

Pertussis Clinical Pathway Synopsis

Objective of Clinical Pathway

To provide care standards for the patient presenting with suspected *Bordetella pertussis* infection or exposure. This pathway provides recommendations for evaluation, testing, treatment, prophylaxis, and follow-up communication based on history and presentation, as well as timing of symptoms.

Background

Pertussis is a highly contagious respiratory illness that has been increasing in prevalence over the past two decades, with a significant spike after the COVID-19 pandemic.^{1,2} Disease burden is especially high in young infants and those with pre-existing medical conditions.³ Additionally, up to 90% of household contacts and 50 – 80% of classroom contacts will become infected after exposure.⁴

Although recommended treatment strategies and timelines are well-defined for active cases, post-exposure prophylaxis (PEP) is much more nuanced. Frontline staff are challenged to assess the potential for transmission to close contacts and/or high-risk patients in real time during patient visits, which often occur before laboratory tests confirm active disease in the index patient. Judicious use of antibiotics is also important to reduce costs to families and prevent antibiotic resistance while providing adequate protection to those at the highest risk for complications or severe disease. To help address these challenges, the Pertussis Clinical Pathway was developed not only to standardize evaluation, testing and treatment of symptomatic patients, but to provide consistent recommendations and communication strategies for asymptomatic patients and close contacts who may require PEP.

Target Users

- Physicians (Urgent Care, Emergency Medicine, Hospital Medicine, Primary Care, Residents, Fellows)
- Advanced Practice Providers
- Nurses
- Pharmacists

Target Population

Inclusion Criteria

- Patients presenting with signs/symptoms concerning for pertussis
- Patients reporting a known exposure to pertussis

Practice Recommendations

Practice recommendations in this clinical pathway are based on guidance from the Centers for Disease Control and Prevention,^{1,3,5,6} published literature and electronic databases,^{7,8} local health departments, and expert consensus.

Additional Questions Posed by the Pertussis Clinical Pathway Committee

- No additional clinical questions were posed for this review

Measures

- Access of the clinical pathway (website hits)

Value Implications

The following improvements may increase value by reducing healthcare and non-monetary costs (e.g., missed school/work, lost wages, stress) for patients and families, as well as reducing costs and resource utilization for healthcare facilities.

- Increased frequency of recommended pertussis vaccination
- Increased frequency of appropriate testing, treatment, and post-exposure prophylaxis to prevent the spread of disease
- Decreased unwarranted variation in care

Organizational Barriers and Facilitators

These clinical pathways do not establish a standard of care to be followed in every case. It is recognized that each case is different, and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare a clinical pathway for each. Accordingly, these clinical pathways should guide care with the understanding that departures from them may be required at times.

Potential Barriers

- Variability in the acceptable level of risk among providers
- Difficulty with follow-up faced by some families
- Vaccine hesitancy by some patients and families
- Challenges with health literacy and/or access to healthcare faced by some families

Potential Facilitators

- Collaborative engagement across the continuum of clinical care settings and healthcare disciplines during clinical pathway development
- Anticipated high rate of use of the clinical pathway
- Tools to aid in documenting close contacts for whom post-exposure prophylaxis was provided

Bias Awareness

Our aim is to recognize social determinants of health and minimize healthcare disparities while acknowledging that our unconscious biases can contribute to these inequities.

Clinical Pathway Preparation

This pathway was prepared by the Evidence Based Practice (EBP) Department in collaboration with the Pertussis Clinical Pathway Committee, composed of content experts at Children's Mercy.

Pertussis Clinical Pathway Committee Members and Representation

- Grace Arends, MD | Emergency Medicine | Committee Chair
- Ashton Bellamy, PharmD, BCIDP | Pharmacy | Committee Member
- Sarah Dierking, MSN, RN, CPHQ | Clinical Practice & Quality | Committee Member
- Maria Dycoco, MD | General Academic Pediatrics | Committee Member
- Christelle Ilboudo, MD | Infectious Diseases, Infection Prevention & Control | Committee Member
- Brandi Missel, APRN | Emergency Department | Committee Member
- Tanis Stewart, MSN, RN, FNP-BC, CPN | Emergency Department | Committee Member
- Morgan Vaughn, MD, FAAP | Urgent Care | Committee Member

EBP Committee Members

- Kathleen Berg, MD, FAAP | Evidence Based Practice
- Kori Hess, PharmD | Evidence Based Practice

Clinical Pathway Development Funding

The development of this clinical pathway was underwritten by the following departments/divisions: Clinical Practice & Quality, Emergency Medicine, Evidence Based Practice, General Academic Pediatrics, Infectious Diseases, Pharmacy, and Urgent Care.

Conflict of Interest

The contributors to the Pertussis Clinical Pathway have no conflicts of interest to disclose related to the subject matter or materials discussed.

Approval Process

- This pathway was reviewed and approved by the EBP Department and the Pertussis committee after committee members garnered feedback from their respective divisions/departments. It was then approved by the Medical Executive Committee.

Review Requested

Department/Unit	Date
Emergency Medicine	April 2026
Evidence Based Practice	March 2026
General Academic Pediatrics	March 2026

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Infection Prevention & Control	April 2026
Infectious Diseases	April 2026
Pharmacy	April 2026
Urgent Care	April 2026

Version History

Date	Comments
May 2026	Version one (development of algorithm and synopsis)

Date for Next Review

- May 2029

Implementation & Follow-Up

- Once approved, the pathway was implemented and presented to the appropriate care teams:
 - Announcements made to relevant departments
 - Additional institution-wide announcements were made via the hospital website and relevant huddles
- Care measurements may be assessed and shared with appropriate care teams to determine if changes need to occur.
- Pathways are reviewed every 3 years (or sooner) and updated as necessary within the EBP Department at Children's Mercy. Pathway committees are involved with every review and update.

Disclaimer

When evidence is lacking or inconclusive, options in care are provided in the supporting documents and the order set(s) that accompany the clinical pathway.

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References

1. Pertussis Surveillance and Trends. Centers for Disease Control and Prevention. Updated December 2, 2025. Accessed March 5, 2026. <https://www.cdc.gov/pertussis/php/surveillance/index.html>
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