Title:
NICU Emergency Management

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Abstract Summary:  
The purpose of this project was to establish a shared governance emergency management committee in the Riley Hospital for Children at Indiana University Health Neonatal Intensive Care Unit with a detailed focus on horizontal evacuation plans to ensure patient and staff safety should an emergency or crisis situation presents itself.

Learning Activity:  

<table>
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<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<td>The learner will be able to identify the fellow's leadership journey.</td>
<td>The leadership journey will be outlined in detail per Jim Kouzes and Barry Posner's Five Practices of Exemplary Leadership encompassing inspiring a shared vision, enabling others to act, challenging the process, encouraging the heart, and modeling the way.</td>
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<tr>
<td>The learner will be able to identify the fellow's methodology utilized during the NICU Emergency Management project.</td>
<td>The methodology utilized for this project will be outlined in detail within the poster presentation.</td>
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Abstract Text:  

Introduction & Background:  
The purpose of this project was to establish a shared governance emergency management committee in the Riley Hospital for Children at Indiana University Health Neonatal Intensive Care Unit (NICU) with a detailed focus on a horizontal evacuation plan to ensure patient and staff safety should an emergency or crisis situation presents itself. In doing this, the hope was to build a sense of community and increase engagement amongst the Riley NICU nursing team members by enlisting the nursing team’s participation in this committee with the overall goal being to reinvigorate, energize, and promote job satisfaction along
with retaining new team members so that clinical expertise could be established, thus ensuring the
delivery of synergized, preeminent, and safe patient care with optimal outcomes. The importance of this
overarching goal has been underscored by some historical data: (a) the Riley NICUs employee
genration scores has steadily dropped over a five-year period and the unit continued to remain a Tier
III unit, indicating that significant action planning was necessary; (b) the Riley NICU has experienced
higher than normal turnover rates, with approximately 45% of the nursing staffing having less than 18
months of experience, associated with this is the significant financial costs associated with onboarding
and orienting new nurses; (c) lastly, there was a recent move from a 55 bed open module concept unit to
a 60 bed all private room unit in 2013. Although private patient rooms are great for family-centered care,
there are some impedances to this staffing model that directly impact the mentoring and teaching milieu
of the newer nurses. A way to approach these issues is to enlist an eclectic multidisciplinary team to work
on problem solving for a NICU horizontal evacuation plan while building interpersonal relationships along
the way.

Aim/Goal/Purpose:

The Riley NICU nursing staff identified a unit gap of a comprehensive emergency operation plan that
would encompass a disaster management/emergency preparedness system that provides all of the NICU
team members with the guidance, education/training, and resources to initiate and mobilize disaster
preparedness and response efforts in the Riley NICU to would address an internal or external emergency
should the need arise. Given this, a multidisciplinary unit working group was formalized to devise and
cultivate a master plan for disaster management/emergency preparedness in an attempt to draw in the
participation and commitment of the unit’s team members to ultimately increase nursing team member
engagement as well as retention, thus intensifying clinical expertise amongst the nurses on the unit.

Target Audience:

The target audience for this project was the entire Riley NICU multidisciplinary team, with an extreme
focus on the RN team (N=221 full-time, part-time, and supplemental RNs). There was also participation
from the neonatologists, neonatal nurse practitioners, and the NICU respiratory therapists. A total of 90
participants completed survey information that assessed the effects of this project.

Methods:

The Riley NICU Healthcare providers (i.e., Registered Nurses, Respiratory Therapists, Neonatologists,
Neonatal Nurse Practitioners, Social Workers, etc.) knowledge gap surrounding NICU disaster and
emergency preparedness was identified, assessed, and validated via a pre-education evaluation survey.
From this, a shared governance emergency management multidisciplinary team, charter, and meeting
schedule were created to plan the work of the team. During the committee planning meetings a list of
roles and responsibilities with specified actions should an emergency present itself were devised,
evaluated, and reviewed by team members. An inventory of the NICU Disaster Box was performed
and these boxes were stocked according to unit need. These disaster boxes contain supplies (i.e. head
lights, flashlights, batteries, etc.) that might potentially be needed should a disaster present itself. To raise
awareness of the unit needs, a poster for the NICU 2016 education fair was compiled that depicted the
need for evacuation drills and planning in the NICU, and outlined the types of disaster and evacuations
that could occur. During a monthly charge nurse meeting, the charge nurses performed a NICU
scavenger hunt to familiarize themselves with the location of emergency/disaster supplies on the unit.
Additionally, there were demonstration stations set up to show the team how to assemble evacuation
baskets and their stands as well as allowing for practice of these skills. The result of this work was the
development of a comprehensive NICU horizontal evacuation plan that included formalized procedures,
education, and training for all NICU Healthcare members. Following the abovementioned activities,
mandatory NICU horizontal evacuation drills were performed during the week on day and night shift as
well as on the weekend during day and night shift. Using a pre-/post-design, upon completion of the
mandatory education and evacuation drills a survey was administered to assess both the pre- and post-
confidence and the perceived competency of the NICU Healthcare members who participated in the drill.
Data/Results:

Ninety participants of the NICU Healthcare team completed pre- and post-assessments designed to assess the effects of this multi-faceted, comprehensive NICU horizontal evacuation plan project. Of those who participated in the program and responded to the assessments there was a 41% improvement in participants’ perception of their own preparedness to evacuate the NICU patients in case of an emergency. There was an increased knowledge regarding where emergency equipment is stored (an increase of 15 percent), and how to use ‘Evacuation Baskets’ (an increase of 22 percent). Additionally, 60 percent of respondents felt confident that they had a clear understanding of their duties in the case of a disaster (increased from 26 percent) in the NICU and 87 percent of participants felt that they knew which patients should be moved first in case of an emergency, greater than a 25 percent increase. However, a knowledge check question revealed that although almost 90 percent of people felt they knew the order to move patients in case of an emergency there was a decrease in the number of accurate answers. To assess the overarching goal of increasing job satisfaction and promoting NICU staff unity, pre- and post-project Press Ganey evaluations will be discussed.

Conclusions:

Establishing unit based emergency management plans, procedures, education, and training is of the utmost importance in order to ensure that a viable capability and understanding exists in order to continue essential patient care during moments of crisis. We identified that perceived confidence and knowledge increased significantly following the implementation of this comprehensive program. However, actual knowledge scores did not increase as predicted suggesting that booster interventions are needed over time. The development, planning and implementation of this project resulted in important changes in the nursing staff engagement.