Cardiac Diagnostics

Presentation guide

DC = Statement of the competence for a particular domain
E = Elements of the competence for a specific statement of competence
P = Performance criteria for competency; associated with a specific element of the competence

Domain of competence DC.16

Perform hemodynamic monitoring in a simulated clinical setting and diagnostics testing on patients in a clinical setting

E16.1 Perform electrocardiogram (ECG)

P16.1.1 Describe the electrical conduction system of the human heart
P16.1.2 Describe the clinical indications and applications for an ECG at rest and during exercise
P16.1.3 Distinguish between common causes of artifacts and corrective action
P16.1.4 Describe the basic functions and preparations for ECG recording and/or monitoring equipment including different placements of electrodes
P16.1.5 Prepare equipment and materials for ECG recording and/or monitoring in a clinical setting
P16.1.6 Prepare patient for ECG recording and/or monitoring in a clinical setting
P16.1.7 Perform ECG recording and/or monitoring of patient per hospital protocol in a clinical setting
P16.1.8 Assess quality of tracing before and during recording and correct common causes of artifacts that may interfere with the ECG
P16.1.9 Report and document observations of patient ECG recording and/or monitoring in a clinical setting

E16.2 Interpret electrocardiogram

P16.2.1 Assess heart rate and rhythm from an ECG recording or monitor display
P16.2.2 Distinguish between basic arrhythmias and likely causes
P16.2.3 Distinguish between a normal ECG and an abnormal recording and/or monitor display
P16.2.4 Analyze and interpret patient’s ECG tracings for rate and rhythm, including normal sinus rhythm and common dysrhythmias in a clinical setting
P16.2.5 Apply corrective action and/or report the observation of an arrhythmia on a patient in a clinical setting
P16.2.6 Report and document observations and interpretations in the patient’s chart in a clinical setting
E16.3  Set-up and calibrate equipment for invasive hemodynamic procedures (e.g., pulmonary artery catheter, arterial lines)

- P16.3.1 Distinguish the equipment and accessories essential for invasive hemodynamic procedures
- P16.3.2 Describe the calibration of the equipment utilized for invasive hemodynamic procedures
- P16.3.3 Describe the technical and procedural complications associated with invasive hemodynamic set-ups
- P16.3.4 Prepare the set-up and calibrate equipment for invasive hemodynamic procedures per protocol in a simulated clinical setting

E16.4  Interpret hemodynamic data

- P16.4.1 Describe the measured/calculated (non-invasive) hemodynamic parameters
- P16.4.2 Describe the measured/calculated (invasive) hemodynamic parameters
- P16.4.3 Distinguish between hemodynamic pressure waveforms
- P16.4.4 Describe how to obtain invasive cardiac output measurements
- P16.4.5 Describe the ventilatory effect on the various pulmonary hemodynamic pressures
- P16.4.6 Measure and interpret hemodynamic parameters and pressure waveforms on patients in a clinical setting, including cardiac output measurements