

Respiratory Specialist Placement

Welcome to the respiratory specialist placement. This is a unique placement where you will get to look at all the specialist areas throughout the respiratory field. This is an exciting opportunity for you to work with our regional tertiary services and collaborative MDT, to see how we look after the most complex respiratory patients. You will be given lots of learning opportunities to expand your knowledge and work within our teams.

These areas include our regional Ventilation team, which is Physiotherapist, consultant and nurse led. The ventilation team work on the ward with in patients, run out patients clinics and visit patients out in the community. This will give you an excellent opportunity to follow patient care through all aspects of their journey.

The Asthma/Airways regional team, which are consultant, nurse, physiotherapist, psychology and speech and language therapy led. Here you will be able to see complex airways and asthma patients and how national MDT's can help to manage these patients.

The ILD team is run by a consultant and nurses. You will have an opportunity to see the new and different treatments that are available to manage the symptoms of this disease. COPD

The COPD team is consultant, nurse and physiotherapist led. Their role is to see acute in patients with COPD and to attend ED to try and prevent hospital admissions. They liaise with the community COPD team to ensure continuity of care.

The TB team consists of a consultant and nurse. Tuberculosis (TB) service is involved with diagnosis and management of patients with Tuberculosis, both active disease and latent infections. TB is a notifiable disease and therefore has legal requirements attached to the condition. Patients often have complex lifestyles and often require multi agency liaison. There is a community service also available for students to access.

The oxygen team is nurse led. Here you can learn the criteria for requiring oxygen, the safety aspects around prescribing oxygen as well the contraindications around it. The nurse works in outpatient clinics as well as in the community. She also deals with hospital discharge requests for oxygen.

We are asking each our students to complete this booklet prior to commencing your placement, to ensure you have a basic knowledge and understanding about the respiratory system. You will then look in to the specific specialities and answer questions within that area. Don't worry if you do not understand some of the questions or answers you research, we will go through this with you in more detail during your placement.

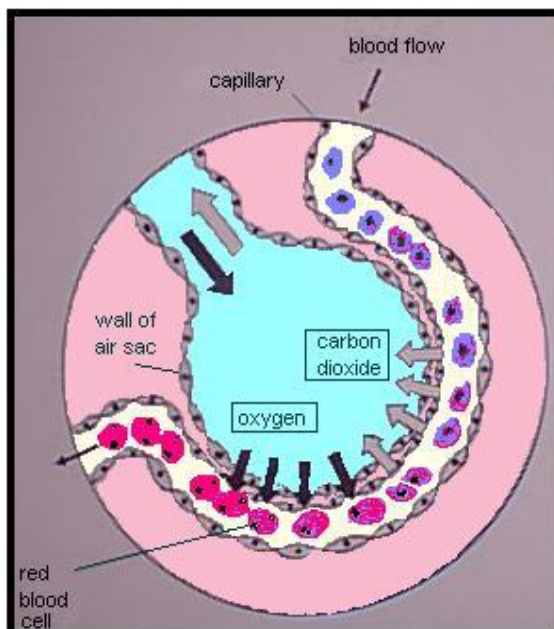
The respiratory system works alongside the circulatory system to provide our bodies with oxygen and to remove carbon dioxide.

We hope you enjoy this placement and look forward to you feedback.

The Respiratory system

The upper respiratory tract's function is to warm, filter and humidify the air that we breathe in.

The lower respiratory tract's function is to breathe in air and enable the oxygen to be diffused to the blood cells, so that they can transport the oxygen around the body. The lower respiratory tract also absorbs the waste gas of metabolism, carbon dioxide from the blood cells back in to the lungs to be exhaled. This process is called gas exchange.

