



Arrow®
Arrow-Trerotola™ PTD®
Percutaneous Thrombolytic Device

A proven mechanical thrombectomy technology available for dialysis access

To achieve fast, easy removal of thrombus from both dialysis native AV fistulae and synthetic graft walls, depend on the Arrow-Trerotola™ PTD® from Teleflex.

Simple

Easy to assemble. Easy to operate. Because the Arrow-Trerotola PTD comes complete with mechanical thrombectomy catheter, hand-held disposable rotator drive unit and introducer sheath, there is no bulky, expensive capital equipment to purchase.

Catheter Lumen Sidearm

- Permits catheter flushing during preparation and use

Activated Spinning Basket

- Macerates the thrombus

Introducer Sheath and Large-Bore Sidearm Assembly

- Simplifies thrombus removal

Short Procedure Time

- Patient can immediately return to dialysis²

Safe

The Arrow-Trerotola PTD conforms to AV graft and AV fistulae walls, which enables you to remove clots with minimal risk of wall damage, and without the use of thrombolytics.⁵

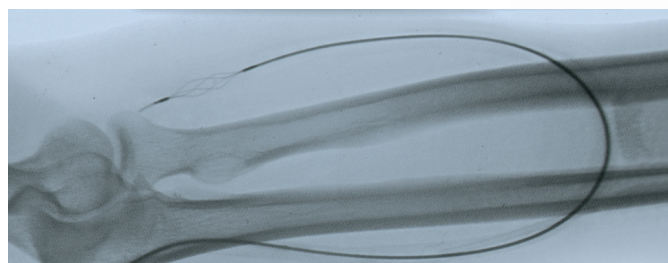
Proven

Addresses key benchmarks for effective outcomes, including KDOQI guidelines for both immediate and three-month fistula and graft patency and functionality rates. The only mechanical thrombectomy device indicated to pull the arterial plug.³

