



## Week 4: Adverse Drug Events - Anticoagulants

### Monday

An adverse drug event (ADE) is harm that results from medication use. These events can be due to allergic reactions, side effects, overmedication and medication errors. Anticoagulant medications are necessary for the treatment of some conditions but are also a leading cause of ADEs resulting in ER visits or hospitalization.

**Review ADE risk factors and sign/symptoms on this [Anticoagulant Antithrombotic Tip Sheet](#).**

**Also, review the Centers for Disease Control and Prevention's (CDC) [Adverse Drug Events in Adults](#) for more safety information.**

#### Anticoagulant/Antithrombotic Tip Sheet for Frontline Nursing and CMT Staff

##### Risk Factors

These increase the potential for ADEs. Multiple factors increase risk.

- **Bleeding**
  - Anticoagulant, antiplatelet or thrombolytic medication use
  - Concurrent use of more than one antithrombotic medication (e.g., use of aspirin while on anticoagulants)
  - History of stroke or GI bleed
  - NSAID medication use while on anticoagulants
  - Antibiotic use while on anticoagulants
  - Amiodarone use while on anticoagulants
  - Dietary changes affecting vitamin K intake (e.g., dark leafy greens)
- **Thromboembolism**
  - Anticoagulant medication use
  - Prolonged immobility
  - Recent major surgery
  - Prior history of venous thromboembolic events
  - Consistently subtherapeutic PT/INR

##### Signs & Symptoms

Any of these may indicate an ADE may have occurred.

- **Bleeding**
  - Elevated PT/INR, PTT
  - Low platelet count
  - Bruising
  - Hematocrits
  - Bleeding gums
  - Prolonged bleeding from wound, IV or surgical sites
  - Blood in urine, feces or vomit
  - Coughing up blood
  - Abrupt onset hypotension



### Tuesday

How do you know who is at risk for ADEs related to anticoagulants? Are new orders or changes to orders for anticoagulant medication use included in hand-off reports? Are abnormal lab results included in hand-off reports? Do the staff providing care review resident care plans related to risks due to anticoagulant medication use?

**Consider reviewing new resident admissions anticoagulant medications and potential or observed side effects at stand-up meetings.**



## Wednesday

Are residents and families educated about anticoagulant use?

Knowledge of risk factors, signs and symptoms of ADEs, and the best ways to stay safe can prevent ADEs and assist with early identification.

**Review your policy for medication education.** [Blood Thinner Pills: Your Guide to Using Them Safely](#) provides resources for educating residents and families.



## Thursday



Assessment and monitoring play a big part in preventing and identifying ADEs. Residents should be assessed regularly for bruising, bleeding, fall risk and new pain. Lab work must also be ordered, completed and reordered regularly.

**Discuss the methods your facility uses to ensure assessment and monitoring.**

Does the physician or pharmacist use standardized protocols to monitor and adjust medication doses? Are dosages adjusted with weight loss or gain? Are medications reviewed for interactions when new medications are ordered?

## Friday

Evaluating your facility's anticoagulant program can assist you with identifying and addressing opportunities for improvement.

This [Anticoagulant Adverse Drug Events Self-Assessment](#) provides a checklist for anticoagulant programs.

**Discuss the questions as a team and use the Plan-Do-Study-Act Worksheet to work toward improvements.**

### Anticoagulant Adverse Drug Events Self-Assessment

Complete each field below to assess your organization's commitment to preventing anticoagulant ADEs. Download the [Plan-Do-Study-Act Worksheet](#) to assist in your improvement efforts.

What are your program strengths?			
What areas need improvement?			
Are you willing to commit to implementing or reviewing your existing huddle process with direct care staff?			
Question (Check the "Y" and/or "NI" boxes to designate "Yes" and/or "No Improvement")	Y	NI	Comments
Does the medical record include documentation of clinical indication?			
Is there a system to ensure lab results, including PT/INRs, are routinely monitored and appropriately communicated to the physician, including when subtherapeutic and panic values are obtained?			
Is there a system to alert prescribers and nursing staff when anticoagulants are combined with other drugs that increase risk of bleeding?			
When instability in PT/INRs are found, is there a system to include review of dietary intake for foods that may interact with anticoagulants?			
Are caregivers educated on risk factors and signs/symptoms that may be indicative of excessive bleeding and thromboembolism?			
Are residents/families educated regarding the risks associated with anticoagulant use and the signs and symptoms of excessive bleeding?			

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