TRUVEN HEALTH ANALYTICS®
an IBM Company

Micromedex® Clinical Knowledge Suite

Micromedex Solutions

User Guide

APRIL 2017

© 2017 Truven Health Analytics LLC. All rights reserved.

This manual, as well as the data and software implementation described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. The content of this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment on the part of Truven Health Analytics.

Except as permitted by such license, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Truven Health Analytics.

The data and software implementation, as with all technical and computer-aided design software, is a tool intended to be used by trained professionals only. The data and the software implementation is not a substitute for the professional judgment of trained professionals. The software implementation is intended to assist with product design and is not a substitute for independent testing of product stress, safety and utility. Truven Health Analytics assumes no liability for any error or inaccuracies that may appear in this manual. Truven Health Analytics MAKES NO WARRANTIES WITH RESPECT TO THIS MANUAL AND DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

MICROMEDEX®, CareNotes®, DRUGDEX® System, HAZARDTEXT® Hazard Managements, IDENTIDEX® System, MEDITEXT® Medical Managements, *mobile*MICROMEDEX®, P&T QUIK® Reports, POISINDEX® System, REPROTEXT® Database, and TOMES® System are trademarks of Truven Health Analytics. All other trademarks are the property of their respective owner.

U.S. Government Customers:

The Products are provided to the Federal government and its agency with RESTRICTED RIGHTS. USE, DUPLICATION OR DISCLOSURE BY THE GOVERNMENT IS SUBJECT TO RESTRICTIONS SET FORTH IN SUB-PARAGRAPH (c)(1)(ii) OF THE RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE CLAUSE AT DFARS 252.227-7013 OR SUB-PARAGRAPHS (c)(1) O R (2) OF THE COMMERCIAL COMPUTER SOFTWARE-RESTRICTED RIGHTS AT 48 CFR 52.227-19, AS APPLICABLE. CONTRACTOR/MANUFACTURER IS Truven Health Analytics, 777 E. Eisenhower Parkway, Ann Arbor, Michigan 48108, USA.

TABLE OF CONTENTS

Preface
Conventions Used in This Manual i
Implementation Requirements i
Contact Truven Health Analytics i
Customer Resource Center ii
Technical & Customer Support ii
Total Support Solutions iii

Chapter 1: Micromedex Overview 1
Evidence You Can Trust 1
Only Micromedex Is: 2

Chapter 2: Micromedex Solutions Home Page 3
Latest News 4
Support and Training 5
Resources (Targeted Searches) 7
Other Page Elements 8
Header Links 8
My Subscription 8
Gateway 9
Help 9
Download Center 9
Logout 9
Home Button 10
Tools and Additional Applications 10
Page Footer Links 11
About 11
Contact 11
User Guide 11
Warranty & Disclaimer 11
Micromedex.com 12

Chapter 3: Searching Micromedex Solutions 13
Searching Basics 14
Search Techniques 15
Landing Pages 16
Quick Answers Tab 18
In-Depth Answers Tab 20
Searching Within a Document 22
Navigating the Full Document 23
All Results Tab 24
Multiple Landing Pages 25
Landing Page Examples 25
Example 1 - Landing Page for a Drug 25
Example 2 - Landing Page for a Disease 26
Example 3 - Landing Page for Toxicology 27
Example 4 - Landing Page for Alternative Medicine 28
Direct Access Searching 29
Search Examples 29
Example 1 - Adverse Effects of a Drug 30

Example 2 - Drugs That Cause ... 31
Example 3 - Drugs That Treat ... 34
Additional Direct Access Search Techniques and Examples ... 36
Brand Name Drugs ... 37
Intelligent Searching ... 38
Filtered Searching ... 39
Targeted Searches ... 41
Black Box Warning List ... 42
Comparative Tables ... 43
Do Not Confuse Drug List ... 44
Drug Classes ... 46
Drug Consults ... 49
REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy ... 50
Salt/Base Forms, Combinations, Kits ... 52
Intermediate Search Results ... 54
International Drug Searching ... 56
Printing ... 57

Chapter 4: Drug Information ... 59
Drug Landing pages ... 59
Summary Drug Information ... 60
Single Drug Interactions ... 61
Single IV Compatibility ... 66
Additional Information ... 73
Trade Names ... 74
Patient Education ... 75
References ... 78
Printing ... 79
Detailed Drug Information ... 80
Navigating Document Sections ... 80
Viewing the Full Document ... 82
Navigating the Full Document ... 82
Searching Within a Document ... 83
Printing ... 84
References ... 84
Last Modified Date ... 86
Regulatory Authority Information ... 86
Related Results ... 87
Consumer Drug Information (Detailed Drug Information for the Consumer) ... 89
Drug Consults ... 90
Global \ International Drug Information ... 90
P&T Quick Reports (Formulary Considerations) ... 90
Physicians' Desk Reference® (PDR) ... 90
Product Lookup - Martindale ... 90
Product Lookup - RED BOOK Online ... 91
Product Lookup - Tox & Drug ... 91
Targeted Drug Information Searches ... 91

Chapter 5: Disease Information ... 93
Summary Disease Information ... 93
References ... 95
Printing ... 96
Detailed Disease Information ... 96
Navigating Document Sections ... 97

Viewing the Full Document 97
Navigating the Full Document 97
Searching Within a Document 98
Printing 99
References 100
Related Results 101
Disease Other Titles 104
Emergency Medical Abstracts 104
Clinical Checklist™ 104
Strength of Evidence 105
Strength of Recommendation 106
Performance Measures 106

Chapter 6: Toxicology Information 107
Summary Toxicology Information 107
Printing 108
Detailed Toxicology Information 108
Navigating Document Sections 109
Viewing the Full Document 110
Navigating the Full Document 110
Searching Within a Document 111
Last Modified Date 112
Printing 112
Related Results 112
Hazard Management Information 115
Index Nominum 115
Martindale 115
Medical Management Information 115
MSDS (Material Safety Data Sheets) 115
Product Lookup - Martindale 115
Product Lookup - Tox & Drug 115

Chapter 7: Alternative Medicine Information 117
Summary Alt Med Information 117
Printing 118
In Depth Alt Med Information 118
Navigating Document Sections 119
Viewing the Full Document 120
Navigating the Full Document 120
Searching Within a Document 121
Most Recent Revision 122
Printing 122
Related Results 122
Herbal Medicines 125
Interactions Handouts 125
Martindale 125
Patient Handouts 125
Other Alternative Medicine Information 125

Chapter 8: Lab Information 127
Searching for Lab Information 127
Viewing Lab Information 129
Topics Links 129

Sub-topics 130
Links Within Lab Recommendations 130
Viewing Entire Document 132
References 132
Printing 134

Chapter 9: Reproductive Risk Information 135
Searching for Reproductive Risk Information 135
Searching by CAS Registry Number 136

Chapter 10: Drug Interactions Tool 137
Screening for drug interactions 137
Documentation Ratings 137
Drug Interactions Search Results 141
Interactions Results 141
Documentation Ratings 142
Refine by 143
Jump To 143

Chapter 11: IV Compatibility Tool 145
Features 145
Building an IV Compatibility Search 145
Compatibility Search Results 146
Modify the Drugs to Include 147
Y-Site 149
Admixture 151
Syringe (Complete IV Compatibility customers) 152
Single Drug IV Compatibility 153
Common Solutions 154

Chapter 12: Drug ID Tool 159
Identify Drugs by Imprint or Physical Characteristics 159
Create Your Search 159
Search by Imprint Code 159
Imprint Code Search Results 161
Viewing Drug Information 163
Drug ID by Description - No Imprint Code Available 165
Search Results When Searching by Description 167

Chapter 13: Drug Comparison Tool 171
Building the Search to Compare Drugs 171
Drug Comparison Results 172

Chapter 14: Tox & Drug Product Lookup Tool 175
Information Included in the Tox & Drug Product Lookup Tool 175
Spelling Help 176
Searching by Product or Substance Name 176
Tox & Drug Product Lookup Results 176
Modify Search 177
Exporting Search Results 177
The Product Page 180
Viewing Drug and Toxicology Information 181

Searching by Code 181
AAPCC Codes 182
Product Code Search 182
Searchable Codes 182
Search Results 183
Product ID Search 184
Search Results 184
Active Ingredient Search 185
Search Results 186

Chapter 15: Calculators 187
Antidote Dosing Calculators and Nomograms 188
Laboratory Values 188
Dosing Tools 189
Clinical Calculators 190
Measurement Calculators 190

Chapter 16: RED BOOK Online 191
Introduction to RED BOOK Online 191
Searching RED BOOK Online 191
Search Options 193
Filters 194
Understanding RED BOOK Online Search Results 195
Search Results Header 195
Exporting Search Results 195
Printing Search Results 196
Additional Search Results Information 196
Column Headings 196
Searching for Similar Products in RED BOOK Online 199
Manufacturer Product List Search Results 202
Product Details Search Results 204
Viewing Manufacturer Contact Details 209
The Custom List Manager 210
Creating a Custom List 211
Creating a Custom List by: NDC/HRI/UPC Code 212
Creating a Custom List by: Name, Active Ingredient or Manufacturer 213
Custom List Manager Search Results 214
Saving Your Custom List 218
Creating a Custom List Manually 220
Searching RED BOOK Using a Saved Custom List 220

Chapter 17: Micromedex for Mobile Devices 223
Access Micromedex From Your Tablet 223
Apps available for download 225
Free Micromedex Drug Reference for Internet Subscribers 225

Appendix A: Database Descriptions 231

Appendix B: Browser Settings 245
Localized Language Support 245
Setting Up Language Support in Microsoft Internet Explorer 245
Setting Up Language Support in Google Chrome 247
Setting Up Language Support in Mozilla Firefox 250

Micromedex Search Accelerator 252
Micromedex Search Accelerator Configuration 253
Internet Explorer Version 9, 10, 11 253
Internet Explorer Version 8 253
Micromedex Search Accelerator Workflow (Microsoft® Internet Explorer Version 8) 254
Google Chrome 257
Mozilla Firefox 259
Information for System Administrators 261
Compatibility View in Internet Explorer 262

Appendix C: RED BOOK Online - AWP Policy 265
Average Wholesale Price (AWP) Policy 265
Unit Price Calculations 266
Dosage Form Descriptions 267
Route Listing 270
Orange Book Codes 271
RED BOOK Online Terms and Definitions 271

Appendix D: Poison Center Integration 273
Product or Substance Search 273
Adding a Product Document 273
Adding a Detailed Management Document 274
Drug Imprint Search 276
Adding a Product Document 276

Appendix E: Landing Page Hierarchy 279
Index 281

PREFACE

CONVENTIONS USED IN THIS MANUAL

Certain standards and conventions have been employed in this user guide to communicate in the most effective manner possible. These standards have been used whenever possible.

Bold Text

Normally, bolded text is used:

- to emphasize an important concept
  - or -
- to denote a clickable item on the user interface (for example, the directions may state: "Click the **Button Name** button...")
  - or -
- to specify a menu item (for example, "...from the **File > Print** menu item...")
- to identify another Truven Health Analytics product by name

Italicized Text

Generally, italics are used to denote:

- field names on the user interface (e.g., "Type 'digoxin' in the *Field_Name* field")
- an "either-or" situation (denoted: *- or -*)

window, dialog box, or page name (e.g., "the *IV Compatibility Results* page") or a hypertext link (e.g., "the *Contact* link")

Examples, Scenarios, Screen Captures

All examples shown or described in this guide are for training and illustration purposes only.

Printing this Guide

This user guide has been designed in book layout, to print double-sided. If you print the guide single-sided, blank pages will print. These blank pages are intentional. You are not missing any information.

Implementation Requirements

The data and software implementation described in this manual are furnished under license and may be used only in accordance with the terms of such license. See your license for all terms and conditions that apply.

CONTACT TRUVEN HEALTH ANALYTICS

Office Locations

Corporate Office

© 2017 Truven Health Analytics LLC

100 Phoenix Drive
Ann Arbor, MI 48108
USA

Colorado Office

6200 South Syracuse Way, Suite 300
Greenwood Village, CO 80111
USA

North Carolina Office

4819 Emperor Boulevard
Durham, NC 27703
USA

Illinois Office

1 N. Dearborn, Suite 1400
Chicago, IL 60602
USA

CUSTOMER RESOURCE CENTER

Technical & Customer Support

At Truven Health Analytics, our staff of technical and service experts has one goal - to quickly take care of your needs so that you are back to optimal performance with our solutions.

Our Customer Resource Center is available to all of our customers free of charge, and can be your single point of contact for the following services:

- Clinical Content Requests
- Technical Support Requests
- Product Use Support
- Product Enhancement Requests

24/7 Phone Support

United States & Canada:

Phone: **1-800-525-9083**

Select option 3 for the Support Services menu.
For urgent technical inquiries select 3,3

Outside the United States & Canada:

© 2017 Truven Health Analytics LLC

Phone: +1 303 486-6444

Email Support (Business Hours Only)

www.micromedex.com/request
Email requests are answered during normal business hours.
Requests received outside of normal business hours are answered the next business day.

Normal Business Hours

Monday through Thursday: 7:00 am through 5:00 pm (Mountain Time Zone).
Friday: 7:00 am through 2:00 pm (Mountain Time Zone).

Outside of normal business hours, technical support calls will be managed according to the guidelines shown below:

General Guidelines	Priority	Maximum Initial Response and Assessment
After business hours: **Voice mail messages** will be returned in the order they are received. Priority is assigned at that time. **Email** requests received outside of business hours will be assigned a priority level the following business day.	**Critical Priority** Multiple users cannot access or use major product functionality	Within 4 hours
	High Priority Missing or inaccurate data or functionality	Within 1 business day
	Medium Priority One user cannot access or use major product functionality	Within 2 business days
	Low Priority General questions or enhancement requests	Within 5 business days

For Knowledge Base Articles, FAQs, System Requirements, Technical Documentation, and other miscellaneous support information, please visit www.micromedex.com/support

For information on our products or services, visit our Web site at: www.micromedex.com or contact your local distributor.

TOTAL SUPPORT SOLUTIONS

We stand behind our products and our customers and believe that the *total* customer-experience is what differentiates us from the competition. Our solutions are the fastest, most reliable, accurate evidence-based clinical decision support solutions on the market. Our Total Support Solution offers top-notch service, training, and support to ensure you are able to realize all the benefits our products offer.

© 2017 Truven Health Analytics LLC

Our **Total Support Solution** includes dedicated personnel and robust tools and training to help you get the most from your investment in Micromedex® Solutions.

As part of our **Total Support Solution** we will:

- Provide flexible training opportunities, such as webinars, on-site classes, unit-to-unit specialized training, eLearning, and more, to help you and all users at your site stay current on Micromedex.
- Solve questions and issues promptly with our 24/7 technical support
- Ask you for your input on how we can continue to improve our products and services
- Make it easy to do business with us - on all fronts

Ask your Client Relationship Manager or Sales Executive how we can help you with our **Total Support Solution!**

MICROMEDEX®
TOTAL SUPPORT SOLUTIONS

© 2017 Truven Health Analytics LLC

CHAPTER 1: MICROMEDEX OVERVIEW

Designed specifically for point-of-care clinicians, the Micromedex® Solutions browser-based interface is intuitive and easy-to-use, providing quick access to evidence-based content at any point in the patient care process. Micromedex understands clinicians need common questions answered quickly and accurately to provide the best patient care possible. You can also access the same, evidence-based content directly from your mobile device(s).

With the latest release it is easier than ever to access the information you trust – when and where you need it with an updated and modernized user experience. Now you can enjoy streamlined access to essential functions and faster access to routine and frequently used features with fewer steps.

In designing the next generation of Micromedex, we listened to the needs of you, our customers. In this version we focused on key enhancements that we hope will improve your experiences with our application. The new Micromedex provides a single interface to access, search, and navigate to drug, disease, toxicology, and patient education information. This single interface ensures clinical consistency across our fortified evidence. You now have direct access to the most used drug information, such as: dosing, adverse effects, indications, and interactions. There is also direct access to other useful information such as: “drugs that treat” and “drugs that cause” when searching for a condition.

In addition, we have updated the look and feel and made it more intuitive. Fewer clicks and better searching make it easier to find the information you need…fast.

Micromedex Offers:

- Fewer clicks to get the answer you need
- No lengthy documents to scan
- Seamless searching across drug, disease, toxicology, and other content areas (without re-entering your search term)
- Spelling help

Plus, Micromedex provides enhanced summary drug information:

- Indications and Dosing – includes efficacy, strength of evidence, and strength of recommendation ratings
- Regulatory Status and Generic Availability – displayed in the summary document
- Drug Toxicity – provides information on clinical effects, treatment, and range of toxicity
- Patient Education – offers point-of-care counseling information for clinicians to use when educating patients about their medications

Evidence You Can Trust

In critical situations, Micromedex always delivers. Our unparalleled in-house editorial process references the most clinically relevant evidence available. It is aggregated, filtered, and synthesized to virtually eliminate any gaps in information. The result is information that is consistent in format, presentation, and context; and relevant, current, and uniform across the patient continuum.

For clinical decision support, it delivers consistent, high-quality information that sets the industry standard for everyday use as well as in the most difficult situations. You get both

© 2017 Truven Health Analytics LLC

standard-level and expanded evidence — within context — so you can get to answers quickly. Components include robust drug information the entire staff routinely uses, such as dosing and interactions, as well as the evidence that the most experienced clinicians need in difficult or unusual situations, including off-label uses and specialty populations. The at-a-glance Micromedex Rating System helps clinicians readily identify the strength of key factors needed in making treatment decisions — strength of evidence, efficacy, and recommendation. The Micromedex Rating System is the result of thousands of man-hours reviewing medical literature to provide an easy-to-use guide that supports fast, informed decision-making.

Designed for Experts Like You

Teams of on-staff experts bring real-world experience to our decision support resources. Doctors, nurses, pharmacists, and other industry professionals help create Micromedex to meet your specific needs.

Who can benefit from Micromedex ?

Point-of-care clinicians

- Quick on-the-floor access
- Intuitive workflow-based interface
- Trusted summary-level information

Pharmacists

- Facility-wide access to trusted drug information
- Improved searching and navigation

Medical Librarians

- One comprehensive resource for clinical decision support
- Consistent information throughout the entire hospital

Only Micromedex Is:

- Evidence-based for more than 40 years
- Trusted in more than 5,000 hospitals and healthcare institutions in 83 countries
- Used for toxicology content in 100 percent of U.S. Poison Control Centers, and most centers around the world
- Integrated into nearly 2,000 provider EMR systems
- On the list of statutorily named compendia in the U.S. Medicaid program and is used to determine a “medically-accepted indication” of an off-label drug
- Used in most of the U.S. accredited Schools of Pharmacy and many more worldwide

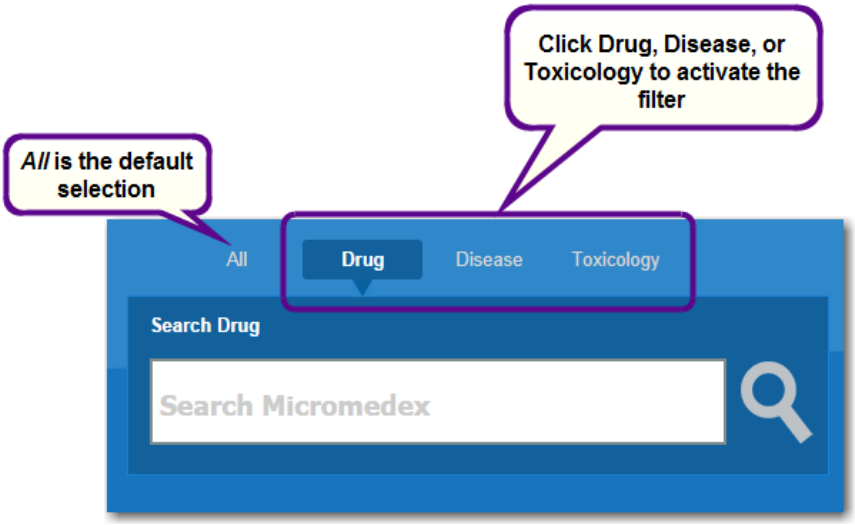
© 2017 Truven Health Analytics LLC

CHAPTER 2: MICROMEDEX SOLUTIONS HOME PAGE

Usability experts and clinical focus groups were utilized to develop the intuitive, easy-to-use Micromedex® Solutions interface. Extra care was used to ensure that users don't have to re-enter the same search over and over. It's simple to jump from a disease state, to a drug, and then to the relevant patient education document, all from one search. The home page offers quick and direct access to the most important and relevant items.

With the prominently displayed *Search Micromedex* search box that is available on every page in Micromedex Solutions you have direct access to the information you need. It also provides intelligent searching with in-line spelling suggestions.

By default you can quickly perform one search to get all the relevant results for the content to which you subscribe, or you can specify a filter option to search specifically within the drug, disease, or toxicology content, which will provide you with more targeted results.

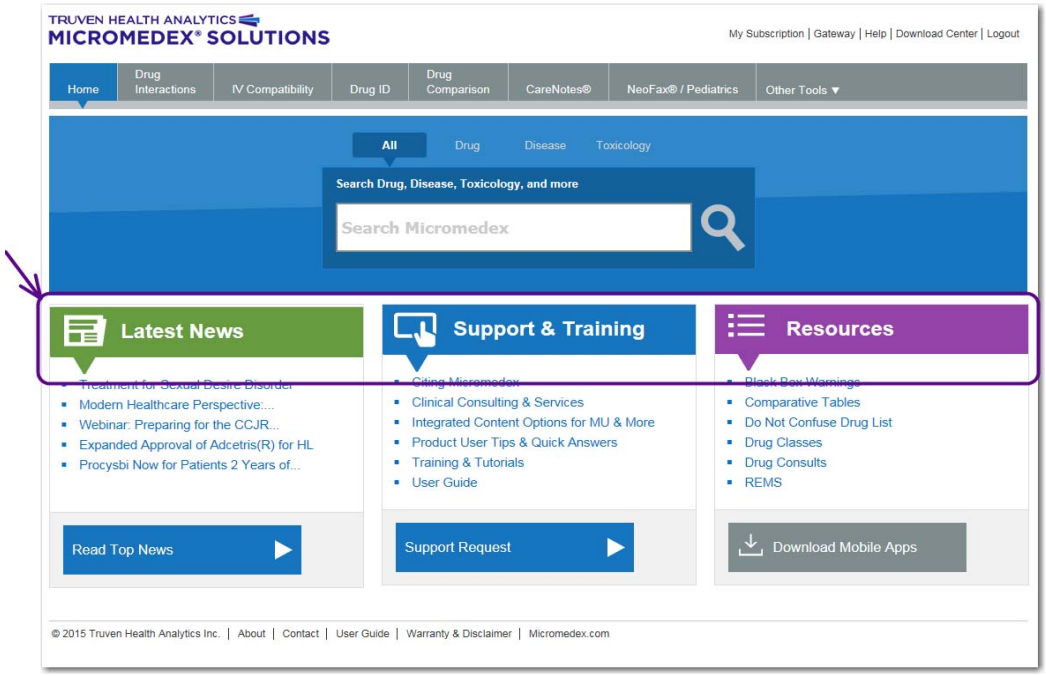


Note: The filter is only applied when searching from the home page. For more details on searching in Micromedex Solutions see Chapter 3: Searching Micromedex Solutions on page 13.

From beneath the *Search Micromedex* search box on the Home Page you can access: the **Latest News** from Micromedex Solutions and across the industry, **Support & Training** and

© 2017 Truven Health Analytics LLC

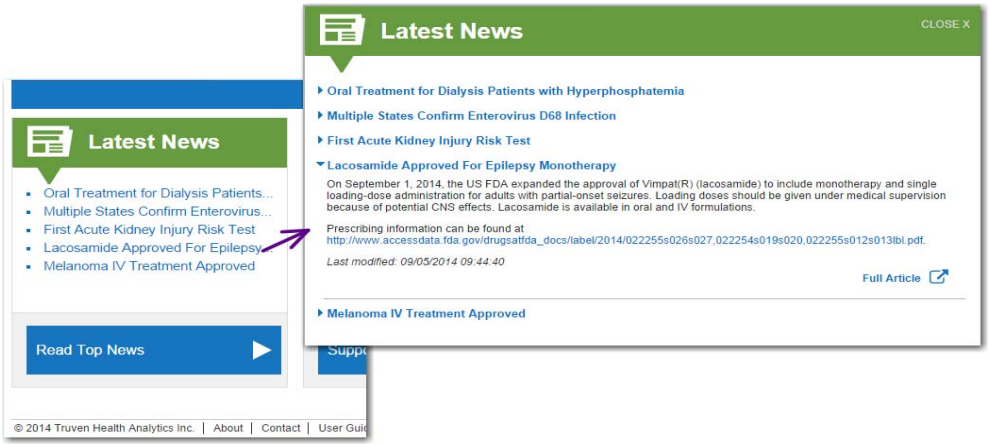
other Micromedex Solutions information, and **Resources** (targeted searches) to take you directly to the most accessed drug content.



Latest News

Late-breaking clinical news, Micromedex events, and product announcements

Stay informed with late-breaking clinical news and information about Truven Health Analytics products and events. The *Latest News* column on the Micromedex Solutions home page is intended to provide you with front-of-mind information on important topics identified by our clinical staff, keep you informed on important additions to our product-line, communicate upcoming events, and provide tips to help you utilize our tools for better patient care. Select a topic from the Latest News column to see a summary, which contains a link to the full article.

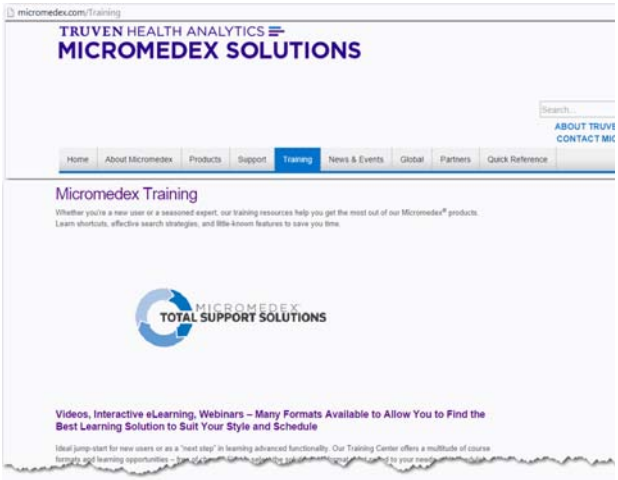


© 2017 Truven Health Analytics LLC

Support and Training

Help is only a click away. Access support and training for help with using Micromedex Solutions, additional services and consulting, and how to cite Micromedex Solutions content.

- **Citing Micromedex** - Learn how to properly cite Micromedex Solutions databases and the copyright protections that should be used.
- **Clinical Consulting & Services** - Micromedex Solutions Consulting Practice offers professional services in key areas to help hospitals advance their organizational goals from identifying cost efficiencies in medication management to designing compliance and population management programs that meet clinical imperatives while driving toward financial objectives.
- **Integrated Content Options for MU & More** - Micromedex Integrated Evidence options result in improved clinical outcomes and increased patient satisfaction — and help meet compliance goals. By providing the information caregivers need in a format they want, at the point of care, integrated solutions help satisfy Meaningful Use objectives and create efficiencies for the clinical staff.
- **Product User Tips & Quick Answers** - To help you get the most out of your Micromedex Solutions subscription, use these resources as a quick reminder of some of the helpful and relevant information available at your fingertips.
- **Training & Tutorials** - Learn about the powerful features and functions available in our products. Our Training center offers an extensive variety of training options, FREE OF CHARGE for you and your staff. Classes and courses are available in a variety of types and formats to offer a training solution that meets your individual need.



Hands On Tutorials - eLearning courses give you the flexibility to learn at your pace and within your schedule with hands-on practice. These courses offer an interactive learning experience. Many courses also offer the option of audio narration.

Video Demonstrations - For the student who learns best with a brief on-demand video demonstration, this area offers overviews of major features, functions, and the tools to get the most out of your Micromedex Solutions subscription.

Web Seminars (Live and Recorded) - Offered monthly, our live training seminars give you the opportunity to speak directly to an expert as well as interact with other Micromedex Solutions customers during an online class. Recorded seminars can be attended at any time to fit your schedule.

