LANTERN®

MICROCATHETER

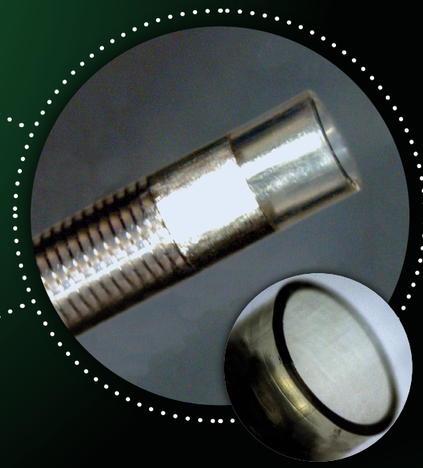
Penumbra

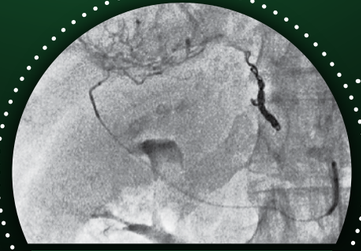
CONFIDENT LARGE VOLUME COIL DELIVERY

Standard Microcatheter

LANTERN®

Advanced Tracking Technology
for Access to Tortuous Anatomy





LANTERN Tracking Into
Sub-1 mm Vessel[a]

DUAL MARKERS

Facilitates Precise
Coil Deployment

LOW PROFILE, HIGH-FLOW

2.6 F, .025" ID for High-Flow Access
to Small Tortuous Vessels

RADIOPAQUE DISTAL 3 CM

Increased Visibility

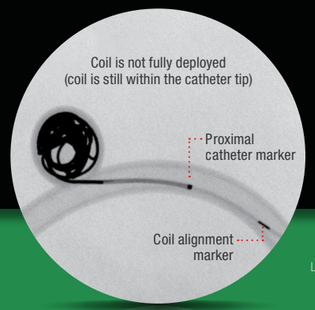
COIL WOUND CONSTRUCTION

Designed to prevent ovalization and enable
confident large volume coil delivery

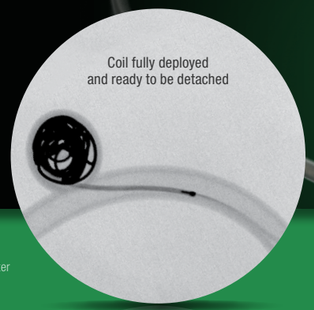
8 TRANSITION ZONES

Engineered for Advanced Trackability

PRECISE COIL DETACHMENT



Ruby® Coil deployed from
LANTERN High-Flow Microcatheter



Ruby®, POD®, and Packing Coil are fully retractable and resheathable, supporting precise placement in the target vessel.

Coil alignment marker passes proximal catheter marker to form “T,” indicating that Ruby, POD, or Packing Coil can now be detached.

LANTERN
MICROCATHETER

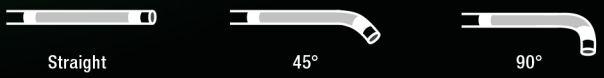
a. Case courtesy of Dr. Dmitri Samoilov, Bon Secours Maryview Medical Center, VA

Ordering Information

LANTERN® MICROCATHETER

Catalog Number	Description	Distal / Proximal OD (F / F)	ID (in)	Length (cm)	Guidewire Compatibility (in)	Tip Markers	Tip Shape
PXSLIMLAN115STR	LANTERN Delivery Microcatheter 115 cm, Straight Tip	2.6 / 2.95	.025	115	≤ .023	2	Straight
PXSLIMLAN115T45	LANTERN Delivery Microcatheter 115 cm, 45° Tip	2.6 / 2.95	.025	115	≤ .023	2	45°
PXSLIMLAN115T90	LANTERN Delivery Microcatheter 115 cm, 90° Tip	2.6 / 2.95	.025	115	≤ .023	2	90°
PXSLIMLAN135STR	LANTERN Delivery Microcatheter 135 cm, Straight Tip	2.6 / 2.95	.025	135	≤ .023	2	Straight
PXSLIMLAN135T45	LANTERN Delivery Microcatheter 135 cm, 45° Tip	2.6 / 2.95	.025	135	≤ .023	2	45°
PXSLIMLAN135T90	LANTERN Delivery Microcatheter 135 cm, 90° Tip	2.6 / 2.95	.025	135	≤ .023	2	90°
PXSLIMLAN150STR	LANTERN Delivery Microcatheter 150 cm, Straight Tip	2.6 / 2.95	.025	150	≤ .023	2	Straight
PXSLIMLAN150T45	LANTERN Delivery Microcatheter 150 cm, 45° Tip	2.6 / 2.95	.025	150	≤ .023	2	45°
PXSLIMLAN150T90	LANTERN Delivery Microcatheter 150 cm, 90° Tip	2.6 / 2.95	.025	150	≤ .023	2	90°

Tip Shapes



Dead Space[b]

