Goal
Safe care and management in the reversal of bleeding for patients taking dabigatran (Pradaxa®).

Key Points
- Use Order Set: OSU IP GEN: Dabigatran Anticoagulant Reversal [2834]
- The following therapies have been tried, but outcomes do not support their use, and they are NOT recommended:
  - Antifibrinolytics (aminocaproic acid, tranexamic acid)
  - Recombinant factor VIIa (NovoSeven®)
  - Prothrombin complex concentrate (PCC-Profilnine®)
  - Frozen Fresh Plasma (FFP)

Bleeding on Dabigatran Therapy – Emergent Reversal

Minor Bleeding
(e.g., lacerations, post-dialysis bleeding, bleeding from a compressible site)
- Hold dabigatran until there is adequate hemostasis
- Consider silver nitrate cauterization as applicable

Major Bleeding
(e.g., active GI bleed, trauma, and uncontrollable epistaxis)
- Hold dabigatran until there is adequate hemostasis
- Oral activated charcoal if ingestion in last 2 hours
  - Dose: 1 g/kg of oral suspension – round to the nearest 25 grams
- Fluid replacement and hemodynamic support
- Topical thrombin as appropriate
- If fibrinogen is < 200 mg/dL give 2 pools cryoprecipitate
- If platelets are < 50 K/uL give platelets
- Consider idarucizumab (Praxbind®)*
  - Dose: 2.5 grams infused over 4 minutes x 2 doses for a total dose of 5 grams

Life-Threatening Bleeding
(e.g., GI hemorrhage with hemodynamic compromise, retropharyngeal or retroperitoneal bleeding, intracranial hemorrhage, major trauma)
- Hold dabigatran until there is adequate hemostasis
- Follow up with proper monitoring – see page 2

*Note: Idarucizumab (Praxbind®): attending physician approval required to order.
Baseline Labs

- Serum creatinine (chem-6)
- CBC
- Prothrombin time (PTT)
- Thrombin time (TT)
- Arterial or venous pH (goal pH > 7.25)
  - During the process of resuscitation, attempt to achieve goal of pH > 7.25 to facilitate the effectiveness of reversal agents.
- Fibrinogen
  - Fibrinogen should **not** be reduced as a result of dabigatran use; but in the event it is low, steps to address it should be taken.

Monitoring

- Repeat CBC, PTT:
  - 2 hours after every intervention
  - Consider checking every 6 hours x 24 hours and as clinically indicated
  - A normal TT rules out presence of dabigatran

<table>
<thead>
<tr>
<th>Lab Test</th>
<th>Normal Range (seconds)</th>
<th>Turnaround Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTT</td>
<td>24 – 34</td>
<td>45 - 60</td>
</tr>
<tr>
<td>TT</td>
<td>13.0 – 20.0</td>
<td>30 – 60</td>
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</tbody>
</table>

Consults

- Surgery
- Consider Hematology for continued bleeding

Quality Measures

- Mortality rate
- Patient received consults
  - Surgery
  - Hematology
- Percent of patients who receives non-recommended therapies:
  - Antifibrinolytic therapy
  - Recombinant factor VIIa (NovoSeven®)
  - PCC (Profilnine®)
  - FFP
- Hospital length of stay (days)
- Rate of thrombosis in patients who received prothrombotic agent during hospitalization
  - Deep vein thrombosis (DVT)
  - Stroke
  - Pulmonary embolism (PE)
  - Myocardial infarction (MI)
- Percent of patients with anticoagulant resumed at discharge

References

- Product Information: PRADAXA(R) oral capsules, dabigatran etexilate mesylate oral capsules. Boehringer Ingelheim Pharmaceuticals (per manufacturer), Ridgefield, CT, 2015.
- Product Information: PRAXBIND(R) intravenous injection, idarucizumab intravenous injection. Boehringer Ingelheim Pharmaceuticals (per FDA), Ridgefield, CT, 2015.

Guideline Authors

- Mike Boyd, PharmD, BCPS
- Colin Kaide, MD
- Eric Kraut, MD
- Tony Gerlach, PharmD, BCPS, FCCM

Guideline Approved


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