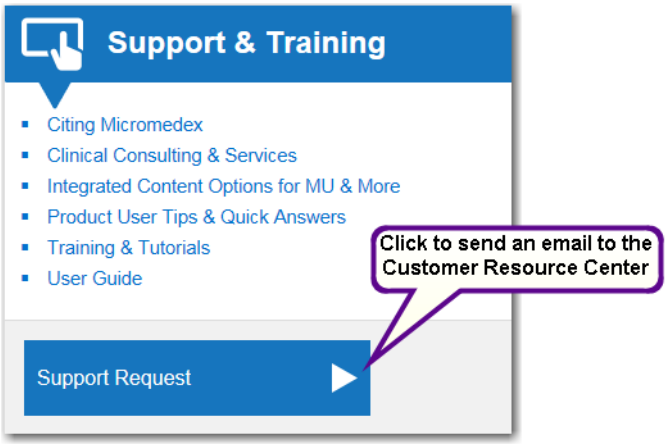
Train the Trainer Materials - Training guides provide step-by-step script and instructions for instructors conducting training to staff.

On Site Training* - Our Education Services team members will develop a personalized presentation based on your audience and hold sessions at your

© 2017 Truven Health Analytics LLC

preferred location. If customized online training is what you are looking for, we would be happy to speak with you and create a program that will fulfill your training needs exactly. Complete the Training Support form to help us create the right training solution for you and your organization.
* Travel/Consulting Fees may apply.

- **User Guide** - As with the **User Guide** link at the bottom of the page, this link opens the latest Micromedex Solutions User Guide in Adobe® Acrobat (.pdf) format.
- **Support Request** - Do you need technical help? Do you want to submit a topic or idea to the Truven Health Editorial staff? Click the **Support Request** link (or the **Contact** link at the bottom of the page) to send an email to the Customer Resource Center.



This link opens an online support request form. Use this form for:

- Non-urgent requests for Technical Support
- Submission ideas (e.g., topic or content suggestions)
- Password reset requests
- Training requests

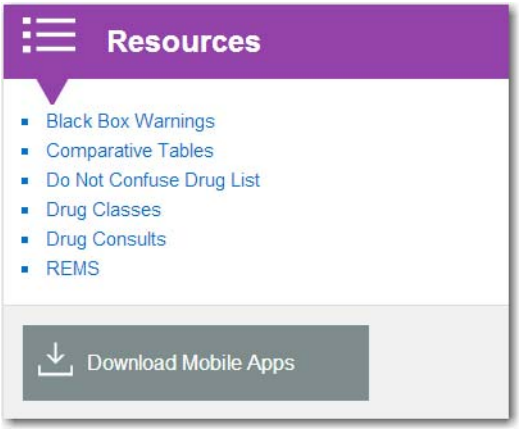
Online Support requests are handled during business hours. Most requests are responded to within one business day. Editorial content inquiries may take three to five business days depending on the complexity of the inquiry.

For urgent matters, please contact our Customer Resource Center. See "Contact Truven Health Analytics" on page i for phone and other contact information.

© 2017 Truven Health Analytics LLC

Resources (Targeted Searches)

This column provides direct links to clinical information that is valuable and commonly requested. You can go straight to the information without performing a search.



- **Black Box Warnings** - This link provides an alphabetical list of all the drugs in Micromedex Solutions that have a black box warning. Use the **Jump To:** menu to display the list of drug titles beginning with a specific letter, allowing you to open directly to the black box warning topic in the associated drug information. You can also perform a search in the main *Search Micromedex* search box to find this information. For more details see "Black Box Warning List" on page 42.
- **Comparative Tables** - This link displays an alphabetical list of Drug Consults documents that contain a comparative table. Click on a title to open the Drug Consults document. You can also perform a search in the main *Search Micromedex* search box to find this information. For more details see "Comparative Tables" on page 43.
- **Do Not Confuse Drug List** - This link displays an alphabetical list of frequently confused drug names, including look-alike and sound-alike name pairs. Drug name pairs that are often confused are listed on the same line, in alphabetical order. Tall man lettering is used to further aid in discerning between common look-alike drugs. To move to a title later in the alphabet, use the **Jump To:** menu. Click any link to open the associated drug landing page. You can also perform a search in the main *Search Micromedex* search box to find this information. For more details see "Do Not Confuse Drug List" on page 44.
- **Drug Classes** - This link provides an alphabetical list of drug classes contained in Micromedex Solutions. Use the **Jump To:** links to quickly display the list of drug classes beginning with the selected letter. Click a drug class to display the drugs in the class. Click on a drug name to display the associated drug information. You can also perform a search in the main *Search Micromedex* search box to find this information. For more details see "Drug Classes" on page 46.
- **Drug Consults** - This link provides an alphabetical list of all the Drug Consult articles available in Micromedex Solutions. Click on a title to open the associated Drug Consult document or use the **Jump To:** menu to display the list of drug consults whose titles begin with the selected letter. You can also perform a search in the main *Search Micromedex* search box to find this information. For more details see "Drug Consults" on page 49.
- **REMS** - This link provides an alphabetical list of drugs with current Risk Evaluation and Mitigation Strategy (REMS) requirements. To display titles from a specific letter in

© 2017 Truven Health Analytics LLC

the alphabet use the **Jump To:** menu. Click on the drug name link to open the document positioned in the REMS section. You can also perform a search in the main *Search Micromedex* search box to find this information. For more details see "REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy" on page 50.

- **Download Mobile Apps** - Click this link (or the **Download Center** link at the top of the page) for information on the Micromedex Solutions mobile offerings. Much more than quick drug look-ups, *mobile*Micromedex® powers your mobile device with a wealth of clinical knowledge from Micromedex Solutions, the industry's leading provider of evidence-based clinical information.

  In the examination room, at the nurse's station, or in the pharmacy, with *mobile*Micromedex you take the trusted content you rely upon with you every step of the way.

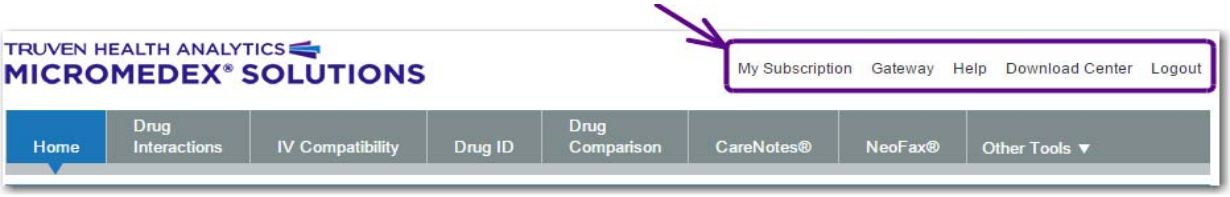
  See "Micromedex for Mobile Devices" on page 223 to learn more about these exciting offers from Micromedex:

  - Web-based access to Micromedex Solutions
  - Apps available for download from the iTunes® App Store, Google Play®, and the Windows Store®

Other Page Elements

Many elements on the Micromedex Solutions interface appear throughout the application.

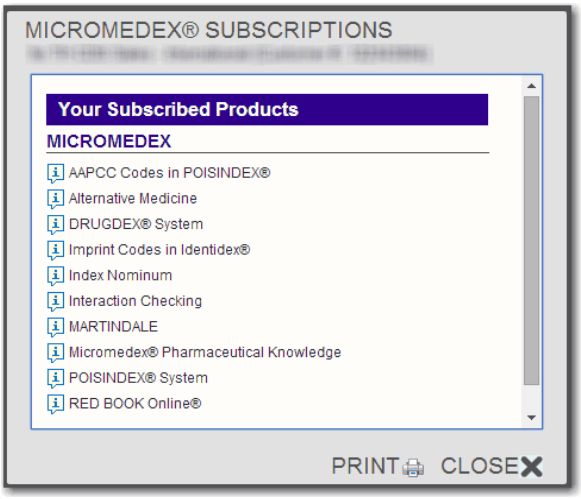
Header Links



My Subscription

© 2017 Truven Health Analytics LLC

View all of the Micromedex Solutions products to which you subscribe by clicking the **My Subscription** link. Your customer name and account number are shown near the top of the window.



Subscribed products (and external applications) are shown on the left side of the window. Products and applications to which you do not subscribe are shown on the right.

Hover your mouse over the “i” icon to view a general description of the product or application.

Gateway

The **Gateway** link allows you quick access to other applications available to you from Truven Health Analytics. Click the **Gateway** link to go to the Micromedex Solutions Web Application Access page.

Help

Help is always just a click away. Click the **Help** link to open the help application for Micromedex . Navigate to any topic by clicking on the books (chapters). Use the **Index** or **Search** tabs to search for help by a keyword.

Download Center

Click this link (or the **Download Mobile Apps** link under *Resources* on the home page) for information on the Micromedex Solutions mobile offerings. Much more than quick drug look-ups, *mobile*Micromedex powers your mobile device with a wealth of clinical knowledge from Micromedex Solutions, the industry's leading provider of evidence-based clinical information.

In the examination room, at the nurse’s station, or in the pharmacy, with *mobile*Micromedex you take the trusted content you rely upon with you every step of the way.

See “Micromedex for Mobile Devices” on page 223 to learn more about these exciting offers from Micromedex:

- Web-based access to Micromedex Solutions
- Apps available for download from the iTunes® App Store, Google Play®, and the Windows Store®

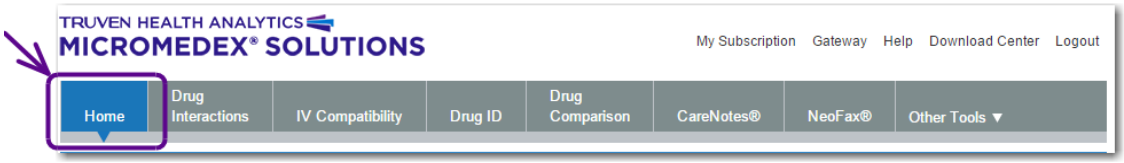
Logout

© 2017 Truven Health Analytics LLC

It is good practice to log out of the Micromedex application when you are away from the workstation for an extended period of time. Use the **Logout** link to close your session.

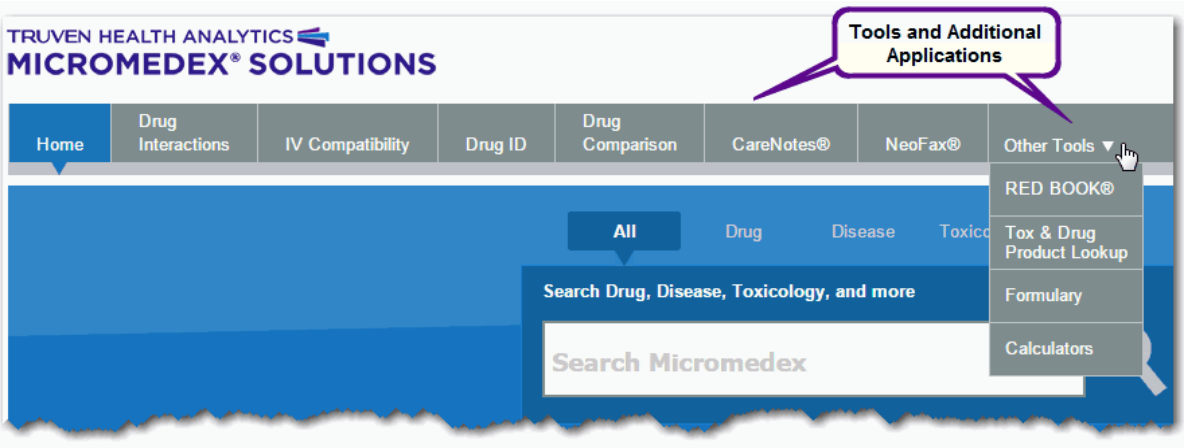
Home Button

Click on the **Home** button from any page to return to the Micromedex Solutions home page.



Tools and Additional Applications

To the right of the Home button on every page in Micromedex Solutions are links to tools and additional Micromedex applications. The most frequently used tools are shown on the toolbar. Depending on your subscription, the tool you want may be visible or it may in the Other Tools drop-down menu.



The possible tools are:

- **Drug Interactions** - allows you to check for interacting drug ingredients, their effects, and their clinical significance. Interaction information can be displayed for a single drug or between multiple drugs.
- **IV Compatibility** - provides easy access to proven Trissel's 2 data to assist with accurate IV compatibility decisions
- **Drug ID** - finds drugs based on their imprint code or physical description
- **Tox & Drug Product Lookup -** to find product, manufacturer contact, and related toxicologic management information on: drugs, commercial/household products and chemicals, plants and animals, and slang terms/street names for drugs or substances
- **Drug Comparison** - provides a side-by-side drug information comparison
- **Calculators** - includes: antidote and dosing calculators and nomograms, lab values, dosing tools, clinical calculators, and measurement calculators

All of these tools provide features and functions not found within the main search in Micromedex *.

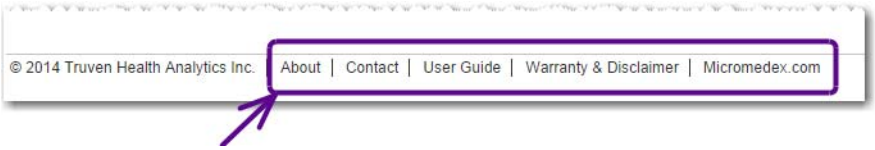
© 2017 Truven Health Analytics LLC

The additional applications that are available from within Micromedex Solutions are: Formulary, CareNotes®, RED BOOK®, and NeoFax®/Pediatrics. These links allow you to launch the application and continue your work.

Note: *Single drug interactions and single IV compatibility information is also available from the Quick Answers tab on a drug landing page.

Page Footer Links

At the bottom of every page in Micromedex Solutions are links to the following information:



About

Click this link to open a page with information about Truven Health Analytics and Micromedex Solutions.

Contact

Do you need technical help? Do you want to submit a topic or idea to the Truven Health Editorial staff? Click this link (or the **Support Request** link under *Support & Training* on the home page) to send an email the Customer Resource Center.

This link opens an online support request form. Use this form for:

- Non-urgent requests for Technical Support
- Submission ideas (e.g., topic or content suggestions)
- Password reset requests
- Training requests

Online Support requests are handled during business hours. Most requests are responded to within one business day. Editorial content inquiries may take three to five business days depending on the complexity of the inquiry.

For urgent matters, please contact our Customer Resource Center. See "Contact Truven Health Analytics" on page i for phone and other contact information.

User Guide

As with the **User Guide** link under *Support & Training* on the home page, this link opens the latest Micromedex Solutions User Guide in Adobe® Acrobat (.pdf) format.

Warranty & Disclaimer

This link opens a page on warranty and disclaimer information for our products.

Micromedex.com

On the Micromedex home page you can learn about Micromedex products, support, training, events, and more.

© 2017 Truven Health Analytics LLC

CHAPTER 3: SEARCHING MICROMEDEX SOLUTIONS

This chapter describes search techniques that can be used in Micromedex® Solutions for all types of content. For more details on the content, see the following chapters:

- Chapter 4: Drug Information on page 59
- Chapter 5: Disease Information on page 93
- Chapter 6: Toxicology Information on page 107
- Chapter 7: Alternative Medicine Information on page 117
- Chapter 8: Lab Information on page 127
- Chapter 9: Reproductive Risk Information on page 135

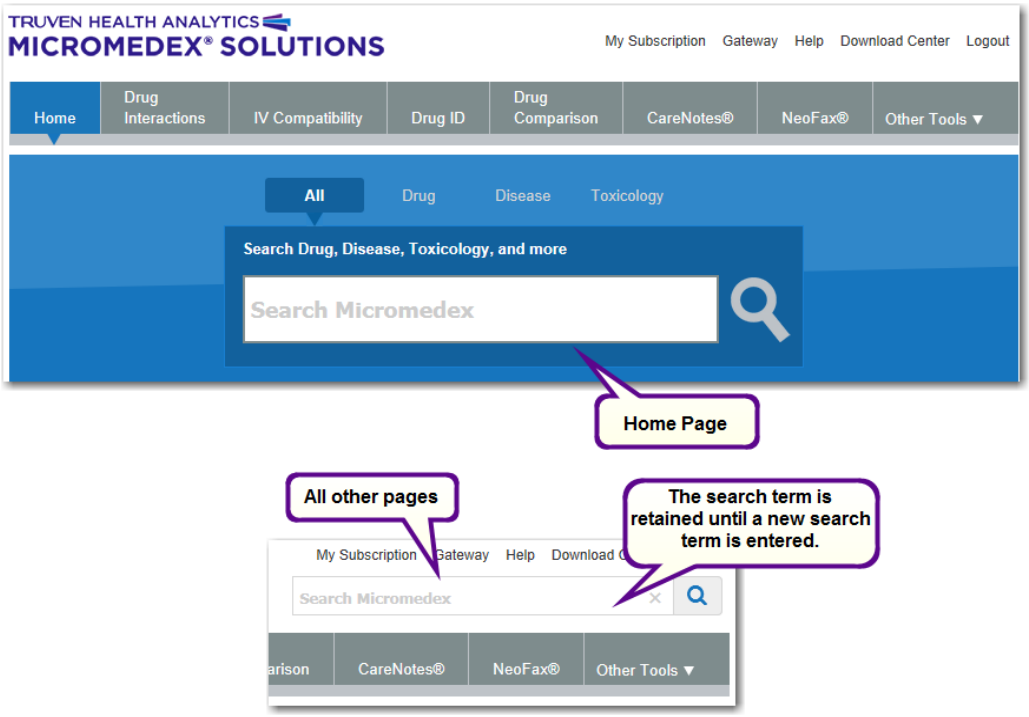
© 2017 Truven Health Analytics LLC

SEARCHING BASICS

Micromedex makes finding answers as simple as a single query. The smart search functionality includes a single search box on every page so you can perform searches and have results displayed on a single page. By default you can quickly perform one search to get all the relevant results for the content to which you subscribe, or you can specify a filter option to search specifically within the drug, disease, or toxicology content, which will provide you with more targeted results.

The *Search Micromedex* search box is available on every page in Micromedex Solutions. On the *Home Page* it is prominently displayed below the toolbar. On all other pages it is located in the upper right of the page.

Search Term Retention - When you enter a search term it stays in the *Search Micromedex* search box until you enter another term or until you select a tool from the toolbar. This helps to give context to search results as you navigate through subsequent pages.



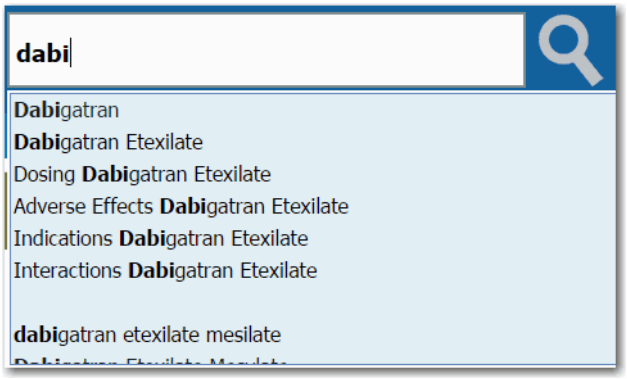
Whether you are looking for information about a drug, a condition, reproductive risk, toxicity or overdose, alternative medicine or therapy, you can use the *Search Micromedex* search box to quickly find the information you need.

Typically, the more information you can provide, the faster we can move you directly to the answer to your question. Not all searches have a direct link to a topic in our data, but all searches return results that are ranked by relevancy to your search terms.

Note: Searches are NOT case-sensitive.

© 2017 Truven Health Analytics LLC

When you type in the *Search Micromedex* search box the drop-down list opens as soon as you enter three or more characters and makes suggestions based on what you type. For example, if you begin typing "dabigatran," the drop-down list suggests a drug name in addition to dosing, adverse effects, indications, and interactions for the drug.



Once you find a match in the drop-down list, do any one of the following:

- **Start the search with the mouse**
  Click on an item in the drop-down list, and the search starts immediately.
- **Start the search with the keyboard**
  Use the **arrow up/down** keys to select an item and then press the **Enter** key (or click the search button) to start the search.
- **Keep typing**
  The list narrows with each match to the characters you type.

SEARCH TECHNIQUES

The *Search Micromedex* search box that is available on every page in Micromedex Solutions has intuitive search capabilities to provide you with quick, direct access to the most relevant, useful drug information, specifically things such as dosing, adverse effects, indications, and interactions. The single interface allows you to search and navigate to essential drug, disease, toxicology, and patient education information. A single interface ensures clinical consistency across our fortified evidence.

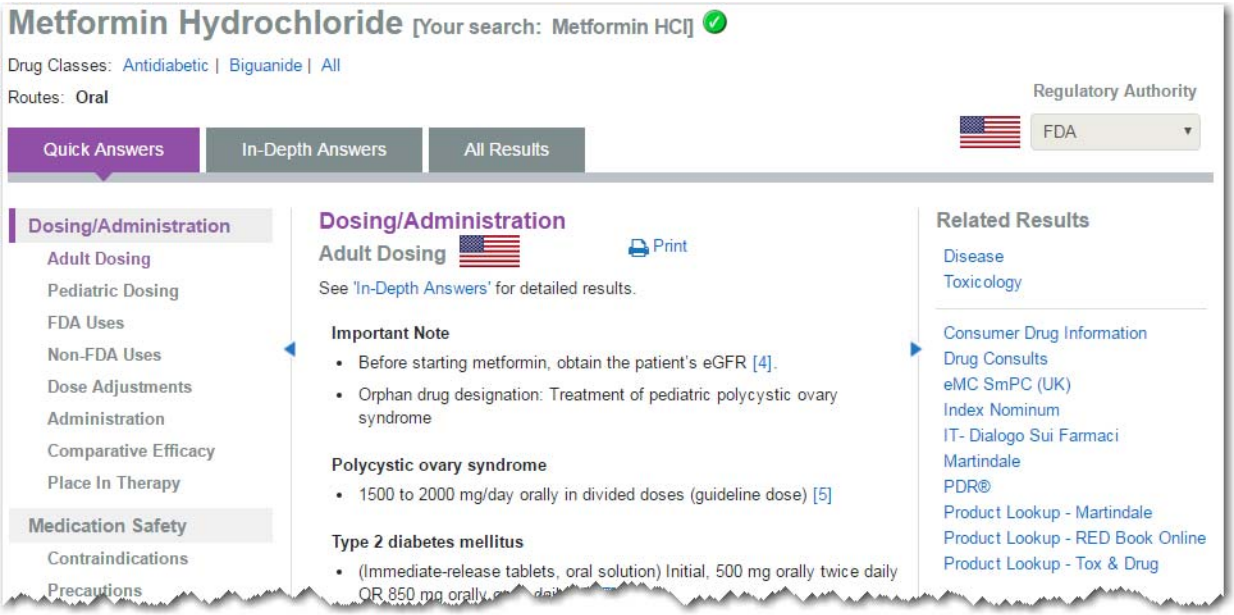
The following search techniques are explained in this section:

- **Landing Pages** - Go directly to a landing page where you can see all the relevant and related information at a glance. See "Landing Pages" on page 16.
- **Direct Access Searching** - These searching suggestions are intended to provide you with shortcuts to important and frequently used drug information. See "Direct Access Searching" on page 29.
- **Brand Name Drugs** - Search on a brand name drug to see a list of the corresponding generic drugs being displayed on a *Brand Name Results* page. See "Brand Name Drugs" on page 37.

© 2017 Truven Health Analytics LLC

- **Intelligent Searching** - The Micromedex intelligent searching provides in-line spelling suggestions in real time while you are conducting your search. See "Intelligent Searching" on page 38.
- **Filtered Searching** - Specify a filter option to search specifically within the drug, disease, or toxicology content to receive more targeted results. See "Filtered Searching" on page 39.
- **Targeted Searches** - Several tightly-focused, targeted searches are available for clinicians to quickly gain access to highly sought-after information such as black box warnings and comparative tables. See "Targeted Searches" on page 41.
- **Salt/Base Forms, Combinations, Kits** - When searching on a base of a salt/base form, Micromedex Solutions returns a landing page with links to allow you to choose the specific substance. When searching on a combination drug or a kit you are taken directly to the content landing page, which includes links to other substance choices. See "Salt/Base Forms, Combinations, Kits" on page 52.
- **Intermediate Search Results** - All results are displayed if the search does not employ one of the other techniques. See "Intermediate Search Results" on page 54.
- **International Drug Searching** - Subscribers to international drug databases can search using local brand names. "International Drug Searching" on page 56.

Landing Pages



The purpose of a landing page is to show all relevant and related information at a glance, so you can quickly navigate to your specific area of interest. It intuitively displays tabs for summary information and detailed information. Micromedex takes you directly to the landing page when the application deems it highly likely that this is your area of interest. There are landing pages for Drug, Disease, Toxicology, and Alternative Medicine information.

© 2017 Truven Health Analytics LLC

Whether you arrived on the landing page directly from your search or you clicked on a link on the *Intermediate Search Results* page (see "Intermediate Search Results" on page 54), the landing page gathers all the related results for the search together into one compact view.

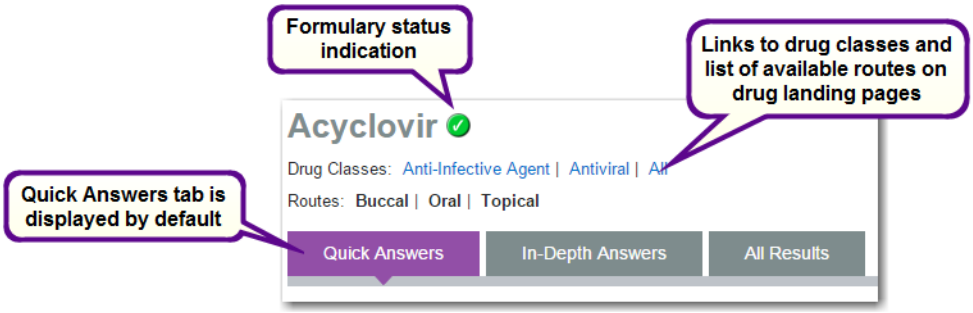
The amount and layout of the information shown on a landing page will vary by your subscription and content availability. Landing pages consist of three tabs:

- Quick Answers (see page 18)
- In-Depth Answers (see page 20)
- All Results (see page 24)

Landing pages for drugs also include the following information:

- Available routes
- Links to drug classes associated with the drug. Click a link to see all the drugs in the class.
- Formulary status designated by an icon (Formulary Status customers only)

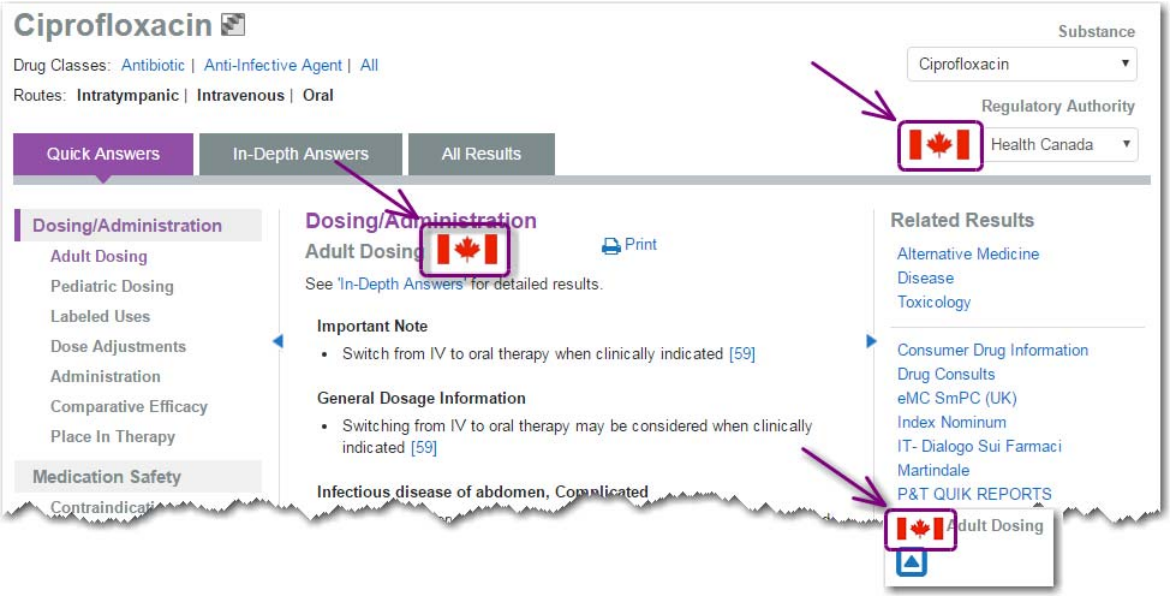
  The Micromedex® Formulary Status product provides immediate access to formulary information throughout your facility. It guides prescribing clinicians toward formulary drugs, saving your pharmacists, nurses, and physicians time – and your facility money. Formulary Status is integrated with Micromedex® Solutions, so that a drug's designated formulary status displays on the drug landing page in the form of an icon. Examples of formulary status, which are maintained by your facility's formulary administrators and are customizable, include: Formulary, Non-Formulary, Preferred, Restricted. To find out more about the Formulary Status product contact your Client Service Manager or Truven Health Customer Support (see "Contact Truven Health Analytics" on page i).



