Switching Between Anticoagulants

Intended as guidance document. Should not supersede clinical judgment.

Reviewed and Approved: UNMH Antithrombosis Subcommittee 5/2015; Last updated May 2015

Potential reasons to switch (including, but not limited to) | Considerations when switching
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**Parenteral to oral anticoagulant**
- Facilitate longer-term outpatient treatment

**Oral to parenteral anticoagulant**
- Drug intolerance (e.g. GI intolerance, skin rash)
- Acute VTE and active malignancy
- Pregnancy

**Warfarin to DOAC**
- Drug intolerance (e.g. GI intolerance, skin rash)
- Therapeutic failure
- Patient preference

**DOAC to warfarin**
- Drug intolerance (e.g. GI intolerance, skin rash)
- Non-adherence
- Therapeutic failure
- New comorbidity or contraindication
  - Worsening renal function
  - Mechanical heart valve
  - New major drug-drug interaction
  - Altered drug absorption (e.g. gastric bypass surgery)
  - Acute coronary syndrome (ACS) requiring dual antiplatelet therapy

Although routine monitoring of DOACs is not required, periodic reassessment should be ensured to evaluate for development of need for switching to alternative anticoagulant

DOAC = direct oral anticoagulant; LMWH = low molecular weight heparin; UFH = unfractionated heparin

DOACS include dabigatran, rivaroxaban, apixaban, edoxaban
### Switching Between Anticoagulants

#### DOAC to warfarin

<table>
<thead>
<tr>
<th>DOAC</th>
<th>Recommendation</th>
<th>Alternative Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>Discontinue DOAC; consider bridge with parenteral agent and warfarin starting at time of the next scheduled DOAC dose; continue parenteral and warfarin overlap until INR &gt;2</td>
<td>None</td>
</tr>
</tbody>
</table>
| Dabigatran | Start warfarin prior to discontinuing dabigatran  
                        CrCl > 50ml/min: -3 days  
                        CrCl 30 to 50 ml/min: -2 days  
                        CrCl 15 to 30 ml/min: - 1 day |                              |
| Edoxaban | ↓ DOAC by 50% and start warfarin; stop DOAC when INR >2.0                       |                              |
| Rivaroxaban | None                                                                               |                              |

#### Parenteral to DOAC

<table>
<thead>
<tr>
<th>Parenteral</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMWH</td>
<td>Stop parenteral agent and start DOAC at the next scheduled LMWH dose</td>
</tr>
<tr>
<td>IV UFH</td>
<td>Stop IV UFH and start DOAC immediately</td>
</tr>
<tr>
<td>SQ UFH</td>
<td>Stop SQ UFH and start DOAC 4-8 hours after last SQ UFH dose</td>
</tr>
</tbody>
</table>

#### Warfarin to DOAC

<table>
<thead>
<tr>
<th>DOAC</th>
<th>Stop warfarin &amp; start DOAC when INR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>≤2.5 and trending downward</td>
</tr>
<tr>
<td>Dabigatran</td>
<td></td>
</tr>
<tr>
<td>Edoxaban</td>
<td></td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td></td>
</tr>
</tbody>
</table>

#### DOAC to parenteral

<table>
<thead>
<tr>
<th>Parenteral</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMWH</td>
<td>Stop DOAC and start LMWH at next scheduled DOAC dose</td>
</tr>
<tr>
<td>IV UFH</td>
<td>Stop DOAC and start IV UFH at next scheduled DOAC dose</td>
</tr>
<tr>
<td>SQ UFH</td>
<td>Stop DOAC and start SQ UFH at next scheduled DOAC dose</td>
</tr>
</tbody>
</table>

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*NOTE: Each bar represents a dose of the given anticoagulant. Scenarios depict switching to and from given anticoagulants.

**Warfarin ↔ DOAC (with LMWH overlap)**
- **Stop warfarin**
- **Stop DOAC**
- **Start DOAC when INR <2.5 & trending downward**
- **Start warfarin & LMWH at next scheduled DOAC dose**
- **When INR >2.0, stop LMWH & continue warfarin**

**LMWH ↔ DOAC**
- **Stop LMWH**
- **Start DOAC at next scheduled LMWH dose**
- **Stop DOAC**

**Warfarin ↔ DOAC (with DOAC overlap)**
- **Stop warfarin**
- **Start warfarin & overlap with DOAC until INR >2.0**
- **Start DOAC when INR <2.5 & trending downward**

**IV UFH ↔ DOAC (or LMWH)**
- **Stop DOAC (or LMWH)**
- **Stop IV UFH & start DOAC (or LMWH) immediately**
- **Start UFH at next scheduled dose of DOAC (or LMWH)**

Resources for questions or assistance with switching between anticoagulants
- UNMH Outpatient Anticoagulation Clinic 505-272-6202
- UNMH Inpatient Antithrombosis Service 505-264-6970