

PleurX™ catheter system

Help your patients manage recurrent pleural effusions and malignant ascites at home

The PleurX™ catheter system is the easy-to-use and effective choice for managing recurrent pleural effusions and malignant ascites at home. The system includes an indwelling catheter and vacuum bottles that provide quick, effective drainage—without draining unnecessary time, costs and energy.

The PleurX catheter system includes a comprehensive portfolio of products to support:

- Catheter placement and maintenance
- Patient education and training
- Safe and effective drainage



Why choose the PleurX catheter system for your patients?

The PleurX catheter system helps your patients take control by enabling them to manage fluid from malignant and nonmalignant pleural effusions or malignant ascites at home

Proven solution

- Has been used to treat more than 300,000 patients since 1997
- Has been referenced in more than 30 peer-reviewed journal articles
- Reports a documented < 3% infection rate and < 5% occlusion rate¹
- Is indicated for spontaneous pleurodesis (*46% of patients achieve spontaneous pleurodesis at a median of 26.5 days*²)
- Can treat recurrent nonmalignant pleural effusions, including congestive heart failure (CHF) patients
- Can replace a chest tube for talc pleurodesis, giving you an additional treatment option
- Includes a proprietary valve to help reduce the risk of misconnections
- Promotes safe and effective drainage with active vacuum technology

Patient focus

- Compliance and clinical acceptance of the PleurX catheter is extremely high among patients³
- Helps eliminate hospital visits for repeat thoracentesis or paracentesis

Clinical support

- Dedicated clinical team helps establish policies, reduce workflow and increase effectiveness
- Offers education through lecture programs presented by published, nationally recognized experts in the field
- Provides web-based or on-site training from per-diem nurses to ensure your staff is comfortable using the PleurX catheter system

PleurX catheter system

Vacuum bottle

Active vacuum technology drains quickly and comfortably without the need for gravity. Bottles are available in 500 mL and 1,000 mL sizes.

Proprietary safety valve

The valve helps prevent inadvertent passage of air or fluid through the catheter. It also helps to reduce the risk of misconnection that may occur with a standard luer connection.

Fenestrations

Large, smooth fenestrations promote drainage and help prevent occlusions.

Roller clamp

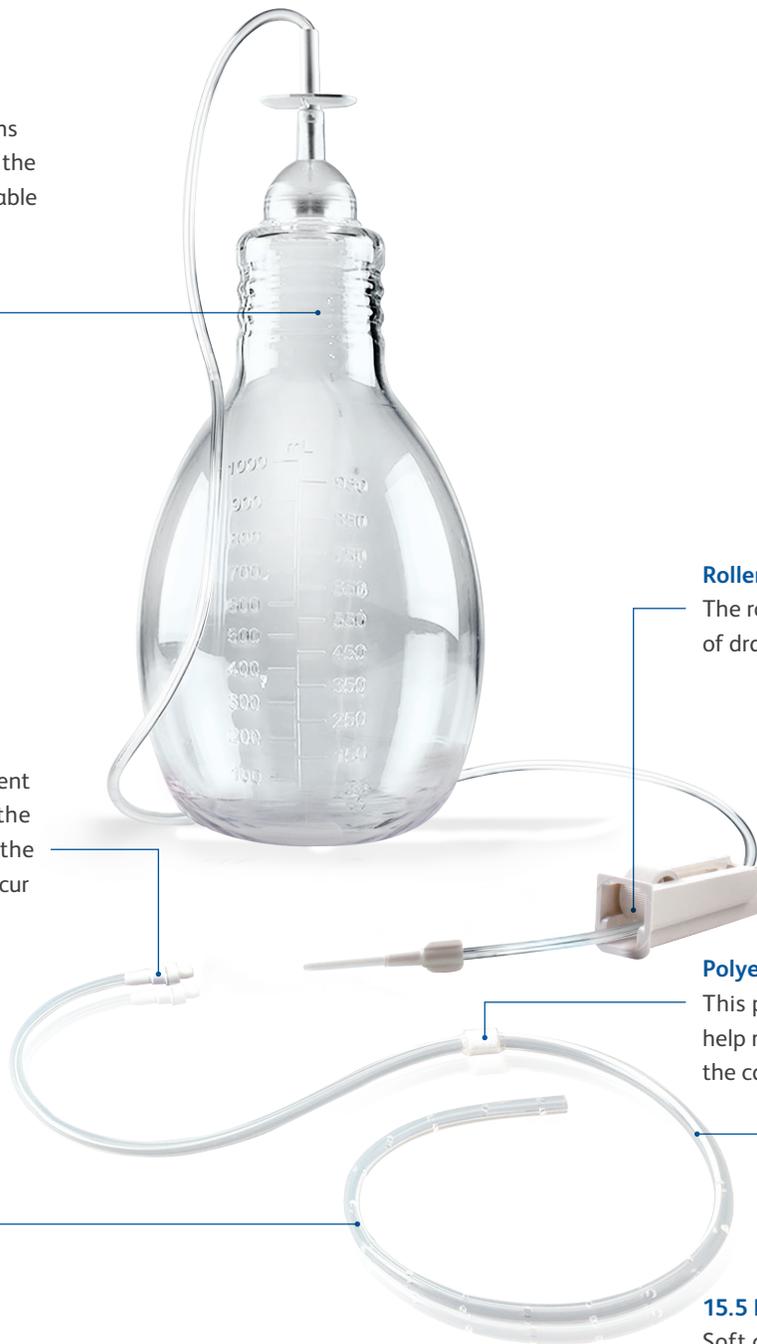
The roller clamp provides easy control of drainage flow for optimal comfort.