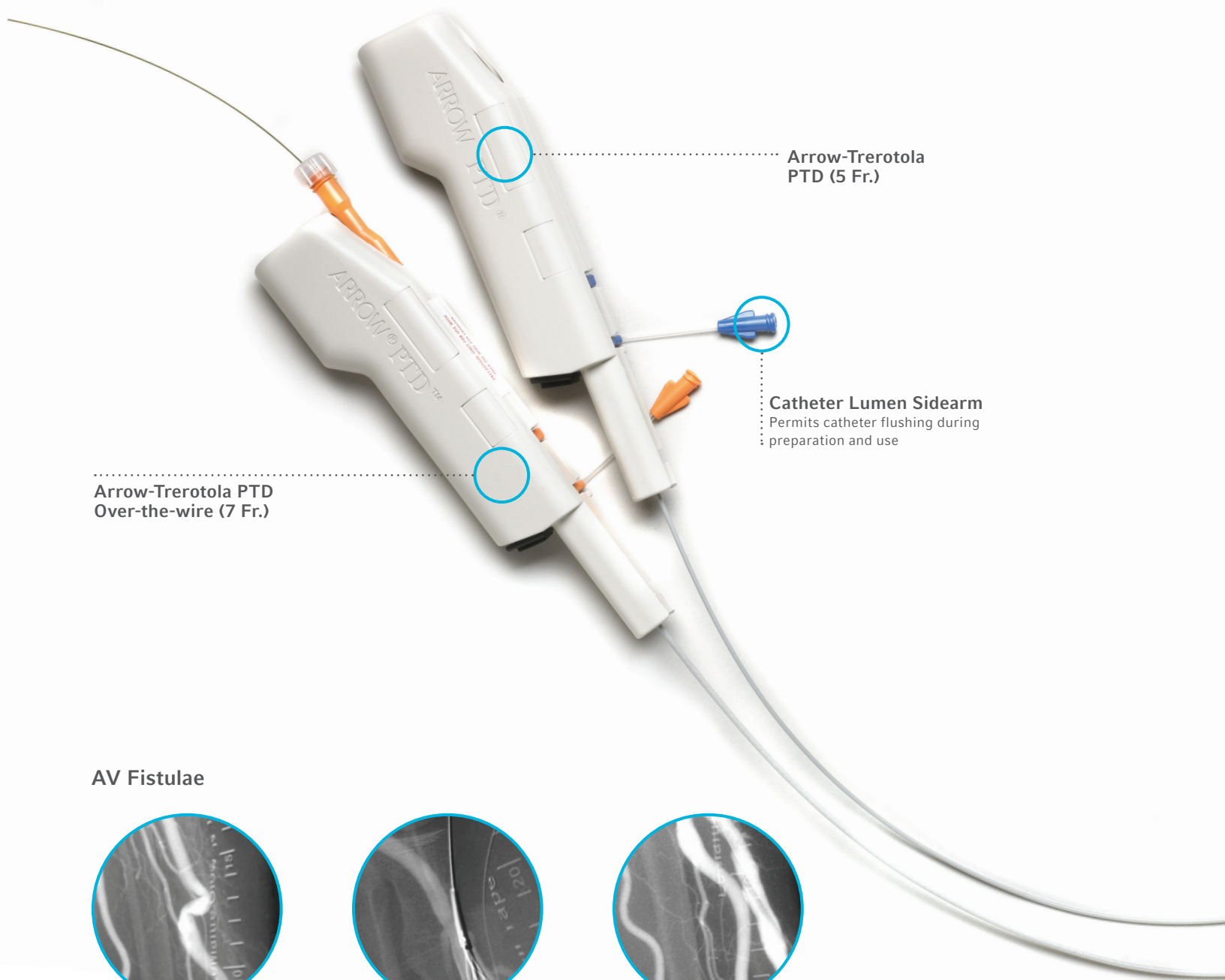
Dialysis Access

| STUDIES | TECHNICAL PATENCY RATE | 3-MONTH PRIMARY PATENCY RATE |
|---|------------------------|------------------------------|
| KDOQI Guideline ¹ | 85% | 40% |
| PTD vs. PSPMT ³ | 95% | 39% |
| Modified Technique ³ | 100% | 42% |
| Use of PTD and Native Fistulae ⁴ | 100% | 70% |

AV Synthetic Graft



PTD device in use in a forearm-loop synthetic graft.

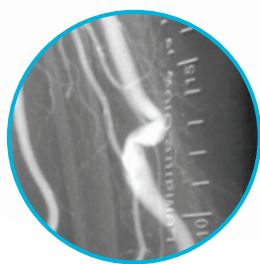


**Arrow-Trerotola PTD
Over-the-wire (7 Fr.)**

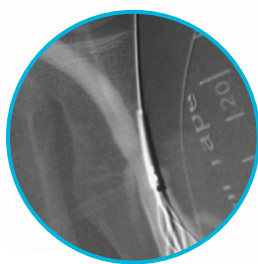
**Arrow-Trerotola
PTD (5 Fr.)**

Catheter Lumen Sidearm
Permits catheter flushing during
preparation and use

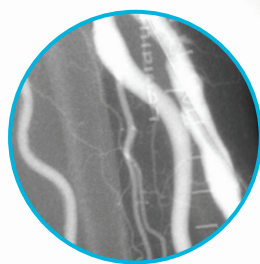
AV Fistulae



Pre-thrombectomy assessment
of dialysis fistulae.



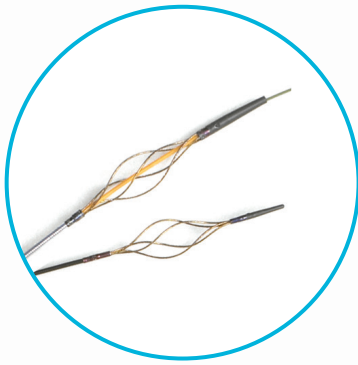
Thrombectomy with use of
the Over-the-Wire PTD via
access sheath.



Post-PTD thrombectomy
fistulogram showing
patent fistulae.

Courtesy of Miloslav Rocek, MD, PhD, Institute for Clinical & Interventional Radiology (IKEM), Dept. of Diagnostic & Interventional Radiology Videnska 800, 14000 Prague 4 Czech Republic

For Use In Dialysis AV Fistulae and Synthetic Grafts.



**Activated
Spinning Basket**
Macerates the thrombus

Soft, Flexible Tip
Designed to easily
maneuver through vessel

**Unique Expandable 9 mm
Fragmentation Basket**
Conforms to variable diameter walls
Shown to easily remove residual
thrombus from dialysis vessel walls⁶

Library of Clinical Support:

