

FOUNDATION SEMINAR IN SURGERY AND PERIOPERATIVE MEDICINE

**Case Study 3: Warfarin**

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*Reviewed by the SHPA Surgery and Perioperative Specialty Practice Stream Leadership Committee, February 2019*

**Mr RH is a 67-year old male with a past medical history of gout, atrial fibrillation, high cholesterol, peripheral vascular disease and diabetes. His current medications include irbesartan 150mg daily, atorvastatin 40mg daily, allopurinol 100mg daily, linagliptin 5mg daily, gliclazide 40mg daily and warfarin (Coumadin) 7mg daily.**

**He is referred to the hospital by the community nurse who has concerns about his chronic diabetic foot ulcer. The nurse has visited Mr RH three times a week to dress the wound on his toe but it now looks infected and is discharging pus.**

**Upon arrival at hospital the vascular surgeons decide that RH will need to have a washout and debridement of his diabetic foot ulcer and a potential amputation of his 5th toe.**

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Question 1: How would you manage RH’s warfarin prior to semi-urgent surgery? How would you assess his thromboembolic risk?

**If RH is a high thromboembolic risk (CHADS2 = 5-6) he will likely require bridging anticoagulation.**

Question 2: What medications can be used for bridging anticoagulation? What medication and doses would you recommend? What additional information do you require?

**Pathology results indicate RH has chronic renal impairment, with a baseline Serum Creatinine of 350micromol/L. He is 195cm tall and weighs 123kg. His INR on admission to hospital is 4.3. He tells you his GP prescribed ciprofloxacin 250mg BD for the past two weeks for his diabetic foot infection, but he has not been able to get his INR checked over the two-week Christmas/New Year period.**

Question 3: Would you change your recommendations for bridging anticoagulation given this additional information?

**The vascular surgeons prescribe enoxaparin 120mg subcutaneously once daily, to start when INR <2.0. His warfarin is withheld. They decide to change his antibiotics to IV piperacillin-tazobactam, and delay surgery for a few days to allow warfarin to washout.**

Question 4: What is the recommended time interval between the last dose of anticoagulation and surgery? Consider both heparin infusion and LMWH.

**His surgery is successful, requiring only a washout and debridement, and amputation is avoided.**

Question 5: When it is considered safe/appropriate to restart anticoagulation after surgery? What factors influence the decision to start prophylactic versus therapeutic dose anticoagulation?