

# Code Blue Team Responsibilities and Response to Cardiac Arrest Calls (MSJ Only)

## Site Applicability:

Mount Saint Joseph Hospital Only

## Practice Level

**Specialized:** Healthcare Providers who have undergone the training and education to participate as Code Blue Team Members

## Need to Know

Code Blue is initiated when patient's condition deteriorates, leading to potential or actual cardiac or respiratory arrest. Patient can be defined as inpatient, outpatient, visitor, or staff.

For code blue events outside of hospital building, Paladin Security officers will call 911. 911 in addition to a code blue may also need to be called for outpatients and 2 ECU patients who subsequently require triage via an emergency department between the hours of 20:00 and 08:00 when MSJ Emergency Department is closed.

Upon receipt of the "CODE BLUE" signal and location by the electronic cardiac arrest call system or a call via **7111**, the switchboard operator will immediately notify the Code Blue Team Members via the designated Code Blue pagers. The switchboard operator will announce three times over the paging system "CODE BLUE and the location." The following team members will respond:

0800 to 2000	2000 to 0800
ED MD	Clinical Associate (CA)
ED RN	HAU RN
HAU RN	HAU RN
Respiratory Therapist	
3 B/C Medicine RN	
MSJ Clinical Site Coordinator	
Spiritual Health Practitioner (operational hours)	
Social Worker (operational hours)	

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In addition, the Charge RT at SPH will also receive a page with the numeric code "00000" which indicates that there has been a code blue called at MSJ. The purpose of this alert is to provide early notification to SPH ICU in case the code blue patient requires an urgent transfer to SPH for further management post arrest. Please refer to the [Transport from MSJ: Urgent Life, Limb or Threatened Organ \(LLTO\) and Higher Level of Care \(HLOC\) Guideline](#).

The code team MD will direct the code team. Cardiac arrest management will only be done under the orders/supervision of MD. If a physician is not immediately present, an RN certified in Advanced Cardiac Life Support (ACLS) may independently administer epinephrine, amiodarone, and defibrillation in to treat ventricular fibrillation VF arrest or pulseless ventricular tachycardia (VT), in accordance with the [Defibrillation, Cardioversion and Transcutaneous Pacing](#) guideline.

**Note:**

- In the event of Code Blue in OR, PACU, or ED, the code team will not be called unless additional help or the LUCAS device is needed.
- All members of the code team must remain until the code has been completed. It is recommended that, at a minimum, capillary blood glucose (CBG), a full set of vital signs, and an ECG from monitor be taken and reviewed by the team leader prior to calling off the code.
- All Code Blue calls must be documented on resuscitation form even when the team leader terminates process on arrival.
- When the ED MD is the code leader, the intensivist or CA will be paged for all in-patient transfers to HAU and there needs to be clear communication between physicians that the intensivist will accept responsibility for care of the patient. For all out-patients or visitors, transfer will be to ED under the care of ED Physician.
- A designated RN from 4W will go to the HAU when an arrest is called to ensure safety of patients and staff. If not needed in the HAU, the nurse will check in with the medical unit that sent a nurse to the code blue.

## Protocol

### Functions of the Cardiac Arrest Team Members:

#### Physician (Team Leader):

- Assumes direction of the resuscitation
- Determines diagnosis and orders medications and treatments
- If unable to intubate the patient, the Anesthetist is notified STAT and asked to attend the Code Blue to assist with intubation.
- Contacts HAU intensivist if admission to HAU is required and assists with transfer the patient.
- Following the resuscitation, in-patients requiring a higher level of care post code blue are transferred to the HAU, outpatients requiring a higher level of care post code blue are transferred to the ED. Patients requiring intensive care are transferred to SPH ICU unless they need different critical care services such as those available at VGH.

- If the patient requires intubation and ventilation, physician will coordinate with SPH, PTN, and the CSC to arrange transfer to the appropriate care area as per the LLTO, HLOC, and PACU transfer algorithms.
- Pronounces patient death if necessary.
- Notifies patient's next of kin, family physician and/or attending physician, and the HAU Intensivist/CA or SPH ICU Intensivist.

**Respiratory Therapist**

- Manages patient's airway during Code Blue.
- Assists physician with intubation (Respiratory Therapists who have completed and maintained their endotracheal intubation competency may intubate in the circumstances outlined in [B-00- 12-12064](#) Endotracheal Intubation by Respiratory Therapists).
- Manages patient's ventilation during Code Blue.
- Assists with obtaining arterial blood gas sample(s).
- Assists with chest compressions.
- Assists with transfer of the patient.