Polyester cuff

This promotes tissue ingrowth to help reduce infection risk and hold the catheter securely in place.

15.5 Fr Silicone catheter

Soft and flexible catheter conforms to the pleural or peritoneal space and minimizes insertion-site discomfort.



Catheter placement kits and accessories

PleurX catheter and starter kit 50-7700 and 50-9900

The PleurX catheter and starter kit contains the items needed for catheter placement as well as vacuum bottles with patient education and training materials to help ensure a smooth transition to a home or alternative care center. It contains the components needed for catheter placement and initial drainage.

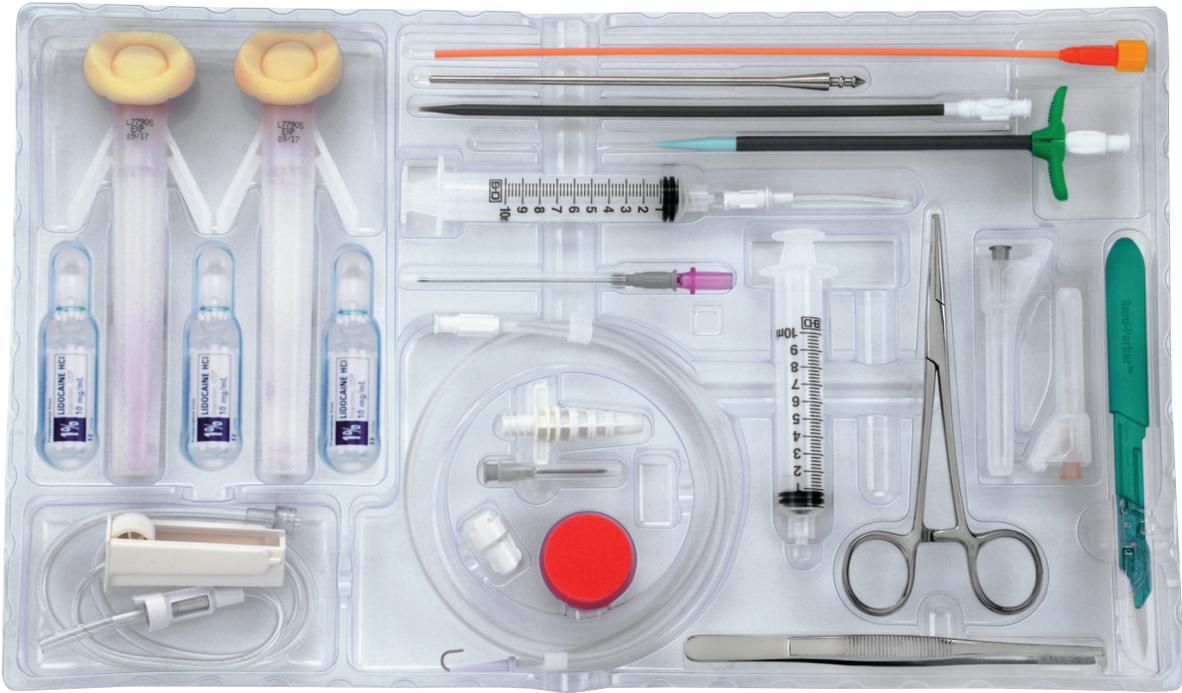
PleurX pleural (50-7700) or peritoneal (50-9900) kits contain:

