MEDICAL DIRECTIVE INR CLINIC

Guelph Family Health Team	Medical Directive Number: GFHTMD 020
Responsible Person: Cathy Brown	Review or Revision by (Annually): Cathy Brown
Approval Date: December 2007 Re-approval date:	Review or Revision Date: December 2008
Approved by: _____ Lead MD, Chair of Board of Directors _____ Executive Director	Date of Approval Minutes

Order and/or Delegated Procedure :

Obtain INR results through a finger stick and the use of CoaguCheck monitor
Adjust anticoagulation medication according to Warfarin Dosing Chart
Administer Vit K according to Warfarin Dosing Chart
Initiate laboratory requisition for INRs <1.5 or > 5.0

Reference : Medical Directive Clinical Policy Number 1-010

Recipient Patients:

All patients of physicians participating with the Guelph Family Health Team who are receiving anticoagulation therapy and consent to the INR Clinic managing their therapy. Those patients that choose to access community labs will continue to be managed by their physician.

Authorized Implementers: *	
Name of Health Professional :	Position/Role/Qualifications:
Cathy Brown BScPhm	Pharmacist
Sharon Brenner RN	registered nurse

Consent:

Patient or substitute decision maker will give written consent for management of their anticoagulation therapy

Appendix attached: yes
Appendix A

Indications:

To monitor INRs in those patients receiving anticoagulation therapy for:

- Treatment and prophylaxis of venous thrombosis
- Treatment of pulmonary emboli
- Prevention of systemic embolism
- Tissue heart valves
- Valvular heart disease
- Atrial fibrillation
- Mechanical prosthetic valves
- Prophylaxis of recurrent MI
- Other conditions may be included

  Reference: CMAJ 2004;10(5):821 4

To adjust anticoagulation therapy and schedule follow-up monitoring.

Contraindications:

Patients who have not signed consent.

Guidelines for Implementing Order/Procedure:

Appendix attached: yes
Appendix B and Appendix C

1.Specific client conditions must be met before Medical Directive may be implemented

2.Dose adjustments will be based on patient risk for thromboemboli vs bleed, as well as past individual patient response to anticoagulation therapy adjustment

3.INR results outside the target range (< 1.5 or > 5.0) will result in a second INR reading, a consult with the physician and an INR assessment through Guelph General Hospital lab

Documentation and Communication:

1.Documentation will be recorded in the EMR and the Computerized Clinical Decision Support System

2.Documentation will include the patient's INR result and any action or direction given to the patient

Quality Monitoring Guidelines:

Educational Requirements:

BScPhm & completion of anticoagulation management certificate program & completion of training from point of care monitor manufacturer

RN & completion of anticoagulation management certificate program & completion of training from point of Care monitor manufacturer

Competency Maintenance:

1. Documented participation in evidence-based practice including practice change involvement and participation in, or leading research

2. Maintain competency through continuing education activities

3. Review practice with physician collaborator(s) on an annual basis

4. Documented participation in annual peer evaluation and reflective practice as per Professional college and FHT Standards

Approving Physicians:

Appendix attached: yes
Appendix D

Contact Information:

Cathy Brown cathybrown@guelphfht.com 519-837-4444 x225
Sharon Brenner sharonbrenner@guelphfht.com 519-837-4444

Appendix A Consent to Disclose Personal Health Information

Pursuant to the Personal Health Information Protection Act,2004 (PHIPA)

and

Consent to Permit a Medical Directive

Pursuant to the Regulated Health Professions Act

I,……..,

authorize…… to the perform/disclose the following by the pharmacist and/or registered nurse at the INR Clinic.

- Obtain a blood sample by performing a finger stick with a lancet and apply that sample to a test strip
- Adjust the dose of my Anticoagulant medication (Warfarin, Coumadin etc.) if necessary
- Enter the test results and medication adjustments in my electronic medical record
- Allow access to my electronic medical record, to obtain information my Family Physician has implemented, that could affect my Anticoagulation medication

I understand the purpose for disclosing this personal health information to the person noted above. I understand that I can refuse to sign this consent form.

Patient Signature:_____ Date:_____

Or Substitute Decision-maker*

Signature:_____ Date:_____

Statement of a language Interpreter
I declare that I have accurately translated this form and discussion between

…… ……and……..……

Signature:_____ Date:_____

Witness Signature_____ Date:_____

*Please note: A substitute decision-maker is a person authorized under PHIPA to consent, on behalf of an individual, to disclose personal health information about the individual.

WARFARIN DOSING CHART

INR 2.0-3.0, target INR 2.5, no bleedings

1.5-1.9	Reload *x 0-1 doses, and/or increase weekly dose by 0-10% Next INR 7-14 days
2.0-3.0	No change Next INR see follow-up algorithm
3.1-3.5	Hold 0-1 doses, and/ or decrease weekly dose by 0-10% Next INR 7-14 days
3.6-4.9	Hold 0-2 doses, and/or decrease weekly dose by 5-15% Next INR 4-7 days
5.0-5.5	Hold Warfarin until therapeutic, and/or give Vitamin K_1 1-2.5mg PO x 0-1 dose Next INR 1-4 days

*Reload refers giving the patient up to twice the daily maintenance dose

FOLLOW- UP ALGORITHM

# of Consecutive In- range INRs	Repeat INR in:
1	5-10 days
2	2 weeks
3	3 weeks
4	4 weeks

If INR 2.0-2.1 or 2.9-3.0, may consider repeating INR in 2-3 weeks regardless of # of consecutive In-range INRs. Patients with many consecutive therapeutic INRs, the follow-up algorithm may be accelerated for a single out-of range INR .

