

# Rapid Rituximab: An Inpatient Pilot Project to Increase Education and Use Among Oncology Nurses

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Suboptimal clinician awareness of the appropriate order set and lack of nursing education on administration guidelines led to rapid rituximab infusion administration (RRIA) being underused on an inpatient oncology unit. A quality improvement pilot project was developed to stimulate ordering RRIA, increase nursing knowledge, optimize inpatient chemotherapy admission and discharge schedules, and decrease nursing workload. Educational interventions led to a 38% increase in nurses' comfort with RRIA, and data showed an increase to 100% use of RRIA for eligible patients. Improving nursing education and clinician awareness of how RRIA can decrease duration of infusions for patients, creates more efficient scheduling workflows and reduces nursing workload.

## AT A GLANCE

- Development of unit-specific guidelines may stimulate increased use of RRIA.
- Improved clinician knowledge on patient eligibility and the appropriate order set for RRIA can reduce infusion duration.
- Optimizing efficiency of nursing workflows by using RRIA can result in more predictability and efficiency in chemotherapy inpatient admissions and discharge scheduling.

## KEYWORDS

rapid rituximab; administration guidelines; quality improvement; nursing education

## DIGITAL OBJECT IDENTIFIER

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Stanford Health Care (SHC) is a 604-bed academic medical center with Magnet status where patients with cancer are admitted for inpatient chemotherapy. Admission and discharge scheduling are dependent on the time and duration of a patient's chemotherapy regimen. If admission is delayed, discharge will likely be delayed (Patel & Spicer, 2019). Traditionally, rituximab is given via standard infusion delivered over four to six hours (Genentech, 2021). Rapid rituximab infusion administration (RRIA) is a 90-minute infusion protocol approved by the U.S. Food and Drug Administration in 1997 as an alternative option compared to the longer, standard rituximab infusion administration (SRIA).

The Institute of Medicine (2001) identified timeliness and efficiency as two of the six aims to improve healthcare services in the United States. These aims were relevant for an inpatient oncology unit primarily serving adult patients with lymphoma and other solid tumors. A bedside nurse observed that RRIA was used less than SRIA. Barriers to increased use of RRIA included suboptimal clinician awareness of the appropriate order set and a lack of knowledge among nurses. Education and interventions to streamline workflows were implemented to increase timeliness, ensure efficiency, and maintain safety.

This pilot project evaluated a protocol change from SRIA to RRIA by measuring the following: (a) implementation and use of new orders by providers, (b) nurse knowledge and comfort with RRIA, and (c) patient scheduling and nurse workload.

## Methods

This pilot project used chart audits, emails, surveys, electronic health record (EHR) notifications, and Microsoft Excel spreadsheets to evaluate outcomes. This project took place on an inpatient oncology unit that receives patients for chemotherapy administration. Through direct observation it was noted that SRIA was used more often than RRIA, though the latter can yield more timely and efficient chemotherapy administration.

## Preimplementation Processes

The oncology nurse team developed a quality improvement pilot project for patients receiving rituximab infusions. The goal was to increase ordering of the 90-minute RRIA compared to SRIA. Because of the high potential of initial