© 2017 Truven Health Analytics LLC

- Drug information from the Food and Drug Administration (FDA), Health Canada and European Medicines Agency (EMA), if available. Click an item from the **Regulatory Authority** drop-down list to view drug information from a specific regulatory authority.

Note: If drug information is available from only one source, the Regulatory Authority drop-down list is disabled.



A flag identifying the selected regulatory authority displays next to the Regulatory Authority drop-down list and on the middle panel of the Quick Answers and In-Depth Answers tabs. The flag also displays above the back-to-top icon that allows you to return to the top of the document. See Chapter 4: Regulatory Authority Information on page 86 for more information.

Quick Answers Tab

The *Quick Answers* tab is the default display for the landing page. It consists of three panels, which are all displayed by default. The middle panel contains the text of the summary monograph. Depending on the search term this may be a monograph for Summary Drug Information, Summary Disease Information, Summary Toxicology Information, or Summary Alt Med Info. Click the **In-Depth Answers** link, if available, to view the same section in the detailed monograph on the *In-Depth Answers* tab.

The left panel contains links for navigating the sections of the summary monograph.

The right panel contains links to:

- Related information in other subscribed databases, such as: Alternative Medicine, Disease, Drug, Toxicology, Patient Handouts, PDR, Index Nominum, Drug Consults, Martindale, Consumer Drug Info, P&T QUIK, IT-Dialogo sui Farmaci, eMC SmPC (UK)
- Product lookup tools - Clicking the **Tox & Drug, Martindale** or **RED BOOK Online** links result in searches in the associated tool or application using the drug used in the

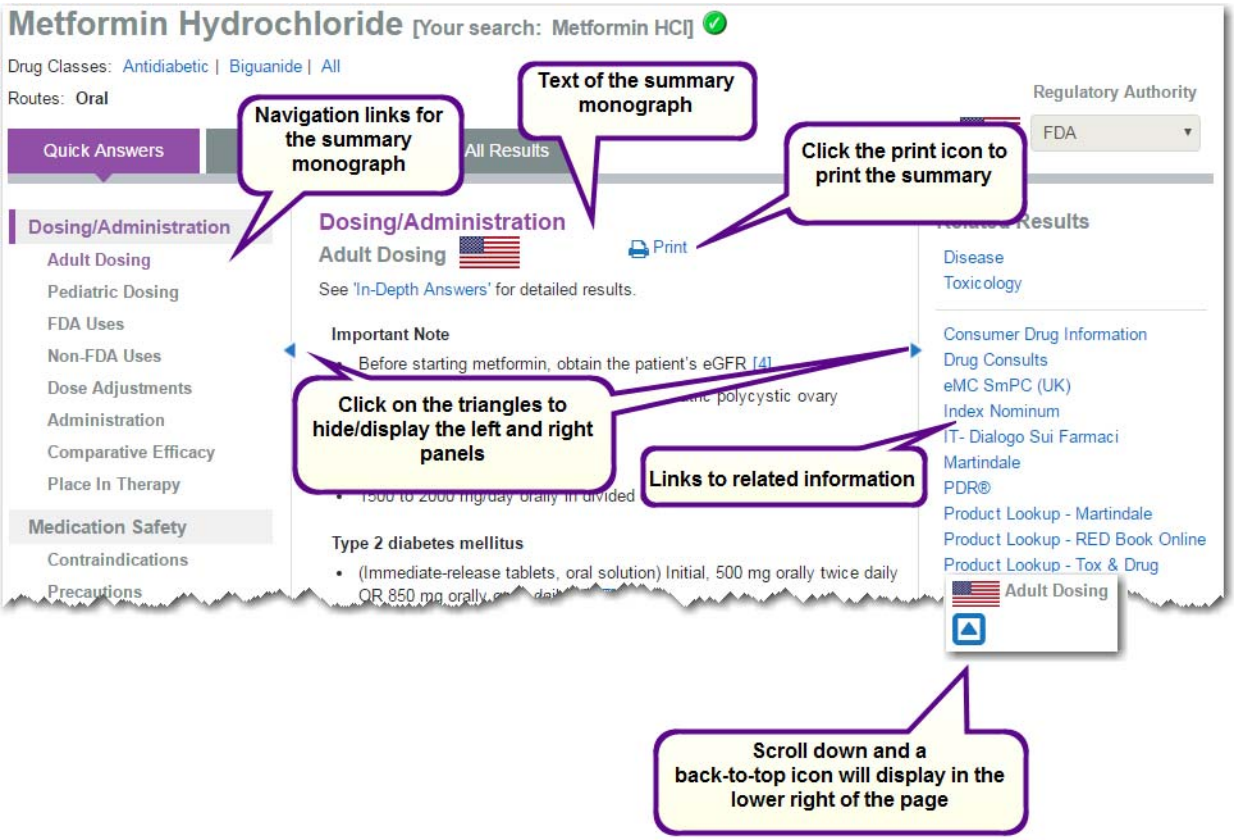
© 2017 Truven Health Analytics LLC

initial search. See Chapter 14: Tox & Drug Product Lookup Tool or Chapter 4: Drug Information on page 59 or Chapter 16: RED BOOK Online on page 191 for additional information.

Click the **Print** icon (Print) to print the summary monograph. For more details on printing see "Printing" on page 57.

You can hide/display the left and right panels to maximize the viewing area by clicking the **blue triangles** ( ). If you hide or display a panel while viewing the *Quick Answers* tab, the action will also apply to the *In-Depth Answers* tab.

© 2017 Truven Health Analytics LLC



For more details on the links under Related Results in the right panel see the following chapters:

- Chapter 4: Drug Information on page 59
- Chapter 5: Disease Information on page 93
- Chapter 6: Toxicology Information on page 107
- Chapter 7: Alternative Medicine Information on page 117

In-Depth Answers Tab

Click the **In-Depth Answers** tab to view the detailed monograph. Depending on the search term this may be a monograph for Detailed Drug Information, Disease Emergency or General Medicine, Detailed Toxicology Information, or In-Depth Alt Med Info. As with the *Quick Answers* tab the *In-Depth Answers* tab consists of three panels, which are all displayed by default.The middle panel contains the text of the detailed monograph. Click the **Quick Answers** link, if available, to view the same section in the summary monograph on the *Quick Answers* tab.

The left panel contains links for navigating the sections of the detailed monograph.

The right panel contains links to:

- Related information in other subscribed databases, such as: Alternative Medicine, Disease, Drug, Toxicology, Patient Handouts, PDR, Index Nominum, Drug Consults, Martindale, Consumer Drug Info, P&T QUIK, IT-Dialogo sui Farmaci, eMC SmPC (UK)

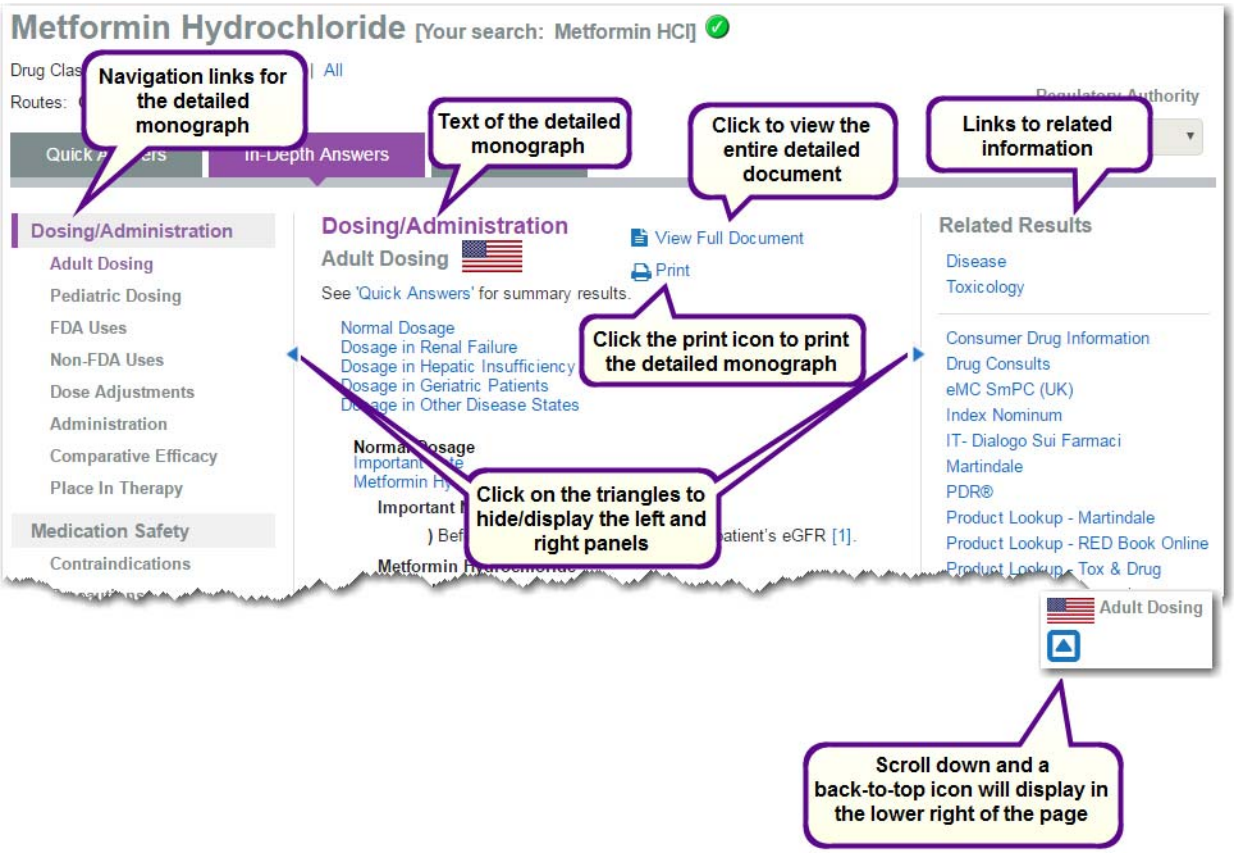
© 2017 Truven Health Analytics LLC

- Product lookup tools - Clicking the **Tox & Drug, Martindale** or **RED BOOK Online** links result in searches in the associated tool or application using the drug used in the initial search. See Chapter 14: Tox & Drug Product Lookup Tool or Chapter 4: Drug Information on page 59 or Chapter 16: RED BOOK Online on page 191 for additional information.

Click **View Full Document** to view the entire detailed monograph. Click **View Document Sections** to return to the panel view.

Click the **Print** icon (Print) to print the detailed monograph. For more details on printing see "Printing" on page 57. This is available when viewing the document sections or the full document.

You can hide/display the left and right panels to maximize the viewing area by clicking the **blue triangles** ( ). If you hide or display a panel while viewing the *In-Depth Answers* tab, the action will also apply to the *Quick Answers* tab.



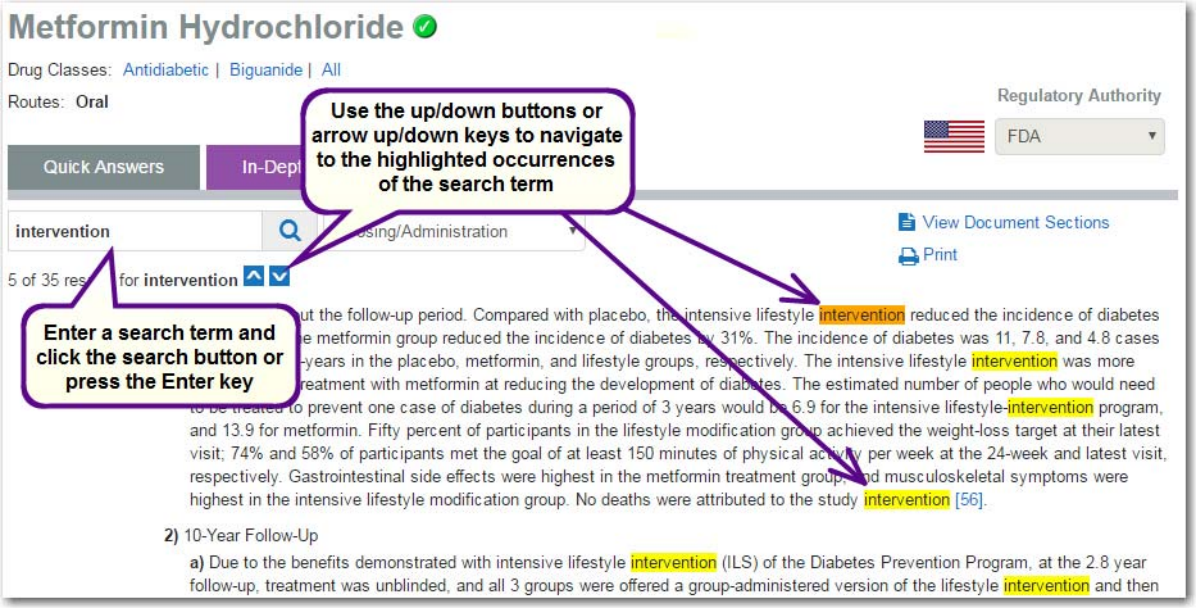
For more details on the links under Related Results in the right panel see the following chapters:

- Chapter 4: Drug Information on page 59
- Chapter 5: Disease Information on page 93
- Chapter 6: Toxicology Information on page 107
- Chapter 7: Alternative Medicine Information on page 117

© 2017 Truven Health Analytics LLC

Searching Within a Document

When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **up/down** buttons or the **arrow up/down** keys to move from one highlighted occurrence to another.

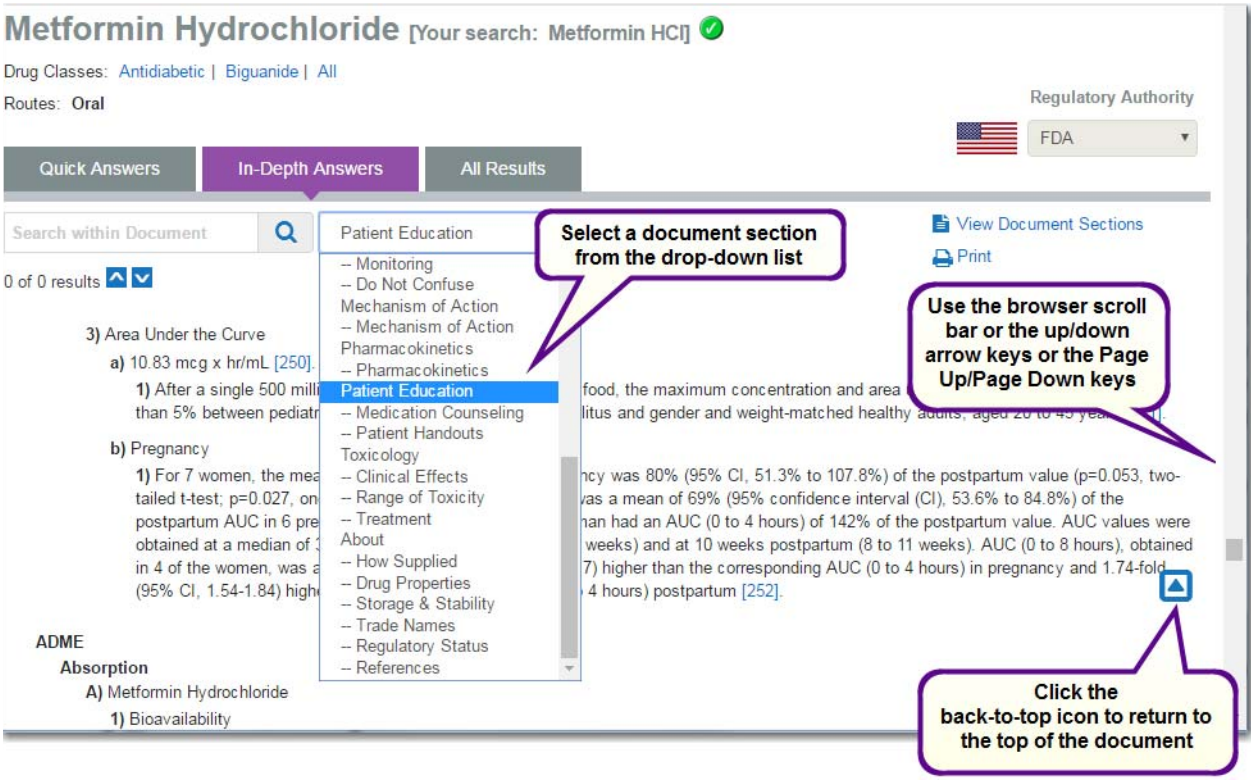


© 2017 Truven Health Analytics LLC

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scroll bar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- Click the back-to-top icon to return to the top of the document.



All Results Tab

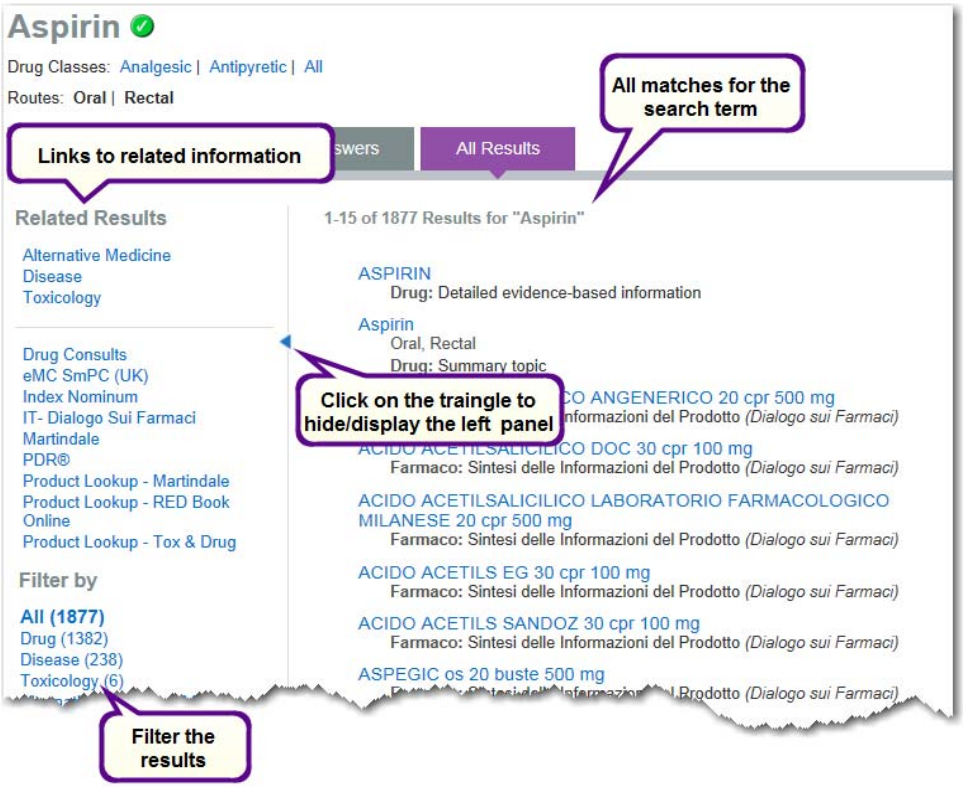
Click the **All Results** tab to view all results associated with your search term. The *All Results* tab consists of two panels, which are both displayed by default. The left panel contains links to:

- Related information in other subscribed databases, such as: Alternative Medicine, Disease, Drug, Toxicology, Patient Handouts, PDR, Index Nominum, Drug Consults, Martindale, Consumer Drug Info, P&T QUIK, IT-Dialogo sui Farmaci, eMC SmPC (UK)
- Product lookup tools - Clicking the **Tox & Drug, Martindale** or **RED BOOK Online** links result in searches in the associated tool or application using the drug used in the initial search. See Chapter 14: Tox & Drug Product Lookup Tool or Chapter 4: Drug Information on page 59 or Chapter 16: RED BOOK Online on page 191 for additional information.
- Filters for limiting the results by: Drug, Disease, Toxicology, Alternative Medicine, Lab, Reproductive Risk

The right panel displays all matches found for the search term and is organized exactly like the Intermediate Search Results page. (See "Intermediate Search Results" on page 54 for more details.) Matches are ranked by relevance, and each result is organized as follows:

- Title, which links to the associated landing page or document
- Route (if applicable)
- The type of information (drug, disease, lab, etc.), the type of document (detailed, summary, etc.)

You can hide/display the left panel to maximize the viewing area by clicking the **blue triangle** (◄).



© 2017 Truven Health Analytics LLC

Multiple Landing Pages

When multiple landing pages exist for a search term (drug, disease, toxicology, alternative medicine), the landing page that is displayed by default is determined by a landing page hierarchy. For details see Appendix E: Landing Page Hierarchy on page 279.

Landing Page Examples

The following landing page search examples are provided:

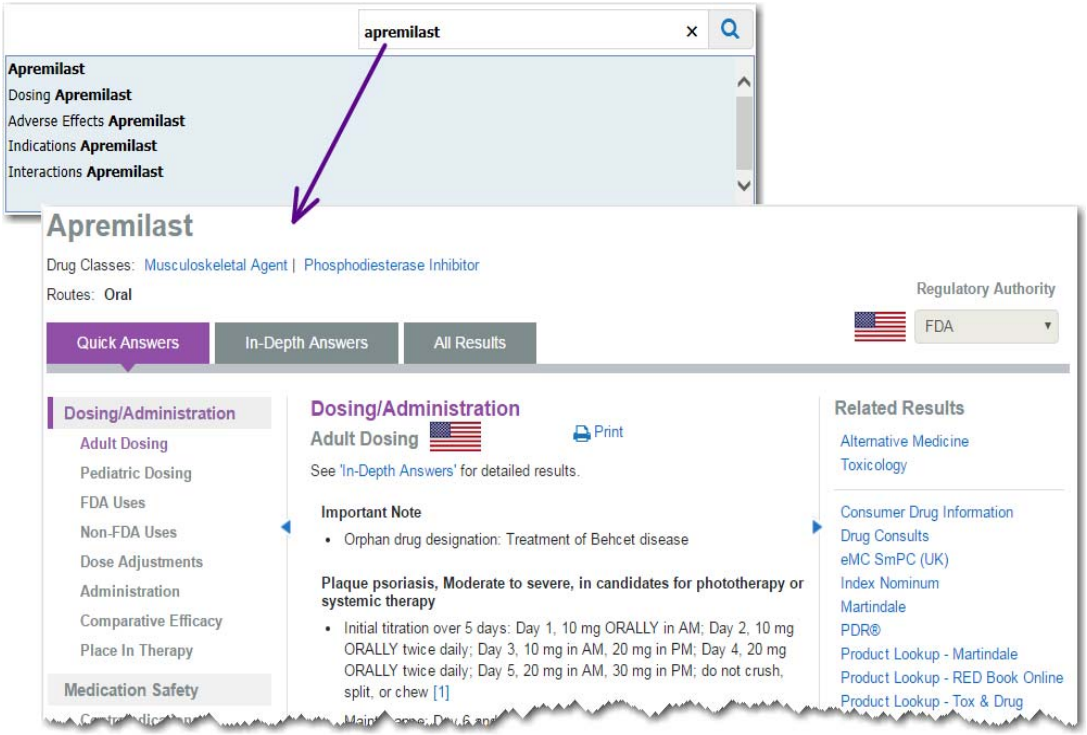
- "Example 1 - Landing Page for a Drug" on page 25
- "Example 2 - Landing Page for a Disease" on page 26
- "Example 3 - Landing Page for Toxicology" on page 27
- "Example 4 - Landing Page for Alternative Medicine" on page 28

Example 1 - Landing Page for a Drug

1. Start by typing the drug name "apremilast." The drop-down list makes suggestions.
2. Click "Apremilast" in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "Apremilast." Then click the **Search** button (🔍) or press the **Enter** key.
3. The Apremilast drug landing page displays.



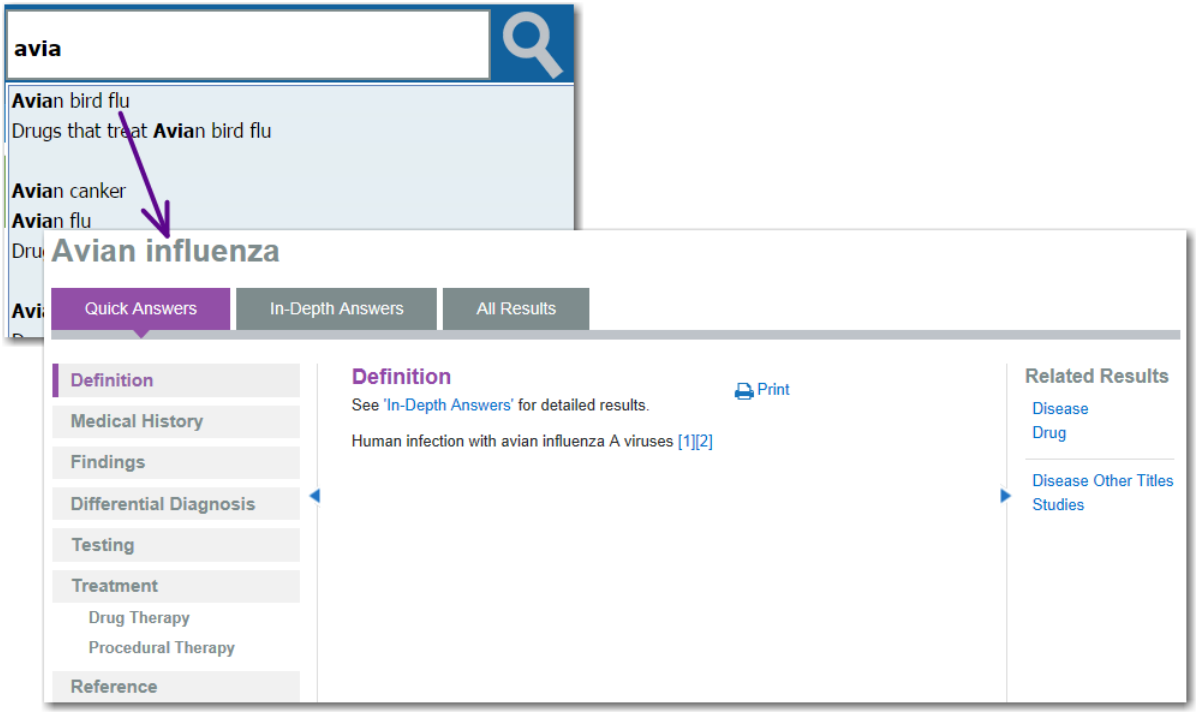
© 2017 Truven Health Analytics LLC

Example 2 - Landing Page for a Disease

1. Start by typing the disease “avian bird flu.” The drop-down list makes suggestions.
2. Click “Avian bird flu” in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "Avian bird flu." Then click the **Search** button ( ) or press the **Enter** key.
3. The Avian influenza disease landing page displays.



