



Spectrum[®]

MINOCYCLINE/RIFAMPIN CATHETER



Spectrum In-Service Guide

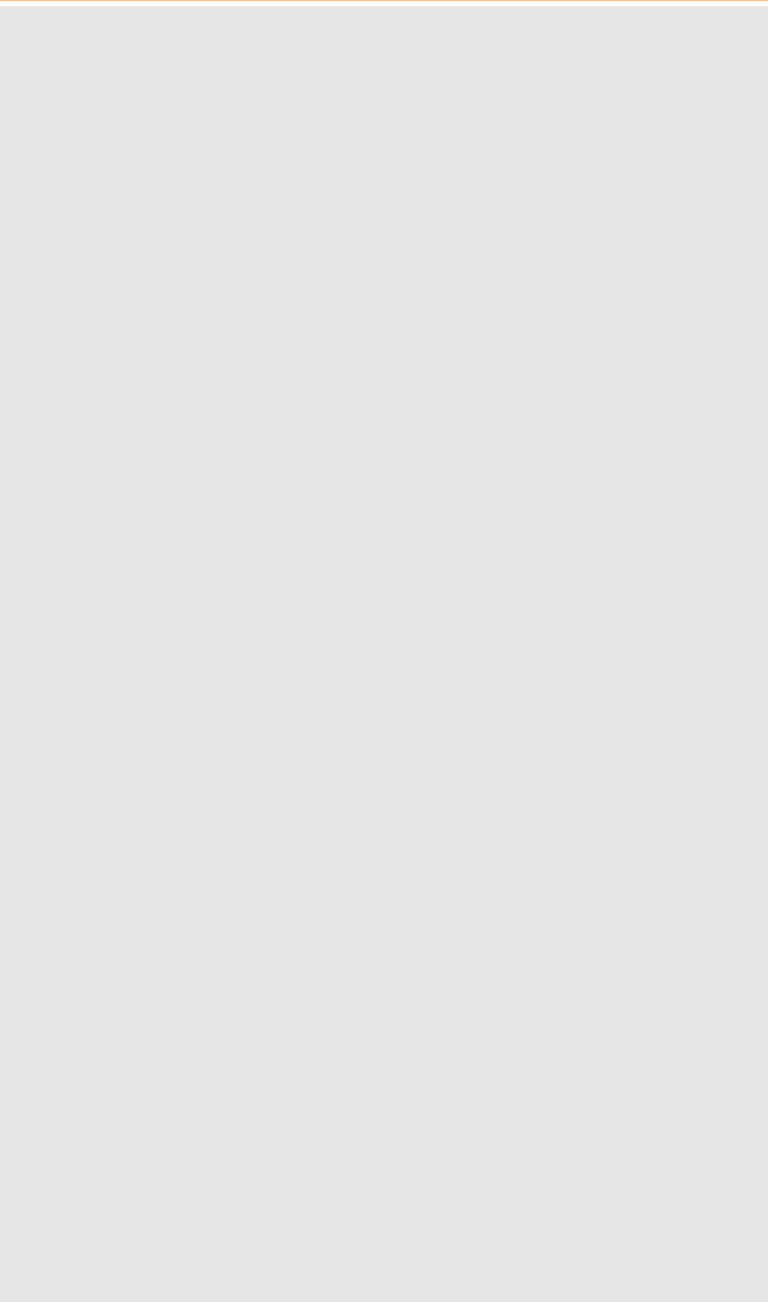
In-Service Guide



Spectrum[®]

MINOCYCLINE/RIFAMPIN CATHETER

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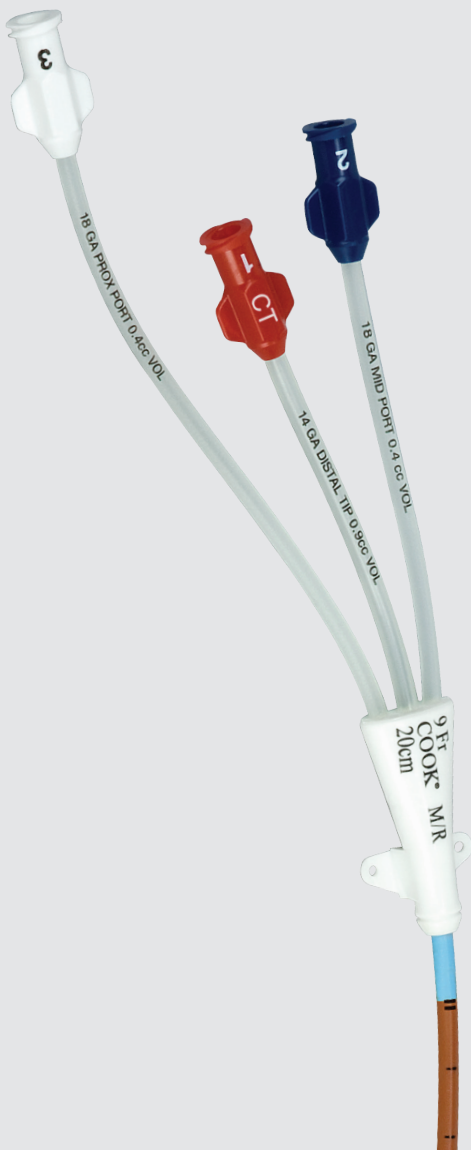




Spectrum[®]

MINOCYCLINE/RIFAMPIN CATHETER

Cook Spectrum
M+R Catheters





PROCESS + SPECTRUM
CATHETERS

To combat CRBSIs, we impregnate our polyurethane catheters with the clinically proven combination of minocycline and rifampin. More than 21 peer-reviewed articles and meta-analyses recognize Spectrum as superior—it's evidence of protection no other process or technology can match. Furthermore, over 10 years of clinical use and a study of more than 500,000 catheter days⁴ show no evidence of bacterial resistance. Cook Spectrum[®] catheters give your patients the best protection possible against CRBSIs and may also provide significant economic benefits for your hospital.



