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## **Guideline Statement of the Surgical Technologist's Role During a Code Blue**

### **Introduction**

Code Blue, or an otherwise locally used term to refer to cardiac arrest, is the sudden, abrupt loss of heart function. The victim may, or may not, have a diagnosed heart disease or condition. Also referred to as sudden cardiac arrest or unexpected cardiac arrest, sudden death (also called sudden cardiac death) occurs within minutes after symptoms appear. Symptoms include<sup>2</sup>:

- Chest pain (in the awake patient)
- Unstable blood pressure
- Tachycardia
- Cardiac dysrhythmias
- Respiratory changes
- Hypovolemia
- Laryngospasm

Rapid implementation of CPR/BLS and defibrillation combined with early advanced care can result in high long-term survival rates for cardiac arrest. A “chain-of-survival” concept applies to both in-hospital and out-of-hospital cardiac arrests.<sup>4</sup> Successful treatment of the patient includes:

- Early recognition of the signs and symptoms of cardiac arrest
- Early activation of qualified medical personnel
- Early performance of CPR/BLS
- Early defibrillation when indicated
- Early implementation of advanced cardiac life support (ACLS)

The purpose of this guideline statement is to review the role and responsibilities of the surgical technologist during a Code Blue situation in the operating room and providing care to the cardiac arrest patient outside the surgery department.

### **AST Guideline Statement**

In the operating room, a primary duty of the surgical technologist is preservation of the sterile field; however, instances may arise outside the operating room that could require surgical technologists to utilize CPR/BLS skills. According to the American Heart Association (2005), the steps to be taken prior to beginning CPR include<sup>1</sup>:

- Check the scene for safety.
- Call for help.
- Establish unresponsiveness by gently shaking and shouting at the individual. Do not be aggressive with this step; the individual could have

sustained a spinal or head injury if the cardiac arrest was brought on by trauma, or if the patient fell when losing consciousness with the onset of the cardiac arrest.

- Activate the emergency medical system (EMS).

These procedures are also to be initiated when the patient is inside the health care facility (but not in the operating room). However, instead of the EMS being activated, most health care facilities will have an internal team of individuals who are designated to respond to a Code Blue situation that occurs within the facility.

The next series of steps to be implemented by the CPR provider, or health care facility team are providing the ABCs - airway, breathing, and circulation:

- Airway – Must be open and free of foreign bodies for proper ventilation.<sup>4</sup> The CPR provider should look, listen and feel for breath sounds by observing the chest.
- Breathing – Artificial respiration is given until breathing can be restored. In the hospital setting, breathing is facilitated by intubating the patient and connecting an Ambu-bag to the endotracheal tube.
- Circulation – If a pulse cannot be felt, external chest compressions are given at a rate of 30 compressions, 2 breaths (30:2) for all victims, except newborns.<sup>4</sup>

In the surgical setting, a fourth step is employed referred to as Definitive Treatment.<sup>4</sup> The “D” of the ABCs of cardiac arrest pertains to when the physician begins to provide definitive treatment that includes administration of IV drugs, controlling dysrhythmias by cardiac defibrillation or administration of cardiac medications, and postresuscitation care. Surgery departments should have policies in place for the treatment of cardiac arrest in the operating room that include definitions of the roles of the team members. AST recognizes that it is the responsibility of each facility to define the roles, according to the facility and department policies. However, the primary role of the surgical technologist during a cardiac arrest in the operating room is to remain sterile and protect the sterile field from contamination, while the rest of the surgical team is providing direct care to the patient.

Responsibilities of the surgical technologist include:

- Maintain the sterility of the back table, Mayo stand, and surgical site.
- Pack the surgical wound with moist sponges and cover with a sterile drape or sterile towels.
- Keep track of all instruments, sponges, and needles on the sterile field and anticipate the needs of the surgeon.
- In some instances, the surgical technologist may be called upon to assist by providing artificial respiration, eg “bagging” the patient, or to administer chest compressions.
- If CPR must be provided within the sterile field, such as internal defibrillation and/or open-chest heart massage, the surgical technologist in

a team effort with the other sterile team members, should provide whatever care is necessary to attempt to preserve the life of the patient. In life-threatening situations in the O.R., maintaining aseptic technique and protecting the sterile field may very well become secondary to lifesaving procedures.

### Competency Statements

Competency Statement	Measurable Criteria
<ol style="list-style-type: none"> <li>1. CSTs and CFAs are qualified to perform CPR/BLS in a public setting.</li> <li>2. CSTs and CFAs are qualified to perform CPR/BLS in the operating room.</li> <li>3. CSTs and CFAs are qualified to perform intraoperative assistive techniques, eg providing artificial respiration.</li> </ol>	<ol style="list-style-type: none"> <li>1. Surgical technology students attain CPR/BLS certification according to the requirements stated in the <i>Core Curriculum for Surgical Technology</i>.<sup>1</sup> The CAAHEP (Commission on Accreditation of Allied Health Education Programs) Standards &amp; Guidelines for Surgical Technology state that accredited programs must base their program curriculum upon the <i>Core Curriculum for Surgical Technology</i>.</li> <li>2. CSTs and CFAs renew their CPR/BLS certification according to employer requirements.</li> <li>3. CSTs and CFAs receive training in and perform assistive techniques, such as providing artificial respiration under the direct supervision of the surgeon.</li> <li>4. CSTs and CFAs complete continuing education to remain current in their knowledge of emergency procedures in the operating room.</li> </ol>

### References

1. American Heart Association. *Highlights of the 2005 American Heart Association Guidelines for cardiopulmonary resuscitation and emergency cardiovascular care, from* <http://www.americanheart.org/downloadable/heart/1132621842912Winter2005.pdf>  
Accessed March 6, 2008.
2. American Heart Association. *Heart attack, stroke & cardiac arrest warning signs.* [http://www.americanheart.org/presenter.jhtml?identifier=3053#Heart\\_Attack](http://www.americanheart.org/presenter.jhtml?identifier=3053#Heart_Attack)  
Accessed March 6, 2008.

3. *Core Curriculum for Surgical Technology*. 5<sup>th</sup> ed. Littleton, CO: Association of Surgical Technologists; 2002.
4. Frey K, Ross T. eds. *Surgical Technology for the Surgical Technologist: A Positive Care Approach*. 3<sup>rd</sup> ed. Clifton Park, NY: Delmar Cengage; 2008