

Respiratory Medicine

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AINTREE CHEST CENTRE
LIVERPOOL

Respiratory Medicine

- Anatomy
- Physiology
- Normalcy
- Disease
- Common legal cases
 - Emphasis on “medical accidents”

Anatomy

- Airways
 - Upper
 - Lower
- Alveoli
- Circulation
- Pleura
- Diaphragm
- Chest wall

Anatomy

IMAGES OF RELEVANT ANATOMY

Physiology

- **Ventilation**
 - Brain
 - Muscles
 - Flow of air
- **Circulation/perfusion**
 - Regulation of circulation
- **Ventilation/perfusion matching**
- **Immunity**

Physiology

IMAGES RELEVANT TO PHYSIOLOGY

Physiology

- **Measurements/assessments**

- Lung function

- ✦ Spirometry
 - ✦ Lung volumes
 - ✦ Gas diffusion
 - ✦ Airway reactivity
 - ✦ Blood tests (gases)

- Exercise parameters

- Sleep ventilation

- Imaging of the lung

Physiology

**IMAGES RELEVANT TO PHYSIOLOGICAL
MEASUREMENTS/IMAGING**

Common diseases

- Lung diseases

- Asthma
- Smoking related lung disease
 - ✦ COPD
 - Emphysema
 - Bronchitis
 - ✦ Interstitial lung disease
- Bronchiectasis
- Lung fibrosis
 - ✦ Idiopathic
 - ✦ Identifiable cause

Common diseases

- Lung diseases

- Infections
 - ✦ Pneumonia
 - ✦ Infective exacerbation of existing lung condition
 - ✦ TB
 - ✦ Rarer infections – fungal, pneumocystis
- Cancers
 - ✦ Primary lung cancers
 - ✦ Secondary deposits in the lung
 - ✦ Mesothelioma

Common diseases

- Diseases of circulation
 - VTE
 - Pulmonary hypertension
- Diseases of ventilation
 - Brain disease
 - Chest wall disease
 - Muscle disease
 - ✦ Diaphragm
 - ✦ Other
 - Obesity
 - Sleep related breathing problems

Common diseases

IMAGES RELEVANT TO COMMON DISEASES

General NHS systems

- Guidelines
 - National incl NICE
 - Local
- Expectations on performance
 - Nationally mandated
 - ✦ CWT
 - ✦ RTT
 - ✦ IPC incl C Diff etc
 - ✦ Monitoring EWS
 - ✦ VTE risk assessment
 - ✦ Nutrition
 - ✦ Pressure areas
 - Locally driven via CCG quality contracts

NHS Systems

- Doctor regulation
 - Appraisal/revalidation
 - Junior doctor training/accreditation
- Complaints process
- PHSO
- CQC inspections
- NPSA
- Legal process
 - (Almost) exclusively system failure issues

Common problem areas

- Long latency disease
 - Asbestos related disease
 - Pneumoconiosis
- More immediate disease
 - Inhalation injuries
 - Occupational asthma
 - RTA chest wall/lung injury

Common problem areas

- Delay in diagnosis
 - Out-patient/semi-elective management
 - ✦ Lung cancers
 - ✦ VTE
 - ✦ Missed early manifestation of complex disease
 - ✦ Overtreatment effects
 - Inpatient care
 - ✦ Delay in identification/treatment of sepsis
 - ✦ Overtreatment effects

CASE EXAMPLES OF COMMON PROBLEM AREAS

Summary

- Huge range of disease
- Common areas of jeopardy
- National and local safety systems
- Inevitably system failures
 - Occasional individual doctor issues
- Use appropriate medical expertise