

Preface

Diagnostic Testing for Enteric Pathogens



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Editor

Enteric infections continue to be an important cause of morbidity and mortality worldwide. The suffering caused by these infections is greatest in the developing world, where gastrointestinal infections are thought to contribute to undernutrition in children and resulting deficits in cognitive and physical growth as well as childhood deaths.¹ Although the consequences are usually less severe in developed nations, the developed world is not spared from these infections. Foodborne illness associated with common pathogens is estimated to cause 9.4 million episodes of illness, including over 55,000 that require hospital admission and over a thousand deaths per year in the United States.² Traveler's diarrhea, often caused by enteric infections, occurs in 8% to 20% of travelers to some areas and causes a significant proportion of those travelers to change their plans.³

Diagnostic testing for pathogens that cause enteric infections is both important and interesting. The importance comes mainly from the utility of detecting a specific pathogen in guiding treatment, but these results are also useful for detection of outbreaks and other epidemiologic uses. This is an interesting area because of the clinical importance of the results, of course, but also because of the challenges of detecting pathogens in the background of abundant microbial flora found in stool and the range of methods and technologies used for this purpose. Microscopy (both conventional and electron), bacterial culture, immunoassays, and nucleic acid amplification tests all have important uses in testing for enteric pathogens and are discussed in this issue.

This issue includes articles on most of the major pathogens causing enteric infections as well as specialized articles on multiplex PCR tests, antibiotic susceptibility testing, and inflammatory markers. Each of the articles is meant to stand independently because many readers will pick and choose among them as suits their purpose. Since each article is comprehensive, there is a small amount of redundancy between the entries, but for those who read comprehensively, there is the opportunity to

compare the opinions of multiple experts. I am very grateful to the authors for their excellent work and also to the editorial staff who have provided invaluable help in preparing this issue. I hope you will enjoy reading these articles as much as I have, and I am certain that you will find them very useful.

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