FACILITY: Reading Hospital	
MANUAL: Organizational (Administrative)	**FOLDER:** Provision of Care, Treatment and Services
TITLE: Medical Emergencies	**DOCUMENT OWNER:** Clinical Nurse Specialist, Critical Care Division
DOCUMENT ADMINISTRATOR: Senior Vice President and Chief Nursing Officer	**KEYWORDS:** Code Blue, Medical Assessment and Treatment Team (MATT), NICU Team Alert, Emergency Response Team (ERT), Code HELP , Medical Emergency, Rapid Response Team (RRT), Neonatal Emergency
ORIGINAL DATE: 2/19	**REVISION DATE(S):** 3/19, 12/12, 01/20, 3/20

SCOPE:
Applies to all staff at Reading Hospital, including the Doctor's Office Building (DOB), Spruce Pavilion (P-Building), I, J, K, L, and M-Buildings, and any outdoor areas within 250 yards of building entrances (see EMTALA-Emergency Medical Treatment and Active Labor Act document https://trh.ellucid.com/documents/view/6766).

PURPOSE:
To assure prompt and skilled treatment for any medical need.

POLICY:
The Code Blue Team and Emergency Response Team respond to all Code Blues and Medical Emergencies that are called within the main hospital including the Doctor's Office Building (DOB), Spruce Pavilion (P-Building), I, J, K, L, and M-Buildings, and any outdoor areas within 250 yards of the building entrance. A Code Blue is called to expedite the response of the appropriate medical team to participate in resuscitation of a patient, staff member, visitor, or outpatient who has had a cardiopulmonary arrest/failure unless a specific order is written limiting resuscitation. Exception to this policy is areas within the Emergency Department.

Family/significant other presence during resuscitation: Reading Hospital strives to provide family members the opportunity to be present at the bedside during the resuscitation of a family member. The healthcare team will be responsible for assessing the needs of the family and the appropriateness of their presence during the resuscitation.

DEFINITIONS:
ACLS- Advanced Cardiovascular Life Support

COACH RN (Clinical Observation and Critical Help)- Intensive care-trained registered nurse who responds to medical emergencies throughout the campus.

Code Blue- called to expedite the response of the appropriate medical team to participate in resuscitation of any person (patient, staff member, visitor, or outpatient) who has had a cardiopulmonary arrest/failure or who is experiencing a potential life-threatening event.

NOTE: Code Blue may be called to mobilize additional resources and equipment, although the patient has not had a cardiopulmonary arrest/failure.

Code HELP- called by patient or family member by dialing 5555 if they have a concern about the patient that the Healthcare Team has not recognized or feel it is not being addressed. This is paged to the nursing supervisor who will respond and triage concern.

Medical Emergency – ERT formerly Emergency Response Team (ERT) - a team of nursing and security staff that responds to medical situations occurring in non-inpatients that do not meet the criteria for a Code Blue. The ERT provides prompt treatment and transportation to the Emergency Department.

PALS- Pediatric Advanced Life Support

Pediatric Code Blue- activated for all children 17 years of age and under, to expedite response of the appropriate team to provide resuscitation to an inpatient or non-inpatient experiencing an acute life-threatening event.

Pediatric Rapid Response (Formerly called Pediatric MATT)- activated for patients 17 years of age or younger meeting criteria for Rapid Response.

Rapid Response Team (RRT) formerly called MATT (Medical Assessment and Treatment Team)-a team of clinicians who bring critical care expertise to the bedside of inpatients. The team assesses and assists the bedside nurse in the management of the patient. A Rapid Response may be called instead of a Code Blue call when a patient shows signs of deterioration but does not meet the criteria for a Code Blue.

Rapid Response Team – Brain Attack (Formerly called MATT Brain Attack)- any patient experiencing new neurologic deficits suggestive of stroke (see Inpatient Brain Attack document https://trh.ellucid.com/documents/view/10120).

Rapid Response Team STEMI (Formerly called MATT STEMI)- any patient meeting inclusion criteria consistent with a STEMI (see Chest Pain Guideline for In-House Patients document https://trh.ellucid.com/documents/view/849).

