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SPECIAL EDITION COVID-19

ISMP An ECRI Affiliate

Acute Care ISMP Medication Safety Alert!®

Educating the Healthcare Community About Safe Medication Practices

Leadership support is vital: If we fail to support caregivers, there will be few left to support care

Problem: During the coronavirus (COVID-19) pandemic, healthcare workers often place the needs of others above their own. Yet, they themselves face unimaginable anxiety, stress, and depression caused by the burden of such a profound illness and the prolonged pandemic response. Taxing workloads and the constant vigilance of maintaining infection control procedures while caring for incredibly sick patients is physically and emotionally exhausting. Watching helplessly as a cytokine storm ravages a patient's body takes an enormous toll on both the patient and the healthcare worker. This unrelenting stress and overwhelming grief is worsened by the need to isolate patients from their loved ones, leaving only healthcare workers at the bedside at the end of life.

Add in the anxiety of working in an under-resourced environment, where even the most basic personal protective equipment (PPE) may not be available, and healthcare workers are, without a doubt, putting their lives on the line more than ever. Shortages of PPE are leaving workers dangerously ill-equipped to care for patients. In a survey conducted last month by the Association for Professionals in Infection Control and Epidemiology (APIC) to which more than 1,000 US infection preventionists responded, 20% said they have no N95 respirators, and 28% said their supplies were dangerously low.[1] Almost one-third stated they are nearly out of surgical face masks, and 17% reported resorting to do-it-yourself (DIY) measures such as sewing their own cloth masks. Nearly half lack enough face shields, and two-thirds have insufficient gowns. When PPE is available, the physical strain of wearing the equipment all day has led to dehydration, backaches, headaches, and skin injuries. But the consequence of not having proper PPE is substantially worse and has impacted the rate of COVID-19 infections in healthcare workers.

Between February 12 and April 9, the Centers for Disease Control and Prevention (CDC) found that 9,282 US healthcare workers who had the potential for direct or indirect exposure to patients or infectious materials have contracted COVID-19.[2] More than half of these healthcare workers reported contact with a COVID-19 patient only in a healthcare setting. With a median age of 42 years, about 10% of healthcare workers have been hospitalized and 27 have died across all age groups. The number of infected healthcare workers is likely underestimated since most reports of confirmed cases do not include whether the person worked in healthcare. Some healthcare workers have watched their colleagues become sick with the virus, yet they still come to work the next day despite their anxieties. Furthermore, healthcare workers live in constant fear of bringing the disease home and infecting their loved ones; many have adopted self-imposed isolation from their loved ones to protect their family's health.

Leaders need to support healthcare workers through this turmoil—indeed, the trauma of caring for patients with COVID-19 could affect more people than those seriously ill from the infectious disease itself. However, a recent online Gallup Panel survey conducted between March 13 and April 14 revealed some troubling findings.[3] Only about half of healthcare workers strongly agreed that their employer has communicated a clear plan of action for COVID-19, and nearly one in five feel their employer has communicated too little about COVID-19. Furthermore, only one in three are confident that they will be safe if they follow their organization's policies during this public health crisis.

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Not all superheroes wear capes

National Nurses Week: May 6-12, 2020

Nurses perform some of the most difficult and heartbreaking tasks in the medical world, particularly during the COVID-19 pandemic. At the frontline of a world health crisis, nurses need our support now more than ever. Please join ISMP as we celebrate **National Nurses Week**, which honors nurses' contributions and sacrifices, and reminds us to thank them for all that they do. It is celebrated between **May 6**, **National Nurses Day**, and **May 12**, the birthdate of celebrated nurse Florence Nightingale. However, the American Nurses Association (ANA) will **celebrate nurses for the entire month of May** because 1 week is not enough! For details, please visit: http://nationalnursesweek.org/.

COVID-19 *Collaboration*

High-dose IV ascorbic acid interferes with glucometer results

A COVID-19 patient with diabetes was started on high-dose intravenous (IV) ascorbic acid. The patient became hyperglycemic, requiring treatment with an infusion of IV insulin. The next day, a pharmacist notified the prescriber that high-dose IV ascorbic acid causes interference with glucometer measurements, elevating the results. The physician discontinued the ascorbic acid but did not adjust the insulin infusion dose. The patient became hypoglycemic, requiring treatment with 50% dextrose IV.

