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GUIDELINES

Clinical Practice Guideline by the Pediatric Infectious Diseases Society and the Infectious Diseases Society of America: 2021 Guideline on Diagnosis and Management of Acute Hematogenous Osteomyelitis in Pediatrics

Charles R. Woods,[1] John S. Bradley,[2] Archana Chatterjee,[3] Lawson A. Copley,[4] Joan Robinson,[5] Matthew P. Kronman,[6] Antonio Arrieta,[7] Sandra L. Fowler,[8] Christopher Harrison,[9] Maria A. Carrillo-Marquez,[10] Sandra R. Arnold,[10] Stephen C. Eppes,[11] Laura P. Stadler,[12] Coburn H. Allen,[13] Lynnette J. Mazur,[14] C. Buddy Creech,[15] Samir S. Shah,[16] Theoklis Zaoutis,[17] David S. Feldman,[18] and Valéry Lavergne[19,20]

[1]Department of Pediatrics, University of Tennessee College of Medicine, Chattanooga, Tennessee, USA, [2]Division of Infectious Diseases, University of California San Diego School of Medicine, and Rady Children's Hospital, San Diego, California, USA, [3]Chicago Medical School, Rosalind Franklin University of Medicine and Science, North Chicago, Illinois, USA, [4]Departments of Orthopaedic Surgery and Pediatrics, University of Texas Southwestern, Dallas, Texas, USA, [5]Department of Pediatrics, University of Alberta, Edmonton, Alberta, Canada, [6]Division of Infectious Diseases, Seattle Children's Hospital, Seattle, Washington, USA, [7]University of California Irvine School of Medicine and Children's Hospital of Orange County, Irvine, California, USA, [8]Division of Infectious Diseases, Medical University of South Carolina, Charleston, South Carolina, USA, [9]Children Mercer Hospital, Kansas City, Missouri, USA, [10]Division of Infectious Diseases, University of Tennessee Health Science Center, Memphis, Tennessee, USA, [11]Department of Pediatrics, ChristianaCare, Newark, Delaware, USA, [12]Department of Pediatrics, Division of Infectious Diseases, University of Kentucky, Lexington, Kentucky, USA, [13]Department of Pediatrics, University of Texas at Austin Dell Medical School, Austin, Texas, USA, [14]Department of Pediatrics, University of Texas McGovern Medical School, Houston, Texas, USA, [15]Division of Pediatric Infectious Diseases, Vanderbilt University School of Medicine, Nashville, Tennessee, USA, [16]Division of Hospital Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA, [17]Division of Infectious Diseases, Children's Hospital of Pennsylvania, Philadelphia, Pennsylvania, USA, [18]New York University Langone Medical Center, New York, New York, USA, [19]Department of Medical Microbiology and Infection Control, Vancouver General Hospital, Vancouver, British Columbia, Canada, and [20]University of Montreal Research Center, Montreal, Quebec, Canada

This clinical practice guideline for the diagnosis and treatment of acute hematogenous osteomyelitis (AHO) in children was developed by a multidisciplinary panel representing Pediatric Infectious Diseases Society (PIDS) and the Infectious Diseases Society of America (IDSA). This guideline is intended for use by healthcare professionals who care for children with AHO, including specialists in pediatric infectious diseases, orthopedics, emergency care physicians, hospitalists, and any clinicians and healthcare providers caring for these patients. The panel's recommendations for the diagnosis and treatment of AHO are based upon evidence derived from topic-specific systematic literature reviews. Summarized below are the recommendations for the diagnosis and treatment of AHO in children. The panel followed a systematic process used in the development of other IDSA and PIDS clinical practice guidelines, which included a standardized methodology for rating the certainty of the evidence and strength of recommendation using the GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach. A detailed description of background, methods, evidence summary and rationale that support each recommendation, and knowledge gaps can be found online in the full text.

Key words. acute hematogenous osteomyelitis; Guideline; pediatrics; *Staphylococcus aureus*.

DIAGNOSIS AND MANAGEMENT OF ACUTE HEMATOGENOUS OSTEOMYELITIS IN PEDIATRICS

I. **What noninvasive diagnostic laboratory tests should be performed in children with suspected acute hematogenous osteomyelitis (AHO)?**

Recommendations:

1. In children with suspected AHO, we recommend performing blood culture prior to the administration of antimicrobial therapy (strong recommendation and moderate certainty of evidence).
2. In children with suspected AHO, we suggest performing a serum C-reactive protein (CRP) on initial evaluation (conditional recommendation and very low certainty of evidence). **Comment:** Serum CRP has a low accuracy to establish the diagnosis of AHO, but in situations where AHO is confirmed, the serum CRP performed on initial evaluation can serve as the baseline value for sequential monitoring.
3. In children with suspected AHO, we suggest against using serum procalcitonin (PCT) (conditional recommendation and low certainty of evidence).

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Corresponding Author: Charles R. Woods, MD, MS, Department of Pediatrics, University of Tennessee College of Medicine, 910 Blackford Street, Chattanooga, TN 37403, USA. E-mail: charles.woods@erlanger.org.

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