NRP- Neonatal Resuscitation Program

Neonatal Emergency (Formerly NICU Team Alert)- activated for newborns on R1E and R2E experiencing acute deterioration, and by the Pediatric Code Team in any situation where the NICU team is needed to assist with airway management, intravenous access, advanced resuscitation, and/or complex management of newborns/infants. Exceptions are the ED, where the ED team activates the NICU Team via touchscreen and on L&D, where L&D staff activates the NICU Team via Blue Light.

911/EMS - will be activated for transport from the Doctor's Office Building (DOB), Spruce Pavilion (P-building), I, J, K, L, and M-buildings, and any outdoor areas within 250 feet of building entrances. 911 will be activated for all off-site Tower Health entities.

PROCEDURE:

I. Activation

A. Call appropriate response

Type of Response	Code Blue X6363	Rapid Response X6363	Medical Emergency-ERT X6363	Neonatal Emergency X6363	Pediatric Code Blue X6363	Code HELP X5555
Indication	-Lack of pulse or ventilation -Acute deterioration of airway, pulmonary, and/or circulatory systems -Acute unresponsiveness	-Staff member is concerned/worried -Acute change in vital signs -Acute change in respiratory status or rate, threatened airway -Acute increase in FiO2 -New onset arrhythmia -Potential symptoms of heart attack -Acute change in neurologic status -Seizure activity -Failure to respond to treatment for an acute problem or symptom -Significant bleeding -Uncontrolled pain -Acute change in color/tone	-Staff member is concerned -Fall -Medical issue suspected -Request for assistance	-Staff member on R1E/R2E is concerned about a newborn -Pediatric Code Team activates Neonatal Emergency when airway management, IV access, advanced resuscitation, and/or complex management of an infant is required	-Lack of pulse or ventilation -Acute deterioration of airway, pulmonary, and/or circulatory systems -Acute unresponsiveness	-Patient or family member has a medical concern not being addressed by the healthcare team
Classification of person requiring assistance	Any adult person, including inpatient, visitor, staff	Inpatients only *See table in Section III for specification of RRT based on patient age and condition.	Non-inpatients, including staff, students, visitors, outpatients	Inpatients (newborns) on R1E/R2E Newborns/infants (inpatients, non-inpatients) requiring airway management, IV access, advanced resuscitation, and/or complex management, as determined by Pediatric Code Team	Persons aged 17 years or younger	Inpatients

B. Activate Code Blue, RRT, Medical Emergency Pediatric Code Blue and Neonatal Emergency by dialing x6363 and stating the desired response. The operator activates the team by alphanumeric pager, displaying the location and type of call.

C. Once called, a Code Blue, RRT, Medical Emergency, Pediatric Code Blue or Neonatal Emergency may not be cancelled. The team leader can dismiss team members as they arrive.

D. Staff member who initiates the response stays with the victim until the team arrives

and explains the reason for calling and remains with patient until dismissed by team leader.

E. Code HELP is activated by patient or family member by dialing x5555.

II. Code Blue

A. Adult Code Blue

1. Cardiopulmonary resuscitation will be carried out on all patients who have a cardiopulmonary arrest UNLESS a specific order limiting resuscitation has been written (see "Withholding and/or Withdrawing Life-Sustaining Treatment" document https://trh.ellucid.com/documents/view/6720).
2. The first person on the scene trained in CPR will initiate CPR while additional help is summoned. Unit personnel will provide unit emergency equipment to the Code Blue site.
3. Unit personnel trained in basic life support will apply the AED after initiating CPR. The AED is a feature available on the Lifepak 20 defibrillator and is used with Quik-combo patches and the Quik-combo cable. To use the AED, Unit personnel should turn on the Lifepak 20 and follow the voice and written prompts on the screen.
4. In the event of a cardiorespiratory arrest, the current American Heart Association algorithm for "Pulseless Arrest" is used as standing orders by the critical care or ACLS-trained RN with the following limitations:
    a. epinephrine and defibrillation will be given or administered in the absence of a physician using the doses and frequencies detailed within the algorithm.
    b. No other medications may be given without a specific physician's order.
5. Code Blue leadership will be the responsibility of the upper level Internal Medicine (IM) resident. If another physician is present at the Code Blue upon the arrival of the IM resident, he or she will relinquish leadership to the resident. A potential exception could occur if the initial physician is a board-certified cardiologist, emergency physician, pulmonologist or anesthesiologist or an ACLS certified physician and he or she expresses a desire to continue with the code leadership. It is the responsibility of the IM resident to offer transition of leadership. In the event the attending or consulting physician does not assume leadership, he or she will be available to remain involved in a supportive role. All leadership changes will be clearly communicated to the team.
6. Team responsibility
    a. Provide cardiopulmonary support/resuscitation according to ACLS guidelines.
7. Team members (see Addendum A for roles and responsibilities).