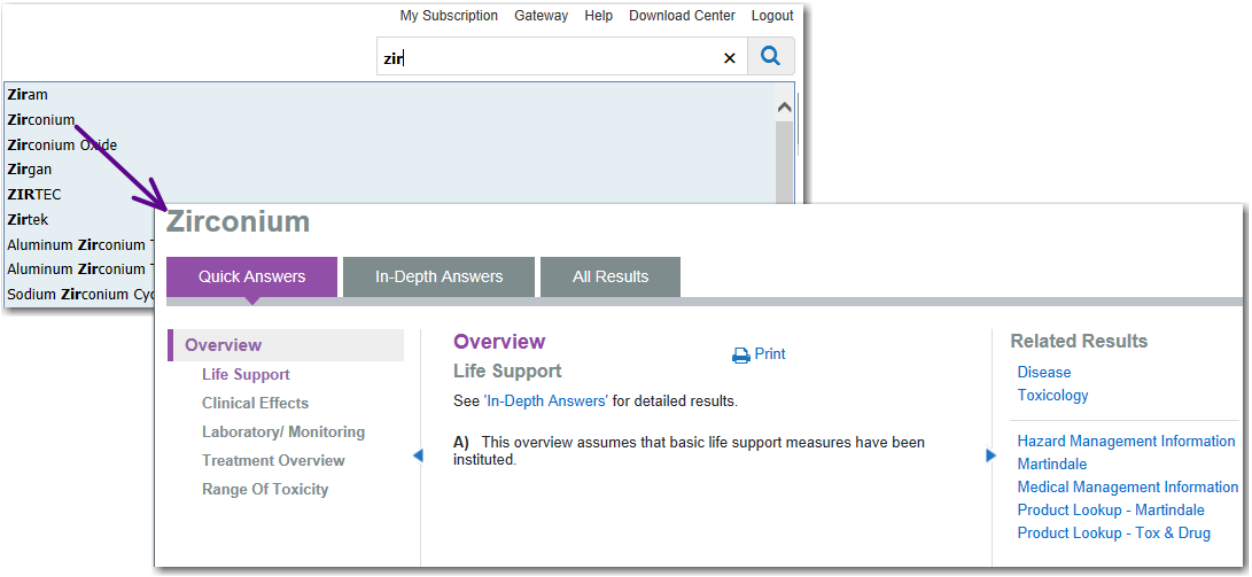
© 2017 Truven Health Analytics LLC

Example 3 - Landing Page for Toxicology

1. Start by typing “zir.” The drop-down list makes suggestions.
2. Click “Zirconium” in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "Zirconium." Then click the **Search** button ( ) or press the **Enter** key.
3. The Zirconium toxicology landing page displays.



© 2017 Truven Health Analytics LLC

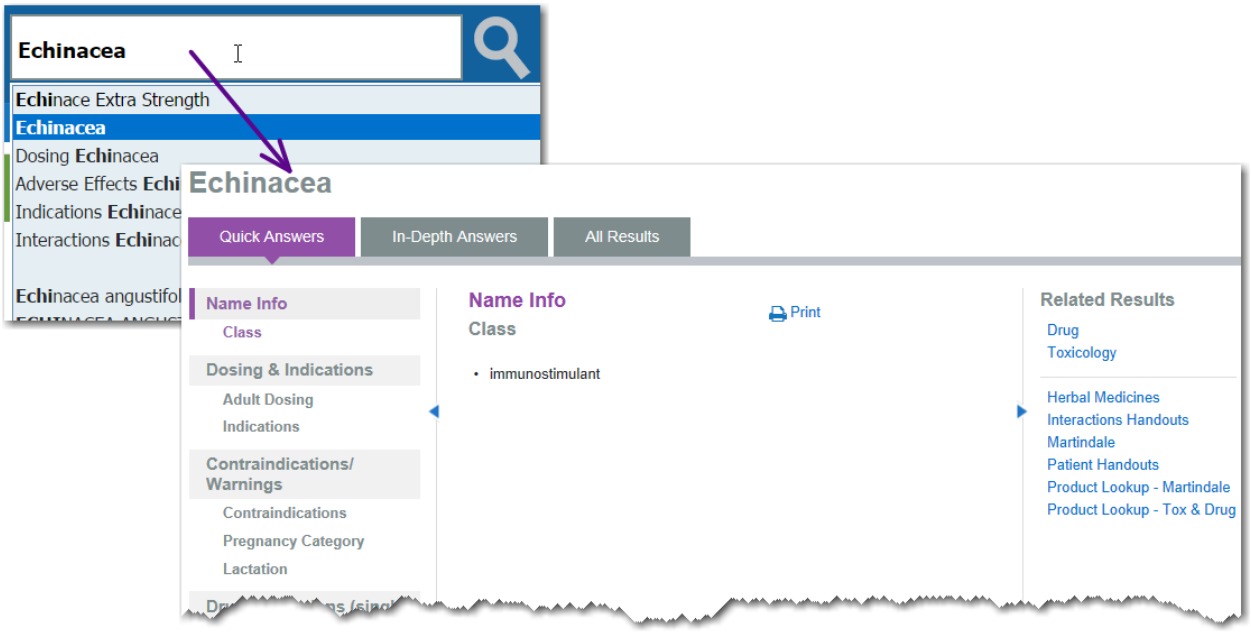
Example 4 - Landing Page for Alternative Medicine

1. Start by typing “echi.” The drop-down list makes suggestions.
2. Click “Echinacea” in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "Echinacea.” Then click the **Search** button ( ) or press the **Enter** key to begin the search.

3. The Echinacea alternative medicine landing page displays.



© 2017 Truven Health Analytics LLC

Direct Access Searching

Direct Access searching suggestions are intended to provide you with shortcuts to important and frequently used drug information. Simply type a generic drug name or disease/condition in the *Search Micromedex* search box, and you are immediately presented with additional suggestions. When selecting a direct access topic, you are routed directly to information on the topic of interest, bypassing some navigation and search results selection steps.

For example, searching on “dosing amlodipine” results in the Amlodipine Detailed Drug Information document opened to the Dosing Information topic.

Search Examples

The following Direct Access Searching examples are presented:

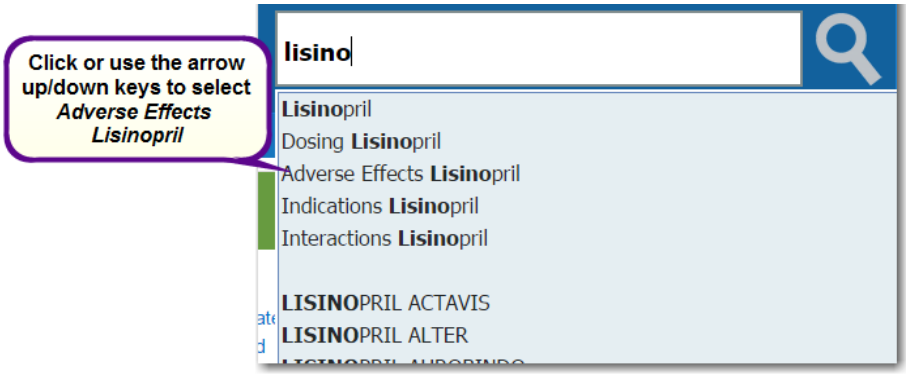
- “Example 1 - Adverse Effects of a Drug” on page 30.
- “Example 2 - Drugs That Cause” on page 31.
- “Example 3 - Drugs That Treat” on page 34.

© 2017 Truven Health Analytics LLC

Example 1 - Adverse Effects of a Drug

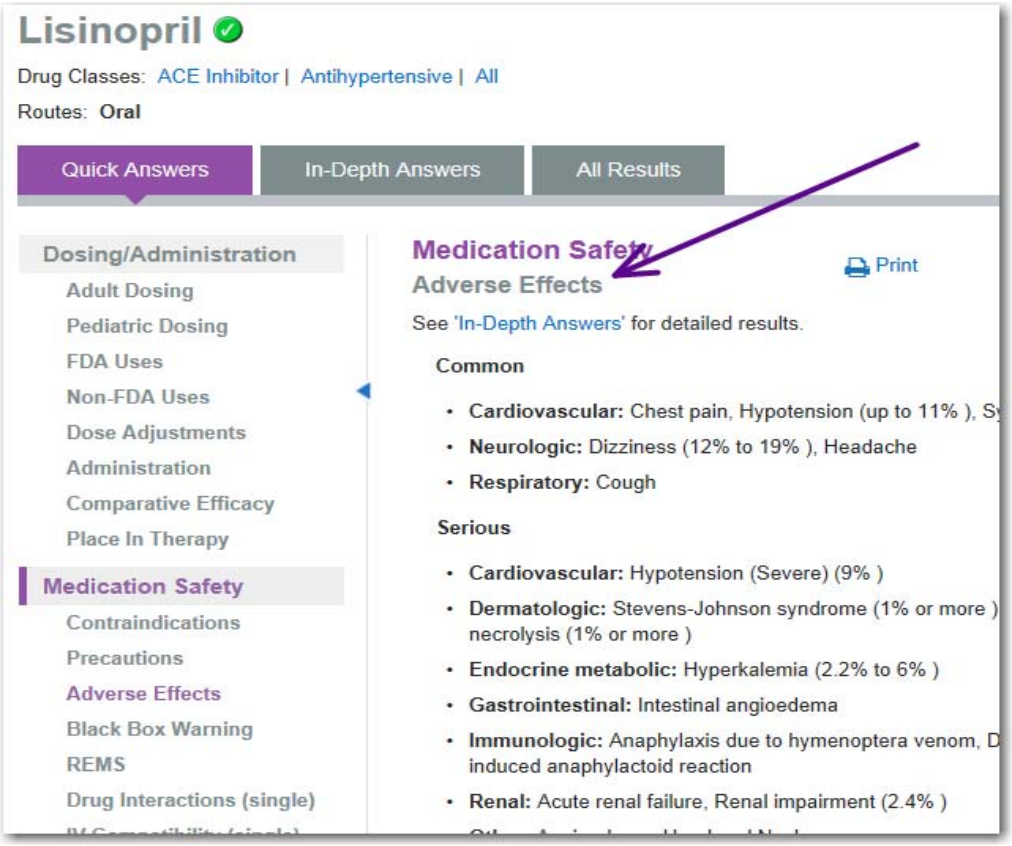
Search for adverse effects of a generic drug.

1. Begin typing “lisinopril.” The drop-down list provides suggestions.



2. Click on “Adverse Effects Lisinopril,” or use the **arrow up/down** keys to select it and then click the **Search** button ( ) or press the **Enter** key.

3. You are taken directly to the Adverse Effects section on the Quick Answers tab on the landing page for Lisinopril.



© 2017 Truven Health Analytics LLC

Example 2 - Drugs That Cause

Search for drugs that cause a particular adverse effect or condition, and the results are grouped alphabetically.

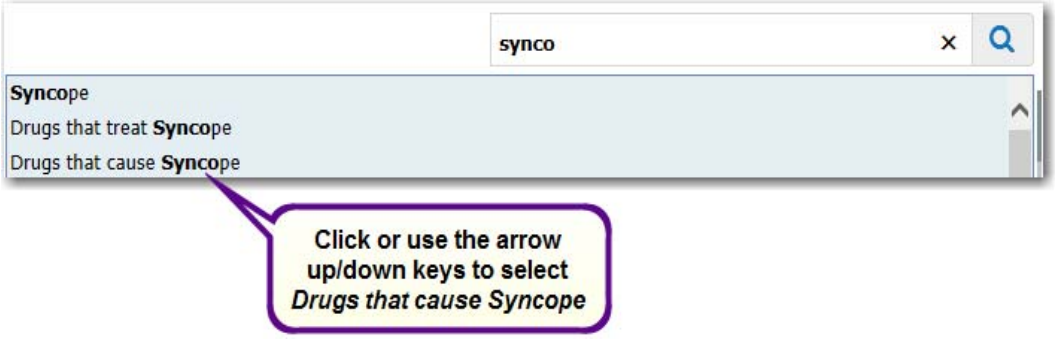
Type a phrase using the noun “drugs”, “medications”, or “substances” with the words “that cause” and the adverse effect or condition. Example searches:

- Drugs that cause skin rash
- Medications that cause insomnia
- Substances that cause edema

- OR -

Type an adverse effect or condition and select the phrase “Drugs that cause...” from the drop-down list.

1. Begin typing “syncope.” The drop-down list makes suggestions.



2. Click on “Drugs that cause Syncope,” or use the **arrow up/down** keys to select it and then click the **Search** button ( ) or press the **Enter** key.

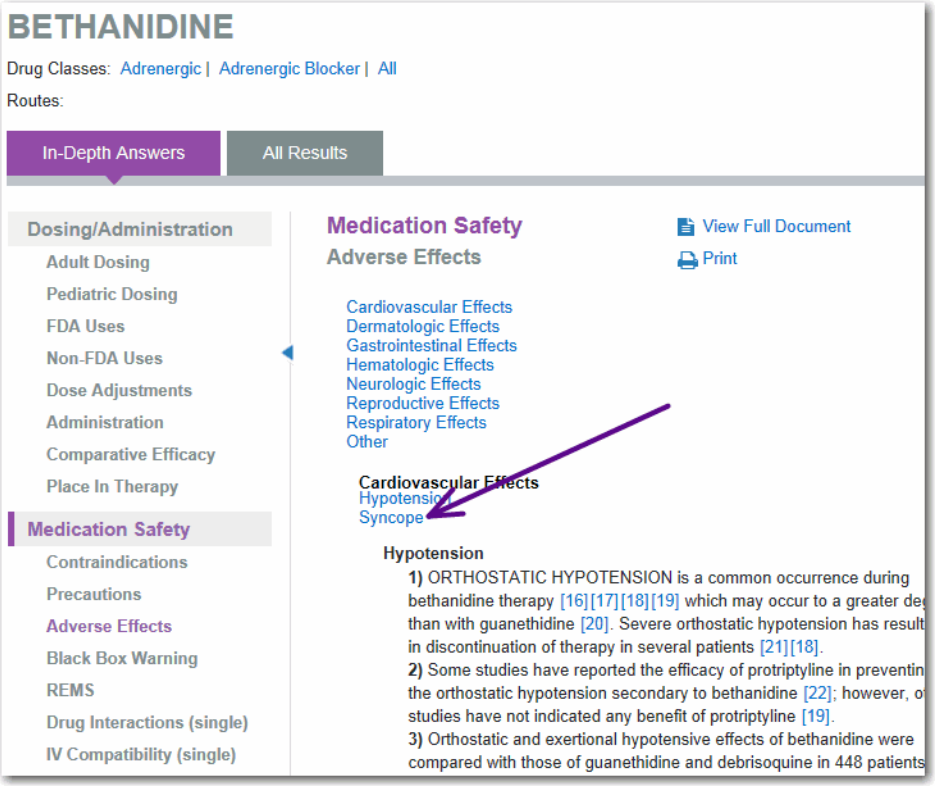
© 2017 Truven Health Analytics LLC

3. Search results are displayed on a *Drugs That Cause xxx* page where xxx is the adverse effect or condition.

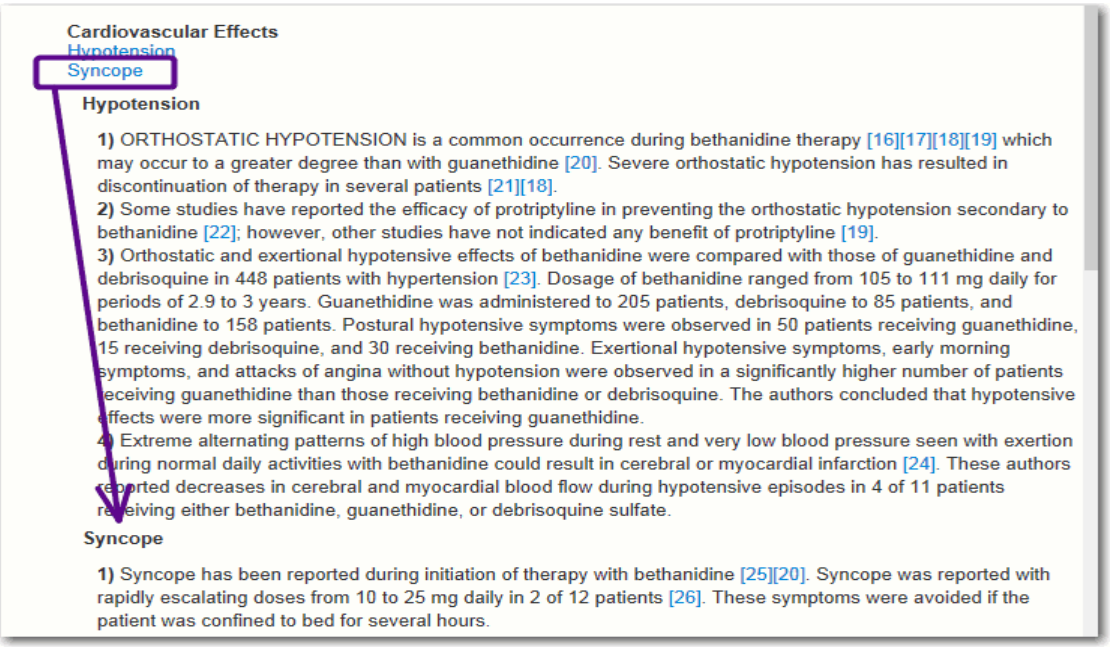
4. If the drug you are looking for begins with a letter occurring later in the alphabet, click on the **Jump To:** letter link, shown at the top of the list.
5. Click on a title to go to the Adverse Effects (Summary Drug Information) or Adverse Reactions (Detailed Drug Information) information on the drug landing page.

Note: If the drug name is displayed in the list using mixed case letters, clicking on it will display the Summary Drug Information document. If the drug name is displayed using all uppercase letters, clicking on it will display the Detailed Drug Information monograph.

© 2017 Truven Health Analytics LLC



6. Click on the link for the adverse effect or condition that was searched in Step 1 to view additional information.



© 2017 Truven Health Analytics LLC

Example 3 - Drugs That Treat

Search for drugs that treat a particular condition on disease, and the results are grouped alphabetically within an efficacy rating.

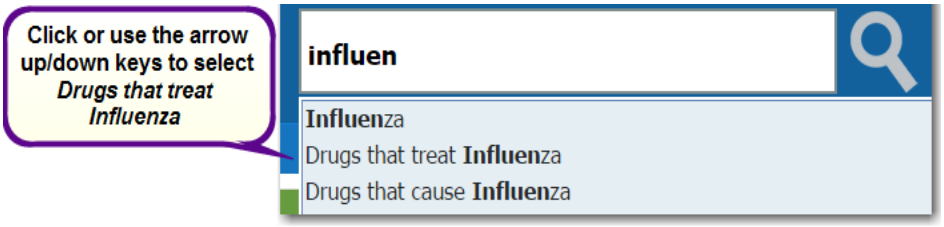
Type a phrase using the noun “drugs”, “medications”, or “substances” with the words “that treat” and the condition or disease. Example searches:

- Drugs that treat skin rash
- Medications that treat insomnia
- Substances that treat edema

- OR -

Type a condition or disease and select the phrase “Drugs that treat...” from the drop-down.

1. In this example begin typing “influenza.” The drop-down list makes suggestions.

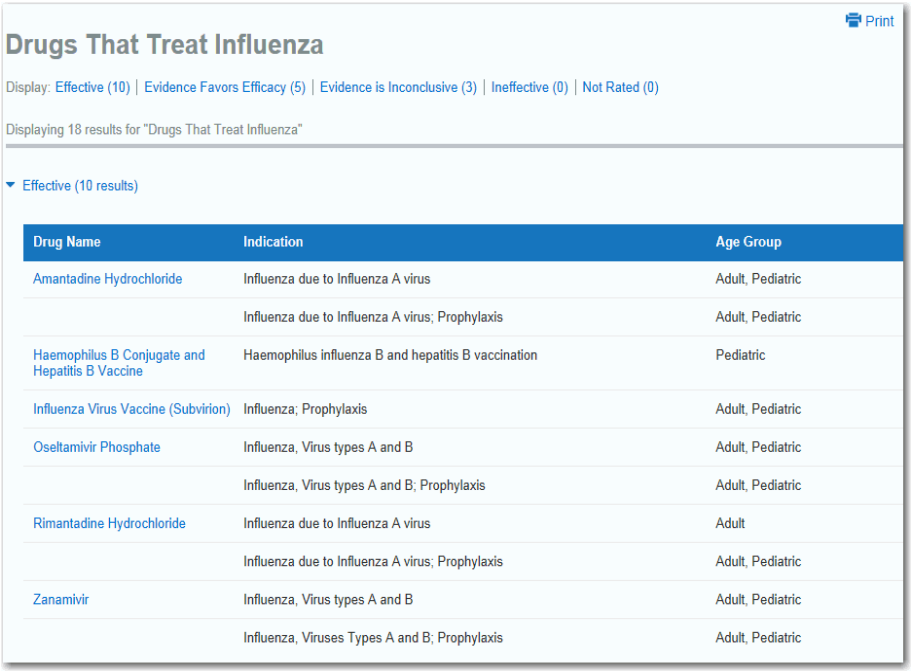


2. Click on “Drugs that treat Influenza,” or use the **arrow up/down** keys to select it and then click the **Search** button ( ) or press the **Enter** key.

3. Search results are displayed on a *Drugs That Treat xxx* page where xxx is the condition searched. Medications are grouped by efficacy: Effective, Evidence Favors Efficacy, Evidence is Inconclusive, Ineffective, and Not Rated.

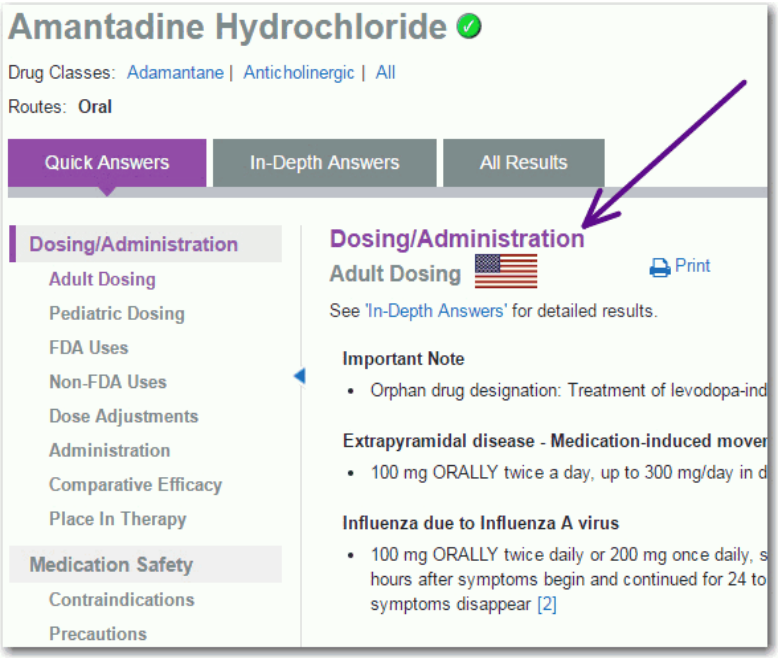
© 2017 Truven Health Analytics LLC

4. View the drugs associated with a specific efficacy rating by clicking on the accordion bar (or the Efficacy heading link at the top of the page) to expand the list. The drug is shown as a link, with associated indications followed by the indicated age group.



Drug Name	Indication	Age Group
Amantadine Hydrochloride	Influenza due to Influenza A virus	Adult, Pediatric
	Influenza due to Influenza A virus; Prophylaxis	Adult, Pediatric
Haemophilus B Conjugate and Hepatitis B Vaccine	Haemophilus influenza B and hepatitis B vaccination	Pediatric
Influenza Virus Vaccine (Subvirion)	Influenza; Prophylaxis	Adult, Pediatric
Oseltamivir Phosphate	Influenza, Virus types A and B	Adult, Pediatric
	Influenza, Virus types A and B; Prophylaxis	Adult, Pediatric
Rimantadine Hydrochloride	Influenza due to Influenza A virus	Adult
	Influenza due to Influenza A virus; Prophylaxis	Adult, Pediatric
Zanamivir	Influenza, Virus types A and B	Adult, Pediatric
	Influenza, Viruses Types A and B; Prophylaxis	Adult, Pediatric

5. Click on a drug name to go the Dosing/Administration section on the Quick Answers tab on the drug landing page.



© 2017 Truven Health Analytics LLC

Additional Direct Access Search Techniques and Examples

Examples of other searches that can be performed using the direct access searching technique include:

- dosing (Example: dosing of Ampicillin)
- indications (Example: indications Dabigatran Etexilate)
- interactions (Example: interactions Metformin)
- FDA approved (Example: FDA approved simvastatin)
- non-FDA approved (Example: non FDA approved hydrochlorothiazide)

© 2017 Truven Health Analytics LLC

Brand Name Drugs

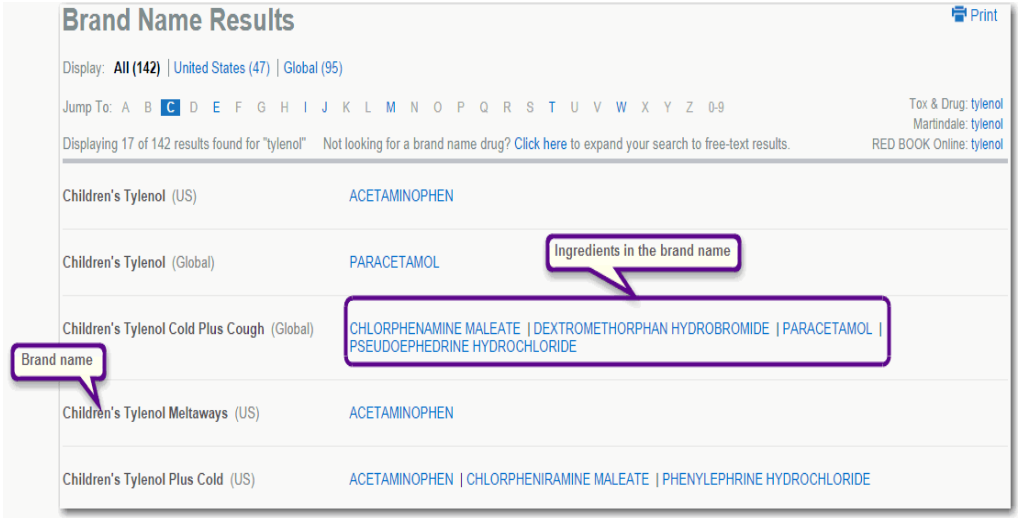
Micromedex allows you to search for drug information using either the common generic or the brand name as the search term.

Note: Brand names available in the United States or Canada are required, except for subscribers to Italian Drug Database (Dialogo sui Farmaci) or United Kingdom Drug Information (eMC SmPC), where local drug names are acceptable for use as a search term. See "International Drug Searching" on page 56.

Searching on a brand name drug that has only one generic drug counterpart will result in the landing page for the generic drug being displayed (e.g., "Imbruvica"). See "Landing Pages" on page 16 for more information.

Searching on a brand name drug that has multiple generic drug counterparts or is comprised of many different formulations and/or routes will result in a list of the corresponding generic drugs being displayed on a *Brand Name Results* page.

This example shows typical Brand Name Results when searching on a brand name (e.g., "Tylenol"). The page displays the brand names in alphabetical order. The ingredients that comprise the drug are shown to the right of the brand name and displayed as hypertext links. Tylenol has many variations of the brand name (such as: Children's Tylenol, Tylenol Cold Severe Congestion, Tylenol with Codeine, etc.) as well as a multitude of formulations of ingredients (such as: Acetaminophen, or Acetaminophen | Dextromethorphan Hydrobromide | Guaifenesin | Pseudoephedrine Hydrochloride, or Acetaminophen | Codeine Phosphate, etc.).



Drug information in Micromedex exists at the generic and ingredient level (not for the brand name), so to view information, click the appropriate ingredient link to view the drug information.

© 2017 Truven Health Analytics LLC

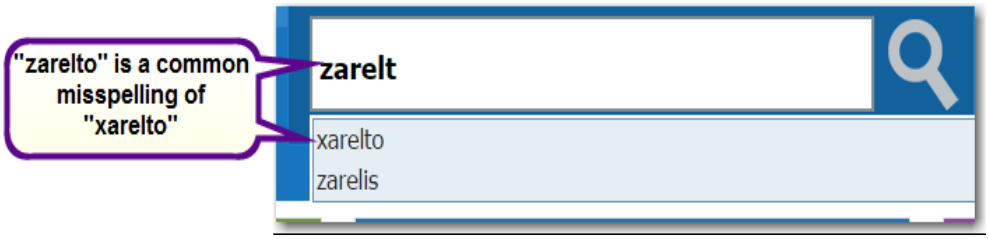
Links that open the Tox & Drug, Martindale, or RED BOOK product lookup results are available to subscribers from the top right corner of the page.

