UC DAVIS HEALTH | Department of Obstetrics and Gynecology

Effectiveness of Delivery Strategies for Placenta Accreta Spectrum Patients Presenting With Vaginal Bleeding

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Introduction

Vaginal bleeding (VB) is a common symptom experienced by patients with placenta accreta spectrum (PAS). No guideline exists in directing immediate delivery versus expectant management when patients present with nonpersistent VB.

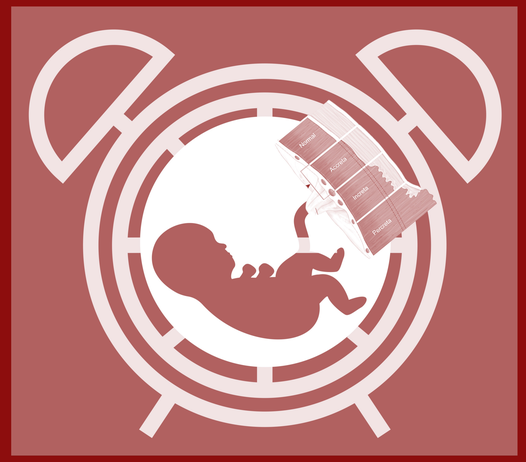
Methods

We constructed a decision analysis model on a hypothetical cohort of patients presenting with nonpersistent VB at gestational age (GA) between 28 0/7 to 36 6/7 weeks comparing immediate delivery versus expectant management.

- Assumption: 1) patients gain at least one additional GA if expectant management is chosen, and 2) delivery will be sought at the third episode of VB or at 37 0/7 weeks of GA whichever is earlier.
- Decision tree (Figure 1)
- Probability and health state utility was derived from the literature, our patient outcomes, surrogate surveys for utility.
- A one-way sensitivity analysis was performed over low, medium, and high risk of VB recurrence.

Results

- Expectant management was the preferred strategy and resulted in the highest quality-adjusted life years (QALY) under the base case assumptions.
- When risk of VB recurrence was varied by low (0.308), medium (0.556) or high (0.785) in the one-way sensitivity analyses, expectant management was consistently favored over immediate delivery. (Figure 2)
- However, when risk of VB recurrence is high, expectant management resulted lower life years gained (LYG) when VB first occurs at 34 0/7 weeks GA and beyond. (Figure 3)



The current recommended **delivery timing** for **Placenta Accreta Spectrum** does not include patients who presented with **nonpersistent vaginal bleeding**. A decision analysis shows **expectant management** is **preferred** compared to immediate delivery. Consideration may be given to **immediate delivery** at or beyond **34 0/7 weeks** due to higher life year gained.

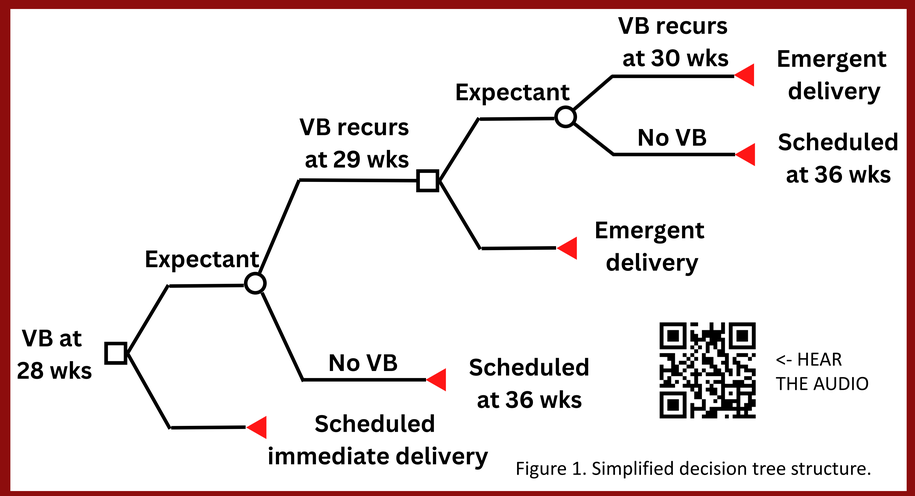


Figure 1. Simplified decision tree structure.

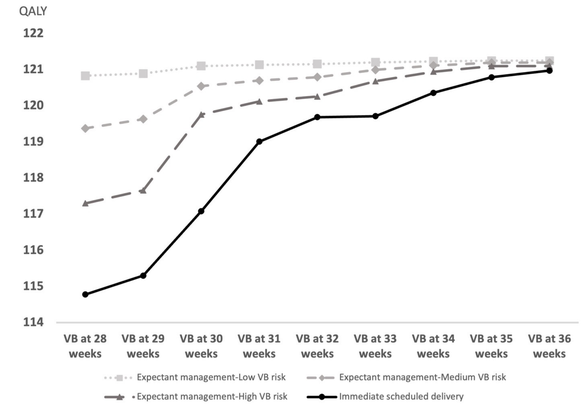


Figure 2. Comparison of quality-adjusted life years (QALY) between strategies of immediate scheduled delivery expectant management at different vaginal bleeding risks.

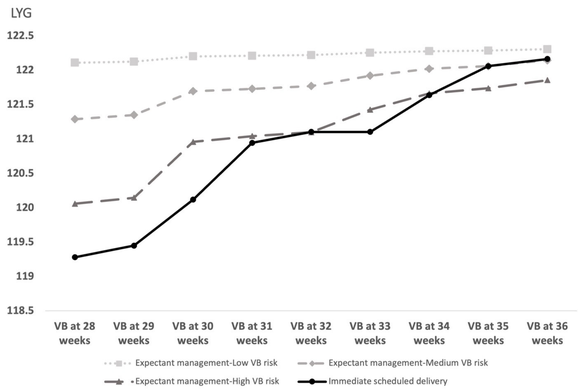


Figure 3. Comparison of life years gained (LYQ) between strategies of immediate scheduled delivery expectant management at different vaginal bleeding risks.

Conclusion

- This decision analysis suggests the preferred strategy for management in individuals with placenta accreta presenting with nonpersistent VB under a variety of circumstances is expectant management over immediate delivery.
- Considerations may be given to immediate delivery when VB recurrence risk is high at 34 0/7 weeks GA and beyond given a higher LYG despite a lower QALY.