**Respiratory System - Functions**

**Body system that brings oxygen from the air into the body for delivery via the blood to the cells
Exchanges of gases O₂ & CO₂ between the atmosphere and the cells of the body
Ventilation is the term used to describe the bringing in of fresh air**

**Upper Respiratory**

**Nostrils, nose nasal cavities, pharynx, and larynx**

**Upper Respiratory Conditions**

**These condition in animals are mainly caused by infectious agents that produce clinical sign such as congestion and coughs.**

**Lower Respiratory**

**Trachea, bronchi, bronchioles, and alveoli**

**Lower Respiratory Conditions**

**These conditions include asthma (chronic inflammatory disease of the airways), bronchitis (inflammation and possible infection of the bronchi), pneumonia (inflammation of the lungs caused by microorganisms) and chronic obstructive pulmonary disease of COPD (a slow progressive disease of the airways resulting in loss of lung function)**

**Drugs used in respiratory system are**

**1.Bronchial dilator**

**2.Expectorants**

**3.Mucolytics**

**4.Respiratory stimulants**

**5.Respiratory depressants**

**6.Cough depressants**

**7.Respiratory system anthilmentics**

**8.Pulmonary antiseptics**

**1.Bronchial dilators: These drugs used to dilate the bronchial,and called also bronchial anti spasmodic,which causes relaxation of bronchial muscles as following**

**A.Drugs act at the end of the vagal nerve in the muscles as belladonna,hyoscyamine.**

**B.Drugs stimulate the vagal nerve (at the vagal gangia) as ephedrine.**

**C.Drugs block the vagal ganglia as(lobeline sulphate).**

**D.Drugs act directly on the bronchial muscles as(Nitrites).**

**2.Expectorants: These drugs increase the fluidity and volume of respiratory secretion ,and help the cough processes and relief pain.**

**They ar divided according to their administration and the site of effect to:**

**A.Local expectorant,which induce direct effect in mucus membrane of the respiratory tubes.**

**1.Given as inhalation:and called INSPIRED e.g steam ,terebene,Eucalyptus,Benzoin,or iodine vapor.**

**2.Given through their excretion via mucus membrane cells as in case of volatile oil,or potassium or sodium iodide.**

**B.Reflex expectorant: These causes irritation of esophagus , stomch and accompanied by more excretion of the bronchiols.e.g.ammonia chlorides or carbonate ,and emetic expectorant e.g,aquil,ipecacauna,and balsam tolu.**

**Inhalants:these used widely in Vet,Med.As Benzoin, Eucalyotus,Terebene.**

**3.Mucolytics agent:these drugs used to decrease the viscosity of the excretion as in case inspissated pulmonary secretion ,which help in expectoration (used as Aresole)**

**Drugs which used are :Acetylcystein ,Pancreatic dornase ,Bromhyxine.**

**4.Respiratory stimulants: these drugs stimuated the respiratory center in case of inhibition by anesthesia e.g.Picrotoxine, caffeine,nikthamide.**

**5.Respiratory Depressants: e.g. Morphine,Barbiturates**

**6.Cough depressants(anti tussive): e,g. Codaien phosphate,can get it from opium Dextromethorphane which used as anti tussive**

**Benzonalate which used to relief cough.**

**7.Respiratory system anthelmintics:Lung parasites in cow and sheep causes lossin economy,These drugs used intratracheal injection for many years ,but it has side effects.**

**Now aday using the active immunization by seroogical methods ,by living vaccine of the larvae.**

**8.Pulmonary antiseptic: e.g. creosote,gualacol,eucalyptus oil.menthol.**