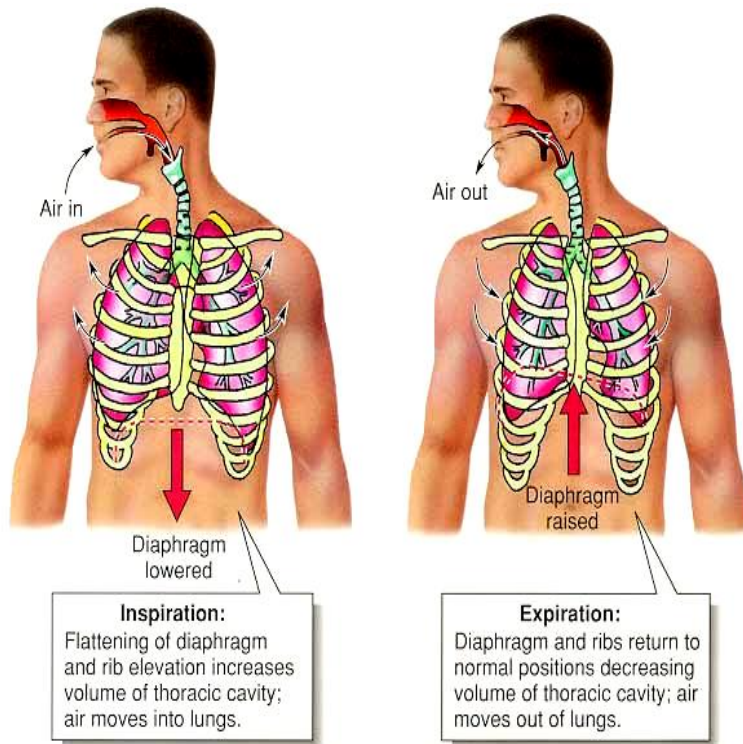


respiratory failure

- In addition to fresh gas & movement of the pulmonary muscles, alveolar units must have blood going past alveolar sac
- Combination of fresh gas & blood allows for gas exchange to occur
- Healthy gases into the system waste gases remove
- Waste gases removed
- Poor gas exchange leads to

The respiratory muscles that assist with breathing are the diaphragm and chest wall muscles. The Diaphragm contracts and moves down, causing air to be dragged in to the lungs. This causes a negative pressure within the lungs. The

diaphragm then relaxes and moves upward causing air to move out of the lungs.

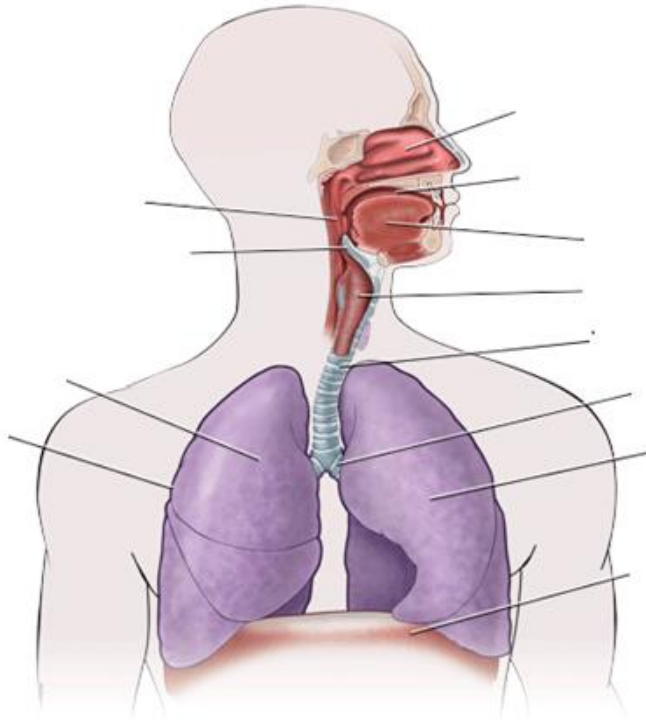


Do you know your respiratory system?

We would like to see how good your current respiratory knowledge is, so try to label the respiratory system below. No Google allowed so no cheating please



The Respiratory System



Pharynx

Nasal Cavity

Pleura

Right Lung

Tongue

Larynx

Epiglottis

Oral cavity

Diaphragm

Left Lung

Bronchus

Trachea

Ventilation Team

1. What is Type 1 respiratory Failure?
2. What is a type 2 respiratory failure?
3. Name 5 different diagnoses of patients who may require NIV
4. What is the difference between CPAP and BIPAP?
5. Why is humidification important?

