Guideline Statement of the Surgical Technologists 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:\n
- Chest discomfort: uncomfortable pressure, squeezing, and/or pain
- Discomfort in other areas of the upper body: pain or discomfort in one or both arms, back, neck, jaw, or stomach
- Shortness of breath
- Cold sweat
- Nausea
- Vomiting
- Lightheadedness

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.\n
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 CST during a Code Blue situation in the operating room (OR) and providing care to the cardiac arrest patient outside the surgery department.
AST Guideline Statement

In the OR, a primary duty of the CST is preservation of the sterile field; however, instances may arise outside the OR that could require CSTs to utilize CPR/BLS skills. The following is a summary of the key factors for giving CPR in the field:

- Healthcare provider (HCP) briefly checks for no breathing or no normal breathing, and activates the emergency response system as well as retrieves the AED, or sends someone to retrieve an AED. HCP should not take more than 10 seconds checking for a pulse and if not felt, immediately begin CPR.
- “Look, listen, and feel for breathing” has been discontinued.
- Emphasis continues on high-quality CPR with chest compressions of adequate rate and depth, allowing complete chest recoil after each compression, minimizing interruption of compressions, and avoid excessive ventilation.
  - HCP should start chest compressions before giving rescue breaths.
  - Compression rate should be at least 100/minute.
  - Compression depth for adults is at least 2 inches.
  - Single rescuer compression-to-ventilation is 30:2 (30 compressions to 2 breaths/ventilations).
- The sequence has been changed from A-B-C to C-A-B (chest compressions-airway-breathing).
- Emphasis continues on reducing the time between the last compression and shock delivery; compressions should resume immediately after shock delivery.
- Avoid excessive ventilation.
- Increased emphasis on providing CPR as a team

These procedures are also to be initiated when the patient is inside the health care facility (but not in the OR). However, instead of the EMS being activated, most health care facilities (HCF) 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 HCF team are C-A-B:

- Chest compressions: 30:2 for all victims, except newborns.
- Airway: Must be open and free of foreign bodies for proper ventilation.
- Breathing: In the HCF, breathing is facilitated by intubating the patient and connecting an Ambu-bag to the endotracheal tube.

In the surgical setting a fourth step is employed referred to as Definitive Treatment. 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 OR 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 CST during a cardiac arrest in the OR 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 CST 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 CST 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 CST 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 sterile technique and protecting the sterile field may very well become secondary to lifesaving procedures.

**Competency Statements**

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<tr>
<th>Competency Statement</th>
<th>Measurable Criteria</th>
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<tr>
<td>1. CSTs are qualified to perform CPR/BLS in a public setting.</td>
<td>1. Surgical technology students attain CPR/BLS certification according to the requirements stated in the <em>Core Curriculum for Surgical Technology</em>.³</td>
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<td>2. CSTs are qualified to perform CPR/BLS in the OR.</td>
<td>2. CSTs renew their CPR/BLS certification according to employer requirements.</td>
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<td>3. CSTs are qualified to perform intraoperative assistive techniques, eg providing artificial respiration.</td>
<td>3. CSTs receive training in and perform assistive techniques, such as providing artificial respiration under the direct supervision of the surgeon.</td>
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<td>4. CSTs complete continuing education to remain current in their knowledge of emergency procedures in the operating room.</td>
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References


