

Does Skin-to-skin Reduce Pain in Newborns?

Crystal Loomis BSN, RN

Lehigh Valley Health Network, Crystal.Loomis@lvhn.org

Maria Piger BSN, RN

Lehigh Valley Health Network, Maria_J.Piger@lvhn.org

Follow this and additional works at: <https://scholarlyworks.lvhn.org/patient-care-services-nursing>

Published In/Presented At

Loomis, L. Piger, M. (2018, August 2). *Does Skin-to-skin Reduce Pain in Newborns?*. Poster presented at: LVHN Vizient/AACN Nurse Residency Program Graduation, Lehigh Valley Health Network, Allentown, PA.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Does Skin-to-skin Reduce Pain in Newborns?

Crystal Loomis BSN, RN Maria Piger BSN, RN
Lehigh Valley Health Network, Allentown, Pennsylvania

Introduction

- LVHN Hypoglycemic Protocol for Newborns
 - Newborns at risk for hypoglycemia receive heel sticks and feed every 2 hours for 12-24 hours
 - Infants at risk include ones that are less than 37 weeks gestation, SGA (small for gestational age), LGA (large for gestational age), and infant's of diabetic mothers
- Newborn/Maternal response
 - Newborns often cry during heel stick
 - Mother's express concern that newborn is in pain
- Benefits of skin-to-skin
 - Infants cry less, stay warmer, feed better, have more stable blood sugars. It also promotes bonding between newborns and parents.

PICO

- In newborns receiving heel sticks for blood sugar testing, will skin-to-skin contact compared to no skin-to-skin contact result in a decreased pain score?
- **Population** – Newborns receiving heel sticks for blood sugar testing
- **Implementation** – Skin-to-skin contact
- **Comparison** – No skin-to-skin contact
- **Outcomes** – Decreased in pain score

Evidence

- Crying, grimace and heart rate are reduced by skin-to-skin contact with mothers during heel sticks (Gray et al., 2017).
- Skin-to-skin showed a lower NFCS (Neonatal Facial Coding System) score throughout heel lace procedures (Castral et al., 2007).
- Decreased crying during puncture heel squeeze while skin-to-skin (Disher et al., 2016).
- Decreased heart rate, improved oxygen saturation, decreased pain facial expression time, and decreased crying time were seen before, during, and after heel sticks during skin-to-skin (Liu et al., 2013).
- Infants slept more while skin-to-skin during heel sticks (Ludington-Hoe & Hosseini, 2005).

Implementation

Criteria	0	1	2
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant quivering chin, clenching jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid or jerking
Cry	No cry (awake or asleep)	Moans or whimpers; occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging, or being talked to, distractible	Difficulty to console or comfort

- Postpartum nurses document pain scores on infants receiving heel sticks using the FLACC pain scale
 - At least one pain score documented while infant is skin-to-skin and one while infant is not skin-to-skin (while in crib)

Results

- Data collected on 21 newborns
- 62% of newborns showed a lower pain score while skin-to-skin
- 38% of newborns had the same pain score during skin-to-skin contact and no skin-to-skin contact
- 0% of newborns showed an increase in pain score



Conclusion

- In conclusion, newborns showed a positive response while skin-to-skin during a heel stick compared to being in the crib. Putting infants skin-to-skin with their mother not only benefits the newborn, but also comforts the parents.

REFERENCES

1. Disher et al. (2016). Skin to skin contact for procedural pain in neonates; acceptability of novel systematic review synthesis methods and GRADEing of the evidence. Journal of Advanced Nursing.
2. Liu et al. (2013). Effect of skin contact between mother and child in pain relief of full-term newborns during heel blood collection, Clinical and Experimental Obstetrics and Gynecology
3. Somashekhar et al. (2013). Kangaroo mother care in reducing pain in preterm neonates on heel prick. Indian Journal of Pediatrics.
4. Ludington-Hoe & Hosseini. (2005). Skin to skin contact analgesia for preterm infant heel stick. National institutes of health.
5. Gray et al (2017). Skin-to-skin Contact is Analgesic in Healthy Newborns. American Academy of Pediatrics
6. Castral et al. (2007). The effects of skin to skin contact during acute pain in preterm newborns. European journal of pain.

© 2014 Lehigh Valley Health Network