**SUMMARY**

- Minimize number of clinicians prescribing/adjusting warfarin for a patient.
- Institutions to establish a method to review each patient at least monthly.
- Achieve a therapeutic INR goal within 30 days of warfarin initiation.
- Use single target INR value as goal endpoint (i.e. target 2.5 range 2.0-3.0.)
- Educate patients and encourage/promote self management (pgs 10-12).
- Understand and avoid major medication interactions. (See pg 6)
- Use anticoagulation bridging when indicated. (See pg 9)

**DIAGNOSTIC CRITERIA/EVALUATION**

- **Proven thrombosis**: If reversible risk factor is present, usually no need to initiate a work-up for hypercoagulable state.
- **Unproven thrombosis**: No cause/trigger identified (or recurrent thrombosis) consider w/u for inherited/acquired causes (Pg 2)
- **Target INR**: For most conditions target INR is 2.5 with acceptable range 2.0-3.0. (See pgs 7-8)
- **Duration of therapy**: First time thrombosis (DVT or PE) with transient, reversible risk factor treat for 3 months. If unproven, recurrent or associated with cancer diagnosis, long-term anticoagulation is advised. (See pgs 7-8)

**TREATMENT OPTIONS**

**GENERAL: WHEN DO YOU NEED TO INITIATE WARFARIN THERAPY WITH CONCOMITANT ENOXAPARIN?**

If high risk for thrombosis: (i.e. active thrombotic process i.e. DVT or pulmonary embolism or an underlying malignancy) start Low Molecular Weight Heparin-LMWH and warfarin therapy.

If lower thrombotic risk (e.g., atrial fibrillation without recurrent thromboembolism) can be started on warfarin alone

<table>
<thead>
<tr>
<th>CONTRAINDICATIONS</th>
<th>WARFARIN</th>
<th>ENOXAPARIN (LOVENOX, LMWH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only absolute contraindication are life-threatening bleeding and pregnancy.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| BASELINE TESTING | | |
| Complete blood count (CBC)/Platelet count | Complete blood count (CBC)/Platelet count |
| Cr | PT/PTT/INR | PT/PTT |
| Albumin | Liver enzymes (ALT, AST) | | |

| DOSE | | |
| Start at estimated average daily dose- typically 5 mg/day (range 2.5 elderly/co-morbidities- 7.5 mg/day for obese patients) | | |
| Loading doses of warfarin should be avoided. | | |
| Use formulay strengths (See page 4), attempt to avoid cutting pills, in most cases administer NA or DOT | | |
| Recheck of the INR in two to three doses | | |
| Steady-state INR will take up to 3 weeks. | | |

**Dose Adjustments**: (See Pg 3)

- Assess variables affecting the INR b/f dose adjustment.
- (e.g. patient adherence, medication interactions, dietary Δs.)
- 10% dose adjustment Δ INR by approximately 0.7-0.8.

| REVERSAL | | |
| Vitamin K. In out-patient setting give oral vitamin K, if hospitalized can consider IV. Avoid SQ or IM injection. (See pg 5) | Protamine sulfate can be used with caution. (See pg 5) | |

**MONITORING**

- PCP follow-up: patient may be seen up to 90 days, if clinically stable on at least 2 visits & INR stable or more frequently based on clinical judgment.

**WARFARIN**

- The INR is the preferred test, best measured at least 16 hours after dose. (Best to give warfarin in the p.m.)
- If stable INR should be done every 4 weeks.
- If INR > ± 0.5 INR out-of-range should repeat INR within 7-10 days
- If INR unexpectedly out of range consider ASAP repeat of test and review handling of specimens/lab procedures.
- If using "on-site" fingerstick testing suggest monthly reference lab testing in addition.

**ENOXAPARIN (LMWH):**

- **Heparin anti-Xa level** monitoring not required for most patients.
  - → sometimes used in patients w/obesity and/or renal insufficiency.
  - → used in pregnant ∪ receiving therapeutic doses of enoxaparin
- **Heparin Induced Thrombocytopenia (HIT)**: (See page 5)
  - → Rarely develops in patients receiving only LMWH and routine platelet count monitoring is not required.
    - Can occur in patients getting ≥ 1 dose of un-fractionated heparin (including heparin IV flushes) within the past 100 days.
    - Should have platelet count q 2-3 d until the enoxaparin is D/C'd or until day 14 of RX, whichever comes first.

**ALERTS**

- INR out of range
  - (See Warfarin Dose Adjustment Pg 3)
- Extremity pain and swelling
- Altered Level of Consciousness
- Bleeding
- Skin Necrosis / Purple Toe Syndrome
- Acute Rash, Hepatitis, Diarrhea/ Nausea
- Pregnancy: Absolute Contraindication to warfarin

**INFORMATION**

Information contained in the guidelines is not a substitute for a health care professional’s clinical judgment. Evaluation and treatment should be tailored to the individual patient and the clinical circumstances. Furthermore, using this information will not guarantee a specific outcome for each patient.
ALGORITHM FOR ANTICOAGULATION

Confirmed Thrombotic Disorder

Identify cause and triggers
- A risk factor for Venous Thromboembolism (VTE), either inherited or acquired, can now be identified in approximately 80% of patients.
- Often more than one risk factor is identified in a given patient.
- 50% of patients with inherited thrombophilia also have an acquired risk factor.

Step One: Evaluate for Acquired Causes of Hypercoagulability
- History and Physical exam
- Labs: CBC, Platelets, PT, PTT, Chem panel

Acquired Disorders:
- Malignancy (lung, colon, ovary, prostate)
- Surgery, especially orthopedic
- Trauma
- Pregnancy, Oral contraceptives
- Hormone replacement therapy
- Immobilization
- Congestive failure
- Antiphospholipid antibody syndrome
- Myeloproliferative disorders
- Inflammatory bowel disease
- Nephrotic syndrome

Step Two: Decide Whether to Evaluate for Inherited Causes of Hypercoagulability

Recommended Screening for Inherited Causes of Hypercoagulability
There is little evidence that the identification of an inherited thrombophilia should influence the duration of anticoagulant therapy for patients with VTE.

