

TOPIC: A-16 RESPIRATORY MEDICINE

OBJECTIVE: To be able to undertake a clinical histological examination of the respiratory system and interpret the clinical signs. Detailed knowledge of investigations of the respiratory system including interpretation, blood gases and chest x-ray. Principles of invasive and non-invasive ventilation. Principles of oxygen therapy

PROBLEM	KNOWLEDGE	SKILLS/ATTITUDES	LEARNING	ASSESSMENT
1. Asthma	<p>Pathophysiology of asthma.</p> <p>BTS Guidelines (www.brit_thoracic.org.uk) Including who may be discharged.</p> <p>Detailed knowledge of drug therapy including magnesium.</p> <p>To recognise the difficulties of rapid sequence induction and ventilation in asthmatics*</p>	<p>To be able to recognise acute severe asthma and institute emergency treatment. To be able to recognise early those patients with life threatening asthma who may require ventilation.</p> <p>To be able to organise safe discharge of patients suffering acute asthma exacerbation.</p>	<p>LP LT GT PS LS ODA</p>	<p>OC MC DOPS CBD AUD ME FFAEM MFAEM</p>
2. Spontaneous pneumothorax.	<p>Causes</p> <p>Guidelines (www.brit_thoracic.org.uk)</p>	<p>To be able to aspirate and insert a intercostal drain using open and closed (Seldinger) techniques</p>	<p>LP LT GT PS SL ODA</p>	<p>OC DOPS ME FFAEM MFAEM</p>

<p>3. Pulmonary embolism</p>	<p>Causes and risk factors.</p> <p>Differential diagnosis.</p> <p>BTS guidelines(www.brit_thoracic.org.uk)</p> <p>Severity stratification, investigation and initial treatment including heparinisation, anticoagulation, thrombolysis* and thromboembolectomy*</p> <p>Other embolic phenomena, e.g. septic, air, amniotic fluid*</p>	<p>Recognise the need for urgent investigation (ECG, blood gas, analysis, echo cardiography, CT) and treatment.</p>	<p>LP LT GT PS LS ODA</p>	<p>OC MC CBD AUD ME FFAEM MFAEM</p>
<p>4. COPD</p>	<p>BTS Guidelines for the management of acute exacerbations of COPD. (www.brit_thoracic.org.uk)</p> <p>Oxygen therapy, drug therapy.</p> <p>Management of type II respiratory failure.</p> <p>Pathophysiology of respiratory failure.</p>	<p>To be able to initiate appropriate therapy.</p> <p>Recognise and treat precipitating factors (infection, PE, pneumothorax).</p> <p>Identify those who can be safely discharged.</p> <p>Assessment and timely initiation of non invasive ventilation in appropriate patients</p> <p>Recognition of those patients who need intubation and ventilation</p>	<p>LP LT GT PS SL ODA</p>	<p>OC MC DOPS CBD AUD ME FFAEM MFAEM</p>

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5. Pneumonia	<p>Assessment and management of community acquired pneumonia according to BTS Guidelines. www.Brit.Thoracic.org.uk</p> <p>Recognition of the severity of pneumonia.</p> <p>Knowledge of the causes of pneumonia and appropriate antibiotic therapy.</p>	<p>To be able to undertake appropriate investigation (chest x-ray, arterial blood gases, full blood count, blood cultures).</p> <p>To be able to record the markers of severity of pneumonia.</p> <p>Identify co-morbidity (COPD, HIV, Cancer).</p> <p>Identify those patients needing ventilation and intensive care.</p> <p>To initiate O₂/IV antibiotics.</p> <p>To identify those patients suitable for community care.</p> <p>To identify those patients with associated septicaemia.</p>	<p>LP LT GT PS ODA</p>	<p>OC MC CBD AUD ME FFAEM MFAEM</p>
6. Respiratory failure	<p>Identification of the causes of respiratory failure and knowledge of appropriate investigations.</p> <p>Indications for ventilation.</p>	<p>Recognition of those patients in respiratory failure.</p> <p>Initiate therapy, including oxygen and bag valve mask ventilation if needed.</p> <p>Identify those that need non-invasive ventilation/invasive ventilation.</p>	<p>LP LT GT PS LS ODA ODB</p>	<p>OC CBD ME FFAEM MFAEM</p>

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7. Other topics	<p>Aspiration, pneumonia.</p> <p>Acute lung injury.</p> <p>Pleural effusion.</p> <p>Foreign body – inhalation.</p> <p>Haemoptysis.</p> <p>Presentation of Tuberculosis, Neoplasia and lung abscess.</p> <p>Physical and chemical irritants*</p> <p>Non cardiogenic pulmonary oedema*</p> <p>Pneumomediastinum*</p> <p>Adult cystic fibrosis</p>		<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>ODA</p>	<p>OC</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>

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Asthma	<p>understand and be able to apply the British Thoracic Society asthma guidelines for the management of asthma in children</p> <p>understand the pharmacological therapies available and their indications and complications</p> <p>understand the indications and complications of drugs used in intubating severely asthmatic patients</p>	<p>be able to recognize patients with life-threatening asthma who may require ventilation</p> <p>be able to provide bag valve mask ventilation and recognise the need for intubation in life-threatening asthma</p>		
Acute stridor	understand the infective, allergic and obstructive causes of this condition	be able to institute appropriate acute airways management		

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Bronchiolitis	understand the common presentations of bronchiolitis	<p>be able to prioritise and interpret investigations and treatment</p> <p>be able to formulate a differential diagnosis</p> <p>be able to recognize other conditions with similar presentations including cardiac causes</p>		
Pneumonia	understand the principles of management of community-acquired pneumonia according to local antimicrobial resistance	be able to recognize the patient requiring admission and possible ventilatory support		
Pertussis	understand the age-dependent presentations and indications for admission	<p>be able to initiate appropriate treatment of patient and contacts</p> <p>be able to identify those at risk of life-threatening complications</p>		