

## DX AT A GLANCE

### Upper Airway Obstruction

- **Clinical Signs:** Inspiratory dyspnea, stridor
- **Differentials:** Laryngeal paralysis, extrathoracic tracheal collapse, compressive masses, foreign bodies, brachycephalic syndrome

### Lower Airway Obstruction

- **Clinical Signs:** Expiratory dyspnea with auscultable expiratory wheezes
- **Differentials:** Bronchoconstriction/spasms, bronchial wall inflammation (feline asthma, chronic bronchitis), intraluminal exudative/mucoid debris, intrathoracic tracheal collapse & bronchomalacia, bronchial compression secondary to left atrial enlargement

### Thoracic Wall Disorders

- **Clinical Signs:** Paradoxical respiration with the affected area of the thorax collapsing inward on inspiration & forced outward on expiration
- **Differentials:** Flail chest, “sucking” chest wounds

### Pleural Space Disorders

- **Clinical Signs:** Rapid, shallow breathing patterns with inspiratory distress
- **Differentials:** Pleural effusion, pneumothorax

### Pulmonary Parenchymal Disorders

- **Clinical Signs:** Inspiratory & expiratory difficulty; presence of heart murmurs, gallops, or arrhythmias may suggest underlying heart disease

- **Differentials:** Pneumonia, edema (cardiogenic or noncardiogenic), pulmonary contusions, interstitial lung disease, neoplastic or fungal infiltration

### Pulmonary Vascular Disorders

- **Clinical Signs:** Hemoptysis, coughing, dyspnea, syncope; split heart sounds possible if concurrent pulmonary hypertension
- **Differentials:** Pulmonary thromboembolism, heartworm disease

### Severe Abdominal Distension

- **Clinical Signs:** Inspiratory distress typically characterized by slow, exaggerated pattern
- **Differentials:** Ascites, gastric dilatation-volvulus, organomegaly, pregnancy

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### Upper Airway Obstruction

- **Sedation** with acepromazine (eg, 0.025–0.2 mg/kg IV or IM) or butorphanol (eg, 0.1–0.4 mg/kg IV or IM)
- **Intubation, tracheostomy, etc** if patent airway cannot be maintained
- **Glucocorticoids** (eg, dexamethasone, 0.1–0.25 mg/kg IV) to reduce laryngeal & pharyngeal inflammation & edema
- **Active cooling** for hyperthermic patients

### Lower Airway Obstruction

- **Bronchodilators** (eg, terbutaline, 0.01 mg/kg IM) to relieve bronchospasm
- **Glucocorticoids** (eg, dexamethasone, 0.1–0.25 mg/kg IV or IM) for acute asthma in cats

### Thoracic Wall Disorders

- **Parenteral opioids** in combination with local anesthetics; NSAIDs may be used if no contraindications
- **Stabilization** of flail segment to improve ventilation & facilitate evaluation & treatment; can impede inspiratory effort
- **Intermittent thoracocentesis** to relieve concurrent pneumo/hemothorax

### Pulmonary Parenchymal Disorders

- **Empirical therapy** in extremely unstable patients
- **Thoracic radiographs** for definitive diagnosis and treatment
- **Broad-spectrum antibiotics** (eg, ampicillin, 22 mg/kg IV Q 8 H; enrofloxacin, 10–20 mg/kg IV Q 24 H for dogs & 5 mg/kg IV Q 24 H for cats), if pneumonia suspected
- **Loop diuretic** (furosemide, initially 2–6 mg/kg IV or IM) at repeated dosing intervals for cardiogenic pulmonary edema
- **Supportive care**, oxygen supplementation, and mechanical ventilation for noncardiogenic pulmonary edema

### Pulmonary Vascular Disorders

- **Anticoagulants, antiplatelet medications, thrombolytics**
- **Bronchodilators** (eg, theophylline, 10 mg/kg PO Q 12 H)
- **Pulmonary arterial vasodilators** (eg, sildenafil, 1 mg/kg PO Q 8–12 H; pimobendan, 0.25 mg/kg PO Q 8–12 H) for concurrent pulmonary hypertension