The following recommendations concerning which conditions should be tested for are based on a characterization of the patient as either "strongly" or "weakly" thrombophilic:

Strongly thrombophilic:
- First idiopathic venous thrombosis before 50 years of age OR
- History of recurrent thrombotic episodes OR
- First-degree relative(s) with documented thromboembolism before age 50

Weakly thrombophilic:
- First episode of idiopathic venous thromboembolism at age ≥60 years AND
- Negative family history of thromboembolism

<table>
<thead>
<tr>
<th>Condition tested for:</th>
<th>Prevalence:</th>
<th>Unselected</th>
<th>High Risk*</th>
<th>Strongly thrombophilic</th>
<th>Weakly thrombophilic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor V Leiden</td>
<td>12</td>
<td>40</td>
<td></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Prothrombin Mutation</td>
<td>6</td>
<td>18</td>
<td></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Antiphospholipid Ab's</td>
<td></td>
<td></td>
<td></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Antithrombin deficiency</td>
<td></td>
<td></td>
<td></td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Protein S or C deficiency</td>
<td>5</td>
<td>15</td>
<td></td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Virtually all of the available data on the inherited thrombophilic states (e.g., factor V Leiden) are from Caucasian populations and very little information is available for non-Caucasian
**First VTE before age 50 or history of VTE in first degree relative VTE

Adapted from: Up To Date, K.A. Bauer, M.D. & G. Lip, M.D. Evaluation of the patient with established venous thrombosis. Sept 2010

If contradiction for anticoagulation

No contradiction

Arterial Thrombi
- Peripheral Arterial Occlusive Disease
- Threaten ischemia (GI, GU, limb)
- Most management is inpatient ICU setting with embolectomy, thrombolytics and/or surgical treatment
- Heparin/LMWH and warfarin for long term anticoagulation

Venous Thrombi
- Start Heparin, LMWH and warfarin ASAP

Consider referral to Interventional Radiology — Vena Cava Filter
<table>
<thead>
<tr>
<th>Warfarin Dose Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal of INR 2.5 (Range 2.0–3.0)</strong></td>
</tr>
<tr>
<td>INR</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>≤1.5*</td>
</tr>
<tr>
<td>1.51–1.99*</td>
</tr>
<tr>
<td>2.00–3.00</td>
</tr>
<tr>
<td>3.01–3.99*</td>
</tr>
<tr>
<td>4.00–4.99</td>
</tr>
<tr>
<td>5.00–8.99</td>
</tr>
<tr>
<td>≥9.0</td>
</tr>
</tbody>
</table>

Serious bleeding regardless of INR

Hold dose and send out.

≥9.0

Hold warfarin and give oral vitamin K 5.0–10.0 mg.** Monitor more frequently and repeat vitamin K if necessary Consider re– housing in medical unit.

Serious bleeding regardless of INR

Hold dose and send out.

Consider medical hold for any patient with INR above 4.0

INR, International Normalized Ratio.

*Clinical and professional judgment may allow variation in the application of the algorithm.

** The preferred method of vitamin K administration in non-emergency situations is orally. Avoid subcutaneous or intramuscular administration.

Adapted from: Kim et. al. *Journal of Thrombosis and Haemostasis*, 8: 10-106
### WARFARIN

**Coumadin**

- **Jantoven**
- **Lawarín**
- **Waran**

**Formulary Strengths:**
- 1 mg - pink
- 2.5 mg - green
- 3 mg - tan
- 5 mg - peach
- 7.5 mg - yellow
- 10 mg - white

**Usual Dose**
- A baseline INR value should be drawn to rule out underlying coagulopathy.
- Patients previously taking warfarin can be initiated at the previous dose.
- Patients receiving warfarin for the first time should begin at the patient's estimated average daily dose:
  - Typically 5 mg/day (dose best given in p.m.)
- Consider lower initiation doses (i.e. 2.5 mg/day) for patients with: age > 75 yrs, multiple comorbid conditions, poor nutrition (low albumin), elevated INR when off warfarin, elevated LFT’s, or changing thyroid status.
- For patients who weigh more than 80 kg, a higher estimated average initial dose of 7.5 mg may be given.

**Avoid loading doses** - Loading doses can ↑ a patient's risk of supratherapeutic INR and make it more difficult to determine a steady-state dose.

**Recheck of the INR in 2 to 3 doses.**
- Subsequent INR values are determined at twice a week for 1-2 weeks, then less often depending on the stability of the INR result.
- If INR is 2.0 or greater after the first 3 doses, consider decreasing the dose by 1/2. Always search for causes of rapid rise in INR such as drug interactions, poor nutritional status, infection, or systemic disease process.
- Steady-state INR values will not be realized for up to 3 weeks following a dose adjustment.
  - Expect obese patients and patients of advanced age to take longer to reach steady state.

**Comments**
- **Contraindications:** (Contraindications are relative to a patient's risk for thrombosis weighed against the risk for bleeding while on warfarin)
  - Absolute contraindication:
    - Pregnancy
    - Active hemorrhage
- **Adverse Effects:**
  - Bleeding is the most common:
    - Patients treated with usual doses of warfarin have a 2%-4% risk per year of bleeding episodes requiring transfusion, and a 0.2% risk per year of fatal hemorrhage.
  - Skin Necrosis: rare but serious complication typically occurs on the 3rd to 8th day of therapy.
  - Four times as common in women as in men
- **Purple toe syndrome:** or other manifestations of peripheral emboli may rarely complicate warfarin therapy, usually 3-10 weeks after initiation of therapy

### ENOXAPARIN

**Lovenox**

**(Nonformulary)**

**Dose depends on medical indication.**
- **DVT prophylaxis:** *i.e. Knee or Hip replacement surgery:*
  - Twice-daily dosing: 30 mg SQ every 12 hours, with initial dose within 12-24 hours after surgery, and then every 12 hours for at least 10 days or until risk of DVT has diminished or the patient has therapeutic INR on warfarin.
- **DVT treatment (acute):** *Note:* Start warfarin on the first treatment day and continue enoxaparin until INR is between 2 and 3 (usually 5-7 days).
  - Inpatient treatment *(with or without pulmonary embolism):* 1 mg/kg/dose SQ every 12 hours or 1.5 mg/kg SQ once daily.
  - Outpatient treatment *(without pulmonary embolism):* 1 mg/kg/dose SQ every 12 hours
- **Dosing: Geriatric:** dose alteration may be required
  - Increased incidence of bleeding with doses of 1.5 mg/kg/d or 1 mg/kg every 12 hours. Injection associated bleeding and serious adverse reactions more common.
- **Dosing: Renal Impairment**
  - **ClCr ≥30 mL/minute:** No specific adjustment recommended (ClCr <30 mL/minute: DVT prophylaxis during acute illness: SubQ: 30 mg once daily; DVT treatment (in conjunction with warfarin): SubQ: 1 mg/kg once daily
  - Do not administer I.M.; administer by deep SQ injection

**Pharmacodynamics/Kinetics**
- Onset of action: Peak effect: SubQ: Heparin antifactor Xa and antithrombin (antifactor IIa): 3-5 hours
- Duration: 40 mg dose: Heparin antifactor Xa activity: ~12 hours

**Comments**
- Low Molecular Weight Heparin (i.e. Enoxaparin) has a relatively rapid onset of action compared to warfarin and is often the first drug used in acute thrombotic situations.

