



QUINTE HEALTHCARE CORPORATION

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Corporate Code Blue Response Procedure

Title: Corporate Code Blue Response Procedure		Policy No:	2.13.12
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		Policy Lead:	Director Quality and Interprofessional Practice
Department:	Quality, Patient Safety and Interprofessional Practice		
Approved By:	Leadership Committee		

1. PURPOSE

To establish, define, coordinate, design and maintain a plan for immediate response to an individual experiencing a life-threatening medical emergency, or a cardiac or respiratory arrest.

Designated Code Blue Responders, when activated, will provide coordinated emergency care and resuscitation, if required, for all patients, staff or visitors experiencing medical or obstetrical emergencies within Quinte Healthcare Corporation (QHC).

Individual areas may choose to manage cardiopulmonary arrests or life-threatening emergencies without activation of a Code Blue call. These units will STAT page personnel as required. These areas include the Operating Room (OR), Intensive Care Unit (ICU), Post-Anaesthetic Care Unit (PACU), and Emergency Department (ED).

2. SCOPE

This policy applies to all QHC staff, physicians, and volunteers. For the remainder of this policy, the term staff includes QHC staff, physicians and volunteers.

3. POLICY

QHC aims to provide a safe environment for all patients, visitors, staff, physicians, students and volunteers. A Code Blue is called in response to an individual who suffers a cardiac and/or respiratory arrest or other sudden and unexpected life-threatening emergency situation.

When an individual becomes unwell and/or injured on hospital property, it is necessary to provide a prompt and safe response that ensures the individual receives appropriate care. QHC staff will respond to and assist individuals who require emergent medical intervention on hospital property. Should a medical emergency occur on the property but outside of the hospital building, including the parking lot, staff are required to stay with the individual in distress, activate EMS response by calling 911 and performing CPR as required. Please refer to policy 2.11 Corporate – Assisting Individuals on Hospital Property Appendix A – Algorithm Response to Finding an Individual on Hospital Property for specific response guidelines.

All staff are expected to be familiar with their roles and responsibilities as outlined within this policy. This policy applies to all situations involving a medical or obstetrical emergency. A timely response to these emergencies is essential to improving patient outcomes.

4. DEFINITIONS

Code Blue: a declaration or state of medical emergency and call for medical personnel and equipment to attempt to resuscitate a patient especially when in cardiac arrest, respiratory arrest or respiratory failure.

Hospital Property: means the entire hospital, including and not limited to the parking lots, sidewalks, driveways, all clinical and non-clinical meeting rooms, etc. Refer to policy 2.11 Corporate – Assisting Individuals on Hospital Property.

Medical Emergency: is an injury or illness that is acute and poses an immediate threat to life or long-term health. For the purpose of this policy, this definition is expanded to include situations in which there is a perceived threat to life or long term health.

Examples: individuals in physical distress such as chest pain, unconsciousness, not breathing or having difficulty breathing, experiencing a seizure, bleeding profusely, pregnant patient with imminent delivery expected, or a patient in cardiac arrest.

5. PROCEDURE

Staff Certification Requirement

All staff working in a clinical capacity must maintain a current Basic Cardiac Life Support (BCLS) certification. Recertification for BCLS is required annually.

All staff who work in a critical care unit within QHC including the ICU, PACU, and ED must adhere to current American Heart Association (AHA) Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) guidelines. Staff who primarily work in these areas and who are trained, oriented to and expected to fulfill the role of Code Team member within the organization must maintain current competence in ACLS (ICU, PACU, ED) and PALS (PACU, ED).

All clinical units within QHC should endeavour to participate in mock codes to ensure continued Code Blue Response competency and familiarity with life-saving equipment. The Unit Manager and Unit Professional Practice Specialist/Clinical Resource Nurse will endeavour to carry out Mock Codes at least bimonthly (6) times per year.

