Cancer Care

Malignant Pleural Effusion (MPE)
# Malignant Pleural Effusion (MPE)

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INTRODUCTION

To integrate coordinated care in the management of cancer patients receiving malignant pleural effusion treatment in the definitive setting. All patient fulfilling entry criteria will be systematically identified and navigated through a standardized pathway.

Scope of this Pathway

Patients who are:

1. Diagnosed or suspected to have Malignant Pleural Effusion (MPE).
2. Undergoing management of Malignant Pleural Effusion (MPE).
3. Followed from identification of Malignant Pleural throughout the duration of the disease.

Pathway Contacts

The content of this pathway is developed and maintained by the Cancer Care Service Line of Christiana Care Health System. Questions or feedback about the content may be directed to:
Any physician can refer an inpatient or outpatient to the Multidisciplinary Centers at the Helen F. Graham Cancer Center & Research Institute for a treatment/diagnostic plan or for a second opinion. Patients may also self-refer by calling 302-623-4500.

Administrative Lead: Danny Hamm, MSN, RN, Clinical Practice Manager Thoracic Surgery & Interventional Pulmonology and GYN Oncology
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Background

Malignant Pleural Effusion (MPE) impacts the quality of life of this patient population with a limited life expectancy (4-7 months) while carrying a significant healthcare-burden and inpatient mortality rate. Clinical presentations, response to palliative procedures and clinical courses vary given this heterogenous population.

Numerous pleural palliation options and combination of these exists and continue to undergo studies to identify safe, superior and ideally patient-centered care.

Based on available best evidence, this clinical pathway serves to support a unified and standardized approach aiming to deliver individual patient-centered care for patients with MPE.

Goals are to promote cost-effectiveness and reduction in repeat procedures while focusing on optimizing Quality of Life (QOL) and decreasing time spent in healthcare facilities for this patient population with a limited life expectancy.
Pathway Population

This pathway will include MPE patients in and referred to Thoracic Surgery & Interventional Pulmonology and will be the target for intervention.

The Problem

There can be an increase in Emergency Department visits, hospital admission and readmissions for malignant pleural effusion which can be inefficient and not cost-effective. This can occur during initial treatment or subsequent treatments. This can often lead to a poor patient experience and outcomes.

Causal Factors Addressed

The lack of coordinated healthcare delivery, timeliness, evidence-based approach to care, supportive comprehensive care, and communication barriers can exacerbate the patients receiving treatment for malignant pleural effusion.

System Issues Addressed

The ability for MPE Pathway provider to be able to streamline MPE care delivery. This pathway address non-adherence to clinical guidelines, inconsistent navigation, poor access to primary care, inadequate Inpatient to Outpatient handoff and pathway compliance.

Key MPE Pathway Interventions

1. Pathway patients will be identified after their first procedure for MPE.
2. Nurse Navigators will use the new Malignant Pleural Effusion Patients Pathway Aerial Checklist to ensure coordination of care. The Navigator will opt in or out of consultation with ancillary services. These include, but are
not limited to: physician appointments, social work, supportive and palliative care, Home Health and DME, and pleural effusion drainage education.

3. Nurse Navigators will provide a uniform patient experience by using checklists, information technology, frequent prescribed communication with the patient and identifying patient needs to optimize their satisfaction.

4. Consistent Inpatient to Outpatient Hand Off Protocol for patients that are discharged from the hospital but are still undergoing treatment.

5. Prospective education of pathway patients regarding the management of respiratory symptoms that may occur during their malignant pleural effusion treatment.

6. Recommend consultation with Supportive and Palliative Care for pathway patients

7. Education of Staff (Inpatient and Outpatient) and Patients of the MPE pathway

8. Track patients using Aerial software to ensure that treatment dates, appointments, ED visits and admission are all captured and appropriate intervention effected.

9. Use new Aerial reporting tool to measure pathway metrics including compliance.

Challenges for this Pathway

1. Health Literacy disparities
2. Lack of social support
3. Inconsistent navigation
4. Comorbidities
5. Compliance
6. Lack of Primary Care
7. Lack of supportive care embedded in the Cancer Center
8. Insufficient IT resources
9. Insufficient communication between the ED, inpatient service and outpatient services
10. Lack of coordination between inpatient and outpatient supportive care

**Nurse Navigator Coordinated Care Management Using New Aerial Malignant Pleural Effusion (MPE) Tool.**

A new "Malignant Pleural Effusion" tool is now available in Aerial. The Aerial Care Management (ACM) software was adapted to support a standard and automated workflow for managing patients who met the criteria for the MPE pathway during their first procedure. The patients will receive Malignant Pleural Effusion (MPE) treatments.

