

Pneumonia*	
Presentation	Fever, cough, dyspnea, pleuritic pain, respiratory distress
Etiology	<ul style="list-style-type: none"> • Neonatal: GBS, E. coli, K. pneumoniae, HSV • Infants: viral, S. pneumoniae, C. trachomatis • Pre-school age: viral, S. pneumoniae, S. pyogenes, S. aureus, B. pertussis • School-aged: M. pneumoniae, C. pneumoniae, S. pneumoniae, S. aureus
Differential	Asthma, pleural effusion/empyema, FB aspiration
Workup	CXR, respiratory viral panel including flu, blood culture if inpatient, ESR/CRP, procalcitonin
When to Hospitalize	Moderate-severe respiratory distress, SpO2 <90%, infants <6 mos, concern for virulent pathogen (MRSA), unable to tolerate PO intake
Treatment	<ul style="list-style-type: none"> • Outpatient: amoxicillin • Inpatient: ampicillin • Alternatives: add azithromycin if concern for atypicals, vancomycin if concern for S. aureus • Duration: 10 days, 2-4 weeks if parapneumonic effusion

Pleural Effusions							
Presentation	<ul style="list-style-type: none"> • Pain w/ inspiration, hypoxemia, hypercarbia • Exam: decreased breath sounds, dullness to percussion 						
Differential	<table border="1"> <tr> <td>Transudative</td><td>Decreased plasma oncotic pressure (nephrotic syndrome, cirrhosis, hypoalbuminemia)</td></tr> <tr> <td>Exudative</td><td>Increased capillary permeability (parapneumonic effusions, TB, AI disease, malignancy)</td></tr> <tr> <td>Chylothorax</td><td>Secondary to lymphatic abnormalities</td></tr> </table>	Transudative	Decreased plasma oncotic pressure (nephrotic syndrome, cirrhosis, hypoalbuminemia)	Exudative	Increased capillary permeability (parapneumonic effusions, TB, AI disease, malignancy)	Chylothorax	Secondary to lymphatic abnormalities
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Chylothorax	Secondary to lymphatic abnormalities						
Workup	<ul style="list-style-type: none"> • Imaging: CXR, US, CT • Diagnostic thoracentesis (consider if >10 mm fluid from lung to chest wall, need for definitive diagnosis, respiratory compromise) <ul style="list-style-type: none"> ■ Light's Criteria: Exudative if 1+ of (1) Pleural fluid protein:serum protein ratio ≥0.5, (2) Pleural fluid LDH:Serum LDH ratio >0.6, (3) Pleural fluid LDH >66% ULN of normal serum LDH 						
Treatment	<ul style="list-style-type: none"> • Transudative: address underlying problem • Chylothorax: Drainage, restrict to medium chain TGs as main source of dietary fat • Paraneumonic effusions (pleural fluid + pneumonia, abscess or bronchiectasis) <ul style="list-style-type: none"> ■ Uncomplicated: Antibiotics ■ Complicated: Antibiotics + drainage +/- fibrinolytics +/- VATS • Consider chest tube if: persistent fever, toxic appearing, large effusion, complicated pleural effusion or empyema 						

Obstructive Sleep Apnea	
Presentation	<ul style="list-style-type: none"> • Snoring (>3 nights/wk), labored breathing, morning headaches, daytime sleepiness, learning difficulties • Exam: tonsillary hypertrophy, adenoidal faces, micrognathia, HTN, overweight
Differential	Central sleep apnea, narcolepsy
Workup	Polysomnography to assess severity via apnea-hypopnea index (AHI) → >5 AHI warrants treatment
Treatment	CPAP , adenotonsillectomy if adenotonsillar hypertrophy, topical intranasal steroids or montelukast