While the search for a silver bullet solution continues, hand hygiene remains vital to infection prevention.

IMPORTANCE OF HAND HYGIENE IN THE COVID-19 PANDEMIC

Page 6/7

- Hygiene in hotels
  How to re-open hotels with improved hygiene standards
  Page 4/5

- Feedback for infection prevention
  How the ingo-man® SmartNose actively improves hand hygiene
  Page 8/9

- OPHARDT webinars
  Don’t miss a thing - sign up for our educational webinars
  Page 12
Dear Readers,

As we collectively work to overcome the challenges facing us as a result of the current COVID-19 pandemic, we are once again reminded just how critical the role of hand hygiene is in infection prevention and control. The novel coronavirus will continue to impact us for months to come, highlighting the need for effective infection control measures in public and private life.

The considerable need for hygiene stations and sanitizer stands, particularly in public areas, has recently been highlighted in recommendations published by the World Health Organization (WHO). Medical institutions have been tasked with analyzing their existing hygiene infrastructure, focusing efforts on implementing strategies to improve hand hygiene (page 10).

As we return to normal routines, our usual patterns in public spaces, offices and transportation will have to change significantly. In the hospitality industry, we expect much more rigorous hygiene standards to become the norm over the next 12-16 months. Both guests and staff will have to take numerous additional hygiene precautions in both shared and private spaces (page 4 and 5).

Today, we continue our role as innovators in the hand hygiene industry, supporting healthcare professionals in providing safer patient care. With the new ingo-man® SmartNose, users receive instant feedback, via an integrated green LED, when an adequate volume of hand sanitizer has been dispensed. This feedback can lead to improved hand hygiene behaviour. The ingo-man® SmartNose is a retrofittable device that can be installed into existing ingo-man® plus dispensers, and integrated into the OPHARDT Hygiene Monitoring System® (OHMS) software to provide further information on hand hygiene compliance to hygiene professionals (page 8 and 9).

In the current edition of Hygiene World, we take a closer look at the role that hand hygiene infrastructure plays in preventing and controlling the spread of the novel coronavirus.

I wish you pleasant reading,
Heiner Ophardt, CEO

Contents

- A healthcare visit starts with good hand hygiene................................................................. Page 3
- Hygiene must improve in hotels, post COVID-19................................................................. Page 4-5
- Importance of hand hygiene in the wake of COVID-19 ....................................................... Page 6-7
- The ingo-man® SmartNose - Green light for infection prevention ....................................... Page 8-9
- WHO says hand hygiene infrastructure is critical in the COVID-19 pandemic................ Page 10-11
- DHP Disposable pump certified as recyclable / OPHARDT webinars............................... Page 12
A healthcare visit starts with good hand hygiene

All too often, critical infection control measures are ignored by visitors to healthcare facilities. How can the industry solve this problem?

In its first chapter on hand hygiene, the German Society for Hospital Hygiene (DGKH) recommends healthcare facilities place hand sanitizer dispensers in their entrance areas, targeting visitors and relatives of patients to take part in hand hygiene.

Not everyone is disinfecting their hands upon entry

Although visitors play an enormous role in overall infection prevention and control, many overlook the sanitizer dispensers, walking past without disinfecting their hands.

In times of pandemics or recurring, seasonal waves of infection, there is a temporary increase in hand disinfection – though this is often short-lived. This recurring increase and decrease in hand disinfection raises the question of why hand sanitizers are still used far too rarely in reception areas and halls. Lack of knowledge and awareness of the importance of regular hand hygiene are the two likely causes.

Eye-catching, centrally placed dispensers are top priority

Placing hand sanitizer dispensers in centrally located, easily accessible areas is the first step in improving the likelihood that visitors will disinfect their hands. Hygiene stands placed in the perfect choke point can be a good way to solve this.

Another way to solve this problem is by utilizing eye-catching, highly visual elements that naturally attract people’s attention to the dispenser.

The Sigma Clinic in Bad Säckingen, Germany, successfully integrates hand disinfection into their visitors’ routine when entering the facility.

To prompt visitors to disinfect their hands, the Sigma Clinic placed touchless PRAESIDIO® sanitizer dispensers at the entrance areas of their facility, using bright colours behind and on the front of the dispenser to attract attention.

