INTRODUCTION

Legionella pneumophila was discovered after the occurrence of a widely publicized Outbreak of pneumonia in persons attending an American Legion Convention in Philadelphia in 1976.

Other Outbreaks of respiratory illness caused by related organisms since 1974 have then been diagnosed retrospectively ***(Arnow et al., 1982).***

At least 22 species of Legionella exist, some with multiple serotypes. *L. pneumophila* is major cause of disease in human and has been recognized as an important cause of nosocomial pneumonia ***(Korvick et al., 1987),*** while *L. micdadei* sometimes causes pneumonia. The other Legionella species are either rarely isolated from patients or have been isolated only from the environment ***(Brooks et al., 1998).***

The true incidence of legionella pneumonia may be underestimated as specific tests are not usually requested ***(Yu et al., 1982).*** Nosocomial Legionellosis may be present as both sporadic and epidemic ***(Winn, 1993);*** and although the clinical diagnosis of nosocomial Legionellosis in outbreaks is not difficult, however differentiating Legionella pneumonia from some other types of pneumonia in non-epidemic setting can be troublesome ***(Winn, 1993).*** An important point is that, empiric treatment of nosocomial pneumonia usually does not include specific antibiotics against Legionella ***(Skogberg et al., 1994)*** and current mortality rate of legionnaires' disease is particularly high in patients who receive inappropriate empiric antibiotic therapy ***(Barker and Brown, 1995).***

Therefore, it would be useful to identify the mode of transmission and the risk factors associated with the development of nosocomial *Legionella pneumophila*, in addition to the proper and accurate identification of the causative serotype.

Legionella spp. are common in natural aquatic environment since they have been isolated from the majority of water sources investigated including lakes, rivers and marine water ***(Pelaz et al., 1993).*** It is transmitted by inhalation of contaminated aerosols as the prevailing mode of transmission of infection. This is supported by the presence of *Legionella spp.* in aerosols created by water faucets and shower heads ***(Bollin et al., 1985).***

Potable water was found to be a very important source of nosocomial and community acquired legionnaires' disease ***(Chang et al., 1996).*** Environmental culturing of water systems for legionella spp. has been recommended for hospitals, especially those encountering cases of legionnaires' disease ***(Ramirez and Summersgill, 1994).***

According to ***Yu (1993)*** a good monitoring of hospital water, air conditioning systems and washing facilities e.g. shower stalls has a major role for prevention of nosocomial legionellosis. *Legionella pneumophila* being non communicable from infected patient to others. Chlorination and heating of water can help control of multiplication of *Legionella pneumophila* in water and air conditioning systems ***(Brooks et al., 1998).***