Physiological Monitoring in Stroke

Title: Physiological Monitoring in Stroke: Heart Rate
Version: 2.1

Heart Rate

Normal Heart Rate is between 50 and 80 beats per minute.

Monitoring Heart Rate

Heart rate may be measured by:

1. Radial or Brachial Pulse
2. Pulse Oximetry Devices
3. Cardiac Auscultation
4. ECG Monitoring

Methods 1) and 2) may be inaccurate when a patient has low blood pressure, poor cardiac output or is in Atrial Fibrillation

Carotid palpation should be avoided in patients following stroke.

Common causes of tachycardia in stroke patients include

- Arrhythmia e.g. Atrial Fibrillation.
- Pain.
- Stress or Anxiety.
- Rising Temperature.
- Impending hypotension.
- Internal Bleeding.
- Heart failure

Assess pulse manually to determine if regular.

Heart rate should be checked 2-4 hourly in the first 24 hours post stroke
- 4 hourly in the first week.
- 6-12 hourly thereafter.

If a significant tachycardia or arrhythmia is present consideration should be given to continuous monitoring.

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Managing new onset tachycardia in acute stroke.

Initial assessment
- Check blood pressure, temperature, respirations, oxygen saturation.
- Assess pulse to determine if regular.
- Assess for signs of bleeding, dehydration, hypovolaemia or infection.
- Assess for signs of pain distress or anxiety.
- If examination is normal repeat

Normal initial assessment & HR 85-100

Abnormal initial assessment or HR > 100

Reassess in 1 hour

Abnormal

Commence continuous ECG monitoring.
Commence hourly vital sign observations.
Inform doctor on duty.
Ensure IV line in situ.
Give Oxygen if O2 sat <92%.
Administer prescribed Paracetamol if pyrexic.

Normal
HR remains 85-100

Recommence Routine Obs