

OUR OFFICE OF PATIENT SAFETY

Drug Interaction Checker

Catch potentially harmful drug interactions before they occur!

The link below will bring you to Medscape's drug interaction program where you can enter all the medications a patient is taking and get an immediate print out of drug interactions which may affect a patients' treatment. Then you may consider calling the doctor to discuss alternatives or faxing the report to the MD for appropriate intervention. This is a real patient safety effort. OOOPS is working on a process where at a minimum this information can be provided with all new referrals. OOOPS has attached a copy of what a drug checker print out would include for a patient taking aspirin with Codeine, Heparin and Coumadin. Your feedback is greatly appreciated.

click on the link below and try for yourself

www.medscape.com/drugchecker

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Multi-Drug Interaction Checker

Patient Regimen

ASA-CAFF-BUTALBITAL-CODEINE ORAL
COUMADIN ORAL
HEPARIN, PORCINE (PF) INJ

Interactions

Severe Interaction

ANTICOAGULANTS/SALICYLATES

Coumadin Oral and ASA-Caff-Butalbital-Codeine Oral may interact based on the potential interaction between ANTICOAGULANTS and SALICYLATES.

ANTICOAGULANTS/BARBITURATES

Coumadin Oral and ASA-Caff-Butalbital-Codeine Oral may interact based on the potential interaction between ANTICOAGULANTS and BARBITURATES.

HEPARIN/SALICYLATES

Heparin, Porcine (PF) Inj and ASA-Caff-Butalbital-Codeine Oral may interact based on the potential interaction between HEPARIN and SALICYLATES.

Moderate Interaction

HEPARINS/ANTICOAGULANTS

Heparin, Porcine (PF) Inj and Coumadin Oral may interact based on the potential interaction between HEPARINS and ANTICOAGULANTS.

Anticoagulants/Salicylates

This information is generalized and not intended as specific medical advice. Consult your healthcare professional before taking or discontinuing any drug or commencing any course of treatment.

MONOGRAPH TITLE: Anticoagulants/Salicylates

SEVERITY LEVEL: 2-Severe Interaction: Action is required to reduce the risk of severe adverse interaction.

MECHANISM OF ACTION: Multiple processes are involved: 1) Salicylate doses greater than 3 gm daily decrease plasma prothrombin levels. 2) Salicylates may also displace anticoagulants from plasma protein binding sites. 3) Salicylates impair platelet function, resulting in prolonged bleeding time. 4) Salicylates may cause gastrointestinal bleeding due to irritation.

CLINICAL EFFECTS: The concurrent use of anticoagulants and salicylates may result in increased INR values and increase the risk of bleeding.

PREDISPOSING FACTORS: None determined.

PATIENT MANAGEMENT: Avoid concomitant administration of these drugs. If salicylate use is necessary, monitor prothrombin time, bleeding time, or INR values closely. When possible, the administration of a non-aspirin salicylate would be preferable.

DISCUSSION: This interaction has been reported between aspirin and warfarin and between aspirin and dicumarol. Diflunisal, sodium salicylate, and topical methyl salicylate have been shown to interact with anticoagulants as well. Based on the proposed mechanisms, other salicylates would be expected to interact with anticoagulants as well.

The time of highest risk for a coumarin-type drug interaction is when the precipitant drug is initiated, altered, or discontinued.

REFERENCES:

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- 2.Watson RM, Pierson RN, Jr. Effect of anticoagulant therapy upon aspirin-induced gastrointestinal bleeding. *Circulation* 1961 Sep;24:613-6.
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Anticoagulants/Barbiturates

This information is generalized and not intended as specific medical advice. Consult your healthcare professional before taking or discontinuing any drug or commencing any course of treatment.

MONOGRAPH TITLE: Anticoagulants/Barbiturates

SEVERITY LEVEL: 2-Severe Interaction: Action is required to reduce the risk of severe adverse interaction.

