

Internal Medicine Center, Summa Health System
Didactic Case: Anticoagulation/CHEST Guidelines 2016 Pharmacology and Management of Vitamin K Antagonists

A 45 year old African American female presents to the IMC Anticoagulation Clinic. She was just discharged two days ago from a long stay at Akron City Hospital where she developed a LLE DVT, and was given dalteparin with instructions to follow up in the IMC Anticoagulation Clinic for further treatment and follow up. You are the resident in the Anticoagulation Clinic today and are given the responsibility to dose her warfarin.

PMH: DVT, asthma, HTN, DM, hyperlipidemia, last menstrual period 2 weeks ago
All: NKDA

Medications: Albuterol MDI 2 puffs q4h prn, Advair 250/50 1 puff BID, lisinopril 40 mg po daily, hydrochlorothiazide 25 mg po daily, metformin 1000 mg po BID

SH: Denies smoking and illicit drug use, but drinks about 2-Colt 45 cans every night. She recently changed her cooking habits saying that the family needed to eat healthier, and has been eating more salad lately.

FH: Mother alive with HTN. Father alive with DM and HTN.

Vitals: T 97.5, HR 80, BP 126/76, RR 14, Ht 72 in, Wt 300 lb., BMI 40.8 kg/m²

PE: normal except for back of left leg red, inflamed, painful

1. What other non-vitamin K oral anticoagulant agents are now available options for DVT treatment as mentioned in the ACCP Chest Guidelines from 2016? What are the doses for VTE treatment? What major drug interactions are present with these agents? (CHEST 2016 pg 2 and lexi-comp)

CHEST 2016 <http://journal.publications.chestnet.org/data/Journals/CHEST/934919/11026.pdf>

Use the ACCP Chest Guidelines from 2008 (Pharmacology and Management of Vitamin K Antagonists) and 2012 (Pharmacology and Management of the Vitamin K Antagonists) to help answer the following questions:

CHEST 2008 <http://www.sciencedirect.com/science/article/pii/S0012369208601178>

CHEST 2012 <http://journal.publications.chestnet.org/data/Journals/CHEST/23443/112292.pdf>

2. This is a female patient who is currently still having her menstrual period. What needs to be confirmed before starting this patient on warfarin? (answer in lexi-comp)

3. When do you want to start warfarin? How long should the patient be bridged with dalteparin? (CHEST 2008 pg 170s-172s)

4. What would be an appropriate starting dose of warfarin for this patient? What if the patient was 75 years old? (CHEST 2012 pg 52-53s)

5. What test is used to monitor patients' response to warfarin for subsequent dosage adjustments? What is the therapeutic range for this patient? Is that goal different for other diagnoses? (CHEST 2012 pg 57s-58s)

6. When would you want to follow up with this patient again? After the patient is stable, when would you want to follow up in the Coumadin clinic? When should dalteparin be stopped? (CHEST 2008 pg 173s-174s)

7. After making your dosage adjustment for this patient, what specific counseling points would you give her? What questions would you want to be sure to ask at each follow up visit in the Anticoagulation Clinic? (look in eCW for the anticoagulation history template or in lexi-comp)

8. What advice would you give this patient about diet and alcohol intake?

9. What affect does acute binge drinking vs. chronic alcoholism have on the INR?

10. After you have just gotten the patient's INR at goal, the patient develops a UTI and is placed on sulfamethoxazole/trimethoprim (Bactrim) by the PCP. How does Bactrim affect warfarin and the INR? How will you deal with the drug interaction? (Answer in lexi-comp)

11. Despite your recommendation to use another antibiotic, Bactrim was continued by the PCP. The patient comes in for her regularly scheduled anticoagulation clinic visit and reports nose bleeds for the last 2 days. Her INR is 10. Would you give vitamin K? If so, what dose? If not, what course of action would you take? When would you follow up with this patient? How long will it take to get back to a therapeutic INR for this patient after warfarin is restarted? (CHEST 2012 pg 59s-62s)

12. The patient presents to the Coumadin clinic a few months later and tells you that she is scheduled for an elective breast reduction in two weeks and wants to know if she should stop her warfarin therapy. What tool could be used to assess this patients' risk for perioperative thromboembolism?

See the link below from the 2012 Chest Guidelines in perioperative management of warfarin patients to help with the answer: (pg 330s)

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3278059/>