Abstract: P281
Factors influencing apixaban dosing in the middle east gulf region

Authors:
B Atallah¹, S Alsolh², W El Nekidy¹, H Sabbour³, W Almahmeed³, K Almuti³, ¹Cleveland Clinic Abu Dhabi, Pharmacy Services - Abu Dhabi - United Arab Emirates, ²United Arab Emirates University - Al Ain - United Arab Emirates, ³Cleveland Clinic Abu Dhabi, Cardiovascular Medicine - Abu Dhabi - United Arab Emirates,

Topic(s):
Antiarrhythmic Pharmacotherapy

Citation:
Background: Approved dose adjustment criteria for apixaban are based on the clinical trial. Adjustments require presence of 2 of 3 criteria. In the ARISTOTLE trial, 4.7% of patients met those criteria. Real world data show much higher utilization of the lower dose. Accurate statistics on the prevalence and predictors of such dosing in the Middle East Gulf region are lacking.

Purpose: We sought to explore the appropriateness of apixaban dosing and to predict the factors influencing physician dosing strategies at a tertiary care center in our United .

Methods: We performed a retrospective chart review of patients receiving apixaban for atrial fibrillation from our hospital-based outpatient pharmacy between April 1, 2015 and October 1, 2018. Patients with missing data or on apixaban for other indications were excluded.

Results: A total of 232 patients were included with a mean follow-up of 400±271 days. The mean age was 66.0±13.2 years, 45.5% female, mean weight 82.4±44.7 kg, mean serum creatinine 1.0±0.4 mg/dL, CHA2DS2-VASc 3.7±1.8, and 30.1% were on at least 1 concomitant antiplatelet drug. Seventy three patients (31.3%) received a reduced apixaban dose of 2.5 mg twice daily. Deviation from recommended criteria was seen in a total of 62 patients (26.6%), most being under-dosed (93.5%). The significant predictors of underdosing in our model were older age (risk of under-dosing increases by 7.2% for each additional year of age) and eGFR 30 to 60 mL/min/1.73 m2.

Conclusion: Under-dosing of apixaban is prevalent in the Middle East Gulf region. Advancing age and eGFR are the main predictors of under-dosing. More education is needed to optimize dosing of apixaban for stroke prevention in AF.

<table>
<thead>
<tr>
<th>Variables</th>
<th>coef.</th>
<th>std. error</th>
<th>p</th>
<th>% Change in Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.563</td>
<td>0.223</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.069</td>
<td>0.022</td>
<td>0.002</td>
<td>7.2%, 2.5%, 12.1%</td>
</tr>
<tr>
<td>eGFR (30-60 relative to &gt;60)</td>
<td>1.583</td>
<td>0.625</td>
<td>0.011</td>
<td>386.9%, 39.6%, 1597.8%</td>
</tr>
</tbody>
</table>

Table 1. Stepwise logistic regression model for predictors of apixaban underdosing. Adjusted for serum creatinine, weight, BMI, gender, CHADS2-VASc score, concomitant antiplatelets, and eGFR < 30 or > 60 mL/min/m2