

# Time-Saving Apps for Pediatric and Antibiotic Concerns

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Apps on mobile devices have revolutionized point-of-care decisions for the practicing physician. This brief report discusses two mobile apps designed to save time and improve bedside decision making for physicians regarding antibiotic and pediatric issues.

## EMRA ANTIBIOTIC GUIDE FOR \$15.99

U.S. Surgeon General William H. Stewart (1965-1969) is often quoted as testifying to congress in 1969 that it was time to “close the book on infectious diseases.”<sup>1</sup> There has been some recent controversy as to whether he actually made this statement.<sup>2</sup> Regardless of whether he said it, time has proven it to be an erroneous prognostication and infectious disease remain a major cause of morbidity and mortality in the U.S.<sup>3</sup>

One app that is a helpful and time-saving reference for using antibiotics is the EMRA Antibiotic Guide. It is a quick and concise compendium for guiding appropriate antimicrobial agents for most infectious diseases that a family physician would diagnose. The layout is simple, with categories searchable by organ, diagnosis, and organism. For each disease entity, there is dosing and duration of the preferred and alternative antimicrobial agents, as well as a list of commonly associated organisms and clinical pearls. It is easy to navigate, although the search function that is featured is not on the main page. It is primarily intended for the emergency department setting, but is equally suited for the primary care setting.

The app also has an excellent antibiogram that is an valuable resource when considering comorbidities. A separate section outlines the details for each listed antibiotic, including a cost estimate and pregnancy classification. Unfortunately, clicking on antimicrobials in the treatment section doesn't automatically link to the detail section, but it is still quick and easy to look them up. The app is available on the iTunes App store as well as on the Google Play store.

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## PEDI STAT BY QXMD FOR \$2.99

Over two-thirds of family physicians care for children.<sup>4</sup> Pediatric patients pose unique and complex safety issues when compared to caring for adults.<sup>5</sup> One aspect that poses a significant challenge is the variable dosing of pharmacological agents based on patients' age, length, and weight.

Pedi Stat offers a quick and convenient way to access patient-characteristic specific information on a number of clinical concerns, including antimicrobial dosing, expected vital signs, and a number of pediatric emergency situations. The interface is clean and launches with an initial screen with four large buttons that are used to calculate dosing using age, weight, length, or Broselow color guide. Once data is input for one of these variables, a screen with a list of categories is launched. Touching each category launches to a display of patient specific information. For example, when “antiemetics” is touched, a screen will appear listing the commonly used agents with appropriate dosing ranges for a patient with the age or length specified. Overall, the app is easy to use and offers great convenience. The app is designed for emergency and critical care settings, but does offer value for ambulatory scenarios. One feature that would add value would be dosing for PO antibiotics, as it presently offers dosing only for intravenous and intramuscular antimicrobial antibiotics.

The app is available on the iTunes App store as well as on the Google Play store.

Both of these applications are time-saving references for the family physician and may improve care in frequently encountered clinical challenges.

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