The Nurse Navigator will determine if the MPE patients meets the clinical pathway criteria.
The referrals/appointments within the department (Social Work, Behavioral Health etc.) and forward tasks and/or follow current departmental processes are listed.

<table>
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<th>Social work – MPE Pathway</th>
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<td>Behavioral Health – MPE Pathway</td>
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<tr>
<td>Home Health /DME- MPE Pathway</td>
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<td>Physician Appointments- MPE Pathway</td>
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<td>Testing Scan /Scheduled Appointments - MPE Pathway</td>
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<td>Review Plan of Care with Patient – MPE Pathway</td>
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<td>One-week Follow-Up Drainage – MPE Pathway</td>
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<td>Patient Education on Drainage – MPE Pathway</td>
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<tr>
<td>Supportive and Palliative Care (SPC) – MPE Pathway</td>
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The standardize workflow allows the Nurse Navigator to track all applicable referrals/appointments, take appropriate action to facilitate the referral/appointment and then close the task with outcome as COMPLETED.

All non-applicable referrals/appointment will be automatically close and identified as "inappropriate". This will improve efficiency and allow the Nurse Navigator to track appropriate tasks.

Once the date of first treatment is known, the Nurse Navigator can begin follow-up with the patient. This will ensure that the patient has completed a treatment or an appointment.

Important! Enter first date of treatment in as the follow-up field on the request pane.
The Nurse Navigator will be able to track all tasks and progress of the pathway patient.

The Nurse Navigator will be able to enter the date of ongoing procedures.

The Nurse Navigator will then note whether or not the patient will continue on the MPE pathway.

Finally, the new Aerial tool will be able to track how long each patient has been on the pathway.
Malignant Pleural Effusion Clinical Pathway

- **Nurse Navigator** Identify Patients that meet MPE pathway criteria
- **Nurse Navigator** Tag Patient electronically (PowerChart and Aerial)
- **Nurse Navigator** Initiate and Facilitate all “MPE” tasks (see list)
- **Nurse Navigator** Coordinate Procedures

*Malignant Pleural Effusion Check List

- Coordination of Medical Appointments
- Social Work
- Behavioral Health
- Home Health/DME
- Physician Appointments
- One week Follow-up Drainage
- Patient Education on Drainage
- Review Plan of Care with Patient
- Supportive and Palliative Care (SPC)
- Testing Scans/Scheduled Appointments

End

Patient begins treatment
ALGORITHM 2

Emergency Room Care for MPE Patient

Start

Adult patient with a symptomatic or asymptomatic effusion with diagnosis or suspected malignancy

Triage Nurse Conduct patient Registration Interview

Triage Nurse Enter patient information

Imaging Perform Tests

Chest X-ray

Cat Scan

Is there an Effusion?

Yes

ED Physician Request Call Back IR

Discharge patient

No

End

Triage Nurse Enter patient information

Imaging Perform Tests

Chest X-ray

Cat Scan

Drainage Needed?

Yes

End

Discharge patient with follow-up with TSIP

No

Admit Patient?

Yes

Algorithm 3

No

End

Discharge patient

No
ALGORITHM 3

Inpatient Care for MPE Patient

1. **Start**
   - Patient admitted with Pleural Effusion (PE)