Shortly after the introduction of the dispensers, hygiene specialists noticed an uptake in usage.

PROFESSIONAL OPINION

We want to further increase the standard of hygiene in our clinic by placing sanitizer dispensers at the entrances and providing visual reminders to visitors to disinfect their hands.

Christine Völkel
Hygiene Specialist, Sigma Clinic

PRAESIDIO® in the Sigma Clinic in Bad Säckingen
Hygiene must improve in hotels, post COVID-19

With coronavirus restrictions easing, the hospitality industry must find ways to keep their facilities clean and safe. Guest and staff hygiene are the key to keeping hotels operating.

Dispenser infrastructure must exist for both guests and staff.

Domestic and international travel has seen a sharp decline since the COVID-19 outbreak, with some travellers finding themselves stuck abroad, while others that have returned home may be forced to quarantine as a protection measure against the virus.

Locally, those who have already been exposed to the virus are encouraged to quarantine away from their families to prevent the virus from infecting their loved ones. Often in these cases, individuals rely on the ability to stay in hotels to bridge the gap before they can return home again.

In the meantime, as some governments around the world are easing restrictions put in place since the onset of the pandemic, there are many areas that present a potential threat – especially in the case of hotel stays. According to the World Health Organization, infection prevention for COVID-19 includes physical distancing, wearing masks, and practicing good hygiene. This includes disinfecting hands and surfaces.

Besides the risk of catching COVID-19 in hotels, there have been numerous studies previously that show the risk of infection in the industry. According to a 2015 report, guests can be exposed to a wide range of diseases during their stay, including the common cold, athletes’ foot, influenza, herpes, staphylococcus infections, streptococcus infections, hepatitis, salmonellosis, acute gingivitis, intestinal flu, mononucleosis, tuberculosis, legionnaires’ disease, severe acute respiratory syndrome (SARS), and norovirus.1,2

Despite its status as a multi-billion dollar global industry, there are currently no universal standards for disinfecting, wearing masks, and practicing good hygiene. This includes disinfecting hands and surfaces.

cleaning hotel rooms. Visual assessment is the main indicator for cleanliness in hotel rooms, though this has been proven as a poor indicator of sanitary status.\(^3\) Guests may acquire an illness from surfaces that have been contaminated by previous guests, as well as by housekeepers during cleaning.\(^4\)

**Contaminated items**

In one study, although the rooms looked clean, microbial analysis revealed almost all hotel room surfaces studied would fail to meet hygiene requirements set out in other industries.\(^2\)

High-risk items include sponges and mops from housekeeping carts, the main light switch, the telephone keypad, and the TV remote, while low-risk items include the curtain rod, the headboard, the bathroom door handle, the shower floor, the room door handle, and the bathroom faucet.\(^1\)

Risk level could be influenced by the porosity of the surface, as well as the cleaning agents used to clean surfaces. Surfaces such as those found on TV remotes and telephone keypads present a unique challenge as they are made out of materials that are difficult to sanitize, and the areas between buttons are hard to reach.

A focus on sanitizing, and not simply cleaning surfaces in hotel rooms between guests, can help to control microbes that contribute to community-acquired infections. In the absence of universal standards for cleanliness in hotel rooms, it is important to stay vigilant and practice thorough hand hygiene to fend off the threat of infection, as approximately 80% of all communicable diseases spread via the hands. Offering staff and guests adequate access to hand hygiene opportunities can help minimize the potential for acquiring infection. Integrating a comprehensive hygiene concept into a hotel can make this possible.

**OPHARDT Hygiene Solutions**

For more than 50 years, OPHARDT Hygiene has been an innovator in the hygiene industry, delivering opportunities for hand hygiene where they matter most. Protect your guests from arrival to departure with one of our flexible sanitizer stations that can be placed in entrance-ways, lobbies, and more.

Within the room itself, equip your guests with OPHARDT’s new H\(^3\) modular dispenser, bringing a level of sophistication to the washroom experience. These newly launched dispensers can be used with regular hand soaps, body wash, shampoo, and conditioners. Different pumps can be implemented to work with sanitizer in areas like lobby entrances, hotel restaurants, fitness or spa areas, and in the guest rooms themselves. The dispensers are refillable, and eliminate the waste generated from mini-amenity bottles.

