

Searching for one Drug Interaction

Certain combinations of medications can cause interactions of varying severity when taken together. In some cases, the interactions between medications are used positively as part of the patient's clinical treatment but drug interactions are often a potentially dangerous side-effect of prescribing medications.

Most users of MIMS digital products are aware that you can check for interactions between two or more drugs, but did you know you can simply check all interactions for a single drug? It couldn't be easier, simply enter the name of the drug you are interested in and select "Drug Interactions". By selecting a single medicine to check, the Drug Interactions function will display all known interactions. The Drug Interactions information will provide the clinician with independently researched, primary-literature based information as to whether a new drug will interact with the patient's existing medications. It will also provide guidance on what course of action might be needed in order to ensure safe administration of the new drug if interactions exist.

The following example uses screenshots from MIMS Online, however the ability to search and display all interactions applying to a single medication is also available in other MIMS digital products such as eMIMS, MIMS Mobile, MIMS Integrated and the popular mobile application iMIMS.

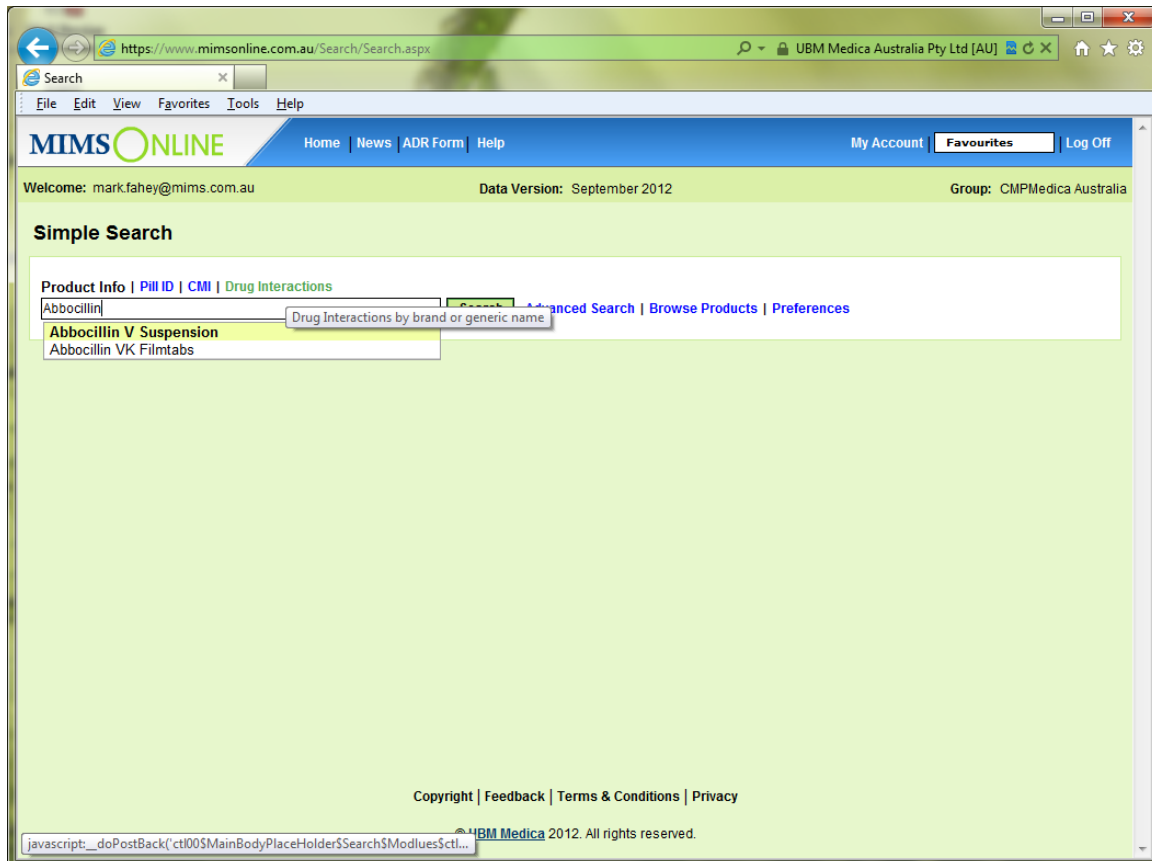


Figure 1 – Searching for all interactions on a single medication

It is important to note that the MIMS Drug Interactions information is based on clinically documented, peer-reviewed evidence, not the interactions that are suggested as part of the drug's product information.

The MIMS data indicates the severity level of the interaction. MIMS identifies all interaction classes to which each molecule belongs and determines if there is an interaction. The software displays the interactions according to relevance, with the most severe interactions displayed at the top of the list. A short explanation of the interaction is displayed, and the user is able to view the full description if required.

In the following example, all interactions for Abbotcillin V Suspension are being displayed.

