

# Improving Consistency in Midwifery Management of Inpatient Postpartum Anemia: A Quality Improvement Project



Shelley Trone, BSN, RN, DNP Nurse-Midwifery Student  
Sally Hersh, DNP, CNM, Project Chair  
Elizabeth Gary, MSN, CNM, Committee Member

**Key takeaway: Implementing an evidence-based guideline improved postpartum anemia screening from 67.9% (19/28) to 93.8% (15/16) and significantly enhanced provider satisfaction with the screening process ( $p = 0.006$ ; pre  $n = 12$ , post  $n = 11$ ).**

## PURPOSE

Inconsistent postpartum anemia management leads to variable patient outcomes — this project sought to close that gap by implementing a structured, evidence-based guideline to improve consistency in patient screening, treatment, and education within a midwifery practice.

## BACKGROUND

- Prevalence:** Postpartum anemia affects 10-30% of individuals in high-resource countries.
- Impact:** Postpartum depression, impaired maternal-infant bonding, fatigue, poor wound healing, delayed recovery, decreased breastmilk production & reduced quality of life.
- Primary risk factors for PPA:** Antepartum iron deficiency anemia and postpartum hemorrhage.
- Importance:** Major cause of maternal morbidity and mortality.

## PROBLEM

- PPH rates** increased from 2.7% to 4.3% in the U.S.
- PNW Midwifery Practice:** 10% of vaginal births at this practice had blood loss > 1000 mL in 2023.
- Problem:** Stakeholder interviews and pre-intervention surveys identified inconsistencies in patient screening, treatment, and education.

## REVIEW OF LITERATURE

- Screening Challenges:** No universal definition or standard diagnostic criteria; screening recommendations vary.
- Treatment Variability:** Oral iron is first-line but poorly tolerated; IV iron is effective but underutilized; blood transfusion is reserved for severe cases.
- Patient Education Gaps:** Standardized discharge education improves adherence and postpartum outcomes.
- PPA screening protocol** improves early detection and treatment. Structured guidelines improve provider adherence.

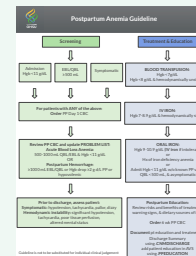
## CONTEXT

- Location:** Midwifery practice in large academic healthcare center in the PNW.
- Midwifery Team:** 11 midwives (FTE equivalent), 5 per diem midwives, 3 student midwives.
- Practice Statistics 2023:** 466 births, 76.8% NSVD, 17.8% CD, 3.2% OVD.
- NSVDs 2023:** 36/357 (10%) PPH, 20 IV iron infusions, 2 blood transfusions.

## IMPLEMENTATION

- Pre- and Post-Surveys
- Educational voiceover presentation introducing project
- Evidence-based guideline
- After Visit Summary patient education resource
- Standardized SmartPhrases within charting system

## GUIDELINE



## AFTER VISIT SUMMARY

SCAN FOR REFERENCES



## RESULTS

### Screening

- Guideline improved screening consistency across PDSA cycles (67.9% → 90.9% → 93.8%)

### Treatment

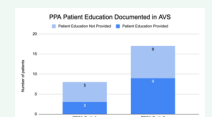
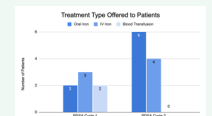
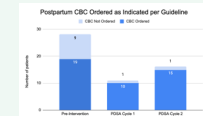
- Improved initially, then declined (57.6% → 75% → 58.8%)

### Patient Education & Documentation

- Initial success of verbal education, then decreased (100% → 76.5%)
- AVS SmartPhrase documentation improved to 67% following update in PDSA Cycle 2

### Pre- and Post-Survey

- Satisfaction with screening significantly improved ( $p = 0.006$ ) and perception of consistency in screening improved ( $p < 0.001$ , pre  $n = 12$ , post  $n = 11$ )
- Knowledge scores improved (62.5% → 78.8%,  $p = 0.09$ )
- 100% of FTE midwives & SNMs completed pre-education
- 81.8% reported they were likely to continue using AVS



## INTERPRETATION

- Improved screening consistency & increased midwifery satisfaction with practice standardization
- Barriers to treatment adherence included time constraints, provider reluctance to prescribe oral iron postpartum, national IV fluid shortage
- Low adherence in discharges managed by per diem staff
- SmartPhrase confusion due to concurrent projects

## LIMITATIONS

- Small sample size & short implementation period
- Lack of per diem involvement
- Confusion among midwives with current DNP project