Preparation components	Placement components	Closing components	Drainage components	Dressing components
<ul style="list-style-type: none"> • ChlorPrep™ 10.5 mL applicators with Hi-Lite Orange™ tint (<i>qty 2</i>) • Fenestrated drape • Filter Straw™ filter • Lidocaine hydrochloride (HCL) USP, 1%, 5 mL (<i>qty 3 ampoules</i>) • BD SafetyGlide™ needles: <ul style="list-style-type: none"> – 22 G x 1½" (3.8 cm) – 25 G x 1" (2.5 cm) • Syringe, 10 mL 	<ul style="list-style-type: none"> • PleurX catheter (15.5 Fr) <ul style="list-style-type: none"> – 66 cm (<i>pleural</i>) – 71 cm (<i>peritoneal</i>) • Safety scalpel • Guidewire introducer with needle • Syringe, 10 mL • J-tip guidewire, 60 cm • Forceps • Dilator, 12 Fr • Peel-away introducer, 16 Fr (<i>pleural</i>) <ul style="list-style-type: none"> – 13.7 cm dilator length, 10 cm sheath length • Valved peel-away introducer, 16 Fr (<i>peritoneal</i>) <ul style="list-style-type: none"> – 17.8 cm dilator length, 14 cm sheath length • Tunneler • Needle foam stop • Catheter insertion stylet 	<ul style="list-style-type: none"> • Tweezer • Silk suture, 2-0 straight needle • Absorbable suture, 4-0 curved needle 	<ul style="list-style-type: none"> • Lockable drainage line with access tip • Needle, 17 G x 1" (2.5 cm) • 5-in-1 drainage line adapter • Valve cap • Alcohol pad 	<ul style="list-style-type: none"> • Gauze pads, 4" x 4" 10.2 cm x 10.2 cm (<i>qty 6</i>) • Foam catheter pad • Self-adhesive dressing • Lot number sticker (<i>for traceability</i>)

Starter kit components	Patient information kit components
<ul style="list-style-type: none"> • PleurX drainage kit, including 1,000 mL bottles and procedure packs (<i>qty 4</i>) • Convenient carrying box • Patient information kit 	<ul style="list-style-type: none"> • Patient education DVD • Introductory letter with ordering information • Frequently asked questions (FAQ) brochure • <i>Instructions for Use</i> booklet • Reference wall chart • Emergency information card • Drainage log



PleurX catheter (15.5 Fr)



PleurX catheter kits are also available separately with cat. no. 50-7000B (*pleural*) and 50-9000B (*peritoneal*). Pleural kit shown.



Starter kits available separately with four 1,000 mL bottles (cat. no. 50-0071)

Catheter placement kits and accessories (*cont'd*)

PleurX supplemental insertion kit 50-7262

The supplemental insertion kit aids percutaneous insertion of the PleurX catheter into the pleural or peritoneal space. The orange stylet occludes the fenestrations in the catheter, helping reduce the amount of fluid leakage during catheter placement. The stylet also makes the catheter more rigid for ease of insertion into the valved introducer. The valved introducer helps reduce air entering into and fluid leaking from the pleural or peritoneal space.

Insertion kit components

- Catheter insertion stylet
- Valved peel-away introducer



Valved peel-away introducer

Catheter insertion stylet

Shown with catheter. Catheter not included.

PleurX catheter access kit 50-7280

Fluid samples can help diagnose a complex problem. The PleurX catheter access kit is designed to aspirate a sterile fluid sample directly through the catheter. The catheter access kit is also designed to allow catheter flushing, perform routine maintenance and administer a sclerosing agent for pleurodesis.

Catheter access kit components

- Syringe, 10 mL
- Lockable access tip with needleless access valve
- Blue wrapping
- Valve cap
- Alcohol pads (*qty* 2)
- Blue emergency slide clamp



Catheter access kit assembled with catheter. Catheter not included.

Drainage kits and accessories

PleurX drainage kit 50-7500B (500 mL) and 50-7510 (1,000 mL)

The PleurX drainage kit contains a procedure pack that provides the components needed—including a vacuum bottle with an attached drainage line—each time the patient drains fluid.