**Contraindications:**
- Active major bleeding, including intracerebral hemorrhage within past 2 weeks, subarachnoid hemorrhage until definitively treated.
- Thrombolytics given within past 24 hours for acute stroke.
- Hypersensitivity to heparin or pork products.
- History of Heparin-induced thrombocytopenia (HIT). +
- Renal failure (creatinine clearance of < 30 mL/minute).

**Adverse Effects:**
- Bleeding
- Heparin-induced thrombocytopenia (HIT). +

*+see next page- All patients receiving any form of heparin should be instructed to immediately seek medical attention if signs or symptoms of venous thromboembolism are suspected*
Summary:

- Risk of HIT 0.1%-1.0%
- Rapid Onset of action
- Most people do not experience any side effects taking small doses of Vitamin K
- Serious allergic reactions to Vitamin K are rare. (Patient should report any rash, itching, dizziness or trouble breathing.)
- Severe hypersensitivity reactions, including anaphylactoid reactions and deaths have been reported following parenteral administration. The majority of these reported events occurred following intravenous administration.

Correction of Supratherapeutic Anticoagulation Caused by Warfarin

<table>
<thead>
<tr>
<th>Bleeding Severity</th>
<th>INR *</th>
<th>Warfarin</th>
<th>Vitamin K</th>
</tr>
</thead>
<tbody>
<tr>
<td>No significant bleeding</td>
<td>&lt;5.0</td>
<td>Decrease or omit dose</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>5.0-8.9</td>
<td>Omit 1-2 doses and decrease dose</td>
<td>If rapid reversal is required because of urgent surgery, may give ≤5 mg by mouth</td>
</tr>
<tr>
<td></td>
<td>&gt;9.0</td>
<td>Hold, give Vitamin K and decrease dose</td>
<td>If INR is still high, can give additional 1-2.5 mg by mouth</td>
</tr>
<tr>
<td>Serious bleeding at any elevation of INR</td>
<td>NA</td>
<td>Hold, give Vitamin K p.o. and send out</td>
<td>Once hospitalized, 10 mg IV by slow infusion; may repeat every 12 hours (IV Vitamin K given in monitored setting only)</td>
</tr>
<tr>
<td>Life-threatening bleeding</td>
<td>NA</td>
<td>Hold, give Vitamin K p.o. and send out</td>
<td>Once hospitalized, 10 mg IV by slow infusion; repeat if necessary depending on INR (IV Vitamin K given in monitored setting only)</td>
</tr>
</tbody>
</table>

* If INR >5, recommend recheck every 24 hours until stabilized. Adapted from: Ansell, Jack; Chest 2008; 133;160-198

Correction of Supratherapeutic Anticoagulation Caused by LMWH

- No agent, including fresh frozen plasma (FFP) and vitamin K, is effective for complete reversal of supratherapeutic anticoagulation with LMWH.
- Reversal of LMWH with protamine sulfate is incomplete, with neutralization of 60%-75% at most. However, protamine should be considered for patients with severe life-threatening bleeding.
  - Anaphylaxis occurs in 1% of patients who have previously received protamine (i.e. NPH insulin). Other adverse effects include hypotension.
  - Administering protamine slowly can minimize adverse reactions. Note: Excessive protamine doses may worsen bleeding potential .
  - If LMWH (Enoxaparin) has been administered within the last eight hours (unlabeled use):
    - First dose: 1 mg protamine for each 1 mg of enoxaparin. Administered by slow IV infusion over 10 minutes
    - Second dose: 0.5 mg protamine for each 1 mg enoxaparin. Administered by slow IV infusion over 10 minutes. Do not exceed 50 mg in 10 minutes

Heparin-Induced Thrombocytopenia (HIT)

- HIT is an immune-mediated reaction to heparin which occurs in 2%-3% of patients treated with unfractionated heparin and less than 1% of patients treated with LMWH. This syndrome can be associated with paradoxical increased risk for venous and arterial thrombosis. Patients who develop HIT without associated thrombosis will have a significant risk for thrombosis in the subsequent 100 days. Patients with a history of HIT should not be treated with UFH or LMWH.
- HIT should be suspected in patients who develop a skin lesion reaction at the injection site, have a systemic reaction to a bolus administration of heparin, or develop a greater than 50% decrease in platelet count from baseline labs while on heparin. HIT should also be suspected if the patient experiences a new thrombotic event within 5 to 14 days of initiating heparin therapy, even if the heparin has been discontinued
- All heparin should be stopped in patients suspected of having HIT until antibody test results are available.
- If the patient is on concomitant warfarin, and heparin-induced thrombocytopenia is suspected, the warfarin should be stopped, the warfarin effects corrected, and the patient started on direct thrombin inhibitor therapy...
## Mediation Interactions:

Medications, foods, and disease states can potentiate or inhibit the effects of warfarin by various mechanisms:

- Some of these interactions, such as those observed with metronidazole (Flagyl) and trimethoprim/sulfamethoxazole (Bactrim, Septra), occur via inhibition of warfarin metabolism.
- Amiodarone (Cordarone) potentiates the effects of warfarin and, because of the long half-life (i.e., 61 days) of its active metabolite, requires close monitoring of INR whenever this agent is added to or deleted from a warfarin regimen.
- Other interactions, such as those observed with barbiturates, carbamazepine (Tegretol), and rifampin (Rifadin), occur when warfarin's hepatic metabolism is induced, resulting in less free, active warfarin and potentially increasing the required dosage.
- Alternatively, thyroid replacement medications such as levothyroxine may increase the metabolism of coagulation factors, reducing the amount of warfarin required.
- The interaction observed with salicylates and nonsteroidal anti-inflammatory drugs is that of increased warfarin-associated bleeding via their inhibition of platelet activity and contribution to gastric erosion.

### Commonly used medicines that might decrease potency of warfarin

<table>
<thead>
<tr>
<th>Decrease the INR level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
</tr>
<tr>
<td>Alcohol (if concomitant liver disease)</td>
</tr>
<tr>
<td>Amiodarone (Cordarone)</td>
</tr>
<tr>
<td>Cimetidine (Tagamet)</td>
</tr>
<tr>
<td>Ciprofloxacin (Cipro)</td>
</tr>
<tr>
<td>Erythromycin</td>
</tr>
<tr>
<td>Fluconazole (Diflucan)</td>
</tr>
<tr>
<td>Influenza vaccine</td>
</tr>
<tr>
<td>Isoniazid (Nydrazid)</td>
</tr>
<tr>
<td>Lovastatin (Mevacor)</td>
</tr>
<tr>
<td>Metronidazole (Flagyl)</td>
</tr>
<tr>
<td>Nonsteroidal anti-inflammatory drugs</td>
</tr>
<tr>
<td>Omeprazole (Prilosec)</td>
</tr>
<tr>
<td>Phenytoin (Dilantin)</td>
</tr>
<tr>
<td>Propranolol (Inderal)</td>
</tr>
<tr>
<td>Salicylates</td>
</tr>
</tbody>
</table>

