An Overview of Direct (Invasive) Blood Pressure Monitoring

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1. What is the formula used to estimate blood pressure
   a) \( BP = SVR \times CO \)
   b) \( BP = SVR \times HR \)
   c) \( BP = SVR \times SV \)
   d) \( BP = CO - SVR \)

2. What is cardiac preload?
   a) the strength or ability of the heart to contract.
   b) is the force against which the left ventricle must overcome for blood to leave the heart during contraction.
   c) the force acting to stretch the ventricle fibres at the end of diastole and is estimated to be the volume of blood in the ventricle at the end of diastole and therefore represents the blood volume remaining in the heart after contraction.
   d) the pressure exerted by blood on the wall of a blood vessel

3. What unit is blood pressure measured in?
   a) cmH20
   b) g/dl
   c) mmHg
   d) mmol/l

4. Vital organs such as the brain and kidneys have the ability to adjust blood supply for their metabolic needs through autoregulation of their vascular beds. This autoregulation is effective if the mean arterial blood pressure is between:
   a) 60 - 160 mmHg
   b) 40 – 60mmHg
   c) 60 – 90mmHg
   d) 100 – 120mmHg

5. Which of the list below is not a non-invasive method of monitoring blood pressure?
   a) Oscillometric
   b) Doppler
   c) High Definition Oscillometry (HDO)
   d) Direct BP monitoring
6. Which of the following arteries is not suitable for arterial blood pressure monitoring?
   a) Dorsopedal (most common)
   b) Femoral artery
   c) Jugular
   d) Metatarsal

7. Which one of the following is a disadvantage of arterial blood pressure monitoring?
   a) It displays a continuous, arterial pressure waveform
   b) Shows a continuous, direct measurement which is not distorted by hypotension or cardiac arrhythmias.
   c) cause vascular spasm and arterial occlusion in feline patients
   d) The arterial catheter can be used for sample collection for blood gas and acid-base analysis when measuring a patient’s arterial oxygenation and ventilation status

8. How can you help reduce arterial spasm during preparation and placement?
   a) Gentle handling when preparing the skin for catheter placement
   b) Use of topical anaesthetic cream
   c) Limit attempts to place the catheter
   d) All of the above