Approach to Diagnosis of Pleural Effusion

INITIAL EVALUATION

History and physical

Prior thoracentesis performed?

Yes

Etiology of pleural effusion determined?

Yes

Consider a new diagnostic thoracentesis or refer to Box A

No

Chest x-ray (PA/lateral) followed by ultrasound to guide thoracentesis

Is thoracentesis safe to perform?

No

Prior thoracentesis performed?

Yes

Etiology of pleural effusion determined?

Yes

Perform thoracentesis and send pleural fluid for:
- Cell count and differential
- LDH
- Glucose
- Cytology
- Gram stain and culture
- Cholesterol
- Total protein
- Albumin
- Hematocrit
- Triglycerides
- Amylase
- Fungal stain and culture
- pH
- AFB stain and culture
- Anaerobic culture

No

Is pleural effusion loculated?

No

CT chest to confirm suspicion of loculation and aid in image guided thoracentesis

Yes

A

Consider:
- CT chest with or without angiogram protocol
- Echocardiogram
- Pleural biopsy

Etiology of pleural effusion determined?

No

Coordinate follow-up with primary service for treatment disposition or additional diagnostic work up

If needed, refer to Management of Malignant Pleural Effusion algorithm

Follow up within 2 weeks with chest x-ray (PA/lateral) and clinical assessment

Yes

1 If pleural effusion is blood-tinged or serosanguinous, add hematocrit and triglycerides. If pleural fluid is milky or there is clinical suspicion of chylothorax, add triglycerides.

2 If clinically indicated

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care.
SUGGESTED READINGS


DEVELOPMENT CREDITS

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