History, clinical examinations & CXR

Does the clinical picture suggest a transudate? eg. LVF, hypoalbuminaemia, dialysis.

NO

Refer to chest physician

YES

Treat the cause

Resolved?

YES

STOP

NO

Pleural aspiration (with ultrasound guidance). Send for: cytology, protein, LDH, pH Gram stain, culture and sensitivity. (Additional tests if warranted - see text box).

Is it a transudate?

YES

Treat the cause

NO

Has the fluid analysis and clinical features given a diagnosis?

YES

Treat appropriately

NO

Request contrast enhanced CT thorax.

Has the fluid analysis and clinical features given a diagnosis?

NO

Consider LA thoracoscopy or surgical VATS.

YES

Treat appropriately

NO

Consider radiological guided pleural biopsy +/- chest tube drainage if symptomatic.

Cause found?

YES

Treat appropriately

NO

Re-consider treatable conditions such as PE, TB, chronic heart failure and lymphoma. Watchful waiting often appropriate.

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