

## Core Competencies for Emergency Cardiac Care

**All nurses** must be competent in all aspects of BLS (CPR and use of automatic external defibrillator [AED])

Additional competencies for emergency cardiac care are listed in the following table. These require **additional education and regular practice**.

Current ACLS or PALS certification is strongly encouraged; maintaining these skills requires regular, monitored practice.

The relationship of each competency to the Emergency Cardiac Care Decision Support Tools is indicated in the table. See: <https://www.heartcentre.ca/professionals/decision-support-tools> for Decision Support Tools.

DST	Knowledge	Skill	Judgement or Reasoning	Facilitating Attributes
<b>Assessment</b>				
1, 2	<p>Normal airway anatomy and function, normal breathing and circulation patterns</p> <p>Abnormal airway, breathing and circulation patterns and causes</p>	Assessing airway patency, respiratory difficulty, presence and quality of pulse, capillary refill and level of consciousness, vital signs including SpO <sub>2</sub>	<p>Determining change from patient's baseline, if possible</p> <p>Considering possible factors contributing to abnormal findings</p> <p>Determining adequacy of blood pressure/oxygenation</p>	
2	Normal cardiac rhythm	Recognizing normal sinus rhythm		
2, 3*	Cardiac arrhythmias	<p>Systematic ECG rhythm interpretation</p> <ul style="list-style-type: none"> <li>• ventricular fibrillation</li> <li>• asystole</li> <li>• ventricular tachycardia</li> <li>• supraventricular tachycardia</li> <li>• bradycardia</li> <li>• A-V blocks</li> <li>• Bundle branch block (intraventricular conduction delay)</li> <li>• paced rhythm</li> <li>• ST deviation</li> <li>• Recognizing life-threatening rhythms</li> <li>• Establishing and maintaining reliable cardiac monitoring</li> </ul>		

\* competency in cardiac monitoring not required for many components of DST 3

1, 2	<p>Hemodynamic effects of life-threatening arrhythmias:</p> <ul style="list-style-type: none"> <li>• ventricular fibrillation</li> <li>• asystole/PEA</li> <li>• ventricular tachycardia</li> <li>• supraventricular tachycardia</li> <li>• bradycardia</li> <li>• A-V blocks</li> </ul>	<p>Physical assessment</p> <p>Initiating manual defibrillation</p>	<p>Integrating physical findings with ECG findings</p>	
2	<p>ACLS algorithms</p>	<p>See several associated skills, below</p>		
	<p>Potential sex/gender- or ethnicity-based differences in symptoms and response to illness</p>			<p>Openness and inquisitiveness re: all symptoms</p>

DST	Knowledge	Skill	Judgement or Reasoning	Facilitating Attributes
<b>Organisation, Coordination and Provision of Care in Emergent Situations</b>				
1, 2, 3	Knowledge, skills, judgement and reasoning acquired through Basic Life Support education			
1, 2	Principles of effective CPR Factors contributing to high-quality CPR	Delivery of high-quality CPR	Evaluation of CPR quality	
1, 2	Effect of inadequate oxygenation and ventilation (due to respiratory compromise) on other organs	Recognition of respiratory distress, failure or arrest, and inability to protect airway	Selection of appropriate airway adjuncts	
1		Administration of oxygen, use of bi-valve mask as needed		
2		Use of nasal/oral airways		
2		Safe and correct placement of supraglottic airway device (e.g. i-gel®, Combitube, King®)		
1	Mechanisms of defibrillation	Initiation and operation of AED	Recognition of signs of life	
1	Hazards of defibrillation			
2	Mechanisms of defibrillation	Safe operation of manual defibrillator (depending on equipment available)	Evaluating effectiveness of CPR; evaluating effectiveness of defibrillation Recognizing return of spontaneous circulation	Commitment to ongoing professional development  Self-awareness re: own learning needs
2	Hazards of defibrillation			
1	Principles of IV therapy	Monitoring IV access	Evaluating patency of IV	

<b>DST</b>	<b>Knowledge</b>	<b>Skill</b>	<b>Judgement or Reasoning</b>	<b>Facilitating Attributes</b>
2	Principles of IV insertion	Establishing IV access	Assessing fluid balance	
2	Principles of intraosseous access and insertion	Establishing and monitoring intraosseous access	Evaluating for effective placement and intervening	
2 2 2 2 3 3	Mechanisms of action and side effects of selected medications: <ul style="list-style-type: none"> <li>• epinephrine</li> <li>• lidocaine</li> <li>• amiodarone</li> <li>• atropine</li> <li>• aspirin</li> <li>• nitroglycerin</li> </ul>	Safe administration and monitoring of selected medications: <ul style="list-style-type: none"> <li>• epinephrine</li> <li>• lidocaine</li> <li>• amiodarone</li> <li>• atropine</li> <li>• aspirin</li> <li>• nitroglycerin</li> </ul>	Evaluating effects of medications	Commitment to ongoing professional development  Self-awareness re: own learning needs
1, 2, 3	Infection prevention and control	Conduct point-of-care risk assessment	Selection of appropriate PPE	

DST	Knowledge	Skill	Judgement or Reasoning	Facilitating Attributes
<b>Communication and Documentation</b>				
1, 2, 3	Agency documentation tools and policies	Accurate, concise and timely documentation		
1, 2, 3	Principles of therapeutic communication  Principles of trauma-informed/culturally safe care  Theories of coping and responses to crisis  Theories of grief and grieving	Establishment of therapeutic relationship with family or significant others in a very short time frame, during a crisis situation  Promoting family presence as soon as possible	Evaluating family's response to crisis and need for further intervention Involving family in decisions as much as possible  Respecting patient's and family's cultural and spiritual beliefs and practices related to illness, crisis and death  Evaluating need for further intervention/support for family	Commitment to cultural safety, respect and inclusion  Commitment to patient- and family-centred care
1, 2, 3	Theories of coping and responses to crisis	Effective communication with colleagues during an emergency situation Healthcare team debriefing	Evaluating crisis event including team roles, responsibilities, and functioning	Commitment to no-blame safety culture Commitment to healthcare improvement