CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Bacillus Calmette–Guérin Vaccine Dosage Timing for Neonates in the NICU: Safety and Guidelines
Research Questions
1. What is the comparative safety of differing Bacillus Calmette–Guérin vaccine timing for neonates in or discharged from the neonatal intensive care unit?
2. What are the evidence-based guidelines for Bacillus Calmette–Guérin vaccine timing for neonates in or discharged from the neonatal intensive care unit?

Key Findings
No relevant clinical evidence was identified regarding the comparative safety of differing Bacillus Calmette–Guérin vaccine timing for neonates in or discharged from the neonatal intensive care unit. In addition, no relevant evidence-based guidelines were identified.

Methods
A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD), Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and February 12, 2019. Internet links are provided where available.

Selection Criteria
One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population Intervention</th>
<th>Neonates in the neonatal intensive care unit (NICU) setting or discharged from the NICU</th>
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</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Bacillus Calmette–Guérin (BCG) vaccine administered directly before discharge (e.g., 2 to 3 hours before discharge)</td>
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<tr>
<td>Comparator</td>
<td>Q1: Bacillus Calmette–Guérin (BCG) vaccine administered at an alternative interval or timing</td>
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<td>Q2: No comparator</td>
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<tr>
<td>Outcomes</td>
<td>Q1: Safety (e.g., risk of cross contamination between vaccinated neonates and non-vaccinated neonates, mortality, adverse events)</td>
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<td>Q2: Guidelines regarding timing of vaccine administration</td>
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<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines</td>
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</table>
Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, or evidence-based guidelines were identified differing Bacillus Calmette–Guérin vaccine timing for neonates in or discharged from the neonatal intensive care unit.

References of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Guidelines and Recommendations

No literature identified.
Appendix — Further Information

Systematic Reviews and Meta-Analyses

*Alternative Outcome — Not Specific to Cross-Contamination Outcome*

   PubMed: PM30476973

Randomized Controlled Trials

*Alternative Comparator — No Vaccination*

   PubMed: PM29579158

   PubMed: PM27443836

*Alternative Comparator — Timing Not Specific to Hospital Discharge*

   PubMed: PM28405623

   PubMed: PM28359325

   PubMed: PM26416147

   PubMed: PM26259542

   PubMed: PM25860002


Non-Randomized Studies

*Alternative Comparator – No Vaccination*


*Alternative Comparator – Timing Not Specific to Hospital Discharge*


Clinical Practice Guidelines

Methods Unspecified


Additional References

Position Statement