Procedure pack components

- Blue wrapping
- Alcohol pads (qty 3)
- Pair of gloves
- Valve cap
- Blue emergency slide clamp
- Gauze pads, 4" x 4"
10.2 cm x 10.2 cm (qty 2)
- Foam catheter pad
- Self-adhesive dressing



PleurX drainage kit 50-7500B (500 mL) and 50-7510 (1,000 mL)

PleurX procedure pack 50-7290

The PleurX procedure pack allows patients to change dressings with a clean technique and sterile supplies even when they do not need to drain.

Procedure pack components

- Blue wrapping
- Alcohol pads (qty 3)
- Pair of gloves
- Valve cap
- Blue emergency slide clamp
- Gauze pads, 4" x 4"
10.2 cm x 10.2 cm (qty 4)
- Foam catheter pad
- Self-adhesive dressing



PleurX procedure pack 50-7290

Drainage kits and accessories (cont'd)

PleurX replacement valve cap 50-7235

The PleurX valve cap protects the catheter from contamination and helps maintain a clean drainage pathway. A valve cap is included in the PleurX drainage kit and should be replaced each time the patient drains.



PleurX lockable drainage line kit 50-7265

The PleurX lockable drainage line drains fluid through the PleurX catheter using portable or wall suction instead of PleurX vacuum bottles. The lockable drainage line is available separately (50-7245) or in a convenient kit with procedure pack components (50-7265). The procedure pack provides the components necessary to change the dressing with a clean technique and sterile supplies.

Lockable drainage line kit components

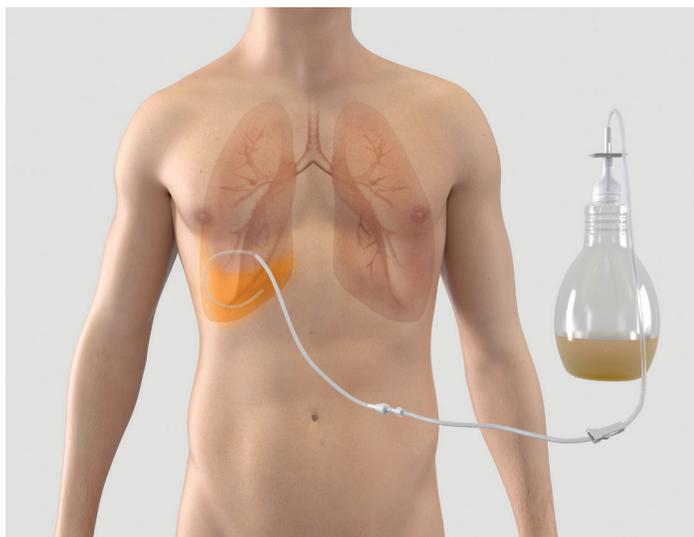
- Drainage line
- 5-in-1 adapter
- Blue wrapping
- Alcohol pads (qty 4)
- Pair of gloves
- Valve cap
- Gauze pads, 4" x 4" 10.2 cm x 10.2 cm (qty 4)
- Foam catheter pad
- Self-adhesive dressing
- Blue emergency slide clamp



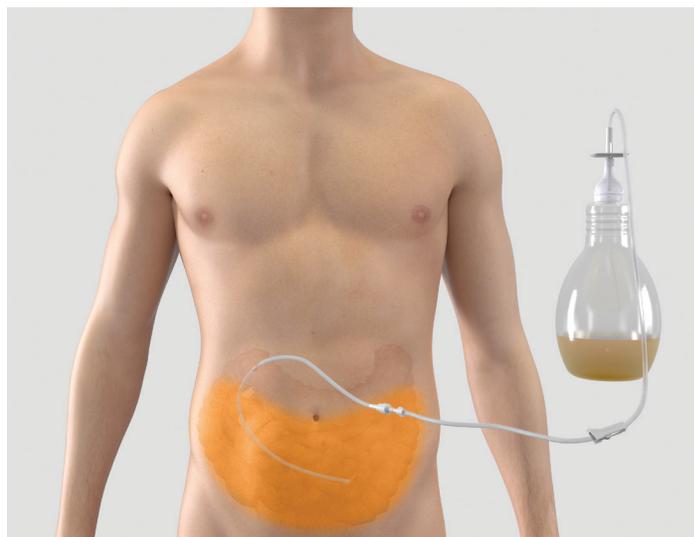
Lockable drainage line also available separately (50-7245)

