4th International Conference on
Wound Care, Wound Nursing
Tissue Repair & Regenerative Medicine
October 05-06, 2018 | Los Angeles, USA

## Ethical and legal issues in nursing

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**Introduction:** Infection is generally the result of dynamic interactions between host, potential pathogen and the environment. It normally occurs when microorganisms manage to overcome the host's defence strategies, leading to harmful changes in the host. There are two particularly important terms we use when talking about infection. One is the pathogenicity, which refers to a microorganism's ability to cause disease. The other is virulence, which defines the degree of pathogenicity. Virulence is related to the properties of the microorganism that make it aggressive to the host (virulence factors) and to its ability to evade the host's defence mechanisms, e.g. the presence of a capsule that protects it from phagocytosis. A microorganism's pathogenicity is influenced not only by its virulence, but also by the host's ability to resist infection (defence mechanisms). Despite the fact that there are a large number of germs on skin's surface, all of them potentially pathogenic, they are usually harmless thanks to the effect of the skin's acid mantle. Moreover, under normal conditions the skin is an effective physical barrier against bacteria. As is well known, not all patients have the same risk of developing an infection when they have a wound. The factors that determine the risk of infection include the origin of the wound, the causal mechanism, age, and comorbidities present in the patient. There are various factors that favour the development of infection, which can be local (ischaemia, presence of necrotic tissue), general (malnutrition, diabetes, immunosuppressant therapy, etc.) or germdependent (e.g. virulence. INFECTION CONTINUUM The distinction between colonisation and infection is not entirely clear and in recent years great importance has been placed on the concept of bacterial load. Bacterial load means the concentration of germs per gram of tissue in the wound. It has been reported in the literature that a high bacterial load of around 105 colony forming units per gram of tissue can interfere with wound repair mechanisms and therefore prevent healing. This high bacterial load acts silently, showing no signs of infection. When the skin is broken, bacteria can cause contamination, colonisation and infection of the wound. We consider that a wound is contaminated when germs are temporarily present on the surface of the wound but do not proliferate, which does not affect correct healing of the wound. The term 'colonisation' is used to indicate that the germs in a wound proliferate and find a suitable environment in the ulcer in which to grow and multiply. There is another phase,) Critical colonisation (Established microbial population, no healing progress, microbial imbalance, no signs of infection)Topical antimicrobial agents Infection (Microbial control) Systemic antibiotics and topical antimicrobial agent ©2002 ConvaTec Host resistance Microorganism Bowler PG. Ostomy Wound Management 2003; 49(1):44-53.

**Results:** Chronic and Acute Wounds. Pathophysiology and Care

**Conclusion:** There are four distinct phases in the infection continuum: contamination, colonisation, critical colonisation and infection. Once we know them, we will be able to manage the wound properly in each phase. When faced with such a wide range of silver dressings on the market, it is essential to choose the option that best suits the characteristics of the wound and has antimicrobial activity while being capable of handling the exudate and adapting perfectly to the wound bed.

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