### Switching To and From Various Anticoagulants

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<td><strong>DOACs</strong></td>
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<td><strong>Apixaban</strong>&lt;sup&gt;1**&lt;sup&gt;</td>
<td><strong>Eliquis</strong></td>
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</table>
| heparin, bivalirudin, or argatroban infusion | Stop apixaban
Begin infusion at time when next dose of apixaban is due |                                                                |
| LMWH/subcutaneous agents (enoxaparin, fondaparinux, dalteparin) | Stop apixaban
Begin agent at time when next dose of apixaban is due |                                                                |
| warfarin              | Stop apixaban
Start warfarin and consider bridging agent at next apixaban due time
Start INR monitoring 2 days after stopping apixaban (INR values drawn sooner may be falsely elevated by apixaban)
Stop bridging agent when INR is at goal |                                                                |
| dabigatran            | Stop apixaban
Begin dabigatran when next dose of apixaban is due |                                                                |
| edoxaban              | Stop apixaban
Begin edoxaban when next dose of apixaban is due |                                                                |
| rivaroxaban           | Stop apixaban
Begin rivaroxaban when next dose of apixaban is due |                                                                |
| **Dabigatran**<sup>2**<sup> | **Pradaxa**                        |                                                                |
| heparin, bivalirudin, or argatroban infusion | Stop dabigatran
CrCl ≥ 30 mL/min – start infusion 12 hours after last dose of dabigatran
CrCl < 30 mL/min – start infusion 24 hours after last dose of dabigatran |                                                                |
| LMWH/subcutaneous agents (enoxaparin, fondaparinux, dalteparin) | Stop dabigatran
CrCl ≥ 30 mL/min – start agent 12 hours after last dose of dabigatran
CrCl < 30 mL/min – start agent 24 hours after last dose of dabigatran |                                                                |
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| Dabigatran** (Pradaxa)        | warfarin                 | - CrCl ≥ 50 mL/min, start warfarin 3 days before stopping dabigatran  
- CrCl 30-49 mL/min, start warfarin 2 days before stopping dabigatran  
- CrCl 15-29 mL/min, start warfarin 1 day before stopping dabigatran  
- CrCl < 15 mL/min, not recommended  
- Start INR monitoring 2 days after stopping dabigatran (INR values drawn sooner may be falsely elevated by dabigatran)                                                                                                                                                                                                                      |
|                              | apixaban                 | - Stop dabigatran  
- Initiate apixaban at the time of the next regularly scheduled dose of dabigatran                                                                                                                                                                                                                                                                                             |
|                              | edoxaban                 | - Stop dabigatran  
- Initiate edoxaban at the time of the next regularly scheduled dose of dabigatran                                                                                                                                                                                                                                                                                           |
|                              | rivaroxaban              | - Stop dabigatran  
- Initiate rivaroxaban ≤2 hours prior to the next regularly scheduled dose of dabigatran                                                                                                                                                                                                                                                                                    |
| Edoxaban*** (Savaysa)         | heparin, argatroban, or  | - Stop edoxaban  
- Begin infusion at time when next dose of edoxaban is due                                                                                                                                                                                                                                                                                                                   |
|                              | bivalirudin infusion     |                                                                                                                                                                                                                                                                                                                                                         |
|                              | LMWH/subcutaneous agents | - Stop edoxaban  
- Begin agent at time when next dose of edoxaban is due                                                                                                                                                                                                                                                                                                            |
|                              | (dalteparin, enoxaparin, |                                                                                                                                                                                                                                                                                                                                                         |
|                              | fondaparinux)            |                                                                                                                                                                                                                                                                                                                                                         |
|                              | warfarin                 | - If taking 60 mg daily Edoxaban – reduce dose to 30 mg daily and begin warfarin concomitantly. Discontinue when INR is at goal  
- If taking 30 mg daily Edoxaban – reduce dose to 15 mg daily and begin warfarin concomitantly. Discontinue when INR is at goal  
**OR**  
- Begin parenteral anticoagulant (bridge therapy) and warfarin at the time the next dose of edoxaban is due. When INR is at goal, discontinue parenteral anticoagulant.                                                                                     |
|                              | apixaban                 | - Stop edoxaban  
- Begin DOAC at time when next dose of edoxaban is due                                                                                                                                                                                                                                                                                                           |
|                              | dabigatran               |                                                                                                                                                                                                                                                                                                                                                         |