B. Pediatric Code Blue

1. Team members
    a. Family Medicine Residents on-call
    b. Pediatric Hospitalists
    c. Anesthesia
    d. COACH or ICU RN
    e. Respiratory Therapy
    f. Laboratory
    g. Any additional clinician that the person running the code feels is required.
2. Pediatric crash cart locations as available (see Crash Cart Management and Locations document https://trh.ellucid.com/documents/view/26).
3. Leadership for Pediatric Code Blue is the Pediatric Hospitalist with a supportive role by the Family Medicine residents. If the patient is not a patient on the

Pediatric Hospitalist service, the PALS-certified attending of record for the patient may opt to assume leadership of the Code Blue when he or she arrives on the scene, or to take on a supportive role working alongside the Family Medicine Residents and Pediatric Hospitalist.

4. If the Pediatric Hospitalist is not the attending of record for the patient, the attending physician should be promptly notified by the unit where the patient is at the time of the Code Blue.
5. Staff responsible for directing a Pediatric Code Blue are PALS-certified.

C. Neonatal Emergency
   1. Team members
      a. Neonatology Provider
      b. NICU RN
      c. NICU Respiratory Therapist
      d. Pediatric Hospitalist
   2. NICU Team responsible for transporting NICU Emergency Cart to scene.
   3. Neonatology provider, NICU RN, and NICU RT are NRP-certified.
   4. Neonatology provider determines disposition of patient. In some cases, collaboration with Pediatric Hospitalist may be necessary.
   5. Trauma
      a. A Neonatal Emergency will be activated in the event of a neonatal trauma. The trauma attending will retain management of the code/activation and the NICU Team will be available for airway management, intravenous access, medication administration and dosing.

D. Inpatient Psychiatry
   1. A Code Blue will be activated for any persons who suffer a cardiopulmonary arrest/failure in Spruce Pavilion unless a specific order is written limiting resuscitation.
   2. 911/EMS will be activated for transport.
   3. Patients will be treated and stabilized at Spruce Pavilion and transferred to the ED for further evaluation and determination of the required level of care.
   4. Notification of family or responsible person that the patient's care has been transferred to another physician or service and reason for that transfer is the responsibility of the Psychiatry attending or designee.

E. MRI
   1. Scanning is aborted immediately.
   2. Table is disengaged from magnet.
   3. Table/patient moved to MRI holding area.
   4. MRI staff person(s) certified in CPR will initiate CPR and activate the needed response by dialing x6363 and stating the desired response. MRI staff will monitor entrance to scanning area (Zone 3) to ensure safety for all responders.

III. Rapid Response Team (RRT)

A. (RRT)Team member composition and qualifications

Type of RRT	Adult	Pediatric	Brain Attack	STEMI
Indication	18 years of age and older	17 years of age and younger	Patients identified as exhibiting new onset stroke symptoms	Patients meeting inclusion criteria consistent with a STEMI
Members	-Hospitalist (Team Leader) -Internal Medicine Resident -COACH/ICU RN -Respiratory	-2 Family Practice Residents (Team Leader, Upper Level Resident) -PALS certified	-Hospitalist (Team Leader) -On-Call Neurologist -Internal Medicine	-Hospitalist (Team Leader) -On-Call Cardiologist -Internal Medicine

	Therapist -Bedside RN -Laboratory Technician	COACH/ICU RN -Respiratory Therapist -Bedside RN -Laboratory Technician -Pediatric Hospitalist	Resident -MICU or COACH RN -Respiratory Therapist -Bedside RN -Laboratory Technician	Resident -MICU RN -Respiratory Therapist -Bedside RN

B. RRT Team responsibility
1. Appropriate team responds to call.
2. Assess.
3. Activate RRT STEMI if indicated.
4. Activate RRT Brain attack if indicated.
5. Stabilize.
6. Consult Trauma if there is a suspected head or spinal cord injury. Trauma trained providers may apply rigid collar and/or place patient on back board with cervical immobilization device.
7. Assist with communication. Assure that the attending physician is notified.
8. Educate and support.
9. Arrange for and assist with transfer, if necessary.
10. Document the event.
11. Provide feedback to care team.

