THIRD QUARTER **2020**

# SafetyMatters

A quarterly, collaborative publication
from MedFlight and HealthNet Aeromedical Services

# Let's Get Back to the Basics

*By Karen Swecker*
*Infection Control Officer, MedFlight*

Did you know there are more than 23,000 deaths a year directly caused by healthcare acquired infections? That is equivalent to a 747 airplane crash every week for an entire year. There are more than two million healthcare related infections in the U.S. each year. One out of every 31 patients develops an HAI. How many patients did you personally take care of last year; how many developed a bloodstream infection from your IV start, developed ventilator pneumonia, or an infection with MRSA or VRE due to care provided in the time it takes to transport them?

Cell phones carry 10 times more germs than the average toilet seat. How many times did you touch a cell phone or radio dial to give report on a patient you were transporting? When is the last time you cleaned your phone or the radio knobs in the aircraft or mobile unit? Bacteria such as MRSA and VRE are viable and able to cause infections for more than 51 days from contaminated surfaces such as plastic cell phone covers and radio knobs. CRE (antibiotic resistant E. coli or Klebsiella) caused an estimated 13,000 infections and 1,100 deaths in 2017. C. difficile causes 12,800 deaths a year in the US.

Healthcare acquired infections are easy to prevent. Sanitizing your hands, equipment, and surfaces are a must. Remember to change gloves and cleaning wipes frequently as both become saturated with bacteria that is easily transmitted to and from surfaces and equipment to patients.

A 2014 study culturing 112 stethoscopes showed 47% of them were contaminated with 50 different potentially pathogenic bacteria (Leo-Lara, MD, Munoz, MD, & Campos-Murguia, MD, 2014). A study of the effectiveness of disinfecting wipes showed bacteria was moved from surface to surface due to increasing bacterial lodes on the wipes (Cheng, Boost, & Wai Yee Chung, 2011).

The COVID-19 pandemic has brought more attention to the need for increased hand and surface sanitizing. As healthcare workers we've been taught the importance of cleanliness but due to the pressures of critical care it's easy to let this basic necessity slide. Once COVID-19 has been defeated, or at least contained, remember the lessons we've been taught. Hand hygiene and surface disinfecting must remain a priority in caring for patients. Do not let your patients be part of the 23,000 a year that succumb to healthcare acquired infections.■

## References:

Cheng, K., Boost, M., & Wai Yee Chung, J. (2011). Study on the effectiveness of disinfection with wipesagainst methicillin-resistant Staphylococcus aureus and implications for hospital hygiene. *AJIC*, 577-580.

Leo-Lara, MD, X., Munoz, MD, J., & Campos-Murguia, MD, A. (2014). Stethoscopes as Potential Intrahospital Carriers of Pathogenic Microorganisms. *AJIC*, 82-3.

## THIS ISSUE INCLUDES:




MedFlight

HealthNet Aeromedical Services

Mission. Ready.

# Long-Term Pandemic Response:

## Recognizing Burnout and Maintaining Perspective

*By Justin Koper, M.S., GSP, MTSP-C, FP-C*
*Safety Officer, HealthNet Aeromedical Services*

When COVID-19 began impacting our service areas in early March it seemed that the number of confirmed cases were low, and we would have no issues combatting further spread. As more was learned about the virus, we quickly discovered that the scope of this pandemic will likely be measured in years rather than days, weeks, or months.

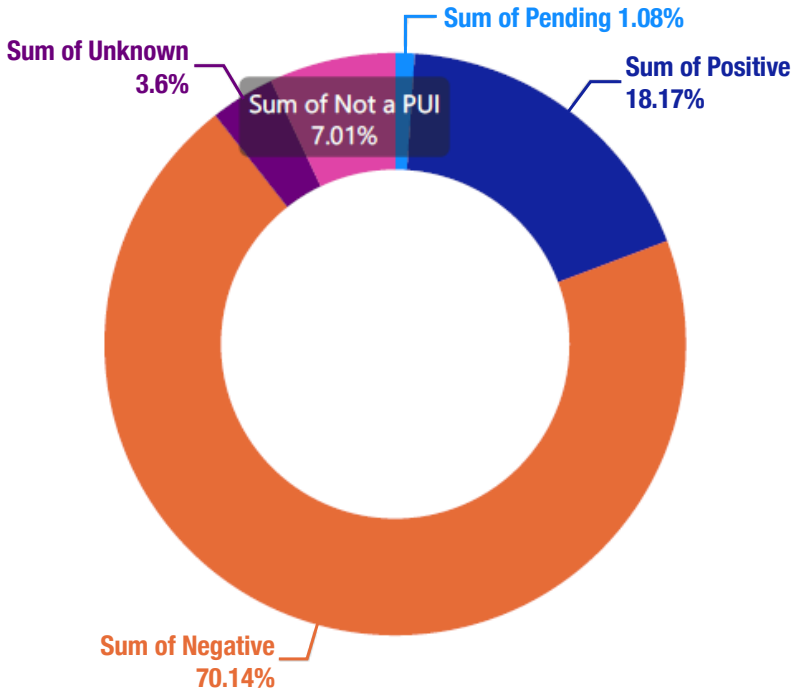
There is now a serious concern about the personal and performance related consequences of "COVID burnout." Symptoms of this burnout that impact the provider personally could be the impacts of constant PPE use, health effects of long-term stress, constant worry about the safety of their loved ones, and fear of personal exposure, among others. Work-related symptoms of burnout include a failure to adequately report details of COVID-19 related transports, complacency regarding PPE, non-compliance with facial covering requirements at base sites, and missed opportunities to control the spread of infection at the source (i.e. providing non-intubated patients with surgical masks and using HEPA-rated filters on intubated patients).