Note: There may be isolated cases where an ingredient does not have a corresponding drug information document available. When this occurs, the ingredient is not shown as a hypertext link.

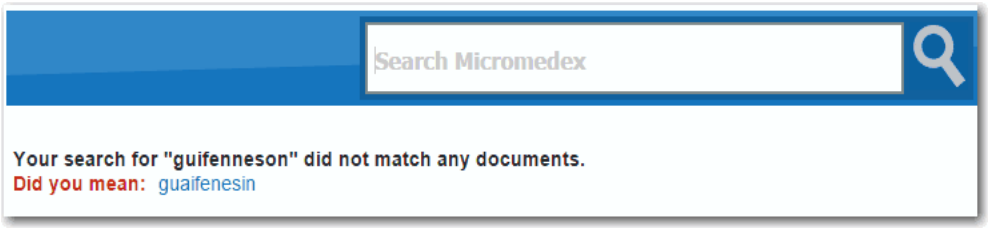
To move to a different location in the alphabetical list of brand name results, click on the letter link in the **Jump To:** menu, shown at the top of the *Brand Name Results* page.

Intelligent Searching

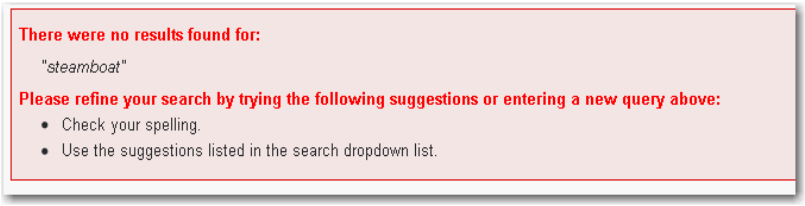
The Micromedex intelligent searching provides in-line spelling suggestions in real time while you are conducting your search. It anticipates what you need, even with a misspelling. If you type a term (greater than three characters) and it does not match a term in Micromedex Solutions, the drop-down list may offer alternatives. Click on a term in the drop-down list to begin the search.



In addition, if you enter and perform a search that does not produce any results, the application may make suggestions if the search term you typed is close or similar to a drug name. The search term is shown, along with the message that no matches were found. Suggested terms are listed as links.



If there were neither matches to your keyword(s) nor similar matches found in spelling help, the *No Matches Found* message is displayed.

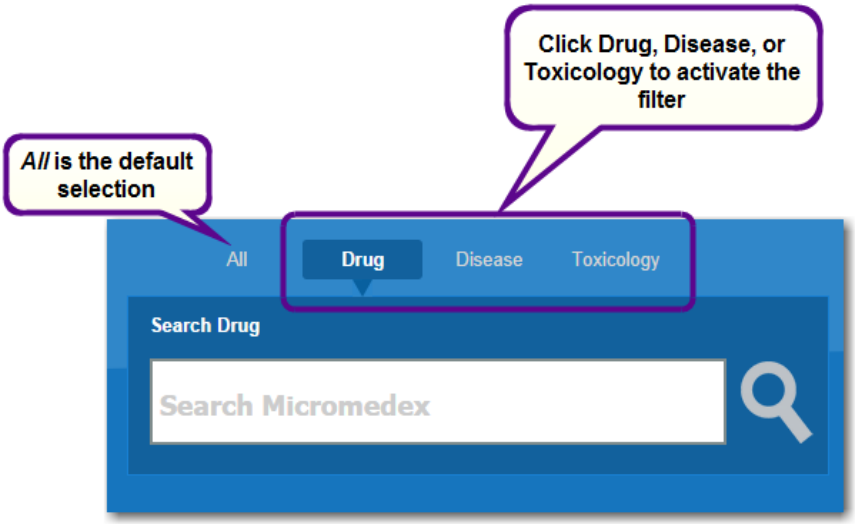


Check your spelling and try again, or modify your keyword(s) to a more common search term and try again.

© 2017 Truven Health Analytics LLC

Filtered Searching

By default you can quickly perform one search to get all the relevant results for the content to which you subscribe, or when on the Home Page you can specify a filter option to search specifically within the drug, disease, or toxicology content, which will provide you with more targeted results.



Selecting the Drug filter returns results from the following content sets only:

- DRUGDEX® Detailed Drug Information
- DRUGDEX Drug Consults
- Summary Drug Information
- Martindale
- Index Nominum
- PDR
- P&T Quik
- Consumer Drug Information
- International drug databases (IT-Dialogo sui Farmaci and eMC SmPC (UK))

© 2017 Truven Health Analytics LLC

Selecting the Disease filter returns results from the following content sets only:

- Disease Emergency Medicine
- Disease General Medicine
- Summary Disease Information
- Emergency Medical Abstracts

Using brand names in a filtered search of the disease content will generally result in fewer results. For example, if the Disease filter is selected, a search for “acetaminophen treatment of choice for fever” will return more results than a search for “tylenol treatment of choice for fever.”

Selecting the Toxicology filter returns results from the following content sets only:

- Summary Toxicology Information
- POISINDEX® Managements
- MSDS
- HAZARDTEXT® Hazard Managements
- MEDITEXT® Medical Managements

Toxicology content generally refers to generic drug names. Using brand names in a filtered search of this content will generally result in fewer results. For example, if the Toxicology filter is selected, a search for “overdose of diphenhydramine” will return more results than a search for “overdose of benadryl.”

Note: The filter is only applied when searching from the Home Page. When you use the *Search Micromedex* search box located in the upper right of all pages except the Home Page it is the same as searching with the *All* filter selected on the Home Page.

© 2017 Truven Health Analytics LLC

Targeted Searches

Several tightly-focused, targeted searches are available for clinicians to quickly gain access to the following highly sought after information:

- List of drugs with a Black Box Warning - See "Black Box Warning List" on page 42.
- List of DRUGDEX® Drug Consults with comparative tables - See "Comparative Tables" on page 43.
- List of drugs that sound alike/look alike - See "Do Not Confuse Drug List" on page 44.
- Drug Classes - See "Drug Classes" on page 46.
- List of DRUGDEX Drug Consults - See "Drug Consults" on page 49.
- REMS - List of drugs that have FDA-approved Risk Evaluation and Mitigation Strategies - See "REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy" on page 50.

© 2017 Truven Health Analytics LLC

Black Box Warning List

Black box warnings are warnings that appear on package inserts for prescription drugs that may cause serious adverse effects. The text of the warning is normally printed within a solid black border to call attention to it; thus the name “black box warning.”

A drug with a black box warning means that studies have shown that the drug carries a significant risk of serious or even life-threatening adverse effects. It is the strongest warning that the Food & Drug Administration (FDA) requires.

Easy access to this list is helpful for medication safety officers and drug use policy coordinators to ensure awareness of special safety issues and develop programs to ensure safe use.

This search can be performed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See “Resources (Targeted Searches)” on page 7. An alphabetical list of all the drugs in Micromedex that have a black box warning is provided.

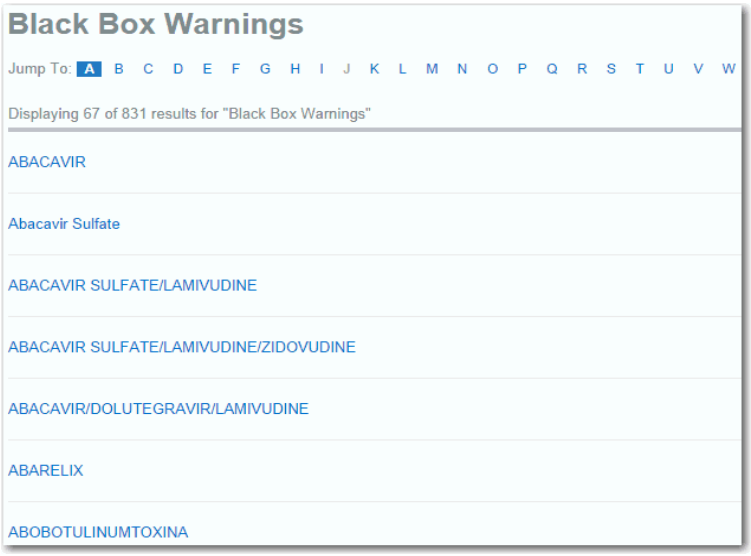
This search can also be performed with the following steps:

1. Type “BBW”, or begin typing “black box warning” into the *Search Micromedex* search box. Even just typing the first three characters (“bla”) will bring the black box warning into the drop-down suggestion list.
2. Click “black box warning” or “black box warnings” or “BBW” in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select “black box warning” or “black box warnings” or “BBW.” Then click the **Search** button ( ) or press the **Enter** key.

3. The list of drugs with black box warnings is provided in alphabetical order as hypertext links.



Note: If you print this list, the entire list of drugs with black box warnings will be printed - not just the ones currently displayed.

© 2017 Truven Health Analytics LLC

Comparative Tables

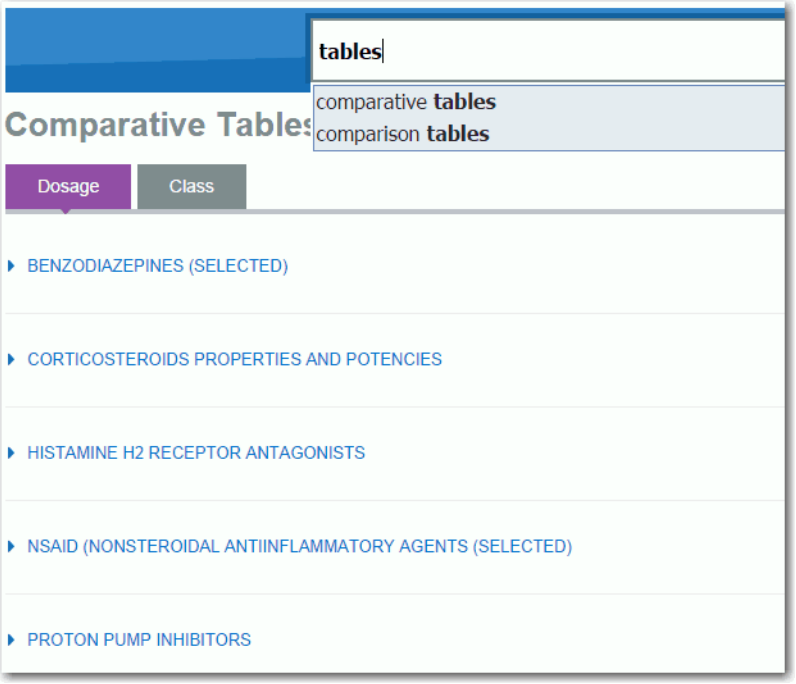
An alphabetical list of all of the DRUGDEX® Drug Consult articles with a comparative table can be accessed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See "Resources (Targeted Searches)" on page 7. These valuable and commonly requested resources are presented by dosage and class. This can be very helpful for clinicians who need to make treatment changes for patients.

This search can also be performed with the following steps:

1. Begin typing "comparative" or "tables" or "comparison" in the *Search Micromedex* search box. The drop-down list makes suggestions.
2. Click "comparative table" or "comparative tables" or "comparison tables" in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "comparative table" or "comparative tables" or "comparison tables." Then click the **Search** button ( ) or press the **Enter** key.



3. The list of Drug Consults with a comparative table is shown in alphabetical order.
4. Click on a title to open the associated Drug Consults document.

© 2017 Truven Health Analytics LLC

Do Not Confuse Drug List

The National Patient Safety Goal, established by the Joint Commission, requires each accredited organization to identify a list of look-alike or sound-alike drugs used in the organization.

An alphabetical list of confused drug names, including look-alike and sound-alike name pairs can be accessed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See "Resources (Targeted Searches)" on page 7. The list consists of name pairs that have been involved in medication errors. The list also contains the names that appear on the Joint Commission's list of look-alike and sound-alike names.

This search can also be performed with the following steps:

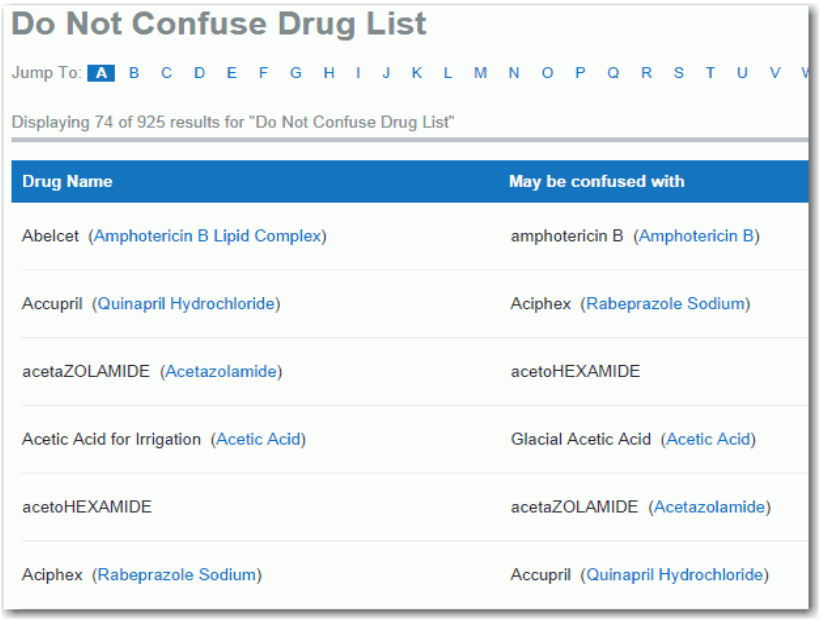
1. Begin typing any of the following search terms in the search box: "Do Not Confuse", "Confused Drug Names", "Look alike sound alike", "Do Not Confuse List", "Look alike/ sound alike". The drop-down list makes suggestions.
2. Click "Confused Drug Names" or "Do Not Confuse" or "Do Not Confuse List" or "Look alike sound alike" in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "Confused Drug Names" or "Do Not Confuse" or "Do Not Confuse List" or "Look alike sound alike." Then click the **Search** button ( ) or press the **Enter** key.

© 2017 Truven Health Analytics LLC

3. The *Do Not Confuse* results are provided. Drug name pairs that are often confused are listed on the same line, in alphabetical order. Tall man lettering is used to further aid in discerning between common look-alike drugs.

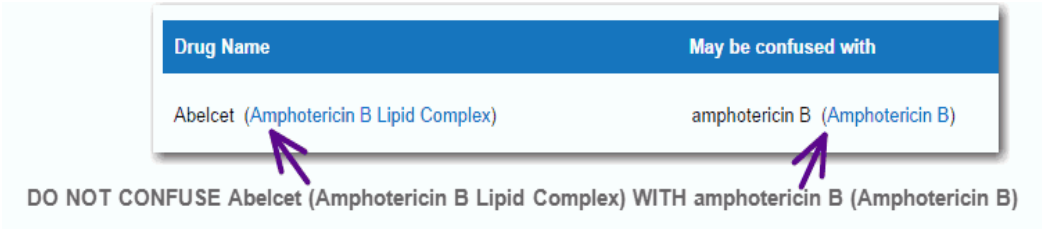


Do Not Confuse Drug List

Jump To: A B C D E F G H I J K L M N O P Q R S T U V W

Displaying 74 of 925 results for "Do Not Confuse Drug List"

Drug Name	May be confused with
Abelcet (Amphotericin B Lipid Complex)	amphotericin B (Amphotericin B)
Accupril (Quinapril Hydrochloride)	Aciphex (Rabeprazole Sodium)
acetaZOLAMIDE (Acetazolamide)	acetoHEXAMIDE
Acetic Acid for Irrigation (Acetic Acid)	Glacial Acetic Acid (Acetic Acid)
acetoHEXAMIDE	acetaZOLAMIDE (Acetazolamide)
Aciphex (Rabeprazole Sodium)	Accupril (Quinapril Hydrochloride)



4. Click any link to open the associated drug landing page.
5. To move to a title beginning with a letter from later in the alphabet, use the **Jump To** menu. Click on the letter (or number) link to position the page to the first document that begins with the selected letter.

Note: If you print this list, the entire list of Do Not Confuse drugs will be printed - not just the ones currently displayed.

© 2017 Truven Health Analytics LLC

Drug Classes

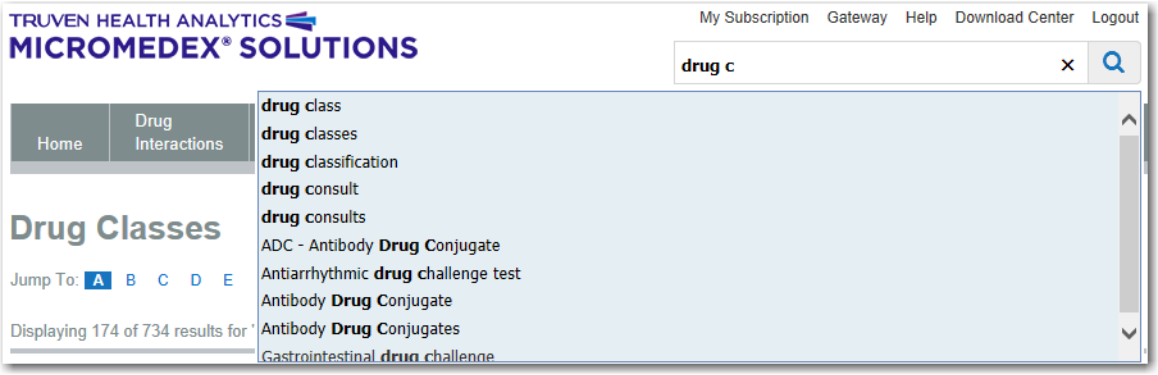
With just one click of the Drug Classes shortcut under *Resources* on the Home Page you can access an alphabetical list of the drug classes contained in Micromedex Solutions. You can then browse a list of therapeutic, chemical, and pharmacological classes. This can be very valuable for clinicians when it comes to determining alternative therapy options for a patient. See "Resources (Targeted Searches)" on page 7.

This search can also be performed with the following steps:

1. Begin typing "drug class" or "drug classes" or "drug classification" in the *Search Micromedex* search box. The drop-down list makes suggestions.
2. Click "drug class" or "drug classes" or "drug classification" in the drop-down list.

   -OR-

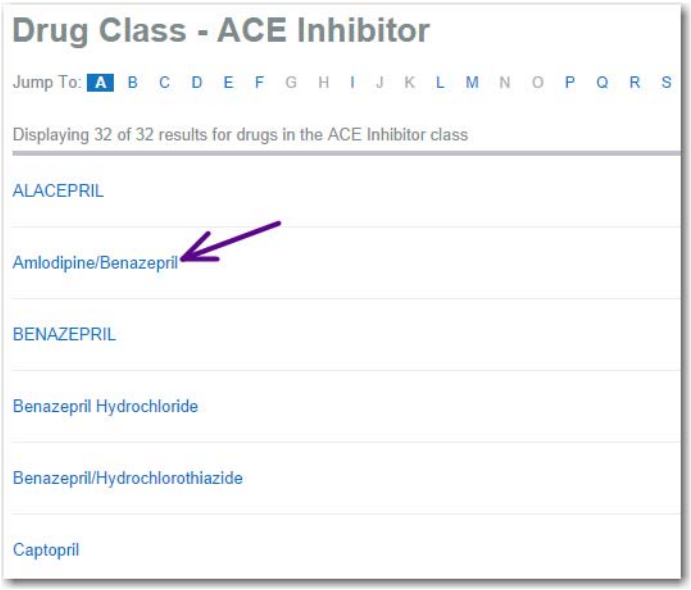
   Use the **arrow up/down** keys to select "drug class" or "drug classes" or "drug classification." Then click the **Search** button ( ) or press the **Enter** key.



3. The list of drug classes is provided in alphabetical order.
4. Click a drug class to display the drugs in the class or use the **Jump To:** links to quickly move to a different position in the list of drug classes.

© 2017 Truven Health Analytics LLC

5. Click a drug to display the associated drug information.

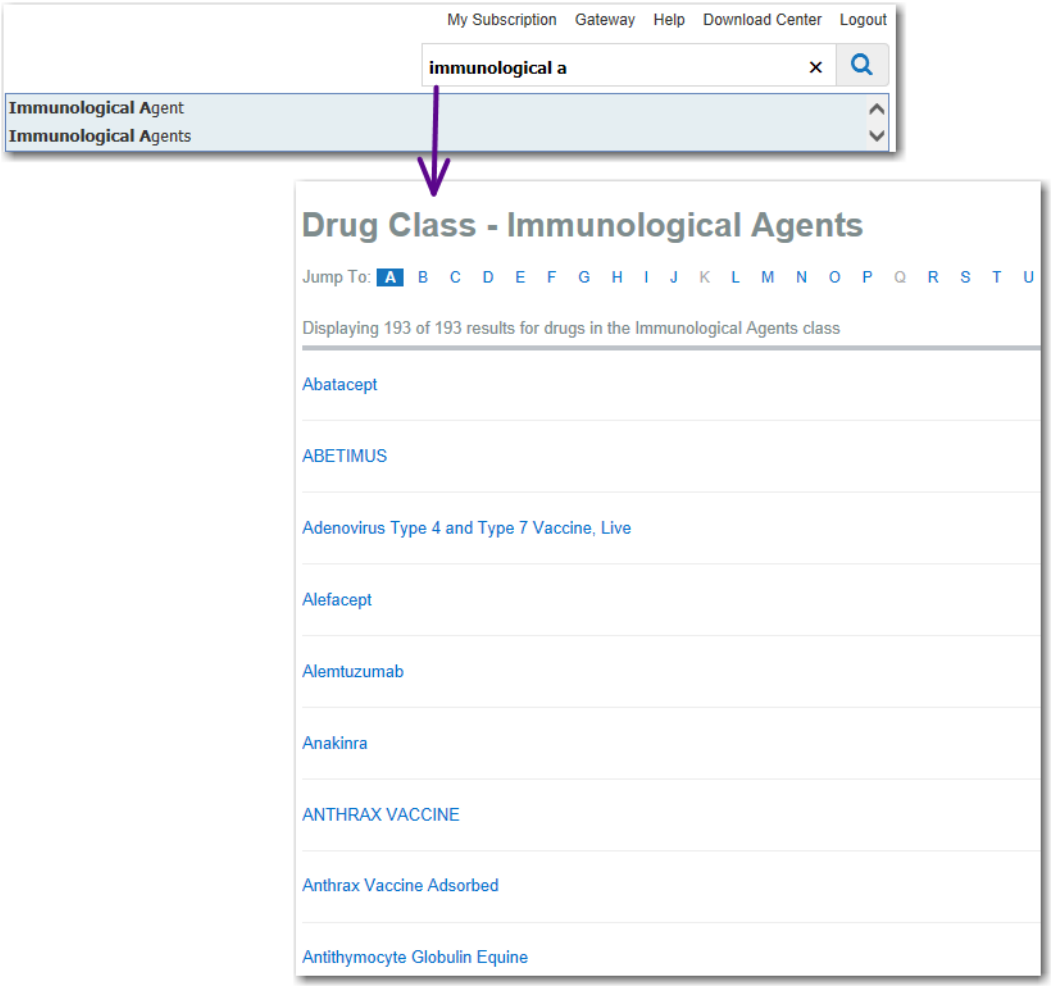


Note: If the drug name is displayed in the list using mixed case letters, clicking on it will display the Summary Drug Information document. If the drug name is displayed using all uppercase letters, clicking on it will display the Detailed Drug Information monograph.

Note: If you print the drug classes list, the entire list will be printed - not just the drug classes currently displayed.

© 2017 Truven Health Analytics LLC

In addition, you can perform a search by a drug class name.



© 2017 Truven Health Analytics LLC

Drug Consults

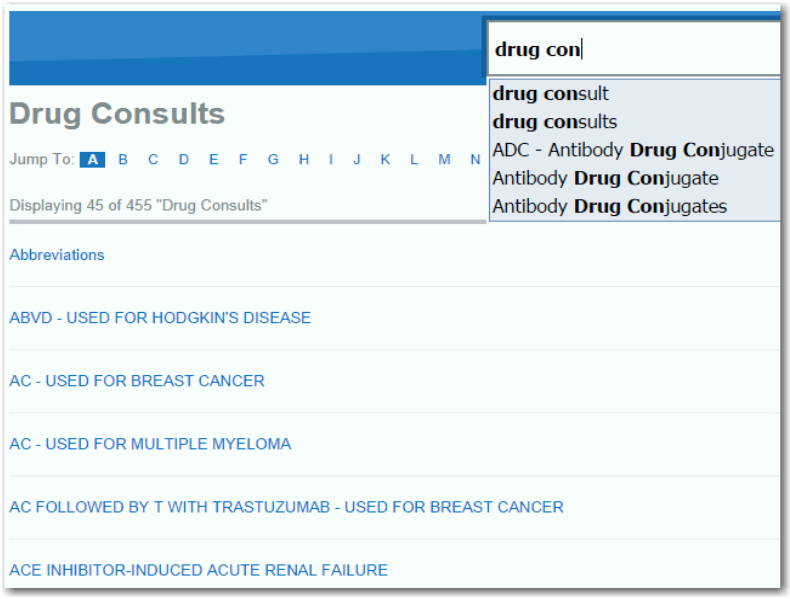
DRUGDEX® Drug Consults offer fully referenced, evidence-based articles that cover a wide range of topics on drug therapies and treatment guidelines. An alphabetical list of all the Drug Consults articles available in Micromedex® Solutions can be accessed with just one click by using the Targeted Searches shortcuts under *Resources* on the Home Page. See "Resources (Targeted Searches)" on page 7.

This search can also be performed with the following steps:

1. Begin typing "consults" or "drug consults" in the *Search Micromedex* search box. The drop-down list makes suggestions.
2. Click "drug consult" or "drug consults" in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "drug consult" or "drug consults." Then click the **Search** button ( ) or press the **Enter** key.



3. The list of Drug Consults is provided in alphabetical order.
4. Click on a title to open the associated Drug Consults document.
5. To move to a title for a specific letter in the alphabet, use the **Jump To:** menu. Click on the letter (or number) link to position the page to the first document that begins with the selected letter.

Note: If you print this list, the entire list of Drug Consults will be printed - not just the ones currently displayed.

© 2017 Truven Health Analytics LLC

REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy

For some FDA-approved drugs the manufacturer and/or the FDA have determined that a Risk Evaluation and Mitigation Strategy (REMS) is necessary to go beyond product labeling to manage risks and thereby ensure that the benefits outweigh the risks. A list of drugs with current REMS requirements can be obtained without leaving the Micromedex® Solutions workflow to perform a search of the FDA or a manufacturer information source. Just click the REMS shortcut under *Resources* on the Home Page. See "Resources (Targeted Searches)" on page 7.

This search can also be performed with the following steps:

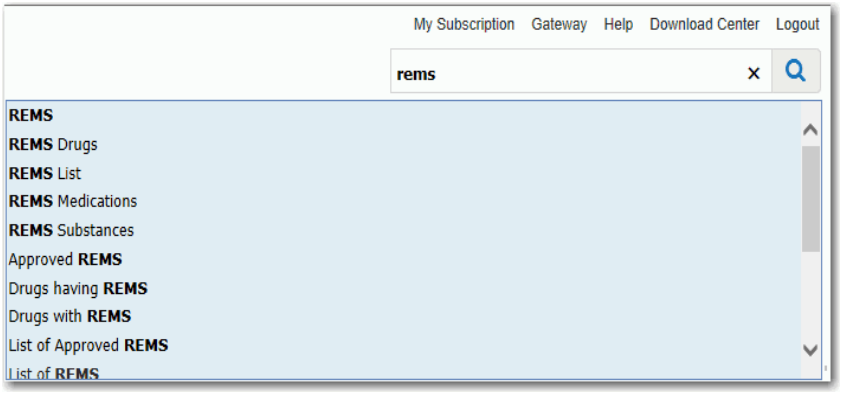
1. Type "REMS" in the *Search Micromedex* search box.
2. Press the **Enter** key.

