

PHARMACY QI

Practical Tips for Quality Improvement

July 2018

Improving Medication Safety – Anticoagulants^{1,2,3}

STAGE OF MEDICATION INCIDENT	ANTICOAGULANT-RELATED EXAMPLES	QI PREVENTION MEASURES
Prescribing	<p>Prescribing anticoagulants without adequate information:</p> <ul style="list-style-type: none"> No recent INR data resulting in inadequate dosing of warfarin No recent renal function results resulting in overdosing of a DOAC Lack of best possible medication history (BPMH) during transition of care resulting in duplicate therapy or inadvertent discontinuation of an anticoagulant 	<ul style="list-style-type: none"> Consult laboratory results before initiating/ changing therapy. Standardize the baseline information, such as weight in kg and serum creatinine, needed during the ordering of oral anticoagulants. Complete BPMH using at least two sources of information during the medication reconciliation process.
Order entry/ transcription	<ul style="list-style-type: none"> Misinterpretation of verbal orders Lack of identification of potential drug interactions on order entry 	<ul style="list-style-type: none"> Eliminate verbal orders unless in emergency situations and use “read back” method for verification. Thoroughly assess computer warnings about unsafe doses or drug interactions.
Pharmacy dispensing	<p>Dispensing wrong drug/dose due to:</p> <ul style="list-style-type: none"> look-a-like, sound-a-like drugs (1,000 unit/mL vs. 10,000 unit/mL heparin vials) orders requiring calculations of dosing/body weight, scheduling of alternating warfarin doses 	<ul style="list-style-type: none"> Use distinctive labels to differentiate between look-a-like, sound-a-like drugs. Consider using independent double check when dispensing complex orders.
Nurse administration	<ul style="list-style-type: none"> Administering an anticoagulant that has been discontinued Administration of wrong dose of injectable heparin or LMWH 	<ul style="list-style-type: none"> Use “directions changed, refer to MAR” label when processing a discontinue order. Avoid use of multi-dose vials and replace with prefilled syringes. Use independent double check for nurse verification of dose.
Monitoring	<ul style="list-style-type: none"> For residents taking warfarin: Lack of INR monitoring and communication of results to prescriber For other anticoagulants (e.g., DOACs): Lack of regular monitoring of renal function that might result in overdose 	<ul style="list-style-type: none"> Monitor INR results and communicate with prescriber to adjust warfarin dose accordingly. Regular monitoring of renal function and communicating changes to prescriber.

References:

- ISMP Medication Safety Self Assessment® for High-Alert Medications. 2017. <https://www.ismp.org/sites/default/files/attachments/2018-01/EntireAssessmentWorkbook.pdf>. Accessed April 24, 2018.
- Accreditation Canada Medication Management Standards - Date Generated: January 18, 2017 - Ver. 12.
- Medical Pharmacies Policy and Procedure Manual – Jan. 2018.