**Primary Nurse (ED RN Days, HAU RN Nights)**

- Turns off Code Blue alarm once all arrest team members and equipment are present.
- Applies electrodes and attaches patient to the monitor.
- Applies cardiac arrest pads and operates Zoll defibrillation for electrical therapy (shared responsibility with secondary nurse)
- Assists with placement/operation of LUCAS .
- Administers medications as ordered by Code Blue team MD.
- Performs glucose check.
- Monitors vital signs.
- Initiates IV access when required.
- Prepares equipment and assists with procedures as necessary.
- Assists with transfer of patient to the appropriate area.
- Code Blues occurring in HAU, the RN assigned to the patient assumes the role of primary nurse.

**Secondary Nurse (HAU RN)**

- Prepares and hands medications to primary nurse.
- Records events, medications administered, and vital signs on the resuscitation record.
- Time keeping.
- Operates Zoll defibrillator for electrical therapy (shared responsibility with primary nurse)
- Defibrillates/cardioverts or assists with same.
- Obtains and mounts ECG strips of all rhythms occurring during arrest.
- Assists with placement of the LUCAS.
- Prepares equipment and assists with procedures as delegated by the primary nurse.
- Ensures that the resuscitation record is completed and signed by the appropriate staff.
- Controls the number of personnel at bedside.
- Brings arrest cart used during Code Blue to HAU and ensures that used cart is immediately replaced with the exchange cart. Ensures used cardiac arrest cart is cleaned, restocked, and checked **except** in PACU and ED.

**Clinical Site Coordinator (CSC)**

- Ensures the code team has all the resources and supplies needed to manage the code blue.
- Facilitates transfer to the HAU as early and as safely as possible if required.
- Coordinates with SPH ICU and PTN should the patient require an urgent transfer to an appropriate critical care area (See [Transport from MSJ: Urgent Life, Limb or Threatened Organ \(LLTO\) and Higher Level of Care \(HLOC\) Guideline](#)).
- Coordinates LLTO/HLOC transfer from MSJ PACU if patient requires an urgent transfer as per PACU transfer algorithm.
- Facilitates debrief with the team, reviews case and follows up with any lessons learned or areas for improvement.

**Medicine RN (1 RN from 3<sup>rd</sup> Floor)**

- Brings LUCAS from HAU and hands backboard and then Lucas machine when code RNs ready.
- Performs CPR.
- Retrieves WOW, glucometer, and CPR stool if not already at bedside.
- Acts as a runner and performs other tasks as assigned by arrest team (PIV start, obtaining recent blood work, priming 1L NS bag, doing CBG check, etc.).

**Spiritual Health Practitioner/Social Work**

- Provides support to family.
- Contacts family as needed.
- Acts as a liaison between family and health care team.
- Provides emotional support for staff involved with code blue event.

**A Code Blue is called in Non-Arrest Situations When:**

- Staff requires immediate medical assistance managing a patient situation.
- During a consultation, a patient becomes unstable and immediate assistance and equipment is required.
- Urgent or emergent intubations are performed.

**Simultaneous Arrest Calls**

- CODE BLUE and location will be announced overhead.
- HAU/ED and CSC will seek/direct resources to support second "CODE BLUE."

**Code Blue – Pediatric (children under 12 years of age)**

- "Code Blue - Pediatric" is announced over the paging system by Switchboard.
- All Code Blue team members will be paged to the scene to provide BLS.
- Code Blue Cart will be brought from the service area ([Appendix A](#)).
- 08:00-20:00 ED RN/MD will bring the Pediatric Cardiac Arrest Cart. ED MD will lead team in providing pediatric advanced life support. Patient is transferred to the resuscitation bed in the ED.
- 20:00-08:00 ED is closed but the pediatric cart can be retrieved from the ED by the resuscitation bed if needed. Code blue team to delegate individual to call 911 (if not already done) to provide PALS and to transfer the patient to BC Children's Hospital.
- CSC/ED Clinical Nurse Leader will co-ordinate transfer to tertiary centre as needed.

**Related Documents**

1. [Appendix A](#) - Directives for Response to Cardiac Arrest Calls
2. [Appendix B](#) - Directives for Checking Cardiac Arrest Carts
3. [B-00-07-10060](#) – Cardiac Arrest (Code Blue) Initiating, SPH and MSJ
4. [B-00-07-10076](#) - Transport from MSJ: Urgent Life, Limb or Threatened Organ (LLTO) and Higher Level of Care (HLOC)

5. [B-00-3-10159](#)- Code Stroke (In-Patients): Protocol, SPH and MSJ
6. [B-00-13-10204](#)- ST-Elevation Myocardial Infarction: Management of Inpatients at MSJ
7. [B-00-12-10017](#) - Defibrillation, Cardioversion and Transcutaneous Pacing
8. [B-00-07-10085](#) - Cardiac Arrest (Code Blue) Patients with COVID-19 like Illness or Confirmed Case of COVID-19

