

The New
Normal



Protecting those who protect others

Steps to ensure caregivers' physical and mental health

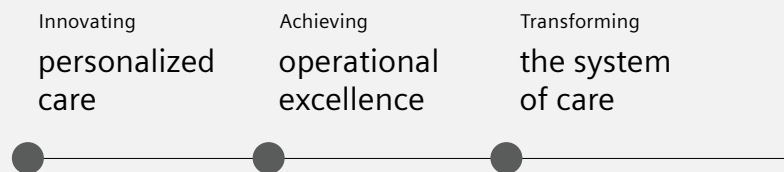
A thought leadership paper on "Achieving operational excellence"

Preface

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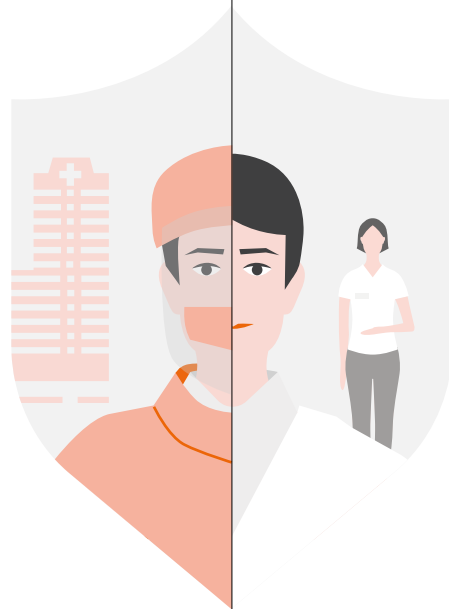
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Executive summary

The COVID-19 pandemic has served as a brutal reminder to the world that the safety of healthcare workers must be top of mind for jurisdictions, health systems and healthcare executives. We cannot protect patients if we cannot protect the people responsible for their care.

This paper identifies two challenges in protecting healthcare workers – ensuring their physical safety and safeguarding their mental wellbeing. While achieving these two goals may require different approaches, they are inextricably linked because they work towards precisely the same ultimate objective: the safety and wellbeing of healthcare professionals.

physical mental



Protection

Physical Protection

In September 2020, Amnesty International estimated that at least 7,000 health workers worldwide had died after contracting COVID-19.¹ Particularly during pandemics, healthcare workers are always going to be among those who pay the stiffest price; they are the ones required to put their health on the line to care for and comfort infectious patients.

This paper outlines several steps that health facilities can take to mitigate physical risk to healthcare workers, while continuing to deliver care to patients.

- Restrict access to healthcare facilities to ensure that only people who absolutely need to be there are allowed through the door.
- Distance potentially infectious patients in triage locations by creating physically separated triage areas.
- Set up dedicated spaces, equipment, and personnel for infectious patients, reducing the need to move them and ensuring that as few people as possible come into contact with them.
- Create safe care settings by building a good patient and workforce safety culture and by repurposing spaces and equipment.
- Constantly monitor and test COVID-19 frontline staff in order to identify potential infections early and undertake appropriate measures.
- Move staff behind the COVID-19 frontline, keeping them away from potentially infectious patients whenever possible.

Mental Protection

In addition to their physical health being at risk, healthcare workers have also suffered mentally and emotionally during the pandemic. The mental health toll taken by COVID-19 has been considerable. Patient care has suffered, and entire organizations have been affected. Illness and absenteeism are prevalent, which can drive up costs. Burnout and fatigue can contribute to mistakes, malpractice claims, and reputational damage. High-stress workplaces can lead to higher staff turnover and low morale, as well as poorer outcomes and diminished patient experience.

Protecting healthcare workers means protecting their mental health as well as their physical health. Just as measures exist to safeguard people's physical safety, strategies and techniques are available to improve the environment in which people work, helping to safeguard their mental health. These are just as essential as the steps to protect their physical safety.

