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# Biology of Blood and Marrow Transplantation

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## The SARS-CoV-2 Pandemic: A Good Time for Stem Cell Transplantation?

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### To the Editor:

We read with interest the article by Arcuri et al [1] highlighting the importance of hematopoietic stem cell transplantation with specific conditioning regimens for aplastic anemia. Allogeneic hematopoietic stem cell transplantation (AHSCT) requires 4 to 6 weeks of hospitalization with the aim of preventing infectious complications. AHSCT has become a common practice in hematology centers, with, for example, approximately 15,000 allografts performed annually in Europe [2].

Visiting an allograft recipient in a clean room necessitates institution of strict hygienic measures, including handwashing with an alcohol-based hand rub, maintaining social distancing, wearing a mask, or limiting visits to once daily [3]. Children are not allowed to visit.

At the end of 2019, a new, highly contagious infectious disease, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), appeared in Wuhan, Hubei, China [4]. In less than 3 months, the local pandemic became a global pandemic that forced governments worldwide to impose quarantines and massive containment to limit the spread of the disease. Currently, more than one-half the global population is in containment, representing more than 4 billion people.

Because of their immunosuppressed status, all patients with hematologic disorders fear severe SARS-CoV-2 infection as they do other opportunistic and potentially fatal infections [5]. Infection is the most common and significant cause of mortality after AHSCT [6], even though the level of safety and

protection against infectious diseases in transplantation units is one of the highest known anywhere [7]. Leaving a clean room after AHSCT is typically a difficult time for patients facing the stress of having to move from a safe, protected environment with regular nursing care to home and “normal life” [8]. Returning home might be even more stressful during the SARS-CoV-2 pandemic, as patients will swap a hospital-safe containment for several months of at-home SARS-CoV-2-mandated containment. Based on experience with the 2003 SARS pandemic, this stress will likely be long-term [9].

Guidelines related to the SARS-CoV-2 pandemic published by the European Society for Blood and Marrow Transplantation recommend deferring nonurgent transplantations to the extent possible, considering the possible increased risk of infection, travel restrictions, and logistical factors [10]. For those AHSCTs that cannot be deferred, patients must have a negative SARS-CoV-2 test to access the allograft process without visitors in transplantation units.

Even with delaying nonurgent transplantations for infectious reasons as recommended, the evolution of the SARS-CoV-2 pandemic and its possible consequences on relapse of the original hematologic diseases are unknown. Considering that patients in need of AHSCT must be contained for at least 4 weeks like the global population [11], we might wonder whether the current SARS-CoV-2 pandemic is a good time to perform AHSCT.

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