Infection Control

During a Code Blue/Medical Emergency numerous procedures are performed which generate droplets and/or aerosols. Examples of aerosol-generating medical procedures (AGMP) include: nebulized therapies, bag-valve-mask ventilation, endotracheal intubation, cardio-pulmonary resuscitation (CPR) (chest compressions are unknown risk, treat as AGMP), and open airway suctioning. For this reason, personal protective equipment (PPE) must be utilized at the onset of a Code Blue/Medical Emergency and worn by all staff within two meters of the patient. Please refer to the Code Blue Algorithm (Appendix A) for further direction on Code Blue response for COVID Negative/Low Risk patients and COVID Positive/High Suspect patients. In addition to COVID, other potential airborne pathogens are possible (i.e. measles, mumps, tuberculosis (TB), influenza, chicken pox and others). Due to the often unknown health history and infectious disease status of the individual at the time of a Code Blue/Medical Emergency, the Code Blue Algorithm should be followed for every Code Blue response.

PPE for Code Blue/Medical Emergency response includes:

- Gloves
- Gown
- Protective Face Shield or Goggles
- Fluid Resistant Surgical Mask
- A higher level of mask including N95 or P100 Respirator or PAPR (powered/supplied air respiratory protection system) will be selected based on the Responder's point of care risk assessment (PCRA) and any other situational or environmental requirements (i.e. pandemic or other outbreak)

Authority to Declare a Code Blue/Medical Emergency

Any staff member within QHC has the authority to declare a Code Blue situation when a patient/person is found to require emergency medical attention.

A Code Blue will be activated for individuals experiencing cardiopulmonary arrest or a sudden life-threatening event unless a Do Not Resuscitate (DNR) order has been written.

Activation of Code Blue

In the event of a medical emergency, Quinte Healthcare staff will activate a CODE BLUE by dialing 5999 and state the location i.e. state 'Code Blue Quinte 5 Room 530'. Switchboard will page overhead to activate the Code Blue Response Team. The paged information will be repeated three times. The Code Blue Response Team, as well as all available clinical staff working in the location of the Code Blue will respond to the overhead announcement of the Code Blue.

All QHC staff members are required to be aware of how the Code Blue call system works on their individual unit. On many units, the Code Blue call button will only alert the staff on the unit and switchboard will be unaware of the Code Blue. Staff members must call 5999 to ensure switchboard is aware of the Code Blue and Location, so the Code Team can be activated to respond.

All clinical units will designate a Code Nurse for each shift, in the event a Code Blue/Medical Emergency occurs on that unit.

Hospital Staff that will respond in the event of a Code Blue/Medical Emergency:

Site	Code Blue Response Team
Belleville General	Designated ICU RN, Designated Emergency Department RN Designated Code Nurse RN from the Unit the Code Occurs On Emergency Department Physician Intensivist Registered Respiratory Therapist
North Hastings	Emergency Department RN Emergency Department Triage RN Emergency Department physician plus any other available physician in the hospital At night the Emergency & IPU nurses
Prince Edward County	1 Emergency Department RN 1 Nurse from 2 South Emergency Department physician plus any other available physicians in the hospital
Trenton Memorial	1 Emergency Department RN 1 IPU nurse Emergency physician plus any other available physicians in the hospital Registered Respiratory Therapist (if available on site)

Roles and Responsibilities during a Code Blue Response

All Responders will don PPE on arrival.

First Responder

- Establishes unresponsiveness
- Shouts for help and instructs a staff member to activate Code Blue by calling extension '5999' and stating "Code Blue, location and room number"
- Begins one-person resuscitation according to the AHA guidelines for BCLS and the QHC Code Blue Algorithm
- Once relieved from chest compressions, applies defibrillator pads to patient, being careful to not interrupt chest compressions for pad placement

Second Responder

- Brings emergency equipment/crash cart and defibrillator to bedside (if available on unit – refer to Defibrillator/Crash Cart Locations chart on page 9 within this policy) *For Code Blue occurring on Sills 4 or Sills 5, Sills 3 staff will bring their crash cart and defibrillator to that location
- Set up suction equipment if not already done
- Set up oxygen flow meter if not already done
- Connect bag-valve-mask (BVM) and provide rescue breaths according to BCLS guidelines if not contraindicated by the QHC Protected Code Blue Algorithm
- Take over chest compression as required, ideally at 2-minute pulse and rhythm check, communicating with first responder to ensure minimal interruption of chest compressions occurs

Third Responder - Scribe

- Begins documentation on the Code Blue Documentation Record (Appendix B Form #)
- Ensures patient identification label is affixed to the Code Blue Documentation Record
- Document the time the Code Blue started and ends and time of arrival of all Code Team members
- Records interventions performed by Code Team Responders in real time including but not limited to: time patient is intubated, size of endotracheal tube (ETT), cardiac rhythms, CPR, intravenous sites, solutions and medications administered
- Ensures documentation of the names and designations of Code Team Responders are captured and requests Code Team Responders sign the Code Blue Documentation Record at the end of the Code.

