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RSV Provider Knowledge, Screening Confidence and Acceptance Rates in Pediatric Primary Care

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Background / Problem

- Respiratory syncytial virus (RSV) occurs in **90%** of children less than 2 years of age and is the **leading cause of hospitalizations** in children under 1 year of age (50,000-100,000 per year).¹
- Infants and young children **< 8 months of age** are at greatest risk for severe illness due to their underdeveloped immune systems, smaller airways, and the potential for more severe complications like bronchiolitis and pneumonia.¹
- The Center for Disease Control (CDC) created new RSV prophylaxis guidelines in 2022 to include either **maternal vaccination or infant prophylaxis** with early data showing 80-90% effective in preventing RSV hospitalization.²
- Despite these guidelines, there is still a significant gap in RSV acceptance rates with only **35% of pregnant women** and **40% of infants having received**. This gap can be improved through staff and provider education on screening for eligibility and caregiver education to improve rates RSV prophylaxis acceptance.³

Purpose

- To assess provider knowledge and confidence in screening children less than 8 months of age for RSV prophylaxis and assess acceptance rates in those screened eligible pre- and post-multilevel provider educational intervention in a pediatric primary care clinic.

Literature Synthesis

Databases: CINAHL and PubMed

Search Terms: "Electronic Medical Records" OR "Electronic Health Records [EHR]" OR "Best Practice Alerts" AND "Alerts", "Prompts", "Reminders" OR "Clinical Decision Support" AND "Pediatric RSV Prophylaxis OR Vaccine" **NO articles on pediatric RSV prophylaxis.**

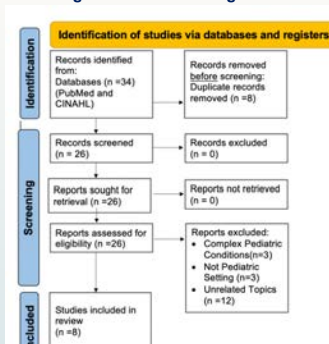
Modified Search Terms: "Pediatric Vaccinations OR Immunizations"

Findings: Yielded 8 articles that explore EHR prompts related to other vaccines (e.g., influenza, COVID, HPV, Hepatitis B) [Fig.1].^{4,5,6,7,8,9,10,11}

Evidence Synthesis:

- High quality of evidence in moderate to large sample vaccine studies.
- EHR prompts or reminder interventions and provider education can increase vaccination uptake in both the clinic and hospital setting.^{4,5,6,7,8,9,10,11}
- Provider compliance and alert fatigue were a significant limitation mentioned in many studies.^{4,5,6,8,9}

Figure 1. PRISMA Diagram



Methods

- Framework:** The John's Hopkin's Evidence Based Practice framework¹², and the IOWA model¹³ were used to guide this project.
- Project Type:** Evidence Based Practice [UCI- IRB exempt]
- Project Setting:** Pediatric Primary Care Clinic in Southern California
- Participants:** Medical Providers – 7 MD and 1 NP
- Multilevel Intervention:**
 - 15-minute provider education with pre and post education 5-item survey to evaluate provider knowledge and confidence.
 - Laminated screening algorithm at computer stations and entered as a "dot phrase" for documentation in the EMR [Fig. 2]
 - Standardized script for providers to explain Nirsevimab
 - CDC RSV educational handout given to those who refuse. [Fig. 3]
- Data Collection:** Retrospective Chart Review During RSV Season
 - Pre-intervention education survey
 - Pre-Intervention – November-March 2024-2025 [5 months]
 - Post-Intervention – November-March 2025-2026 [5 months]
- Outcome:** Provider knowledge and confidence, and RSV acceptance rates
- Analysis:** Descriptive statistics used to assess for improvements in pre- and post-intervention (% change).

Figure 2. RSV Screening Algorithm

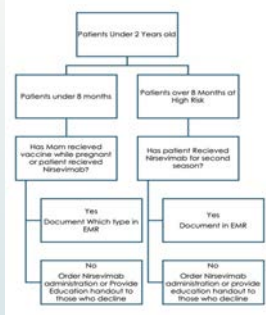


Figure 3. CDC RSV Handout



Results

- Overall, total # children who received RSV decreased by 12% while provider RSV screening improved by over 20% from pre- to post-intervention.
- Prophylaxis acceptance (pre-63% vs. post-51%) remains **above** the national average of 40%.
- Despite the intervention, there was a decrease in eligible children receiving prophylaxis with an increase in decline / defer by over 16% from pre-and post-intervention [Table 1].
- Out of **154 declinations post-intervention** 93 unspecified (60%), 22 wants more information (14%), and 16 declines all vaccinations (10%).