IV. Medical Emergency -ERT (see Appendix B and C)

A. Medical Emergency is used for non-inpatients that need medical treatment. If a person is suspected to have suffered or may suffer a cardiopulmonary arrest, a CODE BLUE is called.

B. Medical Emergency Members: see Appendix C

C. Services
1. The Medical Emergency provides a team of nursing and security which responds to medical situations occurring in non-inpatients with the goal of prompt treatment and transportation to the Emergency Department.

D. Persons may refuse transport to the Emergency Department. If this occurs and any member of the Medical Emergency believes that the person may need medical treatment, a Code Blue is activated. The responding provider will attempt to discuss risks and benefits with the person. If the person declines treatment, attempt is made to have person sign an Against Medical Advice form.

V. Guidelines for care for Code Blue, RRT

A. Transfer to the appropriate level of care if indicated.

B. Physician Team Leader is responsible to make the decision to transfer patient to a higher level of care, if deemed necessary.
1. If a higher level of care is required for a patient after RRT, it is the Hospitalist who is providing the care to triage patient, assessing whether transfer from Medical/Surgical floor is appropriate to IMU or ICU as long as admission to the IMU meets the nursing assessment for the level of care; COACH or ICU nurse present at RRT can provide input on nursing assessment for correct level of care.
2. If a transfer to ICU is deemed appropriate by the Hospitalist, the Hospitalist will discuss transfer of the patient to the ICU with the accepting Intensivist and arrange for transfer of care.

C. Physician Team Leader is responsible to:
1. Communicate with attending physician regarding assessment findings, diagnostic and therapeutic interventions, and plan of care.

2. If the attending of record disagrees with this decision, the attending of record must be bedside within 30 minutes of notification by the Physician Team Leader to assume direct care.
3. Collaborate on plan of care with the nursing staff.
4. The attending physician is responsible for notification of the patient's family and maintains responsibility for ongoing care. Attending will:
    a. be at the bedside within 30 minutes if requested by the Physician Team Leader or if they do not agree with the immediate plan of care initiated by the Physician Team Leader. The Physician Team Leader is responsible to treat the patient as believed is medically indicated until the attending physician arrives.
    b. follow-up on all diagnostic studies ordered.
5. If attending of record wishes to transfer the care of the patient to another service, the attending of record is responsible to implement the transfer to that service.

GUIDELINE:

PROVIDER PROTOCOL:

EDUCATION AND TRAINING:
Staff are oriented to the document upon employment and updated when the document is modified.

REFERENCES:
Agency for Healthcare Research and Quality (2018). Rapid response systems. Retrieved from: https://psnet.ahrq.gov/primers/primer/4/rapid-response-systems .

American Heart Association. Soar, J., Donnino, M.W., Maconochie, I., Aickin, R., Atkins, D.L., Andersen, L.W., Berg, K.M…Morley, P.T. (2018). International consensus on cardiopulmonary resuscitation and emergency cardiovascular care science with treatment recommendations summary. *Circulation*,*138*, e714-730. DOI: 10.1161/CIR.0000000000000611.

Institute for Healthcare Improvement. (2018). Rapid response teams. Retrieved from: http://www.ihi.org/Topics/RapidResponseTeams/Pages/default.aspx .

COMMITTEE/COUNCIL APPROVALS:
Emergency Response Committee: 11/18
Critical Care Committee: 10/18
Nursing Policy, Procedure, Protocol Committee: 11/18, 2/19
Pediatric Code Committee: 11/18
Patient Care Committee: 12/18

CANCELLATION:
The content of this document supersedes all previous policies/procedures/protocols/guidelines, memoranda, and/or other communications pertaining to this document.

