


 [Current Issue](#) [Browse Issues](#) [Search](#) [About this Journal](#) [Instruction to Authors](#) [Online Submission](#) [Subscription](#) [Contact Us](#) [RSS Feed](#)

Acta Medica Iranica

2009;47(4) : 205-216

ALTERNATIVE MICROBIAL INDICATORS OF FAECAL POLLUTION: CURRENT PERSPECTIVE

V. K. Tyagi, A. K. Chopra, A. A. Kazmi, Arvind Kumar

Abstract:

Worldwide coliform bacteria are used as indicators of fecal contamination and hence, the possible presence of disease causing organisms. Therefore, it is important to understand the potential and limitations of these indicator organisms before realistically implementing guidelines and regulations to safeguard our water resources and public health. This review addresses the limitations of current faecal indicator microorganisms and proposed significant alternative microbial indicators of water and wastewater quality. The relevant literature brings out four such significant microbial water pollution indicators and the study of these indicators will reveal the total spectrum of water borne pathogens. As E.coli and enterococci indicates the presence of bacterial pathogens, Coliphages indicate the presence of enteric viruses, and Clostridium perfringens, an obligate anaerobe, indicates presence of parasitic protozoan and enteric viruses. Therefore, monitoring a suite of indicator organisms in reclaimed effluent is more likely to be predictive of the presence of certain pathogens in order to protect public health, as no single indicator is most highly predictive of membership in the presence or absence category for pathogens.

Keywords:

[Indicator microorganisms](#) . [fecal coliforms](#) . [coliphages](#) . [clostridium perfringens](#)

TUMS ID: 3350

[Full Text HTML](#)  [Full Text PDF](#)  462 KB

top ▲

[Home](#) - [About](#) - [Contact Us](#)

TUMS E. Journals 2004-2009
Central Library & Documents Center
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024*768 Resolutions