To mitigate the risk of burnout it is important to know where our organization currently is in this pandemic and the outcomes of everything that you as front-line healthcare workers have accomplished. As of August 14, 2020, our organization has performed 556 COVID-19 related transports which include persons under investigation for COVID-19, patients with pending COVID-19 test results, and known positive patients (Note: this data tracking started in early March). Of those 556 patients a total of 101 have been either positive at the time of transport or tested positive after transport (see figure 1 for a full breakdown). Out of all these transports we have had zero instances of providers contracting COVID-19 from a patient. Also, we have had zero workplace transmission of COVID-19 at any of our base sites. This is an important fact to remember as there have been numerous other healthcare entities within our service areas that have had significant outbreaks related to workplace exposure.

We are acutely aware that communication breakdowns are common in stressful situations which is why we have purposely designed our system to have multiple layers of redundancy so if there is a communication failure it does not adversely impact crew safety (i.e. we have designed the system to tolerate predictable failure without exposing team members to any risk of harm or exposure). When such countermeasures have been proven amid a pandemic it is easy to see their importance.

As for where we are going with this pandemic it is nearly impossible to determine. Many of the large-scale models have come close but few have been accurately able to predict one important variable, human behavior. Until this variable becomes 100% predictable it will be nearly impossible to create any data models with high confidence. Based on our organization's data throughout this pandemic we are reasonably anticipating a slight increase of COVID-19 related transports in the coming weeks with a higher percentage of these patients being known positives. This anticipated increase is due to a few factors such as community transmission rates, increased testing availability, and decreased turn-around times for test results. So, moving forward it will be important to remember one thing: "be brilliant in the basics" (Ret. Gen. Mattis). Maintaining a high level of proficiency and attention to detail for each individual task will help eliminate preventable errors which can reduce undesirable outcomes.

If you are facing personal stressors in these difficult and unpredictable times it is important to remember the resources that are available to you. First, all employees have access to our employee assistance program which can provide access to in-person or phone counseling services. Additionally, there is the Code Green Campaign (codegreencampaign.org/) and ECHO's FAST team (echoheliops.org/fast-team). ■



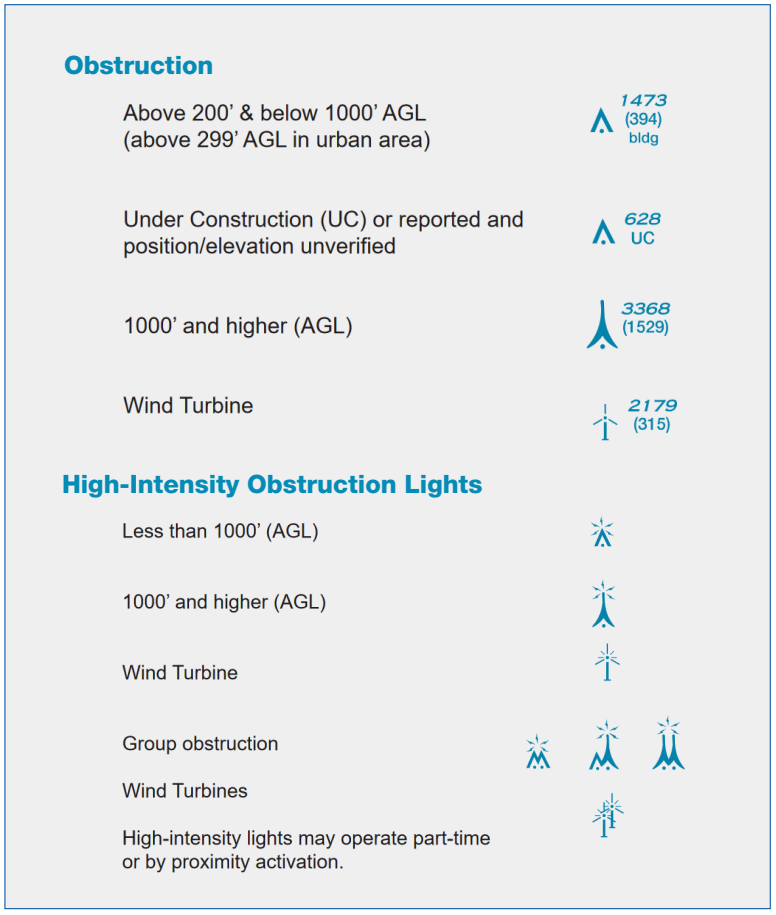

| Sum of Negative | Sum of Positive | Sum of Not a PUI | Sum of Unknown | Sum of Pending |
|---|---|---|---|---|
| 390 | 101 | 39 | 20 | 6 |

