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A Physician's Guide to Surviving COVID Winter

By Rada Jones, MD

How can you survive this winter holding on to your temper, family, and job? Look out for #1. That's you. To care for others, you must care for yourself first. That's not selfish. That's smart. To protect those who need you, you must stay healthy and sane. How? These are my tips.

1 | Set rules for others and for yourself | Your sleep should be sacred. So should whatever time off you can schedule.

2 | Enlist help | So many grateful folks want to help healthcare workers. Your neighbors may be glad to walk your dog, run some errands, or grab a gallon of milk.

3 | Prioritize yourself | Pay someone to plow, buy groceries online, hire a housekeeper to save time for the things that really matter.

4 | Schedule time for yourself to exercise, meditate, pray, journal—whatever helps fill your well.

5 | Shut off the TV | Whether you're Democrat or Republican, you won't enjoy the news. Watch the Nature Channel, Hallmark, or the Food Channel. Watching food is fun, and it won't make you fat.

6 | Go outdoors | There's magic in nature and sunlight, whatever's left of it. Hike, snowshoe, and allow your lungs to breathe real air instead of the reconditioned germs they allow you in the hospital.

7 | Say no | That's a survival technique. Say no to parties, hugging strangers, doing things you shouldn't, and protecting others' feelings. Let them take care of their feelings. You take care of yourself.

8 | Cut yourself some slack | You aren't perfect. Nobody is. You'll make mistakes, gain a few pounds, step on some toes, maybe even lose it at times. So what? Just do the best you can.

9 | Read a book | Remember those things made of paper? You turn a page and land in a new world?

10 | Be careful with alcohol and substance use | They may feel good at the moment, but you'll be worse off in the long run.

11 | Watch old movies that make you laugh.

12 | Take a break from social media | Picking fights with random strangers won't help your mental health. Cut off those who hurt you.

13 | Get a cat | They have nine lives; that's why they are masters of survival. They ignore all unpleasantness, and they'll show you how. And they're the best nap helpers.

14 | Communicate | Ask coworkers how they handle the stress. They may teach you something, and if they don't, sharing the burden will help you both.

15 | Seek help before you lose it | Check out the CDC's resources on stress and coping.

16 | Pat yourself on the back | You're a darn hero! In recycled PPE, instead of shining armor, you saved fair maidens of all genders, ages, and persuasions. With a vaccine in sight, there's a light at the end of the tunnel.

Wishing you all health, joy, and happiness. See you all on the other side.

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Assessing MRSA Risk in the Surgical Intensive Care Unit:
Who Warrants Empiric Therapy?

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Data showing an increase in prevalence of MRSA and other multi-drug resistant organism (MDRO) infections in ICU patients suggests that antimicrobial resistance continues to increase in this population As a measure of anti-icrobial stewardship, emphasis on identification of patients who are appropriate for empiric anti-MRSA therapy is needed to reduce unnecessary antibiotic exposure. For a study published in the *Journal of Infectious Diseases and Epidemiology,* my colleagues and I aimed to identify the incidence of, and risk factors for, MRSA ventilator-associated pneumonia (VAP) in surgical ICU (SICU) patients to better identify those who benefit from empiric MRSA coverage.

MRSA vs non-MRSA VAP

This was a single-center, retrospective risk factor analysis of adult SICU patients diagnosed with VAP between 2013 and 2016. VAP was defined as a lower respiratory culture isolating more than 10,000 colony-forming units/ml of pathogenic bacterial organisms collected more than 48 hours after endotracheal intubation. Respiratory cultures used for diagnosis of VAP were obtained either by bronchoscopic bronchial alveolar lavage (BAL) or non-bronchoscopic BAL (mini or blind BAL). In the case of multiple VAPs during admission, only the patient's first episode of VAP was included in the analysis. The causative pathogens of that first episode dictated group allocation (MRSA-VAP group vs. non-MRSA VAP group).

Among participants, 22.1% were in the MRSA group and 78.9% in the non-MRSA group. The most prevalent organisms in the non-MRSA VAP group were *Enterobacteriaceae* (32.1%) and *Pseudomonas aeruginosa* (29%). Significantly more females had MRSA VAP (54.8% vs. 32.1%), as did a greater proportion of patients with a history of MRSA or MDRO infection (16.1% vs. 4.6% and 22.6% vs. 9.2%, respectively). Fewer patients in the MRSA VAP group had antibiotic exposure prior to their first VAP (58.1% vs. 78.9%). The MRSA VAP group had lower sequential organ failure assessment scores at the time of VAP diagnosis, driven by fewer patients with elevated bilirubin (3.2% vs. 22%) and hemodynamic instability (16.1% vs. 34.9%). A lower proportion of patients with MRSA VAP met the criteria for septic shock at the time of VAP diagnosis (6.5% vs. 23.9%). The MRSA VAP group had lower all-cause mortality than the non-MRSA VAP group (12.5% vs. 28.7%), though this did not reach statistical significance. After multivariable logistic regression modeling, MRSA risk was 2.3-fold higher in females than males and 4.2-fold higher among those with a history of MRSA than those with no such history (Table). Patients with prior antibiotic exposure were 60% less likely to develop MRSA VAP than those without such exposure.

