

Family Medicine Clerkship Plain Language Summary Template

Title: The Basics of Anticoagulation Therapy

Name: Brittany Brindle, MS3

Plain Language Summary:

The goal of anticoagulation therapy with blood thinners such as warfarin (Coumadin®) is to decrease the body's ability to form a blood clot.

Blood clots are large collections of sticky blood cells that block the flow of blood. When you scrape your knee, blood clots stop the bleeding. Sometimes blood clots form when they aren't supposed to. This happens when: blood flow changes, the vessel holding the blood cells is damaged, and the stickiness of the blood increases. Blood provides oxygen to the body that is needed to help the body function. Clots block the flow of oxygen and without oxygen the cells of the body die. When blood clots block blood flow to the brain it can cause a stroke.

The most common reasons for taking warfarin include:

Deep Vein Thrombosis (DVT): a blood clot deep in the vessels of your body, most commonly in your leg.

Pulmonary Embolism (PE): a blood clot in your lungs. This most commonly comes from a clot that breaks off from a vessel deep in your leg.

Atrial fibrillation: irregular heartbeat patterns that change the flow of blood allowing clots to form.

After some surgeries: some surgeries can increase the body's chance of forming clots.

Warfarin works by blocking the action of vitamin K, which makes factors to help blood clot. Certain foods such as green leafy vegetables have lots of vitamin K. Eating foods with lots of vitamin K can make warfarin less effective and cause your INR to go below your target range. Eating the same foods consistently is the most important thing.

Warfarin starts working within 1 day, but the full effect can take several days. Warfarin works differently in every person, so *it is very important to take your warfarin exactly how your doctor tells you too*. Warfarin interacts with several medications and herbal supplements, so it is important to tell your doctor about all the medications and supplements you are taking.

The most important part of anticoagulation therapy is to keep your blood in the safe zone to prevent the formation of blood clots. This zone or range is monitored by a test called the INR. Most people should have an INR between 2 and 3. If your INR is low, you are at risk for forming clots. If your INR gets too high, it can cause serious bleeding. Because warfarin thins your blood and makes bleeding more likely, it is important to take extra precaution to avoid falls and injury. You cannot take warfarin before surgery and you should not drink excess alcohol while taking it. Be sure to tell your doctor if your gums are bleeding, you are having nosebleeds, you have blood in your stool or urine, you

feel weak or dizzy, or you have unusual bleeding. Talk to your doctor about any questions or concerns.

Additional Resources:

<http://www.ahrq.gov/consumer/btpills.htm>

US Dept. of Health and Human Services: Agency for Healthcare Research and Quality. Provides patients information about using blood thinners safely.

<http://www.nlm.nih.gov/medlineplus/druginfo/meds/a682277.html>

Provides consumers with information on warfarin.

<http://www.dvt.org/dvt/>

An Internet resource for deep vein thrombosis and pulmonary embolism

National Stroke Association

1-800-STROKES *or* www.stroke.org

American Heart Association Stroke Connection “warmline”

1-800-553-6321 *or* www.americanheart.org

Key Words:

Oral anticoagulation therapy

Blood thinners

Venous thromboembolism

Blood clots

This document was created by a medical student enrolled in the Family Medicine Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up-to-date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.