THE RIGHT COMBINATION

Minocycline+rifampin is the most rigorously studied and synergistic combination of antibiotics available on a catheter for reducing CRBSIs through two distinct mechanisms of action. Unlike most antibiotics, this combination has the ability to penetrate the biofilm that forms on all indwelling catheters.¹



UNMATCHED EVIDENCE

Two decades of evidence, including more than 21 peer-reviewed studies and four meta-analyses, confirm minocycline+rifampin catheters are the most effective tool available to provide broad-spectrum protection against gram-positive, gram-negative and fungal infections^{2,3} in both short- and long-term use. It's evidence of protection no other process or technology can match.



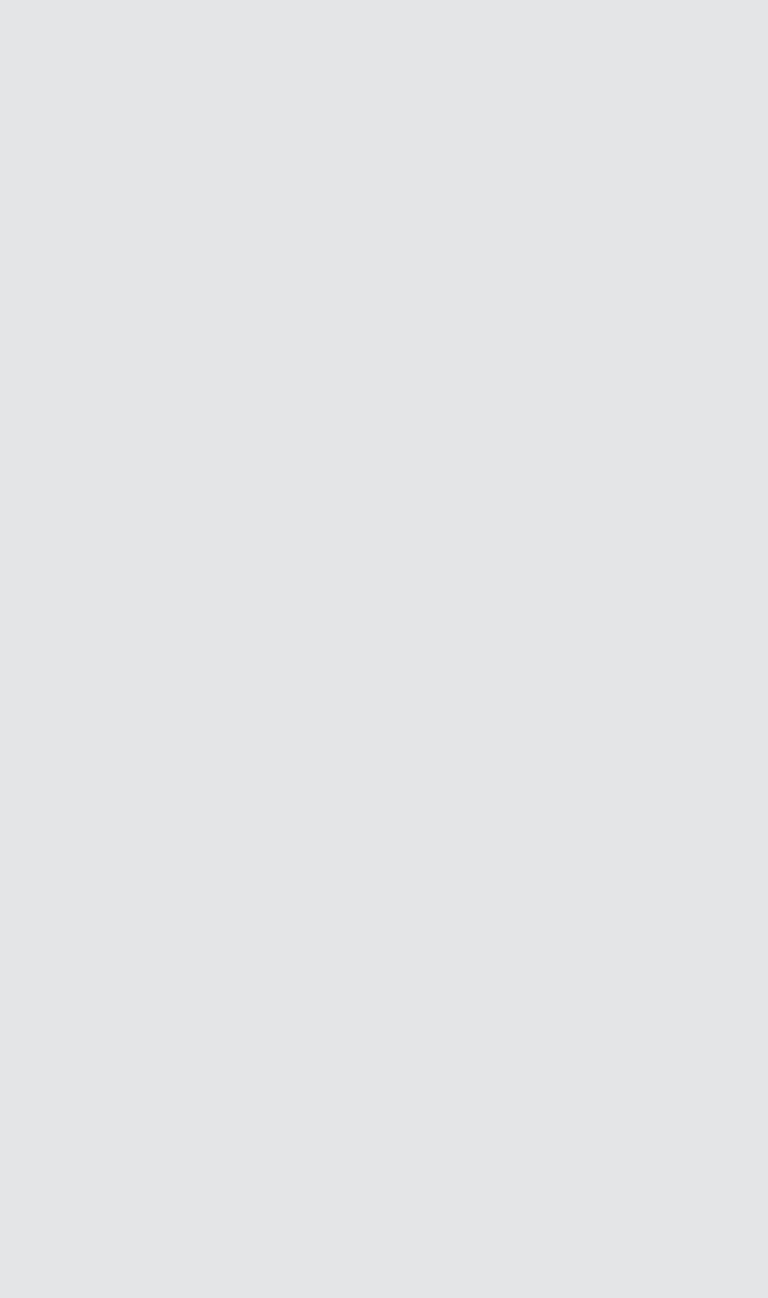
NO EVIDENCE OF RESISTANCE

More than 10 years of clinical use has shown no evidence that M+R catheters lead to bacterial resistance, and a seven-year study of over 500,000 catheter days confirms these results.⁴ A separate study indicates that a facility using M+R catheters may have shown a decrease in vancomycin usage.⁵



WORTH SWITCHING

In a challenging clinical environment, a hospital that switches to M+R catheters may expect to see a decrease in CRBSI rates, attributable mortality and CRBSI-related costs. Even high-performing hospitals can switch to Spectrum to drive incremental improvement in CRBSI rates and may still achieve substantial reductions in mortality and expenses.





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Insertion and
Maintenance

Important Information

Contraindications

Do not use on patients with known allergy or history of allergy to tetracyclines (including minocycline) or rifampin. Minocycline and rifampin are agents that do not induce any genotoxic risks except a possible teratogenic effect in pregnant women. We therefore do not recommend the use of Cook Spectrum and Spectrum Glide catheters in pregnant women.

Hospital-Approved Injection Caps

Work with your hospital infection control team to learn about your hospital's injection caps and follow manufacturers' recommendations for proper use, care and maintenance of your caps. Failure to comply with these recommendations can lead to catheter malfunction and/or increased risk of infection.

Slide Clamps

To ensure the appropriate lumen is completely clamped off, use extra care to confirm the clamps are fully engaged in the closed position.

Preflushing

Flush all catheter lumens and injection caps prior to catheter placement.

Hydrophilic Coating

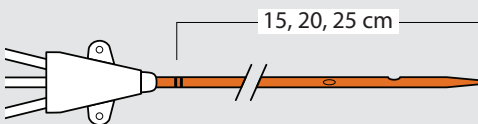
Spectrum catheters feature a hydrophilic coating that activates upon insertion. Catheters may be wetted with saline prior to placement.

Flushing CVC After Placement

When flushing the lumens and checking for blood return, flush remaining saline through the caps/lumens of CVC to ensure all blood has been cleared.

Catheter Measurement*

Catheter length should be measured from the tip to the point between two thin, black lines located 1.5 cm below the hub.



*Excludes special lengths, pigtail, 4 Fr, 5 Fr and 10 Fr catheters.

