

Newborn Delayed Immersion Swaddle Bathing

Central DuPage Hospital Mother-Baby Unit

Practice Council:

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Purpose:

- Primary goal: Improve the transition of the term normal newborn to extra-uterine life by decreasing hypothermia and hypoglycemia
- Secondary goals:
 - Increased breastfeeding success and maternal bonding
 - Align with current recommendations
 - Support a recent trend of parents requesting delayed bathing and parental involvement

Model: Johns Hopkins Evidence-Based Practice

(Dang, D. & Dearholt, S., 2018)

PICOT Question:

- In term newborn infants (P), is delayed immersion swaddle bathing (I) compared to current bathing practice (C) more effective in maintaining newborn temperature between 97.7-99.5° F (O)during hospital stay (T)? **AND**
- In term newborn infants (P), does delayed immersion swaddle bathing (I) compared to current bathing practice (C) improve exclusive breastfeeding rates (O) during hospital stay (T)?

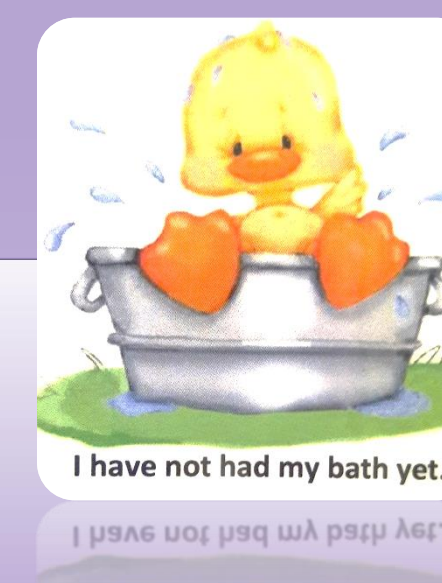
Synthesis of Evidence:

EVIDENCE REVIEW MATRIX (Duplicate sources found not included in matrix)									
Author	Title	Year	Question	Design	Sample	Data	Findings	Limitations	Level of Evidence
Association of Women's Health, Obstetrics & Neonatal Nursing (AWHONN)	Neonatal skin care (4th ed.), pp. 41-63	2018	Evidence-based clinical practice guideline for all neonates. Immersion bathing of infant part of guideline.	Developed by a team of experts from AWHONN and Neonatal Nurses Association. Guideline was then reviewed by expert nurse and physician leaders.		Extensive review of research and literature. Expert team used a revised scale including the combination of the USPTST (1996) Guide to Clinical Preventive Services quality-of-evidence rating scale and additional scores to further delineate metaanalysis and systematic review studies.	Several studies have shown the value of immersion bathing even if umbilical cord has not fallen off.	Written for both preterm and term infants	Strength of evidence: Level 1-2 Quality of evidence: High
Mittinty, M, Joanna Briggs Institute	Newborn washing: Delayed bathing	2017	What is the best evidence regarding newborn washing in the immediate postpartum period?	Literature review-Recommendation from research and best practice		Extensive review of research and literature Scoring of literature	Delayed bathing associated with improved breastfeeding. Decreased separation from mother and increased skin-to-skin contact with mother.	Research conducted internationally and included qualitative study as well as retrospective and observational study.	Strength of evidence: Level 1-2 Quality of evidence: High
World Health Organization	WHO recommendations on postnatal care of the mother and newborn	2013	Exclusive breastfeeding Delayed bathing Rooming-in/skin-to-skin care	Literature search		Literature search of Cochrane Database and Medline to identify high-quality, systematic reviews and meta-analysis Evidence graded	Longer duration of breastfeeding	Written for low-income settings as well as United States	Strength of evidence: Level 1 Quality of evidence: Moderate
Brogan, J. & Rapkin, G.	Implementing evidence-based neonatal skin care with parent-performed, delayed immersion baths. Nursing for Women's Health, 21(6), 442-450	2017	Does delayed bathing decrease hypothermia? What is parents' perception of participating in bathing in patient room?	Pre-post data on newborn temperature after implementation of protocol of delayed tub bath Parent survey	282 infants total: 142 sponge bath; 140 immersion tub bath 36 completed parent surveys	Retrospective chart review Questionnaire using Likert scale	Significant difference in hypothermia in immersion bath group (p=.044, z score 2.010). Positive parent comments.	Single site, retrospective analysis Conducted in military hospital	Strength of evidence: Level 3 Quality of evidence: Moderate

Parent comments about experience with delayed swaddled immersion bath

First-time parents loved the hands-on approach.

- 2nd baby – Loved the bath. I had no idea you could swaddle the baby in the bath. She was so calm the whole time. I am going to try this at home.
- 2nd baby – Loved the immersion bath. We have tubs at home but it was really nice to see how you do it here.
- 4th baby – Loved the bath, especially the skin-to-skin immediately after.
- My stay has been very nice. The nurses are all really awesome. I like the immersion bath. The nurse was really gentle with him.
- I loved being here. My stay was very relaxing. The nurse explained everything to me about the bath, and the reasons why we delay the bath. My other children were here to watch the baby's first bath, and they were amazed.
- 2nd baby – Loved the delayed bath done in the room. I didn't participate but enjoyed watching how calm the baby was. Really loved the skin-to-skin immediately after the bath. My 5yo daughter was here and enjoyed seeing the bath as well.
- 3rd baby – Had a baby here 5 years ago – this was not done then. Really enjoyed being part of the bathing process. Nurses are amazing.
- 4th baby – Loved the bath – Brooke did it in the room. I loved that the baby didn't cry at all.



