

Introduction

Nosocomial infection is defined as infection acquired by a patient or health care workers within the hospital environment and is not known to be present or incubated at the time of admission to the hospital i.e. hospital acquired (**Lettau, 1991**).

Nosocomial infection is derived from the Greek word "noso" that means disease and "comial" that means care of and later the Latin word nosocomium is defined as infection that is not present or incubated when the patient is admitted to hospital or other health care facility (**Bassily, 2005**).

Nosocomial infections not only involve patients admitted to hospitals but they also involve any contacts with the hospital as hospital staff members and workers (**Ibraheem, 1989**).

Many parasites are documented to cause nosocomial infections as *Entamoeba histolytica*, *Echerichia coli*, *Entamoeba hartmanni*, *Endolimax nana*, *Iodamoeba butschelii*, *Giardia lamblia*, *Cryptosporidium parvum*, *Cyclospora*, *Isospora belli*, *Strongoloidis stercoralis*, *Plasmodium*, *Trypanosoma*, *Babesia*, *Hymenolepies nana*, *Taenia solium*. Also, ectoparasites as *pediculus*, *sarcoptes* and *myasis* (**Garcia and Bruckner, 2001**).

G. lamblia is a flagellated enteric protozoan inhabiting the small intestine of man and a wide range of animals (**Farthing et al., 2003**).

G. lamblia is one of the most common nosocomial infectious protozoans isolated from the gastrointestinal tract throughout the world. (***Farthing et al., 1996***).

Transmission, which is feco-oral, occurs after cyst ingestion, excystation and enterocyte adhesion. *Giardia* cysts are ingested with contaminated food or water or are acquired by unwashed hands (***Ichhpujani and Bahatia, 2002***).

The traditional diagnosis of *G. lamblia* is microscopic examination of stool samples (***Garcia and Bruckner, 2001***). The intermitted or low level shedding of the parasite by infected individuals make the ordinary stool examination of a single stool specimen to be less than optimal (***Mank, 2001***). This raised the interest in developing a rapid, stable and highly sensitive assay for detection of all free *Giardia* antigens in stool samples. Fortunately, detecting *Giardia* antigens in stool (Coproantigen) was tried with promising results (***Ungar et al., 1984***).