TITLE: **INPATIENT ANTICOAGULATION MONITORING POLICY**

PURPOSE: To outline requirements for baseline and ongoing laboratory tests for inpatients receiving anticoagulation therapy. This policy applies to pharmacists verifying orders for anticoagulants as well as those staffing the Anticoagulation Monitoring Service. Pharmacists may order laboratory tests according to this policy for patients ≥ 18 years old.

POLICY STATEMENT:

This policy was developed in March of 2009 in response to The Joint Commission's (TJC) National Patient Safety Goal on Anticoagulation (NPSG.03.05.01). The goal aims to reduce the likelihood of patient harm associated with anticoagulation therapy and is comprised of 8 Elements of Performance (EP) upon which institutions will be evaluated.

NPSG.03.05.01 EP #4

The hospital has a written policy addressing the need for baseline and ongoing laboratory tests to monitor and adjust anticoagulant therapy. For all patients receiving warfarin therapy, use a current INR to monitor and adjust dosage. For patients on a direct oral anticoagulant (DOAC), follow evidence-based practice guidelines regarding the need for laboratory testing.

POLICY ELABORATION:

I. WARFARIN

A. Initiation of Therapy

1. New orders for warfarin will include a baseline INR documented in the electronic medical record (EMR) within 48 hours prior to initiation. If not available, the verifying pharmacist will place order for INR, and assess results before order verification.

2. After baseline, INR will be checked on day 3 and daily thereafter until at least 2 consecutive therapeutic values are obtained. Once 2 consecutive therapeutic values (ex. 2.0 -3.0, or 2.5-3.5) are obtained, INRs will be checked at least twice weekly while the patient is hospitalized.

B. Chronic Use (Patient on warfarin prior to admission)

1. Patients admitted to the hospital who are already on warfarin at home will have INRs checked upon admission and at least twice weekly.

C. Monitoring Responsibility

1. Pharmacists verifying orders for warfarin are responsible for ensuring a baseline INR is documented in the EMR and assessed before verification. If a current INR is not available, the pharmacist will order the labs and assess results before verification.

2. The Anticoagulation Pharmacy Specialist (or designated alternate) is responsible for ensuring INRs are ordered appropriately thereafter. If an INR is not ordered appropriately, the pharmacist will place an order for it.

II. DIRECT ORAL ANTICOAGULANTS (DOACs)

A. Patients on a DOAC (e.g., apixaban or rivaroxaban) will have age, weight, baseline serum creatinine (SCr), hepatic function, and CBC documented in the EMR prior to initiation of therapy. Routine coagulation lab test monitoring is not recommended. Information on DOAC monitoring can be found in the evidence-based practice guidelines posted to the "Anticoagulation" section of the UHS Clinical Pathways and Guidelines page on the UHS intranet.

B. Monitoring Responsibility

Pharmacists verifying orders for a DOAC are responsible for ensuring baseline labs, age and weight are documented in the EMR and assessed before verification. If labs are not documented in the EMR, the pharmacist will order the appropriate labs and assess results before order verification. If age and weight are not available in the EMR, the pharmacist will contact the nurse to request they be entered.

III. UNFRACTIONATED HEPARIN (UFH)

A. Patient on UFH will have a weight and baseline CBC documented in the EMR prior to initiation of therapy. Platelet count monitoring to screen for heparin induced thrombocytopenia (HIT) and coagulation monitoring will be conducted as outlined in the evidence-based guidelines available on the "Anticoagulation" section of the Clinical Pathways and Guidelines page on the UHS intranet.

B. Monitoring Responsibility

Pharmacists verifying orders for UFH are responsible for ensuring a weight and baseline CBC are documented in the EMR and assessed before verification. The Anticoagulation Pharmacy Specialist (or designated alternate) is responsible for ensuring CBC and coagulation labs are monitored according to protocol thereafter. If labs or patient weight are not available, the pharmacist will order the appropriate labs and/or contact the nurse to request that the patients weight be documented.

IV. ENOXAPARIN AND FONDAPARINUX

A. Patients on enoxaparin and fondaparinux will have a weight and baseline SCr and CBC documented in the EMR prior to initiation. For enoxaparin, platelet count monitoring to screen for HIT and coagulation monitoring will be conducted as outlined in the evidence-based guideline available in the "Anticoagulation" section of the Clinical Pathways and Guidelines page on the UHS intranet.

B. Monitoring Responsibility

Pharmacists verifying orders for enoxaparin or fondaparinux are responsible for ensuring a weight and baseline SCr and CBC are documented in the EMR and assessed before verification. The Anticoagulation Pharmacy Specialist (or designated alternate) is responsible for ensuring CBC and coagulation labs are monitored according to evidence-based guidelines. If labs or patient weight are not

available, the pharmacist will order the appropriate labs and/or contact the nurse to request that the patients weight be documented.

V. ARGATROBAN

A. Patients on argatroban will have a weight and baseline SCr, CBC, partial thromboplastin time (PTT), INR, and LFTs documented in the EMR prior to initiation. CBC and PTT monitoring thereafter will be conducted according to the evidence-based guideline available on the ”Anticoagulation” section of the Clinical Pathways and Guidelines page on the UHS intranet.

B. Monitoring Responsibility

Pharmacists verifying orders for argatroban are responsible for ensuring a weight and required baseline labs are documented in the EMR and assessed before verification. The Anticoagulation Pharmacy Specialist (or designated alternate) is responsible for ensuring coagulation labs are monitored according to evidence-based guidelines thereafter. If labs or patient weight are not available, the pharmacist will order the appropriate labs and/or contact the nurse to request that the patients weight be documented.

REFERENCE:

Joint Commission on Accreditation of Healthcare Organizations. 2019 National Patient Safety Goals Manual Chapter. TJC web site.
http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/09_hap_npsgs.htm
Accessed February 2019.

OFFICE OF PRIMARY RESPONSIBILITY: Department of Pharmacotherapy and Pharmacy Services

POLICY AUTHORIZATION AND REVIEW FORM

POLICY NUMBER: 3.0117d

POLICY TITLE: INPATIENT ANTICOAGULATION MONITORING POLICY

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