POLICY & PROCEDURE

UW Health University of Wisconsin Hospital and Clinics	Effective Date: May 2010	☐Administrative Manual ☐ Nursing Manual ☒ Other: Pharmacy	Policy #: 2.3.1
	☐ Original ☒ Revision	Page 1 of 6	Title: Anticoagulation Monitoring by UW Anticoagulation Clinic Pharmacists

Purpose: To establish the policies and procedures governing clinical pharmacy services in anticoagulation monitoring within the UW Anticoagulation Clinics.

Policy: Provide consistent mechanism for referral, assessment, education and monitoring of patients on anticoagulation medications by a pharmacist at the UW Anticoagulation Clinics.

Forms: Referral Forms

Procedures:

1.0 Guidelines for clinic referrals

1.1 UW Health physicians may refer their patients to the UW Anticoagulation Clinics (ACC) by consulting with the anticoagulation pharmacist in the following manner:

1.1.1 Verbally communicate the ACC regarding patient referral between the hours of 0800 and 1630 Monday – Friday at phone number 608-263-8475

1.1.2 After verbal confirmation of acceptance to clinic the provider must fax an official paper referral form (see attached form) to the ACC at fax number 608-263-8027

1.2 Referrals for inpatients with a new diagnosis requiring anticoagulation are preferred prior to discharge. The referring provider or case manager should contact the ACC to initiate the referral. Preliminary education will begin prior to discharge with appropriate patient education handouts by the inpatient pharmacist. An official paper referral form will then be faxed to the ACC at the time of discharge.

1.3 Patients will be accepted to the ACC if they meet the following criteria:

1.3.1 Patient must have a primary care provider (PCP) practicing within the UW Health system. Patients without a PCP may be accepted under the following conditions

1.3.1.1 The patient receives the majority of their health care within the UW Health system and a UW Health physician is willing to stand in as the patient's PCP

1.3.1.2 The patient has a scheduled appointment to establish care with a UW Health PCP

1.3.2 Patients must be willing to have INRs drawn by appointment at either the UStation or the West Anticoagulation Clinics unless they are homebound and requiring home health services for a limited amount of time (not to exceed 3 months).

1.3.3 Patients cannot have Dean or GHC primary insurance

1.3.4 The ACC will not accept new referrals for patients discharged to skilled nursing facilities.

1.3.4.1 The ACC will continue to manage patients that were already on their service and have a temporary need for rehabilitation at a skilled nursing facility (not to exceed 3 months duration).

1.4 The referring provider must clearly communicate the following information either electronically or verbally prior to the ACC accepting a referral:

1.4.1 Indication for anticoagulation

1.4.2 Target INR range

1.4.3 Anticipated duration of anticoagulation or review date

1.4.4 Warfarin dose and tablet strength at the time of referral

1.4.5 Start date of warfarin therapy

1.4.6 Time for next INR draw

1.4.7 Concurrent drug therapy

1.4.8 Bleeding risk, if applicable

1.4.9 Any medical or social issue which may influence compliance or outcomes

1.5 Once a patient referral has been accepted, the patient will be scheduled for a 40-minute new patient appointment by ACC staff. This appointment will be scheduled at the next available date pending openings in the ACC schedule.

1.5.1 The referring provider and/or the patients' PCP is responsible for ordering and following up on the result of any INRs prior to the patient's first appointment with the ACC.

1.6 **For information on how to initiate warfarin therapy for a patient, please see one of the following references**, available on UConnect.

1.6.1 Ambulatory Guideline for Management of Warfarin in Adults

1.6.2 Guidelines for Inpatient Warfarin Management in Adults

1.6.3 Clinical Directive for Warfarin Management in Adult Ambulatory Patients

2.0 Patient Encounters

2.1 Patients will be seen by appointment with the pharmacist at the UStation or West ACC.

2.2 Patients will have a point-of-care (POC) INR performed in clinic per the Hemochron policy and procedure (2.08).

2.3 Homebound patients that qualify for home health services will have INR blood draws done in their home with results faxed to the ACC at 608-263-8027 or called to 608-263-8475. The ACC pharmacist will contact the patient and/or caregiver to make an assessment to aid in warfarin dosing and then contact the home health agency with orders to coordinate future INRs.

2.4 Patients currently on service with the ACC that have temporary stays (less than 3 months) at a skilled nursing facility will continue to have anticoagulation monitored by the ACC. Lab tests will be coordinated with the facility nursing staff and results will be faxed to the ACC at 608-263-8027. Assessment and plan for follow up and dosing will be via phone with facility nursing staff.

2.5 Scheduling:

- 2.5.1 New patient encounters will be scheduled for a 40 minute appointment
- 2.5.2 Routine follow up encounters will be scheduled for a 20 minute appointment
- 2.5.3 Patients that need to review a plan for peri-procedural bridging with LMWH will be scheduled for a 40 minute appointment
- 2.5.4 All patients will be scheduled for a 30-40 minute appointment with Dr. McBride shortly after joining the ACC and once per calendar year thereafter (more often if clinically necessary).
- 2.5.5 If a patient does not show for a scheduled clinic visit or lab check, follow-up will be ensured by the ACC pharmacist following these steps:
  - 2.5.5.1 Call patient to reschedule
  - 2.5.5.2 Reschedule within two weeks of missed appointments
  - 2.5.5.3 If patient misses three consecutive clinic appointments, the referring physician and/or PCP will be contactwed and plans for further monitoring discussed