Practice Change:

Mother-Baby Model

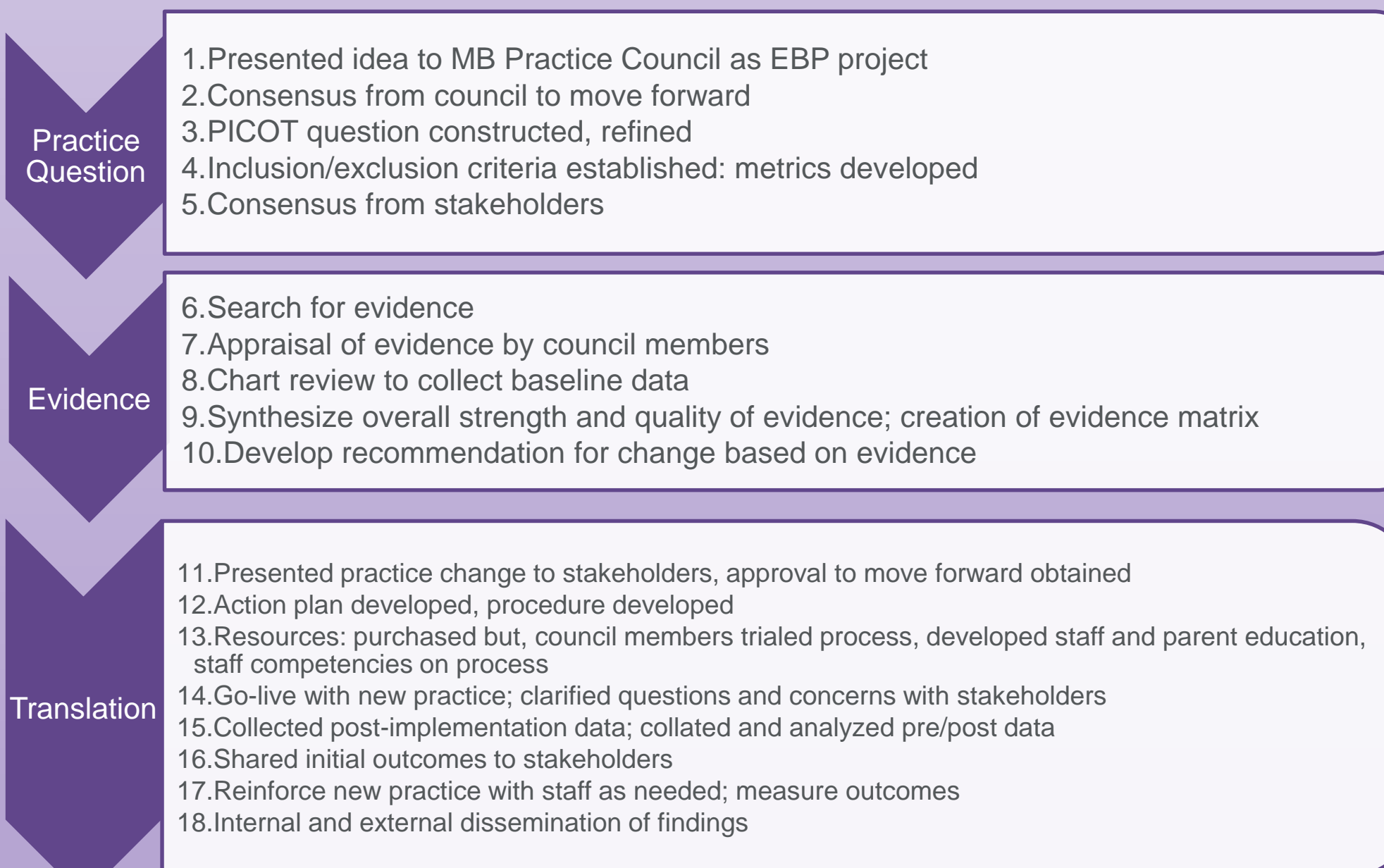
Prior practice-

- Once admitted to the mother-baby unit, the baby is separated from mother and brought to **nursery** for assessment and **sponge bath** under warmer soon after birth

