The Treatment Imperative for Pleural Effusions and Ascites:

The Why and How of Effective Management

Bradley Archer, RN, BSN
Senior Quality Care Consultant
CareFusion, Interventional Specialties
Let’s Change Our Thought Process

Palliative care - comfort care given to a patient who has a serious or life-threatening disease, such as cancer, from the time of diagnosis and throughout the course of illness. INCLUDING CURATIVE CANCER

– Focus: pain, shortness of breath, fatigue, constipation, nausea, loss of appetite, difficulty sleeping and depression.

– Quality of life
Palliative Care Study

New England Journal of Medicine (8/19/2010)

• Methods
  – 151 pts randomized at dx
  – standard therapy (chemo and radiation), vs
  – standard therapy + palliative care

• Results
  – PC patients had improved QOL and depression scores
  – Less time in hospital; less futile end of life treatment
  – PC patients lived an average of 30% (2.8 months) longer!

Research indicates earlier palliation of symptoms improves outcomes
(Tremel, et. al, 2010; Casarrett, et. al, 2008)

• Improved quality of life scores
• Less aggressive treatment at EOL
• Less utilization of inpatient services at EOL
• Longer survival (11.6 months v. 8.9 months)
Breakaway from Cancer Survey

- n=1000 patients, 500 caregivers
- Survey conducted October 2006
- 40% of all diagnosed with cancer are working-age adults
- 61% of patients and 64% of caregivers work full-time during cancer treatment
- 33% of patients say they continue to work because they are afraid they won’t get health insurance elsewhere
- 20% of all working cancer patients missed a scheduled treatment due to work responsibilities or fear of taking time off from work

http://www.cancernetwork.com/articles/breakaway-cancer-survey-shows-pts-work-concerns
When is Palliative care appropriate?

Palliative care should be part of the treatment plan for all seriously ill patients

*Don’t wait for it until there is a drastic need!*

Oncology take more control of overall care
Stop freaking out — “palliative” doesn’t necessarily mean that I’m on the way out; it’s a specialty that focuses on the quality of life of patients with chronic illnesses, and on easing their pain issues as manageably as possible. I can work with this doctor for YEARS.

I will also meet with a palliative care team while in the hospital to get the best assistance with the pain since it will be a while until I get relief at the source. Palliative care doctors are experts in pain management during all phases of cancer treatment, not just end of life. Palliative care teams help with side effects from the cancer and the treatments and are wonderful resources.
Palliative Care vs. Hospice

• Like hospice, palliative care provides:
  – Improved pain and symptom management
  – Careful attention to quality of life
  – Fresh look at medical goals and priorities
  – Opportunity to consider life closure
  – Multidisciplinary approach
  – Focus on patient and family

• Unlike hospice, palliative care does **not** require:
  – Forgo active treatment of underlying disease
  – Forgo acute hospitalization
  – Accept palliation as primary goal of treatment
  – Accept a 6-month or less prognosis
Pleural effusions

- Approximately 175,000 malignant pleural effusions annually

- Occurs in many cancers especially:
  - Lung, Breast, Lymphoma
  - Incidence varies with the type of cancer (i.e. Mesothelioma – 95% of patients, Breast cancer – 50% of patients)

- Causes decreased quality of life and physiologic changes
  - Shortness of breath (dyspnea)
  - Activity intolerance
  - Chest pain, Cough

- Patients average life expectancy*: avg 4 mo
  - Breast, Lymphoma (35%) > 4 mo
  - Lung, ovarian, gastric (50%) < 4 mo
Malignant Ascites

- Ascites may result from both malignant and non-malignant causes
  - The most common cause of non-malignant ascites is from cirrhosis

- Malignant: represents ~10% of all ascites
  - Ovarian, breast, lung and GI are primary cancers
  - 15 – 50% of all cancer pts develop ascites
  - 30% of ovarian cancer pts have ascites on presentation, 60% at death

- Occurs in many cancers especially:
  - Ovarian, Liver, Lung, Breast

- Average life expectancy 1-4 months

- Causes significant symptoms and physiologic disruption
# Treatments / Mgmt Options

## Malignant Ascites
- Diet restriction and diuretics
- Large Volume Paracentesis (LVP)
- Tenckhoff catheter
- Peritoneo-venous shunts
- Peritoneal Implanted Ports
- Indwelling Tunneled Catheter (i.e. PleurX® catheter)

## Malignant Pleural Effusions
- Pleurodesis – mechanical, chemical (i.e. talc)
- Radiation therapy
- Thoracentesis
- Chest tube
- Indwelling Tunneled Catheter (i.e. PleurX® Catheter)
Treatments / Mgmt Options

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Denver Ascites Peritoneo-venous Shunt is an implanted device to transfer fluid from the peritoneal cavity to venous circulation.