   -OR-

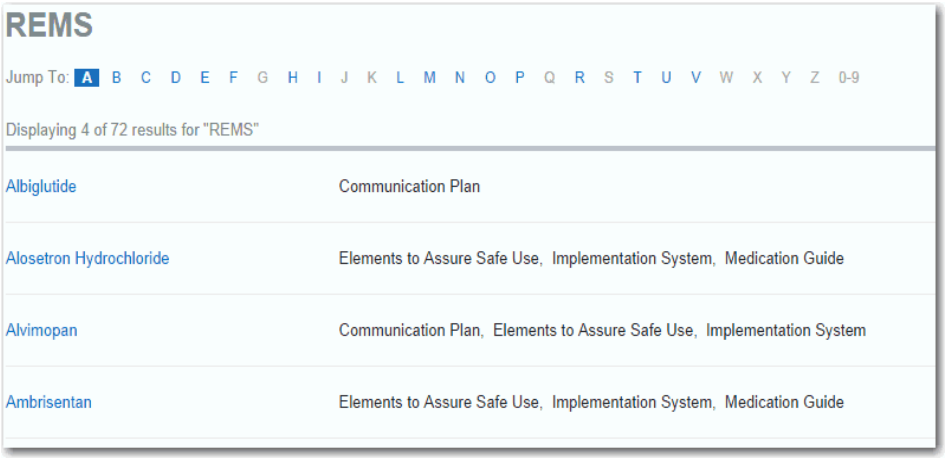
   Click "REMS" in the drop-down list.

   -OR-

   Use the **arrow up/down** keys to select "REMS." Then click the **Search** button (🔍) or press the **Enter** key.

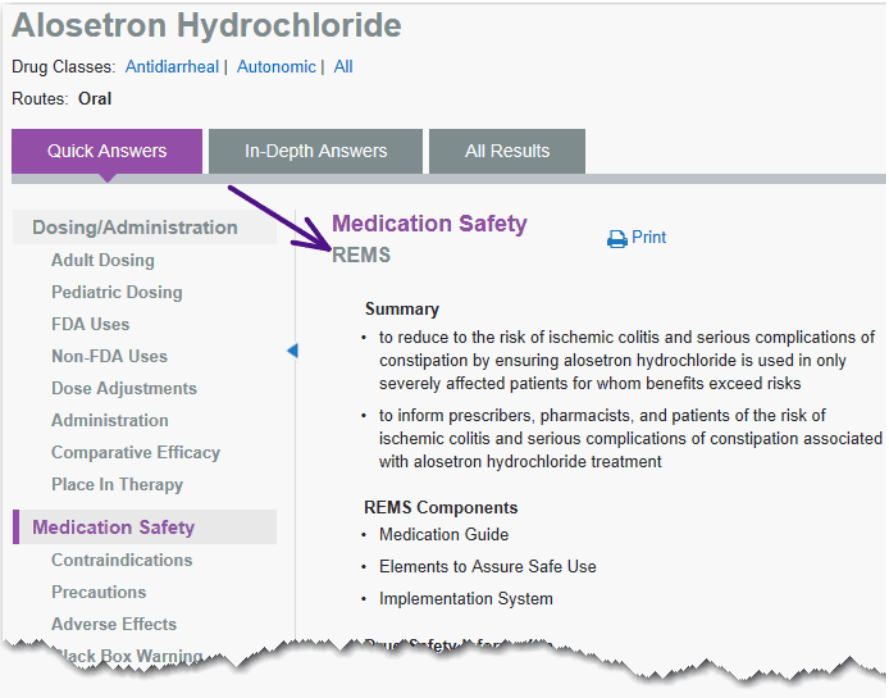


3. The list of drugs with REMS requirements is provided, in alphabetical order, as hypertext links.



© 2017 Truven Health Analytics LLC

4. Click the drug name link to open the Quick Answers tab on the landing page positioned in the REMS section of the information. REMS components are listed, as well as links to the US Food and Drug Administration (FDA) Web site for the detailed REMS information available for the drug.



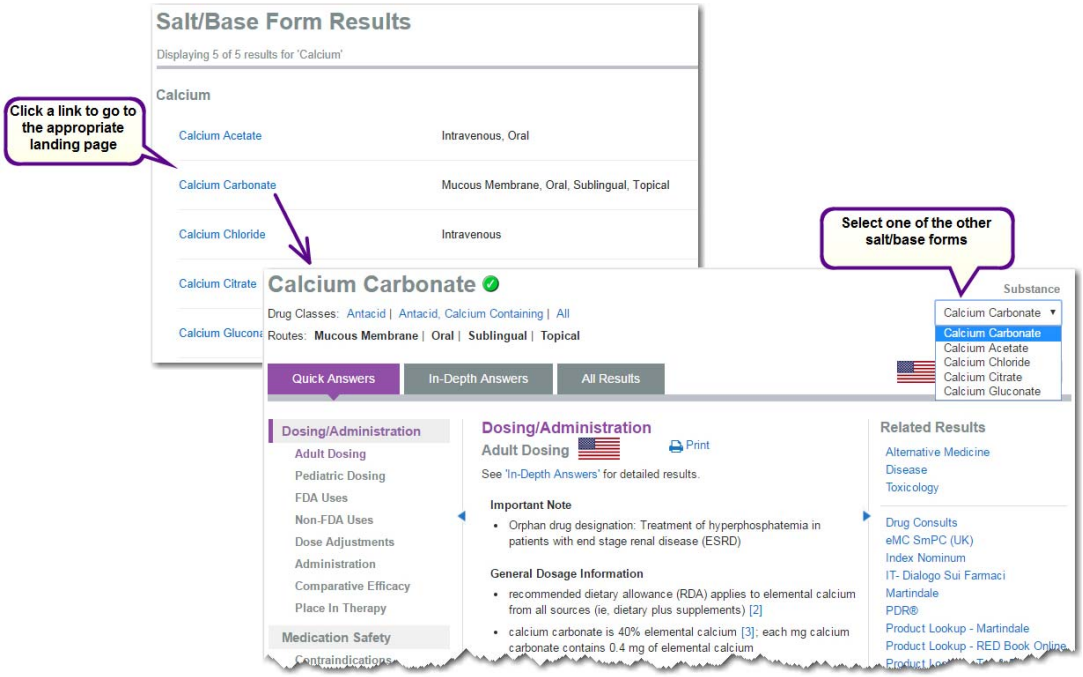
5. If the drug you are looking for begins with a letter occurring later in the alphabet, click on the **Jump To:** letter link, shown at the top of the list.

Note: If you print this list, the entire list of drugs with REMS requirements will be printed - not just the ones currently displayed.

© 2017 Truven Health Analytics LLC

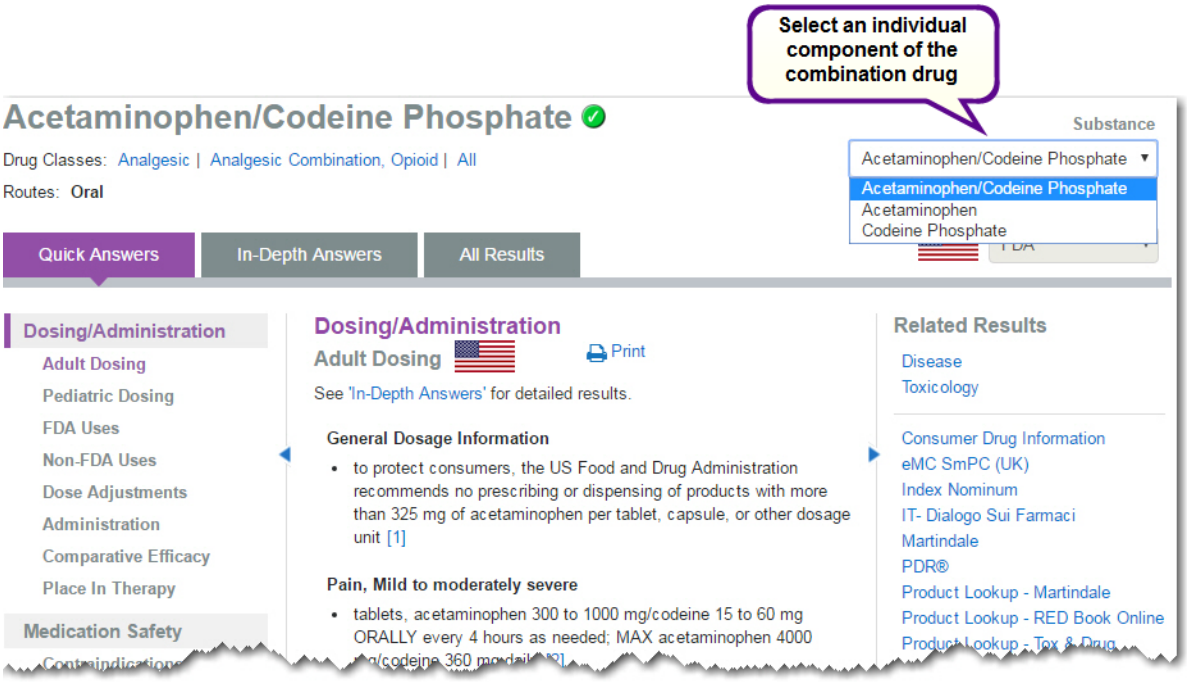
Salt/Base Forms, Combinations, Kits

When searching on a base in a salt/base form, such as calcium, a Salt/Base Form Results page is displayed with links to allow you to choose the specific salt form. Clicking on a link displays the landing page for that substance. From the landing page there is a drop-down list from which you can also select all salt forms.



© 2017 Truven Health Analytics LLC

When searching for a combination drug, such as acetaminophen/codeine phosphate, or a kit, such as nomegestrol acetate/estradiol, you are taken directly to the landing page. From the landing page there may be a drop-down list from which you can select individual components of the kit or combination.



© 2017 Truven Health Analytics LLC

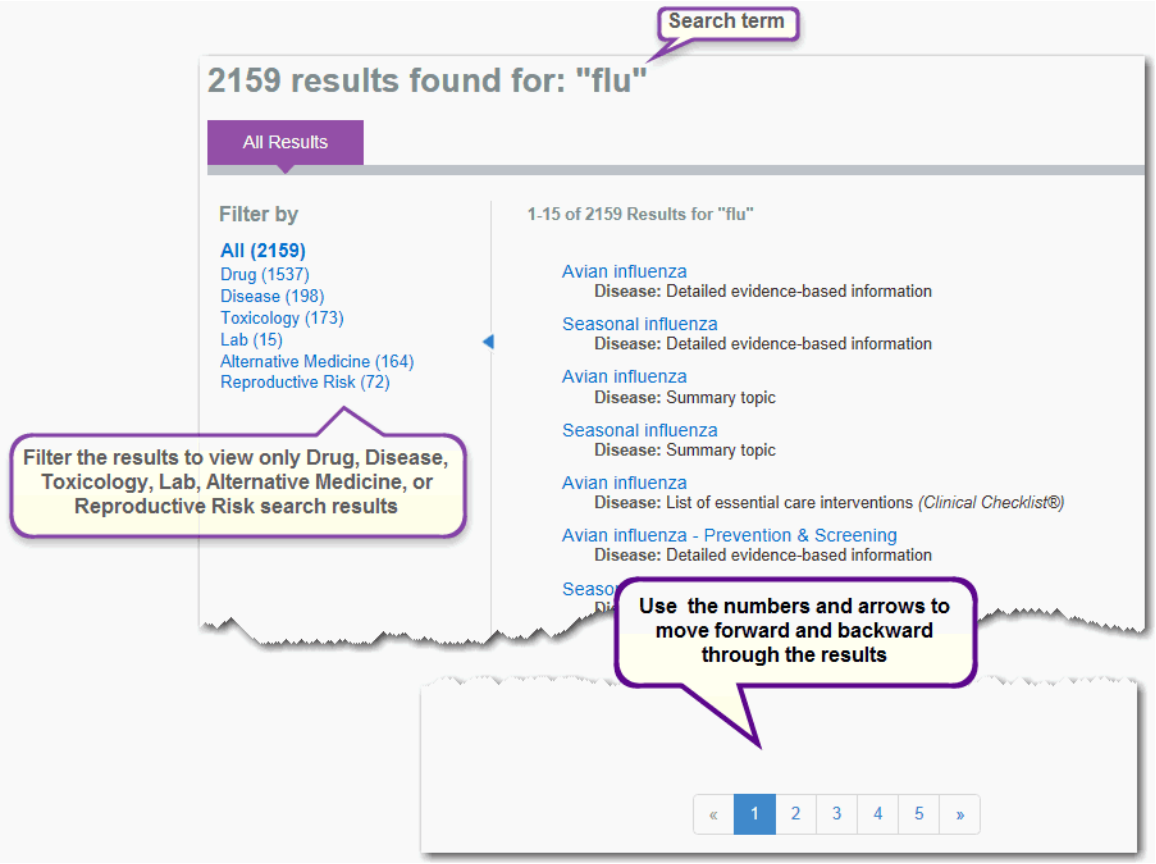
Intermediate Search Results

If your search does not employ one of the other search techniques explained in this chapter, an intermediate search results page will be displayed.

The following example shows the intermediate search results for a very broad search. A search on just the term “flu” finds numerous matches in multiple content sets throughout Micromedex. Since no other parameters (terms or phrases) were included in the search for “flu,” it was not possible to focus the results on a specific type of flu. There were also no other terms in the search that could direct the results to a specific topic or area of information. Therefore, the application returns all possible matches on an intermediate search results page.

The total number of matches found for the search and the search term used are shown at the top of the page.

Search results are ranked by relevance. You can filter the results to only see results for a particular type of content by clicking a link on the left side of the page. Use the numbers at the bottom of the page to move forward and backward through multiple pages of results. The arrows allow you to jump five pages at a time.



© 2017 Truven Health Analytics LLC

The first line of each result contains the document title as a link, which goes to the associated landing page (see "Landing Pages" on page 16) or document.

The second line shows the content type (Drug, Disease, Toxicology, Lab, Alternative Medicine, Reproductive Risk), followed by one of the following identifiers:

- Summary topic - indicates that the title link goes to the Quick Answers tab on the landing page
- Detailed evidence-based information - indicates that the title link goes to the In-Depth Answers tab on the landing page
- Name of a specific database to which the title links

© 2017 Truven Health Analytics LLC

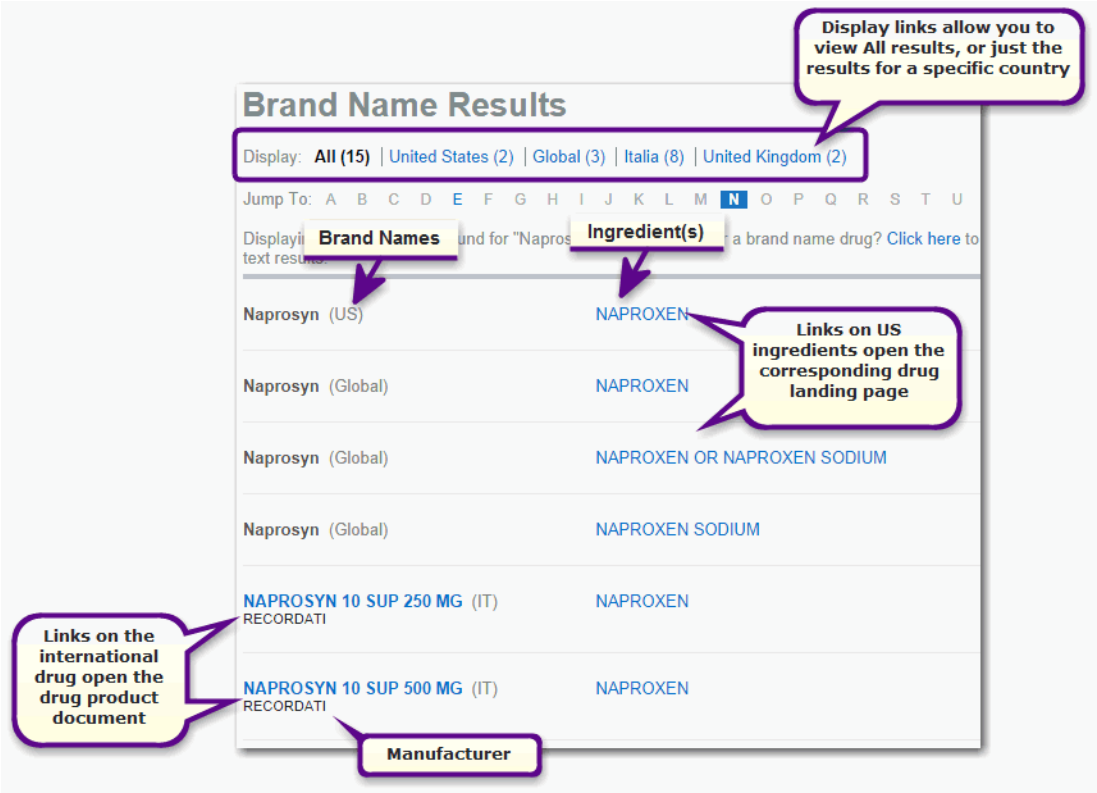
International Drug Searching

Subscribers to international drug databases such as: Italian, United Kingdom, etc. are able to search using local brand names. Search results are displayed on a *Brand Name Results* page, showing local brand name drugs and U.S. drugs with the same brand name.

The manufacturer name is included below the international brand name to assist in discerning between products with identical brand names.

The international brand name drug is displayed as a link and, when clicked, opens the corresponding international drug document.

Links are available on the ingredient(s) for US drugs. When clicked, the corresponding landing page is displayed.



Filter Results

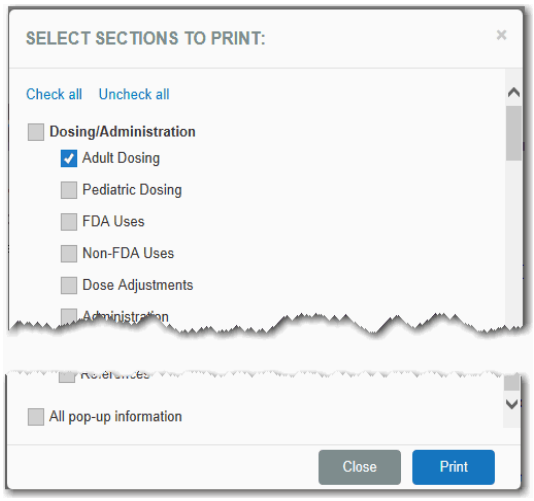
Results for both the United States (US) and the subscribed country are shown combined and in alphabetic order on the *Brand Name Results* page. View only results for the subscribed country by clicking on the appropriate **Display** link. View only results for US brand name drugs by clicking on the **United States** link.

© 2017 Truven Health Analytics LLC

PRINTING

The option to print the page or document is available in Micromedex Solutions, whether you are viewing a landing page, a full document, intermediate search results or using a tool.

When you are viewing information presented using topics, or sections, you have the option of printing the entire document, or only selected topics.



- Click the **Print** icon (Print) to open the print options.
- The topic you are viewing is shown checked (selected). All topics are listed and can be included in the printed copy.

  All pop-up information: Select this checkbox to include any supporting information, such as: Definitions for Strength of Evidence or Strength of Recommendations, Pregnancy Ratings, Risks, and Warnings.
- When you have selected the desired topics, click the **Print** button to see a preview of the printout. Flag icons identify the sections that contain information from a specific regulatory authority. For more information, see "Regulatory Authority Information" on page 86.
- A typical print dialog opens, allowing you to change print preferences. Click the **Print** button to print the selection.

Note: When printing an intermediate search results page or the All Results tab on the landing page only the results shown on the page are printed.

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

CHAPTER 4: DRUG INFORMATION

The number of drugs available today is enormous, and the vast amount of information about these drugs can be overwhelming. Micromedex® Solutions can help you find current, accurate, and concise drug information you can use with confidence.

Reviewed by international experts, our evidence-based information covers FDA-approved prescription and nonprescription drugs, as well as a subset of Health Canada and European Medicines Agency (EMA) approved prescription drugs. Areas discussed include dosage, black box warnings, pharmacokinetics, cautions, interactions, patient education, adverse effects, comparative efficacy, and toxicology information.

We create a summary monograph and a detailed monograph for each topic. The Summary Drug Information monographs support quick decisions at the point of care, and DRUGDEX® Detailed Drug monographs support further research and aid clinicians when making difficult treatment decisions. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

This chapter describes the types of drug information available in Micromedex Solutions. For information on how to search in Micromedex Solutions see "Chapter 3: Searching Micromedex Solutions" on page 13.

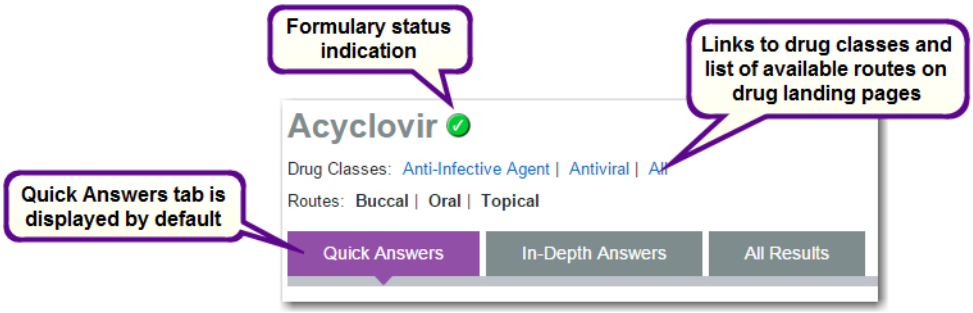
DRUG LANDING PAGES

For a detailed description on landing pages see Chapter 3: Landing Pages on page 16. The following drug-specific information is provided on drug landing pages:

- Available routes
- Links to drug classes associated with the drug. Click a link to see all the drugs in the class.
- Formulary status designated by an icon (Formulary Status customers only)

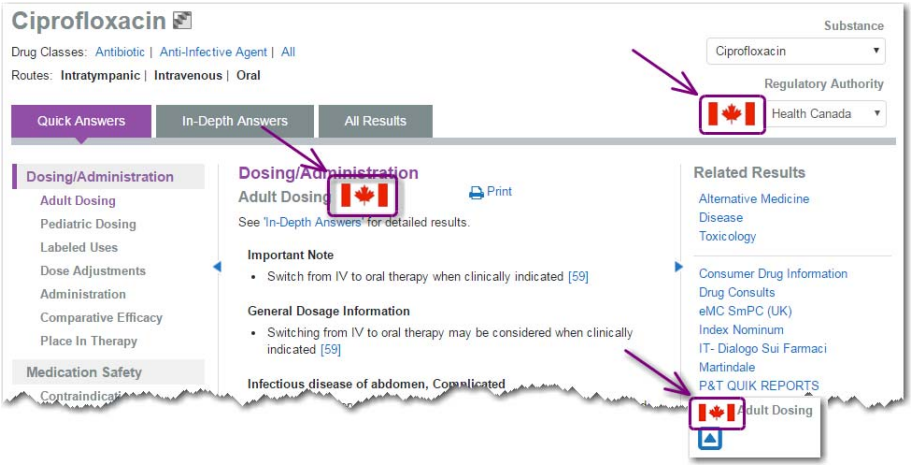
  The Micromedex® Formulary Status product provides immediate access to formulary information throughout your facility. It guides prescribing clinicians toward formulary drugs, saving your pharmacists, nurses, and physicians time – and your facility money. Formulary Status is integrated with Micromedex® Solutions, so that a drug's designated formulary status displays on the drug landing page in the form of an icon. Examples of formulary status, which are maintained by your facility's formulary administrators and are customizable, include: Formulary, Non-Formulary, Preferred, Restricted. To find out more about the Formulary Status product contact your Client Service Manager or Truven Health Customer Support (see "Contact Truven Health Analytics" on page i).

© 2017 Truven Health Analytics LLC



- Drug information from the Food and Drug Administration (FDA), Health Canada and European Medicines Agency (EMA), if available. Click an item from the **Regulatory Authority** drop-down list to view drug information from a specific regulatory authority.

Note: If drug information is available from only one source, the Regulatory Authority drop-down list is disabled.



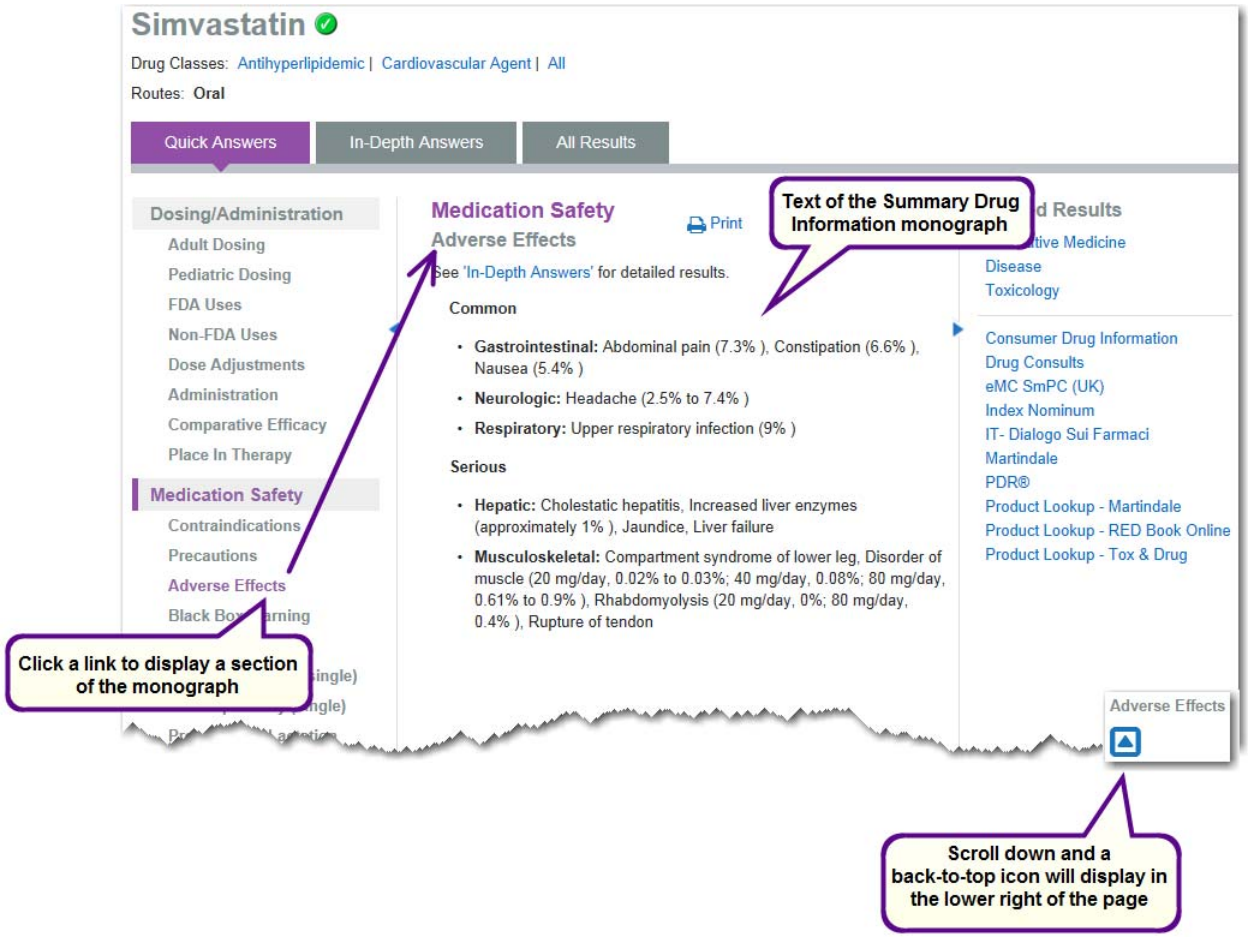
A flag identifying the selected regulatory authority displays next to the Regulatory Authority drop-down list and on the middle panel of the Quick Answers and In-Depth Answers tabs. The flag also displays above the back-to-top icon that allows you to return to the top of the document. For more information on the Regulatory Authority feature, see "Chapter 4: Regulatory Authority Information" on page 86.

SUMMARY DRUG INFORMATION

Summary Drug Information is succinct, actionable at the point-of-care, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

For example, a search for “simvastatin” results in the following landing page:

© 2017 Truven Health Analytics LLC



Clicking the links for the following sections in the left panel displays the information with a unique presentation, and they are explained in this chapter.

