**Efficacy of Probiotics in Prevention and Treatment of Infectious Diseases**

Farzaneh Mohammadzadeh Rostami1\*, Saman Shalibeik2

1. Department of Bacteriology and Virology, Isfahan University of Medical Sciences, Isfahan, Iran
2. Department of Microbiology, Isfahan University, Isfahan, Iran

**Abstract**

Probiotics are living microorganisms that currently are significant due to their beneficial effects on human health. Many clinical trials have been conducted to evaluate the effects of probiotics on the prevention and treatment of gastrointestinal diseases, but these studies are only the beginning. Deaths from infectious diseases and deep concerns about increases in microbial resistance make it necessary for scientists to develop innovative therapeutic solutions and complementary therapies. Growing evidence is available on the therapeutic effects of probiotics. There are also documents about the beneficial effects of probiotics, but it is difficult to draw a definitive conclusion regarding the results of these studies because of the small sample size, the limitations of the study methods, and the use of different strains of probiotic bacteria. This study summarizes the articles available on the scientific and electronic databases Embase, Medline, and Scopus until the end of 2017, including case studies describing beneficial microbes as tools for improving the process of controlling infectious diseases. Until the development of novel vaccines or other approaches occurs, the use of probiotics seems to be a logical way to attempt to control certain infectious diseases.

**Key words:** Probiotics, Infectious Diseases, Prevention, Treatment**,** Beneficial Bacteria