

Abstract

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## **Like the domino effect – the impact of improved hygiene processes**

St. Nikolaus-Stiftshospital Andernach, Germany is a 267-bed hospital with nine specialist departments and 600 employees. Here, hygiene is a central element of the care quality: since 2014, the University of Bonn's teaching hospital has participated in the German "Aktion Saubere Hände" (Clean Hands Campaign). The employees already have achieved significant hygiene successes by conducting continuous training, measuring compliance and recording the hand disinfectant consumption; in May 2016, they were awarded the Campaign's Silver Certificate.

In 2016, the hospital management decided to use and train standardised operating procedures (SOPs) for nursing care within the scope of a pilot project. Claudia Becker, specialised nurse for hospital hygiene, was entrusted with heading this project. The objective: increase the patient safety, particularly before aseptic tasks. When looking at the risk arising during care, aseptic measures play a special role, as they involve the risk of pathogens entering areas that are primarily sterile or not colonised with potentially pathogenic microorganisms and triggering severe infections from there.

The SOPs implemented during the pilot project at St. Nikolaus-Stiftshospital Andernach describe the aseptic procedure when a wound dressing is changed with and without wound management. The SOPs were developed by the BODE SCIENCE CENTER, Hamburg, Germany and the University Medical Center Hamburg-Eppendorf. The procedures particularly focus on the working steps that involve risks of infection for patients and were optimised in this respect. During a dressing change, for example, it is not only important to disinfect hands but also to apply the sterile dressing aseptically, so that no microorganisms are transmitted to the wound.

The optimised SOP for the dressing change without wound management comprises a total of 13 steps. Three of these are especially important for patient protection. The SOP for the dressing change with wound management on medical advice comprises 17 sub-steps, including four that are particularly important for patient protection.

Within the pilot project, both SOPs for the change of wound dressings have been implemented in differing wards. The introduction was supported multimodally: intensive training, personal support, auxiliary material and online tools trained the correct procedure and sustainably promoted the hygiene compliance. After only a few months, the willingness to observe all steps relevant to hygiene during the aseptic dressing change increased from 75 per cent to 88 per cent. This was of direct benefit to the patients as surgical site infections after the indicator surgery 'colon' decreased. And the decreasing number of surgical site infections had a positive effect on



the consumption of antibiotics: the need declined in all participating wards – particularly the use of reserve antibiotics dropped significantly.

#### Source

“Like the domino effect – the impact of improved hygiene processes.” Speech by Claudia Becker, Specialist Nurse for Hospital Hygiene, St. Nikolaus-Stiftshospital GmbH, Andernach, Germany held at the Lunchtime Symposium “Pathogens resistant to antibiotics: new hygiene strategies along the patient journey”, 17 November 2016, Berlin, arranged by the BODE SCIENCE CENTER, Hamburg, scientific centre of excellence of PAUL HARTMANN AG, Heidenheim.

