

Cardiac Arrest (Code Blue) in the Operating Room: Initiating

Site Applicability

PHC Operating Rooms at SPH and MSJ and Pre-Op Patient Holding Area at SPH

Practice Level

Anyone may initiate a Code Blue.

Basic cardio pulmonary resuscitation (CPR) certification (BLS) is required for all professional staff upon hiring.

Need to Know

1. A Code Blue is initiated when a patient's condition deteriorates, leading to potential or actual cardiac or respiratory arrest. "Patient" is defined as any person in the hospital.
2. Every OR (and the pre-op patient holding area at SPH) is equipped with a bag-valve-mask (AMBU bag), oxygen, and suction.
3. LOCATION of code carts: SPH – OR Core by OR 5, MSJ – in PACU
4. Cardiac arrest in the OR is managed by OR staff.
 - The anesthesiologist is in charge of running the arrest, unless delegated to another.
 - SPH: Activation of the Code Blue button in the operating room is only heard within the surgical suite including PACU and CSICU
 - MSJ: Each OR has two code buttons. The RED button activates an alarm which is heard only within the surgical unit and PACU. The BLUE button activates the public address system and pages the cardiac arrest team. Each Patient Holding Area bay has a BLUE button.
5. The cardiac arrest team is called (7111) if no anesthesiologist is available, additional assistance is required or in the event of a non-functioning code blue button.
6. PACU nurses (and CSICU nurses at SPH) will respond to the code and provide assistance as available and as needed. Anesthesia assistants will also respond when available.
7. The RN circulator delegates duties to responders as they arrive.
8. The number of responders in the room should be limited to the number required for delegated duties.
9. Documentation of the resuscitation is paper based, and paper requisitions (found on the code cart) are used.

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Procedure

Code Blue in Operating Room

Upon determining actual or impending respiratory, cardiac or cardiopulmonary arrest, the surgical team will be directed by the anesthesiologist to stop the procedure to respond to the code blue.

1. RN Circulator

- a. Press the Code Blue button. Note the time. At MSJ, press the RED button during normal working hours. Also press the BLUE button if more assistance is needed. After hours, press the BLUE button. Do not turn off the alarm until all responders and equipment are present.
- b. Initiate chest compressions if necessary.
- c. Delegate a responder to bring the code cart, or, if immediate help is not available, get it yourself.
- d. The following duties are delegated to RN responders:
 - Turn on defibrillator and stand by if defibrillator is needed. Verify the number of joules (energy) required for defibrillation. See [Appendix A: Using a Defibrillator](#).
 - Assist with drug administration.
 - Assist scrub team.
 - Document on Cardio-Pulmonary Resuscitation Record (PHC-IC013). Actively request information regarding drugs and defibrillation.
- e. Assist with transfer of patient to a critical care area for post arrest care. At MSJ, the PACU nurse will facilitate this transfer.
- f. Ensure the CPR Record is completed and signed by the appropriate staff members, once the patient is stable.

2. Scrub Nurse

Remain sterile and protect the sterile field unless required to assist in managing the code.

3. OR Porter/Aide

- a. Be available to pick up and deliver blood samples and/or products.
- b. Obtain supplies and equipment as needed.
- c. Assist in controlling traffic.
- d. Stay in the immediate vicinity of the code unless otherwise directed.

Code Blue in Pre-Op Patient Holding Area at SPH

1. Press the Code Blue button. Note the time. **Stay with the patient.** Do not turn off the alarm until all responders and equipment are present.
2. Start resuscitation (CPR) procedures immediately.

3. Delegate responders to bring the closest code cart (from the Core or PACU) and the anesthesia medication cart from PACU (stored near the PACU CNL/educator office).
4. The first available anesthesiologist will take charge of the code when he/she arrives. **If additional assistance is needed**, delegate a responder to page the cardiac arrest team.
 1. Dial 7-1-1-1.
 2. State "Code Blue", your site (SPH), your location, your name and the phone number of the phone you are using
 3. The switchboard operator activates the public address system and pages the cardiac arrest team
5. Control number of people in the area.
6. Transfer the patient to a critical care area or the Operating Room as directed.

After Arrest:

1. Restock the code cart referring to the code cart checklist.
2. Exchange the code cart drug tray immediately after the arrest. At SPH, use the back-up drug tray in the core outside OR 5. At MSJ, there is a back-up drug tray in PACU.
3. Replace the bag-valve-mask (AMBU bag) and other emergency equipment as needed.
4. Ensure documentation is accurate and complete.

Documentation

1. Record interventions and assessments during the code on the Cardio-Pulmonary Resuscitation Record (PHC-IC013). (Should you need to recopy the information from this form onto a new form, both the original and the recopied forms must remain part of the patient's permanent record.)
2. If the arrest occurred inside the OR, document the following in Cerner in **Perioperative Documentation, Surgical Procedure** segment, comments section:
 - a. Date and time of event.
 - b. Specific information about events leading up to the arrest.
 - c. Names of staff involved.
 - d. Actions/procedures performed by staff and any other pertinent data.
 - e. Refer reader to Cardio-Pulmonary Resuscitation Record #_____.
3. If the arrest occurred in the pre-op patient holding area, document the above in **Perioperative Summary, Perioperative Preprocedure Checklist**, progress notes section.