- "Single Drug Interactions" on page 61
- "Single IV Compatibility" on page 66
- "Additional Information" on page 73
- "Trade Names" on page 74
- "Patient Education" on page 75
- "References" on page 78

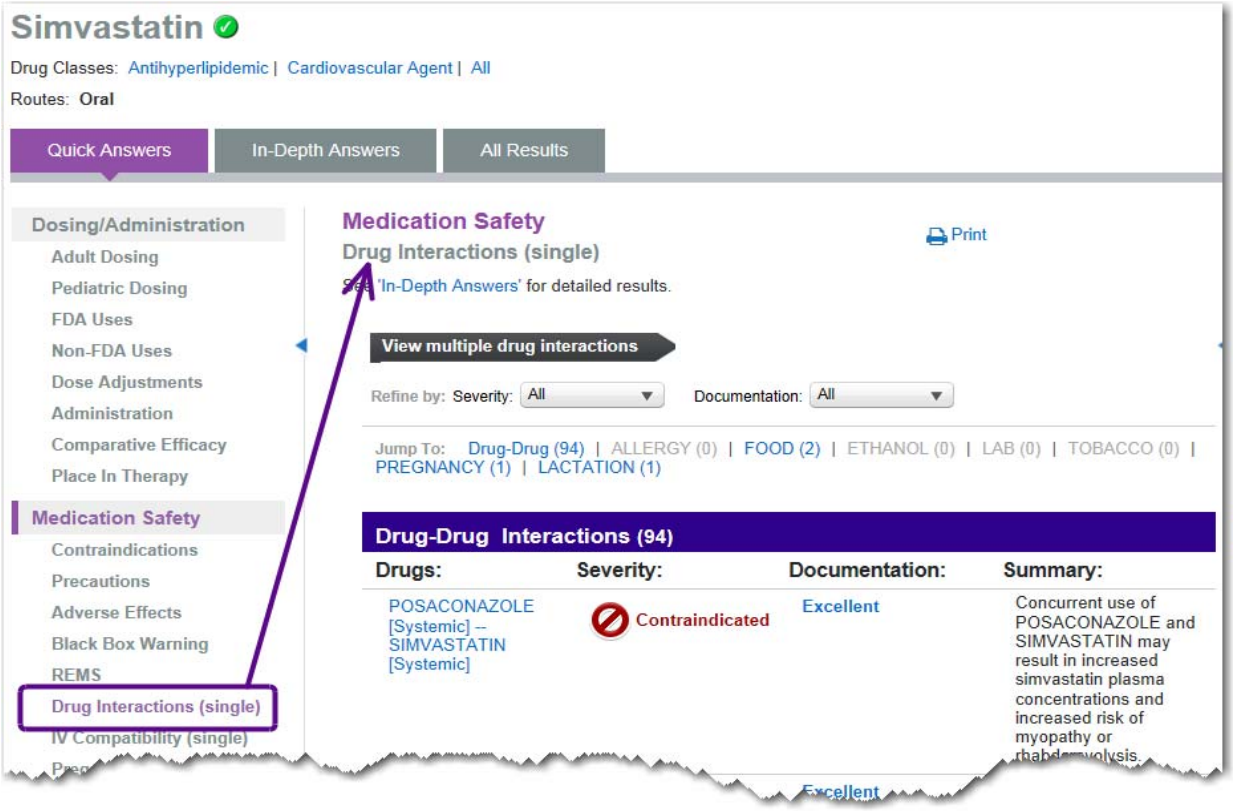
Single Drug Interactions

Clicking the **Drug Interactions (single)** link under Medication Safety in the left panel checks the currently viewed drug for the following types of interactions:

- drug
- food
- ethanol
- lab
- tobacco

© 2017 Truven Health Analytics LLC

- pregnancy
- lactation

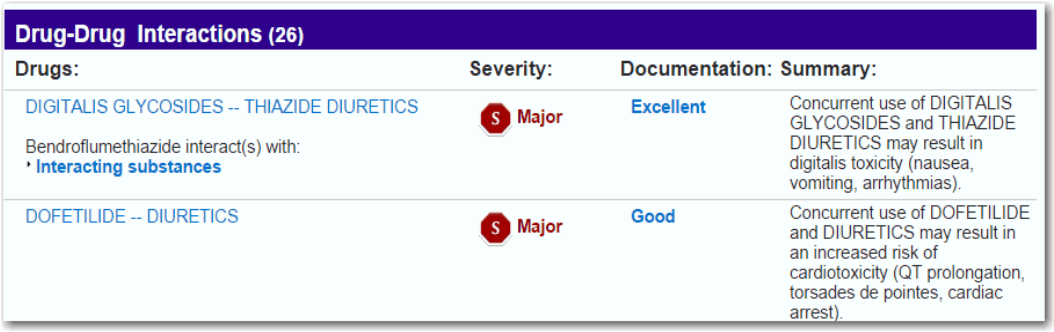


Drug interactions for the drug are grouped by interaction type. Interactions within each type are sorted by severity, displaying the most severe first. Use the **Jump To:** links at the top of the page to go to specific interaction type.

The original drug and the interacting agent are shown in the first column, followed by the severity and documentation ratings. The summary column displays brief, high-level interaction information.

When an interaction occurs within a class or group of drugs, the group or class displays as an active link adjacent the interaction. Click the link to expand the group or class.

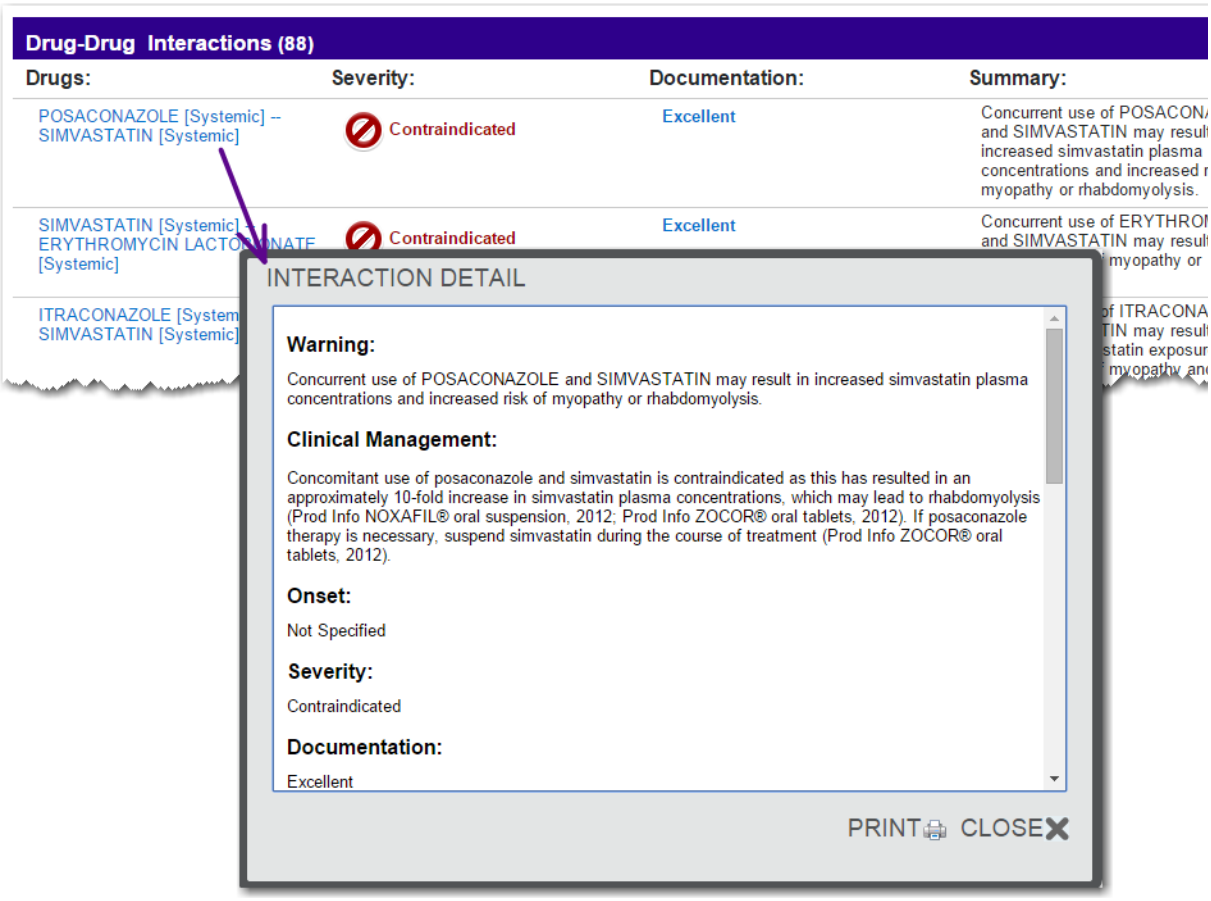
© 2017 Truven Health Analytics LLC



Drug-Drug Interactions (26)

Drugs:	Severity:	Documentation:	Summary:
DIGITALIS GLYCOSIDES -- THIAZIDE DIURETICS Bendroflumethiazide interact(s) with: • Interacting substances	Major	Excellent	Concurrent use of DIGITALIS GLYCOSIDES and THIAZIDE DIURETICS may result in digitalis toxicity (nausea, vomiting, arrhythmias).
DOFETILIDE -- DIURETICS	Major	Good	Concurrent use of DOFETILIDE and DIURETICS may result in an increased risk of cardiotoxicity (QT prolongation, torsades de pointes, cardiac arrest).

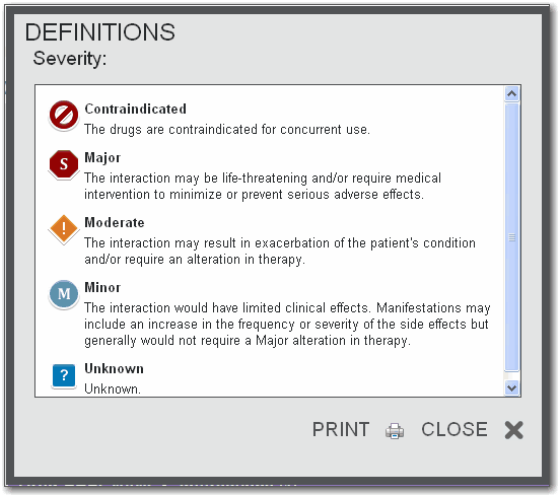
Complete Drug Interactions subscribers are able to view additional interaction information by clicking the link on the drug name to open interactions details. Additional information may include: clinical management, onset, probable mechanism, literature summaries, and references for this interaction.



Interaction Severities

Click on any of the Severity icons to open the full legend with the full definition of each severity.

© 2017 Truven Health Analytics LLC

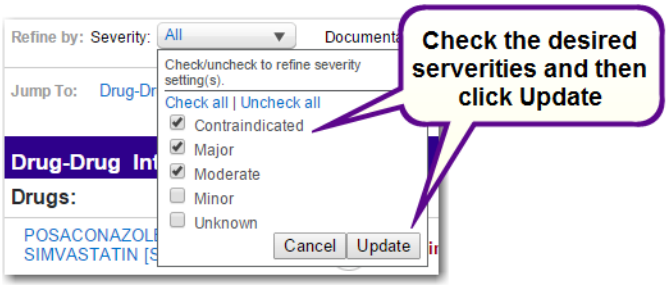


You can also hover your mouse over the Severity legend at the bottom of the page.

- *Contraindicated* - The drugs are contraindicated for concurrent use.
- *Major* - The interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects.
- *Moderate* - The interaction may result in an exacerbation of the patient's condition and/or require an alteration in therapy.
- *Minor* - The interaction would have limited clinical effects. Manifestations may include an increase in the frequency or severity of side effects but generally would not require a major alteration in therapy.
- *Unknown* - Unknown.

Filter Severities

By default, all Severities are displayed. To filter results for selected severities, select the levels desired from the **Severity** drop-down menu at the top of the page. Check the boxes for the desired severities, then click the **Update** button.

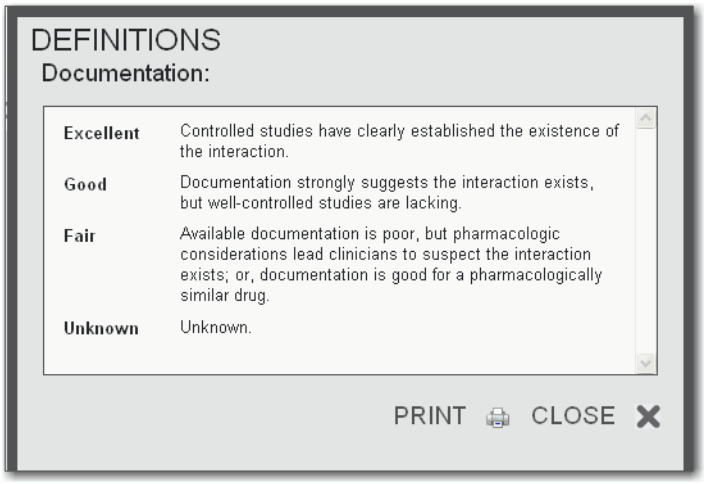


After refining the selections, the title of the drop-down changes from '*All*' to '*(#) Selected*', and only the severities chosen display on the page.

Documentation Ratings

Click on any of the Documentation links to open the full legend with the definition of each documentation rating.

© 2017 Truven Health Analytics LLC

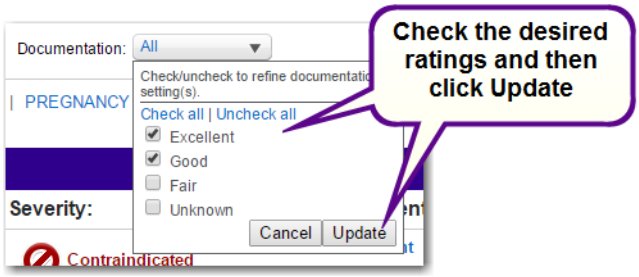


You can also hover your mouse over the Documentation legend at the bottom of the page.

- *Excellent* - Controlled studies have clearly established the existence of the interaction.
- *Good* - Documentation strongly suggests the interactions exists, but well-controlled studies are lacking.
- *Fair* - Available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or, documentation is good for a pharmacologically similar drug.
- *Unknown* - Unknown

Filter Documentation Ratings

By default, all Documentation Ratings are displayed. To filter results for selected ratings, select the levels desired from the **Documentation** drop-down menu at the top of the page. Check the boxes for the desired ratings, then click the **Update** button.

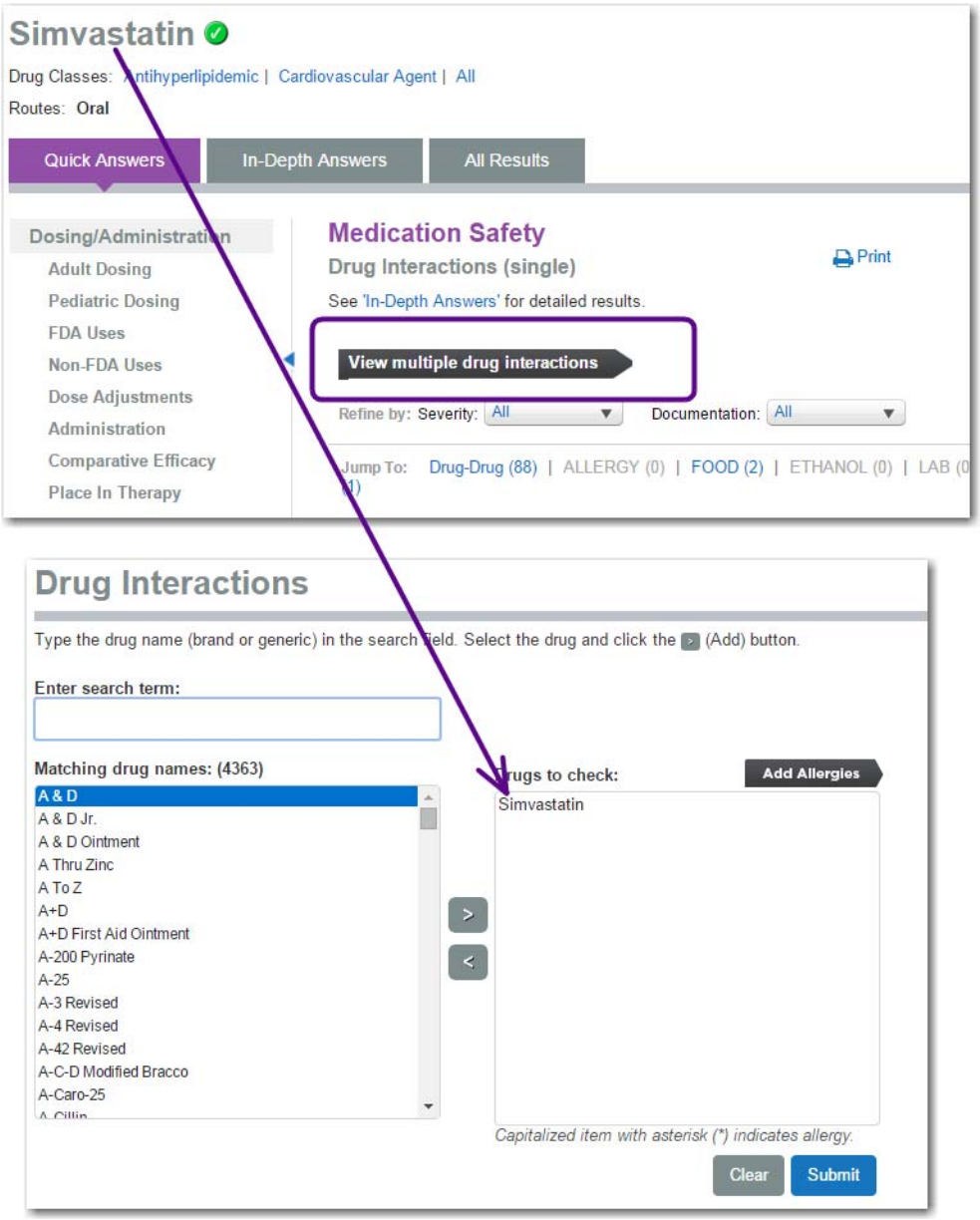


After refining the selections, the title of the drop-down changes from '*All*' to '*(#) Selected*', and only the documentation ratings chosen display on the page.

Multiple Drug Interactions

To access the Drug Interactions tool for checking multiple drugs for interactions click the **View multiple drug interactions** button at the top of the page. The Drug Interactions tool is displayed and your drug is automatically added to the *Drugs to check* list.

© 2017 Truven Health Analytics LLC



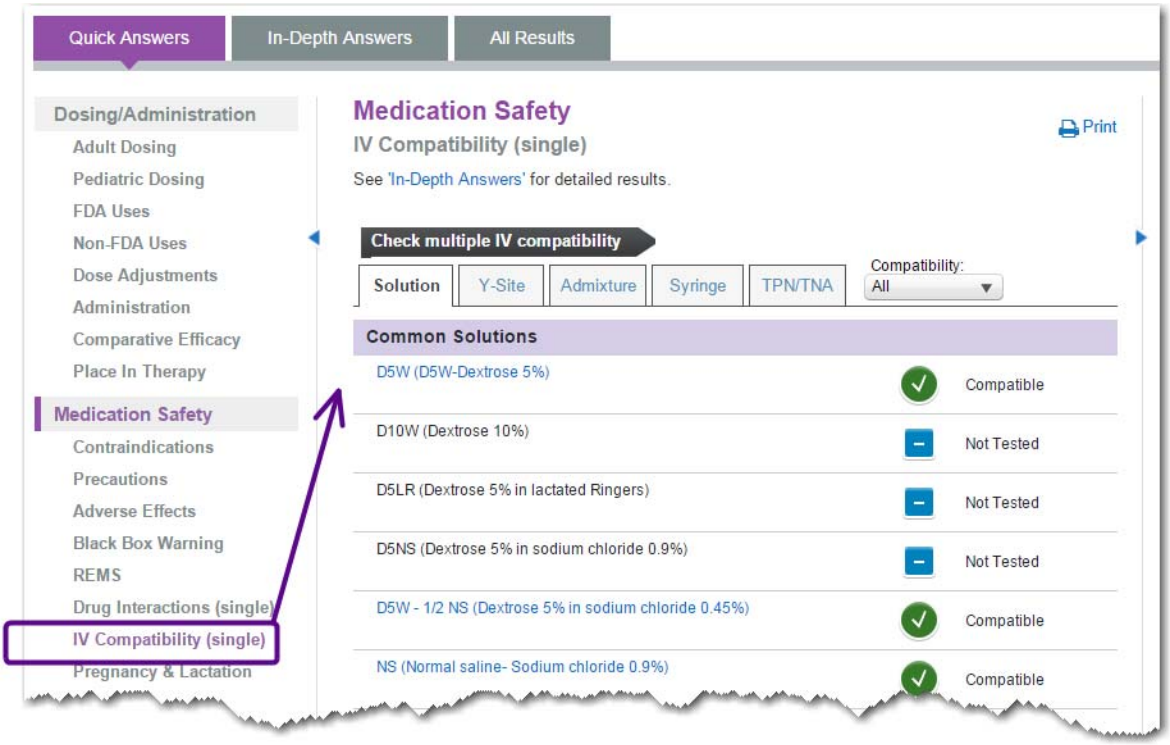
For more information on the Drug Interactions tool see "Chapter 10: Drug Interactions Tool" on page 137.

Single IV Compatibility

Clicking the **IV Compatibility (single)** link under Medication Safety in the left panel checks the drug for compatibility in common solutions. Compatibility information with proven data to support safe decisions for administering injectable drugs in combination is quickly provided.

Using information from leading IV compatibility expert, Lawrence Trissel, MS, FASHP, this feature presents results for Solution, Y-Site, and Admixture administration. Customers with subscriptions to Complete IV Compatibility also have results for Syringe and TPN/TNA compatibility.

© 2017 Truven Health Analytics LLC

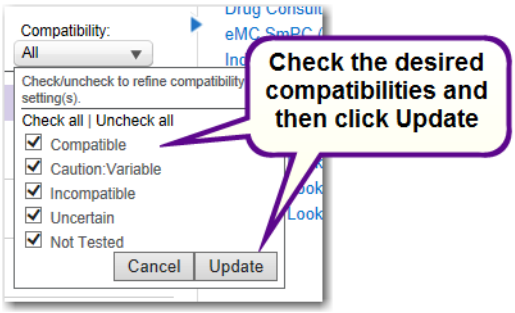


Compatibility is denoted by an icon and simple description. The full descriptions follow:

- *Compatible* - All studies showed these items as compatible.
- *Caution: Variable* - Study results show IV compatibility is variable.
- *Incompatible* - All studies showed these items as incompatible.
- *Uncertain* - Study results were inconclusive; compatibility wasn't determined.
- *Not Tested* - IV compatibility has not been tested.

Filtering Results

By default, all compatibilities are displayed. To filter results for selected compatibilities, select the compatibilities desired from the **Compatibility** drop-down menu at the top of the page. Check the boxes for the desired compatibilities, then click the **Update** button.



After refining the selections, the title of the drop-down changes from '*All*' to '*(#) Selected*', and only the compatibilities chosen display on the page.

© 2017 Truven Health Analytics LLC

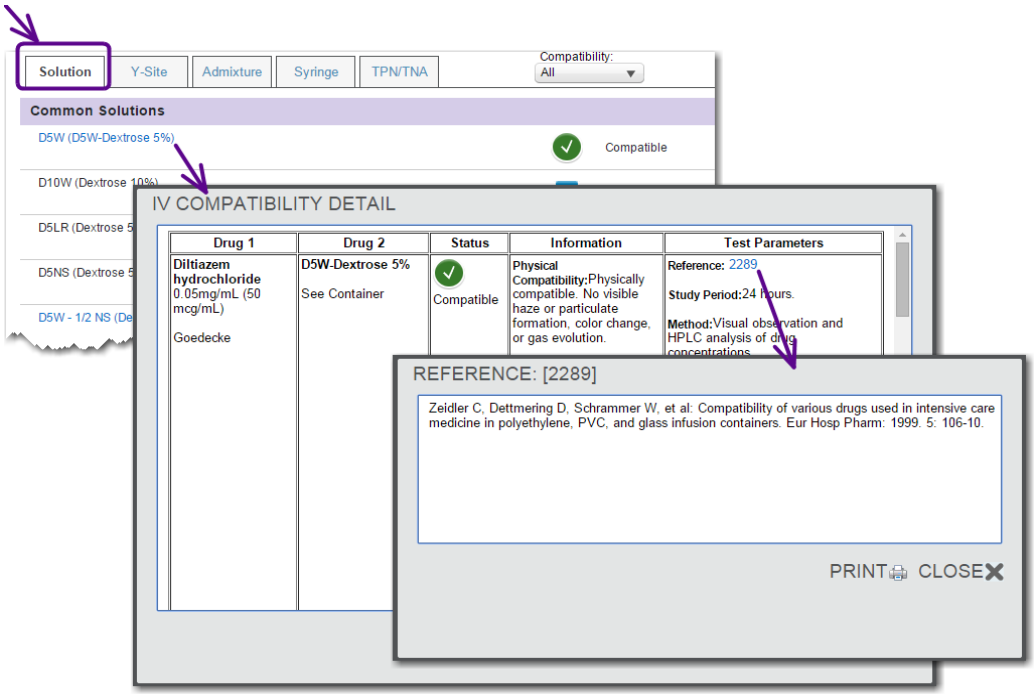
Solution Overview

Solution compatibility is calculated based on common and other typical IV solutions.

Common Solutions:

- *D5W* - D5W-Dextrose 5%
- *D10W* - Dextrose 10%
- *D5LR* - Dextrose 5% in lactated Ringers
- *D5NS* - Dextrose 5% in sodium chloride 0.0%
- *D5W* - 1/2 NS - Dextrose 5% in sodium chloride 0.45%
- *NS* - Normal saline - sodium chloride 0.9%
- *1/2 NS* - sodium chloride 0.45%.

Where detailed results are available, the solution is shown as an active link. Click the solution link to view the additional information. References for the information can be found by clicking the numbered link.

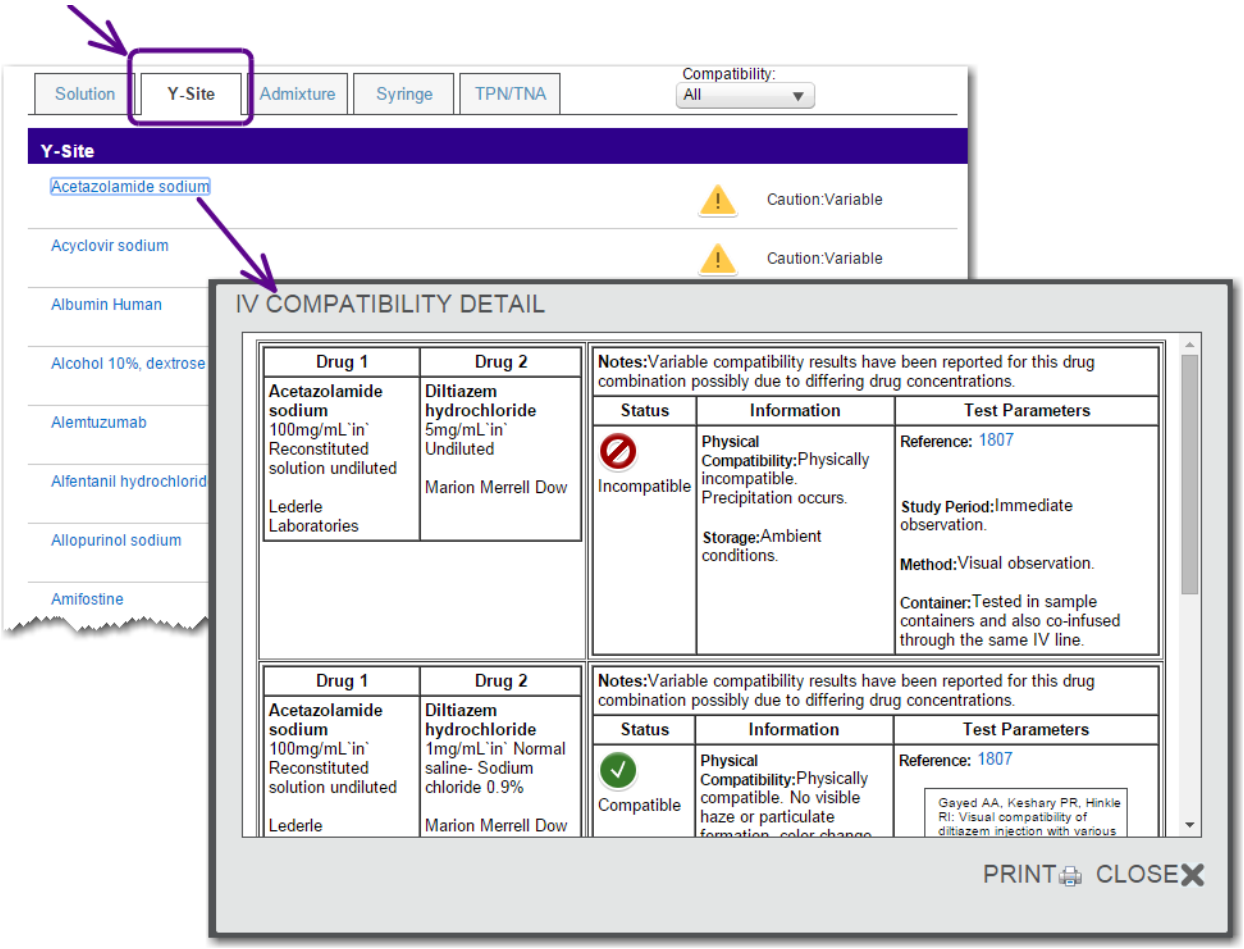


Y-Site Overview

Overview information for single drug Y-Site compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Click the drug name link to view a pop-up with the compatibility details, which are shown in a five-column table.

