In this issue of *JAMA*, a systematic review of the recent developments in the diagnosis and treatment for venous thromboembolic (VTE) disease was published. Partially reprinted herein is a Table that was published in the March 12, 2018, issue of *The Medical Letter on Drugs and Therapeutics* summarizing the major features of different oral anticoagulants used for venous thromboembolic disease. This Table accompanied a comprehensive review of the drugs used for the treatment and prevention of VTE and another online table comparing the parental anticoagulants used for VTE. The Comments column from the original table appears in the Supplement.

### Table. Some Oral Anticoagulants for VTE

<table>
<thead>
<tr>
<th>Drug</th>
<th>FDA-Approved Indications</th>
<th>Usual Adult Treatment Dosage</th>
<th>Usual Adult Prophylaxis Dosage*</th>
<th>Some Adverse Effects</th>
<th>Cost b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vitamin K Antagonist</strong></td>
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</tbody>
</table>
| Warfarin - generic; Coumadin (BMS); Jantoven (USL) | • Prophylaxis of DVT and PE  
• Treatment of DVT and PE | 2-10 mg once/d  
2-10 mg once/d | Vasculitis, chills, alopecia, pruritus, urticaria, abdominal pain, bloating, nausea, vomiting, diarrhea, skin necrosis | $7.80  
64.50  
10.80 |        |
| **Direct Thrombin Inhibitor** |                                                                                        |                              |                                 |                                        |        |
| Dabigatran etexilate – Pradaxa (Boehringer Ingelheim) | • Prophylaxis of DVT and PE following hip replacement surgery  
• Treatment of DVT and PE following 5-10 days of initial therapy with a parenteral anticoagulant  
• Reduction in the risk of recurrent DVT and PE following initial therapy | CrCl >30 mL/min:  
150 mg bid  
Should not be used in patients with CrCl ≤30 mL/min | CrCl >30 mL/min:  
110 mg once, then 220 mg once/d  
Should not be used in patients with CrCl ≤30 mL/min | Dyspepsia and gastritis-like symptoms  
Drug Interactions: Numerous drug interactions | 400.60 |
| **Factor Xa Inhibitors**    |                                                                                        |                              |                                 |                                        |        |
| Apixaban – Eliquis (BMS)     | • Prophylaxis of DVT following hip or knee replacement surgery  
• Treatment of DVT and PE  
• Reduction in the risk of recurrent DVT and PE following initial treatment lasting at least 6 months | 10 mg bid × 7 days, then 5 mg bid*  
With dual P-gp/strong CYP3A4 inhibitor: reduce dose by 50% | 2.5 mg bid | Epistaxis, confusion, nausea, increased serum transaminases, anemia  
Drug Interactions: Substrate of CYP3A4 and P-gp; interacts with inhibitors and inducers of CYP3A4 and P-gp; NSAIDs and other antiplatelet drugs can increase the risk of bleeding  
Should not be used concurrently with dual P-gp/strong CYP3A4 inducers | 419.00 |
| Betrixaban – Bevyxxa (Portola) | • Prophylaxis of VTE in patients hospitalized for an acute medical illness who are at risk for thromboembolic complications due to moderate or severe restricted mobility and other risk factors for VTE | Not an FDA-approved indication | 160 mg once, then 80 mg once/d for a total of 35-42 days  
With P-gp inhibitor:  
80 mg once, then 40 mg once/d for a total of 35-42 days  
CrCl 15 to <30 mL/min:  
80 mg once, then 40 mg once/d for a total of 35-42 days  
Should not be used in patients with CrCl <15 mL/min | Epistaxis, UTL, constipation, hypokalemia, hypertension, headache, nausea, diurexia  
Drug Interactions: Substrate of P-gp; interacts with inhibitors and inducers of P-gp; NSAIDs and other antiplatelet drugs can increase the risk of bleeding | 450.00 |
| Edoxaban – Savaysa (Daichi-Sankyo) | • Treatment of DVT and PE following 5-10 days of initial therapy with a parenteral anticoagulant | 60 mg once/d  
CrCl 15-50 mL/min:  
30 mg once/d  
With P-gp inhibitor:  
30 mg once/d  
≤60 kg:  
30 mg once/d | Not FDA-approved | Rash, abnormal liver function tests, anemia  
Drug Interactions: Substrate of P-gp; interacts with inhibitors of P-gp; should not be used with the P-gp epistaxis inducer rilampin; NSAIDs and other antiplatelet drugs can increase the risk of bleeding | 336.60 |

