



Rx Drug-Drug and Drug-Allergy Interactions

IndiviCare 4 provides drug-drug and drug-allergy interactions via our First Databank MedKnowledge integration.

For most the implementation of the interactions platform will be transparent to the user.

You are able to finely control the information that is displayed on the screen, in real time, and your changes will be persistent between patients and login sessions.

The interaction system correlates both the drugs that you are currently writing the prescription for, and the drugs that have been previously prescribed.

Drug-Drug Interactions

In the example below, the patient has been previously prescribed Loestrin as a birth control pill. The physician is currently writing a new prescription for Rifampin. The interactions system has found one "Severe" conflict.

Name: [more X](#)

LOESTRIN 1.5/30 (28) TABLET : 2015/02/01

CLINICAL EFFECTS: Concurrent use of rifampin may result in reduced levels and clinical effectiveness of estr... [More](#)

Instructions:

Qty/Mitte: Repeats: ☐ Long Term Med

DIN: 00393444 Ingredient: RIFAMPIN Strength: 150.0 MG

Method: Route: Frequency: Min:0 Max:0 Duration:0 DurationUnit: Qty/Mitte:30

Comment:

eTreatment Type:

Drug Form: CAPSULE

Rx Control

☒ Contraindicated

☒ Severe

☒ Moderate

☐ Indeterminate

☐ Info

Drug Name:

Patient Drug Profile [Print](#) [Reprint](#) [Rescribe](#) [Long Term Meds](#) [Timeline Drug Profile](#) [DS run](#)

Profile Legend: * Current [All](#) [Active](#) [Expired](#) [Longterm/Acute](#) [Longterm/Acute/Inactive/External](#)

Entered Date	Start Date	Days to Exp	LT Med	Medication	Rescribe	Delete	Discontinue	Reason	Past Med	Location Prescribed	Hide from CPP
2015-06-01	2015-02-01	0	<input checked="" type="checkbox"/>	LOESTRIN 1.5/30 28 DAY PACK Qty:30 Repeats:3	<input type="checkbox"/> ReRx	Del	Discon	=	no	local	<input type="checkbox"/>

The alert is provided inline, clearly identifying what it is pertaining to, and when the alerting prescription was originally written. A brief summary line is included in the alert for each interaction. By clicking the alert's "More" button, the summary line is expanded, the font is increased, and additional information can be reviewed.

Name: [more X](#)

LOESTRIN 1.5/30 (28) TABLET : 2015/02/01

CLINICAL EFFECTS: Concurrent use of rifampin may result in reduced levels and clinical effectiveness of estrogen replacement therapy and hormone containing contraceptives. In the case of contraceptives, breakthrough bleeding and pregnancy may result. Effects may be seen for several weeks after discontinuation of rifampin.

[Evidence](#)
[Discussion](#)
[Management](#)
[Mechanism](#)
[Factors](#)
[ALL](#)

Available for further review is information pertaining to associated "Evidence", "Discussion", "Management", "Mechanism", and "Factors". Each item can be independently selected and expanded, or you can view "All" at once.

Name: [more X](#)

LOESTRIN 1.5/30 (28) TABLET : 2015/02/01

CLINICAL EFFECTS: Concurrent use of rifampin may result in reduced levels and clinical effectiveness of estrogen replacement therapy and hormone containing contraceptives. In the case of contraceptives, breakthrough bleeding and pregnancy may result. Effects may be seen for several weeks after discontinuation of rifampin.

[Evidence](#)
[Discussion](#)
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[Mechanism](#)
[Factors](#)
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PATIENT MANAGEMENT: Patients receiving rifamycins should be alerted to the possibility of decreased effects of their estrogen replacement therapy or hormonal contraceptive. It is recommended that alternative or additional contraceptive methods be used during and for several weeks after rifampin therapy. The patient should be asked to report any spotting or bleeding.

MECHANISM OF ACTION: Rifampin may increase the metabolism of estrogens and contraceptives.

In the case of multiple drugs interacting, the interactions are clearly identified for each drug. In the following example,

- Rifampin is interacting with both Loestrin and Zyban
- Nardil is only interacting with Zyban
- Zyban is interacting with Nardil and Rofact (which is a product name for Rifampin)

Also of note in this example is the colour coding of the interactions - the "Contraindicated" interacts are shown in red, and the "Severe" interactions are in orange.

Name: [more](#) [X](#)

LOESTRIN 1.5/30 (28) TABLET : 2015/02/01

CLINICAL EFFECTS: Concurrent use of rifampin may result in reduced levels and clinical effectiveness of estr...

More

ZYBAN 150 MG TABLET : 2015/06/01

CLINICAL EFFECTS: Concurrent or recent use of rifampin may decrease the effectiveness of bupropion.(1)

More

[Instructions:](#) *

Name: [more](#) [X](#)

ZYBAN 150 MG TABLET : 2015/06/01

CLINICAL EFFECTS: The concurrent administration of bupropion and MAOI's may increase the risk for severe...

More

[Instructions:](#) *

Name: [more](#) [X](#)

ROFACT 150 MG CAPSULE : 2015/06/01

CLINICAL EFFECTS: Concurrent or recent use of rifampin may decrease the effectiveness of bupropion.(1)

More

NARDIL 15 MG TABLET : 2015/06/01

CLINICAL EFFECTS: The concurrent administration of bupropion and MAOI's may increase the risk for severe...

