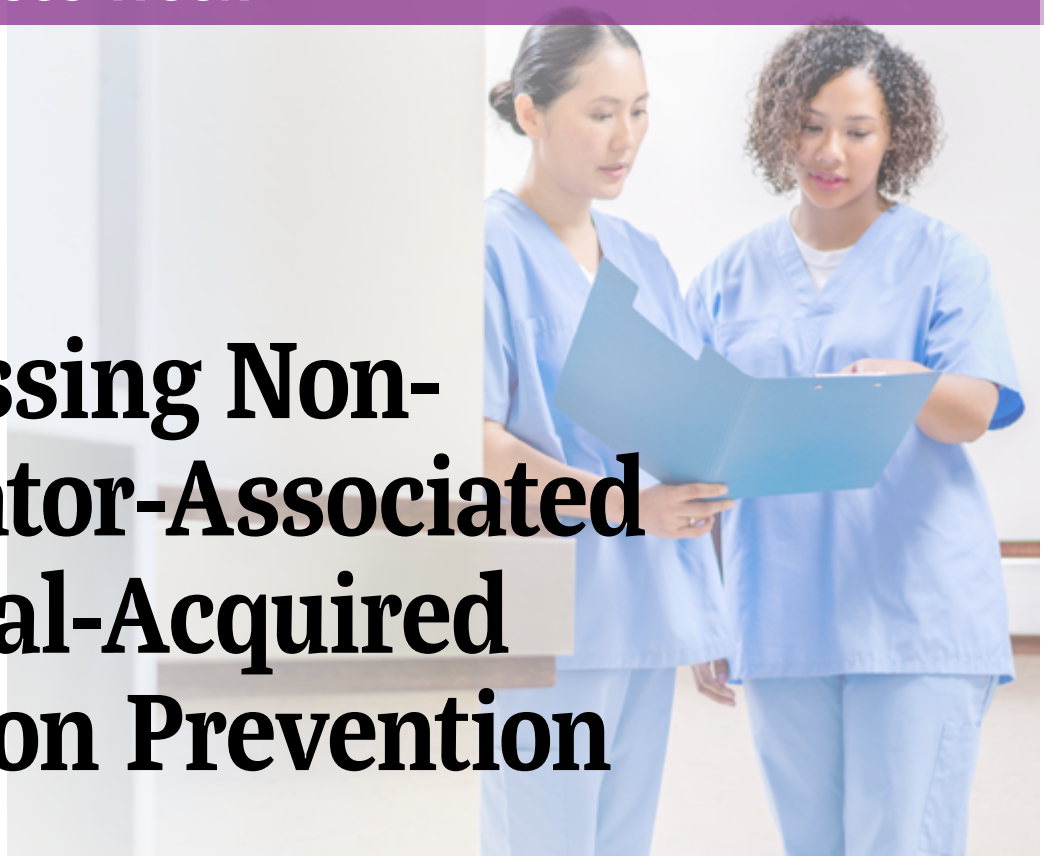

Addressing Non-Ventilator-Associated Hospital-Acquired Infection Prevention

By Matt Phillion

Recent healthcare policies, such as the Center for Medicare and Medicaid Services (CMS) SEP-1, have not focused on the impact of non-ventilator-associated hospital-acquired infections (NV-HAP) on sepsis rates.

With a 36.3% sepsis rate in NV-HAP patients compared to 1.9% in those with community-acquired pneumonia, NV-HAP sees staggering 19-fold increase in sepsis incidence. Meanwhile, sepsis treatment in the U.S. costs the industry $24 billion annually, so more proactive steps toward prevention could not only mean healthier patients, but better financial outcomes as well.

"The new CMS SEP-1 metric is very focused on after the patient already has sepsis," says Barbara Quinn, DNP, RN, ACNS-BC, FCNS, consultant and former director of professional practice and nursing excellence at Sutter Health. "The metric isn't about preventing sepsis but about responding quickly, catching it quickly, and administering a treatment bundle. I think we're overlooking an opportunity to prevent it altogether."

Quinn noted that the current challenge with the sepsis treatment bundle is outside of the emergency department: the ED is highly attuned and looking for sepsis and has processes in place, whereas there's room for improvement for patients who become septic once they're already admitted.

"Probably the best chance we have to reduce the whole rate of sepsis is to prevent the infection from occurring in the first place," she says. "I would love to see NV-HAP prevention as a high priority for organizations across the country."

We know as an industry that NV-HAP increases mortality risks and increases readmissions: one in five patients will come back to the hospital within 30 days. There is also the issue of side effects caused by the antibiotics used to treat NV-HAP, including a risk of C. diff, and that NV-HAP is a potential risk after surgery, Quinn says.

"We know all these things, but in a larger healthcare system, you have different teams

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looking at each one: you have the mortality team, they review all their mortality cases and are looking at pneumonia, and you have another team looking at readmissions," says Quinn. "But nobody has put all the pieces together, so the enormity of the issue is not really being recognized because it's all in pieces."