Table Multivariable Logistic Regression Model for MRSA VAP

Variable	Odds Ratio (95% CI)
Female	2.31 (1.03, 5.61)
History of MRSA	4.22 (1.05, 16.95)
Prior antibiotic exposure	0.40 (0.17, 0.98)

Source: Adapted from: Feeney M, et al. *J Infect Dis Epidemiol.*

What the Results Suggest

This study identified an incidence of MRSA VAP that was twice what had been described in previous literature examining risk factors in a SICU cohort. Our results suggest a lower severity of illness at the time of diagnosis in the MRSA VAP group when compared with the non-MRSA VAP group, that selection of appropriate empiric antibiotics for VAP must be balanced with antimicrobial stewardship, and that empiric MRSA coverage should be considered in patients with a history of a MRSA infection and/or no prior antibiotic exposure during their admission, particularly if the VAP has developed later in the ICU stay.

Other modalities, such as MRSA nasal swabs on admission, may be useful tools to guide anti-MRSA therapy. Gram-negative pathogens, particularly MDROs, appear to be more prevalent in this patient population and conferred a greater severity of illness. Unaccounted for in our study, a patient's microbiota may play a role in the risk of VAP. Antibiotic exposure as an individual stressor has been associated with an increase in the presence of genes related to antibiotic resistance in the gut microbiome, which was demonstrated by an increased prevalence of MDR gram-negative organisms in the non-MRSA VAP population. Our results lend additional guidance to selection of empiric antibiotic therapy for VAP in SICU patients; however, further research with risk factor studies accounting for individual factors and dysbiosis are needed.

Dealing With Non-Compliant Patients: Using Facts in Your Defense

The following is a continuation of the MedLaw column in the January issue.

If, despite your best efforts, your patient suffers a poor outcome and you are being sued for malpractice, you would ideally like to stop the process before it reaches the courtroom. To that end, your attorney would file a Motion for Summary Judgment, asking the judge to dismiss the case as a matter of law because the plaintiff cannot meet their burden of proof. The plaintiff would be required to "lay bare their proof" that it was actually your conduct that was the proximate cause of the harm.

The judge may decide the Motion on papers alone or may hold a hearing at which the attorneys can offer argument but there will not be any witnesses called. Your "witness" will, therefore, be the medical record. Courts generally loathe to deny a plaintiff their day in court, and so the record must be very clear as to the patient's resistance to your efforts to work with them and your informing them of the serious consequences of their non-compliance and of the likelihood that it would cause the very harm that they then suffered.

If this Motion fails and the matter proceeds to trial, you still have strong defenses to raise based on the patient's non-compliance:

- Contributory negligence is an archaic defense that is still retained in few jurisdictions. It holds that a plaintiff who has any fault at all in their injuries may not recover damages for those injuries. If you are in one of those jurisdictions, your ability to demonstrate that patient non-compliance contributed at all to the claimed harm will bar any recovery against you.
- Comparative negligence does exactly what its name implies: it compares the level of fault for each side. In some jurisdictions, no amount of plaintiff fault bars recovery, and in others, there is a cut-off beyond which the plaintiff is barred. If a case goes through, any recovery will be offset by the proportion of the plaintiff's fault. In any comparative negligence jurisdiction, patient non-compliance will be a critical issue, because even if the case is not barred and the patient wins, damages will be reduced.

The plaintiff's duty of mitigation applies to the conduct of the patient after a harm has been recognized. Plaintiffs must show that they did what they reasonably could to minimize the effect that the negligence for which they are suing had on them. Even if you do have actionable liability for an error of your own, a patient non-compliant with well-advised recommendations for correction comes into evidence and acts as a damages offset.

When dealing with a persistently non-compliant patient, think ahead to how you would counter a malpractice claim when you create the record. A clear contemporaneous record of the patient's ongoing non-compliant conduct despite your efforts to have them act in a medically responsible way is the key to a solid defense.

This article was written by Dr. Medlaw, a physician and medical malpractice attorney.

Prevalence of *C. difficile* Carriage & Progression

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More than 400,000 cases of *Clostridioides difficile* infection (CDI) and nearly 30,000 deaths from *C. difficile*-associated diarrhea are reported annually in the US. In the past, efforts to limit transmission have focused on isolating patients with symptomatic *C. difficile*-associated diarrhea. Sarah Baron, MD, MS, and colleagues came to a new hypothesis while witnessing the infection in hospitals. For a study published in *Infection Control & Hospital Epidemiology*, the researchers sought to better understand the transmission and prevalence of *C. difficile* through determining the number of asymptomatic patients admitted to the hospital already carrying *C. difficile* and how frequently these patients develop symptomatic infections.

The study team conducted a prospective cohort study, sampling patients at a large urban hospital between 2017 and 2018. To confirm indications from previous studies that nursing facility residents are at an increased risk of *C. difficile* infection, Dr. Baron and colleagues selected participants from the community and patients from nursing facilities at a 1:4 ratio. Participants were given a noninvasive perirectal swabbing within 24 hours of hospital admission, with specimens processed the same day, incubating the specimen in a meat broth for 48-72 hours, and then repeating the tests. All participants did not report diarrhea and were followed for 6 months or until death.

The prevalence of asymptomatic *C. difficile* carriers was 9.6%, including 10.2% of nursing facility and 7.7% of community patients. Prevalence of *C. difficile* detection was increased in the 45% of patients who had soiled test swabs (odds ratio 2.7), when compared with those who did not. Among carriers identified during testing, 38.1% were subsequently diagnosed with symptomatic CDI within 6 months, compared with only 2.0% of non-carriers.

"I cannot stress the finding enough," emphasizes Dr. Baron, "that patients who carry *C. difficile* are much more likely to proceed to symptomatic *C. difficile* infection. This could change how we consider identifying carriers, protecting non-carriers through isolation and environmental cleaning, and protecting carriers from symptomatic infections via antimicrobial stewardship."