OPHARDT Hygiene also has countless bracket solutions for carts and trolleys that allow for mounting of sanitizer dispensers, wipes and glove boxes. In this way cleaning staff always have access to tools to keep facilities clean and hygienic.

---


Importance of hand hygiene in the wake of COVID-19

Wuhan study of coronavirus infection risk factors, once again confirms the importance of thorough hand hygiene in preventing contraction of this disease.

Humans have been contending with infectious diseases caused by viruses and bacteria since the dawn of civilization. As we spread across continents and our populations increased, so too did outbreaks of infectious disease. The Spanish Flu, one of the most devastating pandemics of recent memory, claimed up to 50 million lives at the beginning of the 20th century.

In contrast to the devastation caused by the Spanish Flu, the current COVID-19 pandemic seems less threatening, though the impact of the disease on global health, economy, and society is widespread. In our highly mobile and globalized world, the virus was able to spread rapidly, leaving many nations unprepared for the challenges caused by the virus.

Patience needed for proven vaccines
Although we may be able to treat the symptoms caused by SARS-CoV-2, there is no known cure for the disease itself. Research is underway to create a vaccine to immunize individuals from contracting the disease, though a proven vaccine could be as much as a year and a half away. Even when a vaccine is available to immunize against the novel coronavirus, in general, vaccines are not a one hundred percent guarantee against contracting the virus. Production ramp-ups of vaccines could also take considerable time.

Hand hygiene as a preventative measure against COVID-19
A recently published study from a hospital in Wuhan established that poor hand hygiene compliance was one of four critical risk factors that contributed to the contraction of the novel coronavirus for hospital staff. In view of this fact, thorough hand hygiene – hand washing with soap and water, or disinfecting with sanitizer – becomes even more critical than before.

Although the disease spreads via droplet infection, direct and indirect contact transmission plays an important role in the spread of the virus. In the case of hand sanitizers, we must take care to

In order to protect yourself effectively against the coronavirus, the usual protective measures for a droplet infection should be strictly adhered to - this includes thorough hand hygiene.

Dr. Andreas Glöckner
Medical Director at OPHARDT Hygiene

ensure that sanitizing products meet the appropriate spectrum of efficacy. Alcohol-based hand rubs used to prevent the novel coronavirus should have at least limited virucidal efficacy. Both hand disinfection and washing should be carried out for at least 30 seconds, covering all areas of the hand.

Using the right volume of soap or disinfectant is just as important as the hand hygiene event itself. Especially in hygienic hand disinfection, the internationally recognised three millilitres are an important parameter for achieving the highest possible germ reduction.

After washing, hands must be thoroughly dried, as pathogens thrive on damp hands. In public areas, disposable paper towels enable the most hygienic approach for hand drying, followed by disposal of the paper towel in a hands free, closed bin.

Hand hygiene awareness following COVID-19
Overall, it is evident that the COVID-19 pandemic has raised awareness for the importance of hand hygiene once again, especially at a time when we are waiting for vaccines and targeted treatment options.

As governments around the world consider the easing of contact restrictions, hand hygiene will continue to play a critical role in stopping the spread of the coronavirus.

In the context of infection prevention, further challenges await us. According to the World Health Organization (WHO), the increasing number of antibiotic-resistant bacteria will result in up to 10 million deaths per year in 2050.

With the threat of reduced effectiveness of antibiotics looming, we must compensate by further implementing preventative measures, such as effective hand hygiene.

For that reason, putting in place the hand hygiene practices and infrastructure, that address the current crisis of the novel coronavirus, will also prepare us to address the pressing issue of antibiotic-resistant bacteria in the future.
The ingo-man® SmartNose - Green light for infection prevention

Never before has it been so easy to improve hand hygiene. The ingo-man® SmartNose provides instant, visual feedback to doctors and nurses, and so much more.

Direct feedback as an auto-intervention
During each hand hygiene event, the innovative SmartNose provides direct feedback via a green LED, located at the top of the panel, each time a sufficient dose of sanitizer has been dispensed. The internationally recommended dispensing volume of 3 ml for hygienic hand disinfection is set as the standard volume to engage the feedback LED, but this volume can be adapted to suit individual requirements. The intelligent retrofit unit is not only simple and intuitive in its function, but also in its installation. The SmartNose can be installed into existing ingo-man® plus dispensers within seconds, enabling a retrofit to make existing dispenser infrastructure smart.