### Commonly used medicines that might increase potency of warfarin

<table>
<thead>
<tr>
<th>Increase the INR level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbiturates</td>
</tr>
<tr>
<td>Carbamazepine (Tegretol)</td>
</tr>
<tr>
<td>Dicloxacillin (Dynapen)</td>
</tr>
<tr>
<td>Rifampin (Rifadin)</td>
</tr>
<tr>
<td>Trazodone (Desyrel)</td>
</tr>
<tr>
<td>Tetracycline</td>
</tr>
<tr>
<td>Thyroxine</td>
</tr>
<tr>
<td>Trimethoprim / sulfamethoxazole (Bactrim, Septra)</td>
</tr>
</tbody>
</table>

### Disease-State Interactions:

Certain types of cancer, worsening or acute heart failure, hyper- and hypothyroidism, and liver disease may impact the expected therapeutic outcomes of warfarin. Hepatic congestion can reduce the metabolism of warfarin, resulting in higher levels of free, active warfarin. Hyperthyroidism increases the metabolism of coagulation factors, enhancing the effects of warfarin.

<table>
<thead>
<tr>
<th>Endogenous Interactions with warfarin Factors that decreased INR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edema</td>
</tr>
<tr>
<td>Hereditary coumadin resistance</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
</tr>
<tr>
<td>Hypothyroidism</td>
</tr>
<tr>
<td>Nephrotic syndrome</td>
</tr>
<tr>
<td>Blood dyscrasias</td>
</tr>
<tr>
<td>Cancer</td>
</tr>
<tr>
<td>Collagen vascular disease</td>
</tr>
<tr>
<td>Congestive heart failure</td>
</tr>
<tr>
<td>Diarrhea</td>
</tr>
<tr>
<td>Elevated temperature</td>
</tr>
<tr>
<td>Hepatic disorders (infectious hepatitis, jaundice)</td>
</tr>
<tr>
<td>Hyperthyroidism</td>
</tr>
<tr>
<td>Poor nutritional state</td>
</tr>
<tr>
<td>Steatorrhea</td>
</tr>
<tr>
<td>Vitamin K deficiency</td>
</tr>
<tr>
<td>CYP2CP and/or VKORC1 genotype</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<td>Steatorrhea</td>
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<tr>
<td>Vitamin K deficiency</td>
</tr>
<tr>
<td>CYP2CP and/or VKORC1 genotype</td>
</tr>
</tbody>
</table>
## CPHCS Care Guide: Anticoagulation

### Atrial Fibrillation:

<table>
<thead>
<tr>
<th>Warfarin Indication</th>
<th>INR Goal</th>
<th>Duration of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrial Fibrillation (including Paroxysmal Atrial Fibrillation-PAF) and prosthetic heart valves</td>
<td>Target INR according to type of prosthetic valve</td>
<td>Lifetime</td>
</tr>
<tr>
<td>Atrial Fibrillation (including PAF) in patients who have:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• history of prior ischemic stroke, transient ischemic attack, or systemic embolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• one or more of the following risk factors for future ischemic stroke (age &gt; 75 years, history of hypertension, diabetes mellitus, and moderately or severely impaired left ventricular systolic function and/or heart failure)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• valvular heart disease such as mitral stenosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td>Lifetime</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardioversion:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-cardioversion (for AFIB &gt;48hr)/ post-cardioversion</td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td>3 weeks before cardioversion and 4 weeks after (if successful and no other indication for ongoing anticoagulation)</td>
</tr>
</tbody>
</table>

### Treatment of Deep Venous Thrombosis

<table>
<thead>
<tr>
<th>Initial</th>
<th></th>
<th>If identified transient (reversible) risk factor 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td></td>
</tr>
<tr>
<td>Recurrent</td>
<td>2nd episode of unprovoked - long-term treatment.</td>
<td></td>
</tr>
<tr>
<td>Cancer Patients</td>
<td>ACCP recommends warfarin or LMWH indefinitely or until the cancer is resolved.</td>
<td></td>
</tr>
</tbody>
</table>

### Treatment of Pulmonary Embolism (PE)

<table>
<thead>
<tr>
<th>Initial</th>
<th></th>
<th>If transient (reversible) risk factor 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td></td>
</tr>
<tr>
<td>Recurrent</td>
<td>2nd episode of unprovoked -long-term treatment</td>
<td></td>
</tr>
<tr>
<td>Cancer Patients</td>
<td>LMWH is recommended for the first 3 to 6 mos of long-term anticoagulant therapy. ACCP recommends warfarin or LMWH indefinitely or until the cancer is resolved.</td>
<td></td>
</tr>
</tbody>
</table>
### VALVULAR HEART DISEASE - WITH EMBOLISM

<table>
<thead>
<tr>
<th>Warfarin Indication</th>
<th>INR Goal</th>
<th>Duration of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rheumatic mitral valve disease -</td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td>Lifetime</td>
</tr>
<tr>
<td>• Alone or in combination with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Atrial fibrillation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Previous systemic embolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Left atrial thrombus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Normal sinus rhythm with left atrial diameter &gt; 55 mm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rheumatic mitral valve disease with AF who suffer systemic embolism or have left atrial thrombus while at a therapeutic INR target of 2.5 (Range 2.0-3.0)</td>
<td>INR of 2.5 (range 2.0 to 3.0)</td>
<td>Add low dose ASA (50-100 mg po/daily) or INR of 3.0 (range 2.5 to 3.5)</td>
</tr>
</tbody>
</table>

### (BIOPROSTHETIC TISSUE) HEART VALVES

<table>
<thead>
<tr>
<th>Warfarin Indication</th>
<th>INR Goal</th>
<th>Duration of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioprosthetic valve: Mitral position and no factors listed below:</td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td>3 months post surgery</td>
</tr>
<tr>
<td>• Postoperative period (LMWH until therapeutic INR on warfarin)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioprosthetic valve: Aortic position in sinus rhythm and no indication for warfarin therapy.</td>
<td>No warfarin recommended Aspirin 75-100 mg/daily</td>
<td>No warfarin recommended Aspirin 75-100 mg/daily</td>
</tr>
<tr>
<td>Bioprosthetic valves – either mitral or aortic in patients who have a prior history of systemic embolism</td>
<td>INR 2.5 (range 2.0-3.0)</td>
<td>3 month post valve insertion then clinical reassessment.</td>
</tr>
<tr>
<td>Bioprosthetic valves – either mitral or aortic in patients who have additional risk factors risk factors for thromboembolism, including atrial fibrillation, hypercoagulable state, or low ejection fraction.</td>
<td>INR 2.5 (range 2.0-3.0)</td>
<td>Lifetime</td>
</tr>
</tbody>
</table>

