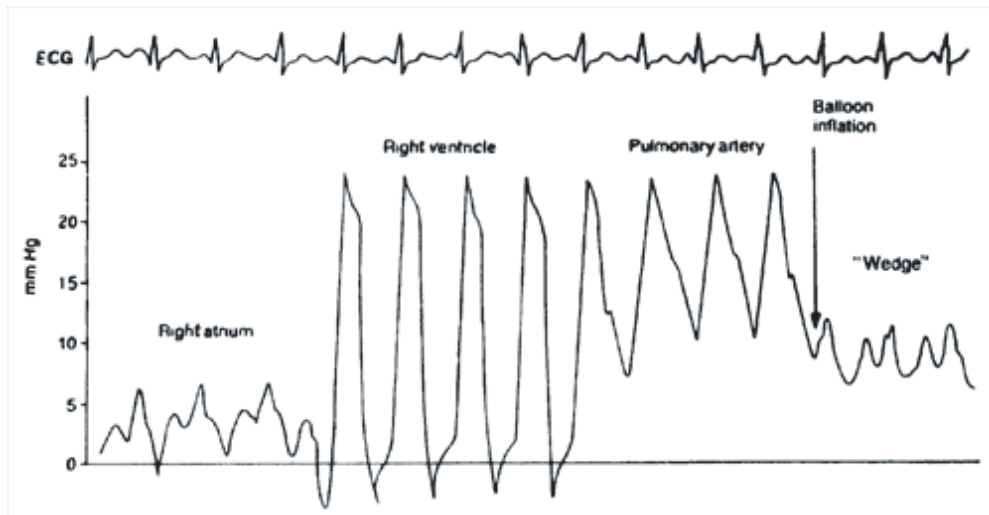


What is the normal pulmonary artery pressure, and which factors will increase the pulmonary artery pressure?

Subsequent questions asked about factors that increase pulmonary artery pressure, drugs used to treat pulmonary hypertension and their mechanism of action, advantages of NO over other drugs, how pulmonary artery pressure may be measured at the bed side, how to determine Pulmonary Vascular Resistance.

“Please draw a trace of the pressures recorded as you float the tip of a swan-ganz catheter into the PA”



“What factors affect the pulmonary artery pressure?”

the lung is a low pressure, low resistance system about 1/6th the pressure of the systemic circulation
 $\text{pulmonary artery pressure} = \text{flow} \times \text{resistance}$
 passive changes

generally an increase in flow results in an increased resistance, but two factors reduce this
 recruitment will result in un-used pulmonary vessels filling with blood
 distension will stretch the patent blood vessels also
 when these two factors are exhausted increased CO leads to increase PAP
 the effects of lung inflation also affect the pulmonary vascular resistance and hence the PAP
 represented by the intra-alveolar versus extra alveolar graph

active changes

include hypoxic pulmonary vasoconstriction
 adrenergic control of the vasculature
 the effect of NO (the lungs vasculature is believed to act in a permanent state of vasodilation)

“What drugs are used in the treatment of pulmonary hypertension?”

simple therapies initially - Ca Channel blockers, diuretics (reduce RV load), anticoagulants
 more aggressive therapy later seen below

