

Appendix 3 – Clinical questions

Pneumothorax

- A1 Are conservative, aspiration, ambulatory, chemical pleurodesis or surgical interventions better than, or as good as, intercostal drainage at improving clinical outcomes in adult pneumothorax patients?
- A2 In adults who have resolved their first episode of pneumothorax, is surgery a better elective management strategy than non-surgery at improving clinical outcomes?
- A3 In adults with spontaneous pneumothorax and ongoing air leak (excluding post-surgical patients), which treatments are better than ongoing chest tube drainage alone at improving clinical outcomes?
- A4 In adults with spontaneous pneumothorax undergoing surgery, what is the optimal operation for improving clinical outcomes?
- A5 What is the optimal surgical approach when performing pneumothorax surgery?

Investigation of the undiagnosed pleural effusion

- B1 What is the diagnostic accuracy of radiology when diagnosing benign pleural disease as a cause of unilateral pleural effusion in adults?
- B2 For adults with suspected unilateral pleural effusion, is image-guided intervention better than non-image-guided intervention at improving clinical outcomes?
- B3 What is the optimal volume and container for a pleural aspiration sample when diagnosing unilateral pleural effusion in adults?
- B4 What is the diagnostic accuracy of pleural fluid tests when diagnosing adult patients with unilateral pleural effusion?
- B5 What is the diagnostic accuracy of serum biomarkers when diagnosing adult patients with unilateral pleural effusion?
- B6 What is the diagnostic accuracy of pleural biopsy in adults with suspected pleural disease?

Pleural infection

- C1 For adults with pleural infection, what is the best predictor of clinical outcomes?
- C2 For adults with pleural infection, do pleural fluid or radiology parameters accurately determine which patients should be treated with intercostal drainage?
- C3 For adults with established pleural infection, what initial drainage strategy provides the best clinical outcomes?
- C4 For adults with pleural infection, does intrapleural therapy, in comparison to other options (drainage or surgical drainage), improve outcomes?
- C5 For adults with pleural infection, which method of surgery provides the best clinical outcomes?
- C6 For adults with pleural infection, which surgical approach provides the best clinical outcomes?

Pleural Malignancy

- D1 What is the diagnostic accuracy of radiology in adults with suspected pleural malignancy?
- D2 For adults with malignant pleural effusion, does systemic therapy avoid the need for definitive pleural intervention?

- D3 For adults with malignant pleural effusion, is pleural aspiration with no pleurodesis agent better than talc slurry at improving clinical outcomes?
- D4 For adults with malignant pleural effusion, is an indwelling pleural catheter better than talc slurry pleurodesis at improving clinical outcomes?
- D5 For adults with malignant pleural effusion, is thoracoscopy (local anaesthetic or VATS) and talc poudrage pleurodesis better than chest drain and talc slurry pleurodesis at improving clinical outcomes?
- D6 For adults with malignant pleural effusion, is surgery better than talc slurry pleurodesis at improving clinical outcomes?
- D7 For adults with malignant pleural effusion and non-expandable lung, is pleural aspiration, talc slurry pleurodesis, talc poudrage pleurodesis or decortication surgery better than using an indwelling pleural catheter at improving clinical outcomes?
- D8 For adults with malignant pleural effusion and septated effusion (on ultrasound or CT), are intrapleural enzymes better than surgery or no treatment at improving clinical outcomes?
- D9 For adults with malignant pleural effusion treated with indwelling pleural catheters, does symptom-based drainage have better clinical outcomes than daily drainage?
- D10 For adults with malignant pleural effusion treated with indwelling pleural catheters, do intrapleural agents (talc or other pleurodesis agents) improve clinical outcomes?
- D11 For adults with pleural malignancy, is intrapleural chemotherapy better than systemic treatment at improving clinical outcomes?
- D12 For adults with pleural malignancy, does the use of prognostic and predictive scores improve clinical outcomes?