Guidelines in the Management of Warfarin/Coumadin Therapy

Indications of long term use with target INR

Prevention of systemic embolism	
Mechanical prosthetic heart valve	2.0 – 3.5
Bioprosthetic heart valve	2.0 – 3.0
Nonvalvular atrial fibrillation	2.0 – 3.0
Myocardial infaction	2.0 – 3.0
Mitral valve disease in sinus rhythm	2.0 – 3.0
Prevention of recurrent disease	
Ischemic stroke in atrial fibrillation	2.0 – 3.0
Myocardial infarction	2.0 – 3.0
Venous thromboembolism	2.0 – 3.0

Initiation of therapy
Starting dose of coumadin of 5 mg is currently suggested.

Frequency of INR determination
Initial daily until therapeutic range reached and sustained for two consecutive days. Then 2 to 3 times weekly for 2 weeks. Followed by weekly for 4 weeks and then every 2 to 3 weeks.
Once INR is stabilized at least monthly.

Intensity of therapy
Current standard recommendation is given above.
Low intensity anticoagulation with INR of 1.5 to 2.0 is currently recommended after the initial 3 to 12 months at standard intensity.

Suggested duration of therapy	
Prosthetic heart valves	Lifelong
Bioprosthetic heart valves with no atrial fibrillation	3 months
Myocardial infarction	3 months
DVT 1ST distal with temporary risk factor	6 WK
1ST distal with idiopathic risk factor, proximal	>6 Mo
2nd , contralateral	>6 Mo
ispilateral	>12 Mo
3rd	Indefinite
PE	>12 Mo

Thrombophilic defects (protein C, S; factors V, VIII, antiphospholipid ab) 12 Mo to indefinite. Consult Hematology.

Interactions with vitamin K antagonists

Foods, drugs. Monitor INR more frequently and adjust dose.

Reversal of anticoagulation

INR 4 -5 with no bleeding - omit one or several doses with INR determination

INR 5-9 – two options

a) If the patient has no bleeding and no risk factors for bleeding (age >65, h/o CVA, GI bleed, use of ASA, NSAID) next 2 or more doses should be held and PT/INR monitored daily.
b) Administer small dose vitamin K -1 mg orally or 0.5 mg IV. SC is not recommended because of variable absorption. Higher doses of vitamin K leads to over-correction and resistance.
c) Bleeding with any level of INR administer vitamin K and transfer to acute care hospital

References

1. NEJM 2003; 349: 675-83
2. NEJM 1997; 336; 1506-11
3. J Am Coll Cardiol 203: 41:1633-52

POLICY AND PROCEDURE
Coumadin Flow Sheet

Objective: To maintain a sequential record of residents lab results, And Coumadin dosage changes.

Process:

- All residents with Coumadin ordered will have Coumadin Flow Sheet initiated.
- Coumadin flow sheets are kept in the "lab" section of the Medical Record.
- All PT INR results are recorded.
- Upon receiving lab results, values are entered on to flow sheet. The name of Physician notified is entered, as well as recommendations for dosage change.
- If dosage remains same, enter same.
- If Physician recommends change in dosage, RN obtains telephone order.
- Order is faxed to vendor pharmacy.
- Order is transcribed to MAR.

Responsibility:

- RN Supervisor will review all PT, PIT, INR results.
- RN will notify Physician of lab values, and obtain telephone orders for Coumadin.
- RN is responsible for ensuring revision of MAR and CCP.
- LPN will note Physicians order change x 3 shifts.
- LPN will administer Coumadin as ordered.
- Physician will sign telephone order as per policy.
- C N A observes for bleeding and notify Charge Nurse.

Documentation:

- RN will document in progress notes, lab values, Physician recommendation. RN will update CCP.
- LPN will observe residents for adverse effects of Coumadin bleeding gums, epistaxis, petechiae and document in progress notes x 72 hrs. (minimum).
- Resident with change in Coumadin dosage are entered on 24 hr. report x 72 hrs. (minimum).

COUMADIN FLOW SHEET

Resident: ______________________________ Room: ____________

Date Lab	Time Rcvd	PT/INR Results	Dr. Notified	Order Obtained	Rec Dosage	Mar Rev	CCP Rev	Licensed Sign

Y = Yes N = No