A Neurodevelopment Quality Initiative

Julie LaSalle, RN, Andrea Lieblich, RN, Jordan Grimes, RN, Gwen Erkonen, MD
NURSING LEARNING OBJECTIVES

- To summarize the literature supporting infant holding as an intervention to improve neurodevelopmental outcomes in the infant patient

- To define safe holding of critically ill infants and children

- Demonstrate proper documentation of holding of critically ill infants and children
**LITERATURE:**

“The goal of family-centered care is to encourage parents to develop care skills within the context of parenting their infants. Inclusion of parents in daily caregiving has been shown to reduce maternal stress and increase self-esteem”

“It has been well established that infants with congenital heart disease (CHD) are at risk for neurodevelopmental impairments. Reports have been published that indicate that in complex CHD, up to 50% of the infants have neurodevelopmental impairments”.

Infants and children with CHD are at risk for neurodevelopmental morbidity related to their heart disease and its treatment, so it is vitally important to support their optimal neurodevelopment by providing developmentally supportive care.


The objectives of developmental care interventions are to reduce neurodevelopmental delay, poor weight gain, length of hospital stay, length of mechanical ventilation, and physiologic stress, and increase parental involvement in care.

How often do you let families hold their intubated child?

Choose the top 5 reasons you do NOT allow holding.
Patients stability for holding is a **SUBJECTIVE DECISION** and should be **discussed every shift** with your multidisciplinary team including physician, RT and bedside RN

Patients that are **PRECLUDED** from holding are open chest, actively pacing with temporary pacing wires, Non-cuffed intracardiac lines or actively titrating medications that deem them unstable to move

**WHICH PATIENTS CAN BE HELD IN THE CICU?**
RN must be present for all initial holding trials

Monitors should remain in place with appropriate alarm volumes

Secure all lines and tubes

Have emergency equipment available eg: suction, blue Kelly clamps, red bin for tracheostomies

Education provided to families regarding appropriate safety procedures
HOLDING CRITICALLY ILL PATIENTS

- Holding includes patients with CT, CVL, UAC/UVC, Arterial lines, Cuffed Intracardiac lines, ETT, Established tracheostomies, vasoactives, and secured TPWs

- Ensure direct care MD, APP or Fellow aware of initial holding trial and a nursing communication order obtained

- A combination of staff members should be present for all holding trials of critically ill patients. This may include MD, RN, RT, PT, OT and/or PCA.

- Perform a time-out to discuss roles

- *Patients actively pacing with temporary wires should not be held by family except for special circumstances and provider approval*
ENSURE LINES, DRAINS, & AIRWAYS ARE SECURED PRIOR TO HOLDING
EXAMPLE OF SAFE HOLDING
EXAMPLE OF HOLDING AN INFANT IN THE PRONE POSITION
Please obtain a nursing communication stating okay to hold.

Document patient position as “Held” or “Skin to skin”. Add total time held in comments section.

In narrative note: Notate any significant changes that occurred during holding or skin to skin.
**PATIENT POSITION:**

**PEDiatrics DAILY CARES**

**COMPLEX VITAL SIGNS**

**PEDiatric HEAD TO TOE ASSESSMENT**

<table>
<thead>
<tr>
<th>Heart Devices</th>
<th>Patient position</th>
<th>Supine</th>
<th>Left side down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of Bed</td>
<td>30 degrees or...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head of Bed (degrees)</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Monitors**

- Alarms on/functional/audible
- Monitor Limits
- Heart rate upper limit
- Heart rate lower limit
- NBP systolic upper limit
- NBP systolic lower limit
- NBP diastolic upper limit
- NBP diastolic lower limit

**Selection Form**

- Supine
- Prone
- Right side down
- Left side down
- Sitting upright in bed, infant seat, or chair
- Ambulation
- Held
- Skin to skin

[Selection Form Buttons: Accept, Cancel]
To ensure successful adoption of developmentally supportive care with safe holding in the CICU, we provided a PowerPoint to the nursing staff with a pre/post test.

Following completion of the PowerPoint/Training track we saw overall improvement in knowledge of safe holding.

Based on nursing documentation, holding has increased in frequency since providing education on holding critically ill infants.

Implement safe holding practices in your unit to ensure developmentally supportive care for your patients.
WE WOULD LOVE FOR YOU TO IMPLEMENT SAFE HOLDING IN YOUR UNIT. HERE’S HOW . . .

We can provide you with our PowerPoint on safe holding and important evidence-based literature.

Nominate “Safe Holding Champions” for fellow nurses and physicians to create a resource during a holding trial of a complex patient.
Questions and answers