Once installed, the SmartNose operates as an auto-intervention device, effectively relieving the burden of hospital hygiene by reinforcing some infection control measures. By visually informing hospital staff via LED whether the requirements for high-quality hand disinfection are met, the ingo-man® SmartNose promotes compliance through feedback. Studies prove this positive effect for infection protection.¹ ²

Smart hand hygiene
It doesn’t stop there. The ingo-man® SmartNose records not only the volume dispensed during each hand hygiene event, but also information on the dispenser location and the time of the hand hygiene event.

This data can then be conveniently evaluated with the OPHARDT Hygiene Monitoring System® (OHMS). In this software, a clearly

¹ Scheithauer S et al. Do WiFi-based hand hygiene dispenser systems increase hand hygiene Compliance? Am J Infect Control. 2018;46:1192-1194

ingoman® SmartNose teaser video
Scan the QR Code and learn more about this innovation.
designed home screen allows a quick overview on hand hygiene behaviour – based on both qualitative and quantitative data. The newly designed user interface offers further information on hand hygiene data for those

PROFESSIONAL OPINION

The immediate and fully automatic feedback supports improved hygiene and is a cost-effective method in the context of infection prevention.

Andreas Glöckner
Medical Director at OPHARDT Hygiene

who wish to have a closer evaluation on particular dispensers or wards, time frames, and more. The retrofittable face shield extends the OPHARDT Intelligent Solutions (OIS) suite of solutions on the hardware side, and is also available pre-installed in the ingo-man® smart dispenser.

Another added value of the ingo-man® SmartNose is its ability to calculate and report on product fill level in the dispenser. When fill levels become low, an alarm is sent to the appropriate personnel to ensure sanitizer is always available to visitors and staff. For more hygienic and reliable results using

Smart Ready for the future
By offering the ability to retrofit existing ingo-man® plus dispensers with an intelligent hygiene solution, hand hygiene monitoring is now more affordable than ever. With the ingo-man® SmartNose, the future of hand hygiene is digital.

This technology can be

The green LED immediately provides feedback on whether the correct dosage was dispensed.

FEEDBACK AND HAND HYGIENE QUALITY

<table>
<thead>
<tr>
<th></th>
<th>Consumption per hand hygiene event (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1.69</td>
</tr>
<tr>
<td>Analysis + Feedback</td>
<td>1.88</td>
</tr>
<tr>
<td>Further smart dispensers + Feedback</td>
<td>2.63</td>
</tr>
<tr>
<td>Post-intervention</td>
<td>2.66</td>
</tr>
</tbody>
</table>

The green LED immediately provides feedback on whether the correct dosage was dispensed.
WHO says hand hygiene infrastructure is critical in the COVID-19 pandemic

Public institutions in particular are responding to coronavirus by upgrading hygiene programs - what factors are important?

Critical gaps in hygiene infrastructure have been highlighted in the wake of the novel coronavirus gripping communities across the globe. In response to the increased demand for infection control measures, the World Health Organization (WHO) recently published recommendations to stop the spread of infection. According to the WHO, all public institutions should offer an opportunity for hand hygiene in their entrance areas, including schools, offices, healthcare facilities, and more.

Within the transport sector, the WHO calls for sufficient hand hygiene stations to also be provided at all bus and train stations. In highly-frequented areas, pathogens can rapidly spread among the population. By targeting these areas to upgrade existing hand hygiene infrastructure, individuals can take necessary infection prevention measures, such as disinfecting their hands upon entering and exiting buildings and transport stations.

Upon entering and exiting
The WHO recommendations make the requirements for hand hygiene dispensers clear. To ensure a high rate of usage, hygiene dispensers must be easily accessible and intuitively operated. Touchless devices in particular offer added value in terms of user-friendliness and prevention of cross-contamination. Studies show that touchless devices can improve use by more than 50%. Stable and tamper-proof designs are also key features in highly-frequented areas.
Compact sanitizer dispensers for counters and tables offer a practical solution for cramped rooms that cannot accommodate the space needed for a separate hand hygiene station. Matching drip trays increase safety and reduce maintenance by preventing product from dripping onto the floor.

