An Inpatient Perspective on the Joint Commission National Patient Safety Goal on Anticoagulation Therapy (03.05.01)

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Declaration of Conflicts of Interest: Nothing to disclose

Learning Objectives

• Describe the expectations of the Joint Commission’s (TJC) National Patient Safety Goal (NPSG) 03.05.01 on anticoagulation therapy.

• Outline strategies for successful compliance with NPSG 03.05.01 and give examples of effective quality monitoring techniques.

• Describe challenges to implementation of NPSG 03.05.01 as it relates to the inpatient hospital setting.

National Patient Safety Goal
03.05.01

Reduce the likelihood of patient harm associated with the use of anticoagulant therapy.

One year phase-in period in 2008 with the expectation of full implementation by January 1, 2009
The Rationale

Anticoagulation therapy poses risks and leads to adverse drug events due to:

- Complex dosing
- Requisite follow-up monitoring
- Inconsistent patient compliance

The Rationale

The use of standardized practices that include patient involvement can reduce the risk of adverse drug events associated with:

- Heparin (unfractionated)
- Low Molecular Weight Heparin (LMWH)
- Warfarin

Question

True or False

Argatroban and fondaparinux are included in NPSG 03.05.01.

False
Application

NPSG 03.05.01 (formerly Goal 3E)
– Applies only to organizations that provide anticoagulation therapy and long-term anticoagulation prophylaxis where the patient’s lab values will remain outside normal values.
– Does not apply to short-term Venous Thromboembolism (VTE) prophylaxis when the lab values for coagulation will remain within, or close to, normal values.
– Does not apply to line-maintenance, flushes, subcutaneous heparin for prophylaxis.

The Joint Commission Key

Scoring information is indicated using the following symbols:
A - scoring category A  EP 1, 2, 4, 6, 7, 9
C - scoring category C  EP 3, 5, 8
⚠️ - situational decision rules apply
⚠️ - direct impact requirements apply
⚠️ - Measure of Success is needed
EP - Element of Performance

Documentation information is indicated using the following symbol:
⚠️ - documentation is required

Element of Performance 1

⚠️ A
The hospital implements a defined anticoagulation management program to individualize the care provided to each patient receiving anticoagulant therapy.
Element of Performance 1

- Anticoagulation committee
  - Identify resources
  - Develop processes, policies, and protocols
  - Outline responsibilities
- Implement an inpatient anticoagulation program that works for your hospital
- Transition patients to outpatient setting

Challenge 1

Involving all appropriate hospital services in the development of the program
- Pharmacy, Nursing, Medicine
- Nutrition Service
- Systems Personnel
- Patient Education
- Performance Improvement
- Laboratory Department

Challenge 2

Choosing the type of anticoagulation program that works best for your hospital
- Consult service
- Pharmacy dosing service
- Support structure for physicians
- Daily monitoring
  - All inpatient pharmacists involved
  - Anticoagulation pharmacists
Element of Performance 2

To reduce compounding and labeling errors, the hospital uses only oral unit dose products, pre-filled syringes, or pre-mixed infusion bags when these types of products are available.

Note: For pediatric patients, pre-loaded syringe products should only be used if specifically designed for children.

Element of Performance 2

- Streamline available anticoagulants on formulary
- Purchase and dispense unit dose dosage forms, pre-filled syringes, pre-mixed infusion bags
- Limit and standardize heparin concentrations
- Use separate drawers and clearly label anticoagulants

Element of Performance 3

The hospital uses approved protocols for the initiation and maintenance of anticoagulation therapy appropriate to the medication used, to the condition being treated, and to the potential for medication interactions.
**Element of Performance 3**

**Documentation is Required**

- Evidence based protocols for warfarin, LMWH, and weight-based IV heparin
- Others: peri-procedural bridging, vitamin K, protamine, fondaparinux, HIT
- Approve documents

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**Question**

*True or False*

The anticoagulation policy should be approved and signed.

*True*

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**Challenge 3**

*Ensuring that the policies and protocols are actually followed by clinical staff*

- Documents available
  - electronically
  - central location
- Pocket guides and handouts
- Prescribers and staff education
- Electronic ordering menus reflective of protocols
Lab Requirements

Element of Performance 4

For patients starting on warfarin, a baseline International Normalized Ratio (INR) is available, and for all patients receiving warfarin therapy, a current INR is available and is used to monitor and adjust therapy.

Element of Performance 4

- Define baseline and current INR
- Retrieve laboratory (lab) test results
- Increase awareness of INR requirements
Question

True or False

Having a baseline or a current INR ordered is sufficient.

False

Element of Performance 5

When dietary services are provided by the hospital, the service is notified of all patients receiving warfarin and responds according to its established food/medication interaction program.

