#### MRS.RAJESWARI.R

### PROFESSOR

# ICON

### Alteration in oxygenation



# Alteration in cardiac functioning:

- Disturbance in condition: the rhythm disturbances of the conduction are known as dysrhythmia, meaning deviation from the normal sinus rate rhythm .common basic dysrhythmias:
- Sinus tachycardia: regular rhythm, rate 100-180 beats/minute, normal p wave, normal qrs complex.
- Sinus bradycardiya: regular rhythm, rate less than 60 beats/minute, normal p wave, normal PR interval, normal qrs complex
- Sinus dysrhythmia: sinus rhythm with cyclic variation slows during inspiration and increase with expiration, rate of 60-100 beats/minute, normal P wave, normal PR interval, normal qrs complex.

- Atrial fibrillation: no identifiable p waves, irregular cardiac rate and rhythm.
- Premature ventricular contraction: irregular rhythm with ectopic beats, rate normal or increased ,p wave absent in ectopic beat ; PRinterval absent ,qrs complex widened and distorted wave in opposition to r wave.
- Ventricular tachycardia: rhythm slightly irregular, rate 100-200 beats/minute waves absent, PR interval absent, qrs complex wide and bizarre,>0.12 seconds.
- Ventricular: uncoordinated electrical activity. No identifiable p, q, r,s or t wave.
- 2. Altered cardiac out functions: when the blood volume gets decreased, the systematic and pulmonary circulation can result in heart failure. It may be right or left heart failure.
- 3. Impaired valvular functions: it may be congenital or acquired disease condition. When the lumen of the valves gets decreased, that condition is known as stenosis. When there is widening of valves that leads to regurgitation. It may be of any valve that is mitral or bicuspid, pulmonary, aortic valve etc.
- 4. Angina pectoris: it is a transient imbalance between myocardial oxygen supply and demand. The condition results in chest pain that is aching, sharp, tingling or burning or that feels like pressure.

5. Myocardial infraction: it results from sudden decrease in coronary blood flow or an increase in myocardial oxygen demand without adequate coronary perfusion. Infraction occurs because of ischemia and necrosis of myocardial tissuses.

# **Alteration in respiratory functioning:**

- Hyperventilation: it is a state of excessive ventilation that requires eliminating normal CO2 produced by cellular metabolism. It may be induced chemically, by anxiety, occurs as the body, tries to compensate for metabolic acidosis
  - The client may become agitated, have increased respiratory rate, respiratory alkalosis.
- Hypoventilation: it is a condition where there is less ventilation, not sufficient to eliminate CO2 produced by metabolic activities.
  Severe atelectasis can produce hypoventilation.
  In atelectasis, there is collapsing of lungs which leads to decreased oxygen entering into the lungs.
- Hypoxia: it is an inadequate oxygenation of the cells and tissue that leads to the necrosis of the tissue and ineffective functioning at the level. it can be caused by decreased haemoglobilin level decreased O2 concentration, poor tissue profusion, impaired ventilation.s