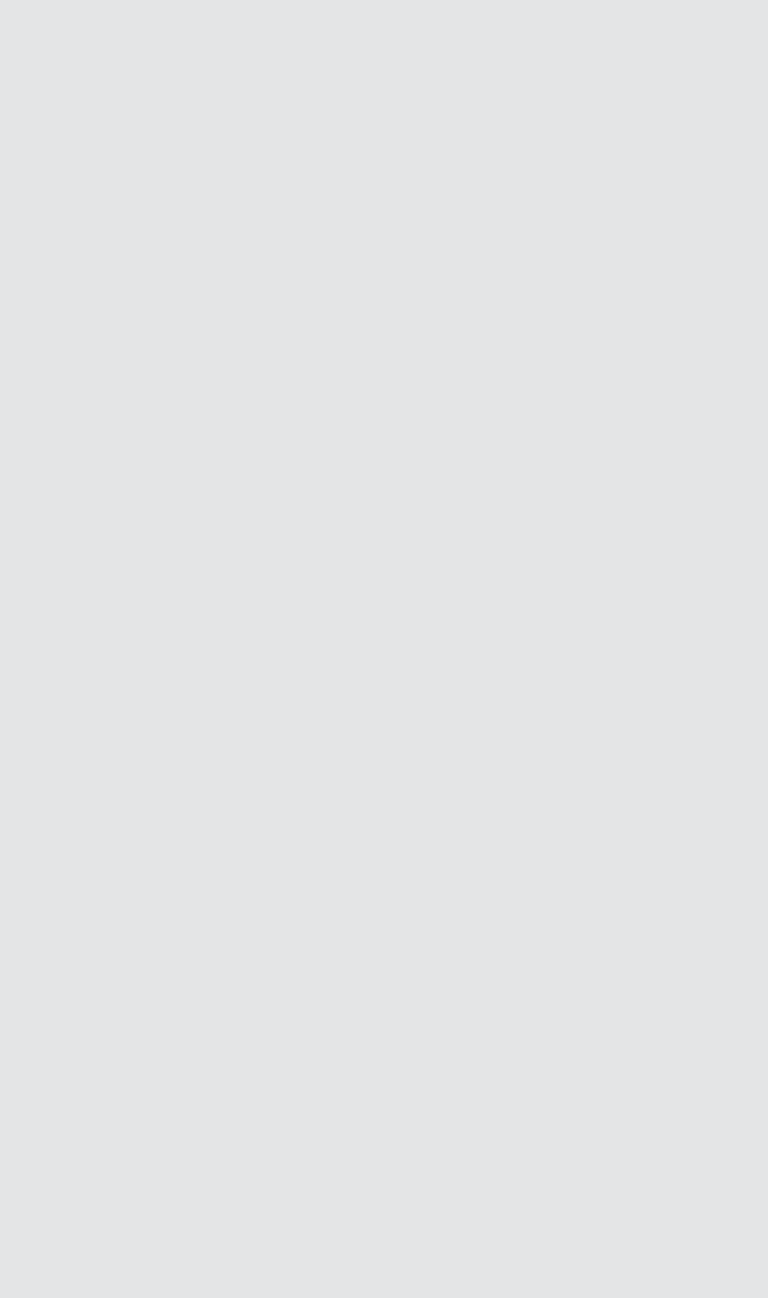
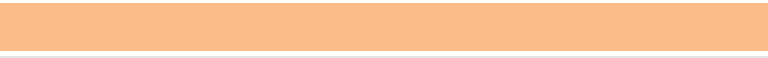
Please see package insert for complete Instructions for Use.



Suggested Lumen Use

	Port	Suggested Use
Double Lumen	Distal	whole blood or blood product delivery and sampling, any situation requiring greater flow rate, CVP monitoring, medication delivery, power injection*
	Proximal	medication delivery, acute hyperalimentation
Triple Lumen/ Five Lumen	Distal	whole blood or blood product delivery and sampling, any situation requiring greater flow rate, CVP monitoring, medication delivery, power injection*
	Mid(s)	medication delivery, acute hyperalimentation
	Proximal(s)	medication delivery

*FDA cleared for power injection in 7, 8, 9 and 10 Fr power-injectable CVCs only.





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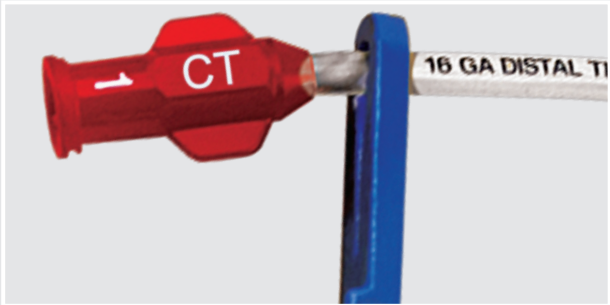


14 GA DISTAL TIP 1.0 mL VOL

Power Injection
and Flow Rates

Power Injection

CT printed on distal lumen. Power inject contrast media through distal lumen only.



Cook Spectrum - Power Injection and Flow Rates

Type of Catheter	Maximum Flow Rate mL/sec*	Average Pressure at Maximum Flow psi*
7 Fr, Triple Lumen, Power-Injectable CVC	10	142
8 Fr, Double Lumen, Power-Injectable CVC	10	54
9 Fr, Triple Lumen, Power-Injectable CVC	10	39
10 Fr, Five Lumen, Power-Injectable CVC	10	32

*Maximum pressure limit settings of 325 psi. All testing verified on industry-leading MEDRAD® Stellant® CT Injector.












Maximum flow rates printed on lumen clamp.



MEDRAD and Stellant are registered trademarks of MEDRAD, Inc.

