

<u>Session/Poster#</u>	<u>Presenter</u>
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Neonatal Pain: Perception, Practice of Monitoring and Management in a Level III Neonatal Intensive Care Unit.

Background: Neonates often experience pain from multiple procedures which can impact their cognitive and neurobehavioral outcomes. Effective pain management in neonates is critical but can be challenging to implement in the NICU.

Aims: To increase the use of neonatal pain management interventions by NICU staff to over 70% within three months.

Methods: We used the plan-do-study-act (PDSA) problem-solving approach. Interventions included staff education using presentations and flyers, interdisciplinary meetings with stakeholders, and improved access to pharmacological agents. Data was collected through individual surveys. Our outcome measure was the percentage of NICU staff who implement neonatal pain management interventions >70% of the time. Our balancing measure was a delay in patient care. Chi-squared test for proportions was used for the analysis of pre-and post-intervention outcomes.

Results: Pre- and post-intervention data were collected from 51 and 35 NICU staff respectively. The use of non-pharmacological measures and topical analgesics during >70% of skin-breaking procedures increased from 64% (33/51) to 82% (29/35; $p = 0.06$) and 5.8% (3/51) to 48.5% (17/35; $p = <0.001$) respectively. The percentage of NICU staff who reported being adequately trained in pain management increased from 17.6% (9/51) before to 62.8% (22/35; $p = <0.001$) after our interventions. Common barriers to implementing pain management were the availability of pharmacological agents (35/35, 100%) and the implementation time (19/35, 54.2%). Very few (4/35, 11%) reported delayed patient care because of pain management interventions.

Conclusion: We increased the use of procedural pain interventions in the NICU, using quality improvement methodologies and interdisciplinary cooperation. To further increase the implementation of pain management interventions, additional education along with increasing the availability of pharmacological agents are warranted.