2. **Non-Cancerous Effusion?**
   - **Yes**
     - **Routine**
     - **Hospitalist**
     - Order IP Consult
     - **Benign Patient**
     - **End**
   - **No**
     - **Possible Cancer**
     - **Yes**
     - **Urgent**
     - **Hospitalist**
     - Order Thoracic Consult
     - **Eval/Treat or Refer to IP?**
     - **Day or Night/weekends?**
     - **4 pm to 8 am & Weekends**
     - **Hospitalist**
     - Order Thoracic Consult
     - **Eval/Treat or Refer to IP?**
     - **Thoracic**
     - Evaluate & Treat
     - **Thoracic**
     - Refer to IP
     - **Thoracic**
     - Refer to IP as needed as outpatient
   - **Symptoms?**
     - **Yes**
     - **Urgent**
     - **Hospitalist**
     - Order Thoracic Consult
     - **Eval/Treat or Refer to IP?**
     - **Thoracic**
     - Evaluate & Treat
     - **Thoracic**
     - Refer to IP
     - **Thoracic**
     - Refer to IP as needed as outpatient
     - **Day**
     - **Day or Night/weekends?**
     - **4 pm to 8 am & Weekends**
     - **Hospitalist**
     - Order Thoracic Consult
     - **Eval/Treat or Refer to IP?**
     - **Thoracic**
     - Evaluate & Treat
     - **Thoracic**
     - Refer to IP
     - **Thoracic**
     - Refer to IP as needed as outpatient
   - **Non-Cancerous Effusion?**
     - **Yes**
     - **Routine**
     - **Hospitalist**
     - Order IP Consult
     - **Benign Patient**
     - **End**
     - **Discharge patient with follow-up specialty group**
   - **Discharge patient with follow-up Pleural Clinic**
Outpatient MPE patient care

Outpatient - Oncology

Start

Cancer Patient with New Pleural Effusion

Important Note:
For any "Call" consult or intervention please feel free to contact:
Israel Matas, MD – 203-926-2309
Harvey Raju, MD – 203-396-0231
Jackie Pahka, PA-C – 802-860-0770

Oncology

Perform MPE

Evaluate Patient

Patient on MPE Pathway? Urgent Patient Needed?

Yes

MPE Patients managed by TSP

No

Outpatient - Primary Care

Primary Care

Perform MPE

Evaluate Patient

Urgent or Routine?

Urgent

Primary Care

Cell Thoracic Surgery & IP Office

Triage & Manage Patient, Post Procedure Schedule Pleural Clinic

End

Primary Care

Urgent

Patient seen within 72 Hours

Primary Care

Refer to TSP Office

End

Outpatient - Thoracic Surgery

Thoracic

Cancer Patient with Pleural Effusion

Start

Urgent

No

Thoracic

Drainage needed?

Yes

CT

Schedule appointment with HP

End

End

Schedule follow-up visit

End

Important Note:
Contact the MPE Nurse Navigator for specific MPE patient educational
materials and patient IPC video.

Important Note:
For any "Call" consult or intervention please feel free to contact:
Israel Matas, MD – 203-926-2309
Harvey Raju, MD – 203-396-0231
Jackie Pahka, PA-C – 802-860-0770
HEALTH EQUITY CONSIDERATIONS

MPE Pathway patients will have access to a screening tool to assess health literacy. The goal is to ensure that patients are fully aware of their diagnosis and treatment options, and treatment plan.

The Health Equity team will track and monitor MPE pathway patient demographics. The results will be analyzed for patient access. The team will make recommendations to improve access as deemed appropriate.

The Health Equity team will ensure that interpreters are available to support MPE pathway patients.

Contact Information:

Jacqueline Ortiz
Director, Cultural Competence and Language Services
(302) 733-3113

Claudia Angelica Reyes-Hull
Manager, Language Services
(302) 733-1417
PATIENT EDUCATION MATERIALS

There is a new patient education tool that was created specifically for MPE pathway patient. The guide is comprehensive and may be used by the patient to capture appointment information.

1. Inpatient Education - Cerner
2. Outpatient Education - Patient Portal

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<thead>
<tr>
<th>Health Library Title</th>
<th>Cerner Title</th>
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<td>Learning About a Pleural Effusion</td>
<td>Pleural Effusion and Pleural Empyema: General Info</td>
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<td>Indwelling Catheter Drainage for Chest or Abdomen: Care Instruction</td>
<td>Indwelling Peritoneal or Pleural Catheter: Drainage</td>
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<td>Sedation for a Medical Procedure: Care Instructions</td>
<td>Sedation</td>
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<td>Pleurodesis: What to Expect at Home</td>
<td>Pleurodesis: Post-op</td>
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<td>Pleurodesis: Before Your Procedure</td>
<td>Pleurodesis: Pre-op</td>
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<tr>
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<td>Thoracentesis: Before Your Procedure</td>
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<tr>
<td>Thoracentesis: What to Expect at Home</td>
<td>Thoracentesis: Post-op</td>
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Rocket IPC Patient Drainage Instructional Video: Third video down: Using the Rocket® IPC™ bottle & bag adapter – Audience is patients
National Cancer Institute

Clinical Trials information

National Comprehensive Cancer Network
REFERENCES


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THE CHRISTIANA CARE WAY

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