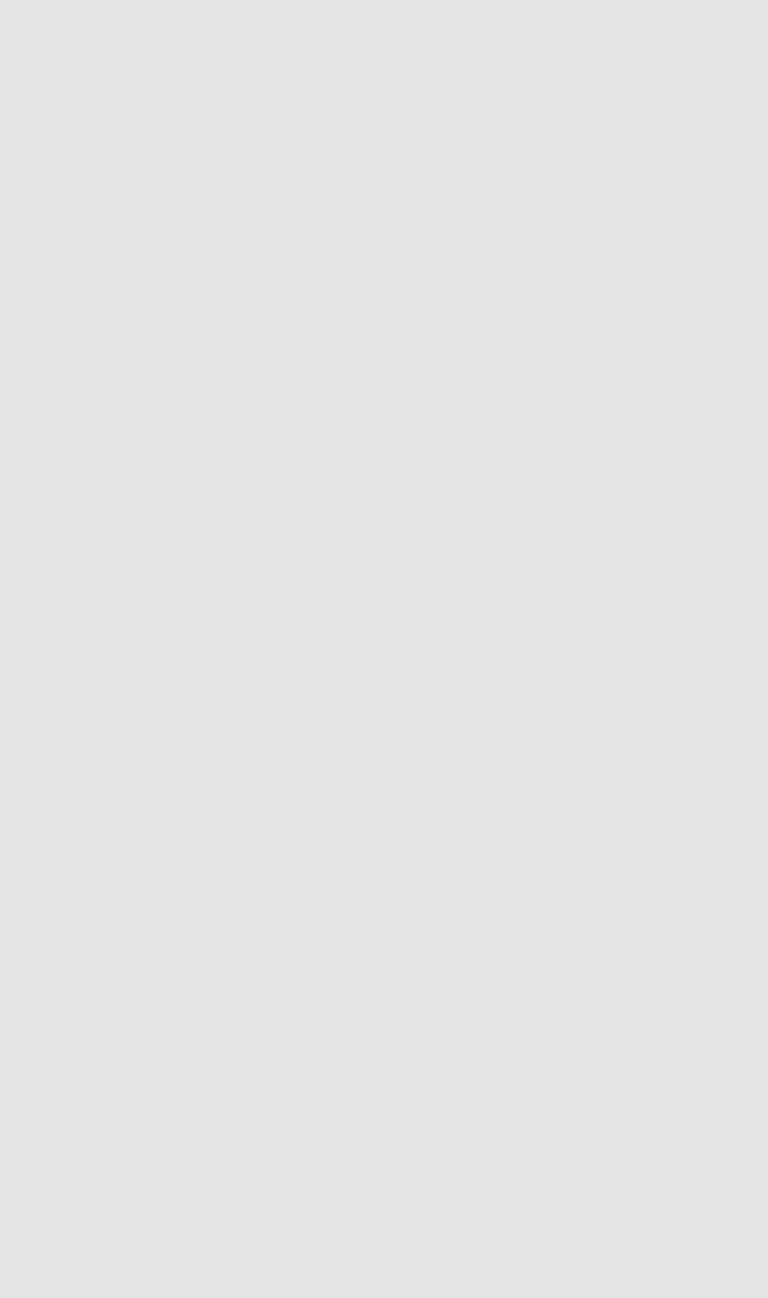
Lumen Information*

Catheter Fr	Cross-section	Lumen No./ Hub Color
4.0 Double (SDLM - Soft Polyurethane)		1 2
4.0 Double (UDLM)		1 2
5.0 Double		1 2
5.0 Triple		1 2 3
7.0 Triple		1 2 3
7.0 Triple Power-Injectable		1 2 3
8.0 Double Power-Injectable		1 2
9.0 Triple Power-Injectable		1 2 3
10.0 Five Lumen Power-Injectable		1 2 3 4 5

Cook Spectrum - Power Injection and Flow Rates



Port	Equivalent gage	Minimum Lumen Volume mL	Approximate Flow Rate mL/hr
Distal	20	0.3	1,380
Proximal	22	0.3	720
Distal	20	0.2	780
Proximal	23	0.2	180
Distal	20	0.2	900
Proximal	20	0.2	1,200
Distal	18	0.3	1,200
Mid	23	0.2	120
Proximal	23	0.2	120
Distal	16	0.5	2,940
Mid	18	0.3	1,200
Proximal	18	0.3	1,200
Distal	16	0.6	3,840
Mid	18	0.5	1,560
Proximal	18	0.6	1,860
Distal	14	0.9	6,780
Proximal	14	1.0	7,260
Distal	14	0.9	10,140
Mid	18	0.4	1,380
Proximal	18	0.5	1,440
Distal	14	1.0	8,820
Mid	17	0.4	2,880
Mid	17	0.4	2,940
Proximal	19	0.2	840
Proximal	19	0.2	840





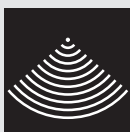
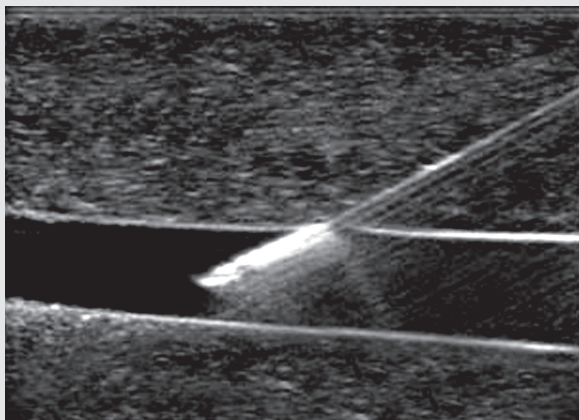
Spectrum[®]

MINOCYCLINE/RIFAMPIN CATHETER



EchoTip
Echogenic Needles

EchoTip® Echogenic Needles



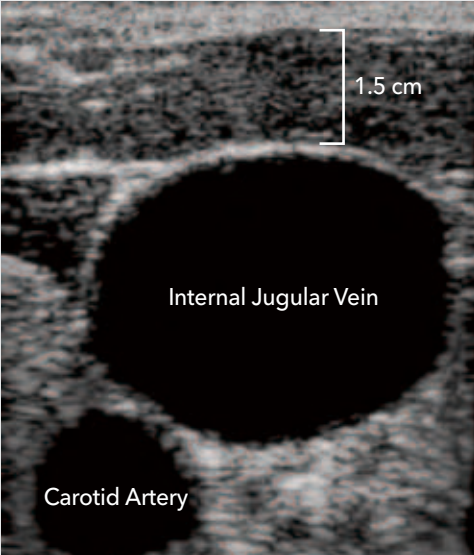
The EchoTip Advantage

"...As the angle of insonation decreased, echogenic needles became much more advantageous. This corresponds to many biopsy situations and venous access in large patients or deep sites..."