Ordering information

Cat. no.	Description	Qty (cs)
50-7700	PleurX pleural catheter and starter kit with four 1,000 mL bottles	1
50-9900	PleurX peritoneal catheter and starter kit with four 1,000 mL bottles	1
50-7000B	PleurX pleural catheter kit	1
50-9000B	PleurX peritoneal catheter kit	1
50-0071	PleurX starter kit with four 1,000 mL drainage kits	1
50-7500B	PleurX drainage kit with 500 mL vacuum bottle	10
50-7510	PleurX drainage kit with 1,000 mL vacuum bottle	10
50-7235	PleurX replacement valve cap	10
50-7245	PleurX lockable drainage line	10
50-7265	PleurX lockable drainage line kit	5
50-7262	PleurX supplemental insertion kit	5
50-7280	PleurX catheter access kit	5
50-7290	PleurX procedure pack	5



PleurX pleural catheter system



PleurX peritoneal catheter system

The PleurX catheter system has been referenced in more than 30 peer-reviewed journal articles, including:

- 1 Warren W, Kim A, Liptay M. Identification of clinical factors predicting PleurX catheter removal in patients treated for malignant pleural effusion. *Eur J Cardio Thorac Surg*. 2008;33(1):89–94.
- 2 Putnam J, Light R, Rodriguez R, Ponn R, et al. A randomized comparison of indwelling pleural catheter and doxycycline pleurodesis in the management of malignant pleural effusions. *Cancer*. 1999;86(10):1992–1999
- 3 Warren W, Kalimi R, Khodadian L, Kim A. Management of malignant pleural effusions using the PleurX catheter. *Ann Thorac Surg*. 2008;85(3):1049–1055.
- 4 Freeman RK, Ascoti AJ, Dake M, Mahidhara RS. A propensity-matched comparison of pleurodesis or tunneled pleural catheter for heart failure patients with recurrent pleural effusion. *Ann Thorac Surg*. 2014;97(6):1872–1876; discussion 1876–1877.
- 5 Majid A, Kheir F, Fashjian M, et al. Tunneled pleural catheter placement with and without talc poudrage for treatment of pleural effusion due to congestive heart failure. *Ann Am Thorac Soc*. 2016;13(2):212–216.
- 6 Chalhoub M, Harris K, Castellano M, Maroun R, Bourjeily G. The use of the PleurX catheter in the management of nonmalignant pleural effusions. *Chron Respir Dis*. 2011;8(3):185–191.
- 7 Lungren M, Kim C, Steward J, Smith T, Miller M. Tunneled peritoneal drainage catheter placement for refractory ascites: single-center experience in 188 patients. *J Vasc Interv Radiol*. 2013;24(9):1303–1308.
- 8 Courtney A, Nemcek A, Rosenberg S, Tutton S, et al. Prospective evaluation of the PleurX catheter when used to treat recurrent ascites associated with malignancy. *J Vasc Interv Radiol*. 2008;19(12):1723–1731.
- 9 Musani A, Haas A, Seijo L, Wilby M, et al. Outpatient management of malignant pleural effusions with small-bore, tunneled pleural catheters. *Respiration*. 2004;71(6):559–566.
- 10 Putnam J, Walsh G, Swisher S, Roth J, et al. Outpatient management of malignant pleural effusion by a chronic indwelling pleural catheter. *Ann Thorac Surg*. 2000;69(2):369–375.
- 11 Tapping CR, Ling L, Razack A. PleurX drain use in the management of malignant ascites: safety, complications, long-term patency and factors predictive of success. *Br J Radiol*. 2012;85(1013):623–628.
- 12 Tremblay A, Mason C, Michaud G. Use of tunneled catheters for malignant pleural effusions in patients fit for pleurodesis. *Eur Respir J*. 2007;30(4):759–762.
- 13 Tremblay A, Michaud G. Single-center experience with 250 tunnelled pleural catheter insertions for malignant pleural effusion. *Chest*. 2006;129(2):362–368.
- 14 Richard H, Coldwell D, Boyd-Kranis R, et al. PleurX tunneled catheter in the management of malignant ascites. *J Vasc Interv Radiol*. 2001;12(3):373–375.
- 15 Haas A, Sterman D, Musani A. Malignant pleural effusions: management options with consideration of coding, billing, and a decision approach. *Chest*. 2007;132(3):1036–1041.
- 16 Pien G, Gant M, Washam C, Sterman D. Use of an implantable pleural catheter for trapped lung syndrome in patients with malignant pleural effusion. *Chest*. 2001;119(6):1641–1646.
- 17 Khaleeq G, Musani A. Emerging paradigms in the management of malignant pleural effusions. *Respir Med*. 2008;102(7):939–948.
- 18 Lee Y, Light R. Management of malignant pleural effusions. *Respirology*. 2004;9(2):148–156.

