Management of Malignant Pleural Effusion

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ECOG = Eastern Cooperative Oncology Group

Patients with chemo-radiosensitive tumors on initial treatment (lymphoma, breast cancer, small cell lung cancer, EGFR or ALK positive non-small cell lung cancer, germ cell, ovarian, prostate, and thyroid neoplasm) could obtain palliation with therapeutic thoracentesis while waiting on systemic treatment results.

**Patient presents with malignant pleural effusion**

- Therapeutic thoracentesis

**Re-accumulation of malignant pleural effusion within weeks of initial therapeutic thoracentesis?**

- Yes
  - ECOG score of **2 or less** after therapeutic thoracentesis
    - Symptomatic improvement?
      - Yes
        - Consider: Pleurectomy
        - Therapeutic thoracentesis
      - No
        - Consider new therapeutic thoracentesis
        - Acceptable lung re-expansion or symptomatic improvement?
          - Yes
            - Monitor for re-accumulation every 2 to 4 weeks:
              - Chest x-ray (PA/lateral)
              - Clinical assessment
          - No
            - Consider other etiologies to explain symptoms
            - Yes
              - Consider re-implementation of this algorithm
            - No
              - Individualize care as clinically indicated

- No
  - ECOG score of **3 or greater** after therapeutic thoracentesis
    - Life expectancy of more than 30 days
      - Consider as clinically indicated:
        - Therapeutic thoracentesis
        - Indwelling pleural catheter
        - Chemical pleurodesis if chest tube in place
      - Life expectancy of less than 30 days
        - Therapeutic thoracentesis
    - Monitor for re-accumulation every 2 to 4 weeks:
      - Chest x-ray (PA/lateral)
      - Clinical assessment

- Acceptable lung re-expansion?
  - Yes
    - Individualize care as clinically indicated
  - No
    - Endobronchial obstruction?
      - Yes
        - Consider new therapeutic thoracentesis
      - No
        - Re-accumulation of malignant pleural effusion within weeks of initial therapeutic thoracentesis?
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CEGC = Crowd Evaluation of Clinical Guidelines

Life expectancy of more than 30 days

Life expectancy of less than 30 days

ECOG score of **2 or less** after therapeutic thoracentesis

ECOG score of **3 or greater** after therapeutic thoracentesis

Symptomatic improvement after therapeutic thoracentesis

Consider as clinically indicated:

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- Chemical pleurodesis if chest tube in place

Therapeutic thoracentesis

Consider new therapeutic thoracentesis

Acceptable lung re-expansion or symptomatic improvement?

Monitor for re-accumulation every 2 to 4 weeks:

- Chest x-ray (PA/lateral)
- Clinical assessment

Department of Clinical Effectiveness V4

Approved by The Executive Committee of the Medical Staff on 03/26/2019

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Therapeutic thoracentesis

Consider new therapeutic thoracentesis

Acceptable lung re-expansion or symptomatic improvement?

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SUGGESTED READINGS


This practice consensus statement is based on majority opinion of the Pleural Effusion Work Group experts at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

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