"...EchoTip (Cook) needles remained clearly better than all others down to the 15° angle..."⁶

Safer Method of CVC Insertion

The Agency for Healthcare Research and Quality (AHRQ) recommends ultrasound for CVC placement as one of 11 practices to improve patient safety, based on the greatest strength of evidence.⁷



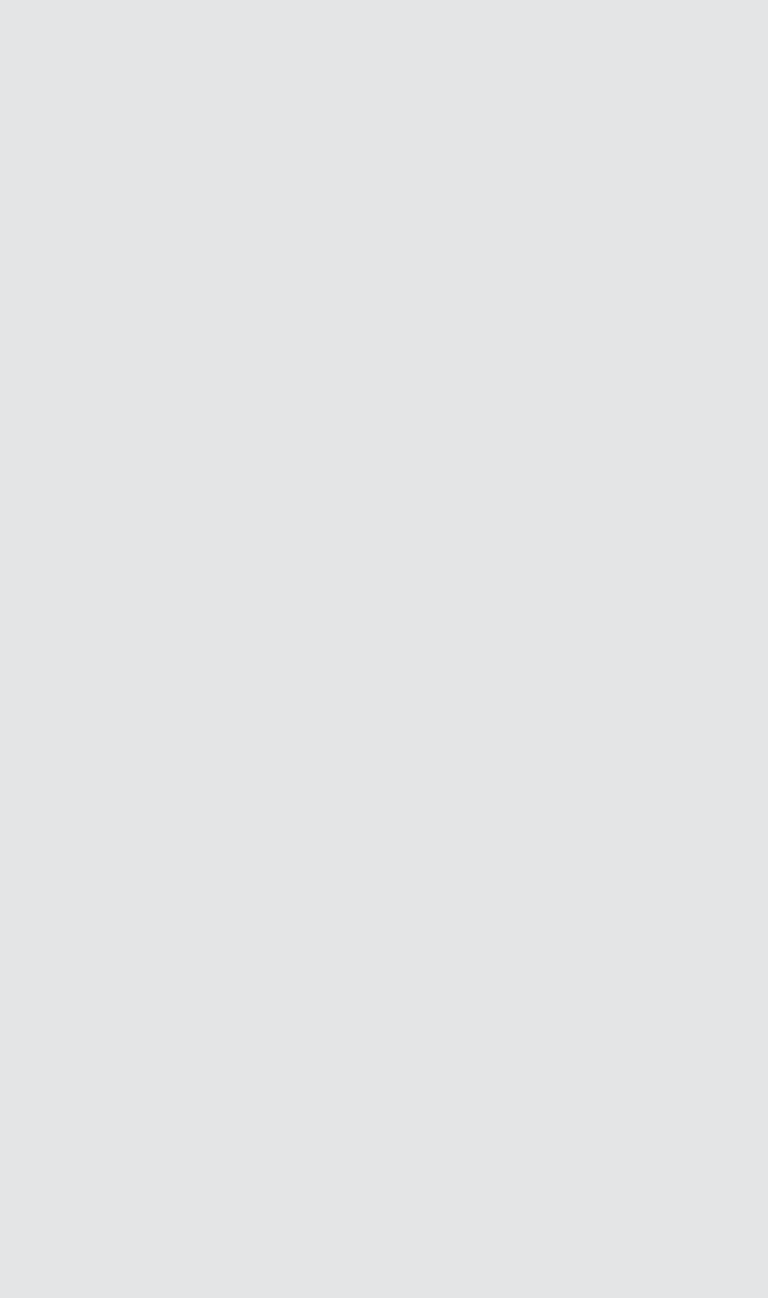
Vessel Differentiation Under Ultrasound View

Characteristic	Vein	Artery
Appearance	Black	Black
Movement	None	Pulsatile
Compressible	Yes	No
Color Flow	Constant Flow	Pulsatile

Avoidance of Unnecessary Complications

"Any time we [clinicians] insert needles into a patient blindly, we risk injuring them. The use of bedside ultrasound allows us to see inside the patient and visualize where we are placing the needle. The EchoTip significantly improves the ability to identify the exact 'tip' location of that needle."

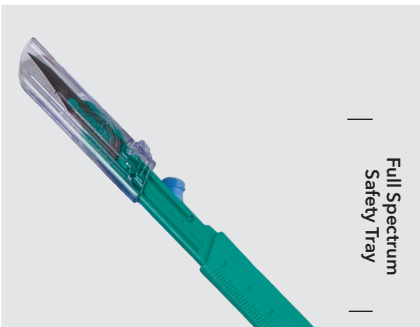
Ben deBoisblanc, MD





Spectrum[®]

MINOCYCLINE/RIFAMPIN CATHETER



Tray Information

Tray contains:

- Power-injectable* Cook Spectrum central venous catheter with hydrophilic coating and Luer-lock end caps
- Safe-T-J® double flexible-tipped wire guide with cm markings
- EchoTip echogenic introducer needle
- Catheter insertion checklist
- BakSnap® safety syringe
- Prefilled sodium chloride syringes
- 25 gage needle
- 22 gage needle
- FEP catheter introducer needle
- Transducer tubing
- Dilator
- Lidocaine and lidocaine label
- Filter straw



- Tinted ChloraPrep® One-Step
- Full-body fenestrated drape with clear window
- Gauze sponges
- Disposable safety scalpel
- Straight needle with suture or curved needle with suture and needle holder
- Disposable syringes
- Needleless injection caps
- Locking sharps container
- Movable suture wing**

