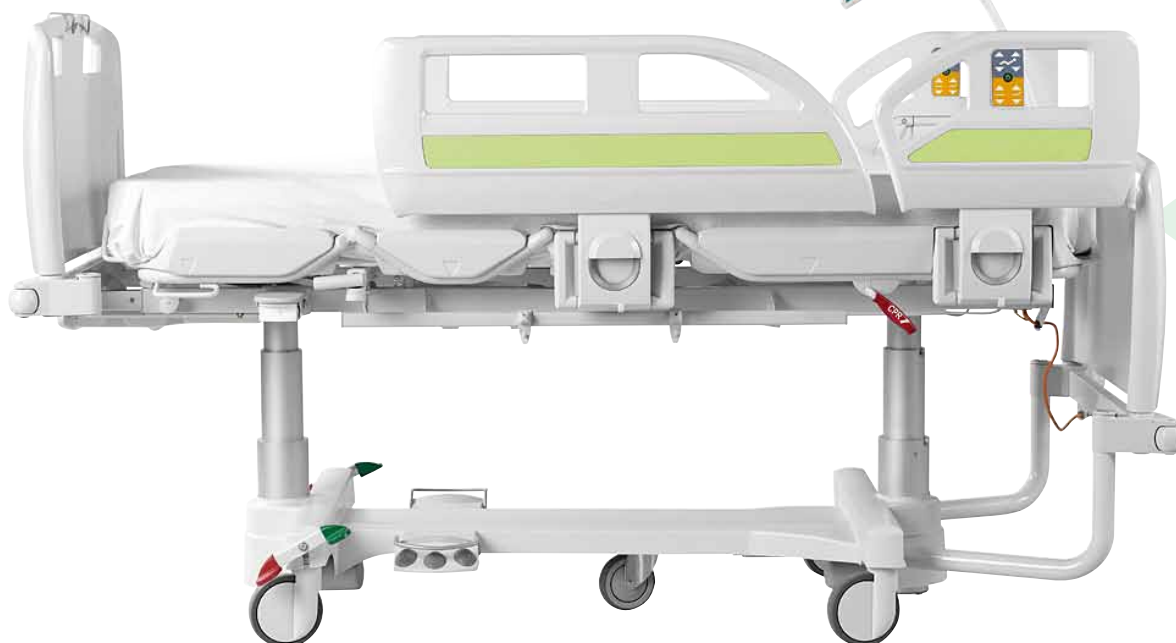


Kateřina Jansová, clinical coach LINET

A critical aspect in the prevention of HAIs is the cleansing and disinfection of surfaces, which also concerns the beds that patients spend the majority of their time in during hospitalization. Which beds fare best when it comes to preventing nosocomial infections? Here, we describe six trends that manufacturers are pursuing in order to help reduce the risk of infection transmission.

# Beds help in infection control



## 1 Minimal number of parts

There is a simple equation to keep in mind when considering the risk of contamination: More parts mean more places for contaminants to take hold and more complicated cleaning too. Therefore, the components in modern beds feature designs that are smooth and require very few joints and small parts.

## 2 Easy cleaning

Of course, it's not possible to manufacture an entire bed from a single piece of material, so it's necessary to pay close attention to a number of critical places that are more susceptible to dangerous microbiological contamination. The siderails and headboard, for instance, are parts that the patient and caregiver touch most often, but the sleep deck is also regularly subjected to contamination from bodily fluids. It is much easier to maintain beds designed to enable fast and unhindered access to these points as well as easy disassembly of components for thorough decontamination.

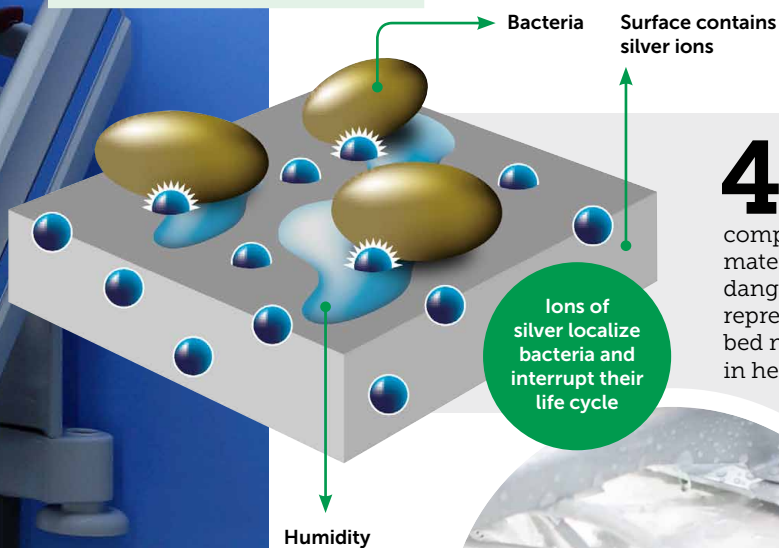


## 3 Plastic for easier maintenance

A minimal number of parts and easy maintenance – two requirements that influence the choice of materials. Plastic is becoming ever more popular in the prevention of nosocomial infections. It allows beds to be constructed without unnecessary gaps and joints, and its smooth surface is especially easy to clean. Plastic also offers an advantage over metal: because it isn't as susceptible to condensation, it reduces the occurrence and multiplication of microorganisms.

## 4 A surface for active prevention

A special antibacterial coating can be applied to the surface of plastic parts. During production, an active antibacterial compound containing, for example, silver ions, is added to the material used to make plastic components and helps prevent dangerous microorganisms from taking hold. Today, this represents one of the most effective solutions available to hospital bed manufacturers for increasing the success of infection control in healthcare facilities.



## 5 Robust ingress protection

Modern beds offer a range of sophisticated features, the majority of which are controlled electronically. The decontamination process subjects the bed to moisture, but that can present a serious risk to electronic components. Therefore, manufacturers have begun fitting these components with seals, the performance of which is indicated by an Ingress Protection (IP) code. For safe washing, beds should carry a rating of at least IP-6.

## 6 Let Washers do the work

Cleaning beds is typically manual work; however, in some countries, automated cleaning in special tunnel washers is the preferred method. In Germany, for example, it is common practice. The advantage of using washer-disinfectors is very fast and thorough decontamination, but the machines require specially modified beds that can withstand aggressive disinfectants as well as very high pressures and temperatures. That's why today's modern beds are available in versions featuring reinforced, heat-resistant coverings and seals together with other modifications, some of which have been borrowed from the automotive industry.