Case A

A 45-year-old man involved in a motor vehicle accident suffers a right humerus fracture and multiple rib fractures along with a tension pneumothorax. He is admitted to the surgical ICU following surgery and chest tube placement. On hospital day five, the anticipated day of discharge, he is noted to have a slightly swollen ankle. A venous duplex study reveals an acute 2cm non-occlusive DVT in his posterior tibial vein without any proximal thrombi identified. He is ambulating independently and expected to spend the majority of the day out of bed over the subsequent weeks.

IF – How would you classify this VTE (acuity, severity, provocation, location)? Do you want to initiate anti-coagulation?

WHERE – What setting (inpatient or outpatient) would you initiate treatment?

WHICH – Which anticoagulation agent would you use to initiate anticoagulation?

HOW LONG – Based on the brief history is this patient more appropriate for 3 months of anticoagulation or indefinite anticoagulation?

TAKE HOME POINTS

1. Low risk below the knee DVT may be re-evaluated with repeat duplex in 1-2 weeks before starting anticoagulation.
2. An uncomplicated PE with a PESI score below 85 may be managed as an outpatient.
3. DOACs are first line treatment of stable non-cancer associated VTEs.
4. Unprovoked VTEs without high bleed risk should receive indefinite anticoagulation.

Case B

An 82-year-old man with COPD and recent diverticular bleed presents to the ED with increased shortness of breath and left-sided pleuritic chest pain. HR is 95bpm, BP 120/80 and SpO2 92%. His ECG reveals sinus tachycardia and CXR with slightly increased lung volumes but otherwise unremarkable. He is found to have multiple left-sided segmental PEs on a chest CTA. He denies any recent history of prolonged travel, surgery or immobility.

IF – How would you classify this VTE (acuity, severity, provocation, location)? Do you want to initiate anti-coagulation?

WHERE – What setting (inpatient or outpatient) would you initiate treatment?

WHICH – Which anticoagulation agent would you use to initiate anticoagulation?

HOW LONG – Based on the brief history is this patient more appropriate for 3 months of anticoagulation or indefinite anticoagulation?

TAKE HOME POINTS

1. Low risk below the knee DVT may be re-evaluated with repeat duplex in 1-2 weeks before starting anticoagulation.
2. An uncomplicated PE with a PESI score below 85 may be managed as an outpatient.
3. DOACs are first line treatment of stable non-cancer associated VTEs.
4. Unprovoked VTEs without high bleed risk should receive indefinite anticoagulation.

Case C

A 38-year-old woman presents to the ED with three days of right-sided chest pain and shortness of breath. She is afebrile, HR 100bpm, BP 110/75, SpO2 94%. Her CXR, ECG, and troponins are unremarkable. A CT PE reveals two sub-segmental PEs in the right lower lung base. When asked, she admits to possibly having slight swelling in her right leg last week. She denies any recent history of prolonged travel, immobilization or surgery. She is pre-menopausal and not on hormonal birth control. Her mother had an unprovoked VTE at age 48, it is unknown if she has an inheritable hypercoagulation mutation.

IF – How would you classify this VTE (acuity, severity, provocation, location)? Do you want to initiate anti-coagulation?

WHERE – What setting (inpatient or outpatient) would you initiate treatment?

WHICH – Which anticoagulation agent would you use to initiate anticoagulation?

HOW LONG – Based on the brief history is this patient more appropriate for 3 months of anticoagulation or indefinite anticoagulation?

TAKE HOME POINTS

1. Low risk below the knee DVT may be re-evaluated with repeat duplex in 1-2 weeks before starting anticoagulation.
2. An uncomplicated PE with a PESI score below 85 may be managed as an outpatient.
3. DOACs are first line treatment of stable non-cancer associated VTEs.
4. Unprovoked VTEs without high bleed risk should receive indefinite anticoagulation.

Case D

A 65-year-old man with prostate cancer metastatic to his spine presents to clinic with increased swelling and mild pain in his LEFT leg over the past week. The RIGHT leg is unchanged, and he is still able to walk on both feet. He denies shortness of breath, orthopnea/PND, significant weight gain, fevers or chills. He lives with his wife who is healthy and available to take care of him 24/7. A lower extremity duplex reveals an acute occlusive DVT in the left common femoral vein.

IF – How would you classify this VTE (acuity, severity, provocation, location)? Do you want to initiate anti-coagulation?

WHERE – What setting (inpatient or outpatient) would you initiate treatment?

WHICH – Which anticoagulation agent would you use to initiate anticoagulation?

HOW LONG – Based on the brief history is this patient more appropriate for 3 months of anticoagulation or indefinite anticoagulation?

TAKE HOME POINTS

1. Low risk below the knee DVT may be re-evaluated with repeat duplex in 1-2 weeks before starting anticoagulation.
2. An uncomplicated PE with a PESI score below 85 may be managed as an outpatient.
3. DOACs are first line treatment of stable non-cancer associated VTEs.
4. Unprovoked VTEs without high bleed risk should receive indefinite anticoagulation.