insert the MAHURKAR[™] 13.5Fr catheter versus other competitive high flow catheters⁴
- · Facilitates continuous renal replacement therapies in the ICU
- Reinforced hub minimizes kinking in difficult vasculature

 ideal for femoral and left-sided placements
- · Radiopaque allows for quick visualization



11.5Fr

MAHURKAR™ 11.5Fr The Original Short-term Catheter

Trusted for over 30 years

- Minimum French size (11.5Fr) coupled with Double-D[™] lumen design achieves consistent flow rates up to 350 mL/min
- Conical tip for smooth insertion
- · Radiopaque allows for quick visualization
- Pre-curved options available
- Optional VitaCuff^{™*} silver ion collagen cuff device





VitaCuff[™] Device

Ordering Information

MAHURKAR™ 11.5, 10 or 8Fr Dual Lumen Catheters

	Straight Extensions	Curved Extensions	Pre-Curved Shafts	Description	Qty/ Case
	8813816005	8813816009		11.5 Fr x 13.5 cm	5
Ş	8830414001	8830414002		11.5 Fr x 16 cm	5
ETER	8813794005	8813794009		11.5 Fr x 19.5 cm	5
CATHETERS	8831662001			11.5 Fr x 24 cm	5
Ü	8817142005			10 Fr x 12 cm	5
	8817145005			10 Fr x 15 cm	5
	8813817005	8813817009	8888115132	11.5 Fr x 13.5 cm	5
	8830415001	8830415003	8888115162	11.5 Fr x 16 cm	5
	8813793009	8813793013	8888115192	11.5 Fr x 19.5 cm	5
	8831661001		8888115242	11.5 Fr x 24 cm	5
KITS		8817143005		10 Fr x 12 cm	5
	8817146001	8817146007		10 Fr x 15 cm	5
	8832539001			8 Fr x 9 cm	5
	8832539002	8832539006		8 Fr x 12 cm	5
	8832539003	8832539007		8 Fr x 15 cm	5
	8817277007	8817277011	8888115133	11.5 Fr x 13.5 cm	5
IC Trays	8830416001	8830416003	8888115163	11.5 Fr x 16 cm	5
<u>C</u> 1	8815668007	8815668011	8888115193	11.5 Fr x 19.5 cm	5
	8831663001	8831663002	8888115243	11.5 Fr x 24 cm	5
	8813817007	8813817010		11.5 Fr x 13.5 cm	1
	8830415002	8830415004		11.5 Fr x 16 cm	1
device	8813793011	8813793014		11.5 Fr x 19.5 cm	1
w. del		8817143006		10 Fr x 12 cm	1
3Cuff		8817146008		10 Fr x 15 cm	1
with VitaCuff*** device		8817149008		10 Fr x 19.5 cm	1
	8817277009	8817277012		11.5 Fr x 13.5 cm	1
TRAYS	8830416002	8830416004		11.5 Fr x 16 cm	1
	8815668009	8815668012		11.5 Fr x 19.5 cm	1
Ş	8817277027	8817277021		11.5 Fr x 13.5 cm	1
PASS TRAYS	8830416021	8830416023		11.5 Fr x 16 cm	1
\SS.1	8815668027	8815668021		11.5 Fr x 19.5 cm	1
74	8831663021	8831663022		11.5 Fr x 24 cm	1

MAHURKAR™ 13.5Fr High Flow Dual Lumen Catheters

	Straight Extensions	Curved Extensions	Pre-Curved Shafts†	Description	Qty/ Case
KITS	8888135131	8888135132	8888135133	13.5 Fr x 13.5 cm	5
	8888135161	8888135162	8888135163	13.5 Fr x 16 cm	5
	8888135191	8888135192	8888135193	13.5 Fr x 19.5 cm	5
	8888135241	8888135242	8888135243	13.5 Fr x 24 cm	5
IC Trays	8888135134	8888135135	8888135136	13.5 Fr x 13.5 cm	5
	8888135164	8888135165	8888135166	13.5 Fr x 16 cm	5
	8888135194	8888135195	8888135196	13.5 Fr x 19.5 cm	5
	8888135244	8888135245	8888135246	13.5 Fr x 24 cm	5
PASS TRAYS	8888135137	8888135138	8888135139	13.5 Fr x 13.5 cm	1
	8888135167	8888135168	8888135140	13.5 Fr x 16 cm	1
	8888135197	8888135198	8888135141	13.5 Fr x 19.5 cm	1
	8888135247	8888135248	8888135142	13.5 Fr x 24 cm	1