The perfect place to wash your hands
In addition to implementing hand hygiene stations at the entrances of public buildings, washroom infrastructure is another hotspot to consider for infection prevention.

In public washrooms, adequate facilities for washing hands with soap and water, and thoroughly drying afterwards are critical infection prevention tools. Disposable paper towels ensure the most hygienic means of hand drying and allow mechanical removing of germs from the hands through friction. Paper towels also ensure faster throughput of guests, preventing dangerous overcrowding. Using a hands-free, closed-lid waste bin is
operators and users with regards to hand hygiene. Using the OPHARDT Washroom Monitoring System ® (OWMS), cleaning staff or facility managers can monitor product fill levels, save resources, and increase user satisfaction.

Intelligent dispenser systems constantly measure and transmit their fill levels, which washroom maintenance teams can use to optimize refill cycles and cleaning intervals. The resulting availability of hygiene products ultimately leads to cleaner, more hygienic washrooms during pandemics.

Steel dispenser series is timeless in its design, and has been the benchmark for durable, public washroom solutions for over 25 years.

Freedom to choose refillables reduces operating costs
The SanTRAL ® Series features an open system, meaning that you aren’t tied to a specific manufacturer for filling goods. An open system protects users from arbitrary price increases for filling goods, as they are free to switch between suppliers at any time. A flexible and secure supply is vital, especially during times of pandemics where bottlenecks in supply can affect the ability to provide adequate infection protection.

Digitalization of hand hygiene
Digitalization is an ever growing part of our lives and can offer real long-term added value to operators and users with regards to hand hygiene. Using the OPHARDT Washroom Monitoring System ® (OWMS), cleaning staff or facility managers can monitor product fill levels, save resources, and increase user satisfaction.

Intelligent dispenser systems constantly measure and transmit their fill levels, which washroom maintenance teams can use to optimize refill cycles and cleaning intervals. The resulting availability of hygiene products ultimately leads to cleaner, more hygienic washrooms during pandemics.

When washing your hands, it is also important to dry them carefully.

the optimal means of completing a hand hygiene event without the risk of cross-contamination.

In the public sector, the frequent use of devices and open access to public places increased demands on the dispenser systems.

Robust dispenser housing that prevents vandalism and tampering of the dispenser is especially relevant in unsupervised places. Lockable dispensers effectively reduce the risk of unauthorized tampering of filling goods, while still offering ease of use for maintenance staff.

Clean and aesthetically pleasing surfaces give washrooms that special touch, and are sure to make visitors feel comfortable during their washroom experience. The well-known SanTRAL ® stainless steel dispenser series is timeless in its design, and has been the benchmark for durable, public washroom solutions for over 25 years.
DHP Disposable pump certified as recyclable

The dosing pumps designed to meet the highest hygiene standards officially bear the “Made for Recycling” seal.

The DHP dosing pump was developed to meet the highest hygiene standards, while also effectively reducing processing costs. In healthcare facilities in particular, the reproprocessing requirements of dispenser pumps often exceed the capabilities of hospital staff. Without regular reproprocessing, these pumps fail to meet the recommendations published by hygiene organizations aimed at preventing cross-contamination of hospital equipment.

As certified by an independent assessment, the DHP pump also meets environmental objectives. In a comprehensive analysis by INTERSEROH Dienstleistungs GmbH, the DHP dosing pump was evaluated against a set of criteria to determine the recyclability of the pump. Among other criteria, INTERSEROH evaluated how well the plastic pumps can be collected separately from other waste, and whether the material was valuable for use in future products.

OPHARDT webinars

OPHARDT leads through the world of dispenser systems with regular webinars. Stay up-to-date with the latest information on our hygiene products and solutions. You can find out more about our upcoming webinars at www.ophardt.com/en/webinar and in our monthly email newsletter.

Legal notice

Publisher
OPHARDT HYGIENE-TECHNIK GmbH + Co. KG
Lindenau 27, 47661 Issum
Tel +49 2835 - 180
Fax +49 2835 - 18-189
info@ophardt.com
www.ophardt.com

Copyright
2020, unless otherwise stated at OPHARDT HYGIENE-TECHNIK GmbH + Co. KG. Contributions marked by name do not necessarily reflect the opinion of the publisher. Errors and technical changes excepted.

OPHARDT Hygiene can be found on the following social media channels: