



Bureau of Quality Improvement Services (BQIS)

Coumadin Monitoring

BQIS

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Certain conditions make someone on Coumadin even more at risk for complications of bleeding.

high blood pressure (moderate to severe), a prior history of gastrointestinal bleed or stroke, severe heart disease, anemia, cancer, kidney failure, alcohol habit, liver disease, recent major surgery or dental work, the presence of an indwelling catheter, frequent falling, and trauma.

Risk Planning Resource

Period ending 03/31/2012

Introduction and Purpose

- It is the expectation of BQIS that providers familiarize themselves (and their staff) with this information through communication and training efforts.
- This issue was identified during mortality reviews completed during the third quarter of the fiscal year 2012 (January through March 2012).
- This Risk Planning Resource is not intended to provide specific medical recommendations and interested parties should seek further clarification from trained medical professionals.

Risk

Risk Plan

When a person is prescribed Coumadin (Warfarin), it is important that a risk plan be developed and training completed on the risk plan for all staff who are caring for that person. Although there are several potential serious adverse effects associated with Coumadin, the discussion here will only focus on the serious risk of bleeding.

Coumadin thins the blood so that it will not clot readily. The therapeutic effect of Coumadin is tested by measuring a PT (Protime) and INR (International Normalized Ratio). There is a range for these test results that is considered therapeutic (depending on the diagnosis). If the levels of these tests fall below this, then the Coumadin loses its effectiveness in treating the diagnosis for which it was prescribed (pulmonary embolism, blood clot in leg, preventing clots from adhering to artificial heart valves, etc.). If the levels of these tests exceed these, there is an increased tendency for side effects. The further the actual levels are beyond the therapeutic range, the more at risk the person is for serious side effects. Even in the therapeutic range, a person can have significant side effects/complications.

Staff caring for a person on Coumadin should ensure that the per-

son is tested on a strict schedule through the primary care physician, specialist, or Coumadin clinic, and results are communicated back to the provider of record, along with an interpretation and any change in orders/plans from the physician (or physician extender) in charge. It is imperative that the person does not miss appointments for blood draws concerning Coumadin.

High Risk - Current or Past Co-morbid Conditions

Certain conditions make someone on Coumadin even more at risk for complications of bleeding - high blood pressure (moderate to severe), a prior history of gastrointestinal bleed or stroke, severe heart disease, anemia, cancer, kidney failure, alcohol habit, liver disease, recent major surgery or dental work, the presence of an indwelling catheter, frequent falling, and trauma. A number of other medications prescribed for other reasons may increase the risk of bleeding from Coumadin due to a drug-drug interaction.

A person having difficulty with memory (dementia) should not be self-administering Coumadin.

Certain foods can affect Coumadin's effectiveness. A dietitian may need to be consulted to review the per-

son's dietary needs to assist the team in ensuring an appropriate diet. The provider agency should provide in-service training regarding the person's dietary needs and dietary restrictions.

Activities such as contact sports that may cause injury should be avoided.

It is recommended that the person has identification (such as a medical alert bracelet or wallet card) indicating the current treatment includes Coumadin. If Coumadin is discontinued, be sure to remove the medical alert bracelet/wallet card.

The risk plan should include observation and immediate reporting to the provider agency nurse or PCP if any of the following occur:

- New onset paralysis, loss of limb function or feeling, dizziness, clumsiness, or headache (especially after falling and hitting the head on furniture, floor, etc.)
- Worsening mental status (confusion, excessive sleepiness)
- Low blood pressure
- Increasing bruise or bruises with or without history of trauma
- Prolonged bleeding from cuts
- Prolonged/excessive menses
- Prolonged nosebleed(s)



Risk (cont.)

- Bleeding gums
- Unexplained pain of chest, abdomen or extremity
- Any bleeding that will not stop with elevation and pressure on the bleeding area
- Blood in the urine or stool
- Coughing up blood
- Vomiting bright red blood or material that looks like coffee grounds
- Pallor, weakness, fainting

These are a few of the important signs/symptoms that may be included in a risk plan and discussed with staff. Should any of these signs/symptoms occur, staff would be able to recognize the need to seek immediate medical attention.

Coumadin (generic name - Warfarin), is an anticoagulant (blood thinning medication) that is commonly used to help treat and prevent **blood clots** that could cause a **heart attack, stroke, or pulmonary embolism**.

Teaching Emergency Response/Communication

A person who lives independently needs to be taught the need to immediately contact Emergency Medical Services (EMS) or the provider agency's nurse if they have

significant bleeding or bruising. Teams may want to consider obtaining a personal emergency response system (PERS) that can be utilized if the individual observes

the bleeding and bruising. Training should be documented, and emergency drills and reminders would assist the person to respond appropriately and timely.

For those living independently, there may be the need to provide a personal emergency response system (PERS) that can be utilized if they observe the bleeding and bruising. Training should be documented, and emergency drills and reminders would assist the person to respond appropriately and timely.

Review of Routine Medication for Drug-Drug Interactions

The provider agency should ensure that the drug regimen is reviewed for a person who is prescribed Coumadin to ensure that significant drug-drug interactions do not occur. This can be determined in a number of different ways, but ultimately, it is important for the pharmacy dispensing medications to review the most current MAR for drug interactions and call the ordering physician if there are significant concerns. This is especially indicated if more than one pharmacy chain or source is used to obtain medications. It is suggested

that the pharmacist is requested to review the MAR for drug-drug interactions with Coumadin. Pharmacies will often utilize software to assist in reviewing drug-drug interactions. A brief confirmation entry/note for the chart indicating the MAR has been reviewed (with date of review) and potential serious drug interactions do not exist or have been communicated to the prescribing physician/physician extender by the pharmacist, would assure the team that drug-drug interactions were reviewed. The MAR should also list all over-the-

counter medications and herbal medications the person may be taking for the pharmacy to review. The agency should have a system to follow up if the pharmacist indicated communication with the PCP, and there has been no response to the staff in the home from the PCP office to confirm there has been no change in orders.

Ensure all specialists who are treating the individual are aware Coumadin was prescribed.

Other

Ensure all staff understand that Warfarin is Coumadin. For the duration of treatment, work with only one pharmacy or pharmacy chain in obtaining medications. Request that the pharmacist choose one name (generic or brand) for printing on the MAR, and use that name consistently.

As mentioned earlier, there are other significant concerns and side effects associated with Coumadin not discussed here. The provider

agency is encouraged to develop risk plans for anyone prescribed Coumadin, to ensure the person's health and safety.

As the risks of Coumadin are significant, the provider agency is should review available resources and obtain the latest updates. Providers should also ensure all of the necessary precautions for the specific person are included in his/her individual-specific risk plan

Coumadin Resources

- www.rxlist.com/coumadin-drug.htm
- www.drugs.com/coumadin.html
- **Your primary care physician.**