Element of Performance 5

- Nutrition service involvement
- System of notification
  - Generate a daily list
  - Pharmacy to call
  - Electronic alerts
  - Consult service
- Nutrition to educate patients, provide written materials, and interview for food preferences
When heparin is administered intravenously and continuously, the hospital uses **programmable infusion pumps** in order to provide consistent and accurate dosing.

**Element of Performance 6**

- Includes “smart pumps”
- Prevents use of gravity systems
- Prevents use of elastomeric disposable pumps used in the home

**Additional measures:** lock heparin pumps, require independent double checks, restrict patients to their units unless escorted

**Element of Performance 7**

The hospital has a **written policy that addresses baseline and ongoing laboratory tests** that are required for **heparin and low molecular weight heparin** therapies.
Element of Performance 7

Documentation is Required

- Written policy defining required baseline/current lab tests
- Baseline/current lab tests:
  - Heparin: CBC with platelets daily, aPTT baseline and every 6 hours x 2, then every 24 hours
  - LMWH: CBC with platelets every 3 days, creatinine and weight weekly

Challenge 4

Adhering to the established lab test requirements

- Reminders listed with medication order
- Automatic lab test order set
- Give pharmacists and/or nurses the authority to order lab tests
- Regularly meet with lab and phlebotomy
- Educate

Element of Performance 8

The hospital provides education regarding anticoagulation therapy to prescribers, staff, patients, and families.

Note: Patient/family education includes the importance of follow up monitoring, compliance issues, dietary restrictions, and potential for adverse drug reactions and interactions.
Element of Performance 8
Prescribers and Staff
• Mandatory online training module
• In-service presentations or lectures
• Newsletters
• Continuing medical education
• Case presentations
• Measure competency

Challenge 5

_Education for medical students, interns, residents, and fellows that rotate frequently through the hospital_
• Provide anticoagulation education at mandatory orientation sessions (require signing-in)
• Provide in-service presentations
• Present anticoagulation cases at “morning report” or “grand rounds”
• Develop a pocket guide containing protocols

Physician Anticoagulation Pocket Guide
Element of Performance 8

Patients and Families

• Determine who will conduct the education
• Provide:
  – verbal counseling
  – written information
  – education classes
  – discharge counseling and kits
  – training for LMWH injections

Element of Performance 9

A

The hospital evaluates its anticoagulation safety practices, takes appropriate action to improve its practices, and measures the effectiveness of those actions on a regular basis.
Element of Performance 9

- Random assessments
- Quality monitoring
  - At baseline
  - Regularly (monthly, quarterly, yearly)
- Choose sample size (~10%)

Element of Performance 9

- Data collection
  - Outcomes (elevated or sub-therapeutic INRs, critical lab values)
  - Compliance (to policy and protocols)
  - Documentation (patient education, nutrition)
  - Safety (bleeding, VTE, medication events, adverse reactions, near misses, trigger drugs)
- Sign-in sheets or online tracking for education □ EP 8

Post-Test Question 1

Which of the following statements about NPSG 03.05.01 is true?
A. Hospitals are required to have an inpatient anticoagulation program that monitors subcutaneous heparin for VTE prophylaxis
B. Pharmacists are required to be in charge of managing the inpatient anticoagulation program
C. If a warfarin order calls for ½ tablet, the proper way of dispensing would be to cut the tablet in the pharmacy, pre-package it, and send to floor
D. Patient education is only required for patients on warfarin
**Post-Test Question 2**

Possible strategies for compliance with prescriber and staff education include all of the following, except:

A. Develop a required online training module on anticoagulation therapy
B. Trust that they learned about anticoagulation in school
C. Provide in-service presentations
D. Develop and provide an anticoagulation pocket-guide

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**Thank you!**

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**References**

3. The Joint Commission. 2009 Standards Frequently Asked Questions. NPSG.03.05.01 on Anticoagulation Therapy. Available from: URL: http://www.jointcommission.org/AccessPrograms/HomeCareStandards/pdf/FAQs/PatientSafety/2009NPSG03.05.01/2009NPSG03.05.01AnticoagulationTherapy.pdf [accessed January 2009]
References


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Post-Test Questions
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1. Which of the following statements about NPSG 03.05.01 is true?
   A. Hospitals are required to have an inpatient anticoagulation program that monitors subcutaneous heparin for VTE prophylaxis
   B. Pharmacists are required to be in charge of managing the inpatient anticoagulation program
   C. If a warfarin order calls for ½ tablet, the proper way of dispensing would be to cut the tablet in the pharmacy, pre-package it, and send to floor
   D. Patient education is only required for patients on warfarin

2. Possible strategies for compliance with prescriber and staff education include all of the following, except:
   A. Develop a required online training module on anticoagulation therapy
   B. Trust that they have learned about anticoagulation in school
   C. Provide in-service presentations
   D. Develop and provide an anticoagulation pocket guide