If INR 1.8-1.9, or 3.1-3.2, may consider no dose change, and repeat INR in 7-14 days.

Adapted from The Centre for Family Medicine (Kitchener FHT) and the University of Alberta

WARFARIN DOSING CHART

INR 2.5-3.5, target INR 3.0, no bleeding

2.0-2.4	Reload *x 0-1 doses, and/or increase weekly dose by 0-10% Next INR 7-14 days
2.5-3.5	No change Next INR see follow-up algorithm
3.6-4.0	Hold 0-1 doses, and/ or decrease weekly dose by 0-10% Next INR 7-14 days
4.1-4.9	Hold 0-2 doses, and/or decrease weekly dose by 5-15% Next INR 4-7 days
5.0-5.5	Hold Warfarin until therapeutic, and/or give Vitamin K_1 1-2.5mg PO x 0-1 dose Next INR 1-4 days

*Reload refers giving the patient up to twice the daily maintenance dose

FOLLOW- UP ALGORITHM

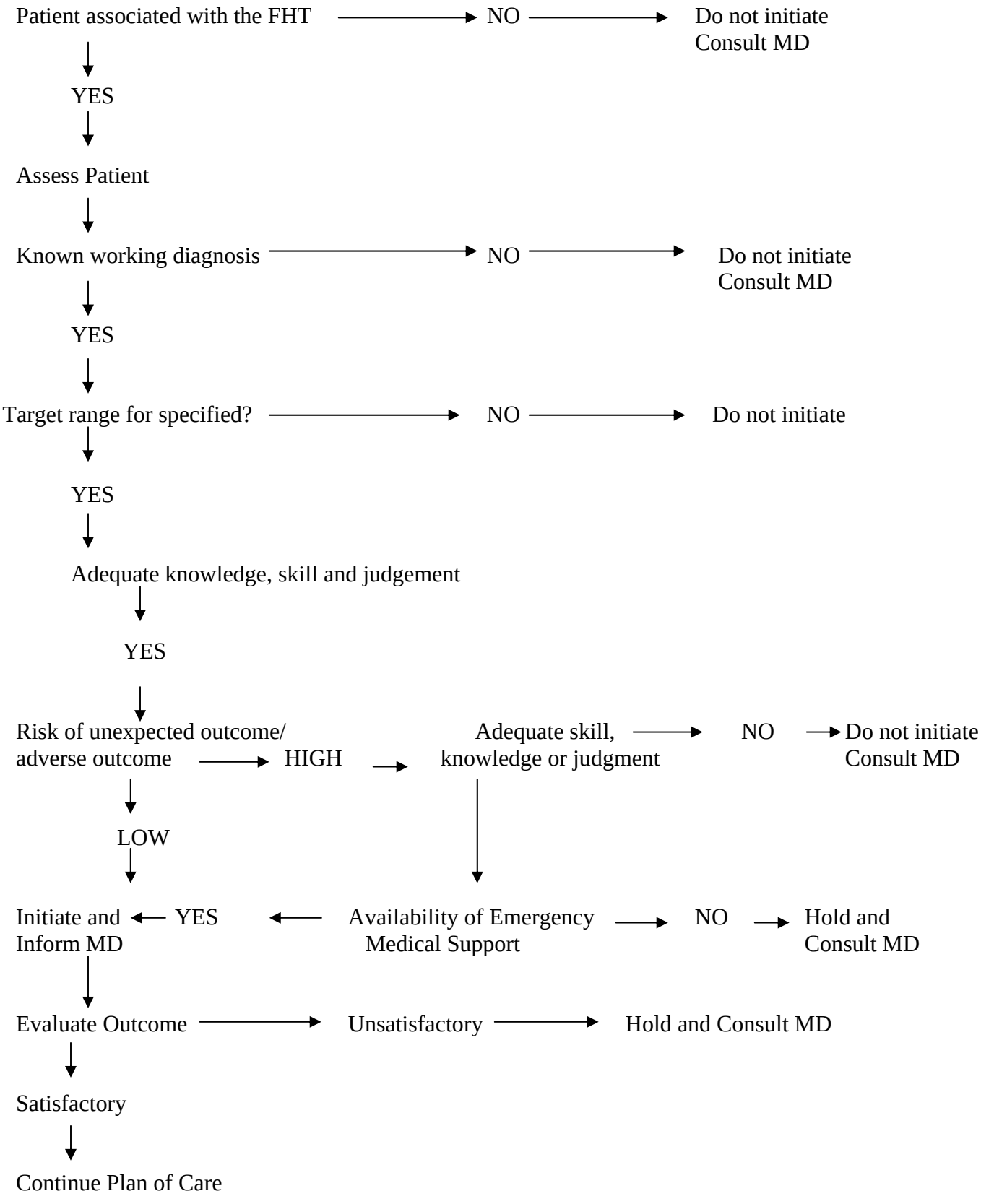
# of Consecutive In- range INRs	Repeat INR in:
1	5-10 days
2	2 weeks
3	3 weeks
4	4 weeks

If INR 2.5-2.6 or 3.4-3.5, may consider repeating INR in 2-3 weeks regardless of # of consecutive In-range INRs. Patients with many consecutive therapeutic INRs, the follow-up algorithm may be accelerated for a single out-of range INR .

If INR 2.3-2.4, or 3.6-3.7, may consider no dose change, and repeat INR in 7-14 days.

Adapted from The Centre for Family Medicine (Kitchener FHT) and the University of Alberta

Appendix C Algorithm: Initiating INR Medical Directive



Appendix D **Approving Physicians:**

Name	Signature	Date