

## **Significant Threats to Patient Safety from Healthcare Provider Overload and Burnout Should Not Be Overlooked**

*The High Reliability Organization Council (HROC) and Sepsis Alliance are striving to make the public aware of the crisis presented by patient and data overload, and how the resulting cognitive overload is leading to an epidemic of "burnout" in doctors, nurses, executives, and even patients. Stakeholders at every level aim to see healthcare become safer, more affordable and more accessible – but are at risk of watching care in the nation decline as a result of this burnout.*

SAN DIEGO, CALIFORNIA (FEBRUARY 8, 2017) – Sepsis Alliance and the High Reliability Organization Council (HROC), two leading national advocates for patient safety, are raising the alarm on shortages in healthcare personnel, and the increase in data overload and medical provider burnout that is putting more and more patients at risk. Examples include long wait times to get appointments (which affects *access to care*), misdiagnoses that delay care, wrong-site surgeries, and other *safety* failures.

A recent Wall Street Journal article<sup>1</sup> detailed nursing shortages in areas such as Atlanta. Aside from the obvious *affordability* issues any shortage has (i.e. higher costs to cover for the shortage), there are preventable problems such as delays in time-to-treatment that result in even more care costs and risks as patients reach late stages in their disease.

**This overload and increased burden on healthcare providers could be even worse during high demand periods, such as severe outbreaks of flu, natural disasters, etc. - and the situation could lead to an increase in preventable deaths, which harms public safety.**

HROC and Sepsis Alliance are focusing on addressing the factors that can lead to burnout, both within civilian and also VA/Military healthcare facilities. For example, the VA is facing the issue<sup>2</sup> of primary care shortages currently, while Military leaders are trying to focus on recruitment, better training and higher productivity.<sup>3</sup>

What is contributing to this challenge of care team shortages is losing care team members from the growing problem of "burnout." The Agency for Healthcare Research and Quality (AHRQ) defines<sup>4</sup> burnout as a syndrome where emotional exhaustion makes people feel overwhelmed and fatigued by work, and unable to face a job's demands or engage others properly. This burden can come from time pressure, severe consequences of failure, various conflicts among groups, and other factors leading to stress which then put clinicians at a high risk for burnout.

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<sup>1</sup> <http://www.wsj.com/articles/nurses-are-again-in-demand-1478514622>

<sup>2</sup> <http://www.medscape.com/viewarticle/864886>

<https://vetadvocates.org/house-approves-va-health-care-overhaul/>

<sup>3</sup> <http://www.thenewstribune.com/news/business/article124856559.html>

<sup>4</sup> <https://psnet.ahrq.gov/perspectives/perspective/190/burnout-among-health-professionals-and-its-effect-on-patient-safety>

This even affects patients and their family caregivers, who are being asked to perform a larger number of the care tasks.<sup>5</sup> Burnout is a problem that is difficult to measure and track, particularly when it is psychological (i.e. low productivity or poor compliance).

AHRQ goes on to state that the growing prevalence of burnout syndrome among health care personnel has gained attention as a potential threat to health care quality and patient safety. Poorer interactions with patients can lead clinicians to make mistakes or provide substandard care. A 2015 study by the Mayo Clinic, conducted in partnership with the American Medical Association, found that more than half of American physicians now exhibit at least one sign of burnout.

The issue has even gotten the attention from the U.S. Centers for Disease Control and Prevention (CDC). Their report<sup>6</sup> on workload stress suggests that health care workers have higher rates of substance abuse and suicide than other professions, and elevated rates of depression and anxiety linked to job stress.

**For doctors and nurses, burnout can result from work overload, long hours, and providing care for difficult, seriously ill, or terminal patients. This burnout can lead to a variety of consequences, including employee intent to leave their job, reduced patient satisfaction, diagnosis and treatment errors, and other preventable problems. Maintaining high morale, which affects the quality of life of healthcare providers, is also important to recruiting and retention. In fact, retaining key staff is arguably more important than recruitment, given the time and training it takes for new team members to become productive in a service as complex as healthcare.**

This is especially true in the Military Health System, which cares for troops, their families, and veterans. Nurses reveal burnout-related issues can lead to vicious cycles. For example, the preventable death of a patient or the loss of a veteran to suicide can lead to caregiver guilt and depression, which can lead to a drop in provider effectiveness. This loss of effectiveness can have a “snowball” effect, perpetuating the cycle by increasing risks to patients and other members of the medical team.

Part of the problem is that healthcare providers have more data points to monitor than ever before. In fact, the AHRQ has described "how busy workers become desensitized to safety alerts and as a result ignore or fail to respond appropriately to such warnings."

"Unfortunately, in an age of high reliability, *every* task – including the alerts, questions and notifications from our team and the many systems we monitor – could be too important to just 'tune out' and ignore," said Lieutenant Colonel Jared Mort, co-author of an upcoming study on preventing sepsis complications by reducing task saturation.