The screenshot shows the MIMS ONLINE interface for drug interactions. The search term is 'Abbotcillin V Suspension'. The results table is as follows:

Molecule	ROA	Interacting Molecule	ROA	Severity	Documentation Level	Adverse Effect
Abbotcillin V Suspension [Phenoxymethylpenicillin benzathine]	systemic	Methotrexate	systemic	1	Limited	Phenoxymethylpenicillin benzathine increases toxicity of Methotrexate
Abbotcillin V Suspension [Phenoxymethylpenicillin benzathine]	systemic	Doxycycline monohydrate	systemic	2	Limited	Phenoxymethylpenicillin benzathine has its effect variably reduced by Doxycycline monohydrate
Abbotcillin V Suspension [Phenoxymethylpenicillin benzathine]	systemic	Chloramphenicol sodium succinate	systemic	2	Limited	Phenoxymethylpenicillin benzathine has an unpredictable effect with Chloramphenicol sodium succinate
Abbotcillin V Suspension [Phenoxymethylpenicillin benzathine]	systemic	Doxycycline	systemic	2	Limited	Phenoxymethylpenicillin benzathine has its effect variably reduced by Doxycycline
Abbotcillin V Suspension [Phenoxymethylpenicillin benzathine]	systemic	Tetracycline hydrochloride	systemic	2	Limited	Phenoxymethylpenicillin benzathine has its effect variably reduced by Tetracycline hydrochloride

Figure 2 – Displaying all interactions on a single medication

MIMS editors classify the active ingredients of each medication into an interaction class such that all constituents of the class are assumed to interact in the same way. If the interactions differ, the ingredients are separated into further classes. Some classes only contain one ingredient, although an ingredient can belong to multiple classes. The editors research, review and collate the information to be included in the database, and ensure that the information is accurate and up-to-date. To ensure optimum objectivity, data from product information, commercial or non-authoritative references is not used. Instead, the information is researched and reviewed using only international references and primary literature sources. A second editor proofreads all information before it is included in the database to ensure that the information is consistent and accurate.

By clicking on the “Interaction Details” tab, for any highlighted interaction, much greater detail is provided including:

- probable mechanism of action;
- actions to take; and
- references/citations for the interaction.

The screenshot shows the MIMS ONLINE website interface. The browser address bar displays the URL: [https://www.mimsonline.com.au/Search/DrugAlertDetails.aspx?ModuleName=Drug Interactions&searchKeyword=ABB](https://www.mimsonline.com.au/Search/DrugAlertDetails.aspx?ModuleName=Drug%20Interactions&searchKeyword=ABB). The page title is "Drug Interactions". The navigation menu includes "Home", "News", "ADR Form", "Help", "My Account", "Favourites", and "Log Off". The user is logged in as "mark.fahay@mims.com.au" and the data version is "September 2012". The group is "CMPMedica Australia".

The main content area is titled "Drug Interactions" and shows a search for "ABBOCILLIN". The search results are displayed for "Abbotocillin V Suspension". The "Interaction Search" tab is active, and the "Interaction Details" tab is also visible. The details section shows the following information:

Molecule Name	Drug Interaction
Phenoxymethylpenicillin benzathine vs Methotrexate	<p>Adverse Effect : Phenoxymethylpenicillin benzathine increases toxicity of Methotrexate</p> <p>Severity Level : 1 2 3 4 5 6</p> <p>Severe - The interaction between these medications may be life-threatening or may cause permanent damage. These medications are not usually used concurrently; medical intervention may be required.</p> <p>Documentation Level : Limited - Few reports of this interaction exist. These few reports usually consist of limited case reports where clinically sound justification of the interaction is found.</p>

Figure 3 – Displaying severe interaction detail on a single medication

MIMS

100% pure knowledge

Independent of the manufacturer's product information, MIMS references the most current international primary and tertiary literature on potential drug to drug interactions. The extensive database of drug interactions is constantly reviewed and updated, and is an integrated element of all MIMS digital products.

If you would like further information or training on how to use the drug interaction checker contact us at data@mims.com.au

We also have some great posters that you could put around your organisation to remind staff to check interactions. These are FREE – if you would like some email Caryn at Caryn.Lind@mims.com.au



If only drug interactions were as easy to spot!

Of course you know that Warfarin goes with Diclofenac as badly as pink and orange stripes. But there are thousands more interactions that will do far worse than make you turn up your nose, yet often slip past the most experienced physician. MIMS Online can let you play it safe in no time at all. Tap into MIMS Drug Interactions for split second access to primary evidence-based information. It's graded with levels of severity and probability to help you make the final decision. You know the speed and convenience of MIMS Online. Its depth may still surprise you.
Call 1800 800 629. Email clientservices@mims.com.au

MIMS ONLINE



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