- Support care teams in acute situation, helping front line workers with the physical and mental stress of working in dangerous situations.
- Build care teams' mental resilience with mind-body techniques such as mindful breathing, active meditation, biofeedback, and guided imagery.
- Establish internal leaders to embed social support and facilitate a feeling of being "all in it together."
- Design healthcare facilities for a positive experience for the people who work there.
- Provide natural spaces where employees can thrive, for example with natural light and elements of nature.
- Build a remote culture by making it easier for patients and caregivers to connect virtually.

Introduction

Protecting Healthcare Workers is Imperative

The COVID-19 pandemic has wrought many changes, one of the most important being renewed recognition around the world of the critical role played by healthcare workers and the imperative that they be kept as safe as possible.

As the pandemic began to take hold, jurisdictions everywhere emphasized the importance of “flattening the curve.” For most people, the COVID-19 experience came to be defined by a vague and frustrating feeling of imprisonment, with the solitary safety of home replacing office work, group activities and most types of socializing. But for healthcare workers, particularly those on the frontlines, the COVID-19 experience has been quite the opposite as they supported the sick, dying, and contagious.

Healthcare workers were also forced into new and unfamiliar roles. They rapidly had to modify workflows within hospitals and other facilities, to increase capacity for COVID-19 patients and ensure the safety of others. They had to act as substitutes for family members who were not allowed to visit the ICU, holding the hands of infected patients. At the same time, they had to grapple with their own personal challenges, including shortages of supplies and fear of possibly bringing the virus home to their own families.

The protection of healthcare workers encompasses two equal challenges – protecting both their physical health and protecting their mental and emotional wellbeing. Only by focusing on both, in relatively equal measure, will providers around the world be able to adequately protect those on whom we depend to protect others.

“Caregivers and health care professionals will regain social recognition as noble and valuable members of society, no longer treated like service workers or as a commodity.”

Tomislav Mihaljevic,
MD, CEO and President,
Cleveland Clinic²

The challenge

Because of the nature of their work, frontline caregivers were often exposed to SARS-CoV-2, and in many locations, particularly early on, this risk was exacerbated by shortages of personal protective equipment (PPE). The World Health Organization said that healthcare workers accounted for around 14% of global COVID-19 infections.³

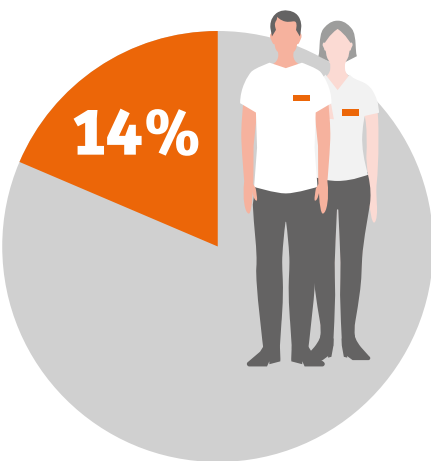
As bad as any single infection can be, the infection of a healthcare worker can have an exponential effect on capacity within any hospital or medical center. At best, the infection of a healthcare worker can be managed through timely quarantine measures, resulting in the temporary loss to the organization of an essential team member. At worst, the infection can spread rapidly among staff, threatening to bring a hospital to its knees.

COVID-19 also poses a significant threat to the mental health and wellbeing of healthcare workers. Stress and burnout are common amongst healthcare professionals. According to the National Academy of Medicine, as many as half the doctors and nurses in the U.S. have experienced this, resulting in increased risk to patients, malpractice claims, absenteeism, and turnover costing the medical industry billions of dollars every year. During the COVID-19 pandemic, the emotional and mental stress of these workers intensified, as they were forced to deal with overcrowded ICUs, frantic family members and sick patients, while having to make unthinkable life and death decisions in settings that were often overcrowded and overwhelming.