- A fenestrated catheter is placed in peritoneal cavity to gather fluid.
- A non-fenestrated catheter is placed in subclavian or jugular vein to route fluid to circulatory system.
- Valved chamber in the middle controls flow of fluid.
- Used for hepatic or malignant ascites.
  - Returns fluid back to the circulatory system.
Patient Benefits of Denver Ascites Shunts

PV shunting with the Denver shunt allows the patient to maintain the critical protein and nutrients in the peritoneal fluid, while maintaining normal flow through vital organs.

Benefits of PVS:

- Retains nutrients
- Increases renal blood flow
- Improves mobility and respiration
- Relieves massive, refractory ascites
- Increases effective blood volume
- Increases diuresis
Indwelling Catheter Benefits:

• Outpatient placement
• Decreases need for repeat paracentesis and thoracentesis procedures
• Allows patients to manage their fluid build-up at home, before it becomes uncomfortable
• Easy to learn technique
• Rapid drainage
• Provides patients control over their symptoms
• Cost-effective management
PleurX Catheter Experience:

- Low infection rates:
  - Ascites – infections < 3% in study of 188 patients, 1% peritonitis (Lungren, 2013)
  - Pleural Effusions – infections < 2% in 233 patients (Warren, 2008)

- Pleurodesis in 46% of patients
  - 70% in subgroups (i.e. breast cancer, patients fit for pleurodesis – Tremblay, 2004)

- Other complications:
  - Pleural: < 4% occlusion (Warren, 2008)
  - Ascites: Leakage 2% (Lungren, 2013)
PleurX Indications for Use

• **PleurX® Pleural Catheter** is indicated for:
  1) Palliation of dyspnea due to pleural effusion
  2) Providing pleurodesis (resolution of pleural effusion)

• **PleurX® Peritoneal Catheter** is indicated for:
  1) Palliation of symptoms related to recurrent malignant ascites
PleurX Peritoneal Catheter

- Recommended insertion site in upper right quadrant diminishes catheter leaking (possible due to vacuum drainage)
- Location makes self-drainage and catheter self-care feasible
- Above belt line which improves patient comfort
PleurX Pleural Catheter

- Catheter mobility in chest cavity:
  - In the absence of loculations, PleurX drops to the base of cavity

- Frequent drainage of pleural effusion, combined with irritation caused by the PleurX catheter in the pleural space, may enable pleurodesis

- Allows patient/family control over MPE management without repeated hospitalizations
PleurX® Drainage System

- 15.5 French tunneled silicone catheter
  - Pleural space
  - Peritoneal cavity

- PleurX Drainage Kits
  - 500 ml and 1L vacuum bottle
  - Sterile dressing supplies

- Training / Support
  - Clinical Education consultants
PleurX Catheter

- PleurX Catheter
  - Pleural
  - Peritoneal

- 15.5 Fr. silicone catheter – conforms to the pleural space and minimizes insertion site discomfort

- Valve – prevents inadvertent passage of air or fluid through the catheter

- Polyester cuff – promotes tissue ingrowth to reduce infection risk and hold the catheter securely in place

- Fenestrated portion – promotes drainage
Drainage kit components

- Vacuum bottle with drainage line attached
- Blue wrap (not shown)
  - Latex-free gloves, qty. 2
  - Gauze pads, qty. 4
  - Alcohol pads, qty. 3
  - Foam pad
  - Waterproof dressing
  - Valve cap
  - Blue emergency clamp
Obtaining a fluid specimen

PleurX® Catheter Access Kit

- Remove dressing
- Remove cap, insert access tip
- Attach syringe to needless access valve
- Aspirate specimen
- Place new cap
- Redress
Alternative drainage methods

PleurX® Drainage Line Kit

Contents:
- Drainage line
- 5-in-1 adapter
- Self-adhesive dressing

Blue wrapping components:
- Alcohol pads (qty. 3)
- Pair of gloves
- Valve cap
- Blue emergency slide clamp
- Gauze pad, 4” x 4” (10.2 cm x 10.2 cm)(qty. 4)
- Foam catheter pad

