Introduction

Infectious diarrhea remains one of the leading causes of childhood morbidity and mortality worldwide. It results from infection of the intestinal tract by a wide range of enteric pathogens bacterial, viral and parasitic that can disrupt intestinal function. The resulting symptom complex of diarrhea is characterized by an increased number (R3 in 24 hours) of loose or watery stools. The term dysentery is used when blood, mucus, and white blood cells are present in the stool **(Grimwood & Forbes, 2009).**

The annual global burden of infectious diarrhea is enormous, involving 3 to 5 billion cases and nearly 2 million deaths, with the latter accounting for almost 18% of all deaths in children younger than 5years **(Boschi-Pinto 2008).**

Most deaths are in young children from rural regions of developing countries where there is limited access to safe drinking water, sewage disposal, and health care, and reduced opportunities for personal sanitation, hygiene, and safe food preparation. Infection can contribute to malnutrition by interfering with nutrient absorption. As these episodes usually occur during the first few years of life, a period critical for physical growth and brain development, they can be followed by impaired linear growth, intellectual function, and school performance **(Petri et al., 2008).**

In children, group A Rota virus is the major etiologic agent of viral gastroenteritis and is responsible for 29% to 45% of hospitalizations worldwide **(Parashar et al., 2006).**

The predominant enteric pathogens can vary by region, by season and with time. Older studies may therefore no longer reliably predict the major causes of infectious diarrhea in some communities. Where improvements in drinking water and personal and environmental hygiene have taken place, there should be decreased illness from bacterial and parasitic agents **(Grimwood & Forbes 2009).**

The most frequently isolated enteric pathogens from hospitalized children are rotavirus, entero aggregative Escherichia coli (EAEC), enteropathogenic E coli (EPEC), nontyphoidal Salmonella spp, enterotoxinogenic E coli (ETEC), Shigella spp, Cryptosporidium parvum, and Strongyloides stercoralis**(Kukuruzovic et al., 2002).**

Clinical assessment does help in deciding which patients most likely have infectious diarrhea, but the assessment is subjective, inaccurate, and fallacious. There is need for a more objective test to screen patients with acute bacterial diarrhea .Stool culture has been the traditional gold standard for establishing the exact etiological organisms for acute infectious diarrhea **(Shastri, 2008).**

The laboratory evaluation of patients with suspected infection or sepsis has remained a battery of tests including the complete blood count (CBC), leukocyte differential counting for evidence of a myeloid left shift, erythrocyte sedimentation rates (ESR), C-reactive protein (CRP), and microbiologic cultures **(Davis et al., 2010).**