An early survey of approximately 1,300 healthcare workers in China (60% of survey participants from Wuhan), showed that more than half reported symptoms of depression, 45% symptoms of anxiety, 72% symptoms of distress, and 34% of insomnia.⁴ In the U.S., after two emergency workers committed suicide, New York's Mount Sinai Health System opened a Center for Stress, Resilience and Personal Growth to focus on early interventions, screening for depression symptoms and resiliency training.⁵ Researchers with that program have estimated that 25% to 40% of first responders and healthcare workers will experience Post-Traumatic Stress Disorder (PTSD) as a result of the COVID-19 pandemic.⁵ Symptoms of PTSD can be disabling, and include anxiety, irritability, difficulty sleeping and concentrating, as well as persistent emotional numbing and social withdrawal.

Global COVID-19 infections

Healthcare workers
Rest of population



Symptoms shown in healthcare workers

Early survey among healthcare workers from China



Recommended strategies

Physical Protection

As the pandemic intensified, health system and organizations quickly began to adopt strategies to address these twin challenges. While the threats to caregivers' mental and emotional health were often overlooked during the early months of the pandemic, it is now clear that both challenges must be addressed. Techniques and strategies to do both, often simultaneously, have been developed and shown to be effective.

In order to safeguard the physical safety of doctors, nurses and other healthcare workers, a number of strategies have been developed and refined in organizations around the world. What made this work particularly challenging in the early days was that basic information about the infection, including about its transmission, often simply didn't exist. As a result, changes had to be introduced, modified, and monitored on an ongoing basis.

"Health care systems can, and will, improvise even in suboptimal environments. Heroic teams have rapidly adapted by reconfiguring older buildings to increase hospital beds, finding alternative ventilator sources and respirators, and implement protocols to protect their staff."

Gianrico Farrugia, MD, President and CEO, Mayo Clinic²

1 Restrict access to healthcare facilities

The first step that needs to be taken is to better manage, and if necessary restrict, access to healthcare facilities. Only people who absolutely need to be there should be allowed through the door. This includes non-urgent patients, family members, vendors, suppliers, and back-office employees.

In the case of urgent patients, preventing healthcare workers from seeing them is clearly not an option. In those cases, it is critical to assess the risk of infection and use mitigation measures, particularly PPE. For non-urgent patients, however, various telehealth solutions not only allow for self-monitoring at home, but also provide for video consultations with physicians. Particularly during events such as the COVID-19 pandemic, these solutions allow physicians to connect with patients who are quarantined at home, monitor their progress on an ongoing basis, and take appropriate action if needed.

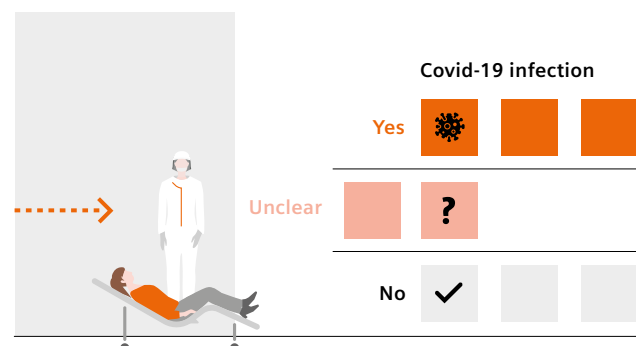
Many institutions have also established virtual touchpoints with suppliers and vendors. Most business of this type does not need to be conducted face-to-face. Service technicians sometimes must do their work on site, but in many cases technology is available to maintain equipment and to support clinical personnel remotely, or to schedule preventative maintenance for off-peak hours.



2 Distance potentially infectious patients in triage locations

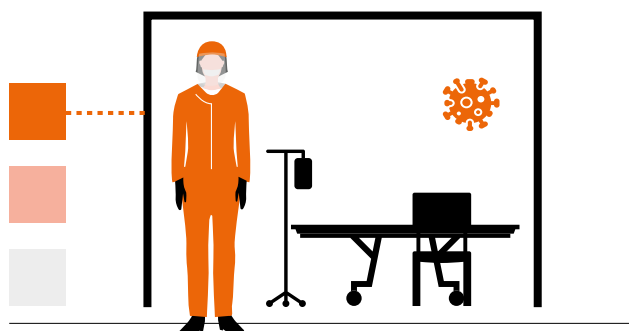
Within medical centers, potentially infectious patients should be isolated from other patients and providers whenever possible. Patients are most likely to come into contact with one another in triage locations, so this is where separation efforts should be focused. Clearly, the first step should be remote triage, via phone or video conference. The creation of additional, physically separated triage locations is also helpful. In some instances, containers and tents have been used to provide this badly needed additional space. Spare rooms within a hospital are obviously a simpler option. These discrete locations allow for separate workflows, advancing safety and increasing capacity.