(continued)
Table. Some Oral Anticoagulants for VTE (continued)

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<tbody>
<tr>
<td>Rivaroxaban – Xarelto (Janssen)</td>
<td>• Prophylaxis of DVT following hip or knee replacement surgery • Treatment of DVT and PE Reduction in the risk of recurrent DVT and/or PE following initial treatment lasting at least 6 months</td>
<td>15 mg bid × 3 weeks, then 20 mg once/d&lt;sup&gt;a&lt;/sup&gt; Should not be used in patients with CrCl &lt;30 mL/min, in those taking CYP3A4 inhibitors, or in those with CrCl 15–&lt;80 mL/min taking dual P-gp/strong CYP3A4 inhibitors</td>
<td>10 mg once/d Should not be used in patients with CrCl &lt;30 mL/min, in those taking dual P-gp/strong CYP3A4 inhibitors or inhibitors, or in those with CrCl 15–&lt;80 mL/min taking dual P-gp/moderate CYP3A4 inhibitors</td>
<td>Abdominal pain, fatigue, back pain, muscle spasms, dizziness, anxiety, depression, insomnia, pruritus, wound secretion, UTI, increased serum transaminases Drug Interactions: Substrate of CYP3A4 and P-gp, interacts with inhibitors and inducers of CYP3A4 and P-gp&lt;sup&gt;b&lt;/sup&gt;, NSAIDs and other antplatelet drugs can increase the risk of bleeding Should not be used in patients taking dual P-gp/strong CYP3A4 inhibitors or inhibitors or in those with CrCl 15–&lt;80 mL/min taking dual P-gp/moderate CYP3A4 inhibitors</td>
<td>33.30</td>
</tr>
</tbody>
</table>

<sup>a</sup> Prophylaxis is recommended for a minimum of 10-14 days and for up to 35 days after major orthopedic surgery (Y Falck-Ytter et al. Chest. 2012;141:e278S).

<sup>b</sup> Approximate WAC for 30 days’ treatment at the lowest usual adult dosage for treatment. Cost of rivaroxaban is based on dosage for prophylaxis. WAC = wholesaler acquisition cost or manufacturer’s published price to wholesalers; WAC represents a published catalogue or list price and may not represent an actual transactional price. Source: AnalySource® Monthly. February 5, 2018. Reprinted with permission by First Databank, Inc. All rights reserved. ©2018. www.fdbhealth.com/policies/drug-pricing-policy/.

<sup>c</sup> Acetaminophen, amiodarone, cefazolin, cefotetan, ceftriaxone, clarithromycin, fluconazole, fluorquinolones, fluorouracil, fluoxetine, cholestyramine, colestipol, dicloxacillin, nafcillin, phenytoin, rifampin, St John’s wort, and sucralfate can decrease the anticoagulant effect of warfarin. Barbiturates, carbamazepine, cholestyramine, clofibrate, dicloxacillin, nafcillin, phenytoin, rifampin, St John’s wort, and sucralfate can decrease the anticoagulant effect of warfarin (Drug interactions from The Medical Letter. medicalletter.org/subDIO. Accessed March 1, 2018).


<sup>e</sup> For extended treatment after at least 6 months of treatment for DVT or PE, the dosage for reduction in risk of recurrence of VTE is 2.5 mg bid.

<sup>f</sup> Patients taking 2.5 mg bid should not take dual P-gp/strong CYP3A4 inhibitors.

<sup>g</sup> For extended treatment after at least 6 months of treatment for DVT or PE, the dosage for reduction in risk of recurrence of VTE is 10 mg once/d.

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**ARTICLE INFORMATION**

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