Change-

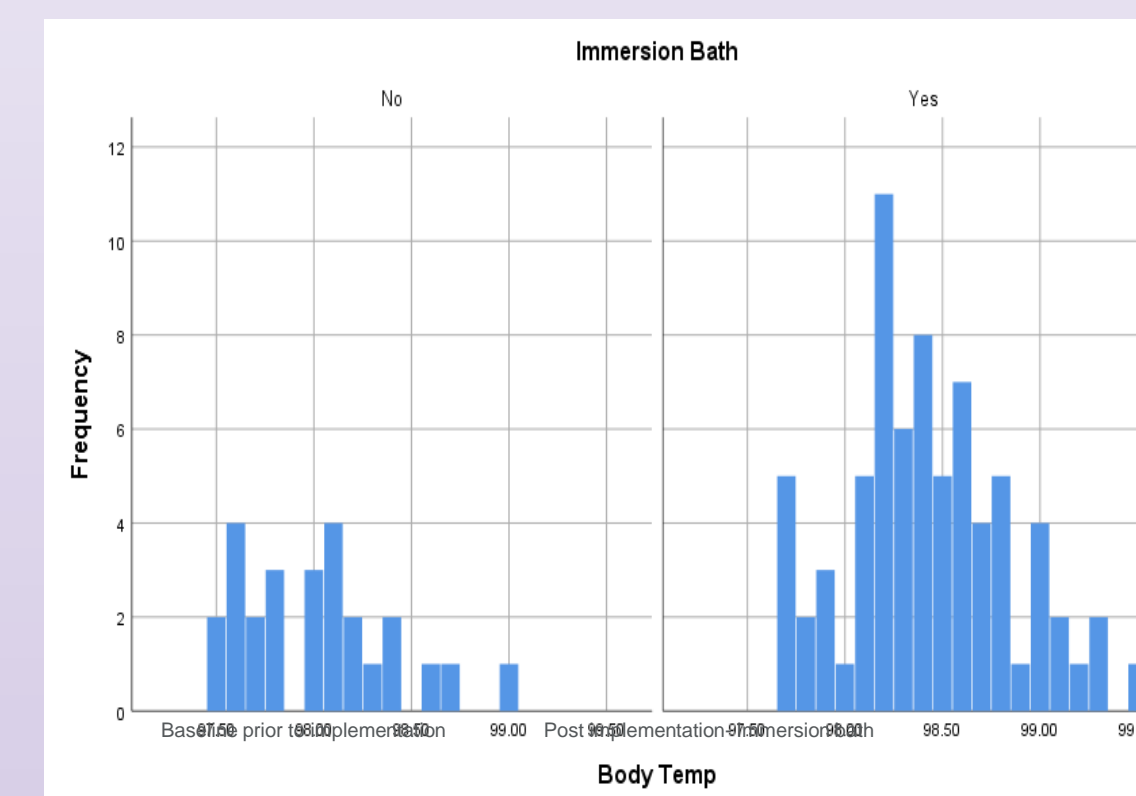
- Couplet admitted to mother's room, assessment done in room
- **Immersion swaddled bath** performed at the parents' bedside at a time when they can participate
- **Bath delayed for at least 12 hours** for stable term infants, and for at least 24 hours for stable preterm, and small for gestational age infants
- Infants **placed skin-to-skin after the bath**

Implementation Process:



(Adopted from Dang, D. & Dearholt, S., 2018)

Evaluation:



	Exclusive Breastmilk Feeding	Breastmilk and Supplementation	Marginal Row Totals
Pre-implementation	11 (12.58) [0.2]	9 (7.42) [0.34]	20
Post-implementation	45 (43.42) [0.06]	24 (25.58) [0.1]	69
Marginal Column Totals	56	33	89 (Grand Total)

The chi-square statistic is 0.6938. The p-value is .404868. Not significant at p < .05.

Learnings:

- Take time to work out potential barriers to new practice before introducing to staff
- Unit champions are crucial
- Engage stakeholders early and throughout process
- Listen and address concerns once the new practice is in place

Conclusions:

- Data demonstrates delayed immersion swaddle bathing is more effective in maintaining newborn temperature than standard care
- No newborns were hypoglycemic in either group
- Exclusive breastfeeding at discharge:
 - No difference between pre-/post-implementation groups at this time
 - Other factors may influence exclusive breastfeeding, and further work needs to be done
- Parents enjoy new bathing process

Next Steps:

- Continue to support new practice changes with staff
- Continue to ensure primary and secondary goals are in control
- Share results with internal stakeholders- as a result of Mother-Baby success, procedure implemented in neonatal intensive care unit for stable infants
- Share results externally

References

Association of Women's Health, Obstetrics and Neonatal Nurses. (2018). *Neonatal skin care evidence-based guidelines* (4th ed.). Washington, DC: Authors.

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Dang, D. & Dearholt, S. (2018). The Johns Hopkins nursing evidence-based practice model and process overview. In Dang, D. & Dearholt, S. (Eds.), *Johns Hopkins nursing evidence-based practice (3rd ed.): Model and guidelines* (35-59). Indianapolis, IN: Sigma Theta Tau International

Mittinty, M. (2017, November 16). Evidence summary. Newborn washing: Delayed bathing. *The Joanna Briggs Institute EBP Database*

World Health Organization. (2013). *WHO recommendations on postnatal care of the mother and newborn*. Retrieved from http://www.who.int/maternal_child_adolescent/documents/postnatal-care-recommendations/en/

Project was deemed not human subjects research by IRB