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Rx Update

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Editors: *Joan Murhammer, R.Ph., Mary Ross, R.Ph. MBA, Kevin Bebout, R.Ph.*

DRUG INTERACTION: LOW-DOSE ASPIRIN AND IBUPROFEN

In September 2006, the FDA issued a report concerning the potential interaction between low-dose aspirin and ibuprofen. Ibuprofen appears to inhibit the antiplatelet effect of aspirin and may reduce its cardioprotective effects. Aspirin exerts its pharmacological effect by binding irreversibly to cyclooxygenase (COX-1) receptors preventing thromboxane-induced platelet aggregation. Ibuprofen blocks aspirin's ability to bind to the COX-1 receptor because both drugs bind at similar sites on the COX-1 receptor, which inhibits aspirin from binding and having an antiplatelet effect.

The timing of dosing of ibuprofen and aspirin is important for preserving the cardioprotective effects of aspirin. The interaction occurs when ibuprofen is taken before aspirin therapy. **The interaction can be negated by instructing patients to take non-enteric coated aspirin at least 30 minutes prior to taking ibuprofen or at least 8 hours after an ibuprofen dose to allow aspirin to bind to the COX-1 receptor first.** A negative clinical impact on aspirin's cardioprotection is unlikely from an occasional dose of ibuprofen because aspirin produces an irreversible inhibition of platelet aggregation which lasts from four to seven days. Enteric-coated aspirin has not been adequately studied with ibuprofen; therefore, recommendations on concurrent dosing with ibuprofen cannot be made. It is not known if other non-steroidal anti-inflammatory drugs (NSAIDs) produce this same interaction with aspirin, but it should be assumed that they have similar potential to interact with aspirin unless proven otherwise. Acetaminophen does not minimize aspirin's cardioprotective effects and may be an alternative agent in patients requiring a pain medication who are taking daily aspirin therapy for cardioprotection.

NASAL MEDICATIONS: ONE NOSTRIL OR TWO?

There are several medications that are administered by the intranasal route. Most intranasal medications are intended to be administered in both nostrils for a single dose. However, there are certain intranasal medications that are intended to be administered only in one nostril. It is very important that patients be instructed clearly on how to take intranasal medications. Inadvertently administering medications intended for a single nostril in both nostrils would result in a double dose being administered and potentially could lead to an overdose. Certain medications, in which the full dose is intended to be administered in one nostril, can be divided into both nostrils (i.e., give one-half dose in each nostril). The table below lists commonly used intranasal medications and designates whether they are intended to be administered in one or both nostrils for each dose.

Dose Administered in One Nostril	Dose Administered in Both Nostrils	
Butorphanol (Stadol®)	Azelastine (Astelin®)	Ipratropium (Atrovent NS®)
Calcitonin (Miacalcin®, Fortical®)	Beclomethasone (Beconase AQ®)	Mometasone (Nasonex®)
Desmopressin (DDAVP®)#	Budesonide (Rhinocort®)	Mupirocin (Bactroban®)
Desmopressin (Stimate®)#	Ciclesonide (Omnaris®)	Nicotine (Nicotrol NS®)
Sumatriptan (Imitrex®)#	Cromolyn (Nasalcrom®)	Oxymetolazone (Afrin®)
Zolmitriptan (Zomig®)	Dihydroergotamine (Migranal®)	Phenylephrine (Neo-Synephrine®)
	Flunisolide (Nasarel®)	Sodium Chloride (saline) (Ocean®)
	Fluticasone (Flonase®)	Triamcinolone (Nasacort®, Nasacort AQ®)

The dose can also be given as ½ dose in each nostril or full dose in one nostril.