COVID-19 and wound care in the US

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As many American hospitals have shifted their resources into fighting the COVID-19 pandemic, wound care has also seen changes in practice. I work at the University of Nebraska Medical Center where we have a bio-containment unit, which was used to care for a few patients with Ebola infections. The 'Ebola experience' also created a lot of learning opportunities for the healthcare system, including outreach programmes through a funded project called 'Heroes'. So, we have been fortunate to be ahead of the curve in training, equipment and space needs. Early in the COVID-19 pandemic, we created a COVID-19 unit for patients on ventilators, a mask re-sterilisation area, a COVID-19 hospice unit and residential space for our healthcare workers. We also cared for the first round of patients from a contaminated cruise ship, so we were able to sample blood for viral load and antibody responses. However, our hospital, like many others, has had to change its approach to wound care for patients with COVID-19 and family members who bring them to the clinics. Our inpatient staff have not seen a dramatic change in practice, however.

Visits in the clinic limited to the patient

All patients are called the day before their appointment to confirm that they are not experiencing COVID-19 symptoms. The new process of 'seeing patients' is explained in that the family or escort waits in the parking lot until called and then the patient is brought into the clinic by a member of our staff after his/her temperature is confirmed to be normal. We have not had to treat patients who read lips, but our plan was to include a translator for them. As one cannot see through the cloth mask, meaning lip readers cannot see the mouth, we had planned to cut a hole in the mask and insert clear plastic paper sheet protectors, so they would still help us and the patient could read our lips. We have not had to do this so far. We still use a phone for translation to non-English speaking patients.

Some of our patients need a caregiver to validate their symptoms or progress with treatments. For example, the thin, frail elderly woman who reports "I'm eating just fine", with her daughter shaking her head, standing beside her!

Visits in the clinic attended by two staff members

In the past, we could train new healthcare providers on wound care during outpatient visits. Today, the in-person visit, especially new patients, is limited to one healthcare provider and one staff nurse. For those providers in training, they can observe via phone video programmes and hear the discussion/physical examination findings by the provider.

Visits by distance

Established, stable patients are visited by telemedicine programmes. In general, this process works well. The only wound issues that come up consistently are a lack of good lighting to see the wound bed and the inability to use more than our eyes to examine the wound. So, the information that we normally gain by smell, amount of drainage, type of drainage, pain with the dressing change or pain in the wound must be asked of the patient. We have had patients come to the clinic for debridement and other procedures, even from long-term care settings. We have had other patients who are quite adamant they will not come in for care due to fear of exposure to COVID-19.

Technology issues can be equally challenging. Not all our patients who live in remote and rural areas have reliable Internet, smart phones or any technology at all; much like the meetings most of us now attend by teleconferencing, the video stalls, the sound is mute, or the camera is misaligned. Generally, the patient or family is willing to help and appreciates the attempts to meet their needs without travel. Most of the time, younger family members have smart phones or know how to connect electronically, and that helps the process. We have prepared instructions on how to film wounds, connect electronically to submit them and ask that photos be submitted prior to the actual visit time.

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Cleaning the rooms

Our routine cleaning of surfaces has upscaled based on governmental regulations and our own study findings (Santarpia et al, 2020). Thirteen patients were cared for in quarantine in our Biocontainment unit in early March 2020. Samples were collected from those rooms. Viral sampling of surfaces, including toilet seats, ventilation grates, tabletops and window ledges was positive for COVID-19 in 80.4% of these cases. Personal equipment used by the patient included cell phones, exercise equipment, television remote controls and medical equipment (stethoscope, BP cuff, thermometers) tested positive for the virus in 81% of the samples. Air samples outside the patient rooms were positive for the virus 66.7% of the time. This is not much different than the air in the patient's room, which was positive for the virus 63.2% of the time. These collective data indicated significant environmental contamination of rooms where COVID-19 positive patients are staying. Of course, for outpatient wound care, we do not know who is an asymptomatic carrier of COVID-19. So, all surfaces are disinfected between patients and staff wear protective personal equipment during their shift.

Change in volume of patients

Many visits are outpatient visits to the clinics, so people who would have come into the clinic are sending pictures via email or are calling the service. The delays in seeing patients in the clinic will likely catch up with us as we try to reopen operations. Patients who were not seen a month ago now need to be seen and there will be a surge of many of these patients once restrictions are eased.

Changes in inpatient wound care

Depending upon the type of hospital and setting, some wound care nurses are doing a lot of care within the intensive care units. Proned patients are subject to pressure injury on the anterior surfaces and the wound staff have been helping to create plans to reduce the risk of injury on the face with dressing and turning/positioning schedules for the head. Some wound care nurses have been furloughed or moved to actual bedside patient care. Others have seen little change in their routine care of patients, especially since oncological surgery and traumatic injury still occurs.

The changes in patient care after the COVID-19 crisis is over will likely be permanent. However, nurses have been on the frontline of other epidemics. Likely some of you remember caring for patients with HIV/Aids when they were placed in reverse isolation. Your elderly mothers or aunts may remember caring for patients with polio. Both of those epidemics needed nurses to provide direct patient care. Many, many nurses continued to work with little to no knowledge of how those diseases were spread. 2020 is the year of the nurse, and rightfully so. We all appreciate the bravery shown by nurses around the world during this epidemic! WINT

References

Santarpia JL, Rivera DN, Herrera V et al (2020) Transmission potential of SARS-CoV-2 in viral shedding observed at the University of Nebraska Medical Center. *medRXIV*. Available at: https://bit.ly/2yS1bg3 (accessed 29.04.2020)