Interest in the antioxidant properties of ascorbic acid has grown during the pandemic, and high-dose ascorbic acid is

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Provided to members courtesy of vizient

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SAFE PRACTICE RECOMMENDATIONS: First and foremost, healthcare workers need to know that hospital leaders have their back during the pandemic. Leaders do not need to have all the answers or immediately solve the myriad of complex problems associated with the pandemic; however, they need to be effective listeners and transparent communicators, make collective decisions that support workers' needs and safety, and visibly demonstrate their trust, respect, and appreciation for the workforce. During a recent webinar sponsored by TMIT Global, Stephen Swensen, MD, MMM, Professor Emeritus at the Mayo Clinic College of Medicine, described specific areas of leadership support to urgently safeguard healthcare workers' physical and emotional needs, provide necessary resources during the COVID-19 pandemic, and develop positivity.[4]

Create a Safe Haven

Each of us needs to withdraw from the cares which will not withdraw from us.
—Maya Angelou

Leaders need to create safe quiet spaces for healthcare workers to retreat, reflect, and talk to each other away from the hustle and bustle of taxing workloads—a place for introspection and meditation, laughing and crying, taking a quick nap, and accessing peer support without stigma or barriers. When possible, psychological counselors should be available for private and confidential sessions as well as proactive group sessions covering a range of topics. In the safe havens, workers should be encouraged to use social media to connect with loved ones and friends. While work schedules are typically hectic and long, leaders should enable workers to spend time in a safe haven each shift.

Restore Fair and Just Compassion

A restorative just culture asks: Who are hurt, what do they need, and whose obligation is it to meet that need? The entire community needs to be involved in resolving that need.
—Sidney Dekker

In the face of daily pain and suffering, it is easy for healthcare workers to feel "empathic burnout" or to blame themselves for less-than-ideal outcomes. They may feel they have failed a patient, second-guessing their clinical skills and knowledge. Leaders need to guard against this by encouraging workers to feel compassion for self and others, and by creating an environment of trust and fairness despite adverse outcomes. Much like a rapid response infrastructure to provide "emotional first aid" for second victims of errors, leaders need to create a rapid response-like safe zone for worker support, with trained peer supporters who can console workers who are suffering from empathic burnout or self-blame. Leaders need to help workers deal with their reaction to the pandemic chaos, including treatment failures, and rebuild compassion for self and others.

Establish a Positive Mindset

Happiness makes up in height for what it lacks in length.
—Robert Frost

To promote healthcare workers' wellbeing, the far-reaching ripples of positive emotions and the protective properties of optimism and resilience can be underscored during daily leadership interaction with healthcare workers. The benefits of positive emotions, despite their fleeting and subtle nature, echo long after their momentary pleasures have dimmed.[5] They improve physical health, foster trust and compassion, buffer against depression, help people recover from stress, and build resilience and resourcefulness. They can even undo the undesirable effects of negative emotions. Moments of positivity accumulate over time, remind people that their work is meaningful, and help build resources for survival. And the opportunities for sharing positivity are quite prevalent.

For example, leadership information sharing with healthcare workers typically occurs daily to communicate the rapid and evolving changes that are occurring due to the pandemic. While this information might include the number of COVID-19 cases, including deaths, in the facility, community, state, US, and the world, it is equally critical to balance this information with the number of COVID-19 patients discharged and the

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being explored for COVID-19 patients. Severe anemia is also common in these critically ill patients. Unfortunately, both anemia and high-dose ascorbic acid impact the accuracy of most glucometer results, leading to falsely elevated glucose levels and the potential for excessive insulin dosing and hypoglycemic events (Tran NK, Godwin ZR, Bockhold JC, Passerini AG, Cheng J, Ingemason M. Clinical impact of sample interference on intensive insulin therapy in severely burned patients: a pilot study. *J Burn Care Res*. 2014;35[1]:72-9; www.ismp.org/ext/465).

The hospital where this event happened is considering requiring laboratory confirmation of glucometer results above 200 mg/dL for patients receiving IV ascorbic acid. To learn more about the risk of inaccurate glucometer results due to interference from high-dose IV ascorbic acid and anemia, sign up for a **FREE** webinar to be presented on **May 28** and **June 18**, ***COVID-19 Bedside Glucose Management—Risk of Ascorbic Acid and Hematocrit Interference***. To register for this webinar, presented by Nova Biomedical, visit: www.ismp.org/ext/466.

Fast-paced changes to electronic guidelines may not appear on paper

An intensive care unit (ICU) hospitalist wanted to order **ACTEMRA** (tocilizumab) for a confirmed COVID-19 patient with evidence of cytokine release syndrome. The drug is an interleukin-6 (IL-6) receptor antagonist that has US Food and Drug Administration (FDA) approval for the treatment of patients with chimeric antigen receptor (CAR) T cell-induced severe or life-threatening cytokine release syndrome. The drug, which has an anti-inflammatory effect, is undergoing a clinical trial for patients with COVID-19 and pneumonia, but it is not FDA-approved for this purpose.

