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Evaluation of Single Dose Rasburicase in Patients with Tumor Lysis Syndrome at a Community Teaching Hospital

ABSTRACT

Background: Rasburicase (Elitek) is a recombinant urate oxidase used for oncology-related conditions to acutely lower existing uric acid levels. The current officially approved dosing is weight-based, however many health-systems utilize single-dose rasburicase (SDR) instead, so a standardized dosing regimen has yet to be established. **Objective:** The purpose of this study is to evaluate the efficacy of a 6 mg SDR in patients for oncology-related uses at a community teaching hospital. **Methods:** This was a retrospective, cross-sectional chart review study. Data was obtained from electronic medical records in EPIC for patients that were admitted to Mercy Hospital St. Louis, an 859-bed community teaching hospital in St. Louis, Missouri. Adults ages 18 years and older who had received at least one dose of rasburicase for an oncology-related use (such as prevention or treatment of TLS) over the course of a five-year period were included. The primary outcome was to measure the effectiveness of the 6 mg SDR, with secondary outcomes identifying any common characteristics of patients who received multiple rasburicase doses. **Results:** Out of the 70 patient profiles that were collected, 27 had a complete baseline and post-rasburicase uric acid level recorded on top of being given the 6 mg SDR and were thus included in the analysis. The mean decrease in uric acid levels from baseline to post-rasburicase dose was 7.8 mg/dL. There was a mean increase in creatinine clearance from baseline of 5 mL/min and a mean decrease in serum creatinine of 0.5 mg/dL. **Conclusion:** The use of a 6 mg SDR is an effective prevention and treatment method for patients who are at risk of developing and currently experiencing tumor lysis syndrome (TLS).