6. Please circle which of the following are advantages of using a nasal mask for non-invasive ventilation? I. Less risk of aspiration; II. Less claustrophobia; III. Greater dead space

- I
- I and II
- II and III
- I, II and III

7. Which of the following might be contraindications for a patient for non-invasive ventilation?

- The patient is unable to protect his/her airway
- The patient has respiratory acidosis.
- The patient has tachypnea.
- The patient has COPD

8. Why might a nasogastric tube interfere with the effectiveness of mask ventilation?

- It is easier to achieve a mask seal if a gastric tube is in place
- The patient might develop aerophagia.
- The patient might suffer from facial skin breakdown
- A nasogastric tube may increase resistance to nasal gas flow.

Asthma and Airways

1. Please describe in a short paragraph your understanding of asthma.
2. Please give 2 examples of asthma phenotypes.
3. Please give an example of a current guideline used within the NHS and very briefly describe its purpose?
4. Please give 2 examples of the following
 - a) Inhaled corticosteroids
 - b) Combination/preventer inhalers
 - c) Short acting beta 2 agonists
 - d) Long acting beta 2 agonists

5. Please list 4 main symptoms that should always be considered in an asthma assessment/diagnosis

6. Please list 3 things to support diagnosis of asthma.

7. Why do asthma attacks often happen at night?

8. Please define the abbreviation ILO within Airways assessment.

9. Please define the abbreviation BPD within Airways assessment.

10. Please briefly explain a useful resource that may be helpful to a newly diagnosed adult? Please consider recommendations within current guidelines

ILD Student Questions

1. List 3 Types of Medication used to treat ILD?
2. What are the main symptoms of ILD?
3. List the tests used to aid diagnosis of ILD?
4. What is the Definition of ILD?
5. There are 100 types of ILD –please list the 3 most common?
6. Describe the difference between ILD and IPF?

7. What is the prognosis for a Patient with IPF?

8. What are the treatment options for IPF?

COPD Questions

1. What does COPD stand for?
2. Does emphysema affect the Bronchi or Alveoli ?
3. State the 3 main causes of COPD
 - i) _____
 - ii) _____
 - iii) _____
4. State 3 symptoms of COPD
 - i) _____
 - ii) _____
 - iii) _____
5. How do we diagnose COPD?
6. What are the 4 stages of COPD?

7. What is the most effective evidence based non pharmacological treatments for COPD? (state 2 treatments)

8. Inhalers are the most common pharmacological treatment used for COPD, please state the role of the **Reliever** and **Preventer** inhaler in management of symptoms.

9. Name 3 inhalers that you have come across in your training.

10. What do the following abbreviations stand for?
 - i) SABA

 - ii) SAMA

 - iii) LABA

 - iv) LAMA

 - v) LABA/LAMA

 - vi) LABA/LAMA/ICS

Tuberculosis (TB)

1. Which of these things can spread TB, coughing, sneezing, spitting, kissing, touching, sharing cups or other items, drinking unpasteurised milk?
2. Is TB a bacteria or virus?
3. What connects the Beatles to TB?
4. What other name was Tuberculosis known as in the past?
5. Which part of the body can't you get TB in: lungs, knee, spine, lymph nodes, heart, skin, and eye?
6. Which actress's character died of TB in *Moulin Rouge*?
7. If you have been cured of TB, can you get it again?
8. Does having a BCG guarantee you won't get TB for life?

9. If you spend a lot of time with someone with infectious TB, will you definitely catch it?

10. How long is the normal treatment regime for TB meningitis?

11. Can you be a TB carrier without being ill yourself?

12. What is the microbiological name for TB?

13. Can treatment be given during pregnancy?

14. What are the 4 first line drugs used to treat TB?

15. What routine investigations are used to diagnose TB?

Oxygen Team

Home Oxygen Service – Assessment and Review

- 1) Name 5 conditions that might require Long Term Oxygen Therapy

- 2) Why might Ambulatory Oxygen Therapy help patients ?

- 3) What can happen to the body as a result of prolonged hypoxia ?

- 4) Name a safety concern with Oxygen in the community

- 5) What does recent NICE guidance say about Oxygen Therapy and current smokers?

- 6) What is ankle swelling a sign of?

Label the arrows

ALVEOLUS GAS EXCHANGE