To assure that the hospital's infection prevention team would be consulted for these patients, Actemra was not included on the computer preference list for ICU hospitalists. This was later recognized as problematic. Even after consultation with the hospital's infection prevention team, if the hospitalist needed to prescribe the drug, a workaround had to be established in which the hospitalist called the pharmacy

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The **May 7, 2020**, newsletter will be a regular *ISMP Medication Safety Alert!*
COVID-19 Special Editions will be published periodically as needed.

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positive steps that are being taken to support workers, patients, and communities. News about revised policies and procedures and special guidance for specific departments should be balanced with specific acknowledgment and sincere appreciation of workers.

During clinical unit rounds or safety huddles, leaders should be as positive and compassionate as possible, meting out random acts of kindness to workers and patients, and sharing at least one positive story of success, whether it is a story about especially compassionate care for a dying patient or celebrating the recovery of another patient. Leaders should remind workers of what they loved about their job before the pandemic, and consistently ask workers which aspects of their current situation they might consider a gift to be cherished.

Communicate Transparently

It isn't the mountains ahead to climb that wear you out; it's the pebble in your shoe.
—Muhammad Ali

Transparent communication is one leadership behavior that is staggeringly important because it creates an environment of trust and loyalty, avoids secrets and surprises, creates expectations for follow-up about concerns, facilitates actions in such a way that others can easily see them, and ensures everyone is on the same page. While leaders should always share their knowledge freely and honestly, one of the most important skills involved in transparent communication is listening to the workforce. Leaders should seek to understand by listening. Avoid guessing or assuming, and do not try to defend or solve problems immediately. Leaders should encourage all workers to express their opinions, offer suggestions, and get everyone involved as a partner in collective decisions. They should specifically ask about frustrations and challenges, and ask workers to prioritize any raised issues. They should get to know their workers, asking them about isolation and loneliness, difficulties with work-life integration, and what saps meaning from their work. Being transparent about limitations, honest about consequences, and acknowledging each expressed concern, is of paramount importance in coalescing around meaningful, actionable challenges and addressing them together.

Be Visible as a Leader

When someone is going through a storm, your silent presence is more powerful than a million empty words.
—Mahatma Gandhi

Nothing does more to engage and inspire healthcare workers than leadership visibility in the trenches. Leaders must be visible to frontline workers, not just roaming the halls to say hello, but face-to-face (with a mask), prepared for the vulnerability of being WITH workers, even if they don't have all the answers.[6] They don't play it safe and stay in an office so they can't be questioned. Instead, they invite questions and concerns, take the time to appreciate meaningful work and to recognize and thank workers, take an interest in their wellbeing, and create a supportive environment that promotes innovation, trust, and teamwork.

Provide Opportunities for Connectedness

This is the power of gathering: it inspires us, delightfully, to be more hopeful, more joyful, more thoughtful: in a word, more alive.
—Alice Waters

Leaders should strive to build community among healthcare workers, encouraging social relationships and meaningful connections. COVID-19 has caused a collective trauma, and workers could be suffering from social isolation due to separation from their family and friends. Whether it is arranging periodic catered events so groups of workers can share an occasional meal together, or gathering small groups of workers in a safe haven, the resulting commensality, camaraderie, and social interactions will have a positive effect on work-group performance and psychological and physical health.[7] Whereas the life and death nature of healthcare during the

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to provide a verbal order. The pharmacist would then document the verbal order on a paper copy of the treatment guidelines and calculate a dose based on product labeling, which is 8 mg/kg for patients weighing 30 kg or more. For the above patient, who weighed 99.6 kg, the dose was 800 mg.

Unfortunately, the pharmacist did not realize that the hospital guidelines for Actemra had been changed electronically within the prior 24 hours. The updated maximum allowable dose was changed from 800 mg to 400 mg based on a new reference for treating COVID-19 patients (www.ismp.org/ext/467). The patient was not harmed, but the event points out that, in any fast-changing situation, particularly during the COVID-19 crisis, paper guidelines may not be updated in a timely manner. Thus, using an electronic resource is always preferable.

MRI-safe pumps for COVID-19 patients in the ICU?