## References

1. American Heart Association [www.americanheart.org](http://www.americanheart.org)
2. Heart and Stroke Foundation of BC <http://www.heartandstroke.bc.ca/>
3. Emergency Cardiac Care: Provincial Guidelines and Tools for Registered Nurses <http://www.heartcentre.ca/EmergencyCardiacCareInformation.asp>

### Persons/Groups Consulted:

Nurse Educator MSJ ED  
 Patient Care Manager, MSJ ED, HAU  
 Nurse Educator MSJ Acute Medicine, Surgery, 4E, Outpatient department  
 Nurse Educator MSJ PACU, SDC  
 Physician Lead MSJ HAU  
 Physician Lead MSJ ED  
 Professional Practice Leader Respiratory Therapy Providence Health Care

### Revised By:

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	Professional Practice Standards Committee
<b>Owners:</b>	PHC
	MSJ HAU

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## Appendix A Directives for Response to Cardiac Arrest Calls

**Purpose:** To outline the location of cardiac arrest carts and the responses for cardiac arrest management in different areas of the hospital.

Floor	Cardiac Arrest Cart Location	Area Cardiac Arrest Cart Services	Response
<b>G</b>	Emergency Department Next to ACR (Acute Cardiac Resuscitation) stretcher	Emergency Department	<p><u>During operational hours</u> ER physician – Team Leader ACR RN – Primary nurse RN – Secondary RN RN - Documents RT (to be paged) – airway management assistance</p> <p><u>After operational hours:</u> Code Blue Team will manage the situation</p>
<b>G</b>	Emergency Department  In front of Nursing Station	Emergency Department  Isolation Room	<u>ED Airway Team</u>
<b>G</b>	Radiology Directly across from x-ray room 3	Radiology	A radiology staff member will deliver the crash cart to the site. Code Blue Team will manage the situation
<b>G</b>	PACU At entrance between OR and PACU	PACU/OR	<p><b>During operational hours:</b> Staff will press the “emergency button”</p> <p><b>PACU</b> Anesthesia physician – Team Leader/Airway RN – PACU – Primary Nurse RN – PACU – Secondary Nurse RN – SDC - Documents</p> <p><b>OR</b> Anesthesia Physician – Team Leader/Airway RN – PACU- Primary Nurse RN – PACU – Secondary Nurse RN – OR - Documents</p> <p><b>After operational hours,</b> PACU RN will bring code cart to the site &amp; Code Blue Team manages the situation.</p>

Floor	Cardiac Arrest Cart Location	Area Cardiac Arrest Cart Services	Response
<b>G</b>	Surgical Daycare behind the reception desk	Surgical Daycare and Endoscopy	Surgical daycare/ ENDO staff will bring the arrest cart to the bedside. Code Blue team will manage the situation.
<b>G</b>	Room beside Stairwell #10, behind cashier, across from security & lab  Door labeled "cardiac arrest cart"	Ground Floor -Main Admitting -Lab -Outpatient Clinic -Lung Function Testing -Security office -Physical Plant -Morgue -Cafeteria -Medical Device Reprocessing Department -Stores -Laundry -Receiving	HAU/ED RN will pick up cart and bring it to the site. Code Blue team will manage the situation.
<b>1</b>	Seniors Mental Health Inpatient Unit  Student Room 1211 (beside reception desk)	Seniors Mental Health Inpatient Unit: 1-South/ Administrative Areas/Chapel	Geriatric Psychiatry staff will bring the cart to the site and Code Blue team will manage the situation. Code blue security card is used to scan the keypad for entry. Note: Stairs going down to the Kingsway entrance are not accessible for entry into 1 South at night.
<b>1</b>	Surgical Procedure Rooms  Outside OR Suites of surgical procedure room	Surgical Procedure Room	DT Room staff will bring the cart to the site and Code Blue team will manage the situation. Code blue security card is used to scan the keypad for entry into OR area. For exchanging the cart after-hours security is required to let you through the first set of doors.
<b>2</b>	Arrest cart comes from HAU	Extended Care Unit:  2nd Floor	HAU RN will bring arrest cart to ECU. Code Blue team will manage the situation.



