

J: Cardiovascular

Please note: Competencies within this section of the Profile are to be taken in consideration with competencies outlined throughout this document and are not intended to be standalone.

Important: LPNs are responsible to ensure they have any required education or training and the individual competence prior to performing these competencies.

Major Competency
J: Cardiovascular

Competency
J-1: Cardiovascular Nursing and Interventions

Competency Statement - A Licensed Practical Nurse will:

J-1-1 Demonstrate knowledge and understanding of anatomy, physiology, and pathophysiology of the cardiovascular system and cardiovascular disease:

- cardiac cycle and conduction pathway
 - atherosclerosis
 - dysrhythmias
 - valve insufficiency or stenosis
 - cardiomyopathy
 - congenital heart disease or anomaly
 - pericarditis, myocarditis, endocarditis
- cardiovascular diseases and disorders
 - heart failure or organ system failure
 - hypercholesterolemia and dyslipidemia
 - hyper and hypotension
 - ischemic heart disease
 - peripheral artery disease
- blood pressure and central venous pressure
- decompensation, shock, hypovolemic shock

J-1-2 Demonstrate knowledge and ability to assess and monitor the cardiovascular patient:

- hemodynamics
- lab values and biochemical markers
- peripheral diagnostic interventional procedures
- renal sufficiency
- venous thromboembolism
- prepare patient for diagnostic procedures, treatments, and surgery
- sequential compression device
- vital signs
- differentiate normal rhythm and arrhythmia
- implement pre and post procedure protocols

J-1-3 Demonstrate knowledge and ability to utilize cardiac equipment:

- apply 3 and 5 lead electrocardiograms (ECG)
- apply telemetry equipment
- resuscitation equipment:
 - external defibrillator
 - non-invasive and mechanical ventilation
 - bag and mask
 - crash cart

J-1-4 Demonstrate knowledge of the use of cardiac devices:

- external cardiac pacing
- echocardiography
- 24-hour Holter monitor
- pacemaker
- central venous pressure (CVP) and arterial lines

Major Competency
J: Cardiovascular

Competency
J-1: Cardiovascular Nursing and Interventions

Competency Statement - A Licensed Practical Nurse will:

J-1-5 Demonstrate knowledge and understanding of normal and abnormal lab values and cardiac markers.

J-1-6 Demonstrate knowledge and ability to apply principles of pharmacokinetics and pharmacodynamics specific to medication management in cardiovascular nursing according to employer requirements.

J-1-7 Demonstrate knowledge and understanding of indications, contraindications, and complications related to cardiovascular diagnostic tests and procedures:

- angiogram (radial, femoral)
- angioplasty and stents
- coronary artery bypass grafting
- echocardiogram (transthoracic, trans-esophageal)
- cardiac stress test
- radionuclide angiography:
 - MIBI scan (Cardiolite, Perantine)
 - multiple gated acquisition
 - thallium scan
- right heart catheterization
- tilt test

J-1-8 Demonstrate knowledge and ability to anticipate and recognize actual or potential life-threatening health crisis:

- alteration in cardiac output
- impaired tissue perfusion (compartment syndrome)
- cardiac arrhythmias
- cardiac tamponade
- cardiomyopathy
- congenital heart defect
- congestive heart failure
- myocardial infarction
- shock

J-1-9 Demonstrate knowledge and ability to recognize signs and symptoms of a life-threatening cardiac event and initiate or assist with cardiopulmonary resuscitation.

J-1-10 Demonstrate knowledge of internal and external cardiac pacing devices and indications for use:

- telemetry equipment
- external pacemaker and implantable cardioverter defibrillator (ICD) complications:
 - failure to output
 - failure to capture
 - sensing abnormalities

Major Competency
J: Cardiovascular

Competency
J-1: Cardiovascular Nursing and Interventions

Competency Statement - A Licensed Practical Nurse will:

J-1-11 Demonstrate knowledge and ability to care for patient requiring advanced cardiac observation and interventions:

- mechanical ventilation
- hemodynamic monitoring
 - central venous pressure (CVP)
 - arterial line

J-1-12 Demonstrate knowledge and ability to assist with or provide cardiac procedures and treatments:

- | | |
|--|--|
| • assess and monitor diagnostic and lab values | • atrial fibrillation protocol |
| • 12 and 15 lead ECG application and interpretation <ul style="list-style-type: none">○ rhythm, rate, P-wave configuration, PR interval, QRS duration/ configuration, inversion flattening, other wave anomalies | • monitor and manage symptoms of arrhythmias and cardiac tamponade |
| | • monitor and remove radial bands |
| | • monitor femoral sheaths and epicardial pacing wires |