

Healthcare-associated infections vs free-living amoebae - Are they related?

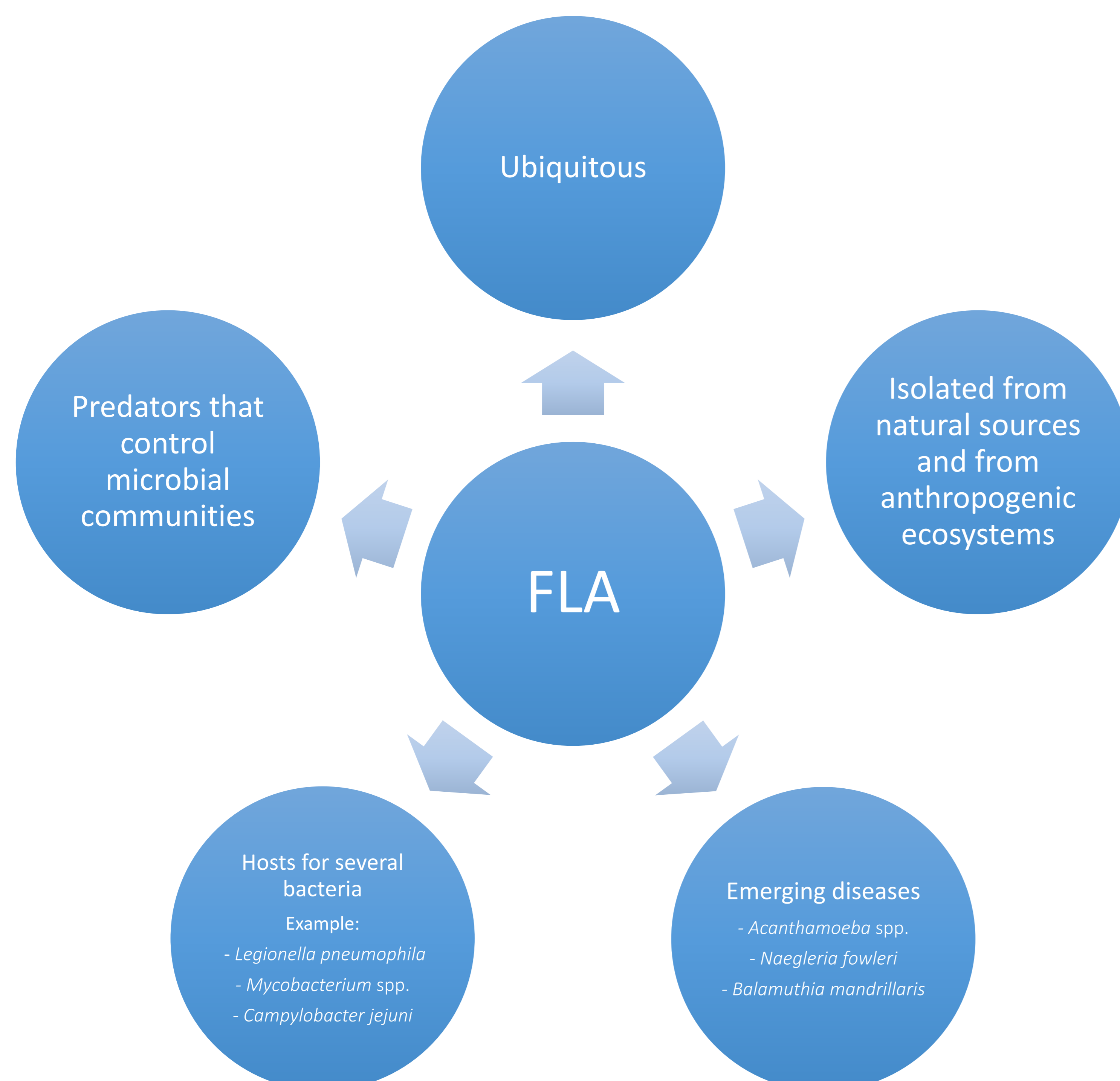
Introduction

The Healthcare-associated infections (HCAI) are highly prevalent worldwide, leading to significant costs to health systems. They can be caused by various microorganisms, such as bacteria, viruses, fungi and parasites. Free-living amoebae (FLA) are protozoa that cause infections that are not prominent in the medical community because they are uncommon, although they may be serious. (1) They are non-parasitic amoebas that do not need a host to survive or complete their life cycle, and can act as reservoir for other pathogenic microorganisms, particularly bacteria that acquire resistances to their destructive mechanisms, surviving in trophozoites or cysts. Thus, since amoebae are organisms that are resistant to several environmental factors, they offer protection to the microorganisms they harbour, which favours their permanence in the environment and increases the probability of causing human infections. (2)

Objective

In this work it was done a general review about HCAI and the knowledge that relates them with amoebas, in order to call attention to the fact that these protozoa could constitute a public health problem. (3)

Discussion and conclusions



Free-living amoebae (FLA), being ubiquitous, may be present in places where **health care** is provided, often where individuals with compromised immune systems are found. Thus, these amoebae have the opportunity to induce infection more easily, when they belong to species infecting humans, and also to increase the likelihood of infections caused by the microorganisms that they transport and shelter. The fact that **FLA protect the microorganisms** they contain also poses other problems for health services, including the possibility of contributing to the **resistance of bacteria to antibiotics**. Another issue is related to **disinfection and cleaning procedures**, since these are focused on the elimination of pathogenic microorganisms, with disinfectants to which FLA are resistant. Thus, it is important to consider an approach for elimination of biological agents that contaminate the various materials, instruments and the **hospital environment** and other health services, also effective for FLA, because only in this way the HCAI risk can be truly reduced.

References:

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