Ribavirin is used in the treatment of respiratory syncytial virus (RSV) in high-risk patients, including patients who have undergone hematopoietic stem cell transplantation, to reduce mortality from RSV pneumonia. It is classified as a hazardous drug with potential for carcinogenicity and teratogenicity. Very few recent studies have examined the risk of exposure, and recommendations for exposure precautions are lacking. Administration should include the use of personal protective equipment and terminal cleaning of the patient room after each administration. This article examines ribavirin use among patients who have undergone hematopoietic stem cell transplantation and have RSV-related pneumonia and explores safety considerations for staff. Nursing leaders on a hematopoietic stem cell transplantation unit addressed gaps in knowledge about ribavirin therapy, and completed a review of the hospital’s ribavirin policy, which led to policy revisions, increased knowledge about the safe administration of ribavirin, and improvements in staff and patient education.