- Lajvardi, A., Trerotola, S.O., Strandberg, J.D., Samphilipo, M.A., Magee, C. Evaluation of Venous Injury Caused by a Percutaneous Mechanical Thrombolytic Device. *Cardiovascular Interventional Radiology*. 1995;18:172-178.
- Lazzaro, C.R., Trerotola, S.O., Shah, H., Namyslowski, J., Moresco, K., Patel, N. Modified Use of the Arrow-Trerotola Percutaneous Thrombolytic Device for the Treatment of Thrombosed Hemodialysis Access Grafts. *Journal of Vascular Interventional Radiology*. 1999;10:1015-1031.
- McLennan, G., Trerotola, S.O., Davidson, D. et al. The Effects of a Mechanical Thrombolytic Device on Normal Canine Vein Valves. *Journal of Vascular Interventional Radiology*. 2001;12:89-94.
- Rocek, M., Peregrin, J.H., Lasovickova, J., Krajickova, D., Slaviokova, M. Mechanical Thrombolysis of Thrombosed Hemodialysis Native Fistulas With Use of the Arrow-Trerotola Percutaneous Thrombolytic Device: Our Preliminary Experience. *Journal of Vascular Interventional Radiology*. 2000;11:1153-1158.
- Trerotola, S.O., Davidson, D.D., Filo, R.S., Dreesen, R.G., Forney, M. Preclinical In Vivo Testing of a Rotational Mechanical Thrombolytic Device. *Journal of Vascular Interventional Radiology*. 1996;7:717-723.
- Trerotola, S.O., Vesely, T.M., Lund, G.B., Soulen, M.C., Ehrman, K.O., Cardella, J.F. Treatment of Thrombosed Hemodialysis Access Grafts: Arrow-Trerotola Percutaneous Thrombolytic Device Versus Pulse-Spray Thrombolysis. Arrow-Trerotola Percutaneous Thrombolytic Device Clinical Trial. *Radiology*. 1998;206:403-414.
- Trerotola, S.O., McLennan, G., Davidson D., et al. Preclinical In Vivo Testing of the Arrow-Trerotola Percutaneous Thrombolytic Device for Venous Thrombosis. *Journal of Vascular Interventional Radiology*. 2001;12:95-103.
- Trerotola, S.O., McLennan, G., Eclavea, A.C. et al. Mechanical Thrombolysis of Venous Thrombosis in an Animal Model With Use of Temporary Caval Filtration. *Journal of Vascular Interventional Radiology*. 2001;12:1075-1085.
- Vesely, T.M., Hovsepian, D.M., Darcy, M.D., Brown, D.B., Pilgram, T. K. Angioscopic Observations After Percutaneous Thrombectomy of Thrombosed Hemodialysis Grafts. *Journal of Vascular Interventional Radiology*. 2000;11:971-977.
- Vogel, P.M., Bansal, V., Marshall, M.W. Thrombosed Hemodialysis Grafts: Lyse and Wait With Tissue Plasminogen Activator or Urokinase Compared to Mechanical Thrombolysis With the Arrow-Trerotola Percutaneous Thrombolytic Device. *Journal of Vascular Interventional Radiology*. 2001;12:1157-1165.
- Trerotola, S.O., Johnson, M.S., Schauwecker, D.S. et al. Pulmonary Emboli From Pulse-Spray and Mechanical Thrombolysis: Evaluation With an Animal Dialysis-Graft Model. *Radiology*. 1996;200:169-176.
- Hein, A.N., Vesely, T.M. Use of the Percutaneous Thrombolytic Device for the Treatment of Thrombosed Pseudoaneurysms During Mechanical Thrombectomy of Hemodialysis Grafts. *Journal of Vascular Interventional Radiology*. 2002;13:201-204.

Ordering Information

5 French Arrow-Trerotola™ PTD® Products

| ITEM NUMBER | CATHETER LENGTH (CM) | FRAGMENTATION BASKET (MM) | SHEATH INCLUDED (FR.) | ROTATOR DRIVE UNIT (RPM) | CASE QTY |
|--------------|----------------------|---------------------------|-----------------------|--------------------------|----------|
| PT-03000-R | – | – | – | 3000 | 1 |
| PT-65509* | 65 | 9 | – | – | 1 |
| PT-45509** | 65 | 9 | 2/6 | – | 1 |
| PT-65509-HFC | 65 | 9 | 2/6 (HF) | 3000 | 1 |

