

## COPD Units of Learning

<p>Title of overarching NOS: <b>HCS 5 Investigate the structure function or performance of an organ or physiological system</b></p>	<p>Unit of learning to demonstrate competence: <b>Perform overnight oximetry</b></p>
<p>Details of the relationship between the unit to demonstrate competence and relevant national occupational standards (if appropriate)</p>	<p>Users will be able to demonstrate competence in carrying out overnight oximetry recordings on adult patients with COPD and other respiratory diseases to measure overnight oxygen saturation and pulse rate</p> <p>This may be undertaken at home, in a hospital unit or on a ward</p> <p>It may be undertaken in isolation or as part of a range of investigations, serial measurement, checking therapeutic response/adequacy</p>
<p>Outcomes: The individual will know and understand:</p>	<p>Assessment criteria To be competent the individual will be able to:</p>
<p>Indicative Level</p>	<p>Level 1 (Expert/specialist) Level 2 (Experienced practitioner) Level 3 (Novice new to respiratory disease management (including COPD))</p>
<p>The presenting conditions of COPD and other respiratory diseases and relevant co morbidities that may affect overnight oximetry measurements</p>	<p>Describe how the stages of COPD and/or other respiratory diseases may affect oxygen saturation</p> <p>Clearly explain the stages of sleep and respiratory physiology during wake and sleep</p> <p>Demonstrate an understanding of sleep apnoea / cheyne-stokes respiration, which may also occur in patients with COPD and other respiratory diseases</p>
<p>The relevant codes of practice and guidelines related to the management of individuals with COPD and/or other respiratory diseases undergoing overnight oximetry measurements</p>	<p>Demonstrate the application of relevant codes of practice, local or current guidelines and any published guidelines and tools for overnight oximetry monitoring of individuals with COPD and/or other respiratory diseases</p>

<p>The importance of confirming patient identify, consent and purpose of investigation</p>	<p>Confirm the individuals identify, consent (if required locally) and purpose of investigation</p> <p>Explore with the individual how they have been affected by their condition</p> <p>Obtain relevant patient history and clinical details, including results of other relevant investigations, symptoms and medication</p>
<p>The importance of assessing and monitoring risk factors during overnight pulse oximetry monitoring</p>	<p>Assess the risks to the individual which may result from overnight oximetry monitoring and take appropriate action(s) to minimise and/or remove the risks</p>
<p>The use of overnight oximetry in an individual's COPD and/or other respiratory disease care management plan</p>	<p>Define and explain the common terms used in measuring oxygen saturation</p> <p>Work collaboratively with the individual to identify factors from them that may influence the test results including sleep history, medication, non pharmaceutical medication, poor circulation and wearing of nail polish</p> <p>Clearly explain how these may influence the validity and reliability of the data</p> <p>Clearly explain how the results of overnight oximetry will influence their care management plan</p>
<p>The range and type of oximetry equipment, its correct and safe use, capabilities and limitations for overnight testing</p>	<p>Demonstrate effective use of the equipment throughout the procedure and perform pulse oximetry in accordance with local protocols.</p> <p>Demonstrate ability to correctly download study data</p> <p>Confirm suitability of environment for investigations, including light, temperature comfort and background noise levels</p>
<p>The health, safety and infection control measures required</p>	<p>Apply standard precautions for infection control and other relevant health and safety measures</p> <p>Check the equipment is clean and fit for use</p> <p>Demonstrate the appropriate infection control protocols prior to, during and after the procedure</p> <p>On completion of investigation, disconnect and clean equipment ready for next patient use</p>

<p>How to apply effective use the pulse oximetry device, the principles of operation, analysis of results, limitations and factors which may affect accuracy</p>	<p>Select suitable probe, site probe placement and check signal strength</p> <p>Connect the equipment in the approved safe manner</p> <p>Check the individuals identity and obtain relevant information pertinent to the overnight oximetry test</p> <p>Check the information and instructions regarding the pre test preparation for the individual was received, understood and followed prior to undertaking overnight pulse oximetry</p> <p>Check the pre test information was sent and understood by the individual</p> <p>Instruct the individual clearly and confirm their understanding for the need for compliance</p> <p>Position recording devices correctly and confirm quality and validity of signal</p> <p>Attach device to the individual and record baseline measurement of SP02 and pulse rate</p> <p>Educate patient/carer on performing study, especially if study to be performed in a domiciliary setting.</p> <p>Ensure date and time on oximeter recording device are correct</p>
<p>The calibration and quality assurance measurements required for pulse oximetry procedures</p>	<p>Confirm the operational and quality status of the selected measuring device and be able to explain the main principles of its operation</p> <p>Clearly show an understanding of the limitations of overnight oximetry recording</p>

<p>The implications and relevant action for pulse oximetry results below expected levels for adults with COPD and/or other respiratory diseases</p>	<p>Obtain and record acceptable measurements of oxygen saturation sufficient to assist assessment and management of an individual with COPD and/or other respiratory diseases</p> <p>Demonstrate understanding of possible treatment options for patients with COPD and other respiratory diseases, including oxygen therapy and non-invasive ventilation (NIV/CPAP) and possible need for follow-up studies</p> <p>Demonstrate knowledge of sleep apnoea, hypoxia, respiratory muscle weakness and nocturnal hypoventilation, and describe how these may be diagnosed using overnight oximetry.</p>
<p>How to recognise an individual's low oxygen level and how to correct this in a safe and efficient manner</p>	<p>Review the individual's oxygen saturation level prior to and during overnight oximetry</p> <p>Take appropriate action based on the individuals needs and emerging data to optimise results and level of risk during the overnight oximetry</p>
<p>How to interpret results within personal level of competence</p>	<p>Outline the timescales for testing and monitoring intervals on individuals undergoing overnight oximetry in line with local and national guidelines</p> <p>Correctly identify periods of artefact during recordings and take appropriate action(s)</p> <p>Correctly interpret oxygen saturation levels and take the required action based on the results obtained and your level of competence</p> <p>Create a report that clearly states the individual's name and other relevant demographic details and any other comments that may affect interpretation</p> <p>Describe how to recognise possible sleep apnoea and the need for further study / investigations as appropriate</p>
<p>How to handle information and maintain the confidentiality of records</p>	<p>Record information in line with organisational requirements and maintain the rights of individuals and principles of confidentiality</p>

How to communicate effectively	<p>Check the pre test information, instructions and pre test preparation were received, understood and followed prior to undertaking overnight pulse oximetry</p> <p>Communicate effectively with the individual prior to the procedure to aid their understanding and compliance to achieve high quality results</p> <p>Communicate with professional colleagues in a timely manner, style and format to meet the needs of the individual</p>
How to refer individuals to appropriate services	<p>Seek advice and support from competent individuals whenever the procedure, data or area of expertise is outside your level of competence</p>
Endorsement of the unit by a sector or other appropriate body (if required)	COPD Strategy Group/DH England; respiratory education providers