Using Micromedex

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What is Micromedex?

- Micromedex is an indexing database that provides access to full-text tertiary literature.

- This tertiary literature is unbiased, referenced information about drugs, toxicology, diseases, acute care, and alternative medicine.
Accessing Micromedex

First, go to the Library Homepage at http://www.ttuhsc.edu/libraries and mouseover Databases. On the fly-out menu, scroll down to Micromedex and click on it.
Keyword Searching

Most searching in Micromedex can be done using the **Main Keyword Search** box. This box is always available at the top of every screen.
Keyword Searching

When you perform a keyword search in Micromedex, you may input a drug name (trade or generic), a disease, a symptom, or a diagnosis. The search box has an autofill/autocomplete function. As you type, Micromedex will suggest terms to you that match what you are typing.
Keyword Searching

To retrieve information about the drug warfarin, type the term in the search box, then click the Search button.
Keyword Searching

The result of this search takes us to what is called the **360 Degree Dashboard**. It has shortcut links to detailed drug information, evidence-based fully-referenced articles about specific guidelines and therapies regarding this drug, and effectiveness evaluations with other therapies. Click on **View Detailed Document** in order to see the full monograph for **warfarin**.
Keyword Searching

The detailed monograph shows information about the drug’s class, dosage, side effects, contraindications, and pharmacokinetics. The navigation menu on the left of the screen allows you to jump to different sections of the document. The small scrollbar on the right scrolls through the current section that is showing.
Keyword Searching

Searching for a disease or condition works much the same way.

MICROMEDEX® 2.0 | MOBILE

Keywords: hypertension
Keyword Searching

The 360 Degree Dashboard has links to a Clinical Checklist, Drug Information (drugs that treat the disease or cause the condition through adverse reaction), Drug Consults (evidence-based fully-referenced articles about guidelines and therapies), Toxicology (things that cause the disease), Tests and Labs information, and Alternative Medicines that treat the disease or cause the condition through adverse reaction. Click on View Summary Document to see the full monograph.
The navigation menu on the left of the screen allows you to jump to different sections of the document, which include the definition of the disease, treatment therapies, and suggested tests.
Keyword Searching

Clicking on Drug Therapy will give you a list of drugs categorized by class and the recommended dosages for each. The order of the classes is by treatment of choice.
The **Interactions** component of Micromedex is one of the most powerful features of the system. **Drug, Food, Lab, Pregnancy, Lactation, Tobacco, and Ethanol interactions** may be searched for one drug or all drugs a patient is currently taking.
Drug Interactions

In this search, our sample patient takes Prozac, Coumadin, aspirin, Zocor, Calan, and Celebrex and has an allergy to naproxen.
Drug Interactions

Start your search by typing your first medication in the **Enter Search Term** box. You only have to start typing and the **Matching Drug Names** box will populate with words that match your typing.
Drug Interactions

When the drug name that you are looking for appears, highlight it, and then click the right arrow button to move the drug name over to the Drugs To Check box.
When you have added all the drug names that you want, click the **Add Allergies** button if you need to add a food or drug allergy. (Remember in this search our patient is allergic to naproxen.)
Drug Interactions

Again, start typing your word in the **Enter Allergy** box, and the **Matching Allergies** box will populate with words that match your typing. When the name that you are looking for appears, highlight it, and then click the right arrow button to move the name over to the **Allergies To Check** box. Click on the **Update** button when you are done.
Drug Interactions

When your list is complete, click the Submit button.
Drug Interactions

Scrolling down the page, **Drug-Drug Interactions** are listed first. The two **products interacting** are listed along with the **Severity** of the interactions, the **Documentation** (the supporting documentation behind the interaction), and a **Summary** of the interaction.
Drug Interactions

Clicking on the blue link will retrieve a more detailed explanation of the interaction.

