DELEGATION PROTOCOL NUMBER: 12

DELEGATION PROTOCOL TITLE:
Pharmacist Management of Warfarin Delegation Protocol – Adult – Inpatient

DELEGATION PROTOCOL APPLIES TO:
UWHC Inpatient; specify: All adult inpatients

TARGET PATIENT POPULATION:
Adult inpatients initiated or managed on warfarin

DELEGATION PROTOCOL CHAMPIONS:
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RESPONSIBLE DEPARTMENT:
UWHC Department of Pharmacy

PURPOSE STATEMENT:
To establish collaboration between physicians and pharmacists for management of adult hospitalized patients receiving warfarin therapy. This protocol will delegate authority from a physician on the patient’s care team by placing the “Note: Warfarin Dosing by Pharmacy per Protocol” order to pharmacists to assess, dose adjust and monitor warfarin therapy.

WHO MAY CARRY OUT THIS PROTOCOL:
Inpatient clinical pharmacists licensed in the state of Wisconsin who practice on adult patient units with documented completion of warfarin training, a passing score on the warfarin competency and whom are trained in the use of the delegation protocol.

GUIDELINES FOR IMPLEMENTATION: (step by step instructions)
1. Physician Evaluation
   1.1 A physician may consult the pharmacist to dose warfarin via the order “Note: Warfarin Dosing by Pharmacy per Protocol”
   1.2 If the patient requires another form of anticoagulation such as unfractionated heparin or low molecular weight heparin the physician is responsible for ordering

2. Consulting Pharmacist
   2.1 The pharmacist is consulted to follow a patient’s warfarin when the order “Note: Warfarin Dosing by Pharmacy per Protocol” is received.
   2.1.1 Prior to accepting this order the pharmacist will verify that it was placed by a physician.
   2.2 If the order is received after 20:00 the patient may be assessed by the pharmacist the following day and the physician will be responsible for that evening’s warfarin dose.
   2.2.1 The pharmacist will contact the ordering physician for the warfarin order if not provided.
   2.3 Indication for anticoagulation and target INR range must be identified within the order.
   2.4 A STAT PT/INR, CBC, and PLT count will be ordered prior to initiation of anticoagulation if not already resulted.

3. Daily Management
   3.1 Warfarin patients will be monitored daily by the pharmacist as per directed by the UWHC Guidelines for Inpatient Warfarin Management in Adult Inpatients

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3.2 A consult note and warfarin order will be placed once the patient has been completely assessed for initiation or continuation of warfarin therapy. Additional notes and orders will be completed when needed to communicate changes in dosing strategies.

3.3 Warfarin orders will be placed per protocol by the pharmacist no later than 17:00.

3.4 The consulting pharmacist will order a nutrition consult, if not already ordered.

4. Laboratory Monitoring
   4.1 A baseline INR must be resulted prior to the verification of the first dose of warfarin
   4.1.1 A baseline INR for pre-operative patients must be within the past 30 days
   4.1.2 A baseline INR for non-surgical patients must be within 72 hours of warfarin initiation
   4.2 A current INR must be resulted prior to the verification of a warfarin dose adjustment
   4.2.1 A current INR is reported on the same calendar day as the scheduled warfarin dose
   4.3 Pharmacists have the authority to order labs and nursing contingency parameters required to appropriately monitor warfarin therapy as per directed by the UWHC Guidelines for Inpatient Warfarin Management in Adult Inpatients

5. Dosing Warfarin
   5.1 The pharmacist will dose warfarin as directed by the UWHC Guidelines for Inpatient Warfarin Management in Adult Inpatients.
   5.2 All adjustments to warfarin dosing will be done based on a current INR.
   5.3 If an INR > 5 the primary physician or team must be notified.

6. Discontinuing Warfarin
   6.1 To discontinue pharmacist dosing, the order “Note: Warfarin Dosing by Pharmacy per Protocol” must be discontinued along with the warfarin order, if it had been placed.

7. Transition to Outpatient Management
   7.1 The ordering physician is responsible for
   7.1.1 Making arrangements for warfarin dosing and INR management before hospital discharge
   7.1.2 Ordering another form of anticoagulation, if needed, until the patient is therapeutic on warfarin
   7.1.3 Reviewing the anticoagulation discharge plan in the discharge summary.
   7.2 The pharmacist is responsible for
   7.2.1 Providing recommendations for maintenance warfarin dose and prescription if needed at discharge.
   7.2.1.1 May change warfarin prescription instructions to “Take as directed based on INR”
   7.2.1.2 Will provide the patient with written warfarin dose instructions on printed discharge education materials
   7.2.2 Providing recommendations for low molecular weight heparin dose if the patient has not been on warfarin for more than 5 days and the INR is not therapeutic.
   7.2.3 Ensuring insurance coverage for low molecular weight heparin, if ordered.
   7.2.3.1 May therapeutically interchange to a low molecular weight heparin of equivalent dosing per patient's insurance coverage at discharge.
   7.2.4 Provide education to patients and/or patient's caregiver if warranted during the hospital stay.
   7.2.4.1 Utilize Health Facts For You #6900: Warfarin Education Booklet
   7.2.4.2 Utilize Health Facts For You #6915: UFH/LMWH Education
   7.2.4.3 Utilize Health Facts For You #322: How diet affects warfarin
   7.2.5 Complete education by the time of discharge and document completion in the medical record.
   7.2.6 Initiating the medication management discharge orders for warfarin which includes the following information:
   7.2.6.1 Reason for anticoagulation
7.2.6.2 Target INR range
7.2.6.3 Length of therapy
7.2.6.4 Date for next INR check
7.2.6.5 Name of clinic/provider who will manage outpatient warfarin
7.2.6.6 Educational materials provided to the patient
7.2.6.7 Bridging therapy needed until target INR is reached
7.2.6.8 Longitudinal record of INR values and warfarin doses
7.2.6.9 Written warfarin dose

7.2.7 If the medication management discharge order is not completed by the provider by the time of discharge the pharmacist may complete and sign these orders.

7.3. The discharge plan must be communicated to the person/clinic identified for outpatient anticoagulation management.
7.3.1 Any member of the health care team may communicate the discharge plan
7.3.2 Communication can be completed electronically for patients managed in the UWHealth System or can be verbally communicated to any clinic.
7.3.2.1 Electronic communication can only be used if a patient has an active anticoagulation episode of care and must be sent to the inbasket associated with the episode.
7.3.3 The pharmacist will ensure contact with the managing person/clinic has occurred by either communicating the plan or verifying completion with the team member who communicated the plan.

REFERENCES:

COLLATERAL DOCUMENTS/TOOLS:
UWHC Guidelines for Inpatient Warfarin Management in Adults
Health Facts For You #6900: Warfarin Education Booklet
Health Facts For You #6915: UFH/LMWH Education
Health Facts For You #322: How Diet Affects Warfarin

APPROVING COMMITTEE:
UWHC Anticoagulation Subcommittee
UWHC Pharmacy and Therapeutics Committee
UWHC Medical Board

NEXT SCHEDULED REVIEW:
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