|                              | rivaroxaban              |                                                                                                                                                                                                                                                                                                                                                         |
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<td><em><em>DOACs</em>, continued</em>*</td>
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<td><strong>Rivaroxaban</strong></td>
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| heparin, bivalirudin, or argatroban infusion | Stop rivaroxaban  
Begin infusion at time when next dose of rivaroxaban is due |
| LMWH/subcutaneous agents (enoxaparin, fondaparinux, dalteparin) | Stop rivaroxaban  
Begin agent at time when next dose of rivaroxaban is due |
| warfarin | Stop rivaroxaban  
Start warfarin  
Start INR monitoring 2 days after stopping rivaroxaban (INR values drawn sooner may be falsely elevated by rivaroxaban) |
| apixaban | Stop rivaroxaban |
| dabigatran | Stop DOAC at time when next dose of rivaroxaban is due |
| edoxaban | Stop rivaroxaban |
| **Heparinoids/SC Agents** | | |
| **Heparin Infusion** | | |
| LMWH, subcutaneous | Stop heparin  
Start agent at time heparin infusion is stopped  
If more conservative strategy is preferred, start LMWH/SC agent 2 hours after heparin infusion is stopped |
| dabigatran | Stop heparin |
| apixaban | Start DOAC at the time of stopping heparin infusion |
| rivaroxaban | Stop heparin  
Start edoxaban 4 hours after stopping heparin infusion |
| edoxaban | Stop heparin  
Start edoxaban 4 hours after stopping heparin infusion |
| warfarin | Begin when clinically indicated  
Can overlap therapy to achieve therapeutic INR  
Heparin dosage should decrease as INR increases |
| argatroban/bivalirudin infusion | Stop heparin  
Start infusion immediately after heparin infusion is stopped. |
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| LMWH/ subcutaneous (Enoxaparin, Dalteparin, Fondaparinux) | heparin infusion | - Stop LMWH/SC agent  
- Start heparin infusion at time when next dose of LMWH/SC agent is due |
|                             | dabigatran                            | - Stop LMWH/SC agent                                          |
|                             | rivaroxaban                           | - Start DOAC ≤2 hours prior to the time of the next scheduled dose of LMWH/SC agent |
|                             | apixaban                              | - Stop LMWH/SC agent                                          |
|                             | edoxaban                              | - Start DOAC at time when next dose of LMWH/SC agent is due    |
|                             | warfarin                              | - Begin when clinically indicated  
- Can overlap therapy to achieve goal INR                      |
|                             | argatroban/bivalirudin infusion       | - Stop LMWH/SC agent  
- Start bivalirudin infusion at time when next dose of LMWH/SC agent is due |
| **Vitamin K Antagonists**   |                                       |                                                                  |
| Warfarin                    | heparin, argatroban, or bivalirudin infusion | - Stop warfarin  
- Initiate infusion when INR < 2                               |
|                             | LMWH/subcutaneous agents (enoxaparin, fondaparinux, dalteparin) | - Stop warfarin  
- Initiate agent when INR is 2                                 |
|                             | dabigatran                            | - Stop warfarin  
- Start dabigatran when INR < 2                                |
|                             | rivaroxaban                           | - Stop warfarin  
- Start rivaroxaban when INR < 3                                |
|                             | apixaban                              | - Stop warfarin  
- Start apixaban when INR < 2                                   |
|                             | edoxaban                              | - Stop warfarin  
- Start edoxaban when INR ≤ 2.5                                  |
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| **Bivalirudin**                  | **LMWH/subcutaneous agents**           | If HIT has been ruled out, stop bivalirudin  
Start heparin infusion immediately after bivalirudin infusion is stopped. Consider renal function in making decision.  
|                                 | (enoxaparin, fondaparinux, dalteparin) |                                                                                         |
| **Angiomax**                     | **warfarin**                           | Begin when clinically indicated  
Can overlap therapy to achieve therapeutic CFX  
Bivalirudin dosage should decrease as CFX decreases |
|                                 | **dabigatran**                         | Stop bivalirudin  
Start dabigatran at the time of stopping bivalirudin |
|                                 | **apixaban**                           | Stop bivalirudin  
Start apixaban at the time of stopping bivalirudin |
|                                 | **edoxaban**                           | Stop bivalirudin  
Start edoxaban at the time of stopping bivalirudin |
|                                 | **rivaroxaban**                        | Stop bivalirudin  
Start rivaroxaban 4 hours after stopping bivalirudin |
| **Argatroban**                   | **heparin infusion**                  | If HIT has been ruled out, stop argatroban  
Start heparin infusion immediately after argatroban is stopped. Consider hepatic function in making decision. |
|                                 | **LMWH, subcutaneous**                | If HIT has been ruled out, stop argatroban  
Administer LMWH immediately after argatroban infusion is stopped. Consider hepatic function in making decision. |
|                                 | **warfarin**                           | Begin when clinically indicated  
Can overlap therapy to achieve therapeutic CFX  
Argatroban needs should decrease as CFX decreases |
|                                 | **dabigatran**                         | Stop argatroban  
Start dabigatran at the time of stopping argatroban |
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| **Argatroban**| apixaban     | - Stop argatroban  
               | - Start apixaban at the time of stopping argatroban            |
|               | edoxaban     | - Stop argatroban  
               | - Start edoxaban at the time of stopping argatroban            |
|               | rivaroxaban  | - Stop argatroban  
               | - Start rivaroxaban 4 hours after stopping argatroban          |

* Direct Oral Anticoagulant

** For patients with end-stage renal disease or on intermittent or chronic hemodialysis it is recommended to use warfarin instead of a Direct Oral Anticoagulant (i.e. dabigatran, apixaban, edoxaban, rivaroxaban)
Dosing Information for DOACs

For detailed prescription information, refer to the manufacturer’s package insert for each medication.

Disclaimer
Guidelines are not meant to replace clinical judgment or professional standards of care. Clinical judgment must take into consideration all the facts in each individual and particular case, including individual patient circumstances and patient preferences. They serve to inform clinical judgment, not act as a substitute for it. These guidelines were developed by a Review Organization under Minn. Statutes §145.64 et. seq., and are subject to the limitations described as Minn. Statues §145.65.

References