2.6 A clinic visit charge will be generated for clinic visits and INRs per customary practice

3.0 Documentation

3.1 The pharmacist will document each visit or phone consultation in a progress note linked to the “anticoagulation episode” in the electronic medical record (Health Link). Documentation for each encounter will include

- 3.1.1 the indication for anticoagulation
- 3.1.2 the therapeutic INR goal
- 3.1.3 the expected duration of therapy
- 3.1.4 the most recent INR

3.1.5 warfarin tablet strength
3.1.6 the current warfarin dose plan.
3.1.7 Any patient assessment information as deemed appropriate by the ACC pharmacist

3.2 An anticoagulation flowsheet (example attached) summarizing INR results and corresponding warfarin dose will be kept on file in the clinic office and electronically in Health Link and will be maintained with each encounter

4.0 Education/Monitoring

4.1 Anticoagulation education will be provided to all patients at their initial visit and periodically thereafter as needed. Education must include information on the importance of:
4.1.1 Follow up
4.1.2 Monitoring
4.1.3 Compliance
4.1.4 Dietary Concerns
4.1.5 Potential Drug Interactions (both Rx and OTC)
4.1.6 Identifying signs and symptoms of over and under anticoagulation

4.2 The following patient education material will be given to the patient and reviewed at the initial visit: Health Facts For You #6900: Warfarin Information Booklet.

4.3 Patients will be encouraged to fill all medications (including warfarin) at one pharmacy due to the nature of complex drug interactions with anticoagulant medications.
4.3.1 Interested patients may have all prescriptions transferred to a pharmacy within the UW Health network to increase patient convenience and further aid in easy detection of electronic medication information and drug interaction management.
4.3.2 Patients will be encouraged to fill prescriptions for any peri-procedural low molecular weight heparin (LMWH) at either the UW West Clinic Pharmacy or UW UStation Pharmacy so they may pick up their prescription at the same time as they are meeting with ACC staff to review injection technique and plan for holding warfarin/using LMWH around procedure.

4.4 With each encounter, patients will be assessed for the following:
4.4.1 Compliance with previously prescribed warfarin dose
4.4.2 Missed/Extra doses
4.4.3 Medication changes since last encounter
4.4.4 Diet changes
4.4.5 Upcoming procedures/surgeries
4.4.6 Recent hospitalizations
4.4.7 Alcohol use
4.4.8 Activity level change
4.4.9 Diarrhea

4.4.10 Vomiting
4.4.11 Nose bleeds
4.4.12 Blood in urine/stool
4.4.13 Other unusual bleeding
4.4.14 Abnormal bruising
4.4.15 Chest pain
4.4.16 Shortness of breath
4.4.17 New pain/Swelling
4.4.18 Dizziness/Falls/Injuries
4.4.19 Severe headaches
4.4.20 Numbness/weakness
4.4.21 Acute vision changes
4.4.22 Confusion/slurred speech
4.4.23 New pain/Swelling

5.0 Ordering Medication/Labs

5.1 Dr. Ann McBride will oversee the ACC and will be the "authorizing provider" for each clinic encounter, medication order, and lab order

5.2 ACC pharmacists may order/prescribe/refill the following medications using clinical judgement and under the discretion of Dr. Ann McBride

5.2.1 Warfarin (oral)
5.2.2 Vitamin K (oral)
5.2.3 Heparin (subcutaneous)
5.2.4 LMWH (subcutaneous)

5.3 ACC pharmacists may order any laboratory test deemed clinically necessary related to the patient's anticoagulation based on clinical judgement and under the discretion of Dr. McBride

5.4 Anticoagulation medications will be dosed by the ACC pharmacist based on clinical judgement and by utilizing the following resources:

5.4.1 Clinical Directive for Warfarin Management in Adult Ambulatory Patients
5.4.2 Guidelines for Ambulatory Warfarin Management in Adults
5.4.3 UWHC Guidelines for Periprocedural Anticoagulation (Bridging) Therapy for Adult Patients on Long-Term Warfarin Anticoagulation

6.0 Communication with Referring Provider/PCP

6.1 A record of each clinic visit or phone consult with be documented with a progress note in the electronic medical record.

6.1.1 In acute circumstances, the referring/primary physicians or their agents will be contacted immediately and the patient will be referred for medical treatment as necessary.
6.1.2 The pharmacist will communicate with the PCP, Dr. Ann McBride, or the referring physician any questions or complications which arise with therapy as well as the

continuing need for anticoagulation past the initial estimated duration of therapy.

7.0 Completion of Anticoagulation Therapy/Discharge from Clinic

7.1 When a patient has completed a course of anticoagulation therapy as agreed upon by the ACC pharmacist, Dr. McBride, the PCP and/or the referring provider, a note will be written in the electronic record to state that anticoagulation is complete and the ACC will no longer be following the patient for the purposes of anticoagulation therapy.

7.2 Should a patient not comply with the policies of the clinic (e.g. repeated missed visits), the ACC pharmacist will discuss the issues with the clinic physician. The patient will receive notification by mail that they are not complying with clinic policies. If the problem continues, the ACC pharmacist may contact the PCP or referring physician to discontinue services. The pharmacist will write a note in the electronic record stating the patient is no longer a candidate for the anticoagulation service and is referred to the primary or referring physician for anticoagulation therapy management. In situations where it is not possible to reach the patient by phone to discuss transfer of care, the patient will be mailed a certified letter.