

RGH Pharmacy E-Bulletin

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A joint initiative of the Patient Services Section and the Drug and Therapeutics Information Service of the Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia. The RGH Pharmacy E-Bulletin is distributed in electronic format on a weekly basis, and aims to present concise, factual information on issues of current interest in therapeutics, drug safety and cost-effective use of medications.

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Aspirin interactions and cautionary labelling

In Australia, pharmacists use Cautionary and Advisory Labels (CALs) when dispensing to provide written reinforcement of important counselling points for particular medicines. The 10a CAL “Do not take more than one aspirin tablet or capsule each day while being treated with this medicine” is used for a number of medications that are reported to interact with aspirin (with the exception of warfarin which is labelled with the 10b CAL “Do not take aspirin while being treated with this medicine unless advised by your doctor”). Whilst some medications that interact with aspirin are well known, others are less so. Some of these medications and the reason behind their interaction are summarised in the table below.

<i>Drug</i>	<i>Outcome of interaction</i>	<i>Proposed/theoretical mechanism(s) for interaction</i>	<i>What to look out for</i>
Heparins (including LMWHs)	Increased bleeding risk	Potential of anticoagulant effect via platelet inhibition	Signs of bleeding.
Insulin	Hypoglycaemia (aspirin doses <300mg/day are unlikely to have this effect)	Enhanced glucose-stimulated insulin secretion via prostaglandin synthesis inhibition	Monitor blood glucose levels. Signs of hypoglycaemia.
Oral hypoglycaemic therapy (including sulphonylureas, metformin, thiazolidinediones, and acarbose)	Hypoglycaemia (aspirin doses <300mg/day are unlikely to have this effect)	Reduced plasma glucose levels and enhanced insulin secretion. Displacement of sulphonylureas from binding to plasma proteins is one proposed mechanism.	Monitor blood glucose levels. Signs of hypoglycaemia.
Methotrexate	Methotrexate toxicity (less likely with weekly low-doses and in those with normal renal function)	Reduced renal clearance of methotrexate.	Elevated serum methotrexate levels, myelosuppression, oral mucositis, pulmonary toxicity, hepatotoxicity.
NSAIDs	Increased risk of adverse gastrointestinal events including bleeding. Cardioprotective effect of aspirin may be reduced.	Displacement from protein binding sites leading to increased metabolism is one proposed mechanism.	Signs of gastrointestinal bleeding.
Valproate	Valproate toxicity (more likely with high or repeated doses of aspirin)	Displacement of valproic acid from plasma protein binding sites and inhibition of valproic acid metabolism.	Increased serum valproic acid levels, tremor, drowsiness, confusion.

The benefits of combining aspirin with medications that have the potential to interact should be weighed against the consequences of any interaction, and the clinical significance of this should also be considered. Sometimes increased diligence for monitoring for adverse outcomes is sufficient. Pharmacists can aid in this process when counselling patients by informing them of what to look out for.

This E-Bulletin is based on work by Claire Jones, Pharmacy Intern, RGH

FOR FURTHER INFORMATION CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: chris.alderman@health.sa.gov.au
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