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Severity</th>
<th>Documentation</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASPIRIN [Systemic] -- WARFARIN SODIUM [Systemic] [Coumadin]</td>
<td>S</td>
<td>Major</td>
<td>Concurrent use of ASPIRIN and WARFARIN may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>ASPIRIN [Systemic] -- FLUOXETINE HYDROCHLORIDE [Prozac]</td>
<td>S</td>
<td>Major</td>
<td>Concurrent use of ASPIRIN and FLUOXETINE may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>CELECOXIB [Systemic] -- WARFARIN SODIUM [Systemic] [Coumadin]</td>
<td>S</td>
<td>Major</td>
<td>Concurrent use of CELECOXIB and WARFARIN may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>VERAPAMIL HYDROCHLORIDE [Systemic] [Calan] -- SIMVASTATIN [Systemic] [Zocor]</td>
<td>S</td>
<td>Major</td>
<td>Concurrent use of SIMVASTATIN and VERAPAMIL may result in increased exposure to simvastatin and an increased risk of myopathy or rhabdomyolysis.</td>
</tr>
<tr>
<td>WARFARIN SODIUM [Systemic] [Coumadin] -- FLUOXETINE HYDROCHLORIDE [Systemic] [Prozac]</td>
<td>S</td>
<td>Major</td>
<td>Concurrent use of FLUOXETINE and ANTICOAGULANTS may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>WARFARIN SODIUM [Systemic] [Coumadin] -- SIMVASTATIN [Systemic] [Zocor]</td>
<td>S</td>
<td>Major</td>
<td>Concurrent use of SIMVASTATIN and WARFARIN may result in increased risk of bleeding and an increased risk of rhabdomyolysis.</td>
</tr>
<tr>
<td>ASPIRIN [Systemic] -- VERAPAMIL HYDROCHLORIDE [Systemic] [Calan]</td>
<td>!</td>
<td>Moderate</td>
<td>Concurrent use of ASPIRIN and VERAPAMIL may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>ASPIRIN [Systemic] -- CELECOXIB [Systemic] [Celebrex]</td>
<td>!</td>
<td>Moderate</td>
<td>Concurrent use of CELECOXIB and ASPIRIN may result in an increased risk of gastrointestinal bleeding.</td>
</tr>
</tbody>
</table>
Drug Interactions

The detailed explanation of the interaction includes references. These explanations are found for all types of interactions whether drug-drug, drug-food, or drug-pregnancy.

INTERACTION DETAIL

Warning:
Concurrent use of ASPIRIN and WARFARIN may result in an increased risk of bleeding.

Clinical Management:
The use of salicylates and warfarin is not an absolute contraindication, but should be avoided whenever possible. If aspirin and warfarin must be used together, carefully monitor the prothrombin time (PT) or international normalized ratio (INR) and watch the patient for signs of bleeding. Non-acetylated salicylates or acetaminophen are alternatives for analgesia.

Onset:
Delayed

Severity:
Major

Documentation:
Excellent

PRINT CLOSE
The **Drug Identification** tool allows you to search for a medication by imprint code or description.
Search by Imprint Code is the default for the Drug Identification search. An imprint code is the unique combination of letters and/or numbers found on a pill. It may be found on one or both sides. It doesn’t matter which side you designate as Side 1 or Side 2 when filling in the search boxes. In this example, our tablet has dan on one side and 5658 on the other. Once the imprint code is entered, click the Search button.
There are two items with the same imprint code. This is common when a drug is manufactured by different companies. Manufacturing differences may be relevant to your drug information question. In this case, however, the trade name indicates that the substances are the same, **cyclobenzaprine hydrochloride**, and link to the same **Poisindex** document. Click on the link to **Cyclobenzaprine** to read the full **Poisindex** monograph.
The Poisindex document provides detailed information for treating a patient exposed to a particular substance. The scrolling menu bar on the left of the screen allows you to jump to any section of the document at anytime. Poisindex covers not only prescription medications but also over-the-counter medications, natural products, animal and plant exposures, street drugs, and household products. Poisindex is in 100% of the poison control centers in the United States.
Drug Identification

If you do not have an imprint code, you can identify a pill with **Search by Description**. This is a less reliable way of identifying a drug but can be used when no other option is available.

![Drug Identification search interface](image)
Colors, shapes, and patterns can help narrow down an identification. In this example, the pill is a blue and triangle-shaped.
Only one drug matched this description, so we only have one result. The results list provides a photograph and description of each tablet that matches the search restrictions. Clicking on the drug name will show a larger picture with a few more details.
Drug Identification

Clicking on any of the ingredients will take you to the Summary Document for that ingredient.
This is the detailed monograph for our blue, triangle-shaped pill.

Nebivolol Hydrochloride

DrugPoint® Summary

DOsing & INDICATIONS
- Adult Dosing
- Dose Adjustments
- FDA-Labeled Indications
- Non-FDA Labeled Indications

CONTRaindications/WARNings
- Contraindications
- Precautions
- Pregnancy Category
- Breast Feeding

DRUG INTERACTIONS (SINGLE)

ADVERSE EFFECTS
- Common
- Serious

NAME INFO
- Drug Images
- US Trade Names
- Class
- Regulatory Status
- Generic Availability

MECHANISM OF ACTION/PHARMACOKINETICS

ADMINISTRATION/MONITORING
Toxicology

The Tox & Drug Product Lookup will retrieve information from the Poisindex system.
Toxicology
You can search for drug products (brand name or generic), commercial and household products, chemicals, biologicals such as plant and animal toxins, and street drugs. You can also search by a specific active ingredient in a substance or by a specific code if you have one.
Toxicology

