



Effective Health Care

Warfarin and Drug Interactions Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Warfarin and drug interactions is not feasible for a full systematic review due to the limited data available for a review at this time.
- This topic could be considered for a potential new research project within the Effective Health Care (EHC) Program.

Topic Description

Nominator: 2 nominations from 1 government organization

Nomination Summary: A number of drugs have been reported to interact with warfarin and it is unclear which interactions are clinically significant. A recent unpublished study of drug compendia for drug-drug interactions with warfarin revealed a total of 648 drug interactions across compendia, but only 50 drugs (mostly analgesics) were common to all sources. Sources include 3 compendia and 1 drug label. The authors conclude that there is very little agreement among the compendia with respect to the listing of agents. The nominator is interested in a review that would create a clearer understanding of the drug interactions with warfarin.

Population(s): Patients on warfarin for diseases associated with venous or arterial embolism (e.g., pulmonary embolism, atrial fibrillation, persons with mechanical prosthetic heart valves, and/or DVT)

Intervention(s): Warfarin

Comparator(s): Concomitant treatment with warfarin and other drugs (not limited to pain medications)

Outcome(s): Decreased frequency of serious adverse events associated with warfarin drug interactions and a reduction in hospitalizations and emergency department visits

Key Questions from Nominator:

1. For adults currently taking warfarin, what are the clinically significant drug interactions associated with warfarin? Clinically significant is defined as, but not limited to, those interactions that are associated with increased bleeding (e.g., cerebral hemorrhage, bleeding requiring blood transfusions), increases in the international normalized ratio (INR) > 5, or thrombosis.

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Most evidence for this topic comes from case reports. There is a large number of recent observational studies; however, most are focused on pharmacokinetics and pharmacodynamics of warfarin and not on drug-drug interactions. Therefore, this topic is not feasible for a full systematic review due to the limited data available for a review at this time.
- More evidence is needed on what drugs, conditions, comorbidities, etc. are associated with an increase in the frequency of bleeding and other adverse events among patients taking warfarin. Good quality observational research could be helpful for this topic, especially given the high number of single case reports.