- 19 Brubacher S, Gobel B. Use of the PleurX Pleural Catheter for the management of malignant pleural effusions. *Clin J Oncol Nurs*. 2003;7(1):35–38.
- 20 Ohm C, Park D, Vogen M, et al. Use of an indwelling pleural catheter compared with thorascopic talc pleurodesis in the management of malignant pleural effusions. *Am Surg*. 2003;69(3):198–202.
- 21 van den Toorn L, Schaap E, Surmont V, et al. Management of recurrent malignant pleural effusions with a chronic indwelling pleural catheter. *Lung Cancer*. 2005;50(1):123–127.
- 22 Tremblay A, Patel M, Michaud G. Use of tunneled pleural catheters in malignant mesothelioma. *J Bronchol*. 2005;12(4):203–206.
- 23 Moffett P, Moffett B, Laber D. Diagnosing and managing suspected malignant pleural effusions. *J Support Oncol*. 2009;7(4):143–146.
- 24 Sioris T, Sihvo E, Salo J, et al. Long-term indwelling pleural catheter (PleurX) for malignant pleural effusion unsuitable for talc pleurodesis. *Eur J Surg Oncol*. 2009;35(5):546–551.
- 25 Mercky P, Sakr L, Heyries L, Lagrange X, et al. Use of a tunnelled pleural catheter for the management of refractory hepatic hydrothorax: a new therapeutic option. *Respiration*. 2010;80(4):348–352.
- 26 Davies H, Rahman N, Parker R, Davies R. Use of indwelling pleural catheters for chronic pleural infection. *Chest*. 2008;133(2):546–549.
- 27 Pollak J, Burdge C, Rosenblatt M, et al. Treatment of malignant pleural effusions with tunneled long-term drainage catheters. *J Vasc Interv Radiol*. 2001;12(2):201–208.
- 28 Schrader J, Ferson P. Managing recurrent pleural effusions with an indwelling pleural catheter. *JAAPA*. 2009;22(5):27–28:33–34.
- 29 Rosenberg S. Palliation of malignant ascites. *Gastroenterol Clin North Am*. 2006;35(1):189–199.
- 30 Behrendt R. Management of malignant ascites: Current treatment options. *Oncology Nursing News*. 2008;2(1):1–16.
- 31 Brooks R, Herzog T. Long-term semi-permanent catheter use for the palliation of malignant ascites. *Gynecol Oncol*. 2006;101(2):360–362.
- 32 Suzuki K, Servais E, Rizk N, et al. Palliation and pleurodesis in malignant pleural effusion: The role for tunneled pleural catheters. *J Thorac Oncol*. 2011;6(4):762–767.
- 33 Van Meter M, McKee K, Kohlwes R. Efficacy and safety of tunneled pleural catheters in adults with malignant pleural effusions: A systematic review. *J Gen Intern Med*. 2011;26(1):70–76.
- 34 Puri V, Prydeck T, Crabtree T, et al. Treatment of malignant pleural effusion: a cost-effectiveness analysis. *Ann Thorac Surg*. 2012;94(2):374–379.
- 35 Reddy C, Ernst A, Lamb C, Feller-Kopman D. Rapid pleurodesis for malignant pleural effusions: a pilot study. *Chest*. 2011;139(6):1419–1423.
- 36 Ahmed L, Ip H, Rao D, et al. Pleurodesis through indwelling pleural catheters for malignant pleural effusions: retrospective case series of a novel clinical pathway. *Chest*. 2014;146(6):190–194.

To order or learn more about how BD can assist you in your efforts to bring this valuable treatment to more patients, contact your Interventional Specialties sales representative, call **800.323.9088** or visit **bd.com/PleurX**

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