Bridging while using DOACs

- Consists of Dabigatran, apixaban, rivaroxaban, edoxaban and betrixaban
- Direct oral anticoagulants are used for stroke prevention in atrial fibrillation, VTE treatment, and VTE prophylaxis in patients with hip or knee replacement
- When we had warfarin as our only oral anticoagulant, warfarin would take a long time to take effect and we would bridge with enoxaparin or heparin until INR was therapeutic
- Bridging has never been studied with DOACs
- No need to bridge with DOACs because the peak concentration of a DOAC would be sooner than enoxaparin

Drug	Peak Time
Apixaban	3 to 4 hours
Dabigatran	1 hour; may be delayed with food by 1 hour
Rivaroxaban	2 to 4 hours
Enoxaparin	3 to 5 hours
Heparin IV	Immediate

- Although the peak with IV heparin would be immediate, but we must closely monitor aPTT levels to make sure they are therapeutic and that may take a while
- Reason to believe that bridging with DOAC may have an additive effect and may anticoagulate patients too much
- Recommend **transitioning** from parenteral to DOACs
    - Rivaroxaban
        - **Transitioning from LMWH to rivaroxaban**: Start rivaroxaban within 2 hours prior to the next scheduled dose of the parenteral agent.
        - **Transitioning from argatroban, bivalirudin, or unfractionated heparin (UFH) continuous infusion to rivaroxaban**: Start rivaroxaban when the parenteral anticoagulant infusion is stopped

- Apixaban
    - **Transitioning from LMWH or fondaparinux (therapeutic dose) to apixaban**: *General transition recommendation:* Initiate apixaban at the time of the next scheduled dose of the parenteral anticoagulant
    - **Transitioning from unfractionated heparin continuous infusion to apixaban:** Start apixaban when the parenteral anticoagulant infusion is stopped
- Dabigatran
    - **Transitioning from low molecular weight heparin or fondaparinux (therapeutic dose) to dabigatran**: Initiate dabigatran within 2 hours prior to the time of the next scheduled dose of the parenteral anticoagulant.
    - **Transitioning from unfractionated heparin continuous infusion to dabigatran**: Start dabigatran when unfractionated heparin is stopped

1. Lexicomp. Online, Hudson, Ohio: Lexi-Comp, Inc; 2020, January 14, 2020.
2. Burnett AE, Mahan CE, Vazquez SR, Oertel LB, Garcia DA, Ansell J. Guidance for the practical management of the direct oral anticoagulants (DOACs) in VTE treatment. *J Thromb Thrombolysis*. 2016;41(1):206–232. doi:10.1007/s11239-015-1310-7