Within these locations, as well as in regular healthcare settings, maintaining as much distance as possible between potentially infectious patients and caregivers should be a priority. While a certain amount of contact is inevitable, there are innovations that can minimize this, for example tools that allow medical devices such as CT scans to be controlled remotely.



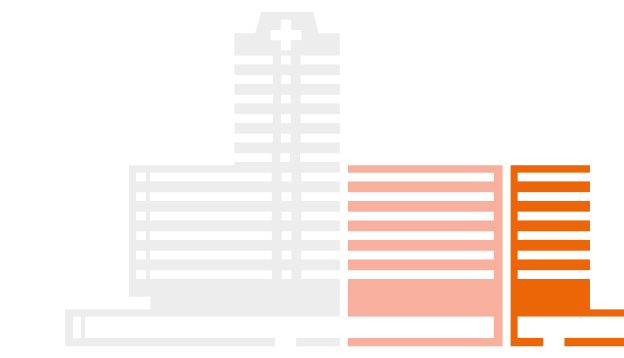
3 Establish dedicated spaces, equipment and personnel for infectious patients

Once the triage process is complete, care must be taken to ensure that potentially infectious patients do not infect healthcare workers or other patients. For patients who are known to be infectious, the first priority must be to set up dedicated, separated and shielded spaces, such as pop-up hospitals, in order to effectively isolate them. Within these spaces, it is critical to ensure that proper PPE is available for both patients and their caregivers. In addition, providing dedicated equipment for use in contaminated spaces helps to reduce the risk of infection, as neither patients nor the equipment need to leave the designated area. Portable ultrasound systems and mobile X-ray machines can support this effort.



4 Create safe brick and mortar care settings

The importance of viewing every action and decision through the lens of infection control is essential. For non-COVID-19 patients, creating safe brick and mortar care settings imbued with a culture of safety is vital in preventing infection. The key to building a good patient and workforce safety culture is to establish high standards for infection prevention and control, focus on migrating from inpatient to outpatient consultation, and repurpose spaces and equipment as much as possible. For example, CT scanners in Radiation Therapy departments or PET/CT and SPECT/CT scanners in Nuclear Medicine can be used as standalone CT scanners to serve as back-up for non-COVID-19 patients, in the event of a backlog.



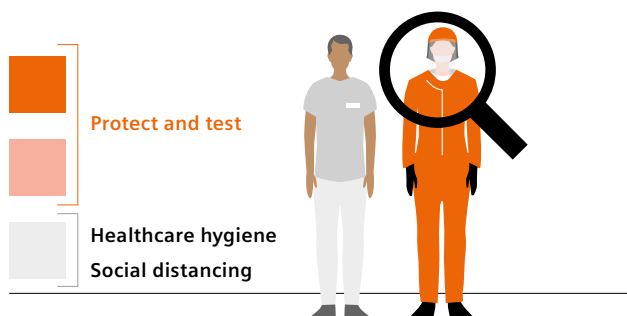
5 Monitor COVID-19 frontline staff

As noted earlier, the threat from healthcare workers becoming infected and passing the disease on to their colleagues and families is serious and must be mitigated. Close monitoring of COVID-19 frontline staff is key to identifying potential infections early on and undertaking appropriate measures. Contact tracing should be conducted for clinical personnel, patients, and equipment, in order to understand contact trails in confirmed cases. Radio frequency identification (RFID) tags are one way of doing this.

Finally, testing is critical. Establishing regular and reliable testing routines for clinical personnel is essential in preventing the spread of COVID-19 throughout hospitals, clinics, and other medical centers.