### MECHANICAL PROSTHETIC VALVES

<table>
<thead>
<tr>
<th>Warfarin Indication</th>
<th>INR Goal</th>
<th>Duration of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aortic valve replacement (AVR) in NSR with normal left atrial size and no additional risk factors:</td>
<td>INR 2.5 (range 2.0 to 3.0)</td>
<td>Lifetime</td>
</tr>
<tr>
<td>• Bileaflet mechanical valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Medtronic Hall tilting disk valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitral valve replacement with tilting disk or bileaflet valve</td>
<td>INR 3.0 (range 2.5-3.5)</td>
<td></td>
</tr>
<tr>
<td>Patients with a caged ball or caged disk valve any position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical heart valves (either AVR or MVR or both) and additional risk factors for thromboembolism, such as AF, anterior-apical ST-segment elevation MI, left atrial enlargement, hypercoagulable state, or low ejection fraction.</td>
<td>INR 2.5 (range 2.0-3.0)</td>
<td>3 months</td>
</tr>
</tbody>
</table>

### ACUTE MYOCARDIAL INFARCTION

<table>
<thead>
<tr>
<th>Warfarin Indication</th>
<th>INR Goal</th>
<th>Duration of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-risk patients with myocardial infarction including those with large anterior MI, significant heart failure, and intracardiac thrombus visible on transthoracic echocardiography.</td>
<td>INR of 2.5 (INR range, 2.0 to 3.0)</td>
<td>3 months</td>
</tr>
</tbody>
</table>

### LEFT VENTRICULAR DYSFUNCTION:

<table>
<thead>
<tr>
<th>Warfarin Indication</th>
<th>INR Goal</th>
<th>Duration of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ejection fraction &lt;30%</td>
<td>INR of 2.5 (INR range, 2.0 to 3.0)</td>
<td>Lifetime</td>
</tr>
</tbody>
</table>

PROCEDURES IN THE ANTICOAGULATED PATIENT/ANTICOAGULATION BRIDGING:

► Interruption of chronic warfarin therapy is occasionally needed when patients undergo procedures.
► To achieve adequate hemostasis, warfarin is generally held for 4-5 doses (depending on patients INR range) prior to procedure.
► Warfarin is then restarted 12-24 hours following the procedure but does not achieve an adequate anticoagulation effect for at least 5 days.
► Therefore, patients who hold warfarin therapy for procedures have a 7-10 day period where they are not receiving antithrombotic protection from warfarin.
► Depending on the patient’s circumstances, a decision is sometimes made to “bridge” this interval off warfarin with a shorter-acting parenteral anticoagulant such as IV UFH or LMWH.

► “Bridge therapy” can increase the patient's risk of procedure-related bleeding, especially when given immediately after the procedure.
► The decision to use short-acting parenteral anticoagulants or simply hold warfarin without bridging takes into account the individual patient's risk of a thrombotic event off warfarin weighed against his/her risk of bleeding complications from the procedure and parenteral anticoagulants.

The table below gives examples of cardiac conditions with variable risks of thromboembolic events. This may be used as a guide for decision making when determining when patients might warrant bridging with parenteral anticoagulation versus holding Warfarin therapy.

ACCP’s Perioperative Thromboembolism Risk Stratification

<table>
<thead>
<tr>
<th>Risk category</th>
<th>Mechanical heart valve</th>
<th>Atrial fibrillation</th>
<th>Venous thromboembolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (&lt;1%/yr risk of ATE or &gt;1%/mo risk of VTE)</td>
<td>Any mechanical mitral valve</td>
<td>CHADS* score of 5 or 6</td>
<td>Recent (&lt;3 mo) VTE</td>
</tr>
<tr>
<td>Moderate (4%-10%/yr risk of ATE or 4%-10%/mo risk of VTE)</td>
<td>Older aortic valve</td>
<td>CHADS* score of 3 or 4</td>
<td>Severe thrombophilia</td>
</tr>
<tr>
<td>Low (&lt;1%/yr risk of ATE or &gt;2%/mo risk of VTE)</td>
<td>Recent (&lt;6 mo) stroke or TIA</td>
<td>CHADS* score of 0-2 (and no prior stroke or TIA)</td>
<td>VTE within past 3-12 mo</td>
</tr>
</tbody>
</table>

ACCUP Recommends:
In patients at high risk for thromboembolism, bridge anticoagulation with therapeutic-dose subcutaneous (SQ) LMWH or IV UFH.

In patients at moderate risk for thromboembolism, bridge anticoagulation with therapeutic-dose SQ LMWH, is recommended.

In patients at low risk for thromboembolism, low-dose SQ LMWH or no bridging is recommended.

LOW BLEEDING RISK PROCEDURES:

► For most dental procedures, a review of the literature has shown that in most cases no change in warfarin is needed. It may be reasonable to allow the patient to “drift” to the low end of his/her therapeutic INR prior to a dental procedure with a higher risk of bleeding.
► Patients who have procedures that are of low bleeding risk can be continued on warfarin anticoagulation without interruption.
► For gynecologic and orthopedic surgical patients at low risk for bleeding, the warfarin dose may be lowered four to five days before surgery and the surgery performed at a lower INR (INR 1.3-1.5). The Warfarin dose can be increased to the previous dose postoperatively. Low-risk bleed procedures include:

Low Bleeding Risk Procedures That Can Be Performed Without Discontinuing Warfarin

<table>
<thead>
<tr>
<th>Dental</th>
<th>Dermatologic</th>
<th>Gastrointestinal</th>
<th>Ophthalmic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endodontics</td>
<td>Mohs surgery</td>
<td>Biliary stent without sphincterotomy</td>
<td>Cataract surgery</td>
</tr>
<tr>
<td>Periodontal therapy</td>
<td>Simple excisions</td>
<td>Colonoscopy without biopsy</td>
<td>Trabeculectomy</td>
</tr>
<tr>
<td>Prosthetics</td>
<td>Skin biopsy</td>
<td>Diagnostic endoscopic retrograde cholangiopancreatography (ERCP)</td>
<td></td>
</tr>
<tr>
<td>Restorations</td>
<td></td>
<td></td>
<td>Diagnostic esophagogastroduodenoscopy (EGD)</td>
</tr>
<tr>
<td>Teeth cleaning</td>
<td></td>
<td></td>
<td>Endoscopic ultrasonography without biopsy</td>
</tr>
<tr>
<td>Uncomplicated extractions</td>
<td></td>
<td></td>
<td>Push enteroscopy</td>
</tr>
</tbody>
</table>
WARFARIN (COUMADIN): WHAT YOU SHOULD KNOW

Q: What is warfarin?
Warfarin is a medicine that helps your blood flow easier and not clot as fast. Sometimes this drug is called a blood thinner.

Q: Why do I need to take warfarin?
Patients can be on warfarin for several reasons. These include:
- Irregular heart beat (Atrial fibrillation)
- Blood clot in leg vein or arm vein (Deep venous thrombosis -"DVT")
- Blood clot in the lung (Pulmonary embolus-"PE").
- Replacement of certain valves in the heart.