- Standard wall suction
- Water seal drainage system
- Vacuum bottle
- Portable suction

PleurX Success Can be Maximized by Establishing the “Architecture”

Process for:
• Insertion
• Billing
• Insurance Verification

Development of:
• Standardized order sets
• Standardized discharge instructions
• Policy
• Education plan:
  – MDs
  – RNs
• Nurse Competencies
Potential PleurX Team Members

• Physicians
  – Thoracic surgeons
  – Interventional Radiologists
  – Interventional Pulmonologists
  – Medical Oncologists

• Nurses
  – Clinic / Office nurse
  – Nurse navigator
  – CNS/Nurse Educator
  – Case Managers

• Member of palliative care team
Tips for success: Before the Catheter is Inserted

For EACH patient:

• Verify insurance benefits for both placement and supplies

• Meet with the patient and caregiver to explain procedure and begin training

• Schedule a time for post-procedure training

• Fill out patient insurance form (from the Insertion Kit) and the prescription form, then fax to EdgePark Medical

• Arrange for home health or hospice, if indicated
Checklist for Success

Have you provided:

✓ Patient teaching: Use of the catheter, drainage procedure, troubleshooting, frequently asked questions and obtaining supplies?

✓ Warnings about the catheter and drainage procedure (such as not reusing supplies)

✓ An opportunity for patient and caregiver to watch the drainage?

✓ Time for the patient or caregiver to verbally review the drainage procedure, correcting any mistakes?

✓ Discharge supplies to bridge the period between discharge and delivery of supplies from DME provider?
Supplemental patient resources

Brochures & DVD

Drainage log

Step-by-step instructional wall chart

Drainage instructions

PleurX® catheter system

Getting started

- Open up packaging. Unfold sleeve, remove wrapping, and lay access tube on clean surface.
- Pull out drain catheter from plastic sleeve and remove catheter from inside its packaging.

Connecting the drainage bottle

- Securely secure the end of the catheter and access tube clear of any contaminants.
- Open the clamp and slide the catheter down the drainage tube.

Draining fluid

- Do not drain more than 3,000 mL from your chest or 2,000 mL from your abdomen at any one time.

Final steps and disposal

- Remove the catheter from the drainage system.
- Dispose of used catheter and access tube in separate waste containers.
- Clean the drainage system with soap and water.

These instructions are to be used only as a supplemental reference. Read the referenced directions that come with the drainage kit and watch the drainage video for more detailed instructions.

Drainage log

PleurX® catheter system

Sistema de cateter PleurX®

Drainage record/Registro de drenaje

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<th>Time</th>
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Drainage record

Pleural drainage system

Final steps and disposal

- If you have any questions or concerns, contact your doctor or nurse.
- Clean the drainage system with soap and water.
- Remove the catheter from the drainage system.
- Dispose of used catheter and access tube in separate waste containers.

Frequently asked questions PleurX® drainage kit

My care. My control.

CareFusion
PleurX patient starter kit

• **Starter kit components**
  
  – PleurX drainage kits, including 1,000 mL bottles and procedure packs (qty. 4)
  – Convenient carrying box
  – Patient information kit

• **Patient information kit components**
  
  – Patient education DVD
  – Introductory letter with ordering information
  – Frequently asked questions (FAQ) brochure
  – Instructions for Use booklet
  – Reference wall chart
  – Emergency information card
  – Drainage log
Educational Resources

• Clinical Education
  – Clinical Consultants – Work to develop and execute a training and education plan
  – Per-diem Nurse educators – Provide PleurX® product in-servicing in your hospital.
  – CNE Programs - There are accredited CNE programs about Ascites/Effusion Management that can be used for Grand Rounds, ONS Chapter Meetings, and other venues.

• Contact your CareFusion Sales Representative to Discuss

• Assistance with Policy and Procedures
PleurX support team

• Customer service: 800.323.9088
  – To order educational materials
  – For clinical questions, ask to be connected to a clinical nurse consultant or your local sales rep

• EdgePark Medical Supplies: 877.307.8033
  – To order patient supplies for home drainage
  – Ask to speak with a PleurX Specialist
  – www.edgepark.com

• PleurX website
  – Patients: carefusion.com/pleurxpatient
  – Nurses: carefusion.com/medical-products/interventional-procedures/drainage/pleurx/nurses/
Thank you

QUESTIONS?