EM Cases Course 2017
Anticoagulants & Bleeding

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Podcasts to listen to prior to the course

Link to: DOACs Use & Misuse
Link to: DOCAs Bleeding & Reversal
Link to: Anticoagulants, PCCs & Platelets podcast
Link to: Ian Stiell on Atrial Fibrillation Guidelines

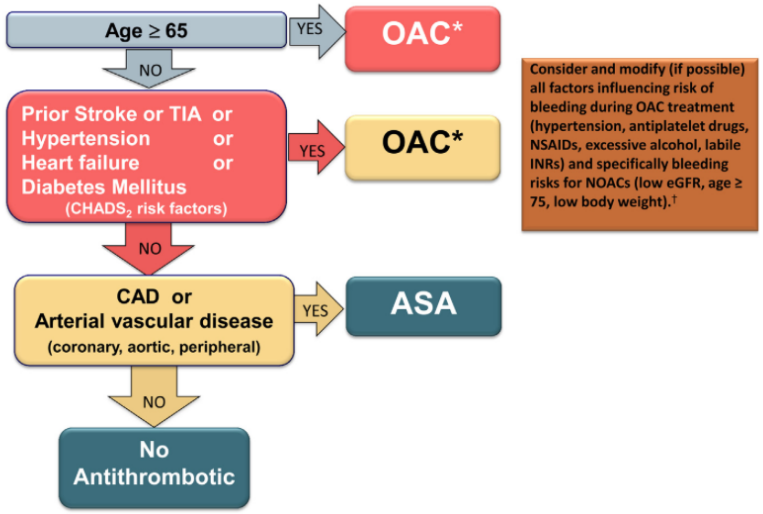
A shift rarely goes by when we don't see a patient who is bleeding while on anticoagulants or requires anticoagulants to treat/prevent thromboembolism. With many newer anticoagulants now on the market the management of these patients can be challenging, and the reversal of these agents near impossible. In this module Dr. Himmel and Dr. Ivankovic will guide you through discussions around these issues with cases on atrial fibrillation, managing DVTs, and reversing Direct Oral Anticoagulants (DOACs) in bleeding patients.

Case 1: Atrial Fibrillation

A 66y/o woman with a history of atrial fibrillation and no other medical problems comes in with 40-hour history of palpitations and no other symptoms. Her HR 130-145, BP is 110/70. She takes a "baby aspirin" everyday for primary prevention.

Q1: How do you risk stratify your patients with atrial fibrillation in terms of their risk of stroke and 30 day mortality?

The "CCS Algorithm" for OAC Therapy in AF



Q2: At what time since the onset of symptoms would you avoid cardioversion?

JACC Finnish study on Thromboembolic Complication After Cardioversion of Acute Atrial Fibrillation that challenges the 48 hour safety rule Full pdf

Q4: Would you start this patient on an anticoagulant in the ED or arrange follow-up when the decision can be made? Which anticoagulant? How would you dose a DOAC?

DOAC dosing for atrial fibrillation should be adjusted according to the patient's age, weight and creatinine clearance as opposed to dosing for venous thromboembolism which is fixed.

Thrombosis Canada App for dosing DOACs in atrial fibrillation.

Q: What is the risk of bleeding in this patient?

HAS BLED mnemonic for bleeding risk: HTN, Abnormal renal or liver function, Stroke, Bleeding history, Labile INR, Elderly ≥65yo, Drugs that promote bleeding or excess alcohol use – Score ≥3 means higher (3.7%) risk of major bleeding

Q: What other factors do you need to take into account before starting patients on a DOAC?

Case 1 continued

The patient returns to your ED after being a given a script for apixiban with severe epistaxis that you having trouble controlling with silver nitrate and a nasal tampon.

Q: Is this patient low, moderate or high risk for a poor outcome from bleeding?

Q: Would you stop and/or reverse the DOAC? How would you manage this patient?

Q: What are the indications for reversing a DOAC?

Case 2: DVT

A 55y/o man comes in a few days after a transatlantic flight with a swollen tender calf. His venous Doppler ultrasound shows an isolated below knee DVT.

Q: How would you manage this patient? If you used a DOAC how would you dose it?

Q: How would you manage this patient if the ultrasound was not available until the next day?

Q: How would you manage this patient if the ultrasound was negative but he complained of painful superficial thromboembolism?

Case 3: Massive GI Bleed on Rivaroxiban

A 46y/o man on rivaroxiban for recurrent DVTs comes in with near-continuous hematemesis for several hours. He admits to drinking alcohol regularly. His HR is 140, BP 100/50, GCS 14. Hb = 72 INR = 3.

Q: Does this patient require a red cell transfusion?

Q: Is there a blood test you can do to see if the DOAC is exerting an anticoagulation effect?

Q: How would you manage the bleeding?

Q: Would you attempt to reverse the Rivaroxiban? How?

Q: Is there a role for tranexamic acid in this patient?

Q: The ICU doc is busy and asks you to place a central line? Will you do it? Or is the bleeding risk too high? Which procedures are contraindicated in patients taking anticoagulants?

Frist Line Medications for DOAC Reversal

For Xa inhibitors apixaban or rivaroxaban

First line: *4-factor PCC* (Octaplex, Beriplex, Kcentra) at a dose of 50 IU/kg up to 2,000 units.

For Dabigitran

First Line: Idarucizumab (Praxbind)

References

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