Q: How long do I have to be on warfarin?
It depends on why you take warfarin and what other health problems you have. Some people take warfarin for only a few months, but many people take it for the rest of their life.

Q: How should I take warfarin?
Take this medication the way your doctor or nurse tells you to.
- Usually you will go to pill line everyday to get your warfarin pill.
- If you have the warfarin as a "carry med" (rare) then take the pill every day the way your doctor told you. Never take extra pills or skip a day. If you forget to take a warfarin pill one day write it down and tell your doctor or nurse.
- Try to take your warfarin at about the same time every day usually in the evening.
- Warfarin can be taken with or without food.
Never stop taking warfarin unless your doctor tells you to stop.

If your doctor stops warfarin for a few days because of a test or surgery be sure that you know when

Q: What tests will I need if I take warfarin?
You will need to have a simple blood test called "INR" done regularly while you take warfarin. Your doctor or nurse use the blood test to tell if you have too much warfarin or not enough.
- If your INR number your doctor wants for you. (Most people between 2.0 and 3.0)
- If your INR gets too low you can get a blood clot.
- If your INR gets too high you can bleed more easily.
When you first start warfarin you may need your blood checked often. Once your INR adjusted you only need blood tests about once a month.

Q: What if I have a problem getting my warfarin or the dose does not seem correct?
- If there is a problem getting your warfarin tell your doctor or nurse right away.
- If your pills seem like they are a different color or the number of pills is different from what you are used to– ask the pill line nurse or your doctor to check the warfarin.
- Mistakes with warfarin are common, especially when your doctor or nurse is adjusting the dose. Make sure to ask your doctor or nurse how you will be informed about changes in your warfarin.
Q: Does the color of my warfarin pill matter?
Yes the color of all warfarin/Coumadin/Jantoven pills tells you how strong the pill is. If the color changes the dose is different.
Know your dose and the color of your pill. (CDCR uses 1, 2.5, 3, 5, 7.5, 10 mg)

<table>
<thead>
<tr>
<th>Tablet strength</th>
<th>Tablet color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mg</td>
<td>Pink</td>
</tr>
<tr>
<td>2 mg</td>
<td>Lavender (light purple)</td>
</tr>
<tr>
<td>2.5 mg</td>
<td>Green</td>
</tr>
<tr>
<td>3 mg</td>
<td>Tan</td>
</tr>
<tr>
<td>4 mg</td>
<td>Blue</td>
</tr>
<tr>
<td>5 mg</td>
<td>Peach (light orange)</td>
</tr>
<tr>
<td>6 mg</td>
<td>Teal (blue-green)</td>
</tr>
<tr>
<td>7.5 mg</td>
<td>Yellow</td>
</tr>
<tr>
<td>10 mg</td>
<td>White</td>
</tr>
</tbody>
</table>

Q: What are the side effects of warfarin?
Side effects with warfarin are not common. Most side effects involve bleeding or bruising.
• A little bleeding can happen once in awhile and if it stops you do not need to worry.
• A lot of bleeding or bruising is not normal and you should tell your doctor or nurse right away.

A little bleeding - you may notice from time to time:
• Gum bleeding when brushing your teeth
• Small nosebleed
• Easy bruising
• Bleeding after a minor cut that stops within a few minutes
• Menstrual bleeding that is a little more than normal

A lot of Bleeding – tell your doctor or nurse right away if you have any of these:
• Red, dark, coffee or cola colored urine
• Stools that are red or look like tar
• Too much bleeding from the gums or nose
• Throwing up coffee colored or bright red vomit
• Coughing up red-tinged spit
• Bad pain (such as headache or stomach ache)
• New bruises than come for no reason
• Too much menstrual bleeding
• A cut that will not stop bleeding within 10 minutes
• A bad fall, or you hit your head

Q: What should I look for or do while taking warfarin?
You will want to stay away from sports or other activities that could cause you to get hurt.
• Walking, running and working-out is ok, but really rough basketball may not be safe
• When you are at your job be sure to wear good shoes and gloves when needed
You will need to be careful doing things that could make you bleed.
• When shaving be careful with razors (electric razor is better if you have one)
• Do not use toothpicks
• When cutting your toenails be careful. Do not trim corns or calluses yourself.

Q: What do I need to know about using other medication when I am taking warfarin?
• When warfarin is taken with other medicines, it can change the way other medicines work.
• Other medicines can also change the way warfarin works.
• Your doctor or nurse should know about all of the other medicines that you are taking, including over-the-counter medicines.
• Aspirin also thins your blood. Never take aspirin without telling your doctor or nurse.
  • Medicines such as "cough and cold medicines" and Pepto-Bismol have aspirin in them.
• Motrin-like medications (Naprosyn, Advil, Aleve) also raise the risk of bleeding and you should not take these when you are taking warfarin. Follow instructions from your doctor or nurse.
COUMADIN: WHAT YOU SHOULD DO

Do’s and Don’ts

- Do NOT take warfarin if you are pregnant
- Do not drink alcohol (pruno) it can cause more side effects of warfarin
- Do not skip a day taking your warfarin
- Do the blood tests (INR) your doctor or nurse orders.
- Eat a healthy diet. Try to keep the amount of vitamin K foods you eat the same everyday.
- Stay away from sports or other activities that could cause you to get hurt.
- Ask your doctor or nurse what kind of exercise you should do.
- Tell your doctor or nurse right away if you have any of these serious side effects:
  - skin changes or bruising anywhere on your body;
  - purple toes or fingers;
  - stomach, back, or side pain that will not go away
  - fever and no appetite, dark urine, jaundice (yellowing of the skin or eyes);
  - diarrhea, fever, chills, body aches, flu symptoms;
  - bleeding that will not stop;
  - blood in your stool or urine;
  - black, bloody, or tarry stools;
  - nosebleeds, bleeding gums, coughing up blood;
  - new, bad headache, being confused, new problems with vision, speech, or balance;
  - new leg or foot pain with swelling; or
  - new numbness or weakness, especially on one side of the body.
- Brush and floss your teeth gently and shave carefully.
- Tell all doctors and dentists that you are taking warfarin. (Think about carrying a note saying you are taking warfarin in case of emergency.)

Foods High in Vitamin K

Some foods change the way warfarin works. Try not to change your diet much while you are taking warfarin.

If you eat foods that have vitamin K in them (see below) the vitamin K works against the warfarin “blood-thinning” and can make your INR blood test to go too low. (Then your body can again make blood clots too easily).

This is fine as long as you eat about the same amount of these foods from week to week.

