Prediction of Adverse Events in Patients Receiving Rapid Rituximab Infusion: Validation of a Predictive Model

Dora Siew Ping Lang, PhD, BSN, and Chiew Cheng Fong, ONC, BN

Rapid rituximab infusion was approved as treatment for non-Hodgkin lymphoma by the U.S. Food and Drug Administration in 2012, but it has been administered clinically since approval of the drug rituximab in 1997. Because of the delay between the approval of the drug and the approval of the procedure, researchers sought to discover predictors for adverse events related to rapid rituximab infusion. The current study is a retrospective cohort study using medical records from a cancer center in Singapore. The purpose of the study is to validate whether high absolute lymphocyte counts can predict the occurrence of adverse events from rapid rituximab infusion over 90-minute intervals. A total of 120 patients were selected by purposive sampling, and 394 cycles of rapid rituximab infusions were available for analysis. The authors found that high absolute lymphocyte count is highly specific in identifying patients who will not experience any adverse event from rapid rituximab infusion. However, lack of sensitivity can occur when screening potential patients for adverse events.