
Homecare Encounters

An organizational response to innovative care for patients undergoing hematopoietic stem cell transplantation during COVID-19

JoAnn Liu, DNP, AOCNP®, Deborah “Hutch” Allen, PhD, RN, CNS, FNP-BC, AOCNP®, Martha Lassiter, MSN, AOCNS®, BMTCN®, Felicia Cao, MD, PhD, Anthony D. Sung, MD, and Nelson J. Chao, MD, MBA

BACKGROUND: Healthcare delivery has been significantly changed because of the COVID-19 pandemic. Patients undergoing hematopoietic stem cell transplantation (HSCT) are vulnerable to infections because of their immunocompromised status. The risk of nosocomial infection may be reduced by providing care to patients at home.

OBJECTIVES: This article describes one cancer center’s approach for delivering safe patient care through homecare encounters, the benefits of home care for HSCT, and future directions.

METHODS: Patients received detailed information on home encounters. Advanced practice providers visited patients daily and then returned to the clinic to formulate a plan of care with the interprofessional care team. Transplantation RNs visited patients on the same day to provide the prescribed care.

FINDINGS: Based on evaluations from 32 patients and 12 providers, the results indicated that home care was safe, feasible, and beneficial for patient care post-HSCT during the COVID-19 pandemic.

KEYWORDS

hematopoietic stem cell transplantation; home care; home encounters; COVID-19

DIGITAL OBJECT IDENTIFIER

10.1188/21.CJON.457-464

THE WORLD HEALTH ORGANIZATION DECLARED COVID-19 a pandemic on March 11, 2020, and it became a national emergency on March 13, 2020 (Hauck et al., 2020). The delivery of patient care was significantly affected, with precautions emphasized to protect vulnerable populations who are at the greatest risk for increased mortality from viral transmission and infection, such as those who are immunocompromised from cancer, diabetes, and organ transplantation. As a result, the medical oncology community had to act quickly to protect vulnerable patients from exposure to COVID-19.

Hematopoietic stem cell transplantation (HSCT) is a curative treatment for many hematopoietic system diseases (Svahn et al., 2002). Historical infection prevention practices require patients undergoing HSCT to be hospitalized in isolation rooms for weeks to months, depending on the type of HSCT and conditioning regimen. Alternatively, some HSCT centers provide a day hospital or outpatient clinic for treatment where patients present daily to the ambulatory center. Although the Duke Cancer Institute Adult Blood and Marrow Transplant (DCIABMT) clinic transitioned to performing outpatient transplantations 30 years ago, the DCIABMT team recognized that entering any healthcare facility, including ambulatory settings, for routine care during the COVID-19 pandemic significantly increased potential exposure. Patients encountered a minimum of six personnel during their visit to the outpatient clinic, all of whom increased their potential exposure to COVID-19. Therefore, the team expanded delivery of HSCT patient care provisions to home/local housing during recovery.

Home-based care following HSCT is not a new concept, spanning two decades of research in Sweden, Spain, and the United States (Gutiérrez-García et al., 2020; Ringdén et al., 2014; Sung et al., 2017; Svahn et al., 2000, 2002). Ringdén et al. (2018) reported promising long-term outcomes for home-based HSCT care, including reduced risk of acute graft-versus-host disease (GVHD), lower treatment-related mortality, and better survival. Sung et al. (2017) and Bergkvist et al. (2013) also found that across sites in the United States and Sweden, patient experiences with home-based HSCT care were overwhelmingly positive and safe.