Neonatal Evacuation: More Than Just Moving Horizontal

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Introduction

In the aftermath of recent natural disasters and continued threats of terrorism in the world today, the need for an evacuation plan specific to the Neonatal ICU (NICU) is critical. NICU staff must be prepared to safely evacuate medically-fragile infants in a well-organized manner, ensuring the best outcome for high risk patients, family members, visitors, and staff.

Our previous evacuation plan was brief. A multidisciplinary team was assembled to add personnel roles & responsibilities, procedures and equipment needs to our policy. Our new evacuation plan includes:

- Acuity-based algorithm for both immediate and delayed evacuation
- Personnel roles and responsibilities
- Guidelines for use of evacuation equipment
- Medical concerns during transport
- Security issues
- Tracking forms for reconciliation of patient movement
- Family notification
- Equipment and supplies to use at alternate care sites

Team Members

- Emergency Preparedness Staff
- Nurses
- Physicians
- Respiratory Therapists
- Dieticians
- Pharmacist
- Service Coordinators (Secretaries)
- Service Associates (Environmental Services)

Policy

PURPOSE

DEFINITIONS/APPLICATIONS

- Horizontal vs Vertical; Immediate vs Delayed; Staging area; Alternate Care Site (ACS)

PROCEDURES

- Authorization to evacuate
- Evacuation priorities: Acuity & evacuation algorithms - order of patient evacuation for immediate (1,2,3) and delayed evacuation (3,2,1)
  - Acuity 1: Minimal Care: Feeder Growers
  - Acuity 2: Moderate Care: Nasal cannulas, PIV, PICC
  - Acuity 3: Intensive Care: Ventilators, Vasopressors, Chest tubes, iNO

ALTERNATE CARE SITES

STAGING AREA

EVACUATION EQUIPMENT

ACS EQUIPMENT

PERSONNEL ROLES & RESPONSIBILITIES

- Physician, Nurse Manager/Designate, Charge Nurse, Row Leader, Bedside Nurse, Respiratory Care Practitioner, Service Coordinators & Service Associates

GUIDELINES FOR EVACUATION DEVICES

MEDICAL CONCERNS DURING TRANSPORT

- Ensure patient identification, ventilation, fluid management, suction, thermoregulation, vital signs

SECURITY

RECONCILIATION OF PATIENT MOVEMENT

FAMILY NOTIFICATION

APPENDIX A: Back pack contents list

APPENDIX B: ACS supplies

Key Components

TRAINING SCHEDULE

Neonatal ICU Training & Exercise Record 2016-2017

Training or Exercise	Event	Month/Year
Training	MedSled Baskets (infant carriers)	March 2016
Training	Panic Alarms/Safety	July 2016
Training	Code Pink (missing infant)	July 2016
Exercise	Panic Alarms/Safety	August 2016
Exercise	Code Pink	August 2016
Training	Neonatal Ambu Self-Inflating Bags	September 2016
Exercise	Neonatal Ambu Self-Inflating Bags	September 2016
Training	Oxygen Tanks	September 2016
Exercise	Oxygen Tanks	September 2016
Training	WeeVac – infant stretchers	September & October 2016
Training	Table Top Discussion of Immediate Evacuation	February 2017
Training	MedSled Baskets	March 2017
Training	NICU Evacuation Protocol, Job Action Sheets and Tracking Forms	March & April 2017
Training	NICU Patient Evacuation Supply Bags	March & April 2017
Exercise	Full Scale Drill: Code Purple – NICU Evacuation Controlled Evacuation to Pediatric Intermediate Care Unit (IMC) and Newborn Nursery (NBN) for scheduled power upgrade and "refresh" in NICU	May 2017 • May 9 – relocate to IMC & NBN • May 11 – return to NICU

JOB ACTION CARDS FOR ALL TEAM MEMBERS

NICU Bedside RN

- Secure 2 ID bands on infant
- Place 2 patient labels either on outer clothing if dressed or inside band of diaper, and on blanket
- Infants should be wearing hats and wrapped in blankets
- Obtain evacuation bag from Row Leader
- Gather clip board, chart, patient labels
- **DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER**
  If ordered to evacuate:
- **Tubes/wires:** Disconnect as many as possible
- **CNG feeds:** Hold/ intermittent slow push after consulting with LIP
- **IVs:** Heplock after consulting with LIP; may draw up essential fluids in large syringe and manually push if unable to transport pumps; if using pumps make sure working on "battery"
- **Vents:** hand ventilate with self-inflating bag; may use flow- inflating bag if portable O2 tank available
- **CPAP:** use flow- inflating bag if portable O2 tank available; if portable O2 tank not available use self-inflating bag to delivery breaths
- **Nasal cannula:** attach to portable O2 tank (if available)
- **Chest tubes:** Place to water seal or connect to Heimlich valve
- **Warming mattresses** available with Evacuation Supplies in Lab
- If feasible, obtain patient medications from Pyxis and store in "medication" baggie in evacuation bag
- Be aware of your patients' Acuity Levels and algorithms for an Immediate or Planned/Controlled evacuation
- Complete **HICS 260 NICU Patient Evacuation Tracking Form** for each patient
- If possible, 2 copies per patient: original stays with patient, if able to copy, give copy to Charge RN
- Under direction of Row Leader, identify transport requirements (cribs/bassinets, incubators, WeeVac, evacuation baskets)
- As each patient is evacuated report transfer to Row Leader who reports to Charge RN

TRACKING FORMS

Charge RN:

- Hospital Incident Command System (HICS) 255 Master Patient Evacuation Tracking Form
- Row Report Sheets
- HICS 213 General Message Form

Bedside RN:

- HICS 260 NICU Patient Evacuation Tracking Form

Equipment/Supplies

- Medsled® Evac Baskets with 0_2 Evac Packs; Basket Racks
- WEEVAC 6 Infant Stretcher Systems
- Back Packs with supplies for 6 hours at ACS: Basic supplies, IV start, IV administration, Feeding, Self-inflating bag/O_2 tubing
- Formula:19/20 & 22 calorie, Preemie 24, Alimentum
- TransWarmer® mattresses & NeoWraps™
- Respiratory: O_2 tanks, compressors, portable suction
- Goggles with spotlights
- Flashlights/batteries & glow sticks
- NICU vests
- Pink Evacuation Clipboards

Implementation

From March 2016 to May 2017, staff were trained on all aspects of evacuation. This training was put into practice in May 2017 during a unit power upgrade. This upgrade required all NICU patients to be relocated to two alternate care sites in the hospital for 3 days. The NICU Evacuation Manual served as a resource for policy, forms, and equipment. Since this was a scheduled evacuation, not all elements of our new policy were instituted. For example, because backpacks only contain supplies for 6 hours, supplies were delivered to the ACS on temporary storage carts. The policy was followed for patient relocation based on acuity, and tracking forms were used. The HICS was operational throughout this time. Having a well-thought out plan and the opportunity to implement it in a controlled manner, resulted in a successful full-scale evacuation. Future plans include annual drills.

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