

**A Clinical Practice Guideline in Women During Second-Stage Labor: Quality
Improvement**

Cindy Ho

Lakeview College of Nursing

Dr. Ariel Wright

October 7, 2022

A Clinical Practice Guideline in Women During Second-Stage Labor: Quality Improvement

Nursing interventions during second-stage labor vary widely due to the lack of updated research evidence. The lack of research evidence has led to a disparity in birthing outcomes. Studies have shown that Cesarean sections, spontaneous vaginal births, and vacuum-assisted births are all associated with maternal morbidity. Along with physical demands on the birthing woman's body in the second stage of labor, there are increased risks of accidental injury to the neonate or mother, increased risk for hemorrhage, and even maternal death. This study aims to set standard guidelines in nursing interventions for better birth outcomes. Quality Improvement uses knowledge to "describe approaches for changing processes of care" (QSEN Institute, 2020, Table 4). Clinical practice guidelines (CPGs), Levine's conservation model, The 5 Ps of Safe Second-Stage Labor Care, and the advancing research and clinical practice through close collaboration (ARCC) model guide the nursing interventions for women during second-stage labor.

Article Summary

The intervention includes implementing the clinical practice guidelines (CPGs), Levine's conservation model, The 5 Ps of Safe Second-Stage Labor Care, and the advancing research and clinical practice through close collaboration (ARCC) model to create a nursing intervention guideline for women in the second stage of labor. These models offer different approaches to creating evidence-based steps to improve outcomes and using knowledge for quality improvement, as described by QSEN. Using researched data, CPGs bundle

physiologic birth principles such as passive descent and rotation of the fetus through the pelvis and allow more extended periods for second-stage labor, up to 4 hours (Waller-Wise et al., 2020). Levine's conservation model implemented delaying active pushing to conserve energy and push more effectively at the appropriate time. Levine's conservation of structural integrity also prevents perineal trauma. The 5 Ps of Safe Second-Stage Labor Care were used to structure interdisciplinary training. The ARCC model used five steps to guide the project in evaluating the CPGs. The first step assesses the organizational willingness to translate evidence into practice (Waller-Wise et al., 2020), then the organization is assessed for its strengths and weaknesses to change. Third, mentors are found within the clinical agency to aid in mentoring the clinic staff. The fourth step applies the use of evidence-based practice. Lastly, in the fifth step, the outcomes of evidence in practice are evaluated. The four models use different approaches in order to improve overall birth outcomes.

Introduction

Garpiel (2018) looked at differences between pre-intervention data for two months and post-intervention data for four months and found there were benefits to using standardized, evidence-based nursing interventions during second-stage labor. The study showed that birth experience satisfaction rose from the 69th percentile to the 81st percentile (Garpiel, 2018).

Overview

Variances in nursing interventions in the second stage of labor greatly influence the outcomes for laboring women and their babies (Waller-Wise et al., 2020). CPGs have supported passive descent and spontaneous pushing efforts. Nurses, midwives, and others providing labor support can help women meet their goals for labor and delivery by using techniques described in the 5 P's second-stage bundle to minimize interventions and improve women's birth experience.

Quality Improvement

The ARCC model used five steps to guide the project in evaluating the CPGs. The first step assesses the organizational willingness to translate evidence into practice (Waller-Wise et al., 2020), then the organization is assessed for its strengths and weaknesses to change. Third, mentors are found within the clinical agency to aid in mentoring the clinic staff. The fourth step applies the use of evidence-based practice. Lastly, in the fifth step, the outcomes of evidence in practice are evaluated.

Application to Nursing

Practice

Clinical practice guidelines (CPGs) are a form of bundling multiple interventions together to enhance collaborative communication between members of the clinical team and patients. The CPGs second-stage labor initiative was implemented after the publication of *Safe Prevention of the Primary Cesarean Delivery* by the American College of Obstetricians and Gynecologists (ACOG) and Society for Maternal-Fetal Medicine (SMFM) in 2014, in which historical practices were challenged. Under the *5 P's of Safe Second-Stage Labor Care*, guidelines for patience, positioning, physiologic resuscitation, progress, and preventing urinary harm were considered to improve mother and baby outcomes and women's birth experience satisfaction.