Most Responsible Nurse

- Will remain at the bedside for the duration of the Code Blue and accompany patient to ICU, when applicable

- Provide information to the Code Blue Responders regarding the patient's medical status
- Delegate tasks to arriving nurses until the Code Blue Responders arrive

If a visitor (this would include anyone who is not a current patient of QHC) is found unresponsive the most responsible nurse is the Emergency Room nurse.

Patient Care Lead/In-charge Nurse

- Brings the patient chart/computer chart to the bedside or location of code
- Calls the most responsible physician to inform him/her of patient status
- Ensures patient's family has been notified of the situation
- Performs other duties as required
- Delegates others to:
 - Clear the room of extraneous furniture and personnel
 - Escort ambulatory patients and visitors out of the room
 - Ensure continued care of other patients on unit
- Assists in coordinating post-arrest transfer of the patient, where applicable

Unit Staff on Duty

- Responsible for all other patients on unit.

Intensive Care Unit (ICU) Nurse

- Responds to All Code Blue calls
- Brings Code Blue Response Cart (crash cart and defibrillator) to ALL Code Blue situations

Emergency Department (ED) and/or Intensive Care Unit (ICU) Nurse

- Ensure BCLS is initiated and/or is in progress
- Palpates femoral pulse to check for cardiac output with compressions
- Checks for appropriate airway management
- Initiates intravenous access (if not already done)
- Attaches patient to cardiac monitor (if not already done)
- Following ACLS guidelines and QHC Medical Directives:
 - Defibrillates when appropriate as per medical directive or physician order
 - Prepares and administers medications as per medical directive or physician order
 - Performs pulse and rhythm checks as per ACLS algorithms
- Assists with intubation if required
- Ensures documentation is in progress; if not delegates

Registered Respiratory Therapist (RRT)

- If RRT present, RRT will manage airway, breathing, and assist as needed with intubation and BCLS.

Medical Staff – Code Team Leader

- The ED Physician is the physician in charge and assumes a leadership role in running the Code Blue unless/until he/she delegates to another physician
- The on-call Intensivist will respond to the Code Blue and assume leadership as soon as able
- Any available physicians will also respond to a Code Blue
- The physician in charge of the Code Blue will speak to the next of kin regarding the outcome of the code
- If Code Blue occurs at the Belleville site, the MRP should accompany the patient to the ICU (inpatients) and the ED (outpatients)
- If Code Blue occurs on the inpatient unit at the primary care sites, the MRP will arrange for critical care transport to the most appropriate facility
- The Physician Code Leader will determine at which point the Code may be called and resuscitation measures ceased.

Switchboard

- Switchboard Operator announces on the Emergency Paging System, repeating x 3:
- “Code Blue- <<location>>”
- For Code Blue initiated at the primary sites Trenton, Picton, and North Hastings, the page through switchboard will alert the ED Code Team to respond
- For Code Blue initiated at Belleville Hospital site through switchboard, the Switchboard Operator pages via the Code Blue Group button:
 - Registered Respiratory Therapy at BG hospital
 - Emergency Preparedness Coordinator
 - Clinical Risk Specialist
 - Hospitality/Facility Service Representative (HSR) Crash Cart
- The Switchboard Operator then sends two separate pages – one to the Internist on call and one to the Intensivist on call and radios Security
- If a Code Blue is activated only within the unit (and not paged through switchboard) which may occur only in ED, Operating Room, PACU or ICU, staff will have to alert the HSR to assist with running for items during the Code, as required, and to obtain a replacement crash cart from Pharmacy following the Code

Security

- At BGH, Security will endeavor to meet responders at the appropriate elevator to secure it on the level 1 in anticipation that the Code Blue Response Cart will be coming from ICU, to facilitate prompt delivery to the location of the Code Blue
- When a Code Blue is called at any of the hospitals, security will, where available, assist with crowd control

Support Services (HSR)