Table 1. RSV Screening, Eligibility, and Received

Variables	Pre-Intervention [Nov-March 2024-2025]	Post-Intervention [Nov-March 2025-2026]	% Change
# Children < 8 months	n=1247	n=1179	
# Eligible NOT Screened*	387 (31%)	99 (8.4%)	↓ 22.6%
# Screened RSV	860 (69%)	1080 (91.6%)	↑ 22.6%
• # Already Received RSV	403 (46%)	460 (43%)	↓ 3.8%
• # Maternal RSV Received	201 (23%)	375 (34.7%)	↑ 11.4%
# Eligible to Receive	n=256	n=245	
• # Received	137 (53.5%)	91 (37.1%)	↓ 16.4%
• # Declined/ Deferred	119 (46.5%)	154 (62.8%)	↑ 16.3%
Total # Children Received RSV [already received + clinic received]	n=540 (63%)	n=551 (51%)	↓ 12%

*QI check – PI determined eligible per guidelines for children NOT screened

Results (cont.)

- ✓ Out of 8 providers only 5 (63%) participated in pre-education survey and 4 (50%) responded in post education survey.
- ✓ Providers had good knowledge of RSV prophylaxis screening but lacked confidence on where to document in the EHR [Table 2].
- ✓ 100% of provider felt the education was helpful.

Table 2. Provider Knowledge and Confidence in RSV Screening

Questions	Pre-Education (n=5)	Post-Education (n=4)
I am confident in my ability to remember to screen for RSV prophylaxis and have resources to remind me to screen.	Strongly Agree 0 (0%) Agree 5 (100%) Neutral 0 (0%) Disagree 0 (0%) Strongly Disagree 0 (0%)	Strongly Agree 2 (50%) ↑ Agree 2 (50%) Neutral 0 (0%) Disagree 0 (0%) Strongly Disagree 0 (0%)
I am confident in where to document screening related to RSV prophylaxis.	Strongly Agree 0 (0%) Agree 1 (20%) Neutral 1 (20%) Disagree 3 (60%) Strongly Disagree 0 (0%)	Strongly Agree 2 (50%) ↑ Agree 0 (0%) Neutral 1 (25%) Disagree 0 (0%) Strongly Disagree 1 (25%)
Which child is eligible to receive RSV Prophylaxis?	a) 5-year-old who has not received RSV prophylaxis. b) 7-month-old at the clinic in February who has not received prophylaxis, and mother did not receive the vaccine. 5 (100%) c) Mother received vaccine during pregnancy at least 14 days before delivery.	a) 5-year-old who has not received RSV prophylaxis. b) 7-month-old at the clinic in February who has not received prophylaxis, and mother did not receive the vaccine. 4 (100%) same c) Mother received vaccine during pregnancy at least 14 days before delivery.
Where should you document RSV screening?	a) Have the MA Do it b) With Dot Phrase "RSV2025" 3 (60%) c) Report Form 2 (40%)	a) Have the MA Do it b) With Dot Phrase "RSV2025" 3 (75%) ↑ c) Report Form 1 (25%)
If the child screens eligible and you document the status, what are the next steps to provide for the mother?	a) Order Nirsevimab b) Give mother educational handout c) Include follow-up notification in discharge summary d) A+ B are correct 5 (100%)	a) Order Nirsevimab b) Give mother educational handout c) Include follow-up notification in discharge summary d) A+ B are correct 4 (100%) same
Was this education helpful?	N/A	a) Yes (100%)

Limitations / Conclusion / Clinical Implications

Limitations

- Single site undergoing EHR system transition during post-data collection.
- Small # of providers with limited participated in the education survey.
- Unable to track provider script and CDC handout use
- Lack of consistent documentation related to reason for decline or defer.

Conclusions

- RSV prophylaxis acceptance continues to remain a concern in pediatrics despite improved provider confidence and increased screening efforts.
- Future projects should focus on reasons for decline and develop parent interventions / education to address these concerns.

Clinical Implications

- EHR screening alerts with stop gaps and consistent location for documenting declines or defers is needed to effectively track RSV prophylaxis trends in the clinic setting.

References

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