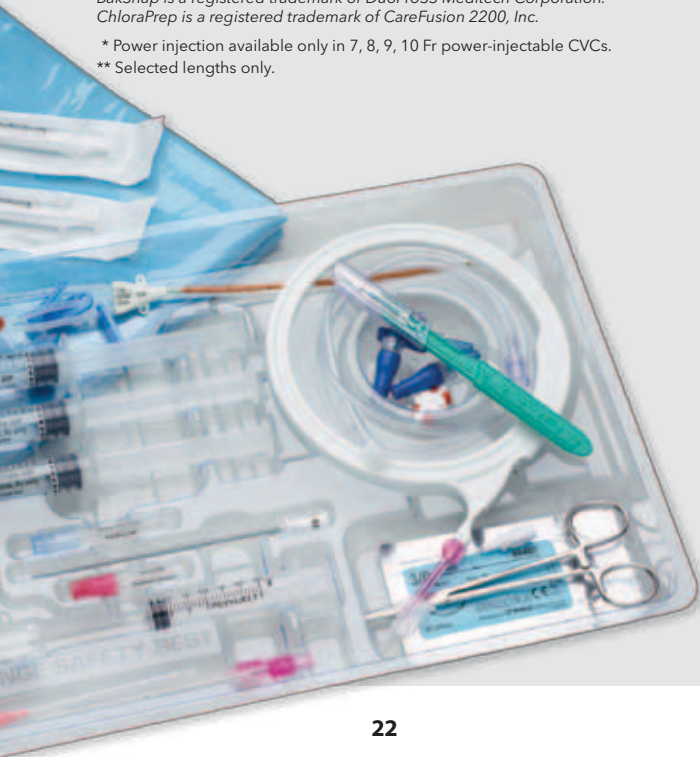
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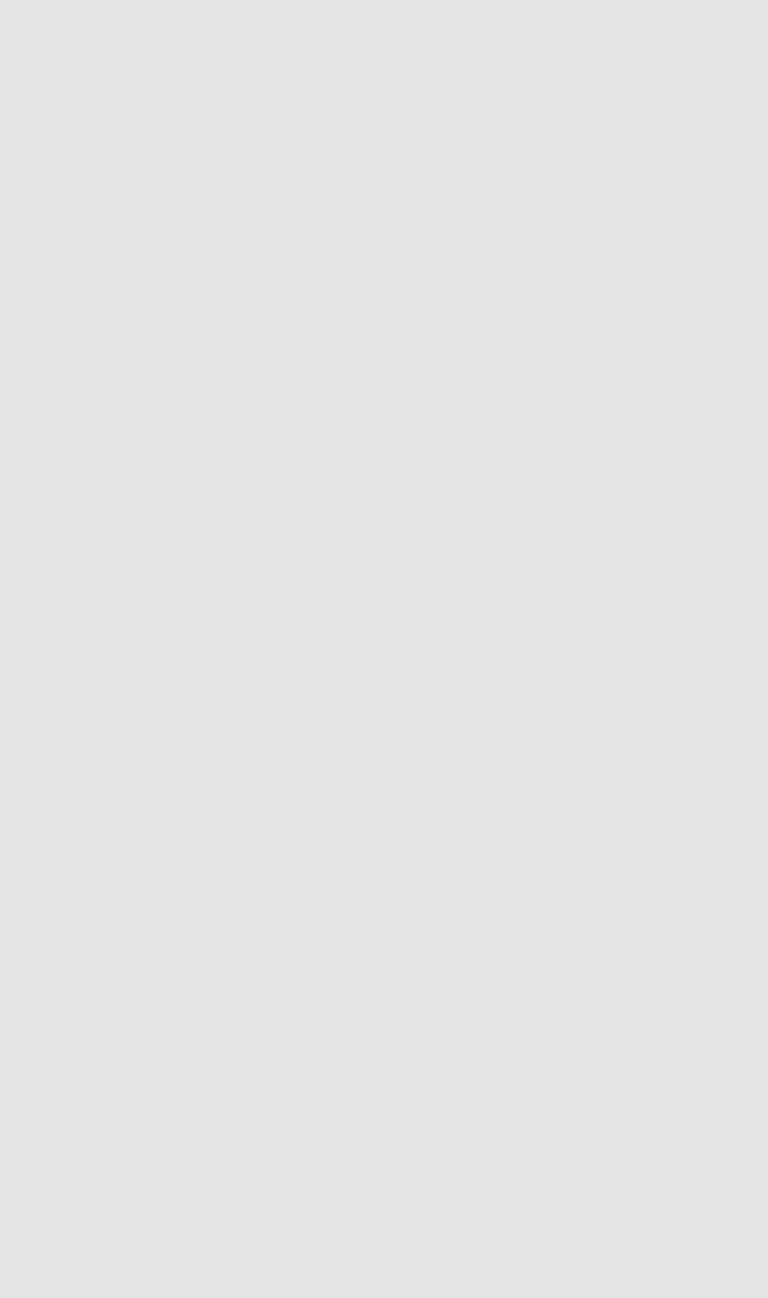
- Cap, mask with face shield, and gown

*BakSnap is a registered trademark of DuoProSS Meditech Corporation.
ChloraPrep is a registered trademark of CareFusion 2200, Inc.*

* Power injection available only in 7, 8, 9, 10 Fr power-injectable CVCs.

** Selected lengths only.







Spectrum®

MINOCYCLINE/RIFAMPIN CATHETER



Additional
Components



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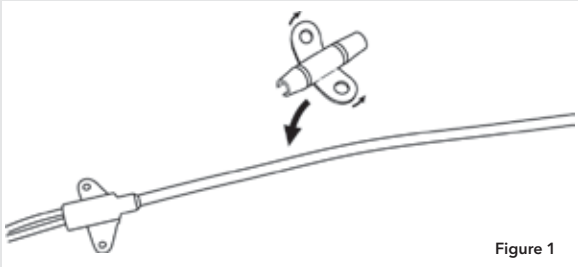
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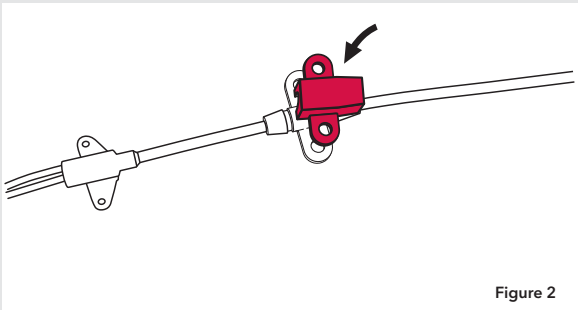
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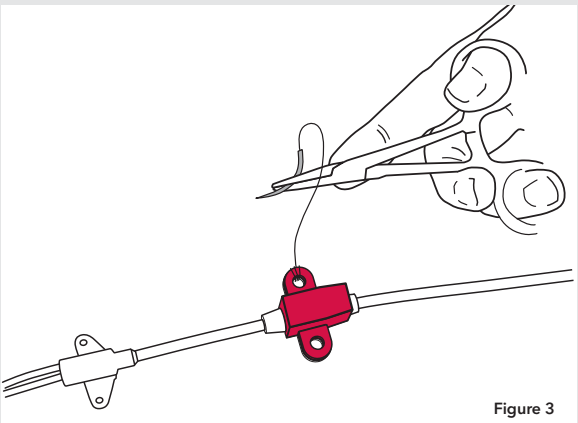
Clamping Movable Suture Wing



Spread wings of rubber clamp and position on catheter in appropriate position to ensure proper tip location.