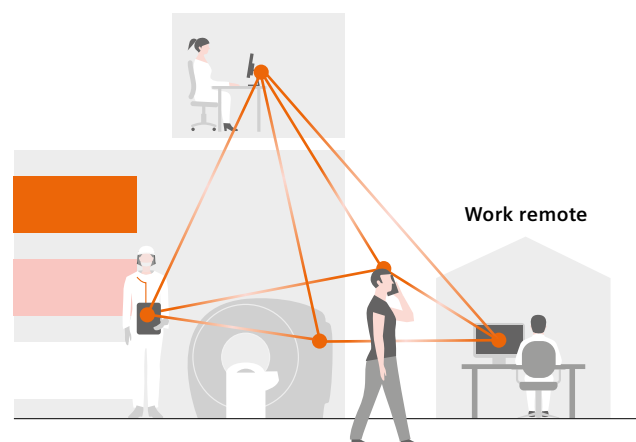
6 Move staff behind the COVID-19 frontline

A final strategy for physically protecting the healthcare workforce is to identify ways of moving clinical personnel behind the COVID-19 frontline. What this means is keeping them away from potentially infectious patients whenever possible. There are several ways of accomplishing this.



The first is remote work. The COVID-19 pandemic has shifted the transition to remote work into overdrive. TIME magazine called the emerging phenomenon “the world’s largest work-from home experiment,” pointing out that as a result of the coronavirus outbreak, working from home is “no longer a privilege, it’s a necessity.”⁶ Today, remote work in a healthcare context can effectively connect care teams, allowing for collaborative decision-making, remote planning, and team coordination. Moreover, remote solutions can connect caregivers with patients for remote monitoring, diagnosis, and therapy.

Just as important, assisting COVID-19 frontline staff by telephone and video is an effective measure that helps protect clinical personnel. Remote scanning is often possible, with imaging personnel able to perform their functions from almost anywhere they can plug in a laptop. Virtualizing tasks that previously required close proximity to potentially infectious patients is an emerging opportunity that can play an important role in protecting clinical personnel.



"Essential and frontline workers are making an impossible choice every day, risking their health and their family's health. Saving lives. Keeping society afloat. They are making such a tremendous sacrifice for our communities. I expect many of them will experience higher rates of depression, anxiety and post-traumatic syndrome disorder."

Renee Schneider,
Vice-President of clinical
quality, Lyra Health⁷

Mental protection

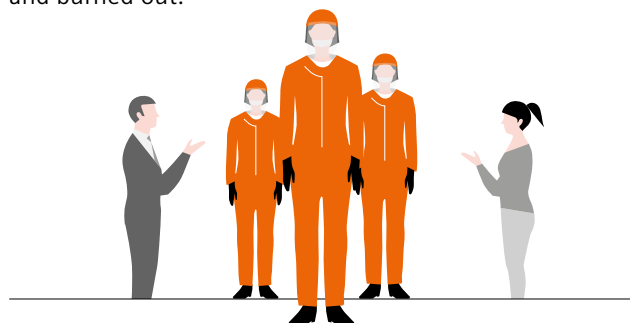
As noted earlier, protecting healthcare workers means protecting their mental health as much as their physical health. In order to do this, it is important to explore immediate and long-term ways of creating healthier and more positive work environments. Of equal importance is addressing mental health management, helping workers build the mental resilience they need to handle the stress they encounter.

7 Support care teams in the acute phase

Healthcare workers are never as vulnerable as when they are on the frontlines, responding to natural disasters, pandemics, or other emergencies. It is critical that the healthcare organizations who send these workers to deliver acute care in acutely dangerous situations implement measures to support and protect them, both physically and mentally. When the Red Cross mobilizes for major disasters, its response includes spiritual care, for patients and, just as important, for the people helping them.⁸

Many hospitals have already creatively explored short-term immediate solutions for care teams who are under high pressure either physically, mentally or from changed factors at home. During acute situations, leading institutions have implemented care team support such as 24/7 psychological support call centers, options to allow caregivers working long hours to sleep on-site, and in some cases even childcare.