Education

Patience is one of the critical concepts prevalent in the second stage of labor literature. Clinician patience is required to support the laboring woman's normal physiologic processes to avoid unnecessary interventions. Evidence supports spontaneous supportive pushing, a technique that supports laboring women to delay pushing until she feels a natural urge and initiates their spontaneous efforts to bear down (Garpiel, 2018). Spontaneous supportive pushing leads to

shorter pushing duration and, thus, improves maternal-fetal circulation by reducing the negative effects of prolonged pushing that result in fetal stress and maternal fatigue.

The second component of the second-stage bundle framework is positioning. Current labor interventions of induction, amniotomy, and epidural analgesia impair the natural maternal movement that promotes progressive fetal rotation and descent during second-stage labor. Nurses can significantly affect a laboring woman's birth experience and outcome by assisting women in positions to facilitate labor progression. Some recommendations for second-stage labor are: promoting upright, lateral, and nonsupine positions; supporting and assisting laboring women in repositioning every 15 to 30 minutes; the use of labor bed features and position aids, such as a peanut ball; and avoiding the lithotomy position during pushing (Garpiel, 2018).

Physiologic resuscitation is the third "P" and is vital for managing uterine tachysystole. Uterine tachysystole is a condition of frequent uterine contractions during labor, more than five contractions per 10 minutes in 2 consecutive intervals. This condition reduces fetal oxygenation and leads to metabolic acidosis. Intervention by decreasing or discontinuing exogenous oxytocin at the second-stage onset can modify labor contractions and improve fetal oxygenation.

Progress is the fourth "P," an indicator to determine the second-stage care plan. The nursing practice recommends evaluating and communicating regularly to develop a collaborative plan for a safe birth. Wood & Stevenson (2018) implemented hourly time-outs in their study that allowed all team members to discuss concerns, agree on a care plan, and discuss with the patient. This method promoted quality care and perinatal patient safety (Wood & Stevenson, 2018).

The fifth practice in the second-stage bundle framework promotes the use of intermittent catheterization over continuous indwelling catheters that lead to possible bacterial contamination, more pain leading to the need for analgesia, the need for oxytocin augmentation,

a longer second stage, and less satisfaction with the birth experience. Preventing unexpected urinary harm addresses bladder care for laboring women who receive epidurals (Garpiel, 2018).

Research

Priorities for further study from a nursing clinical and professional perspective is implementing the use of documentation with a standardized tool. The records for the women in labor were reviewed three months before the time-out implementation, three months after, and two years after implementation. Only 14.3% of women who experienced prolonged second-stage showed that the clinical team documented agreement with a plan compared to 82.1% three months after implementation and 81.6% two years after implementation (Wood & Stevenson, 2018). More research is needed to create a documentation template in the EMR that standardizes the communication process between the clinical team.

Conclusion

The goal of CPGs in the second-stage bundle framework is to promote an interdisciplinary, evidence-based practice in labor care to promote optimal outcomes for mothers and babies (Garpiel, 2018). Delayed pushing in the second stage has allowed for more time for the baby to descend and reduces the need for operative intervention (Sommerness et al., 2018). Patience, position, physiological resuscitation in managing uterine tachysystole, progress, and preventing urinary harm are contemporary practices in improving outcomes for laboring women.

References

- Garpiel, S. J. (2018). Effects of an interdisciplinary practice bundle for second-stage labor on clinical outcomes. *MCN The American Journal of Maternal/Child Nursing*, 43,184–194. <https://doi.org/10.1097/nmc.0000000000000438>
- QSEN Institute (2020). *QSEN competencies*. https://qsen.org/competencies/pre-licensure-ksas/#quality_improvement
- Sommerness, S. A., Bangdiwala, A., Hirt, C., Gams, R., Rauk, P. N., Avery, M. D., Delkoski, S. L., Miller, K., & Landers, D. V. (2018). Birth outcomes after implementing an evidence-based guideline for managing delayed pushing in second stage labor in women with epidural anesthesia. *Research on Women's Health*, 1(1). <https://doi.org/10.24983/scitemed.rwh.2018.00059>
- Waller-Wise, R., Lewis, S., & Williams, B. (2020). A Quality Improvement Project utilizing a clinical practice guideline in women during second-stage labor. *The Journal of Perinatal Education*, 29(2), 72–82. <https://doi.org/10.1891/j-pe-d-19-00014>
- Wood, J., & Stevenson, E. (2018). Using hourly time-outs and a standardized tool to promote team communication, medical record documentation, and patient satisfaction during second-stage labor. *MCN: The American Journal of Maternal/Child Nursing*, 43(4), 195–200. <https://doi.org/10.1097/nmc.0000000000000442>