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# AAP News

## AAP releases clinical practice guideline on well-appearing febrile infants

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When the Academy began developing evidence-based guidelines 30 years ago, chapter leaders identified fever in young infants as one of the top 10 conditions for which evaluation and management guidance was desired. However, there was insufficient evidence to develop a guideline.

A decade later, the AAP Pediatric Research in Office Settings network addressed the topic in a 2004 study. It showed that office-based pediatricians tested and hospitalized infants with fever less often than prevailing recommendations advocated and still achieved excellent outcomes.

Different management approaches highlighted the need for continued evidence-based guidelines.

The long-awaited AAP clinical practice guideline (CPG) *Evaluation and Management of Well-Appearing Febrile Infants 8-60 Days Old* fills that need. The intent of the CPG is to provide a blueprint for clinicians who want to "safely do less." It is available at <https://doi.org/10.1542/peds.2021-052228> and will be published in the August issue of *Pediatrics*.

### Ample evidence, extensive analysis

As evidence mounted, largely due to efforts by regional and national research networks, a subcommittee of the AAP Council on Quality Improvement and Patient Safety was convened to develop a CPG. The Subcommittee on Febrile Infants included representation from general pediatrics, infectious diseases, pediatric emergency medicine, general emergency medicine and hospital medicine as well as experts in epidemiology and algorithms.

The subcommittee supplemented literature reviews with detailed data from researchers.

This permitted refining the evidence to deconstruct serious bacterial infections into the three components: urinary tract infection (UTI), bacteremia and meningitis. This was critical, since the high prevalence of UTIs



obscures the prevalence of the other two invasive infections. UTI and meningitis can be suspected based on analysis of urine and cerebrospinal fluid (CSF), respectively, but bacteremia is more problematic at the time of initial evaluation.

With original data provided by authors of published studies, the subcommittee identified that the prevalence of bacteremia decreases from weeks 2-3 to week 4 and from week 4 to weeks 5-8. As a result, the CPG distinguishes three age groups: 8-21 days, 22-28 days and 29-60 days.

## 7 key action statements

For each age grouping, seven key action statements are provided: four deal with evaluation (urine, blood culture, inflammatory markers, CSF), one with initial treatment and two with further management (hospitalization vs. home; cessation of treatment).

Each key action statement is graded according to the quality of the evidence supporting it and the strength of recommendation: strong, moderate or weak. In addition, an algorithm is provided for each age group.

The guideline applies only to well-appearing febrile infants. If a clinician is not confident an infant is well-appearing, the CPG should not be applied.

The key action statements for those 8-21 days old do not differ greatly from what clinicians likely would do for ill-appearing infants. This is based on the high rates of infection as well as the difficulty in assuring that infants in this age group are well-appearing. Older infants' ability to interact with the examiner and produce a social smile are reassuring that a serious illness is not present, but infants 8-21 days old have not yet developed a social smile.

For well-appearing infants in the 22- to 28-day-old and 29- to 60-day-old groups, opportunities are identified for less testing (e.g., lumbar puncture) and treatment and fewer hospitalizations than in the 8- to 21-day-old group.

In all age groups, presumptive treatment should be stopped if bacterial cultures are sterile after 24-36 hours of incubation.

## Consider circumstance, parent values

The first sentence in the CPG notes that the guidance does not indicate an exclusive course of action or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate. This is reflected in the key action statements, which do not use the words "must" or "must not." Instead, they use "should," "may" and "need not." The CPG also recommends incorporating parent values and preferences in the decision-making process.

*Dr. Roberts was co-lead author of the guideline writing group and vice chair of the Subcommittee on Febrile Infants. Dr. Pantell was the lead author of the guideline writing group and chair of the subcommittee.*

## Resources

- [The guideline includes a table specifying antimicrobial agents and dosages for the initial empiric treatment of various suspected sources of infection tailored to the three age groups.](#)
- [AAP News story "Apply soon for febrile infant guideline QI effort"](#)