


Name of Policy: Management of Critical INR Values Policy Number: 3364-133-114 Approving Officer: Chief Operating Officer Responsible Agent: Administrative Director Pharmacy Services and Chief Pharmacy Officer, Medical Director, Anticoagulation Clinic Scope: The University of Toledo Medical Center		 Effective date: 8/2025 Original effective date: 4/1/2016	
Key words: Anticoagulation, INR, Electronic Medical Records (EMR), Clinical Support, Inpatient Pharmacy Staff			
<input type="checkbox"/>	New policy proposal	<input type="checkbox"/>	Minor/technical revision of existing policy
<input type="checkbox"/>	Major revision of existing policy	<input checked="" type="checkbox"/>	Reaffirmation of existing policy

(A) Policy statement

The University of Toledo Medical Center (“UTMC”) Inpatient Pharmacy staff will follow the outline steps in managing critical International Normalized Ratio (“INR”) values protocol during afterhours of Anticoagulation Clinic (ACC).

(B) Purpose of policy

The purpose of this policy is to provide guidance in management of critical INRs above 5 and warfarin reversals. Pharmacists and staff will use American College of Chest guidelines for managing critical INRs greater than 5 (five) and if patient needs to be admitted in the hospital for acute management.

(C) Scope

1. Critical INRs greater than 5 will be handled within 24 business hours of receiving the results using recommendations of CHEST Guidelines as outlined below for clinical guidance.
2. Any clinically significant bleeding should be communicated to the referring physician
3. All actions will be documented in the patient’s Electronic Medical Record (“EMR”).
4. After hours critical INRs will be managed by on call pharmacy residents or pharmacy staff within 24 business hours of receiving the results using recommendations of CHEST Guidelines as outlined below for clinical guidance:
 - (a) When the anticoagulation clinic is closed, phone calls will arrive for the on-call pharmacy regarding critical INR on on-call ASCOM phone from lab, nurse, or hospital operator.
 - (b) Pharmacist documents in an EPIC in-basket message to UTMC Anticoagulation clinic (P UTMC HVC Anticoagulation Clinical Support Pool)
 - (i) In-basket → New Message → Click magnifying glass next to “To” search bar → Under Pools, type “UTMC HVC Anticoagulation Clinical Support Pool”
 - (ii) Subject: After Hours INR

- (iii) Use SmartPhrase “.afterhoursinr”
- (iv) Attach patient to message
- (v) Document name of person calling and where they are calling from (which lab/ home health/ etc.)
- (vi) Document date INR was drawn (should be today’s date)
- (c) Pharmacist calls patient and/or caregiver.
 - (i) Provide plans until ACC clinic reopens next. Clinic will contact the patient when clinic reopens the following day (i.e., If it is the weekend, make sure patient has dosing/ plan through the weekend.)
 - (ii) Pharmacists inform patient/caregiver of INR result.
 - (iii) Pharmacists ask and document the following questions in the in-basket message:
 1. Verify dose (repeat current dose)
 2. Has the patient missed any doses?
 3. Has the patient taken any extra doses?
 4. Has the patient had any medication changes?
 5. Has the patient had any diet/alcohol changes?
 6. Has the patient had a recent illness (diarrhea, nausea, vomiting, fever, hospitalization, other)?
 7. Has the patient had any bleeding/bruising (nose, sputum, emesis, urine, stool, gums, other)?
 8. Has the patient had any falls/injuries?
 9. Has the patient had any clotting symptoms (chest pain. shortness of breath, leg/calf pain/swelling, redness)?
 10. Has the patient had any stroke symptoms (headache, dizziness, numbness, vision changes, confusion, slurred speech, other)?
 11. Has the patient had any changes in their condition that required anticoagulation?
- (d) Pharmacists use clinical judgment to create a plan of action for the patient, inform the proper parties (patient/caregiver), and documents plan in in-basket message.

Generally, the graph below may be followed:

Clinical Scenario	Treatment of Elevated INR	Time to Recheck INR
INR 4.0-4.9	Hold ½-1 dose of warfarin Or lower weekly dose by 5-10% if the following day is a business day	Within 1 week
No clinically significant bleeding, no urgent/emergent surgery/procedure		
INR 5.0-9.9	Hold 1-2 doses of warfarin	24-48 Hours
INR >9.9	Hold 1-2 doses of warfarin May refer patient to nearest emergency department for evaluation under clinical discretion	24-48 Hours
Clinically significant bleeding		
Any INR	Refer patient to nearest emergency department for evaluation	

<p>Approved by:</p> <p>/s/</p> <hr/> <p>Russell Smith Chief Operating Officer</p> <p>7/30/2025</p> <hr/> <p>Date</p> <p>/s/</p> <hr/> <p>Samer Khouri, MD, MBA Medical Director, Anticoagulation Clinic</p> <p>7/30/2025</p> <hr/> <p>Date</p> <p>/s/</p> <hr/> <p>Holly Smith Administrative Director, Pharmacy Services and Chief Pharmacy Officer</p> <p>7/30/2025</p> <hr/> <p>Date</p> <p><i>Review/Revision Completed by:</i> <i>Director, Pharmacy</i></p>	<p>Policies Superseded by This Policy:</p> <ul style="list-style-type: none">• <i>none</i> <p>Initial effective date: 4/1/2016</p> <p>Review/Revision Date:</p> <p>4/2018 7/2019 6/2022 8/2025</p> <p>Next review date: 8/2028</p>
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