MAHURKAR™ 12Fr High Pressure Triple Lumen Catheters

	Straight Extensions	Curved Extensions	Description	Qty/ Case
KITS		8888345603HP	12 Fr x 13 cm	5
		8888345611HP	12 Fr x 16 cm	5
	8888340629HP	8888345629HP	12 Fr x 20 cm	5
	8888340637HP	8888345637HP	12 Fr x 24 cm	5
IC Trays		8888101001HP	12 Fr x 13 cm	5
		8888101002HP	12 Fr x 16 cm	5
	8888102003HP	8888101003HP	12 Fr x 20 cm	5
	8888102004HP	8888101004HP	12 Fr x 24 cm	5
PASS TRAYS		8888103001HP	12 Fr x 13 cm	1
		8888103002HP	12 Fr x 16 cm	1
	8888104003HP	8888103003HP	12 Fr x 20 cm	1
	8888104004HP	8888103004HP	12 Fr x 24 cm	1



Straight Extension



Curved Extension



Pre-Curved ShaftNot available with triple lumen catheter

A variety of catheter configurations and sizes to accommodate various insertion sites and patient sizes

PASS Components Catheter Kits IC Trays Trays Catheter 1 1 1 1 18G Introducer Needle 1 1 18G Safety Introducer Needle 1 J/Straight 70 cm guidewire (0.032" – 8Fr / 0.035" – 10Fr & 12Fr / 1 1 1 0.038"-11.5Fr & 13.5Fr) Tissue Dilators (8Fr⁰, 10Fr., 12Fr*, 14Fr.⁺) 2 2 2 2 2 6 mL Luer Lock Syringes 3 mL Luer Lock Syringes 3 3 (3 provided with 12Fr catheter only) Hypodermic Needles (18G, 22G, 25G) 3 Magellan™ Safety Needles (18G, 22G, 25G) 3 2.0 Nylon Suture with Curved Needle 1 1 5 mL Ampule Lidocaine (1%) 1 2 Large 72" x 76" Fenestrated Drape 1 1 #11 Scalpel 1 Retractable #11 Safety Scalpel 1 Needle Holder 1 Excilon™ AMD Antimicrobial Drain Sponge 1 Pre-Fill Syringe 10 mL; 2 0.9% Saline Flush Syringe ChloraPrep^{™*} Applicator Wand (3 mL) (1 provided with 11.5Fr and 1 2 13.5Fr catheters) Telfa[™] Island Dressings 2 2 2 6 6 **Gauze Sponges** Sealing Caps (3 provided with 12Fr) 2 2 2 2 Needle Safety Holder 1 1 **Catheter Safety Insertion Checklist** 1 **Drug Label Sheet**

MAHURKAR™* catheters feature:



Rotatable Suture Wings



Durable Adapters



Adjustable Clamps

Orders for all Catheter Products should be placed through the Covidien Customer Service Department, **1-800-962-9888**.

Only in 8Fr and 10Fr catheters

^{*} Only in 11.5 and 12Fr catheters

[†] Only in 13.5Fr catheters



Clinical References:

- 1 NKF K/DOQI Clinical Practice Guidelines for Vascular Access, Guideline 1. Patient Preparation for Permanent Hemodialysis Access Rationale.
- 2 Contreras, G, et al.: A Multicenter, Prospective, Randomized, Comparative Evaluation of Dual- Versus Triple-Lumen Catheters for Hemodialysis and Apheresis in 485 Patients. AJKD 2003:2:315-324.
- 3 Contreras, G et al.: Incidence and Influencing Factors Associated with Exit Site Infections In Temporary Catheters for Hemodialysis and Apheresis. Nephrology Nursing Journal 2005, Volume 32, Number 1, p.41-50.
- 4 Data on file

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