Many institutions offer training in critical incident stress management, a way of helping first responders or caregivers process a traumatic event soon after it happens. Adrienne Boissy, MD, MA, Chief Experience Officer of Cleveland Clinic Health System, has noted that “health care will never deliver the healing we want if patients are having great experiences and outcomes, but clinicians and employees are exhausted, disconnected, and burned out.”⁹



8 Build care teams' long-term mental resilience with mind-body techniques

It is important that healthcare leaders ensure that all staff have the skills they need to be mentally as well as physically healthy and resilient. This will help ensure that they are able to provide the best care possible for their patients, and that they are able to enjoy relatively normal lives away from work. Mind-body techniques such as mindful breathing, active meditation, biofeedback and guided imagery have helped millions of people develop self-awareness, self-care, and self-expression skills, and are proving effective in doing the same for healthcare workers.



9 Establish internal leaders to embed social support

The feeling of being “all in it together” is one that most people respond to. Such a feeling of togetherness and mutual support is particularly important during times of crisis. Being part of a facilitated group significantly enhances participant outcomes, as all are able to benefit from the sharing of skills and mutual support.

Research-based mind-body medicine programs¹⁰ can also be of great value and can be conducted in small online group formats, supporting staff and helping them to relieve stress and trauma.

The small groups described above can be led by leaders within the organization who have received training in these techniques, allowing them to form and lead small groups of their own. In the long term, such a system allows healthcare organizations to create a culture of care within teams, one that promotes the valuing and supporting of staff as an organizational principle, potentially easing stress and trauma and reducing staff burnout.

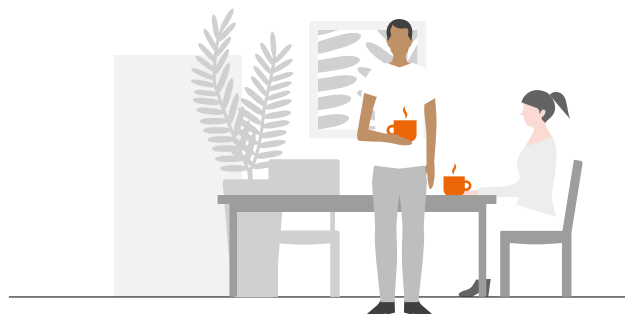


10 Design emergency spaces to alleviate emotional distress

Designing and adapting physical spaces to respond to the unique requirements of a crisis is, as discussed above, essential for safeguarding workers’ physical safety. Yet, well-designed spaces should also help workers to *feel* safe, contributing to their feeling of security and wellbeing.

There are various ways of doing this, shaped by the nature of the emergency and the circumstances surrounding it. What they have in common is that they provide an element of privacy and calm to healthcare workers who are otherwise surrounded by panic and distress.

A simple example would be something as basic as a privacy partition, allowing for a moment of down time and reflection. A more sophisticated take on this idea is what is known in emergency response situations as a “coping corner”, a space that is private for care teams when they feel they need a break or some alone time.¹¹ This becomes especially important if symptoms of anxiety are heightened. It can include soothing light, soft blankets, comfortable clothing, and distractions such as art supplies and music. The purpose of this space is to tune out negative thoughts, distressing emotions, and difficult social stressors, and to tune in to being mindful and compassionate towards oneself.



11 Design healthcare facilities with natural spaces for a positive staff experience

The physical design of a facility can not only create a powerful healing environment but can also facilitate effective communication among staff and between staff and patients.

Hotels and restaurants have long understood that physical spaces that are “nice to be in” will attract customers and help retain staff. It is now widely accepted that healthcare facilities should subscribe to this philosophy, with spaces designed around patients and their care pathways. Healthcare facility planners must now be focused on creating a healing environment that optimizes every patient’s experience. This has a critical added benefit, because it is very much a situation where what is good for the patient is good for the provider.¹²

Biophilic design is an increasingly popular concept within the building industry. It focuses on creating a connection between the people inside a facility and the natural environment that would normally be found only outside. This is accomplished through an emphasis on natural light, as well as the incorporation of elements of nature into the overall design of the space. Research has shown that biophilic design in the workplace increases creativity and reduces absenteeism. Some studies have reported an 8% increase in productivity and a 13% increase in employee well-being.¹³ Many healthcare organizations are rightly incorporating the biophilic design approach.