Snap rigid fastener onto catheter clamp.



Secure catheter to patient by suturing catheter clamp and fastener together to the skin using side wings to minimize risk of catheter migration.

MicroCLAVE® Neutral Displacement Connector

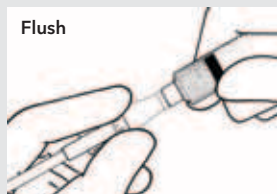
The MicroCLAVE Neutral Displacement Connector provides simple, needle-free access to your Spectrum CVCs. A dedicated internal fluid path design and minimal dead space help protect against contamination of the catheter hub that can lead to bloodstream infection. In addition, MicroCLAVE reduces the risk of accidental needlestick exposure for clinicians and is recommended by OSHA's Needlestick Safety and Prevention Act.



MicroCLAVE is a registered trademark of ICU Medical, Inc.

Instructions for Use (abbreviated)*

1. Using aseptic technique, remove MicroCLAVE from package. Do not contaminate.
2. Prime MicroCLAVE in accordance with facility protocol. Invert device to expel air.
3. Remove protective cap and attach male Luer of MicroCLAVE to extension set or IV catheter.
4. Swab silicone seal in accordance with facility protocol to access MicroCLAVE.
5. Attach a fully primed syringe or administration set to MicroCLAVE. Grasp MicroCLAVE and firmly push and twist male adapter into MicroCLAVE until secure.
6. To disconnect, grasp MicroCLAVE and twist syringe or administration set away from MicroCLAVE until loose.
7. Flush MicroCLAVE with normal saline or in accordance with facility protocol after each use.
8. For subsequent connections repeat from step four.



BakSnap® Retractable Safety Syringe

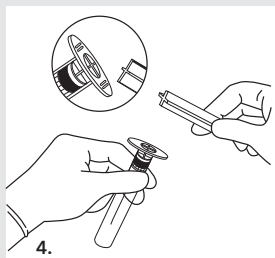
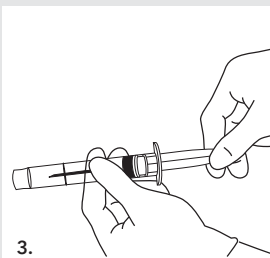
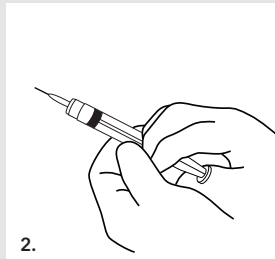
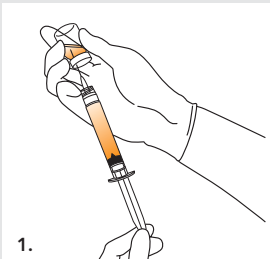
Also recommended by OSHA's Needlestick Safety and Prevention Act, the BakSnap syringe is easy to use and helps prevent accidental needlestick injury. In just a two-second operation, the plunger is pulled back and snapped, and the entire unit is disposed of, dramatically reducing sharps waste and the associated containment processing costs.



BakSnap is a registered trademark of DuoProSS Meditech Corp.

Instructions for Use

1. Draw exact amount of medicine. Crystal-clear barrel and easy-to-read calibrations promote accurate measurement.
2. Injection process is intuitive, supporting ease of use. Simply push the plunger until it is fully seated. A click assures you that you have locked up the retraction mechanism and all fluids are dispensed.
3. After extraction from patient, pull the plunger back until an obvious stop is felt.
4. Snap off the plunger and dispose of it in the regular trash. The barrel harbors the needle and is ready for sharps containment. Sharps waste is dramatically reduced.



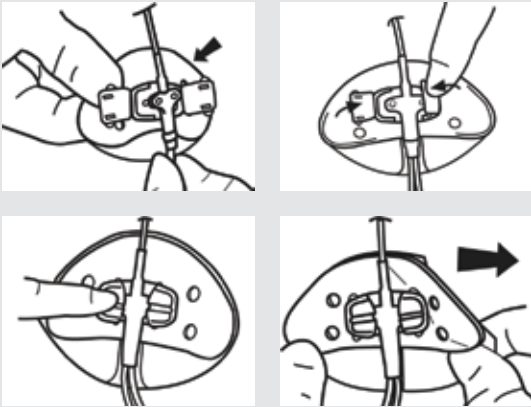
Minipuncture™

Spectrum trays and sets are available with Minipuncture Access™, an optional feature that allows entry into the vein using a smaller 20 gage needle. The wire is advanced through the small bore needle (**Figure 4**). A special cannula inside the catheter lumen helps create a smooth transition between the wire and catheter as it enters the vessel. The inner cannula of the catheter must be removed after insertion.