- If Code Blue/Medical Emergency happens in a common area or outside the hospital facility but on hospital property, the ED Hospitality Service Representative (HSR) will bring a stretcher from the ED area

- If a Code Blue/ Medical Emergency is announced in a common area the Emergency Department HSR will bring a stretcher to that location
- Upon direction of the Code Blue Responders, the HSR will:
 - Bring any additional emergency equipment as needed
 - Assist with providing chest compressions, if required, as directed by the Code Team Responders
 - Assist with the transportation of the patient as required
- Prior to leaving the Code Blue situation, clarify with the staff that attendance is no longer required
- In areas where the HSR is the person exchanging the used crash cart for a replacement crash cart, the HSR will ensure that any garbage has been removed from top of cart by nursing staff and the exterior of the cart has been wiped down with a disinfectant wipe. Wiping down of the crash cart may be delegated to the HSR, however sharps and garbage removal is the responsibility of nursing staff and may not be delegated to the HSR.

Transport of the Patient to the ICU or ED

If the patient has return of spontaneous circulation, the patient will be transferred to a critical care area as soon as possible.

BGH site:

- Inpatient to be transferred to the Intensive Care Unit, ICU RN is the most responsible nurse (MRN)
- Outpatient or visitor to be transferred to the Emergency Department, ED RN is the most responsible nurse (MRN)

TMH, PEC, NHH:

- Patient to be transferred to the ED at that site until other disposition arrangements can be made

Presence of Family/Significant Others during Code Blue

QHC recognizes that families and/or significant others may wish to be present during resuscitative efforts of a loved one. Code Blue Team Responders will endeavour to allow the family member/significant other to be present during the Code and will provide emotional support to the family member/significant other via Manager, Team Leader, another staff member, Pastoral Care or Social Worker, as available.

QHC recognizes the importance of patient centered care, in which family/significant others are part of the care team. Research has shown that family members have improved ability to successfully process bad outcomes, when they occur, if they have been provided the opportunity to witness the efforts of the Code Team. Should a family member or significant other become disruptive to the resuscitative efforts of the Code Team, they will be asked to leave the room and will be escorted by a staff support person and/or Security as required.

Defibrillator/Crash Cart Locations

Site	Location		Adult Crash Cart	Defibrillators
Belleville General			X 1	X 1
	Q7		X 1	X 1
	Q6		X 1	X 1
	Q5		X 1	X 1
	Q4		X 1	X 1
	Operating Room		X 1	X 1
	Recovery Room (PACU)		X 1	X 1
	Endoscopy		X 1	X 1
	ICU (1 Response Cart, 2 ICU Crash Carts)	*respond to all Code Blue locations with Response Cart	X 3	X 7
	Nuclear Medicine		X 1	X 1
Emergency		X 4	X 6	
	Sills 3 Rehab	*respond to Sills 4/5 with crash cart and defibrillator	X 1	X 1
	Cardiology/Stress Lab		X 1	X 1
Primary Sites	Location		Adult Crash Cart	Defibrillators
North Hastings	Emergency (3) and Inpatient Unit (1)		X 4	X 4
Prince Edward County	Emergency (2), 2 South (1), Endo (1)		X 4	X 4
Trenton Memorial	Emergency (1) Response Cart, (3) ED Inpatient Unit (1) O.R and PACU (1 shared)		X 6	X 6

Maintenance and Testing of Defibrillators and other Emergency Equipment

All units where defibrillators are housed will comply with performing and documenting on the Daily Defibrillator Check Sheet (Appendix D, Form # 876) the daily visual inspection of the defibrillator unit to ensure that:

- Green checkmark is present indicating unit is working and ready for use
- Defibrillator is plugged in and pads are attached (necessary for the defibrillator unit to perform its' self-check function)
- All cables are attached (ECG, BP cuff, SpO₂ cable and sensor) and in good condition
- The Zoll defibrillator performs a self-check every 24 hours, so long as the defibrillation pads are connected to the machine.

Weekly checks will be performed and documented on the Weekly Defibrillator Check Sheet (Appendix E, Form # 877) as required. The purpose of the weekly check is to ensure all functions of the pacer and defibrillation modes are operating correctly.

The Daily and Weekly Defibrillator Check Sheets will be forwarded to the Code Blue Committee by the Manager on the 30th of each month for review of the Code Blue Committee for evaluation of compliance with equipment checks.

