

SBARD in Relation to Potentially Dangerous Interaction Between Lithium and Anti-Inflammatory Drugs

<p>S Situation</p>	<p>A number of medication incidents have been reported recently concerning the prescribing and administration of non-steroidal anti-inflammatory drugs (NSAIDs) to patients on lithium.</p> <p>Co-administration of a NSAID or cyclo-oxygenase (COX)-2 inhibitor, with lithium increases the risk of lithium toxicity</p>																					
<p>B Background</p>	<p>In the last 6 months (Oct.11-Mar.12) there have been 3 Datix incident reports concerning the prescription of a NSAID for in-patients stabilised on lithium. In each case the NSAID was prescribed “as required”, which increases the risk of lithium toxicity due to irregular administration with no increase in lithium monitoring frequency.</p>																					
<p>A Assessment</p>	<p>NSAIDs and COX-2 inhibitors reduce the renal excretion of lithium via their action on renal prostaglandins, resulting in increased plasma lithium levels. The level of increase is unpredictable (from 10-400%), and the onset of effect is variable (few days to several months). Risks are increased in patients with impaired renal function, renal artery stenosis or heart failure, and who are dehydrated or on a low salt diet.</p>																					
<p>R Recommendation</p>	<p>Co-prescription of NSAIDs or COX-2 inhibitors with lithium is not an absolute contra-indication, but should be undertaken with extreme caution and only when clinically essential. The risk of lithium toxicity is increased with “as required” or intermittent dosing (e.g. when used for menorrhagia), when the effects are less predictable – regular dosing is preferred. More frequent monitoring of plasma lithium levels is essential in all situations.</p> <p>The following NSAIDs and COX-2 inhibitors are available in the UK:</p> <table border="0"> <tr> <td>Aceclofenac</td> <td>Etoricoxib</td> <td>Nabumetone</td> </tr> <tr> <td>Acemetacin</td> <td>Flurbiprofen</td> <td>Naproxen</td> </tr> <tr> <td>Celecoxib</td> <td>Ibuprofen</td> <td>Piroxicam</td> </tr> <tr> <td>Dexibuprofen</td> <td>Indometacin</td> <td>Sulindac</td> </tr> <tr> <td>Dexketoprofen</td> <td>Ketoprofen</td> <td>Tenoxicam</td> </tr> <tr> <td>Diclofenac</td> <td>Mefenamic Acid</td> <td>Tiaprofenic acid</td> </tr> <tr> <td>Etodolac</td> <td>Meloxicam</td> <td></td> </tr> </table> <p>Some of these drugs (in bold) can be obtained without prescription, so it is particularly important that patients on lithium are aware of the potential for interaction with some over-the-counter medicines.</p>	Aceclofenac	Etoricoxib	Nabumetone	Acemetacin	Flurbiprofen	Naproxen	Celecoxib	Ibuprofen	Piroxicam	Dexibuprofen	Indometacin	Sulindac	Dexketoprofen	Ketoprofen	Tenoxicam	Diclofenac	Mefenamic Acid	Tiaprofenic acid	Etodolac	Meloxicam	
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<p>D Decision</p>	<p>All prescribers are reminded of this high risk drug interaction which is potentially fatal. If co-prescription is essential, increased frequency of lithium monitoring is essential until the NSAID is stopped and for 4 weeks afterwards.</p> <p>Nurses and pharmacy staff are reminded to be vigilant and to bring co-prescription of NSAIDs or COX-2 inhibitors to the attention of prescribers.</p>																					