Beyond Refusal: Exploring Healthcare-Related Mistrust in Newborn Prophylaxis Decision Making

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Background

- **Standard of Care:** The CDC and American Academy of Pediatrics recommend universal hepatitis B vaccination starting at birth, while intramuscular vitamin K is routinely recommended to prevent vitamin K deficiency bleeding.[4,6]
- **Clinical Concern:** Parental refusal of routine newborn prophylaxis has been increasingly reported.[1-3]
- **Knowledge Gap:** The influence of healthcare-related mistrust on newborn prophylaxis refusal remains poorly characterized.

Research Question

- **Population:** Perinatal individuals (≥18 years) delivering in hospital-based obstetric settings in the United States
- **Intervention:** Studies evaluating healthcare-related mistrust in hospital-based obstetric care
- **Comparator:** Individuals with lower or no reported mistrust
- **Outcome:** Refusal of routine, provider-recommended newborn injectable procedures according to CDC and AAP guidelines (IM Vitamin K injections and Hepatitis B vaccine)
- **Question:** How does healthcare-related mistrust influence decision-making regarding routine, provider-recommended newborn prophylactic injections (intramuscular vitamin K and hepatitis B vaccination) among peripartum individuals delivering in hospital-based obstetric settings in the United States?

Methods

- **Search Strategy:** Systematic review of PubMed, Cochrane Library, CINAHL, Web of Science, and ScienceDirect conducted and reported in accordance with PRISMA guidelines.
- **Eligibility:** U.S.-based studies evaluating parental refusal of intramuscular vitamin K and/or the hepatitis B birth dose were included.
- **Screening**: Three reviewers independently screened records using Rayyan. The disagreements were resolved by consensus.
- **Quality Appraisal:** Included studies were appraised using JBI critical appraisal tools appropriate to study design.

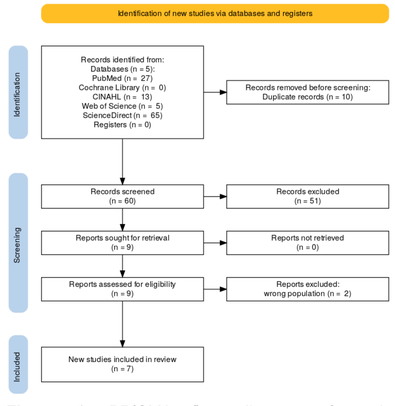

Figure 1. PRISMA flow diagram of study identification, screening, eligibility, and inclusion.

Results

- Seven studies met inclusion criteria.

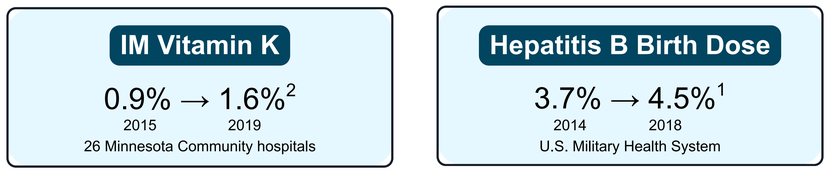

Figure 2: Study-Specific Refusal Trends Reported in Included Studies.

Table 1. Thematic Comparison of Quantitative Findings and Qualitative Themes in Loyal et al.[7]

Quantitative Finding	Source Study	Qualitative Themes
Exclusive breastfeeding was associated with increased Vitamin K refusal.	George et al.(2025)	Preference for "natural" approaches - belief that maternal dietary changes and breast milk provide sufficient protection
Among >102,000 births, Pentecostal or Baptist families were associated with Vitamin K refusal rates at 7.0% and 3.3%, respectively.	George et al.(2025)	Preference for "natural" approaches - religious belief
Erythromycin refusal was associated with 13-fold higher odds of Hepatitis B birth dose refusal.	Dugovich, et al (2022)	Refusal of Vitamin K injections and vaccines deeming it as "unnecessary"
Vitamin K refusal was associated with higher parity.	Deerin, et al. (2021) George et. al. (2025)	Decision making was influenced by experiences surrounding vitamin K during prior pregnancies
Midwife attended birth was associated with newborn screening & vitamin K refusal.	Njau & Odoi (2019) George et al.(2025)	Placement of trust and mistrust - trust in nonphysician birth professionals
Vaccine refusal diagnosis codes were associated with parental decision-making.	Deerin et al. (2021)	Placement of trust and mistrust - parental belief
Missing the Hepatitis B birth dose was associated with incomplete subsequent vaccination.	Wilson et al. (2018) Vereen et al. (2023)	Placement of trust and mistrust-parental beliefs formed before birth
Peripartum prophylaxis refusal associated with married, non-Hispanic white and educated demographics.	Njau & Odoi (2019) Deerin et al. (2021) Dugovich et al (2022) George et al.(2025)	Placement of trust and mistrust-parental belief in self and internet and social circles

Comparisons are thematic and not derived from the same study population.

Discussion

- **Quantitative evidence identified patterns of refusal** across demographic and behavioral groups. However, most studies (6 of 7) did not directly measure healthcare-related mistrust.[1-3,5,8-9]
- **Qualitative evidence provided insight into why refusal may occur**, identifying medical and pharmaceutical mistrust as influences on peripartum decision-making.[7]
- Conceptual similarities were observed between quantitative refusal patterns and themes identified in the qualitative study (Table 1); however, **these associations cannot establish that mistrust caused refusal without direct measurement**.[7]
- Refusal was clustered among groups characterized by factors such as exclusive breastfeeding and advanced parity.[1,2] These factors do not adequately explain why trends are concentrated within these groups and do not explain whether this reflects deeper, systemic skepticism toward the healthcare system.

Limitations

- Few studies directly measured healthcare-related trust or mistrust. Qualitative studies primarily evaluated demographic, behavioral, and healthcare-related factors, but these cannot serve as surrogates for mistrust.
- Documentation of prophylaxis acceptance and refusal varied across studies. Deerin et al. relied on the provider chart documentation[1], whereas Njau et al. cited refusal as the return of a signed form.[8]
- Two included studies were conducted in military health systems, which may limit generalizability to the broader U.S. civilian obstetric population.[1,9]

Conclusion

- Accessible evidence suggests healthcare-related mistrust may contribute to newborn prophylaxis refusal. Direct evidence remains limited because most included studies did not directly measure mistrust.
- **Future Direction:** Future peripartum studies should move beyond passive demographic tracking and integrate validated methods to conclusively map and address the psychosocial and healthcare-related drivers of peripartum newborn prophylaxis refusal.

Please scan the QR code for references.

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