



TECHNICAL BULLETIN: Cryptosporidiosis

Cryptosporidiosis is caused by chlorine-resistant protozoa of the genus *Cryptosporidium*, and is common in both developed and undeveloped regions of the world. The spectrum of illness includes copious or watery diarrhea that is continuous or intermittent and may occur with or without abdominal pain and cramping. On occasion, the diarrhea is mucoid, but rarely contains blood or leukocytes. The duration of diarrhea ranges from 5-10 days for those individuals who are immuno-competent. Those who are immunocompromised may experience a longer and more protracted course.¹

Cryptosporidium in the US is more common in daycare centers with a prevalence rate around 3%. Occasionally, outbreaks in childcare centers can produce infection rates of 27-59%.² The presence of *Cryptosporidium* in adults is usually self-limiting and may be symptomatic or asymptomatic.

With the increased awareness and the improved diagnostic techniques that are currently available, the number of cases of non-outbreak cryptosporidiosis reported nationally increased from 3,911 cases in 2004 to 8,951 in 2010; an increase of 229%.^{3,4} Based upon modeling estimates for gastroenteritis, the frequency of infection caused by *Cryptosporidium* is likely to be nearly 100 fold higher than the number of reported cases. The modeling estimates were partly derived from sero-prevalence studies using antibody assays that suggest 25-35% of the population in the US have had cryptosporidiosis at some time in their lifetime.⁵

With the use of highly sensitive and specific multiplex technologies, such as the Diatherix Gastrointestinal Panel, the diagnosis of gastroenteritis caused by cryptosporidiosis will likely increase. An assessment of a patient's signs and symptoms must be correlated with the pathogen(s) detected. Carrier status of individuals who test positive, but remain asymptomatic, must also be considered.

References:

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3. Yoder and Beach. Cryptosporidiosis Surveillance – United States, 2003-2005. *MMWR*, Sept 7, 2007/56(SS07); 1-10.
4. Yoder et al. Cryptosporidiosis Surveillance – United States, 2009-2010. *MMWR*, Sept 7, 2012/61(SS05); 1-12.
5. Scallan et al. Foodborne Illness Acquired in the United States – Major Pathogens. *Emerging Infectious Diseases* Vol. 17, No. 1. Jan 2011.



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