Electronic medical records were reviewed and data collection included: significant past medical history, andexanet alfa utilization. The purpose of this evaluation was to assess each patient case where andexanet alfa was utilized.

AtlantiCare Regional Medical Center (ARMC) recently added andexanet alfa to the formulary and indicated for the reversal of apixaban and rivaroxaban in patients with life-threatening or uncontrolled bleeding. Andexanet alfa is a recombinant, therapeutic protein that mimics native coagulation Factor Xa. It is neutralizing the anticoagulant effects and restoring the natural ability to form a clot.

Primary goal of this case series was to evaluate andexanet alfa efficacy in life-threatening bleeds. More than 900 ICH cases occur each month in the United States in patients on Factor-Xa inhibitors, with 30-day mortality rates of up to 65%.

Secondary objectives included monitoring for the development of thromboembolic events, use of andexanet alfa as a reversal agent for apixaban or rivaroxaban in patients with life-threatening bleeds resulted in positive outcomes in our patient population. Further evaluation is warranted to assess the clinical efficacy of andexanet alfa and report real world outcomes.

**Methods**

- Patients who received andexanet alfa between June 2019 and November 2019 were identified using the Theracore Alert System as well as our internal andexanet alfa utilization log.
- Electronic medical records were reviewed and data collection included: significant past medical history, type of bleed (spontaneous or trauma-related), bleed location, andexanet alfa dosing, reported adverse drug events, compliance with our hospital-approved utilization protocol, relevant laboratory values, and associated imaging tests used to assess resolution or progression of bleeding.

**Endpoints**

- The primary goal of this case series was to evaluate andexanet alfa efficacy in life-threatening bleeds as determined by clinical assessment of each patient. Secondary objectives included monitoring for the development of thromboembolic events after andexanet alfa administration, time until reintinitiating anticoagulant treatment, and 30-day mortality.

**Results**

- Five patients (Table 1) with significant comorbidities and life-threatening bleeds were identified to receive andexanet alfa for the acute reversal of either apixaban or rivaroxaban. All patients met the inclusion criteria and were deemed appropriate to receive andexanet alfa according to our hospital protocol. Four of the patients received the low dose bolus and infusion, while one patient received the high dose. Four of five patients experienced favorable outcomes (Table 2).
- Patient A required emergency surgery after the administration of andexanet alfa due to spinal cord compression caused by the hematoma.
- Patients B, C, and E all experienced excellent or good hemostasis, with symptom improvement throughout the hospital stay.
- Patient D experienced a severe trauma related bleed ICH, a delay in treatment with andexanet alfa, and expired during the hospital stay due to extensive and continued progression of ICH.
- All four surviving patients resumed anticoagulation within 30 days of receiving andexanet alfa and none experienced a thromboembolic event. No adverse drug reactions were reported during the study (Figure 1).

**Discussion**

- The use of andexanet alfa as a reversal agent for apixaban or rivaroxaban in patients with life-threatening bleeds resulted in positive outcomes in our patient population. Further evaluation is warranted to assess the clinical efficacy of andexanet alfa and report real world outcomes.

**References**