The approach to treatment of hematologic malignancy started in the 1940s due to failed chemical treatments for malaria. These malaria treatments were destroying white blood cells. The origins of modern bone marrow transplantation followed in short order, with the combining of chemotherapy and radiation treatments following recognition of how to take care of people who were afflicted by radiation accidents. The first human marrow product was infused in 1957, demonstrating that the patient did not die immediately of an infusion reaction and did not get the equivalent of pulmonary embolism from infusing a combination of fat, microparticles of bone, and clumps of marrow cells intravenously.\textsuperscript{1} Important breakthroughs in immunology came with HLA description and modern HLA serologic typing in the 1960s. In 1968, the first two successful bone marrow transplants were performed, for immunodeficiency diseases.\textsuperscript{2,3}

Clinical bone marrow transplantation took off with steam in the 1970s. In 1977, a landmark article described 100 sibling donor transplants for leukemia, showing engraftment for 94 patients.\textsuperscript{4} The original model was myeloablative transplant whereby an intense regimen killed off as many cancer cells as possible. Immunosuppression prevented graft rejection, but complications were frequent and included regimen-related toxicity, graft-versus-host disease, opportunistic infections, and relapse. Anticancer transplantation, regardless of whether the cells come from bone marrow, involves killing all the cancer cells with pretransplant conditioning, managing the aplasia that follows, or expecting the transplant itself will restore immunocompetence. In the process, two outcomes need to be managed: first, prevent infection while restoring a functioning immune system, and second, prevent cancer
recurrence by graft-versus-leukemia or graft-versus-tumor effects that are associated with any type of a nonsyngeneic donor.

To bring transplants to older patients, the transplant community had to figure out how to limit the toxicity of regimens, to make them more immunosuppressive and less immunotoxic. This led to the development of nonmyeloablative conditioning. As the intensity of the anticancer conditioning decreases, success of the transplant procedure relies more on the immunologic graft-versus-leukemia effect to reduce relapse. The idea is that it is safer overall and less clinically toxic, and indeed, more tolerable for older or sicker people, or people beaten up by previous cancer chemotherapy.

Highlights of changes to the hematology field over subsequent decades include extending indications for chemotherapy and transplantation to many more diseases, extending the donor pool, new drugs, different stem cell sources outside of just bone marrow, changes to conditioning regimens, and new ways of trying to make the whole process work better and safer. In the 2000s, we have seen improved outcomes from safer transplants for all ages, the rise of cord blood and haploidentical products as a stem cell source, and new cellular therapies.5-8 The current focus is on providing cures and safe transplant.

Nearly 10 years have elapsed since an issue of Infectious Disease Clinics of North America included articles dedicated to infections of the hematopoietic stem cell transplant recipient or hematologic malignancy patient. In that time, evolution of diagnostic and therapeutic modalities in the infectious disease world has affected these patients. In addition, there are antimicrobial stewardship initiatives, new vaccines, and a push toward outpatient management whenever possible. The fourteen articles in this issue reflect contemporaneous infectious disease management of patients who are undergoing treatment for hematologic malignancy or who are recipients of hematopoietic cell transplantation.

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