Related Documents

- [B-00-07-10060](#) – Cardiac Arrest (Code Blue): Initiating (SPH and MSJ)

- [B-00-13-10080](#) – Code Blue Team Responsibilities and Response to Cardiac Arrest Calls (SPH)
- [B-00-13-10082](#) – Code Blue Team Responsibilities and Response to Cardiac Arrest Calls (MSJ)

References

ORNAC. (2021). *ORNAC standards, guidelines, and position statements for perioperative registered nurses* (15th ed.), 5-15 to 5-18.

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Appendix A: Using a Defibrillator

Equipment:

1. ZOLL M series defibrillator
2. Clipper for hair removal
3. Pro-padz (Zoll) multi-function electrodes (MFE or R2 pads) or
4. Defib-Pads (3M) with defibrillator external paddles or
5. Internal paddles

MANUAL DEFIBRILLATION: using MULTI-FUNCTION ELECTRODES (Pro-padz)

Steps

1. Turn on defibrillator.
2. Connect multi-function electrode (MFE) pads to the defibrillator multi-function cable.
3. Clip excess hair on the patient and wipe skin dry if needed.
4. Apply the MFE pads to the patient according to the instructions on the package. The preferred placement is **anterior/posterior**, “sandwich” the heart between the pads.
 - Apply **posterior pad to the patient’s back below the left scapula to the left of the spine.**
 - Apply **anterior pad below the left breast to the left of the sternum.** For a female patient position the electrode under left breast.
5. Ensure MFE pads are making good contact with the patient’s skin.
6. Turn the **SELECTOR SWITCH** to **DEFIB**. The unit automatically defaults to 200 joules.
7. Verify with the surgeon or anesthesiologist the number of joules (energy) required.
8. Adjust the energy required using the **ENERGY SELECT** up and down arrows.
9. Press the **CHARGE** button on the front panel of the defibrillator.
10. The defibrillator is charged and ready to deliver a shock when the red light illuminates the shock button and an audible continuous tone is heard.
11. Call out “**STAND CLEAR**” loudly; ensure that no one is touching the patient or the bed before proceeding.
12. Press and hold the illuminated **SHOCK** button on the front panel until energy is delivered to the patient. DO NOT check the pulse at this time.
13. Continue chest compressions for 2 minutes. Check for rhythm and pulse.
14. Reassess the patient. Repeat steps 6 to 13 as indicated.
15. Print summary of rhythms and shocks times as needed.

MANUAL DEFIBRILLATION: using Defib-Pads (3M) and EXTERNAL DEFIBRILLATION PADDLES**Steps**

1. Turn on defibrillator.
2. Connect the external paddles to the defibrillator multi-function cable.
3. Clip excess hair on the patient and wipe skin dry if needed.
4. Apply the Defib-Pads to the patient according to the instructions on the package. The preferred placement is **anterior/anterior**, with one pad below the right clavicle and the other pad below the left breast on the anterior axillary line.
5. Ensure Defib-Pads are making good contact with the patient's skin.
6. Turn the **SELECTOR SWITCH** to **DEFIB**. The unit automatically defaults to 200 joules.
7. Verify with the surgeon or anesthesiologist the number of joules (energy) required.
8. Adjust the energy required using the **ENERGY SELECT** up and down arrows.
9. Remove paddles from their holders on sides of defibrillator.
10. Apply paddles firmly on the Defib-Pads placed on the chest. The STERNUM paddle is applied to the upper right pad and the APEX paddle to the lower left pad.
11. Press the **CHARGE** button on the front panel of the defibrillator or on APEX paddle.
12. The defibrillator is charged and ready to deliver a shock when the red light illuminates the shock button and an audible continuous tone is heard.
13. Call out "**STAND CLEAR**" loudly; ensure that no one is touching the patient or the bed before proceeding.
14. Using your index fingers or thumbs, simultaneously press and hold both **SHOCK** buttons (one on each paddle) until energy is delivered to the patient. DO NOT check the pulse at this time.
15. Continue chest compressions for 2 minutes. Check for rhythm and pulse.
16. Reassess the patient. Repeat steps 6 to 13 as indicated.
17. Print summary of rhythms and shocks times as needed.

MANUAL DEFIBRILLATION: using sterile INTERNAL DEFIBRILLATOR PADDLES in an open chest**Steps**

1. Turn on defibrillator.
2. Obtain the sterile internal defibrillator paddles from the code cart, the sterile core OHS cart, OR 5, 14 or 15 or from MDRD.
3. Open the sterile internal paddles for the scrub nurse or surgeon and connect the cord that is handed off the sterile field to the defibrillator multi-function cable.
4. Turn the **SELECTOR SWITCH** to **DEFIB**. The unit automatically defaults to 30 joules.
5. Verify with the surgeon or anesthesiologist the number of joules (energy) required, typically a setting of less than **10 joules** is required.

6. Adjust the energy required using the **ENERGY SELECT** up and down arrows.
7. Press the **CHARGE** button on the front panel.
8. The defibrillator is charged and ready to deliver a shock when the red light illuminates the shock button and an audible continuous tone is heard.
9. The surgeon will deploy the shock using the hand controls on the internal paddles.