# Mitigate Risk Before You Transport!

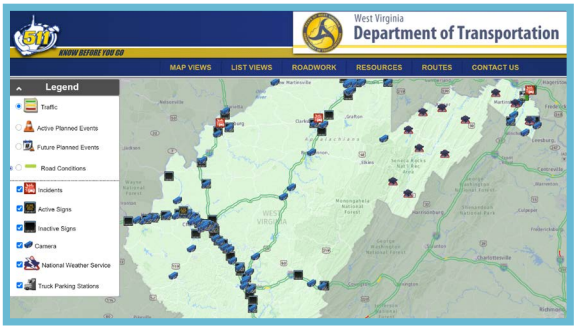
*By Jeff White, M.S., MTSP-C, FP-C*
*Director of Safety, HealthNet Aeromedical Services*

In the dynamic environment of air medical and ground medical transport, the risks are an ever-changing issue. Weather reported clear can change in an instant. A facility can begin construction and neglect to notify us. You may encounter road construction that you were unaware of. The best thing we can do to mitigate as much risk as possible is to utilize resources to continually educate ourselves of potential risks.

In the aviation world we have area obstacle maps that are a great resource to locate obstacles in your local flight area. The trick is knowing what to look for and understanding the map symbols. The symbols shown below are obstacles that will be encountered and their elevations in your local flying area. As you see new crew and pilots coming into the bases, this is a great risk management starting point for local area orientation.




For ground crews, all states in our region have a 511 system. This real-time reporting and traffic camera system can be used to verify reported weather, determine best routes, monitor construction, and view reported accidents. It will help you make the decision on alternate routes or alternate destinations based on the hazards seen.




Utilizing basic tools and taking the time prior to a transport to familiarize yourself with the hazards you could encounter will help you be better prepared for the transport. Overall, this will increase safety for the crew and for the patient. ■

# COVID-19 REFLECTIONS

*By Bev Meade DNP/HSL, RN, MHA, CEN, CCRN, CFRN, CTRN, TCRN, EMT-P*
*Flight Nurse, MedFlight 3*

"Be home before dark, stay together, and I want to know where you are" were among the safety mantras that Mom always said before we left the house to play. As a child, I certainly never gave safety much thought. As an adult it is a different story as we become more aware of either the real, perceived, or potential threats to our home, health, and workplace safety.

Because of COVID-19 words like social distancing, isolation, and maintaining personal separation have become our new safety mantra. We are and will continue to feel the effects of this virus for some time to come and must learn to adapt to the "new normal" both at home and at work. We find ourselves practicing safety measures such as mask usage, frequent hand washing, and using hand sanitizer now more than ever before. You may now find yourself in conversations discussing the advantages of material face masks versus surgical masks. You may even head straight to the disinfectant aisle in your favorite grocery store to snag the last container of the coveted brand or store brand disinfectant wipes.

This added stress of change in our daily lives has potential to inhibit or deter our focused attention on safety in our surroundings, health (physical and mental), as well as our work. I suggest that we use this

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challenge of COVID-19 to direct us toward reflecting on how each of us can improve our safety outcomes one day at a time. Perhaps Mom would have said "Come home safely, work together, wash your hands, and don't forget to wear your gloves, mask, and eye protection!" Some things will never change. Be well, stay healthy, and be home before dark! ■

# The Journey Towards Safer Practice

*By Gregory R. Schano, DNP, MBA, RN, CCRN, CFRN, CNML, CMTE, EMTP*
*Flight Nurse, MedFlight*

The transfer of important data between caregivers and teams of caregivers represents an opportunity for information loss due to reasons that may include lapses in memory, ineffective delivery of a message, and not listening with intention. Besides these few very broad and general causes, there may also be other human, environmental, and structural barriers to an effective handoff (Riesenberg, Leitzsch, & Cunningham, 2010). Can you think of a few reasons from your own practice?

A culture designed to promote safety will consider barriers to effective handoffs and include strategies to mitigate the barriers (Lee, Phan, Dorman, Weaver, & Pronovost, 2016). The Central Ohio Trauma Systems (COTS) organization partnered with EMS agencies and hospitals to develop a standardized response for patient information sharing. In June 2020, partners with COTS contributed an online article *"Collaboration: The Key to a Successful Patient Care Hand-Off"* which you may find helpful in your journey to safer patient care. ■

View article here: jems.com/2020/06/23/the-key-to-a-successful-patient-care-hand-off/

## References:

Lee, S-H., Phan, P., Dorman, T., Weaver, S., & Pronovost, P. (2016). Handoffs, safety culture, and practices: Evidence from the hospital survey on patient safety culture. *BMC Health Services Research, (16)*254. doi: 10.1186/s12913-016-1502-7

Riesenberg, L., Leitzsch, J., & Cunningham, J. (2010). Nursing handoffs: A systematic review of the literature. *American Journal of Nursing, 110*(4). Retrieved from: nursing.ceconnection.com/ovidfiles/00000446-201004000-00026.pdf

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# SafetyMatters

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