115 cm	135 cm	150 cm
.53 cc	.59 cc	.64 cc

Penumbra Delivery Microcatheters — Indication for Use
The Penumbra Delivery Microcatheters are intended to assist in the delivery of diagnostic agents, such as contrast media, and therapeutic devices, such as occlusion coils to the peripheral and neuro vasculature.
Contraindications
There are no known contraindications.
Warnings
The Penumbra Delivery Microcatheters should only be used by physicians who have received appropriate training in interventional techniques.
Precautions
• The devices are intended for single use only. Do not resterilize or reuse. Resterilization and/or reuse may result in ineffective catheter coating lubrication, which may result in high friction and the inability to access the target location. • Do not use kinked or damaged devices. Do not use open or damaged packages. Return all damaged devices and packaging to the manufacturer/distributor. • Use prior to the "Use By" date. • Use the Penumbra Delivery Microcatheters in conjunction with fluoroscopic visualization. • Do not advance or withdraw the Penumbra Delivery Microcatheters against resistance without careful assessment of the cause using fluoroscopy. • If the cause cannot be determined, withdraw the device. Moving or torquing the device against resistance may result in damage to the vessel or device. • Maintain a constant infusion of an appropriate flush solution. • If flow through the device becomes restricted, do not attempt to clear the lumen by infusion. Remove and replace the device.
Potential Adverse Events
Possible complications include, but are not limited to, the following: acute occlusion; hematoma or hemorrhage at access site; death; intracranial hemorrhage; hemorrhage; infection (at access site); distal embolization; ischemia (cardiac and/or cerebral); embolus (air, foreign body, thrombus, plaque); aneurysm perforation; false aneurysm formation; neurological deficits including stroke; vessel spasm, thrombosis, dissection, perforation or rupture; air embolism; emboli.

RUBY Coil System — Indication for Use
The RUBY Coil System is indicated for arterial and venous embolizations in the peripheral vasculature.
Contraindications
There are no known contraindications.
Warnings
The RUBY Coil System should only be used by physicians who have received appropriate training in interventional techniques.
Precautions
• The device is intended for single use only. Do not resterilize or reuse. Resterilization and/or reuse may compromise the structural integrity of the device or increase the risk of contamination or infection leading to device failure and/or cross-infection and potential patient injury, illness, or death. • Do not use kinked or damaged devices. Do not use opened or damaged packages. Return all damaged devices and packaging to the manufacturer/distributor. • Use prior to the "Use By" date. • Use device in conjunction with fluoroscopic guidance. • Do not advance or retract the device against resistance without careful assessment of the cause using fluoroscopy. • Moving or torquing the device against resistance may result in damage to the vessel or device. • Maintain a constant infusion of an appropriate flush solution.
Potential Adverse Events
Potential complications include but are not limited to: acute occlusion; air embolism; allergic reaction and anaphylaxis from contrast media; aneurysm rupture; arteriovenous fistula; coagulopathy; coil herniation into parent vessel; death; device malfunction; distal embolization; emboli; embolic stroke and other cerebral ischemic events; false aneurysm formation; hematoma or hemorrhage at access site of entry; incomplete aneurysm occlusion; infection; intima dissection; intracranial hemorrhage; ischemia; myocardial infarction; neurological deficits including stroke; parent artery occlusion; peripheral thromboembolic events; post-embolization syndrome; premature device detachment; recanalization; renal failure; respiratory failure; revascularization; thromboembolic episodes; vessel spasm, thrombosis, dissection, or perforation.

POD System — Indication for Use
For POD Coils with nominal sizes ≤ 6 mm
The POD System is indicated for the embolization of: • Intracranial aneurysms. • Other neurovascular abnormalities such as arteriovenous malformations and arteriovenous fistulae. • Arterial and venous embolizations in the peripheral vasculature.
For POD Coils with nominal sizes > 6 mm
The POD System is indicated for arterial and venous embolizations in the peripheral vasculature.
Contraindications
There are no known contraindications.
Warnings
The POD System should only be used by physicians who have received appropriate training in interventional techniques.
Precautions
• The device is intended for single use only. Do not resterilize or reuse. Resterilization and/or reuse may compromise the structural integrity of the device or increase the risk of contamination or infection leading to device failure and/or cross-infection and potential patient injury, illness, or death. • Do not use kinked or damaged devices. Do not use opened or damaged packages. Return all damaged devices and packaging to the manufacturer/distributor. • Use prior to the "Use By" date. • Use device in conjunction with fluoroscopic guidance. • Do not advance or retract the device against resistance without careful assessment of the cause using fluoroscopy. If POD cannot be advanced or retracted, withdraw the device as a unit with the microcatheter. • Moving or torquing the device against resistance may result in damage to the vessel or device. • Maintain a constant infusion of an appropriate flush solution.
Potential Adverse Events
Possible complications include, but are not limited to, the following: acute occlusion; air embolism; allergic reaction and anaphylaxis from contrast media; aneurysm rupture; arteriovenous fistula; coagulopathy; coil herniation into parent vessel; death; device malfunction; distal embolization; emboli; embolic stroke and other cerebral ischemic events; false aneurysm formation; hematoma or hemorrhage at access site of entry; incomplete aneurysm occlusion; infection; intima dissection; intracranial hemorrhage; ischemia; myocardial infarction; neurological deficits including stroke; parent artery occlusion; peripheral thromboembolic events; post-embolization syndrome; premature device detachment; recanalization; renal failure; respiratory failure; revascularization; thromboembolic episodes; vessel spasm, thrombosis, dissection, or perforation.

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Caution: Federal (USA) law restricts these devices to sale by or on the order of a physician. Prior to use, please refer to the Instructions for Use for complete product indications, contraindications, warnings, precautions, potential adverse events, and detailed instructions for use. Images used with permission. Consent on file at Penumbra, Inc. Photographs taken by and on file at Penumbra, Inc. Please contact your local Penumbra representative for more information.

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