Start your search by typing your word into the **Enter Search Term** box. You only have to start typing and the box will populate with words that match your typing.
When you see the product that you are looking for, click on it and it will automatically show up in the Enter Search Term box.
Under **Related Documents** are all of the active ingredients in the product that have entries in **Poisindex**. They are in order of severity. Clicking on the hyperlinked ingredient name will take you to the full **Poisindex** monograph for that ingredient.
Toxicology

Here is the Poinsindex monograph for Isopropyl Alcohol.
You can also search on natural toxins such as venom or plant toxins.
Toxicology

Clicking on the toxin’s name under Related Documents will get you the full Poisindex monograph.
Toxicology

Here is the Poinsindex monograph for Toad Toxins.
Micromedex also allows you to search for street drugs by slang names.
Toxicology

Clicking on the drug’s name under Related Documents will get you the full Poisindex monograph.
Toxicology

Here is the Poinsindex monograph for Barbituates.
Red Book

The Red Book Online provides product information and prices on prescription drugs, over-the-counter items, and medical supplies.
Red Book

You can search by product name, manufacturer, active ingredient, or a specific code if you have one.
Start your search by typing your word into the Enter Search Term box. You only have to start typing and the box will populate with words that match your typing.
Red Book

When you see the product that you are looking for, click on it and it will automatically show up in the **Enter Search Term** box. Then click the **Submit** button.
The search results for a medication will retrieve all of the versions of the product along with the manufacturer of each, whether or not it is generic, pill type, dosage strength, packaging information, and price.
You can also search for over-the-counter medications and nutraceuticals.
When you see the product that you are looking for, click on it and it will automatically show up in the Enter Search Term box. Then click the Submit button.
Again, the search results retrieve all of the versions of the product searched with information about the product, packaging, and price.
CareNotes is the patient education section of Micromedex.
You can type in your medication and then choose the type of flyer that you would like for that medication.
Once you have entered your drug name and chosen your document type, click on the **Search** button.
CareNotes

Choose either English or Spanish and then click on the Print Now button.
You can personalize your flyer in several sections.
When you have added all of your additional information, click on the Preview button.
The Patient was given access to the following documents on Sep 13, 2011

**VITAMIN K IN FOODS - Discharge Care. English**

Special Instructions:
This is a sample of special instructions.

**Patient's Name:** Jane Smith  
**Caregiver's Name:** Dr. John Doe

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**Vitamin K in Foods**

**WHAT YOU SHOULD KNOW:**

- Vitamin K helps your blood to clot (thicken to stop bleeding). Vitamin K can affect how warfarin works. Warfarin is a type of medicine that helps to prevent dangerous problems, such as a stroke (a blood clot in the brain).

- Your caregiver can tell how well warfarin is working from a blood test that you will have regularly. This test is called an INR. It shows how quickly your blood clots. To keep your INR at a healthy level, you need to manage how much vitamin K you eat.

**AFTER YOU LEAVE:**
AFTER YOU LEAVE:

How much vitamin K you should eat while you are taking warfarin: Eat the same amount of vitamin K each day. This means you need to eat the same amount of foods that contain vitamin K. This helps keep your INR at the same healthy level. If you change your intake of vitamin K, your INR may change. This may cause problems.

- **A big increase in vitamin K can lower your INR.** This can cause dangerous clotting in your blood.
- **A big decrease in vitamin K can raise your INR.** This can make it harder for your blood to clot. It can cause you to bleed too much. Do not avoid foods with vitamin K.

**Foods that contain vitamin K:** Dark green leafy vegetables have the highest amounts of vitamin K. Vitamin K may also come from foods that contain or are cooked in vegetable oils. Foods that contain vitamin K include the following:

- **Foods with more than 100 mcg per serving:**
  - One-half cup of frozen, cooked, or boiled kale (573 mcg).
  - One-half cup of chopped, frozen, cooked, or boiled collard greens (530 mcg).
  - One-half cup of chopped or leaf, frozen, or cooked spinach (514 mcg).
  - One-half cup of frozen, cooked, or boiled brussels sprouts (150 mcg).
  - One-half cup of cooked or boiled broccoli (110 mcg).

- **Foods with 50 to 100 mcg per serving:**
  - One-half cup of cooked or boiled cabbage (81 mcg).
  - One-half cup of frozen, cooked, or boiled asparagus (72 mcg).
  - One cup of green-leaf lettuce (70 mcg).
The end