

## Important Drug Interactions in Hematopoietic Stem Cell Transplantation: What Every Physician Should Know

Brett Glotzbecker

Email id :- [brett\\_glotzbecker@dfci.harvard.edu](mailto:brett_glotzbecker@dfci.harvard.edu)

### Abstract

Morbidity is increased in patients undergoing hematopoietic stem cell transplantation when drug–drug interactions lead to unexpected outcomes. These interactions occur as a result of exposure to complicated medical regimens with drugs with narrow therapeutic windows and high toxicity profiles. In this report, we review the available evidence and possible mechanisms of the most clinically relevant drug interactions, including those involving inhibitors and inducers of the P450 isoenzyme system. We identify key interactions that should be familiar to any physician caring for patients after hematopoietic stem cell transplantation. We discuss drug metabolism in children and in the elderly and examine how age-related differences in metabolism make complicate drug regimens in these populations. A better understanding of these interactions and the responsible mechanisms will promote efficient delivery of the safest medical regimens to patients undergoing hematopoietic stem cell transplantation.