**Assignment**

**Course Title: Human Physiology Instructor: Dr Sara Naeem Total Marks: 80**

***Laiba hashmat ID: 16394***

1. Explain any respiratory disease of your own choice. You have to write signs and symptoms, chest X-ray and treatment as well.

***Answer:***

***Pneumonia***

* *Pneumonia is a repiratory disease that inflames the air sacs in one or both lungs.*
* *The air sacs may fill with fluids or pus causing cough with phlegm, fever , chills and difficulty in breathing.*
* *A variety of organisms including viruses, fungi can cause pneumonia.*
* *It is more serious for infants and young children.*
* *And for people older than 65 and people with health problems or weakened immune system.*
* *The germs that cause pneumonia are contagious.*
* *So they can spread from person to person.*
* *Both viral and bacterial pneumonia can spread to others through inhalation of airborn droplets from a sneeze or cough.*

***Symptoms:***

* *Coughing that produce phlegm*
* *Fever*
* *Sweating or chills*
* *Shortness of breath*
* *Chest pain*
* *Feeling of tiredness or fatigue*
* *Loss of appetite*
* *Nausea and vomiting*
* *Headaches*

***Causes of pneumonia:***

* *There are several types of infectious agents tat can cause pneumonia.*

***Bacterial pneumonia:***

* *The most common cause of bacterial pneumonia is streptococcus pneumonia.*

***Viral pneumonia:***

* *Respiratory viruses are often the cause of pneumonia. Some examples are:*
* *Influenza*
* *Respiratory syncytial virus*
* *Rhinoviruses*

***Fungal pneumonia:***

* *Viruses which cause fungal pneumonia include :*
* *Pneumocystis jirovecii*
* *Cryptococcus species*
* *Histoplasmosis species*

***Chest x ray:***

* *Pneumonia is caused by bacteria, viruses , mycoplasmae and fungi.*
* *The x ray finding of pneumonia are airspace opacity, lobar consolidation or interstitial opacities.*
* *X ray can be misleading because other problems like lungs scarring and congestive heart failure can mimic pneumonia on x ray.*
* *Chest x ray findings are usually nonspecific in viral pneumonia.*
* *A chest x ray also helps to determine pleural effusions or cavitations as a possible complication.*

***Treatment:***

* *Treatment for pneumonia involves curing the infection and preventing complications.*
* *People who have community acquired pneumonia usually can be treated at home.*
* *Specific treatment depends on the type of pneumonia .*
* *The options include;*
* *Antibiotics*
* *Cough medicine*
* *Pain relievers*

1. Take any disease of blood. Give blood tests and their results. What will be the management of the disease( treatment)

***Answer:***

***Hemophilia:***

* *Hemophilia is a rare disorder in which your blood doesn’t clot normally because it lacks sufficient blood clotting proteins.*
* *If you have hemophilia you may bleed for a longer time after an injury than you would if your blood clotted normally.*
* *If a person have severe deficiency of clotting fctor protein the greater health concern is deep bleeding inside your body especially in knees, ankles and elbows.*
* *That internal bleeding can damage your organs and tissues and may be life threatening.*
* *It is a genetic disorder.*
* *That condition is typically caused by a hereditary lack of coagulation factor.*
* *There are two main types of haemophilia:*
* *Haemophilia A which occurs due to low amounts of clotting factor viii*
* *Heamophilia B which occurs due to low level of clotting factor IX.*

***Blood tests and their results:***

*Blood tests that are used to determine if the blood is clotting properly are called screening tests.*

*Types of screening tests are complete blood count, activated partial thromboplastin time test, prothrombin time test and fibrinogen test.*

***Complete blood count:***

* *This test measures the amount of haemoglobin, the size and numbers of red blood cells, and the number of white blood cells and platelets in the blood.*
* *CBC results are normal in people with haemophilia but there is decrease in haemoglobin and Rbcs in the case of heavy prolonged bleeding.*

***Activated partial thromboplastin time test:***

* *This test measures the delay in blood clot formation and the clotting ability of factors VIII. IX, XI, and XII.*
* *If any of the clotting factors are too low it takes longer for the the blood to clot.*
* *Patients with haemophilia A and haemophilia B show a longer clotting tim e in this test.*

***Prothrombin time test:***

* *This test also measures the time it takes for the blood clot to form.*
* *It measures the clotting ability of factors I, II, V, VII and X.*
* *If any of these factors are too low it takes longer than normal for the blood to clot.*
* *The results of this test will be normal for patients with haemophilia A or haemophilia B since these conditions are caused by defects in factors VIII and IX.*

***Fibrinogen test:***

* *Fibrinogen test assesses the patient’s ability to form a blood clot.*
* *This test is performed along with other blood clotting tests or when patients has an abnormal PT or APTT test results.*

***Treatment:***

* *There is no long term cure. Prevention of bleeding is done primarily by replacing the missing blood clotting factor.*
* *In severe haemophilia preventive use is often recommended two or three times a week and may continue for life.*
* *Rapid treatment of bleeding episodes decreases damage to the body.*
* *Factor replacement can be either isolated from human blood serum, recombinant or a combination of the two.*
* *Desmopressin may be used in those with mild haemophilia A.*
* *Tranexamic acid or epsilon aminocaporic acid may be given along with clotting factor to prevent breakdown of clots.*
* *Pain medicines, steroids and physio therapy may be used to reduced pain and swelling in an affected joint.*
* *The most effective treatment is corticosteroids which removes the auto antibodies in half of people.*