Case-Base Review and Updates in Pulmonary Disease and Chest Trauma

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Key Words

Alveoli – the end (terminal unit) of the airway, this small air sac is surrounded by a network of capillaries to allow for gas exchange

Capillary – thin blood vessel that allows for diffusion of gas across the cell wall

Edema – an excess of fluid within the interstitial space, outside of cells and blood vessels

Effusion – an excess of fluid within a body cavity

Embolism – a blood clot that travels from elsewhere in the body and lodges within a vessel, halting blood flow past the point of obstruction

Pleura – the space between the lung and chest wall, consists of two layers: visceral, against the lung, and parietal, against the chest wall. An average of 10-20mL of fluid provides cushion and lubrication between these two layers

Pleural effusion – a collection of fluid outside of the lung tissue in the pleural space, can cause compression of the lung and inhibit ventilation and perfusion

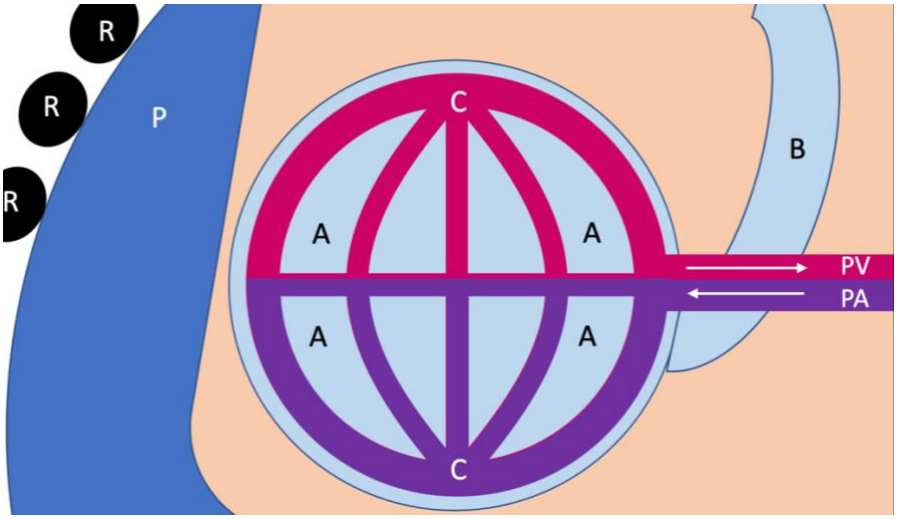
Pneumothorax – a collection of air outside of the lung tissue in the pleural space, can cause compression of the lung and inhibit ventilation and perfusion

Pulmonary artery – blood vessel that carries oxygen-poor blood away from the heart to the pulmonary capillaries for gas exchange

Pulmonary edema – excess fluid collects within the alveoli, preventing the diffusion of gas across the

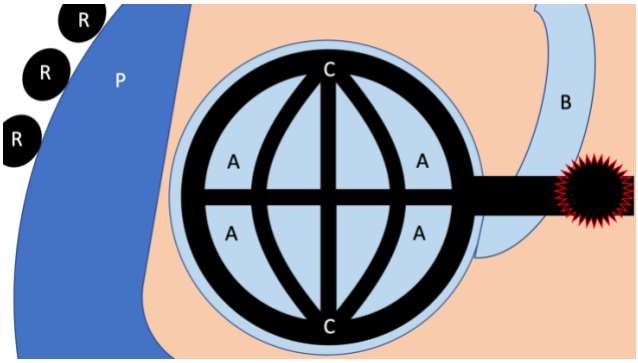
Pulmonary embolism – a clot in the pulmonary artery prevents blood from reaching the lungs and capillaries, preventing gas exchange and inducing hypoxia

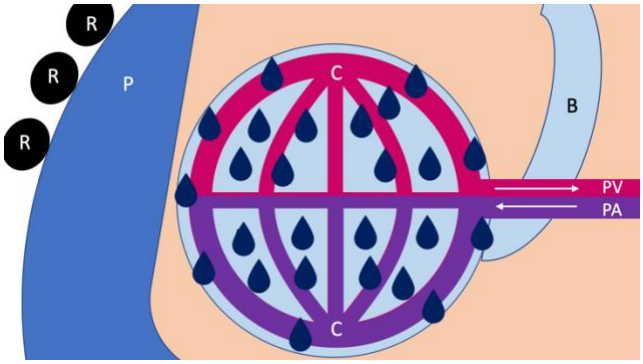
Pulmonary vein - blood vessel that carries oxygen-enriched blood towards the heart and away from the pulmonary capillaries

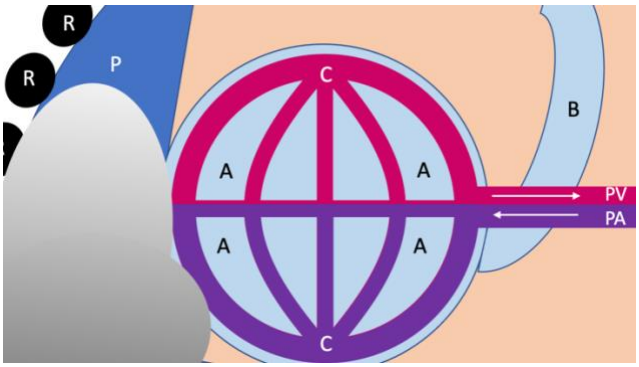


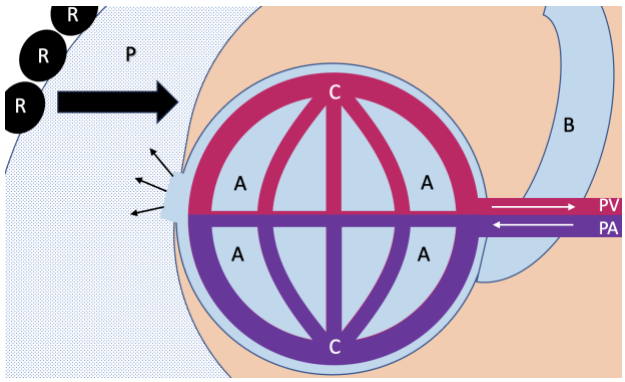
Basic Overview of Pulmonary Anatomy and Physiology

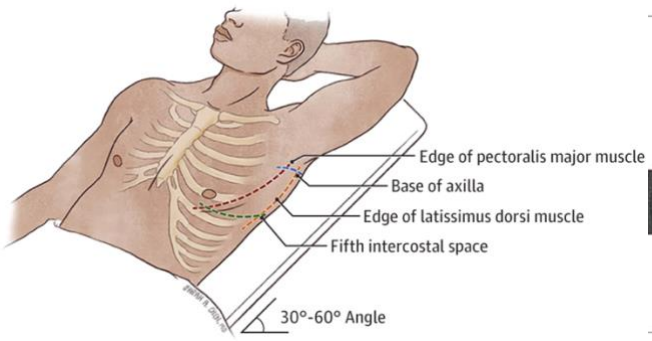
A = Alveoli, B = Bronchiole, C = Capillary, PA = Pulmonary Artery, PV = Pulmonary Vein, P = Pleura, R = Rib

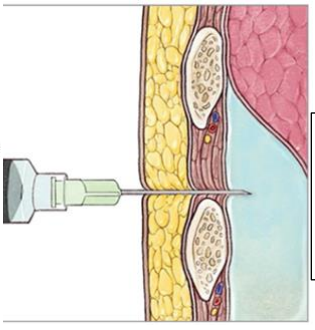












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