MECHANISM OF ACTION: It is speculated that induction of hepatic microsomal enzymes results in increased metabolism of anticoagulants,(1) resulting in decreased anticoagulant response.(2,3) Barbiturates may also increase the synthesis of clotting factors by the liver.(4) The absorption of dicumarol, but not warfarin, from the gastrointestinal may be decreased by barbiturates.(5)

CLINICAL EFFECTS: Concurrent use may result in decreased anticoagulant effects. Increased anticoagulant effects may occur if the barbiturate is withdrawn. The effect may be dose-related and may continue beyond the discontinuation of the barbiturate.

PREDISPOSING FACTORS: None determined.

PATIENT MANAGEMENT: If possible, avoid the concurrent use of these agents. If a barbiturate is initiated or discontinued in a patient maintained on anticoagulant therapy, monitor prothrombin times and adjust the dose of the anticoagulant as needed.

For hypnotic indications, benzodiazepines and diphenhydramine may be alternatives to barbiturates in patients stabilized on anticoagulant therapy.

DISCUSSION: Amobarbital,(6) aprobarbital,(7) barbital,(8) butabarbital,(9) pentobarbital,(4) phenobarbital,(1) and secobarbital(6) have been shown to interact with coumarin anticoagulants. Dicumarol,(5) warfarin(1), and phenprocoumon(4) have been reported to interact with the barbiturates.

It would be prudent to assume that all barbiturates and the indanedione derivatives would interact in a similar fashion.

The time of highest risk for a coumarin-type drug interaction is when the precipitant drug is initiated, altered, or discontinued.

REFERENCES:

1.Levy G, O'Reilly RA, Aggeler PM, Keech GM. Pharmacokinetic analysis of the effect of barbiturate on the anticoagulant action of warfarin in man. *Clin Pharmacol Ther* 1970 May-Jun;11(3):372-7.

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Heparin/Salicylates

This information is generalized and not intended as specific medical advice. Consult your healthcare professional before taking or discontinuing any drug or commencing any course of treatment.

MONOGRAPH TITLE: Heparin/Salicylates

SEVERITY LEVEL: 2-Severe Interaction: Action is required to reduce the risk of severe adverse interaction.

MECHANISM OF ACTION: Additive prolongation of bleeding time.

CLINICAL EFFECTS: Increased risk of bleeding which may extend for several days beyond discontinuation of salicylates.

PREDISPOSING FACTORS: None determined.

PATIENT MANAGEMENT: Avoid concomitant administration of these drugs. If this combination is used, monitor hematological status carefully. A non-acetylated salicylate may be used to avoid antiplatelet activity.

DISCUSSION: This interaction is likely to occur.

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Heparins/Anticoagulants

This information is generalized and not intended as specific medical advice. Consult your healthcare professional before taking or discontinuing any drug or commencing any course of treatment.

MONOGRAPH TITLE: Heparins/Anticoagulants

SEVERITY LEVEL: 3-Moderate Interaction: Assess the risk to the patient and take action as needed.

MECHANISM OF ACTION: Heparin inhibits thrombosis by inactivating activated Factor X and inhibiting the conversion of prothrombin to thrombin.(1)

CLINICAL EFFECTS: Concurrent use of anticoagulants with heparin can enhance the effects of heparin and may increase the risk of bleeding.(1)

PREDISPOSING FACTORS: None determined.

PATIENT MANAGEMENT: The manufacturer recommends doing periodic platelet counts, hematocrits, and testing for occult blood in stool.(1)

DISCUSSION: A study of the use of heparin and warfarin in DVT patients concluded that it is safe to use heparin in combination with warfarin(2) with proper monitoring.

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1.Heparin Sodium Injection, USP US prescribing information. Pharmacia & Upjohn Company December, 2000.

2.Harrison L, McGinnis J, Crowther M, Ginsberg J, Hirsh J. Assessment of outpatient treatment of deep-vein thrombosis with low-molecular-weight heparin. Arch Intern Med 1998 Oct 12;158(18):2001-3.