The foods below are known to have a lot of vitamin K.
- Green, leafy vegetables: Such as spinach and lettuce
- Cruciferous vegetables: Such as broccoli and cabbage
- Other vegetables: Frozen peas

Other Medications

- Many medicines can change the way warfarin works, especially antibiotics and medications for seizures.
- Ask your doctor or nurse before using any other medicine, this includes over-the-counter medicines, vitamins and herbs you may take when paroled.
- You should not take aspirin or NSAID medications (such as Motrin or Naprosyn) while taking warfarin unless your doctor or nurse tells you to.
- Medicine such as “cough and cold medications” and Pepto-Bismol contain aspirin or Motrin. If you are not sure if a medication is safe ask your provider.

REASON YOU TAKE WARFARIN: ____________________________

HOW LONG WILL YOU TAKE WARFARIN?: __________________ 

YOUR MEDICATION:
- Warfarin (Coumadin)
- Enoxaparin (Lovenox) Sometimes used with warfarin
- Other: ____________________________

Current Dose: ____________________________

If you have any trouble with this medication, or getting refills please send an Urgent 7362 request telling the Triage Nurse that you are taking warfarin or enoxaparin.

YOUR BLOOD TESTS RESULTS:

INR test
Your INR test Goal: _______
Your INR test result: _______ Date: _______
Your INR test result: _______ Date: _______
Your INR test result: _______ Date: _______
You must have your blood test done regularly as long as you are taking warfarin, usually every: _______ weeks.
ANTICOAGULACIÓN: LO QUE DEBE DE SABER

P: ¿Qué es la warfarina?
R: La warfarina es un medicamento que evita o impide que la sangre se coje o solidifique. El medicamento es un anticoagulante. “Anti” significa contra y “coagulante” significa cuajar o solidificar un líquido (la sangre). A veces este medicamento se le llama “diluyente o afinador de sangre.” La warfarina ayuda a que su sangre fluya más fácilmente y no se coje o solidifique.

P: ¿Por qué necesito tomar warfarina?
R: Pacientes toman warfarina por diferentes razones. Estas incluyen:
- Fibrilación auricular
- Trombosis venosa profunda, que ocurre al formarse coágulos (trombos) de sangre en las venas profundas de las piernas.
- Embolia pulmonar: es un coágulo (trombo) en los pulmones.

P: ¿Por cuánto tiempo debo de tomar warfarina?
R: Esto depende de la causa por la cual necesita usted tomar warfarina y por otras condiciones médicas que usted pueda tener. Algunas personas solamente toman warfarina por unos meses y otras durante toda su vida.

P: ¿Cómo debo de tomar warfarina?
R: Tome este medicamento exactamente cómo le fue prescrito.
- Si se le debe ser “administrada por enfermero(a)” (Nurse Administered - “NA”). Vaya a la “línea de medicinas” (“pill line”) cada día a recoger su dosis.
- Si, como en raras ocasiones, se le da para llevar consigo (“carry med” - “KOP”) siga las instrucciones al pie de la letra y nunca tome ninguna tableta de más o deje de tomar su dosis diaria. Si olvida tomar una dosis anótelo e informe a su profesional médico.
- Trate de tomar su warfarina a aproximadamente a la misma hora todos los días, usualmente por la tarde.
- La warfarina se puede tomar con o sin comida.

Nunca deje de tomar warfarina a no ser que su profesional médico se lo diga (ordene/recomiende…). Si tiene usted que dejar de tomar warfarina por unos pocos días, debido a cirugía u otro procedimiento médico, asegúrese de saber cuando debe de comenzar de nuevo a tomar warfarina.

P: ¿Qué exámenes necesito si tomo warfarina?
R: Usted necesitará hacerse un simple examen de sangre llamado “INR” regularmente mientras que usted este tomando warfarina.
- El “INR” necesita permanecer dentro de márgenes estrechos, usualmente entre 2.0 y 3.0.
- Mantener su dosis ideal de warfarina y su “INR” idóneo es como equilibrar el peso en una balanza (o caminar sobre una cuerda floja).
  - Si su “INR” es muy bajo podría usted desarrollar un coágulo (trombo).
  - Si su “INR” es muy alto podría usted sangrar con facilidad.
- Al comenzar a tomar warfarina usted podría necesitar hacerse exámenes de sangre más frecuentemente. Una vez que su “INR” alcanze su nivel ideal sus exámenes de sangre disminuiran de frecuencia—comunmente una vez al mes.

P: ¿Qué puedo hacer si tengo algún problema obteniendo mi warfarina o si la dosis no parece ser la correcta?
R:
- Si tiene problemas obteniendo una nueva receta o renovando su warfarina contacte a su equipo médico inmediatamente.
- Si su warfarina parece diferente—si las tabletas son de diferente color o la cantidad que se le ha dicho tomar es diferente de lo que usted creía—pregúntele a su enfermero(a) o profesional médico comprobar la dosis.
- Especialmente al comenzar a tomar warfarina la dosis puede cambiar con frecuencia y errores son posibles. Asegúrese siempre de preguntar a su profesional médico / equipo médico de cómo será usted informado de cambios en su dosis.
P: ¿Es el color de mis tabletas de warfarina importante?
R: Sí, el color de las tabletas de warfarina/Coumadin/Jantoven nos dice cuántos miligramos tiene cada tabletta. Si el color es diferente la dosis es diferente. Usted debe saber su dosis y el color de su tableta(s).
(CDCR usa tabletas de 1, 2.5, 3, 5, 7.5 y 10 mg)

P: ¿Cuáles son los efectos secundarios de la warfarina?
R: La warfarina normalmente no tiene muchos efectos secundarios. Estos efectos estan relacionados con la manera con la cual este medicamento funciona.
• Para disminuir el riesgo de sangrado su profesional médico debe de mantener su “INR” en un nivel correcto.
• Sangrados pequeños aún pueden ocurrir cuando su “INR” se encuentre a un buen nivel.
• Por ejemplo, usted podría notar pequeños moretones o un leve sangrado de encías al cepillarse los dientes.
• Si usted sufre de algo inusual que piensa pudiese estar causado por su medicamento, por favor informe a su profesional médico.

Sangrado Leve – Usted puede notar de vez en cuando:
• Sangrado de encías al cepillarse los dientes
• Ocasional sangrado de nariz
• Fácil desarrollo de moretones (cardenales)
• Sangrado después de una cortada menor que no cesa en pocos minutos.
• Sangrado menstrual que es un poco mayor de lo normal.

