



Clinical Practice Policy:	NEWBORN RAPID RESPONSE AND INFANT CODES
Effective Date:	03/12/2020
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Contact Person(s)	
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Personnel Approved for:	
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Keywords: Rapid Response, Infant/Newborn Code, Emergent Transfer of Infant, Code Blue Newborn, Code Blue OB

I. Purpose: To provide guidelines for Newborn Rapid Response and Infant Codes including emergent care and transfer from non NICU areas to the NICU.

II. Presumes Knowledge of:

- WNH Standard Policy Statements
- WHN I.1 Infant Identification (CPGS)WNH R.1 Resuscitation of an Infant
- WNH T.1 Infant Thermoregulation
- WNH T.4 Infant Transport
- 1.2.1 Cardiopulmonary Resuscitation Response Teams (Code Teams)
- 1.2.3 Rapid Response Policy

III. Guidelines/Information: Newborn Code Team and Rapid Response Team Information

- 1. The Code Blue Newborn Team consists of a NICU based intra-disciplinary team that responds to all neonatal emergencies in the hospital.
- 2. Coverage is 24/7.
- 3. The appropriate team is activated by the NICU Stat Line Nurse for events within CWN or via calling 2-6555 (Hospital STAT line) for pager and overhead paging for events outside of the inpatient floors Center for Women and Newborns Building.
 - o The appropriate team is activated by the Code Blue Newborn or OB via group pages for events outside CWN, such as those occurring in the MRI suites (Lee Bell, L1, or the Building for Transformative Medicine), ED, Tower and Shapiro buildings. **In the event of**





a paging downtime or power failure, overhead pages will be used for calling and activating RRS and code teams as well as the STAT line NICU nurse utilizing voalte to communicate to the emergency team members.

- 4. **Code Blue Newborn Team** includes: Neonatal Attending, neonatal fellow, pediatric resident, LIP, NICU Triage RN, NICU NIC, and registered respiratory therapist (RRT).
- 5. Rapid Response Team 1 includes: NICU Triage RN, delivery room resident #1 (DR 1), RRT.
- 6. **Rapid Response Team 2** includes: NICU NIC, neonatal fellow, delivery room resident #2 (DR 2), RRT.
- 7. In the event of simultaneous emergencies, team 1 will be paged and dispatched first, and then Team 2 will be paged and dispatched.
- 8. In the event an infant is the subject of two (2) Rapid Response calls, strong consideration should be given to the following:
 - Transfer to NICU Triage for monitoring and evaluation by the attending neonatologist, if this has not yet occurred.
 - Low threshold for NICU admission if infant is being evaluated in NICU triage for the second time. If the decision is to NOT admit the infant, there should be a discussion regarding the plan between the NICU attending neonatologist and the baby's attending pediatrician.
 - 9. All code equipment is to be brought to the infant requiring resuscitation outside of CWN 5, 6, 9, 10. For infants born precipitously on 8 south or births that occur in other areas of the hospital, the NICU team will transport the required equipment to the infant.

IV. Suggested Roles and Responsibilities: Newborn Code and Newborn RRS:

- 1. **CODE:** The neonatal attending physician will assume the role of code team leader. If needed, any additional Neonatal Resuscitation Program (NRP) credentialed clinician may assume the role of code team leader to organize the resuscitative efforts of the newborn.
- 2. **RRS:** The responding neonatal LIP will assume the role of RRS team leader and will assign individual roles for responding clinicians.
- 3. All clinicians are responsible for documenting assessment and interventions in the Newborn Code/Rapid Response Narrators (nursing) or by documenting a Significant Event/RRS or Code Note (LIP/Respiratory Therapy) in the electronic health record.

V. Criteria for Infant Code Team or RRS Activation:

1. Infant Code

- Any need to start NRP
- Apnea-Persistent requiring PPV



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- Bradycardia (HR Persistently < 80 bpm)
- Central cyanosis
- Cyanosis (Circumoral, unresponsive to BBO2)
- Floppy Baby (Absent tone/lack of resp effort = stunned infant requiring resuscitation)
- Persistent oxygen saturation less than 85% (>10 mins of life)
- Seizure like activity

2. Newborn Rapid Response

- Respiratory:
 - RR >70
 - O2 Sat 85-89% (>10 mins of life and requiring Oxygen)
 - Grunting/Flaring/Retracting
 - Neurologic:
 - Acute Change/Lethargy
 - Decreased/abnormal tone
 - Cardiovascular:
 - HR persistently >210
 - Other:
 - Any Fall/Drop Event
 - Initial Presentation after home birth
 - Uncontrolled bleeding
 - Unexplained pain
 - Unresolved parental concern
 - Any Staff member concern

VI. How to Activate an Infant Code or Newborn RRS in WBN/PP/CLB/Antenatal(see Addendum I)

- 1. Newborn Nursery (CWN 9 & 10):
 - a. For a **Rapid Response**: Please press the "staff assist" button in the nursery to initiate a local response from colleagues on your floor. Once an additional staff member arrives, please use the NICU STAT Red phone located in each Nursery (direct line to the NICU) to relay to the Stat RN the rapid response information using the G.I.R.L acronym.
 - b. For a **Code Blue Newborn:** Please press the Code Blue NB button in the nursery. This will send an automatic page to the newborn code team and does not require an additional phone call to the STAT RN. A local team member should be ready to inform the newborn code team upon arrival of the details pertaining to the code.
- 2. Center for Labor and Birth (CLB) dial x31164 (direct line to the NICU).
- 3. Antenatal dial x31164(direct to the NICU stat line) for precipitous birth situations.