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<sup>5</sup> <http://www.aarp.org/about-aarp/press-center/info-10-2012/New-Report-Finds-Almost-Half-of-Family-Caregivers-Perform-Medical-and-Nursing-Tasks.html>

<sup>6</sup> <https://www.cdc.gov/niosh/docs/2008-136/pdfs/2008-136.pdf>

Experts, such as at The Joint Commission, are pushing healthcare to reach High Reliability Organization (HRO) status.<sup>7</sup> HRO is often used to describe aviation given its high level of safety, but healthcare is not nearly as safe, and some would argue that excessive “alerts” is a primary reason. A 2011 Boston Globe investigation found that more than 200 deaths over a five-year period were attributable to not heeding alarms from bodily monitoring systems. This dismissal of alerts is most often attributed to overload and "alert fatigue" (used to describe the barrage of electronic alerts).<sup>8</sup>

**“Aviation is as safe as it is because the design of aircraft controls, such as voice alerts and tactile feedback, and the interaction of aircraft teams, especially crew resource management, help pilots manage task saturation,” added Mort.**

**In his upcoming article, Mort analyzed with civilian researchers how to reduce the overall need for alerting, using a new "battle formation" against failure to rescue known as a Cooperative HRO (CHRO). It was introduced at a Federal health conference in 2016, and the results were dramatic, including an 87% drop in preventable deaths<sup>9</sup> in one of the study sites, with improvements in patient satisfaction also resulting from the new model.**

A CHRO focuses strictly on the tasks at risk of failure rather than all possible tasks that are important but likely covered, creating what Mort and his co-inventors note are "protected flanks" for the team. This reduces workload burdens that team members face, such as alert fatigue, excess interruptions, and messages that would otherwise reduce productivity of the team – and reduce the overall safety of patients.

Mort adds, "In failures, there are not only '1st victims', which are patients, but also '2nd victims', which are care team members that could not save the patient. These 2nd victims often face burnout from stress. I have even seen them reach the stage of a suicide risk."

Ironically, even error-prevention measures can tie to burnout. The key example is the widespread use of safety checklists. The Air Force<sup>10</sup> created the first safety checklist (at what would become Wright-Patterson Air Force Base), and it has led to millions of lives saved in many industries, aviation being only one of them.<sup>11</sup> But now many in healthcare believe they have reached *checklist overload*. HROC's researchers argue that it is the prolonged "exposure" to task saturation, such as from daily checklist overload, that leads to cognitive overload, causing the excessive stress and anxiety that contribute to burnout.

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<sup>7</sup> [https://www.jointcommission.org/assets/1/6/Chassin\\_and\\_Loeb\\_0913\\_final.pdf](https://www.jointcommission.org/assets/1/6/Chassin_and_Loeb_0913_final.pdf)

<sup>8</sup> <https://www.bostonglobe.com/2011/09/20/umass/qSOhm8dYmmaq4uTHZb7FNM/story.html>

<sup>9</sup> <http://www.wpafb.af.mil/News/Article-Display/Article/818630/wright-patterson-medical-center-advancements-in-value-based-care-help-lead-the>

<sup>10</sup> <http://www.newyorker.com/magazine/2007/12/10/the-checklist>

<sup>11</sup> <http://www.who.int/bulletin/volumes/86/7/08-010708/en/>

**"What if all we ever said was the key to solving every safety problem in healthcare is simply to add more and more checklists," said CHRO co-inventor Terry Rajasenan of HROC, "and then have everyone overachieve every day to get them all done? I don't think that is what most people on the frontlines want to hear anymore. We need a 'less is more' view to improve not only the lives of patients, but also the people in healthcare serving them."**

"Burnout not only means higher risk to patients where time is of the essence – such as sepsis – but can also lead to anxiety, depression, and ultimately even suicide in caregivers," said Tom Heymann, Executive Director of Sepsis Alliance. "Both the stress of preventing failure, as well as the stress from the failure itself, can quickly cascade into a burnout condition."

HROC's head of partner collaborations, Sherry Henricks, agreed. "As a clinician, I've seen that task saturation is the worst of both worlds – overload stressing us to the point of feeling helpless, and then errors that result which create guilt and depression," she said "This all contributes to the burnout issue which we want to solve together."

One relevant area of future research will be of not only psychological harm that can arise from burnout of the team members, patients, and their families, but also physical harm. This can range from self-inflicted injuries, suicide, substance abuse, and go beyond the individual to include interpersonal violence and other criminal activities. There are, in fact, many potential victims, according to the researchers working on the project.

This is an interest of the Military Health System researchers on the failure to rescue project, given it can impact troops and their families, as well as veterans served in Military hospitals – ultimately reducing stress overall, both in the workplace and home.

The CDC noted one key to a solution was an organizational culture that supports stress interventions. HROC members have found in their studies that one key intervention to reduce stress and improve outcomes was preventing task saturation. This increased understanding in both caregivers and patients,<sup>12</sup> and led to improved compliance, conflict resolution, patience, communication, empathy, and overall problem solving capabilities. In short, it helped the patients – and it helped the caregivers.

Ultimately, HROC and Sepsis Alliance argue that a comprehensive solution toward higher safety, affordability, and access would include not just patient safety and satisfaction, but also recognize the impact doctor and nurse task saturation and burnout have on all these goals. This is especially true given current threats faced in areas such as epidemics, rising sepsis risks, mental health, drug abuse, and various other health crises confronting the nation, as they place greater load and burden on our nation's caregivers.

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<sup>12</sup> Brennan, John, M.D., Malaspina, Margo, Veluswamy, Ragupathy, M.D. "A Physician Partnership: Employing Predictive Modeling and Workload Analysis for CHF Performance Improvement" American College of Physician Executives Update September, 20, 2012 (online).

For those seeking to learn more about how to prevent burnout (and the task saturation that leads to it), as well as understanding how to form a Cooperative HRO, please visit:

[www.thinkhro.com](http://www.thinkhro.com)

For information on sepsis and its danger signs, please visit:

[www.sepsis.org](http://www.sepsis.org)