

Respiratory Disease Recognition Cheat Sheet

High-yield pattern recognition for RT students and NBRC preparation. Use this as a quick study reference - not as a diagnostic or treatment protocol.

PAGE 1 - RECOGNITION BY DISEASE CATEGORY

Obstructive Diseases

Disease	Think	Key recognition clue
Asthma	Reversible airway obstruction	Episodic wheezing; bronchodilator response
COPD	Permanent airflow limitation	Smoking history + hyperinflation
Chronic Bronchitis	Mucus-dominant COPD	Chronic productive cough
Emphysema	Alveolar wall destruction	Barrel chest, dyspnea, minimal sputum
Bronchiectasis	Permanent airway dilation	Copious purulent sputum
Cystic Fibrosis	Thick secretions	Young patient + recurrent Pseudomonas

Restrictive Diseases

Disease	Think	Key recognition clue
Pulmonary Fibrosis	Stiff lungs + diffusion impairment	Fine crackles, clubbing, honeycombing
Sarcoidosis	Granulomatous disease	Bilateral hilar adenopathy
Pneumoconiosis	Occupational exposure	Exposure history is the key clue

Infectious Diseases

Disease	Think	Key recognition clue
Pneumonia	Infection with consolidation	Fever + productive cough + infiltrate
Tuberculosis	Chronic infection	Night sweats, weight loss, hemoptysis, upper-lobe disease

Vascular and Pleural Disorders

Disease	Think	Key recognition clue
Pulmonary Embolism	Dead space from blocked perfusion	Sudden dyspnea + often normal CXR
Pulmonary Hypertension	Right-heart strain	Dyspnea, syncope, loud P2
Pneumothorax	Air in pleural space	Sudden unilateral pain + absent lung markings
Pleural Effusion	Fluid in pleural space	Blunted costophrenic angle + decreased breath sounds

Acute Failure, Sleep, and Neonatal

Disease	Think	Key recognition clue
ARDS	Noncardiogenic pulmonary edema	Refractory hypoxemia + diffuse bilateral infiltrates
Pulmonary Edema	Cardiogenic lung flooding	Pink frothy sputum + bat-wing infiltrates
OSA	Upper airway collapse during sleep	Snoring + witnessed apneas + daytime sleepiness
Neonatal RDS	Surfactant deficiency	Premature infant + ground-glass CXR
MAS	Air trapping + inflammation	Post-term infant + meconium staining
PPHN	Persistent fetal circulation	Pre/post-ductal saturation difference

Respiratory Disease Recognition Cheat Sheet

Use these comparison tables to narrow disease patterns quickly during board review, clinical reasoning practice, or bedside discussion.

PAGE 2 - HIGH-YIELD DIFFERENTIAL CLUES

Top 10 NBRC Recognition Clues

If You See...	Think...
Reversible wheezing	Asthma
Smoker + hyperinflation	COPD / Emphysema
Copious purulent sputum	Bronchiectasis
Clubbing + honeycombing	Pulmonary Fibrosis
Sudden dyspnea + normal CXR	Pulmonary Embolism
Bilateral infiltrates + refractory hypoxemia	ARDS
Pink frothy sputum	Acute Pulmonary Edema
Blunted costophrenic angle	Pleural Effusion
Premature infant + ground-glass CXR	Neonatal RDS
Pre/post-ductal saturation difference	PPHN

Disease Comparison Matrix

Disease	Obstr.	Restr.	Hyperinfl.	Imaging	Key clue
Asthma	Yes		Sometimes		Reversible wheezing
COPD	Yes		Yes		Smoking history
Bronchiectasis	Often			Sometimes	Copious sputum
Pulmonary Fibrosis		Yes		Reticular / honeycomb	Clubbing + crackles
Pneumonia				Yes	Fever + infiltrate
ARDS		Stiff lungs		Diffuse bilateral	Refractory hypoxemia
Pulmonary Embolism				Usually normal	Sudden dyspnea
Pleural Effusion		Restrictive effect		Blunted CP angle	Decreased sounds
Neonatal RDS		Low compliance		Ground glass	Premature infant

Pattern Recognition Shortcuts

Pattern	Meaning	Think
Obstructive pattern	Low FEV1/FVC	Asthma, COPD, bronchiectasis, CF
Restrictive pattern	Low TLC	Fibrosis, ARDS physiology, large effusion
Low DLCO	Impaired diffusion or surface area	Fibrosis, emphysema, pulmonary vascular disease
Normal CXR + sudden dyspnea	Think vascular/dead space	Pulmonary embolism
Diffuse bilateral infiltrates	Think acute oxygenation failure	ARDS or pulmonary edema

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