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- a. All infant resuscitation equipment is to be brought and set up outside of the mothers room by the NICU team. The warmer set up with a neopuff and gases is the most important, followed by the code cart if needed.
- 4. Any staff member calling the NICU stat line must use the G.I.R.L acronym to state the following:
 - a. Gestational Age of the Infant
 - b. Indication for Call (Reason for impending birth or Rapid Response/Code)
 - c. Relevant Information for NICU team (if any)
 - d. Location

VII. <u>How to Activate an Infant Code for an admitted patient outside of CWN (see Addendum</u> II)

- 1. Call **2-6555**
- 2. Ask for a **Code Blue Newborn**
- 3. Any staff member calling a Code Blue Newborn must state the following:
 - a. Request Code Blue Newborn (inpatient newborn)
 Provide detailed location building, floor, dept/pod, room

<u>Communication with Parents:</u> NICU Code/Rapid Response team will update parents concerning the events for their infant

VIII. Code Blue Elevator Pass Information

- 1. NICU Triage RN, Attending Triage MD, RRT and NICU UC's front desk have Code Blue Elevator Passes for use in responding to code situations.
- 2. To use the Code Blue Elevator Pass:
 - a. Swipe Code Blue Elevator Pass in card reader or scan Code Blue Elevator Pass at elevator and push up or down button.
 - b. Once elevator arrives, ask any visitors or other hospital staff to vacate.
 - c. Once inside the elevator, swipe Code Blue Elevator Pass in card reader or scan Code Blue Elevator Pass.
 - d. Press and hold "Door close" button and floor number button until elevator door shuts.
 - e. Use same directions for returning to NICU with an infant.
- 3. **Equipment:** Code Blue Elevator Pass

IX. Procedure:

1. WBN/CLB:





Call for help by using NICU stat line x31164 or use red phone (WBN only) for code or rapid response situation. Well newborn nurseries can press their Code Blue NB button to elicit an automatic page to the code team and does not require a phone call.

- In the event of a power failure, call x2-6555 to have code or RRS overhead paged o All procedural actions occur simultaneously as appropriate NICU personnel become available.
 The CLB/PP nurse is the first responder in these situations. The NICU team responds immediately for codes and within 10 minutes for rapid response calls.
- **2. WBN**: Bring infant to nursery (if not already in nursery).

3. MRI Suites:

- The MRI technician will stop the scan and be responsible for calling for help using the hospital code line (2-6555) and requesting a Code Blue Newborn.
- The nurse that accompanied the infant from the NICU will be responsible for moving the baby to the designated resuscitation area outside the magnet.
- The MRI staff will be responsible for the NICU resuscitation team gaining access to the resuscitation area.
- NOTE THE MRI MAGNET IS ALWAYS ON. For patient and staff safety no resuscitation will occur in the magnet. The resuscitation team will NOT enter the magnet. The MRI technician will monitor for MRI safety.

4. All areas:

- Place infant on warming table when available.
- Apply O2 saturation probe.
- **5.** At the same time, first responder nurse (or designee): delegate another nurse to communicate with and update family.

6. Assess infant's status using NRP guidelines:

- <u>If infant is not breathing</u>: clear airway as needed and give positive pressure ventilation (PPV) and consider supplemental oxygen to achieve target saturation limits.
- <u>If infant is breathing</u> but remains dusky in color: provide blow by O2, which requires an increase on the wall blender to ensure oxygen is being provided not just room air. O Tactile stimulation may be tried two times.
 - WBN uses self-inflating bags with flow inflating bags available for NICU responding clinicians.
 - CLB uses flow inflating bags
 - MRI suites use flow inflating bags.
 - Flow inflating bags can be found in all Neonatal code carts.
- 7. Evaluate HR and start compressions if HR<60 after 30 seconds of effective PPV with 100% O2.
 - Effective PPV is defined by bilateral breath sounds and rise in chest movement.
- **8.** Give report to NICU team responding to call.
- 9. Transfer to NICU.
- **10. NICU/PP:** Notify private pediatrician about situation and transfer to NICU.

 Document assessment and interventions in the Newborn Code/ Rapid Response Narrators in the electronic health record. LIP/ Respiratory Therapists should write a detailed Significant Event



Department of Pediatric Newborn Medicine note or Code/RRS progress note. The time/date

stamp on the note should ideally be adjusted to fall between the Code/RRS start and end times as indicated in the Code /RRS Narrator.