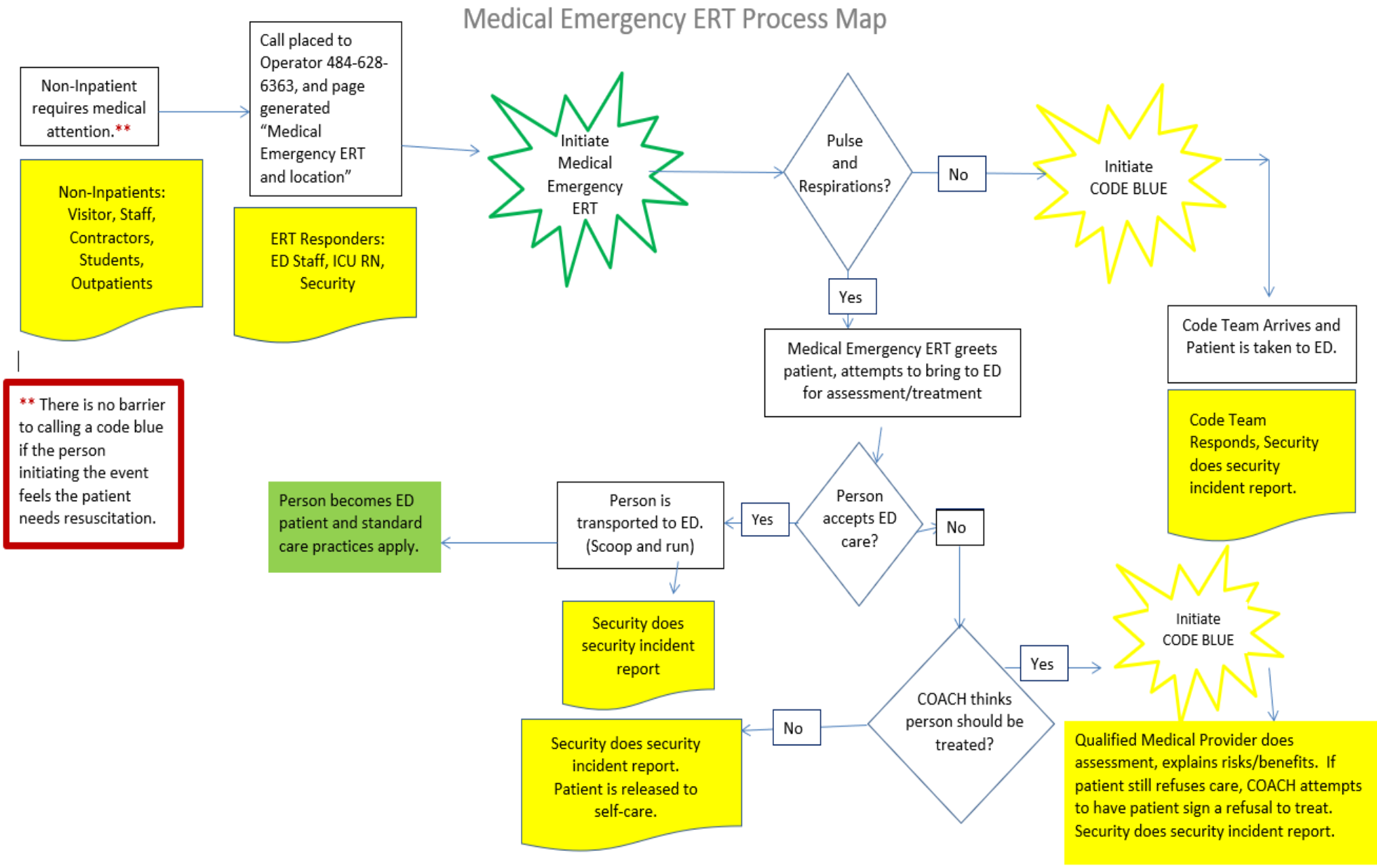
Addendum A
Adult Response Team Roles and Responsibilities

Role	Position	Number of Participants	Responsibilities	Responds to…
Team Leader	Physician/Provider - Attending & Senior Resident	2	• Lead response team using ACLS protocols as needed. • Provide closed loop communication to responding team.	• CODE BLUE • RRT • RRT CODE
Residents		2	• Support response team through active participation as needed	• CODE BLUE • RRT • RRT CODE
RN Leader	COACH/ICU RN	1	• Performs ACLS protocols • Assesses patient • Provides guidance to team • Manages post-code debrief	• CODE BLUE • RRT • RRT CODE
Respiratory Therapy	Bagging/Airway Support	1	• Provides respiratory support to patient and response team. • Supports Anesthesia provider for intubation.	• CODE BLUE • RRT CODE • RRT
Anesthesia	Intubation	1	• Provides mechanical ventilation support and advanced airway management. • Does not respond to Doctor's Office Building	• CODE BLUE • RRT CODE • Call x6666 if needed for RRT
Compressions/Observers	Residents, Floor Staff (Aides, RNs), Students	2	• Rotate through compression series to prevent fatigue and provide high-quality CPR.	• CODE BLUE • RRT CODE
Medications/Defibrillator	ICU RN or ACLS RN as assigned	1	• Operate defibrillator. • Secure placement of defib pads. • Deliver shocks / medications as per protocol and under direction of Team Leader.	• CODE BLUE • RRT CODE
Scribe	Unit RN Facilitator or as assigned	1	• Support Team Leader • Operates Code Narrator • Provides Time Keeping	• CODE BLUE • RRT • RRT CODE
Bedside RN	Bedside RN	1	• Provide SBAR communication to response team regarding patient and precipitating factors.	• CODE BLUE • RRT • RRT CODE