12 Build a remote culture

COVID-19 has taught the world that working from home is not only possible, but in many cases preferable or even essential. This will likely continue to be the case post-pandemic. Remote work has become a reality and has allowed many healthcare workers to deliver first-class care while remaining safe, secure and free of debilitating worry and stress. While this is not always possible in a healthcare context, there are many ways for patients and physicians to interact virtually, allowing patients to experience a feeling of human connection. In addition, healthcare teams can work with one another through virtual support networks, with all the empathy and mutual support that would be available were they in the same physical room.

A change like this should be supported by cultural adjustments to ensure that employees continue to feel valued and integrated into their teams and workplaces. This can be supported by embedding recognition, for example in team meetings, as well as informally. Coaching and mentoring on how to work digitally can also be helpful. Measures to foster virtual collaboration are also important to support this cultural change.



Conclusion

This paper makes two basic assumptions about healthcare and healthcare facilities. The first is that a society that prides itself on keeping patients healthy and safe not only has a moral imperative to also keep healthcare workers healthy and safe, but a practical one as well – workers who are sick, scared or unhappy cannot provide the level of care that patients need. The second is that any infection suffered by a healthcare worker as a result of exposure to a patient should be regarded as having been preventable.

“No country, hospital or clinic can keep its patients safe unless it keeps its health workers safe”¹⁴

“We can’t stop COVID-19 without protecting health workers first.”¹⁵

Dr. Tedros Adhanom Ghebreyesus,
Director-General,
World Health Organization

Late in Spring 2020, the Harvard Business Review published an article entitled *Health Care Workers Protect Us. It’s Time to Protect Them*.¹⁶ The authors outlined a number of what they called “leadership imperatives” for the healthcare industry if it is to take the safety of its workers seriously. The last of those was “Don’t use frontline caregiver heroism as an excuse not to act.” In other words, focusing on the courage and commitment of caregivers who become infected should not be a way of letting the rest of us off the hook for the fact that they were in harm’s way in the first place. We should instead be focusing on how to keep them out of harm’s way.

This paper presents a number of strategies and actionable techniques that support this objective. Particularly during a time like this, it would be advantageous for the healthcare industry to explore solutions that have not previously been considered as much as they should – specifically those involving remote technology that allows for the delivery of care from afar. A deeper understanding of caregivers’ mental and emotional wellbeing, combined with creative techniques to safeguard this wellbeing, is also essential. A stronger focus on these two interrelated objectives will play an important role in assisting individual healthcare workers, institutions, and society, to emerge from the current pandemic in good health.



Suggested follow-up on

[Siemens-healthineers.com/insights](https://siemens-healthineers.com/insights)

- Insights Series, Issue 10:
Remote work for healthcare professionals
[siemens-healthineers.com/
remote-work-in-healthcare](https://siemens-healthineers.com/remote-work-in-healthcare)
- Insights Series, Issue 9:
Managing the impact of caregiver stress and
trauma in the COVID-19 era: a strategy toward
resilience-building
siemens-healthineers.com/caregiver-stress
- Insights Series, Issue 8:
Seven strategies for thriving in a market with COVID-19
siemens-healthineers.com/COVID19-seven-strategies



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At Siemens Healthineers, our purpose is to enable healthcare providers to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, and improving patient experience, all enabled by digitalizing healthcare. An estimated five million patients worldwide benefit every day from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics and molecular medicine as well as digital health and enterprise services.

We are a leading medical technology company with over 120 years of experience and 18,500 patents globally. With about 50,000 dedicated colleagues in over 70 countries, we will continue to innovate and shape the future of healthcare.

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