How to ensure patient observations lead to effective management of bradycardia

Bradycardia can be an indication of life threatening heart block or impending asystole. It is vital that nurses can detect and respond to this clinical sign.

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Bradycardia can be a normal physiological sign in fit young adults. However, in acute illness it may indicate life threatening heart block or precede asystole. This article outlines the assessment and management of patients with this condition.

Bradycardia is defined in an adult as a heart rate of <60 beats per minute (Resuscitation Council UK, 2006). Although it can be a normal physiological finding – for example, in fit young people (Gwinnutt, 2006) – and therefore require no treatment, in the healthcare setting it should always be considered abnormal until proved otherwise.

In acute illness bradycardia may be a feature of potentially life threatening atrioventricular (AV) (heart) block or a precursor of asystole (when the heart stops beating) (Resuscitation Council UK, 2006).

**CLINICAL SIGNS OF CRITICAL ILLNESS**

Tachypnoea, tachycardia, hypotension and altered level of consciousness are the adverse signs usually associated with critical illness, reflecting compromise of the body’s respiratory, cardiovascular and neurological functions (Nolan et al, 2005). Although less commonly associated with critical illness, bradycardia may also be a sign of deterioration and cannot be ignored.

It is, therefore, important to be able to

**FIG 1. SINUS RHYTHM**

**FIG 2. SINUS BRADYCARDIA**

**FIG 3. THIRD DEGREE AV BLOCK (COMPLETE AV BLOCK)**

**PRACTICE POINTS**

**COMPETENCIES**

- When measuring heart rate, nursing staff (including healthcare assistants) should be able to identify abnormal values, record results and assign trigger scores.
- Registered nurses should be able to interpret heart rate measurements and respond appropriately following local early warning score (EWS) escalation protocols if needed.
- They should be able to alter the frequency of EWS observations and intervene with basic treatment measures.
- If electrocardiogram monitoring is indicated, nurses should be competent at performing it (including knowledge of how the ECG machine works) (Department of Health, 2009).