Quinn recommends looking at who has the expertise to be a central hub, someone who can help look at all the pieces and find a unified view between all of specialties and teams. Clinical nurse specialists (CNS) are particularly well suited to the role, Quinn notes.

"Not every hospital has CNSs, but they're a really good place to start. They know how to really understand the problem, how to use the data, and how to drive improvements," she says. "But they can't do it by themselves. They need to have healthcare leaders champion and support those efforts. Prevention requires resources."

A simple change, a huge improvement

When we talk about the resources needed to improve NV-HAP in hospitals, one solution may come as a surprise.

"There have been multiple studies demonstrating the effectiveness of even something as simple as brushing patients' teeth," says Quinn.

Pneumonia is introduced when three mechanisms align: 1) pathogens in the mouth 2) microaspirated into the lungs in patients with 3) low natural defenses at the time.

"In a human who does not have the defenses to prevent the growth of an infection, that's all it is," says Quinn. "Looking at prevention, you focus on those risk factors you can do something about, what we call modifiable risk factors. The CDC says the best way to prevent pneumonia is to identify these modifiable risk factors and put programs in place to prevent them."

Quinn's own organization chose to put an oral care program in place for pneumonia prevention.

"It's the only intervention that targets the source of infection—pathogens within the oral cavity—so we thought, 'Let's start where the source is,'" she sys. "We put oral care in place standard for every patient."

It's easy to overlook tooth brushing, in part because it's assumed, and also because it has traditionally been a "nice to do" step in the care process.

"It doesn't always rise to the top of the priority list because it's always been one of those nice things to do, like a back rub or brushing a patient's hair, and as patients got sicker and sicker those nice-to-do steps fell to the wayside," says Quinn. "We've learned and now know from research and literature that it's essential."

The Society for Healthcare Epidemiology of America (SHEA) released practice recommendations in 2022 listing mechanical oral care as an essential strategy for preventing pneumonia as well, adding strength to the discussion.

"We did this before, because it just made sense, but within 12 months, we saw a 37% reduction in hospital-acquired pneumonia," says Quinn. "Some places have done it with even better response. Every system is a little different, and the data collection is different, but oral care has the most evidence in the literature right now as the most effective of all the interventions."

Other steps also top the list of preventive measures, like getting the patient up and around and mobilized, or screening for difficulty swallowing, but only oral care targets the potential infection at the source, she notes.

Why does such a simple, effective measure fly under the radar?

"Part of it is, as we said, that it's been considered nice to do, and not perceived as an essential element of care, but it's just as important as giving medication or checking blood sugar or blood pressure," says Quinn. "We have an opportunity to change the mindset."

The other reason it hasn't been discussed as prevalently is that measuring NV-HAP is difficult to define.

"The CDC, CMS, The Joint Commission, they all agree that this is the most important hospital-acquired infection to look at right now, but there's a lot of struggle to make the definition less subjective," says Quinn. "Other areas, like central line infections, have been easier to define, measure, and track, but pneumonia is more complex."

As in many areas for potential improvement, current staffing shortages make something like brushing a patient's teeth harder to implement.

"There is the worry that if we don't have the time to do everything, we have to priorities what we can do to survive. There's a term in nursing, rationed nursing care, and a lot of nurses lose sleep at night from moral distress of feeling that there is more to do in a given day or shift than any human can possibly do," says Quinn.

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One way to address this is to look to non-nursing staff who are well-positioned to help with this particular step in care.

"Outside of the ICU, where 70% to 80% of NV-HAP occurs, we have staff who can help with basic care: certified nursing assistants, patient care techs, and others," says Quinn. "What we learned was that there was a lack of understanding about how the germs in the mouth can cause pneumonia, and once we trained staff so that they were comfortable with this, they were our best champions for providing this type of care."

A key step to this is making those staff members understand just how important the work they do is.

"I had one nursing assistant approach me after a class who said they felt like they'd come in to work and do the things nobody else wanted to do, but now they knew that when they come to work, they can save a life," says Quinn. "That what they did made a difference for how their patients do. This is a group of people who do so much work, who work very hard, and do what is quite often a thankless job."

Empowering these staff require leadership to step forward, Quinn notes: get out on the floor, talk to people, and tell them how important the work they do really is.

Looking ahead, Quinn says she would like to see CMS develop a measure with regards to NV-HAP to put real weight behind this type of prevention.

"The Joint Commission highlighted it a few years ago as a safety issue, and when The Joint Commission speaks, people listen," she says. "But that was a safety alert, not a mandate. If we're mandating other things, like patients with sepsis get antibiotics within three hours, we can mandate that every patient gets oral care at least twice a day, and the outcomes will follow."

She also recommends agreeing upon a more objective way to measure NV-HAP.

"Right now it's difficult, but if we can agree on an objective method we can move forward," says Quinn. "I just know that patients deserve prevention as much as they deserve treatment. I believe we can do better." *

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