<u>Other Responders to remain outside of room until needed:</u>

- 2nd Respiratory – assist as needed
- Anesthesia/CRNA – airway and related medications
- Supply Runner (floor staff) – gather equipment as directed
- Laboratory – phlebotomy as directed
- Security – crowd control as directed, access for travel
- Chaplain – support family and/or staff
- House Supervisor – emails RRT/CODE info to ERC, crowd control as directed
- Pharmacist – pulls drugs
- CNS/Unit Director – review process, assist as needed

Appendix B


Medical Emergency ERT Process Map
Non-Inpatient requires medical attention.**
Call placed to Operator 484-628-6363, and page generated "Medical Emergency ERT and location"
Non-Inpatients: Visitor, Staff, Contractors, Students, Outpatients
ERT Responders: ED Staff, ICU RN, Security
** There is no barrier to calling a code blue if the person initiating the event feels the patient needs resuscitation.
Initiate Medical Emergency ERT
Pulse and Respirations?
No
Initiate CODE BLUE
Yes
Medical Emergency ERT greets patient, attempts to bring to ED for assessment/treatment
Code Team Arrives and Patient is taken to ED.
Code Team Responds, Security does security incident report.
Person accepts ED care?
Yes
Person is transported to ED. (Scoop and run)
Person becomes ED patient and standard care practices apply.
Security does security incident report
No
COACH thinks person should be treated?
Yes
Initiate CODE BLUE
No
Security does security incident report. Patient is released to self-care.
Qualified Medical Provider does assessment, explains risks/benefits. If patient still refuses care, COACH attempts to have patient sign a refusal to treat. Security does security incident report.

Addendum C
Medical Emergency ERT Roles and Responsibilities

Role	Position	Number of Participants	Responsibilities	Notes
Security	Security officer	1	• Respond • Arrange for a W/C, stretcher, AED, stop the bleed kit, etc.... • Do security incident report • Assist with transport as needed	
COACH RN	ICU RN	1	• Greet person • Perform basic first aid or BLS • Call CODE if needed • Transport to ED • If person refuses treatment and the COACH believes treatment is needed, call a CODE. • If person still refuses, attempt to get a signature for refusal.	• If security arrives after situation has resolved, give information to security for incident reporting. • Be aware of EMTALA • Supplies for first aid • Have refusal forms available
ED Staff Person	RN, Medic, PCA	1	• Assist with patient care • Call ahead to ED FAC with situation	

What to call:

Any person who has an identified lack of a pulse and/or respirations: CODE BLUE
Inpatient with change in status: RRT
Outpatient with change in status: Medical Emergency ERT
Visitor, staff, student, etc. with change in status: Medical Emergency ERT
Any location outside of main hospital, change in status: Medical Emergency ERT and 911 as needed

If COACH RN is already involved in an incident, the standard coverage process applies:

SICU RRT/Code Blue Coverage	MICU RRT/Code Blue Coverage
N Ground Radiation Therapy	N Ground Infusion Center
N5 South	N1 CVIR, incl T1 BiPlane
N5 West	N2 South
T Ground Procedural Area (GI Lab/Surgicenter)	N2 West
T1	N3 South
T3	N3 West
T4	T2
T5	R1 Interventional Radiology
C2	R1 & R2 (Mother)
D1	R3 East
Radiology	R3S & R4 (Clinical Observation)
Code Blue Common Area Coverage: D ,E, G, T, K, I, L, TJ	C1
	C3
	A1 Nuclear Medicine
	D2
	Spruce Pavilion
	Code Blue Common Area Coverage: A, B, C, N,