Crucial cleanability for **healthcare environments**

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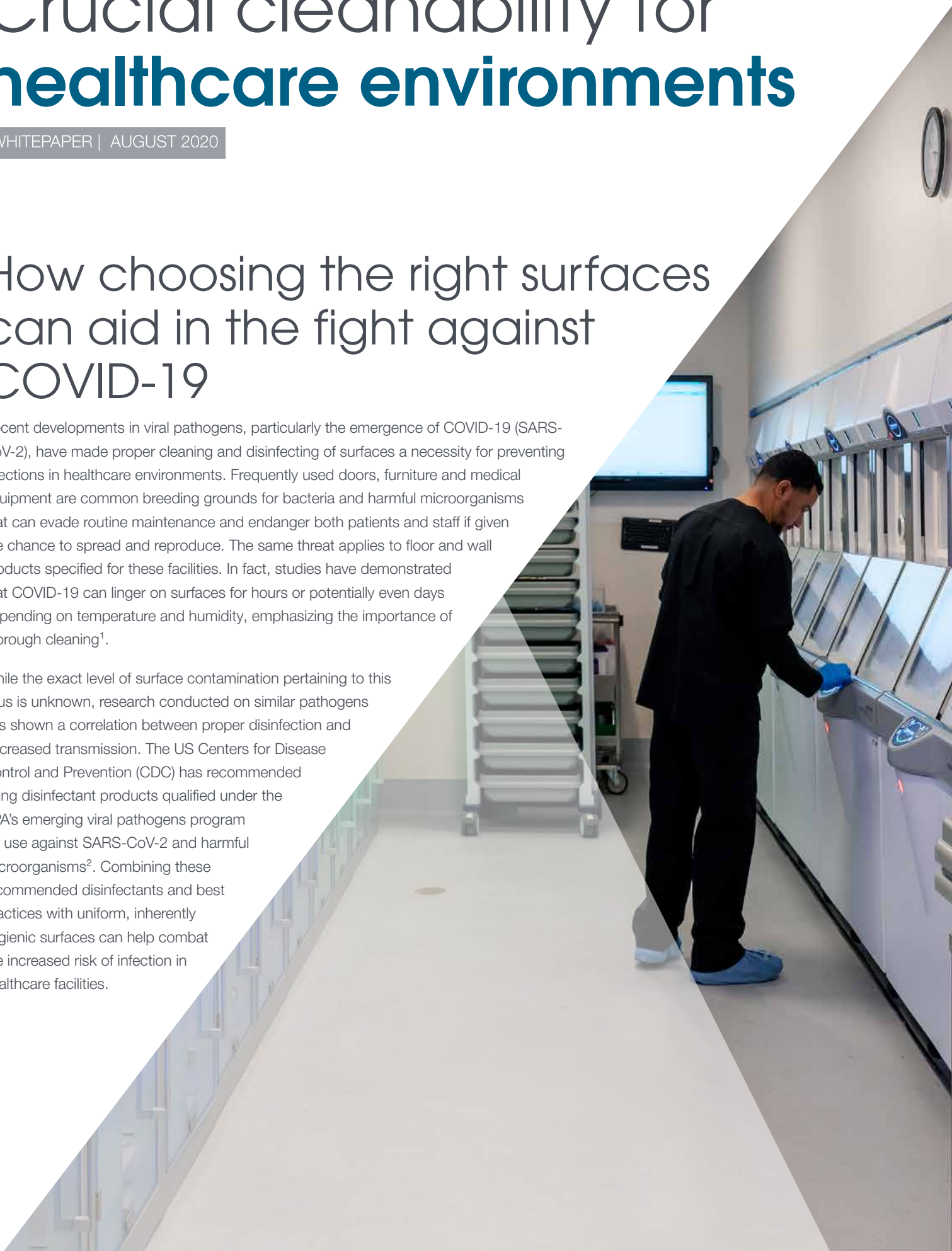
How choosing the right surfaces can aid in the fight against COVID-19

Recent developments in viral pathogens, particularly the emergence of COVID-19 (SARS-CoV-2), have made proper cleaning and disinfecting of surfaces a necessity for preventing infections in healthcare environments. Frequently used doors, furniture and medical equipment are common breeding grounds for bacteria and harmful microorganisms that can evade routine maintenance and endanger both patients and staff if given the chance to spread and reproduce. The same threat applies to floor and wall products specified for these facilities. In fact, studies have demonstrated that COVID-19 can linger on surfaces for hours or potentially even days depending on temperature and humidity, emphasizing the importance of thorough cleaning[1].

While the exact level of surface contamination pertaining to this virus is unknown, research conducted on similar pathogens has shown a correlation between proper disinfection and decreased transmission. The US Centers for Disease Control and Prevention (CDC) has recommended using disinfectant products qualified under the EPA's emerging viral pathogens program for use against SARS-CoV-2 and harmful microorganisms[2]. Combining these recommended disinfectants and best practices with uniform, inherently hygienic surfaces can help combat the increased risk of infection in healthcare facilities.