More

[Instructions:](#) *

The Rx Control panel allows you to finely control which interaction notices you receive. Each switch can be toggled for real time changes to your display. Once you've made a change, it remains persistent throughout the system for your user name.

Rx Control

☒
☒
Contraindicated

☒
☒
Severe

☒
☒
Moderate

☐
☐
Indeterminate


☐
☐
Info

"Contraindicated", "Severe", "Moderate", "Indeterminate" are each categories returned from First Databank.

"Info" is used to present information that may be present in your patient's record, but unmatched in First Databank's database. For example:

Rx Control

<input checked="" type="checkbox"/>	Contraindicated
<input checked="" type="checkbox"/>	Severe
<input checked="" type="checkbox"/>	Moderate
<input type="checkbox"/>	Indeterminate
<input checked="" type="checkbox"/>	Info

Cannot Match Drug(s): 

PEANUT OIL 7.5% SOAP BAR

Drug-Allergy Interactions

Allergen groups:

DAM Specific Allergen Group Code - a six-character numeric column that is assigned to either a group of chemically similar drugs known to have similar allergenic potential or to a single drug entity. This number is a stable identifier.

Ingredients:

Hierarchical Ingredient Code Sequence Number - a six-character numeric column that represents a distinct active or inactive ingredient within the database. The HIC_SEQN is a dumb number attached to the Hierarchical Ingredient Code (HIC) and will never change for an ingredient.

Drug name:

MED Medication Name ID - an eight-character numeric column that identifies a unique product or generic name, primarily used for navigational purposes when presenting name concepts to the end user. This number is a stable identifier.

For example, the DAM_ALRGN_GRP code for Penicillin, Amoxicillin, and Piperacillin is the same (000476), combining chemically similar drugs into one group. If a patient is allergic to penicillin, the potential exists for the patient to be allergic to all drugs with the same DAM_ALRGN_GRP code as penicillin. The DAM_ALRGN_GRP can also be used for a single drug ingredient documented to have allergenic potential.

For example, octreotide has allergenic potential, and is therefore assigned the DAM_ALRGN_GRP of 900331. However, because octreotide is a unique chemical moiety, octreotide is the only drug ingredient in the DAM_ALRGN_GRP 900331.

User Operation

The user experience is familiar, but improved to support the interactions. Opening the Allergy window will display the summary view.

Edit Allergy Profile | View: Active [All](#) [Inactive](#)

Legend: ☐ Mild ☒ Moderate ☐ Severe

Status	Entry Date	Offending Agent	Allergy Type	Reaction Type	Severity	Onset of Reaction	Reaction Description	Start Date	Life Stage	Action
Active	2015-09-30	Demerol	Drug Name	Unknown	Moderate	Immediate			Not Set	Remove
Active	2015-09-30	amoxicillin	Ingredient	Unknown	Mild	Immediate			Not Set	Remove

Legend: ☐ Mild ☒ Moderate ☐ Severe

The results provided from searching for an allergy is now broken down to the previously discussed categories - allergen group, ingredient, and drug name.

Search for Allergy

Search:

Search the following categories: *(Listed general to specific)*



Ingredient



Drug Name



Allergen Group

Allergy Search Results

☐ Ingredient

[penicillamine](#)
[penicillinase](#)
[penicillin G sodium](#)
[penicillin G potassium](#)
[penicillin G procaine](#)
[penicillin G procaine-al stea](#)
[penicillin G benzathine](#)
[penicillin V](#)
[penicillin V hydrabamine](#)
[penicillin V potassium](#)
[benzylpenicilloyl polylysine](#)
[penicillin V benzathine](#)
[benethamine penicillin](#)
[penicillin G](#)
[penicillin G clemizole](#)
[penicillin V calcium](#)
[penimepicycline](#)
[penile constriction ring system](#)
[penile support sleeve](#)
[benzylpenicilloic acid](#)
[benzylpenicilloate sodium](#)

☐ Drug

[penicillin G benzathine](#)
[penicillin G potassium](#)
[benzylpenicilloyl polylysine](#)
[penicillamine](#)
[penicillin G sodium](#)
[penicillin V potassium](#)
[benzylpenicilloyl polylysine](#)
[penicillamine](#)
[penicillin G potassium](#)
[penicillin G sodium](#)

A triggered drug-allergy interaction notification is consistent with the drug-drug interaction notifications.

Active Allergies [+](#)

[Demerol](#)

[amoxicillin](#)

Favorites [edit](#) [copy](#)

[2 message...](#)

[ACETAMINOP...](#)

[Autumn Tea...](#)

[Dr. Ithra...](#)

[message](#)

[Methadone...](#)

[THIS is on...](#)

Name: [more](#) [X](#)

ALLERGY: amoxicillin

SEVERITY: Mild

REACTION: undefined

WARNING: This product poses the risk of causing an ingredient-based allergic reaction in this patient.

Instructions:

Qty/Mitte: Repeats: ☐ Long Term Med

DIN: 02220288 Ingredient: PENICILLIN G (PENICILLIN G SODIUM) Strength: 5000000.0 UNIT

Method: Route: Frequency: Min:0 Max:0 Duration:0 DurationUnit: Qty/Mitte:30

Dosage: Unit:

Comment:

Prior Prescription Reference:

eTreatment Type:

Drug Form: POWDER FOR SOLUTION

Drug Name:

Rx Control

☒ Contraindicated

☒ Severe

☒ Moderate

☒ Indeterminate

☐ Info

[Close Window](#)