A hospital contacted us after exploring the use of a magnetic resonance imaging (MRI)-safe infusion pump, **MRidium**, in the intensive care unit (ICU) for COVID-19 patients. This pump incorporates a non-magnetic motor and non-ferrous components to allow the delivery of intravenous (IV) fluids during MRI. This hospital (and others) was assessing the feasibility of using these costly pumps in the ICU because they incorporate dose error-reduction systems (DERS) and can be programmed by wireless remote control outside a patient's room. This would help to eliminate in-room exposures of staff to the SARS-CoV-2 virus, while also conserving personal protective equipment (PPE) and extension tubing which would be needed to position smart infusion pumps in the hallway.

The hospital noted that the company was very helpful in quickly building an appropriate drug library and providing staff education to use the pump properly. However, an internal review showed some significant shortcomings: 1) The library update process is manual and does not allow for quick changes in concentrations or other critical updates. The process involves sending the information to the company's pump library analyst, who then sends back the updated library on a memory card;

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pandemic encourages bonding among workers, social connectedness inspires joy and hope, creates resilience, and is an important part of the cultural fabric that helps successfully functioning healthcare systems operate.[8]

Encourage Self-Care

It's time to start focusing on what strengths pulled you up when the entire world had knocked you down.
—Nikki Rowe

Leaders should cultivate in healthcare workers self-care habits and attitudes that promote physical and psychological wellness despite the difficult challenges at work. In addition to promoting the typical self-care strategies such as adequate sleep, movement, exercise, meditation, sunlight, and a healthy diet, leaders should also encourage constructive attitudes in healthcare workers that promote wellbeing, such as gratitude, kindness, forgiveness, and care for each other. Leaders may want to start a "gratitude journal," documenting each day the many things (or workers) they are grateful for; things that bring joy and meaning to their work; messages from grateful patients, families, and communities; and how they as leaders can be of service to the workforce. By expressing gratitude and sharing these salutations, "shout-outs," and thoughts with healthcare workers each day, leaders can serve as a role model for constructive attitudes that promote wellbeing.

Conclusion

Never in the field of human conflict was so much owed by so many to so few.
—Winston Churchill

COVID-19 is proving to be a long, uphill battle, with an end that is barely visible on the horizon. While many healthcare workers are operating in "hero" mode right now, please recognize that they may also be suffering from significant depression caused by the horrific loss of life with this illness, which is worsened by exhaustion and isolation from much-needed support. Heartbroken, we just learned about the suicide of a 49-year-old physician, **Dr. Lorna Breen**, medical director of the emergency department (ED) at NewYork-Presbyterian Allen Hospital, amid the COVID-19 crisis. Prior to her death, Dr. Breen had been treating COVID-19 patients and contracted the illness herself. During her convalescence, she became detached, often speaking of the traumatic sights she had witnessed in the ED. She was a hero among many who should never be forgotten.

Healthcare leaders have a significant role to play in a world that will be forever changed by this pandemic. They need to create a safe haven for workers, restore compassion, establish a positive mindset, communicate transparently, be visible as a leader, and provide opportunities for connectedness. In addition, leaders need to prepare now for the complex aftermath as we begin to deal with healthcare worker "heroes" suffering from depression and post-traumatic stress disorder. Because this pandemic has brought about many unprecedented mental health concerns, leaders must continually build support systems for healthcare workers to hold onto both during and after each wave of this storm.

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2) According to the manufacturer, the tubing used in the pump is supported for only 6 hours of use (since the pump is typically used during MRI). Using the tubing longer would entail off-label use, and replacing it every 6 hours would be costly; and 3) When the volume to be infused reaches zero, the pump beeps once and continues to display a green light, indicating it is operating normally. However, the pump changes the rate of infusion to 1 mL per hour. If a nurse is not near the pump to hear that single beep, the low flow rate might not be noticed. Based on this assessment, the hospital decided to use the pump only in the MRI suite, not in the ICU.

ECRI COVID-19 resource website

ECRI has an excellent COVID-19 website with a weekly summary of resources, webinars on various COVID-19-related topics, and strategies and tactics to support patient care during the COVID-19 pandemic. The ECRI COVID-19 resource website can be accessed at: www.ismp.org/ext/368.

Announcement

FREE ISMP webinar

On **May 18**, ISMP will present a **FREE** webinar, supported by Fresenius Kabi, on ***Prevention of Drug Diversion in the Healthcare Setting***. You will learn how to assess for vulnerabilities and identify ways to prevent or detect diversion. Panelists will also address the potential increase in drug diversion due to job-related stressors during the COVID-19 pandemic. For details and to register, visit: www.ismp.org/node/14862.

To subscribe: www.ismp.org/node/10

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