

Structure and physicochemical properties of antiseptics and disinfectants in relation to their activity

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Antiseptics and disinfectants represent a large group of compounds that have different effects depending on the used concentration. They are substances that remove bacteria from the skin or materials and are part of the practices for infection control in hospitals.

The action of antiseptics and disinfectants is due to mutual reaction with the cell surface of the microorganisms, followed by their penetration into the cells and the influence on a certain target area. Intrahospital (inpatient, nosocomial) infections are localized or generalized infections caused by microorganisms acquired during hospitalization. Intrahospital infections also include recurrent infections acquired during other hospitalizations and other manifest infections in patients that move from one hospital to another. In fact, these infections can result from inappropriate use of antiseptics and disinfectants. The purpose of this study is to establish a correlation between the mechanism of action of antiseptics and disinfectants and their chemical structure.

This correlation may be the basis for creating an approach that will be used as prevention from the occurrence of intrahospital or nosocomial infections. The establishment of such an approach is crucial because it is necessary to know which antiseptic or disinfectant has the greatest activity against the microorganism which is the cause of the intrahospital (nosocomial) infection.

Keywords: Antiseptics, Disinfectants, Intrahospital infections, Prevention, Microorganism.

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