Code Blue Response Carts

On all Code Blue Response Carts (BGH ICU and TMH ED) the assigned Code Nurse will perform a visual check of the Response Cart at the beginning of each shift and following each Code Blue to ensure all equipment is present and in good working condition including:

- Defibrillator plugged in, accessory cables present
- Portable oxygen tank is full or not less than half full
- Portable suction machine is present and plugged in to ensure full battery for response to areas without suction
- Any restocking of supplies and/or medication tray (obtained from Pharmacy) is completed ASAP

All Nursing Units

It is the responsibility of nursing staff to check that emergency oxygen and suction equipment is set up at the beginning of each shift. Oxygen (flow meters and green (Christmas tree) adaptors) and suction equipment (outer canister, disposable inner canister, 2 suction tubings and yankauer suction catheter, and suction regulator) are to be available, connected and working in every patient room at all times. A nurse may ask or delegate to the unit HSR to replace the equipment if required.

Departments that will respond with Code Blue Response Cart (includes defibrillator, portable oxygen tank, portable suction):

Site	Location	Responds To:
Belleville General	Intensive Care Unit (ICU) Sills 3	All Codes Code Blue on Sills 4/5
North Hastings	Emergency Department	All areas of hospital without a monitor-defibrillator
Prince Edward County Memorial	Emergency department	Level 1 without a monitor- defibrillator
	2 South	Level 2 without a monitor-defibrillator
Trenton Memorial	Emergency Department	All areas of the hospital that do not have a monitor-defibrillator

Code Blue Occurring in Magnetic Resonance Imaging (MRI) Department - Belleville Hospital

- In the event of a Code Blue/Medical Emergency, the MRI Technologist will activate the Code Blue system
- The MRI Technologist will remove the patient from the MRI Scan Room using an MRI compatible stretcher and will relocate the patient to the MRI Prep Area
- Once the patient is out of the MRI room, the door to the MRI Scan Room will be secured and will proceed to the patient prep area (located across from the MRI scan room) where the Code Blue Responders can attend to the patient

Note:

Life support and other related equipment must not be brought into the MRI Scan Room – it must await the patient in the MRI Prep Area. No one is allowed to enter the MRI Scan Room under any circumstances unless they have been properly screened and accompanied by MRI staff.

Debrief Process following Code Blue

QHC recognizes the importance for staff who have been part of the Code Blue response to ask questions and to express thoughts and feelings about the Code Blue as part of psychological well-being and as a Quality Improvement process.

Following each Code Blue, any member of the Code Team may initiate the debrief process. The immediate debrief is intended to be a brief huddle (5 – 10 minutes) in a quiet, private space if possible. The discussion will be guided by the questions “Is everyone OK?”, “What do you think went well?” “What could we do better next time?” The intent of the debrief is to allow staff to respond honestly and contribute ideas for improvement, and to avoid any assignment of blame or poor performance on any one individual. The Code Blue Debrief will be recorded on the Code Blue Debrief Documentation Record (Appendix C Form #). The Code Blue Debrief Documentation Form is not to be attached to the patient’s chart. The Code Blue Debrief Form will be given to the Manager of the unit immediately following completion of the form. The Code Blue Committee will review the debrief forms at each meeting as part of ongoing quality improvement process.

Advise ment of Family and/or Coroner

The responsibility for contacting of the patient’s family and/or the coroner (as necessary) lies with the Most Responsible Physician or his/her on-call delegate, regardless if the resuscitation was successful or not.

A physician involved in the resuscitation may accept this responsibility at his/her discretion, if requested by the attending or on-call delegate. It is the responsibility of the in charge physician attending at the resuscitation to call the attending physician to discuss the outcome of the Code Blue emergency.

APPENDICES AND REFERENCES

Appendices: Appendix A – Code Blue Algorithm
Appendix B – Code Blue Documentation Record Form #
Appendix C – Code Blue Debrief Documentation Form #
Appendix D – Daily Defibrillator Check Sheet Form #
Appendix E – Weekly Defibrillator Check Sheet Form #

References:

American Heart Association. *Advanced Cardiac Life Support Guidelines*. (2015).

Cross References:

2.11 Corporate – Assisting Individuals on Hospital Property