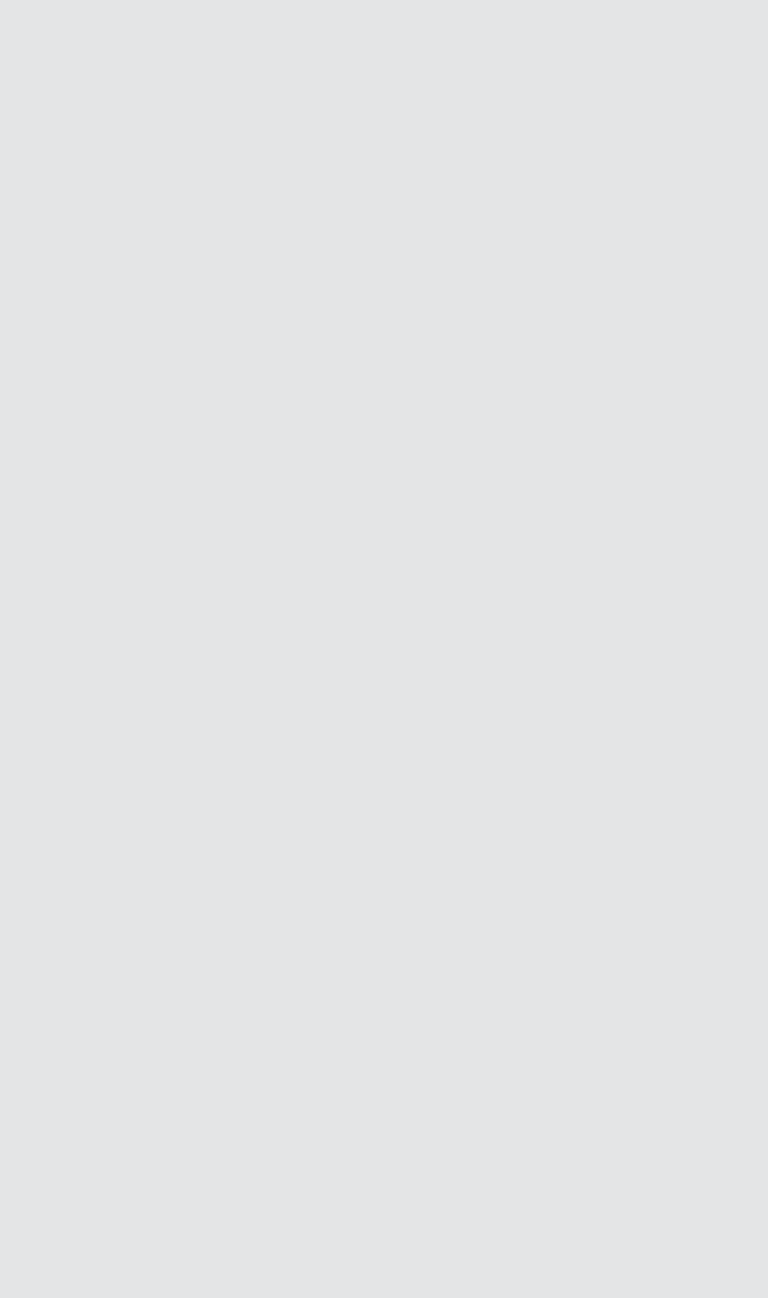
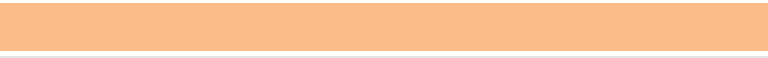


StatLock® Securement Device

The StatLock Securement Device is available in our pediatric Full Spectrum Trays. Its adhesive back eliminates suturing and has been shown to decrease infection risk.⁸



StatLock is a registered trademark of C.R. Bard, Inc.





References

1. Raad I, Hanna H, Jiang Y, et al. Comparative activities of daptomycin, linezolid, and tigecycline against catheter-related methicillin-resistant *Staphylococcus bacteremic* isolates embedded in biofilm. *Antimicrob Agents Chemother.* 2007;51(5):1656-1660.
2. Schuerer DJ, Mazuski JE, Buchman TG, et al. Catheter-related bloodstream infection rates in minocycline/rifampin vs. chlorhexidine/silver sulfadiazine-impregnated central venous catheters - results of a 46 month study. *Crit Care Med.* 2008;36(12) (suppl):A199-A208. Abstract 454.
3. Raad I, Darouiche R, Hachem R, et al. The broad-spectrum activity and efficacy of catheters coated with minocycline and rifampin. *J Infect Dis.* 1996;173(2):418-424.
4. Ramos ER, Reitzel R, Jiang Y, et al. Clinical effectiveness and risk of emerging resistance associated with prolonged use of antibiotic-impregnated catheters: more than 0.5 million catheter days and 7 years of clinical experience. *Crit Care Med.* 2011;39(2):245-251.
5. Brooks K, Dauenhauer S, Nelson M. Comparison of an untreated vs. silver/chlorhexidine vs. rifampin/minocycline central venous catheter in reducing catheter-related bloodstream infections. Abstract presented at: APIC 28th Annual Educational Conference and International Meeting; June 10-14, 2001; Seattle, WA.
6. Nichols K, Wright LB, Spencer T, et al. Changes in ultrasonographic echogenicity and visibility of needles with changes in angles of insonation. *J Vasc Interv Radiol.* 2003;14(12):1553-1557.
7. Shojania KG, Duncan BW, McDonald KM, et al. Making health care safer: a critical analysis of patient safety practices. *Evid Rep Technol Assess (Summ).* 2001;(43):i-x, 1-668.
8. Yamamoto AJ, Solomon JA, Soulen MC, et al. Sutureless securement device reduces complications of peripherally inserted central venous catheters. *J Vasc Interv Radiol.* 2002;13(1):77-81.



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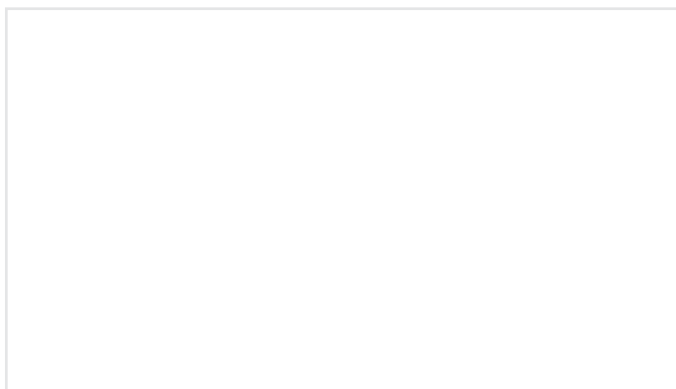
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Customer Service Centers

AORTIC
INTERVENTION

CRITICAL CARE

ENDOSCOPY

INTERVENTIONAL
RADIOLOGY

LEAD
MANAGEMENT

PERIPHERAL
INTERVENTION

SURGERY

UROLOGY

WOMEN'S HEALTH

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