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- 1. American Academy of Pediatrics & American College of Obstetricians and Gynecologists. (2012). Guidelines for Perinatal Care (7th ed.). Ch 8, Care of the Newborn, pp 266-276, 280-284. Washington, DC: Author.
- 2. American Heart Association and American Academy of Pediatrics. Handbook for Neonatal Resuscitation Textbook, 7th ed. 2016. Lessons 1-6. Washington, DC: AHA/AAP.
- 3. Donn, S. M. & Sinha, S. K. Manual of Neonatal Respiratory Care 2012. 3rd ed. Ch 13 Neonatal Resuscitation, pp. 121-127. New York: Springer.
- 4. Gardner, S.L, Carter, B.S., Enzman-Hines, M., & Hernandez, J.A. (Eds.). 8th ed., 2016, Merenstein & Gardner's Handbook of Neonatal Intensive Care. Niemeyer, S. et al, Ch 4, Delivery room Care, pp. 47-70; Hernandez, J. A. Ch. 5, Initial Nursery Care, pp. 71-104. Elsevier: St. Louis.





Addendum I:

Post- Delivery & Newborn Nursery Calls

CALL 31164 or use the Red Phone for Newborn Emergency and use G.I.R.L.



Gestational Age

Indication and Relevant Information

Location: (e.g. Labor room 4, CWN 9 Nursery)



Newborn Code Blue

"Run to event"

- Any need to start NRP
- Apnea-Persistent requiring PPV
- Bradycardia (HR Persistently < 80 bpm)
- Central cyanosis
- Cyanosis (Circumoral, unresponsive to BBO2)
- Floppy Baby (Absent tone/lack of resp effort= stunned infant requiring resuscitation)
- Persistent oxygen saturation less than 85% (>10 mins of life)
- · Seizure like activity

Newborn Rapid Response

"Walk to event"

Respiratory:

- RR >70
- O2 Sat 85 89% (> 10 mins of life)
- Grunting/Flaring/Retracting

Neurologic

- Acute change/lethargy
- Decreased/abnormal tone

Cardiovascular

• HR Persistently >210

Other:

- Any Fall/ Drop event
- Initial presentation after home birth
- Uncontrolled bleeding
- Unexplained pain
- Unresolved Parental concern
- Any Staff Member concern

CALL 31164 or use the Red Phone

Communication to Primary Pediatrics team after Newborn Code Blue or Rapid Response:

- RRS or Code Team documents findings in Newborn's chart, including plan and disposition of newborn.
- NICU team communicates plan to private pediatrician as well as CLB/WBN/PP staff.

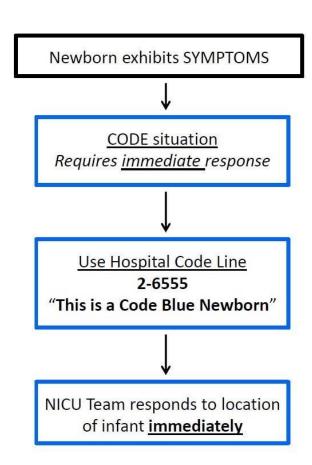




Addendum II:

*This also applies to any MRI performed at the Building for Transformative Medicine (BTM)

Newborn Symptom Evaluation and Communication Algorithm within the MRI suites (Lee Bell or L1)



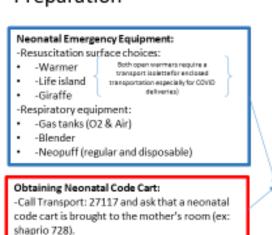




Addendum III:

Off Service Antenatal Patients: NICU Emergency Event Plan and Preparation

Neonatal Emergency Equipment Workflows



Is the mother receiving ICU Care (Shapiro or Tower Building Yes NICU team to place outside of mother's room*: Resuscitation surface 2. Ensure respiratory equipment available (attached to resuscitation surface or separate) 3. Obtain Neonatal Code Cart 4. Provide NICU contact number sheet for ICU staff if you are leaving the equipment there. *If there are more than 3 patients receiving ICU care simultaneously, Please email or text Julie to make a plan to convert to a central neonatal emergency equipment process in the Shapiro building, from individual set ups outside of the patient rooms. **If there are 2 mothers within the same SP-ICU, one set of emergency equipment can be set on

No Antepartum patients in SPU (med surg) floors will be cohorted on CWN 7 and 8. The normal antepartum unit on 8 south pertains to these emergency workflows as well. NICU triage team to keep a list of inpatient pregnant patients and their locations -If an obstetrical emergency arises without the ability to move the patient to CWN 5, the NICU team will obtain the closest neonatal emergency equipment located on: -CWN 5 -CWN 6 -CWN 8s -CWN 9 -CWN 10 And will set up a resuscitation station outside of the mother's room.



the unit in a centralized fashion.