Examining the ever-present threat: HAIs

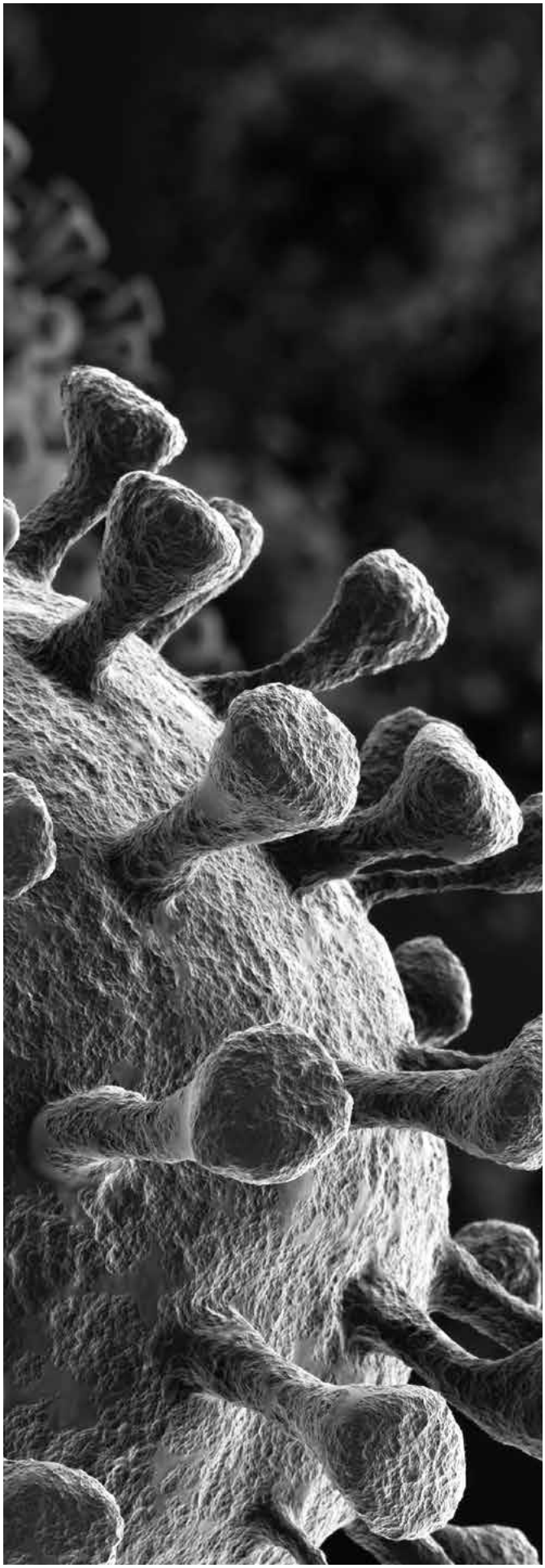
Healthcare associated infections (HAIs) are a constant concern in hospitals and treatment facilities. CDC statistics state that on any given day, about one in 31 hospital patients contract at least one healthcare associated infection[3]. These include central line-associated bloodstream infections, surgical site infections and drug-resistant staph infections, most notably MRSA. More often than not, these infections result from insufficient disinfecting and unintentionally allowing microorganisms to thrive on equipment and surfaces.

With the introduction of COVID-19, the risk of infection among patients is substantially higher in healthcare settings. The CDC lists Ventilator-associated pneumonia as a potential HAI, and where COVID-19 is primarily associated with respiratory complications, any patient experiencing this condition would be extremely susceptible to contracting the virus. Be aware that in addition to those suffering from Ventilator-associated Pneumonia, any individual with a preexisting condition naturally faces an increased risk of infection.

What about antimicrobials?

Supplementing cleaning and maintenance regiments with antimicrobials can actually create more harm than good over time. Where disinfectants are designed to kill bacteria cells on contact, antimicrobials focus on depleting resources for bacterial reproduction on a cellular level. The goal behind this is to halt bacteria accumulation by making the surrounding environment uninhabitable for microscopic pathogens, reducing the overall risk of contracting an infection.

Compounds specifically made to inhibit the growth and spread of viruses are classified as antiviral. It is important to note that while the broader antimicrobial term includes viruses in its list of susceptible pathogens, products claiming to have antimicrobial properties are not always antiviral. To make matters worse, prolonged exposure to a particular antimicrobial additive or ingredient can prompt mutations in bacteria and viruses, contributing to the development of advanced pathogens with improved resistances.



Things to consider when choosing surfaces

Combing appropriate surfaces with CDC recommended cleaning and disinfecting practices could help prevent the spread of COVID-19 in healthcare environments. As a result, cleanability should be the top priority when specifying floor and wall products for these applications. Factors such as water ingress, durability and composition can affect cleanability, and determine whether a particular surface promotes the safety of patients and staff.

Carpet

- Composed of absorbent fibers that trap dust, dirt and bacteria
- Daily vacuuming does not kill existing viruses and bacteria
- Detergents can lead to over-wetting, producing mold and odors over time

Tile

- Susceptible to cracking and chipping upon impact
- Porous grout between tiles is difficult to clean, can lead to water ingress
- Detergents and chemicals can damage grout over time
- Damaged tile and grout is a common breeding ground for bacteria and other microorganisms

Paint

- Thin and easily chipped
- Sheetrock substrate is porous and susceptible to damage
- Wet cleaning and detergents remove paint each time
- COVID-19 virus lives up to 72 hours on paint (W.H.O.)
- Requires frequent detergent cleaning to effectively kill viruses

Sheet vinyl

- Smooth, uniform surface
- Improved durability, can endure high-impact and consistent usage without damage
- Heat-welded seams prevent water ingress and bacteria accumulation compared to porous grout and carpet fibers
- Non-shedding and inherently hygienic

Sources

1. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html - Last updated 7/10/2020
2. List N: Disinfectants for Use Against SARS-CoV-2 (COVID-19) – EPA, last updated 7/16/2020
3. https://www.cdc.gov/hai/data/index.html