

# A Clinical Vignette on Community Transition After Inpatient Rehabilitation for a Veteran With New Spinal Cord Injury–Related Disability During the COVID-19 Pandemic

Sameer Siddiqui, MD, Donna Huang, MD, Hilary Touchett, PhD, RN, and Felicia Skelton, MD, MS

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As of November 1, 2020, the coronavirus disease-19 (COVID-19) pandemic has affected close to 46 million people and caused close to 1.2 million deaths.<sup>1</sup> During the COVID-19 pandemic, persons living with disabilities, specifically those with spinal cord injury and disorders (SCI/Ds), experience both direct and indirect effects of the COVID-19 pandemic, as they are vulnerable to pulmonary infection and their access to care, vital caregiver support, supplies, and equipment may be heavily impacted by discriminatory laws, stigma,<sup>2</sup> and social distancing.<sup>3</sup> In an international survey of SCI/D healthcare providers that was conducted during the COVID-19 pandemic, participants reported that their patients expressed concerns regarding the risk of severe infection, fragility of the caregiver support network, inability to access routine supplies, and inability to access appropriate testing.<sup>4</sup>

This case vignette from a Veterans Affairs (VA) SCI/D center highlights some of the challenges that SCI/D patients have faced during inpatient rehabilitation and subsequent transition to the community in the setting of the COVID-19 pandemic.

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From the Spinal Cord Injury Division, VA Boston Healthcare System, West Roxbury, Massachusetts (SS); H. Ben Taub Department of Physical Medicine and Rehabilitation, Baylor College of Medicine, Houston, Texas (DH, FS); Spinal Cord Injury Care Line, Michael E. DeBakey VA Medical Center, Houston, Texas (DH); and Center for Innovations in Quality, Effectiveness and Safety, Michael E. DeBakey VA Medical Center, Houston, Texas (HT, FS).

All correspondence should be addressed to: Sameer Siddiqui, MD, Spinal Cord Injury Division, VA Boston Healthcare System, 1400 VFW Parkway, West Roxbury, MA 02132.

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## CASE

A 55-yr-old male veteran with T11 American Spinal Injury Association Impairment Scale A paraplegia, secondary to motor vehicular accident in 2010, who was divorced and lived alone in a single-level accessible apartment first presented to the hospital with progressive right arm numbness as well as a shooting pain, tingling, and electrical shock sensation down his back with exertion in early 2019. Magnetic resonance imaging revealed a syrinx in the lower cervical cord. Over the next 4 mos, his symptoms worsened, and the patient noted decreased sensation to touch, pain, and temperature on the right side of his face and neck as well as right arm and torso. He denied new weakness or changes in hand function; however, he did report dropping items. During this time, the patient's bowel and bladder function were stable. One month later, neurosurgery completed a C5–T3 laminectomy for decompression and placement of a syringo-subarachnoid catheter. Although his right arm symptoms and function initially improved, he eventually needed a C2–C3 laminectomy and myelotomy with syringobulbia-subarachnoid shunt, resulting in new incomplete tetraplegia.

Given these functional changes, he underwent inpatient rehabilitation on the VA SCI/D unit. At discharge, he was independent with self-care, power wheelchair mobility, and transferring with a mechanical lift. Therapy was unable to assess his toileting because he had different toileting equipment at home compared with the hospital. He was functionally able to drive but would require adaptations to his van to accommodate his new power wheelchair. Given his ability to complete most activities of daily living and having support from the home care team, he was discharged home with physical therapy and occupational therapy follow-up in early 2020.

Shortly after discharge, however, SCI/D home care providers noted that the veteran's transition to home was not going smoothly. As the COVID-19 pandemic began, he was struggling with a suboptimal bowel program, financial hardship resulting in food insecurity, and depression. During his initial admission, his Social Security Disability Insurance expired, and he had been unable to renew it while he was admitted because the necessary paperwork was at his home. This financial loss hindered his ability to afford food and resulted in food insecurity. Because of his new-onset tetraplegia, he was unable to drive his vehicle because it was adapted for his previous functional status. His lack of access to transportation compounded his ability to access supplies and worsened his feelings of depression; however, he cited his family as a protective factor.

Within 2 wks of discharge, the patient was admitted to an acute care hospital after becoming hypotensive. He was worried that the digital stimulation needed to relieve his fecal impaction with his bowel program had caused his hypotension.

