count ($\geq$15x10^9/L),[7] and 7% with a fever ($\geq$38°C [100.4°F]) in infants aged 90 days or younger.[6] In 2 of these older studies of occult bacteremia, the most common organisms were *Streptococcus* pneumonia (85%, 85%) and *Haemophilus* influenza b (7.4%, 10%).[7,8] Other organisms included group B streptococcus, *Neisseria meningitidis*, and salmonella.[6,7]

Since the advent of vaccines against *Streptococcus* pneumonia (7-valent conjugate pneumococcal vaccine, licensed, and recommended in 2000 in the United States) and *Haemophilus* influenza type b vaccine, licensed in the United States in 1985 and replaced by licensed conjugate vaccine in 1990), the incidence of occult bacteremia has declined to 0.004%, 0.9%, 0.17%, 1.6%, and 2% according to various studies.[3,9-12] Pneumococcal disease has declined by nearly 80% and the prevalence of pathogens has changed.

In the postpneumococcal and *Haemophilus* influenza type b vaccine era, although there has been a decrease in the incidence of occult bacteremia, pneumococcal meningitis, and pneumococcal pneumonia, bacterial infections, including meningitis from organisms other than pneumococcus and type B *Haemophilus* influenza, have emerged. In a large study from Kaiser Permanente in California of full-term infants from whom 5,396 blood cultures, 4,599 urine cultures, and 1,796 cerebrospinal fluid cultures were obtained, the SBIs were urinary tract 17.9% (823/4,599 urine cultures), bacteremia 2% (129/5,396 blood cultures), and bacterial meningitis 0.9% (16/1,796 cerebrospinal fluid cultures).[12] *Escherichia coli* was the leading cause of bacteremia (60%), urinary tract infection (87.4%), and bacterial meningitis (43.7%).[12] Multiple sites of infection occurred in 9% of patients, 10% of urinary tract infections were associated with bacteremia, and 52% of bacteremia was associated with urinary tract infections. Of occult infections, 92% were associated with urinary tract infections.[12] The most common SBI is now urinary tract infection in febrile infants younger than 24 months with a prevalence of 5% to 7% and even higher among certain high-risk subgroups (eg, 20% for uncircumcised male infants).[13] The optimal method for the detection of urinary tract infections in infants and children has not been determined. The diagnosis and management of pneumonia continues to be a significant challenge (cough is the second most common reason for a visit to the ED).[1] Whether concurrent viral infections affect the incidence, severity, and type of bacterial infections also remains to be determined.

Various clinical decision rules for risk stratification of febrile infants have been published, including the Rochester, Philadelphia, Boston, and Pittsburgh criteria, and the Yale Observation Scale.[5,14-17] The Agency for Healthcare Research and Quality reviewed these well-known risk stratification schemes,[18] and there is no consensus about the most useful clinical prediction rule for identifying the infant or young child with SBI. In addition, a variety of biological markers such as the WBC count, absolute neutrophil count, band count, C-reactive protein, interleukins, and procalcitonin have been suggested for use in the identification of SBI, but the results have been mixed. Although no single screening test or algorithm for identifying young febrile children or infants with SBIs has been universally accepted, the use of a combination of diagnostic tests along with procalcitonin has potential.[19,20]

Since the previous American College of Emergency Physicians' (ACEP) clinical policy on children presenting with fever,[21] much has changed, especially since the advent of the newer vaccines and the introduction of diagnostic technologies, such as rapid antigen testing for bacteria and viruses. However, questions and controversies remain about the optimal management of the infant and young child presenting to the ED with fever. This clinical policy was selected for review because of the frequent occurrence of fever in infants and children, the difficulty in diagnosis and management of pediatric patients with fever, especially those younger than 2 years, and the potential for serious adverse outcomes. Many of the early SBI studies included children up to aged 36 months; however, with the more recent focus on the identification of specific pathogens and the changing epidemiology among the various age groups, this clinical policy focuses on children and infants younger than 2 years but specifically excludes neonates (aged $\leq$28 days). Although there are many clinical questions that could be asked, the areas of focus in this policy were selected based on ACEP member feedback.

METHODOLOGY

This clinical policy was created after careful review and critical analysis of the medical literature and was based on a systematic review of the literature. Searches of MEDLINE, MEDLINE InProcess, Scopus, Web of Science, and the Cochrane Database were performed. All searches were limited to English-language sources and human studies. Specific key words/phrases, years used in the searches, dates of searches, and study selection are identified under each critical question. In addition, relevant articles from the bibliographies of included studies and more recent articles identified by committee members and reviewers were included.

This policy is a product of the ACEP clinical policy development process, including expert review, and is based on the existing literature; when literature was not available,