Floor	Cardiac Arrest Cart Location	Area Cardiac Arrest Cart Services	Response
3	3 B/C Next to the staff lounge	3 <sup>rd</sup> Floor - 3 B/C Medical Unit -Conference Centre -Biomed - Neurology Clinic -Breast Clinic	For 3 B/C Medical Unit, staff will bring the arrest cart to the site. Code Blue team will manage the situation  For outpatient areas, HAU RN will bring arrest cart to site. Code Blue team will manage the situation.
3	HAU Outside the dirty utility room	High Acuity Unit: 3rd Floor North	Code blue team will arrive to manage the patient. Medical Intensivist will be notified.
3	Stress Lab ECG Exam Room 326	Cardiology Dept. 3 <sup>rd</sup> floor -Stress Lab -Echo Lab	Stress Lab staff will bring the cart to the site and Code Blue Team will manage the situation.
4	4W Across from work station, outside the supply room	4-West Surgery Unit: 4th Floor West Wing	Surgery unit staff will bring the arrest cart to the site. Code Blue team will manage the situation.
4	4E Outside main supply room, across from work station	4-East Geriatric Medicine Unit: 4th Floor-East Wing	Geriatric Medicine staff will bring the arrest cart to the site. Code Blue team will manage the situation.

**Note:** For Code Blue taking place outside the hospital building, security will call 911 for assistance

## **Appendix B Directives for Checking Cardiac Arrest Carts**

### **Purpose:**

- To ensure that cardiac arrest carts contain those items listed on the Checklist in the stated quantities.
- To ensure that equipment on or in the cart is clean, in good order and functioning appropriately.
- To ensure that medications and supplies with expiry dates will not expire prior to the next scheduled check

The Cardiac Arrest Carts will be checked by the HAU RNs nightly for the arrest carts (2) located in the HAU and monthly for the ward arrest carts:

Following use, bring cardiac arrest cart to HAU for cleaning and restocking. Immediately take the exchange cart to the area where the Code Blue was called. Ensure cardiac arrest cart is locked and ensure cover is over arrest cart (ward carts only). It is the arrest team RNs' responsibility to check the cart as per protocol.

### **Procedure: Checking All Cardiac Arrest Carts**

The following areas are responsible for checking their own carts following use and routinely

- HAU (including exchange cart) – weekly
- ED – daily
- PACU/OR – daily
- Ward Carts – monthly by HAU staff
- Utilizing the cardiac arrest cart checklist, systematically tick off each item.
- Ensure the contents of the cardiac arrest cart are functional (i.e., BP cuff, flashlight, pressure bag).
- Check all items with expiry dates to ensure they are current (i.e., drug box, multi-function electrodes, blood collection tubes, IV solutions)
- Check monitor/defibrillator to ensure the following:
  - Plugged in and charging
  - Machine discharges when tested at 30 Joules
  - Sufficient ECG print-out paper
  - Extra battery in second drawer. Monthly exchange of extra battery with battery in monitor/defibrillator done (date recorded on battery when it goes into monitor/defibrillator), recondition the Zoll battery every month (also record on battery).
  - Monitor cable is intact and untangled
- Check suction machine to ensure the following:
  - Plugged in and functional
  - Bottle & tubing are clean

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- Generates adequate suction
  - When not in use - machine must be left in the "charge" mode
- Check oxygen cylinder to ensure the following:
  - Tank has a high flow regulator capable of delivering 25 litres/min
  - Tank contains greater than 1500 psi
  - if tank contains less than 1500 psi, notify RRT to have tank changed
- Check cardiac arrest manual to ensure the following items:
  - Contains cardiac arrest cart checklist
  - Contains code blue bloodwork cards
  - Cardiac Arrest IV Drug Administration
  - Contains blood gas requisitions flagged for "cardiac arrest"
  - ACLS algorithms
  - Infusion guidelines
  - Hover mat locations
  - Fall: Assisting a patient up from the floor post-fall ([B-00-12-10022](#))
  - Code stroke algorithms ([B-00-13-10159](#))
  - Code STEMI algorithm ([B-00-13-10204](#))
  - Intraosseous instructions
  - Resuscitation records (4)
- Check Documentation Clipboard to ensure the following items are present:
  - Pencil/pen
  - Resuscitation record (1) (Place on top of scrap paper)
- Check Manual Resuscitation Bag
  - Peep Valve present
  - Oral airways, 90 mm & 80 mm
- Check arrest pouch in Omnicell (HAU - Daily):

**Following checking procedure:**

1. When checking procedure has been completed and cart has been restocked, Place strip of 1" tape across drawer with the following information:

RN name

Date &amp; time

When tape is in place it is assumed that the cardiac arrest cart contents are complete and all equipment is functioning appropriately. The tape should only be broken when the cart is needed for cardiac arrest or routine check.

2. Ensure cart is **PLUGGED** in & **ALL** charging **LIGHTS** are on (Laerdal suction & monitor/defibrillator).

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