He requested to increase the frequency of his bowel program, which necessitated more caregiver hours. About a month after his admission to an acute care hospital for hypotension, the patient again presented to the emergency department (ED) twice in 1 wk because of fecal impaction, risking exposure to COVID-19 and leading to worsened social isolation as he needed to quarantine from family for 14 days after presenting to the ED. To further complicate matters, caregivers were exceeding his allotment of hours to complete bowel program and meal preparation. Despite requests for more hours from the caregiver agency, the necessary increase in hours could not occur until COVID-19 limitations were lifted.

The pandemic adversely impacted the veteran's transition to home in many ways, and the VA's home care interdisciplinary team served as a vital safety net by providing resources and support. At the veteran's VA hospital, this team was composed of a physician, a nurse practitioner, two nurses, a physical therapist, two telehealth specialists, vocational rehabilitation, a social worker, and a case manager. To address the patient's financial hardship and food insecurity, the social worker picked up food from a local veteran food bank program and delivered it to the patient's home while helping him renew his Social Security Disability Insurance. The nursing staff supported the veteran's bowel program adherence through education, reinforcement, and encouragement. In addition, the patient was eventually granted an increase in caregiver assistant hours to ensure that he had the appropriate support he needed for his bowel care. He was also able to connect with his family without VA intervention via video calls to support his mental health and social needs while social distancing.

## DISCUSSION

The case presented here not only demonstrates how common issues faced by persons living with disabilities such as food insecurity,<sup>5</sup> access to caregiver support,<sup>6</sup> and social isolation<sup>7</sup> have been exacerbated during the COVID-19 pandemic but also describes the VA's ability to mitigate some of these challenges. The VA SCI/D Centers' home care program is an interdisciplinary team that follows patients after discharge. A study of the implementation of a single VA hospital's SCI/D home care program found no change in ED use or hospital admission but did find a reduction in mortality.<sup>8</sup> The authors explain that veterans with SCI/D may have chronic conditions that cannot be entirely addressed by the home care team. In addition, they note that those with mental health conditions had greater inpatient use, suggesting that those with mental illness may need additional help managing their chronic conditions.<sup>8</sup>

Literature specifically addressing the impact of the COVID-19 pandemic on community-dwelling individuals with SCI/D is lacking. A qualitative study focused on veterans with SCI/D and providers in the VA system speaks to the disaster preparedness of veterans with SCI/D and presents a number of suggestions that are relevant to the case discussed above.<sup>9</sup> For example, they speak to the role that the home care team can play in evaluating preparedness in the home and the importance of having adequate supplies. Veterans in this study also emphasized the need to have access to resources.<sup>9</sup> Consistent with this

literature, the veteran presented here had a chronic condition and symptoms of depression. He experienced a hospital admission and multiple ED visits at the start of the pandemic as well as had the consequences of inadequate supplies and financial hardship exacerbated during the pandemic. He was greatly helped by the preparation and support of the home care team who provided interdisciplinary support and food and assisted with getting his Social Security Disability Insurance reinstated. In addition, caregiver support is vital in the transition from acute care to home. In a large survey of more than 2000 people with SCI, a "need for help in the home" was reported as one of the top five environmental barriers for life satisfaction.<sup>6</sup> In this case, the limitations on providing the patient increased caregiver assistance owing to the pandemic contributed to his visits to the ED, leading to increased exposure to COVID-19.

Furthermore, although studies specific to COVID-19's effect on the mental health of individuals with spinal cord injury are lacking, one can extrapolate from studies of the non-SCI/D population. A systematic review looking at 43 studies found an overall worse state of mental health in the overall population since the start of the pandemic.<sup>10</sup> Although social isolation was a concern for those with SCI/D before the pandemic, increased regularity and depth of social interactions were considered to be mitigating factors.<sup>7</sup> The patient in this case had expressed depressed mood given his social isolation, but it was able to be addressed via virtual contact with his family.

## CONCLUSION

The case presented above underscores some of the difficulties experienced by patients during transition to home from inpatient rehabilitation during an ongoing global pandemic. These hardships include changes in financial status, increased need for caregiver support, and social isolation. Programs such as the VA SCI/D Home Care Program can support recent discharges to help acquire resources and prevent further complications.

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