7 French Arrow-Trerotola Over-the-Wire PTD Products

| PRODUCT # | CATHETER LENGTH (CM) | FRAGMENTATION BASKET (MM) | TIP-TO-CUFF INSERTION LENGTH (CM) | SHEATH INCLUDED (FR.) | ROTATOR DRIVE UNIT (RPM) | SETS/CASE |
|----------------|----------------------|---------------------------|-----------------------------------|-----------------------|--------------------------|-----------|
| PT-03009-RW | – | – | – | – | 3000 | 1 |
| PT-65709-W *** | 65 | 9 | 0.025 | – | – | 1 |
| PT-65709-WC | 65 | 9 | 0.025 | 2/7 | 3000 | 1 |
| PT-65709-HFWC | 65 | 9 | 0.025 | 2/7 (HF) | 3000 | 1 |
| PT-12709-WC | 120 | 9 | 0.025 | 2/7 | 3000 | 1 |

PTD Accessory Components

| INTRODUCER SHEATHS | SHEATH SIZE (FR.) | SHEATH LENGTH (IN) | VESSEL DILATOR LENGTH (IN) | GUIDEWIRE COMPATIBILITY (IN) | RADIOPAQUE TIP MARKER | LARGE-BORE SIDEARM | COLOR CODED HUB | SETS/CASE |
|--------------------|-------------------|--------------------|----------------------------|------------------------------|-----------------------|--------------------|-----------------|-----------|
| CL-08505 | 5 | 2 | 5 | 0.038 | | | Gray | 10 |
| CL-08605 | 6 | 2 | 5 | 0.038 | | | Green | 10 |
| CL-08605-HF | 6 | 2 | 5 | 0.038 | ✓ | ✓ | Green | 5 |
| CL-08705-HF | 7 | 2 | 5 | 0.038 | ✓ | ✓ | Orange | 5 |

Does not contain natural rubber latex.

Each product includes:

One Radiopaque Polyurethane Sheath with Integral Side Port/Hemostasis Valve

One Vessel Dilator with SnapLock™ feature

*When ordering this component, the PT-03000-R and CL-08605-HF must also be ordered.

**When ordering this component, the PT-03000-R must also be ordered.

***When ordering this component, the PT-03009-RW and CL-08705-HF must also be ordered.

Caution: U.S. federal law limits this device to sale by or on order of a physician.

Contents of unopened, undamaged package are sterile. Disposable. Refer to package insert for current warnings, indications, contraindications, precautions and Instructions for Use.

References:

1. NKF-K/DOQI Clinical Practice Guidelines for Vascular Access: Update 2000. *American Journal of Kidney Disease*. 2000;37:137-181.
2. Trerotola, S.O., Vesely, T.M., Lund, G.B., Soulen, M.C., Ehrman, K.O., Cardella, J.F. Treatment of Thrombosed Hemodialysis Access Grafts: Arrow-Trerotola Percutaneous Thrombolytic Device Versus Pulse-Spray Thrombolysis. Arrow-Trerotola Percutaneous Thrombolytic Device Clinical Trial. *Radiology*. 1998;206:403-414.
3. Lazzaro, C.R., Trerotola, S.O., Shah, H., Namyslowski, J., Moresco, K., Patel, N. Modified Use of the Arrow-Trerotola Percutaneous Thrombolytic Device for the Treatment of Thrombosed Hemodialysis Access Grafts. *Journal of Vascular Interventional Radiology*. 1999;10:1025-1031.
4. Roczek, M., et. al. Mechanical Thrombolysis of Thrombosed Hemodialysis Native Fistulas With Use of the Arrow-Trerotola Percutaneous Thrombolytic Device: Our Preliminary Experience. *Journal of Vascular Interventional Radiology*. 2000;11:1153-1158.
5. Lajvardi, A., Trerotola, S.O., Strandberg, J.D., Samphilipo, M.A., Magee, C. Evaluation of Venous Injury Caused by a Percutaneous Mechanical Thrombolytic Device. *Cardiovascular Interventional Radiology*. 1995;18:172-178.
6. Trerotola SO, Johnson MS, Shah H, Namyslowski J. Backbleeding technique for treatment of arterial emboli resulting from dialysis graft thrombolysis. *JVIR*. 1998;9:141-143.

Teleflex is a global provider of medical technologies designed to improve the health and quality of people's lives. We apply purpose driven innovation – a relentless pursuit of identifying unmet clinical needs – to benefit patients and healthcare providers. Our portfolio is diverse, with solutions in the fields of vascular and interventional access, surgical, anesthesia, cardiac care, urology, emergency medicine and respiratory care. Teleflex employees worldwide are united in the understanding that what we do every day makes a difference. For more information, please visit teleflex.com.

Teleflex is the home of Arrow®, Deknatel®, Hudson RCI®, LMA®, Pilling®, Rüsch® and Weck® – trusted brands united by a common sense of purpose.

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