Sangrado Mayor – contacte su equipo médico inmediatamente si usted experimenta lo siguiente:
• Orina de color rojo, café o cola.
• Heces de color rojo o como la brea.
• Mucho sangrado de encías o de nariz
• El vómito aparece como “posos de café” o es de color rojo
• Tose secreciones de color rojizo
• Tiene dolores severos (como dolor de cabeza o de estómago)
• Aparición repentina de moretones sin razón alguna.
• Sangrado menstrual excesivo
• Una herida o laceración que no cesa de sangrar por más de 10 minutos
• Una caída grave o si se golpea la cabeza

P: ¿Con que debe de usted tener cuidado o hacer mientras que tome warfarina?
R: No debe de hacer actividades o deportes que le puedan causar daño:
• Caminar, correr y ejercicios calisténcicos son aconsejables, pero baloncesto competitivo podría no ser recomendable
• Cuando este trabajando calze zapatos fuertes y proteja sus manos con guantes de ser necesario
Necesita tener cuidado con objetos que puedan ocasionar sangrado
• Tenga cuidado con cuchillas de afeitar-use rasuradora eléctrica preferiblemente si tiene usted una o se le permite
• No use palillos de dientes
• Tenga cuidado cortándose las uñas de los pies-No se corte los callos o juanetes usted mismo.

P: ¿Qué debo de saber cuando tome otro(s) medicamento(s) mientras estoy tomando warfarina?
R: Al tomar warfarina con otros medicamentos, la warfarina puede cambiar la forma de actuar de esos medicamentos
• Otras medicinas pueden por otra parte cambiar la forma de actuar de la warfarina.
• Su Personal Médico debe de saber acerca de todos los medicamentos que usted está tomando, incluyendo cualquier otro medicamento sin receta o suplemento
• La aspirina disminuye la habilidad de la sangre para formar coágulos (trombos) y aumenta la acción de la warfarina. Nunca tome aspirina sin informar a su profesional médico.
• Recuerde muchos productos como medicinas para el resfriado and “Pepto-Bismol” contienen aspirina.
• Medicinas como el “Motrin” (“Naprosyn”, “Advil”, “Aleve”) aumentan el riesgo de sangrado y generalmente no se toman junto con warfarina. Siga las recomendaciones de su profesional médico.
**WARFARINA: LO QUE DEBE DE HACER**

**SI Y NOs**

- NO TOME WARFARINA SI ESTÁ EMBARAZADA
- NO BEBA ALCOHOL (PRUNO)-PUEDE AUMENTAR LOS EFECTOS DE LA WARFARINA
- NO DEJE DE TOMAR SU DÓSIS DE WARFARINA
- HAGA SUS EXÁMENES DE SANGRE (INR) COMO SE LE RECOMIENDE
- COMA UNA DIETA SALUDABLE CADA DÍA. TRATE DE INGERIR LA MISMA CANTIDAD DE ALIMENTOS CON VITAMINA K CADA DÍA. (VER INFORMACIÓN ADJUNTA-EN COLUMNA A LA DERECHA)
- NO HAGA DEPORTES O ACTIVIDADES QUE LE PUEDAN CAUSAR DAÑO FÍSICO
- SIGA EL PROGRAMA DE EJERCICIOS RECOMENDADO.
- PÓNGASE EN CONTACTO CON PERSONAL MÉDICO INMEDIATAMENTE SI USTED TIENE CUALQUIER EFECTO SECUNDARIO SERIO:
  - CAMBIOS EN SU PIEL, MORETONES O DESCOLORACIÓN EN CUALQUIER LUGAR DE SU CUERPO;
  - DEDOS DE PIES O MANOS MORADOS;
  - DOLOR CONTINUO EN SU ESTÓMAGO, ESPALDA O COSTAS;
  - FIEBRE CON PÉRDIDA DE APETITO, ORINA OSCURA, ICTERICIA (COLOR AMARILLENTO DE PIEL O BLANCO DE LOS OJOS);
  - DIARREA, FIEBRE, ESCALOFRIOS, DOLORES POR TODO EL CUERPO, SÍNTOMAS DE GRIPE;
  - SANGRADO QUE NO PARA;
  - SANGRE EN SUS HECES U ORINA;
  - HECES NEGRAS, COMO BREA O CON SANGRE;
  - DOLOR DE CABEZA AGUDO, CONFUSIÓN, PROBLEMAS CON SU VISIÓN, HABLA O EQUILIBRIO;
  - DOLOR DE NARIZ O DE ENCÍAS, OTROS SÍNTOMAS DE INFLAMACIÓN;
  - PARÁLISIS O DEBILIDAD REPENTINA, ESPECIALMENTE EN UN SÓLO LADO DE SU CUERPO.
- CEPÍLLESE Y USE CUERDA DENTAL SUAVEMENTE Y AFÉITESE CON CUIDADO.

**INFORME A PERSONAL MÉDICO Y/O DENTAL SI NECESITA CUIDADO DE EMERGENCIA QUE USTED ESTA TOMANDO WARFARINA.**

**Comidas Altas en Vitamina K**

Algunos alimentos pueden afectar la manera en que la warfarina actúa. No cambie su dieta mientras este tomando warfarina. Si usted come alimentos que contienen vitamina K (vea abajo) el efecto anticoagulante de la warfarina disminuirá. Esto no causará ningún problema siempre y cuando usted coma la misma cantidad de estos alimentos de una semana a otra. Los alimentos anotados abajo contienen una cantidad más elevada de vitamina K por unidad. Es importante que usted conozca estos alimentos ricos en vitamina K.

- **Vegetales verdes:** Espinaca, mostaza, semillas de soja, endivia, y lechuga
- **Vegetales crucíferos:** Brocolí, col de Bruselas, répollo, espárragos, berros.
- **Otros vegetales:** guisantes (arvejas/habichuelas frescos o congelados), okra, frijoles

**Otras Medicinas**

- Muchos medicamentos pueden cambiar la forma en la cual la warfarina actúa, especialmente antibióticos y los medicamentos anticonvulsivos.
- Pregunte a su profesional médico antes de tomar cualquier otro medicamento, incluyendo cualquier medicamento sin receta, producto vitamínico, natural o de hierbas que pueda adquirir una vez este en libertad.
- Recuerde que muchos productos contienen aspirina o Motrin, como algunas medicinas para resfriados y alivio del dolor y su profesional médico podría aconsejarle no usar esos medicamentos.

**RAZÓN PARA TOMAR WARFARINA:**

**DURACIÓN DE TRATAMIENTO:**

**SU MEDICAMENTO(S):**

- Warfarin (a) / (Coumadin)
- Enoxoparin (a) / Lovenox
- Otro: __________________

Dosis Actual: __________________

Sí tiene algún problema con este medicamento, o problemas obteniendo una nueva receta, por favor complete una Forma 7362 urgente, informando al/la enfermero(a) de turno que usted esta tomando warfarina.

**LOS RESULTADOS DE SU “INR” SON:**

Su meta de INR: __________

INR presente: __________ Fecha __________

INR presente: __________ Fecha __________

INR presente: __________ Fecha __________

USTED DEBE DE HACERSE UN EXAMEN DE “INR” REGULARMENTE MIENTRAS ESTE TOMANDO WARFARINA, USUALMENTE CADA __________ SEMANAS.