

Brief interview with Dr. Heide Niesalla

“We want to further advance infection control with modern instruments”

Three questions to Dr. Heide Niesalla, Head of BODE SCIENCE CENTER, Hamburg, Germany.

Your objective is to leverage the potentials of eHealth in the field of infection control with digital solutions. Where do you see the greatest benefits?

The general benefit of mobile eHealth or mHealth solutions is, for example, the greater flexibility, higher efficiency and better data quality – advantages that are also for the benefit of infection control measures. Good hygiene standards require resources that are especially scarce in hospitals. Hence, solutions that simplify or facilitate the implementation of infection control measures are needed. Content-wise our eHealth solutions begin where we expect a direct benefit for the patient safety and where this benefit has been proven, respectively. This especially applies to hand hygiene. It is the most important individual measure to prevent infection. At the same time, there is major potential for improvement, considering the compliance rate of barely 50 %. We want to further promote the hand disinfection compliance with digital instruments. Those enhancing hand hygiene compliance also improve patient safety, because nosocomial infections still are the most frequent complication in hospitals. Hence, our focus is on eHealth solutions that help improve hand hygiene.

What concrete infection control eHealth solutions did you develop?

Starting point of our developments are evidence-based research findings and recommendations of the World Health Organization (WHO) and the Robert Koch-Institute (RKI). These institutions and recent research results confirm that multimodal programmes that approach the problem of insufficient hand hygiene compliance from different angles are most efficient. Our eHealth solutions are therefore based on compliance-promoting measures as part of a multimodal programme. Here, we pick up on measures that have been proven to be successful “analogously”, such as training courses. We introduced our first e-learning programme in 2013. The certified digital training courses are a modern complement to the traditional PowerPoint presentation. But even more important is that they can be used at any time and function without extensive classroom training. Surveys among our e-learning users showed that 93 % of the respondents could translate the contents of the “5 Moments E-Learning Tool” into practice successfully. 83 % said they could recognise the right moment for hand disinfection. And just recently, we introduced an upgrade of an eHealth application to observe hand hygiene behaviour, which offers an interface to the HAND-KISS application of the German National Reference Centre for the Surveillance of Nosocomial Infections (NRZ).



What are digital solutions capable of in infection control, what analogue solutions cannot achieve?

Of course, eHealth applications do not reinvent the wheel. For example, our observation tool “Observe”: it allows users to document the hand hygiene behaviour with a tablet computer or smart phone. This obviously also works with a clipboard and paper, but it is much more modern and agile when done digitally. And also interesting: what happens with the records? Experience shows that the digital data transmission saves more than 90 % of the time normally needed to enter data manually into a file. In addition, the obtained high data volumes allow a differentiated analysis – fully automatic within a very short time. All this not only helps infection control practitioners create the documentation, but also shows the facilities their exact hand hygiene status thanks to up-to-date and precise analyses. At the same time, the method allows to provide immediate feedback – and thus has a sustainable influence on the staff’s behaviour. However, we think that the possible applications of eHealth solutions are far from exhausted. In the future, for example, applications that allow enhanced individualisation will be an issue.

