**Assignment**

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

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

**ANS:PNEUMONIA:** Pneumonia is an respiratory disease.

Pneumonia is an infection that causes inflammation in one or both of the lungs. It can be caused by virus, bacteria, fungi or other germs.

The infection is usually acquired when a person breathes in air carrying germs.

**SIGN AND SYMPTOMS:** Patient with pneumonia could have the following symptoms:

* Cough that produces phlegm or sometimes blood.
* Fever.
* Shortness of breath or difficulty breathing.
* Chills or shaking.
* Fatigue.
* Sweating.
* Chest or muscle pain.
* Nausea and vomiting, especially in small children.
* Confusion, especially in older people.
* Low energy.
* Fast hear beat.
* Diarrhea.
* Sweating.
* Headache.
* Dusky or purplish skin color, or cyanosis, from poorly oxygenated blood.

**CHEST X-ray:** chest x-ray is one of the test that may be ordered to evaluate for pneumonia;

* An x-ray exam will allow your doctor to see your lungs, heart and blood vessels to help determine if you have pneumonia.
* When interpreting the x-ray, the radiologist will look for white spots in the lungs (called infiltrates) that identify an infection.
* This exam will also help determine if you have any complications related to pneumonia such as abscesses or pleural effusions (fluid surrounding the lungs).

**TREATMENT OF PNEUMONIA:**

Treatment depends on the type and severity of the pneumonia.

* Bacterial types of pneumonia are usually treated with antibiotics.
* Viral types of pneumonia are usually treated with rest and plenty of fluids. Antiviral medications can be used in influenza.
* Fungal types of pneumonia are usually treated with antifungal medications.
* Doctors commonly prescribe over the counter (OTC) medications to help manage the symptoms of pneumonia. These include treatments for reducing fever, reducing aches and pains, and suppressing coughs etc.

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

**ANS: ANEMIA:**

Anemia is a blood disease that occurs when there are not enough healthy red blood cells to carry oxygen to your body’s organs. The cells travel with iron and hemoglobin, which is a protein that helps carry oxygen through the bloodstream to your organ all through the body.

**BLOOD TESTS AND THEIR RESULTS:**

* The first test used to diagnose anemia is a complete blood count (CBC). The CBC measures many parts of your blood.
* The test checks your hemoglobin and hematocrit levels.
* Hemoglobin is the iron rich protein in red blood cells that carries oxygen to the body.
* Hematocrit is a measure of how much space red blood cells take up in your blood.
* A low level of hemoglobin or hematocrit is a sign of anemia.
* The normal range of these levels might be lower in certain racial and ethnic populations. your doctor can explain your test results to you.
* The CBC also check the number of red blood cells, white blood cells, and platelets in your blood. Abnormal results might be a sign of anemia, another blood disorder, an infection, or another condition.
* If the CBC results show that you have anemia, you may need other tests, such as;
* Hemoglobin electrophoresis. This tests look at the different types of hemoglobin in your blood. The test can help diagnose the type of anemia you have.
* A reticulocyte count. This test measures the number of young red blood cells in your blood. The tests shows whether your bone marrow is making red blood cells at the correct rate.
* Test for the level of iron in your blood and body. These tests include serum iron and serum ferritin tests. Transferrin level and total iron-binding capacity tests also measures iron levels.
* Because anemia has many causes, you also might be tested for conditions such as kidney failure, lead poisoning (in children), and vitamin deficiencies (lack of vitamins, such as B12 and folic acid).

**MANAGEMENT OF ANEMIA:**

Anemia treatment depend on the cause.

* **Iron deficiency anemia:** treatment for this form of anemia usually involves taking iron supplements and changing your diet.
* If the cause of iron deficiency is loss of blood- other than form menstruation- the source of the bleeding stopped. This might involve surgery.
* **Vitamin deficiency anemia:** treatment for folic acid and vitamin C deficiency involves dietary supplements and increasing these nutrients in your diet.
* **Anemia of chronic disease:** there is no specific treatment for this type of anemia. doctors focus on treating the underlying disease. If symptoms become severe, a blood transfusion or injections of a synthetic hormone normally produced by your kidneys (erythropoietin) might help stimulate red blood cells production and ease fatigue.
* **Aplastic anemia:** Treatment for this anemia can include blood transfusions to boosts levels of red blood cells. You might need a bone marrow transplant if your bone marrow can’t make healthy blood cells.
* **Anemia associated with bone marrow disease:** treatment of these various diseases can include medication, chemotherapy or bone marrow transplantation.
* **Sickle anemia:** treatment might include oxygen, pain relievers, and oral and intravenous fluids to reduce pain and prevent complications. Doctors might also recommend blood transfusion, folic and supplements and antibiotics.
* A cancer drug called hydroxyurea (Droxia, Hydrea, Siklos) also is used to treat sickle cell anemia.