

# How COVID-19 Is Changing Skin: Post-Acute Care Wound Experts From Across the United States Speak Out

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The United States continues to face the coronavirus disease 2019 (COVID-19) pandemic, with infection and fatality rates increasing, an economic crisis looming, and confronting racial inequities becoming essential. In this article, wound experts weigh in on the significant impact to skin that is looming just under the national headlines.

COVID-19 has created the perfect storm for skin and wound issues. Wound specialists working with the adverse effects created by COVID-19 also recognize how darker skin is and always has been at higher risk for underrecognized skin and wound impairments.<sup>1</sup> Despite the global challenges presented by COVID-19, there is some light at the end of this tunnel, as human resilience and innovation bring new practices and technologies that may leave us in a better situation after the pandemic has passed.

## CONFINEMENT AND ISOLATION

To prevent the spread of COVID-19, the Centers for Disease Control (CDC) and the Center for Medicare and Medicaid Services (CMS) provided guidance and regulation to isolate those living in nursing homes, while individual US states provided guidelines for those at home to self-isolate.<sup>2</sup> Many outpatient clinics shut their doors to routine visits. In skilled nursing facilities, this meant

“shelter in place” with no visitors, no social dining, no communal recreation, and trips out of the facility limited to time-sensitive, medically necessary care. Most residents were restricted to their rooms. As a result, residents were significantly less mobile. Lack of movement or mobility is the number one risk factor for pressure injury (PI) development. In addition, lack of mobility contributes to the loss of musculoskeletal strength. This creates the potential for a higher risk of not only falls, but falls with an injury. Furthermore, the loss of respiratory reserve creates a higher risk of pneumonia and other respiratory conditions,<sup>3</sup> which could no doubt include the increased risk of COVID-19.

Although guidance from the CDC and CMS is grounded in the best available evidence with the intention to protect vulnerable populations, it is likely that there will be unintended consequences of these guidelines.

## ACTIVE COVID-19 INCREASES PI RISK

COVID-19 continues to spread as the health care community scrambles to institute complex guidelines to keep staff and residents safe, while simultaneously searching for enough personal protective equipment (PPE). Patients with COVID-19 are at high risk for both morbidity and mortality.<sup>4</sup> The health

care community focuses on maintaining lung health with ventilators and proning, while trying to mitigate the inflammatory response to the virus with medications such as steroids. Also, there are unusual coagulopathy aspects of the disease that may require treatment with blood thinners.

Sadly, the real dynamics of a systemic virus that affects oxygen perfusion in combination with the vascular system can devastate the skin and may increase the rate of PI formation. To add insult to injury, the very treatments attempting to mediate the conditions of COVID-19 may add to PI risk and non-healing.

This expert wound group concedes that the rates and severity of PIs are likely to increase and that there is potential for rapid evolution of deep tissue injury in those with active COVID-19.<sup>4-6</sup> Wound goals for those with symptomatic, active COVID-19 are simply maintenance and comfort until the basics of homeostasis are restored. The concept of wound “maintenance” needs to be explained carefully to the resident and family, who may not understand that this virus can impede wound healing. These are difficult conversations that need to be navigated with compassion, as many are already overwhelmed with their loved one struggling with COVID-19.