© 2017 Truven Health Analytics LLC



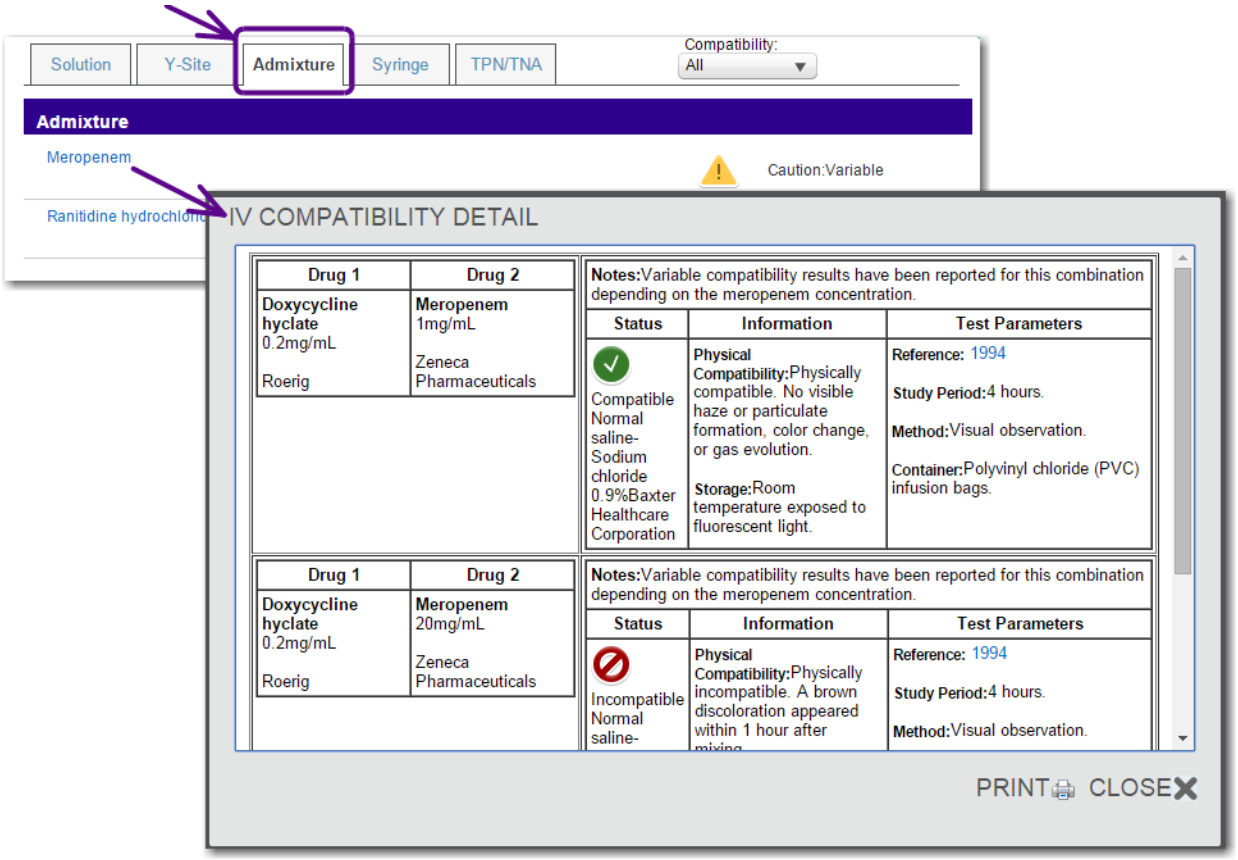
- **Drug 1** - contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** - shows the secondary drug name, concentration, and manufacturer's name
- **Status** - lists the compatibility result icon and description
- **Information** - displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** - contains a referenced link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

Admixture Overview

Overview information for single drug admixture compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Click the drug name link to view the pop-up with the compatibility details, which are shown in a five-column table.

© 2017 Truven Health Analytics LLC



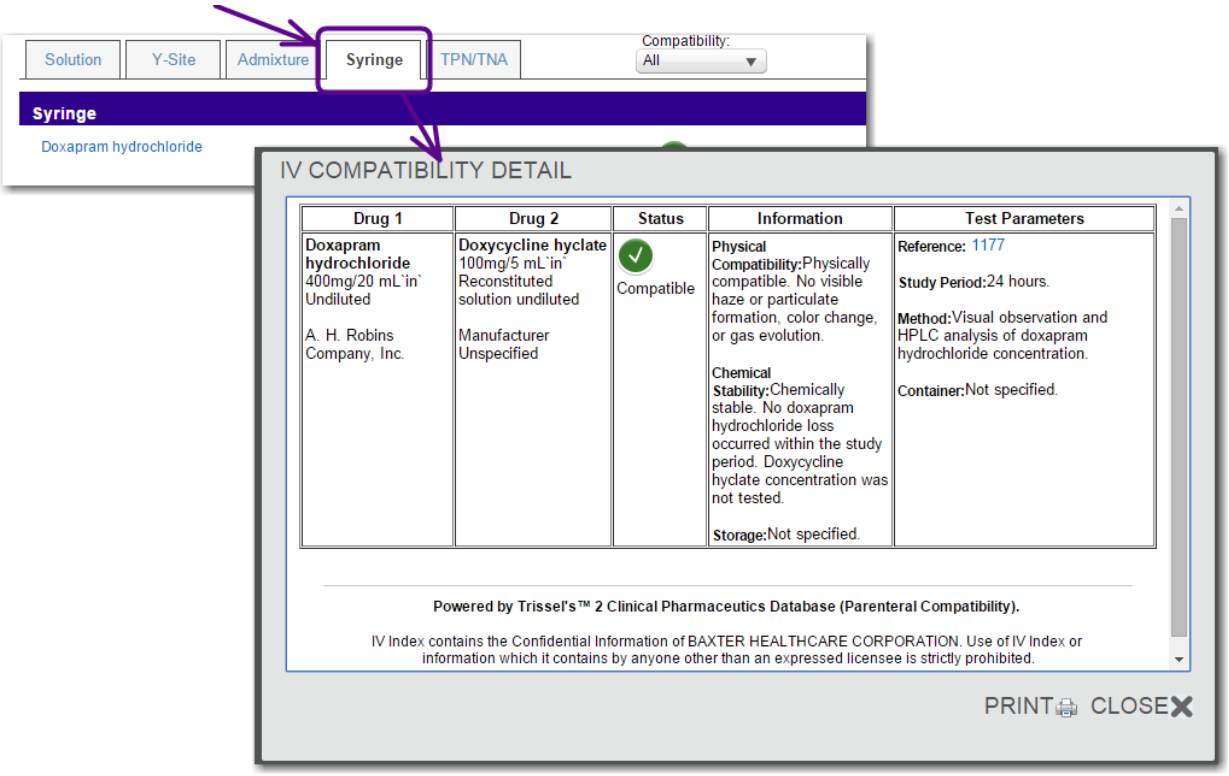
- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, and manufacturer's name
- **Status** lists the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a referenced link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

Syringe Overview (available to Complete IV Compatibility subscribers only)

Overview information for single drug syringe compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.

Click the drug name link to view the pop-up with the compatibility details, which are shown in a five-column table.

© 2017 Truven Health Analytics LLC



- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, and manufacturer's name
- **Status** column lists the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a referenced link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

TPN/TNA Overview (available to Complete IV Compatibility subscribers only)

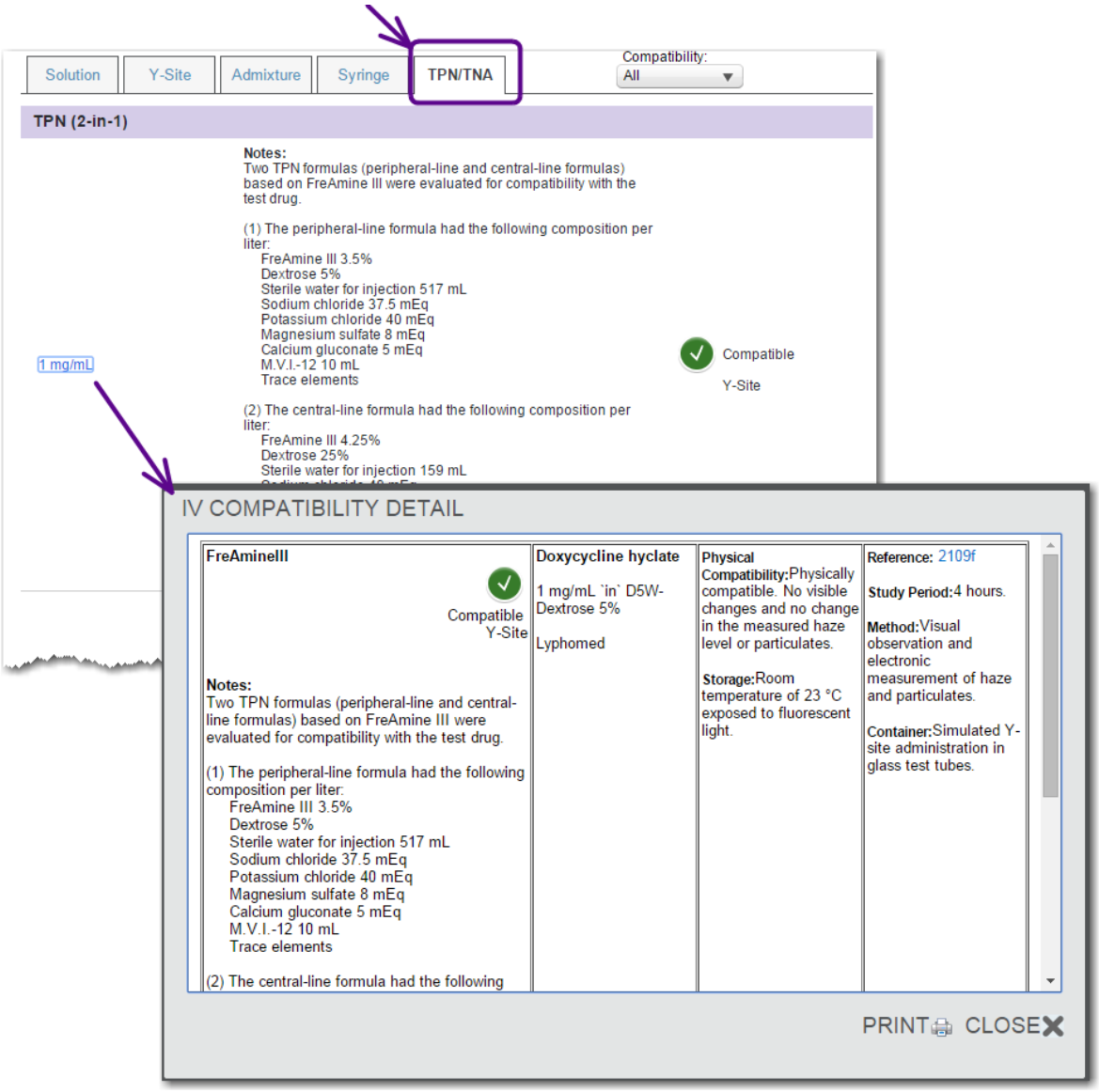
Overview information for single drug TPN (2-in-1) (total parenteral nutrition) is shown first, followed by TNA (3-in-1) (total nutritive admixture) compatibility.

Note: TPN and TNA results are not result type specific. They can be a Y-Site, Solution, or Admixture result. Results are comprised of all compatibility tests where the drug name searched is being included with a TPN or TNA solution.

Within each TPN or TNA section, the results are sorted alphabetically by the TPN or TNA admixture name, with each associated compatibility icon and description, followed by high-level notes, including composition of the TPN/TNA on these tests.

Click the admixture name link to view the details of these tests.

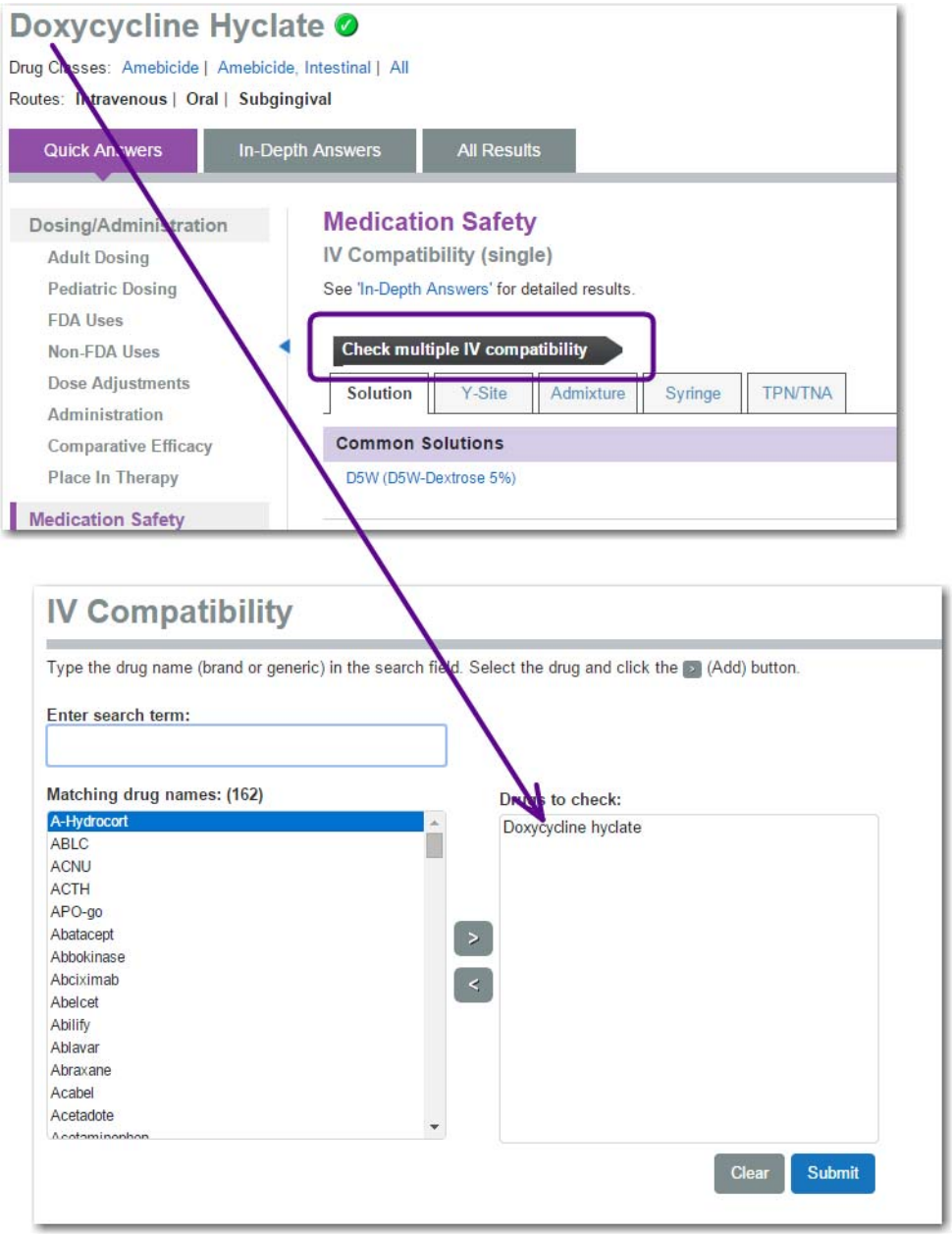
© 2017 Truven Health Analytics LLC



Multiple Drugs IV Compatibility

To access the IV Compatibility tool for checking compatibility for multiple drugs click the **Check multiple IV compatibility** button at the top of the page. The IV Compatibility tool is displayed and your drug is automatically added to the *Drugs to check* list.

© 2017 Truven Health Analytics LLC

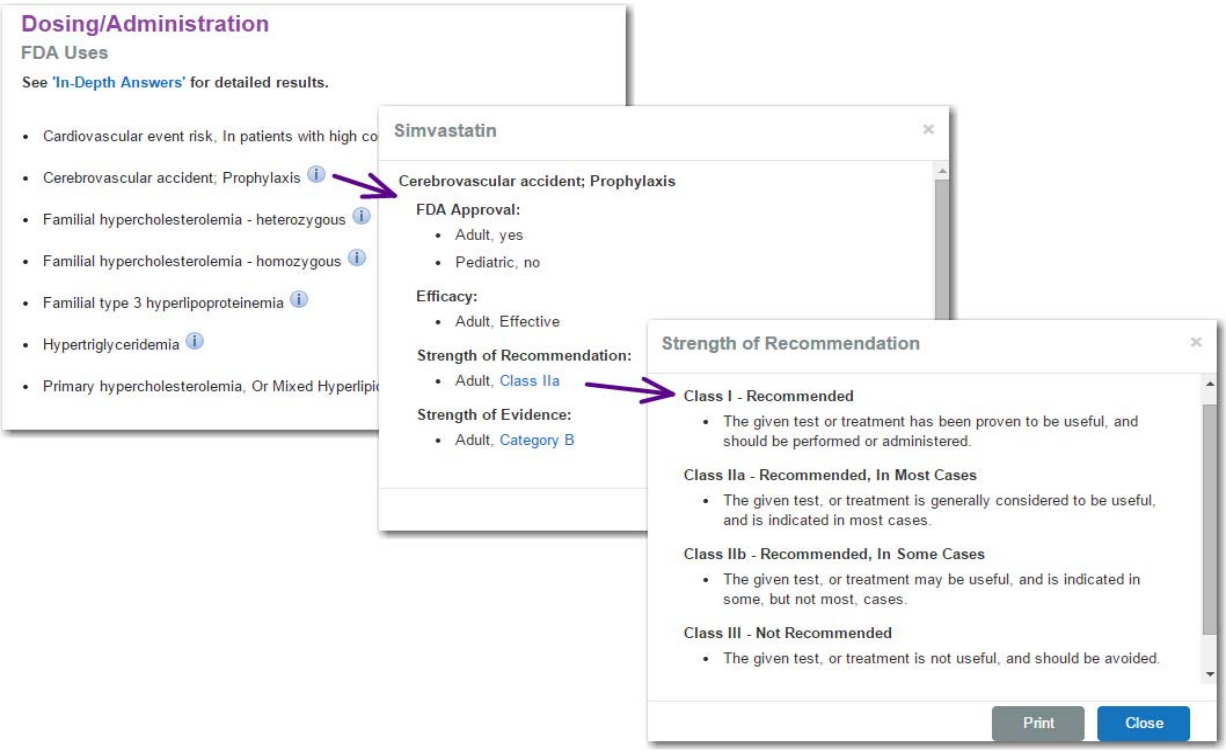


For more information on the IV Compatibility tool see "Chapter 11: IV Compatibility Tool" on page 145.

Additional Information

Links and infobutton icons within Summary Drug Information mean that more information exists. Click the link or icon to view the information. Examples are definitions for Strength of Evidence, Strength of Recommendation, and Pregnancy and Lactation Categories. This information is presented in a pop-up box that can be printed if desired.

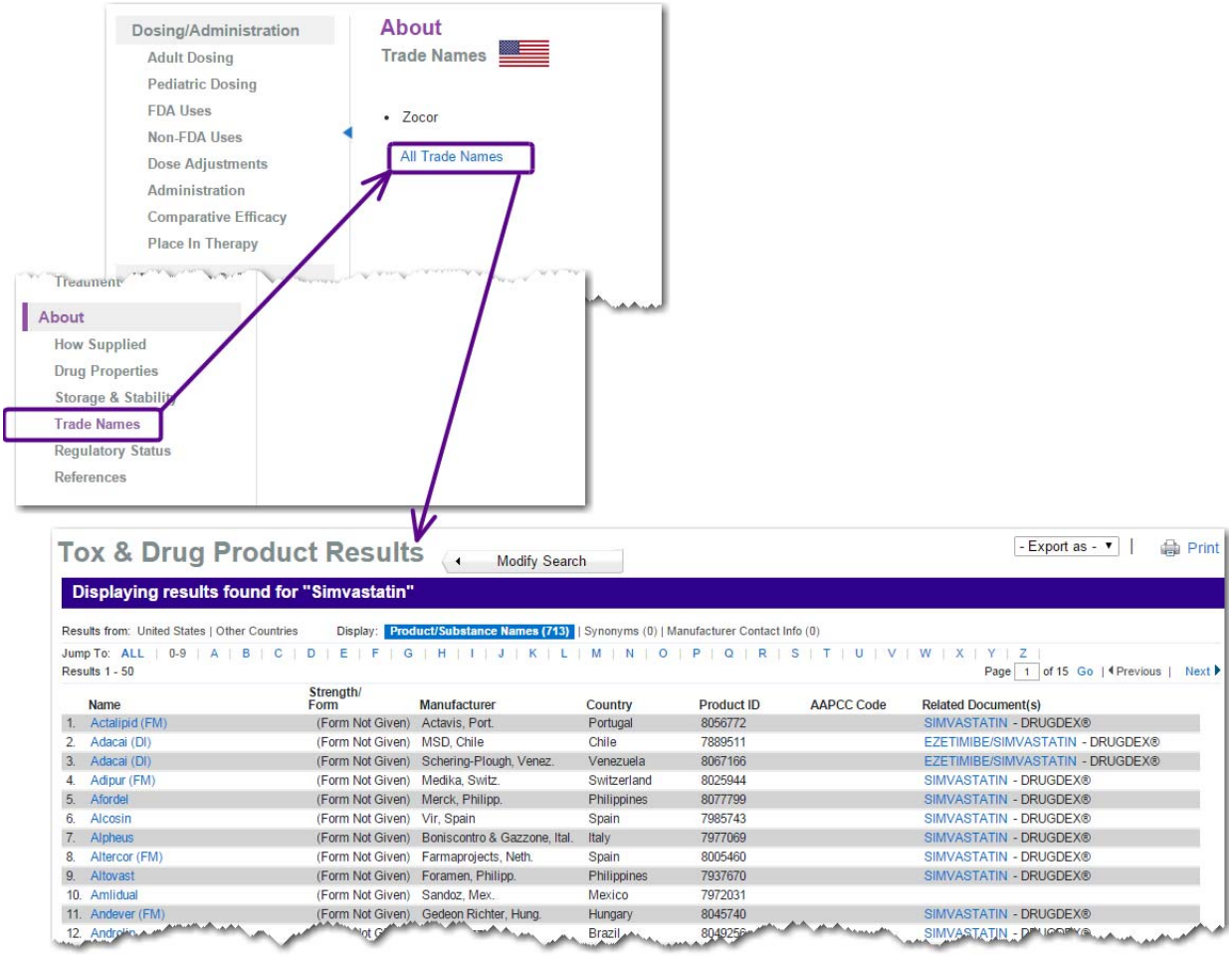
© 2017 Truven Health Analytics LLC



Trade Names

It is easy to display a list of all the trade names for the generic drug. In the left panel under About click the **Trade Names** link. Then click the All Trade Names link. The Tox & Drug Product Lookup tool is displayed with a list of brand name products containing the generic drug from the original landing page.

© 2017 Truven Health Analytics LLC

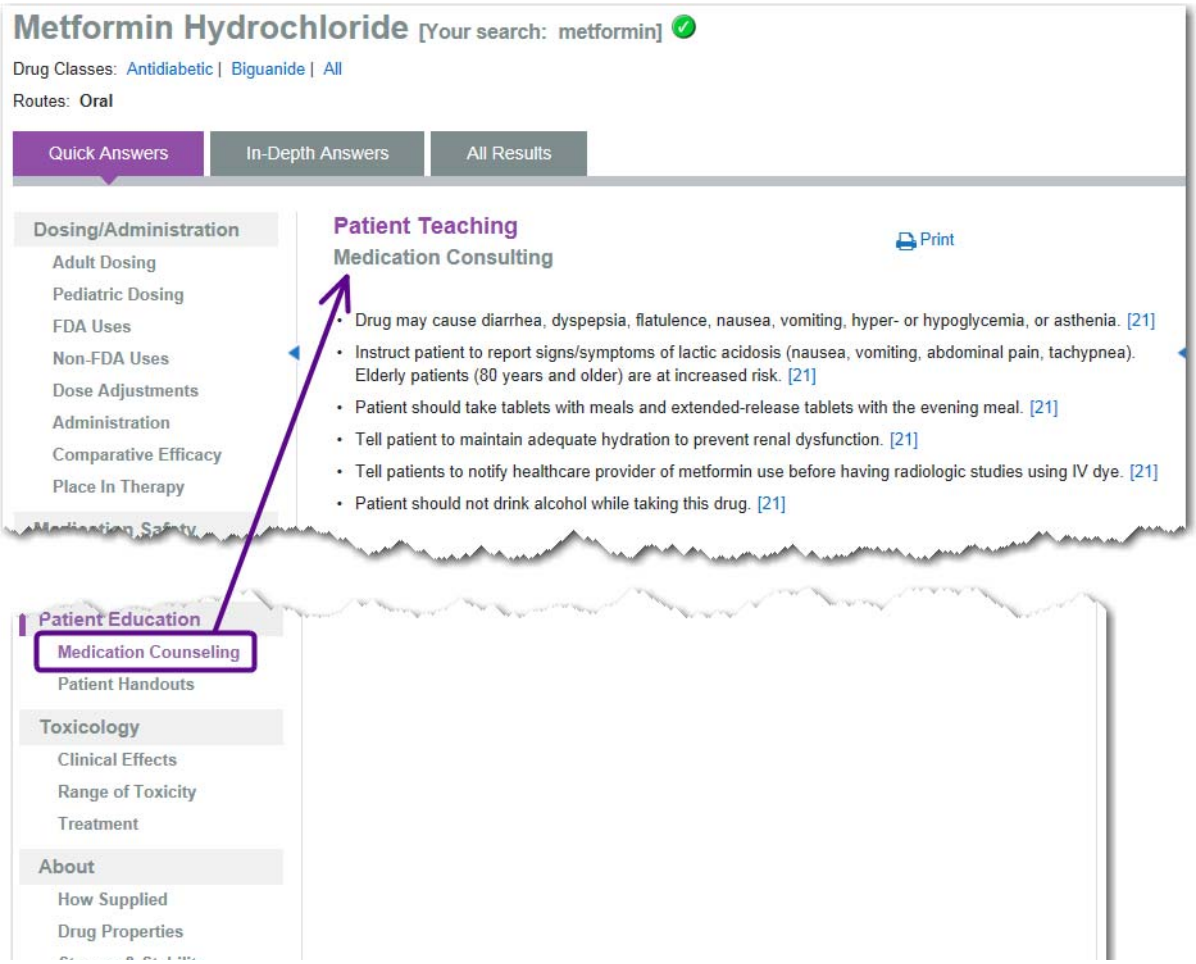


Patient Education

Medication counseling is an important aspect of the HCAHPS survey, which requires patient communication in the inpatient setting. The Patient Education section of a drug landing page provides a focused list of the most important factors to discuss with a patient, such as common or serious adverse effects, special administration instructions, and key warnings and monitoring recommendations.

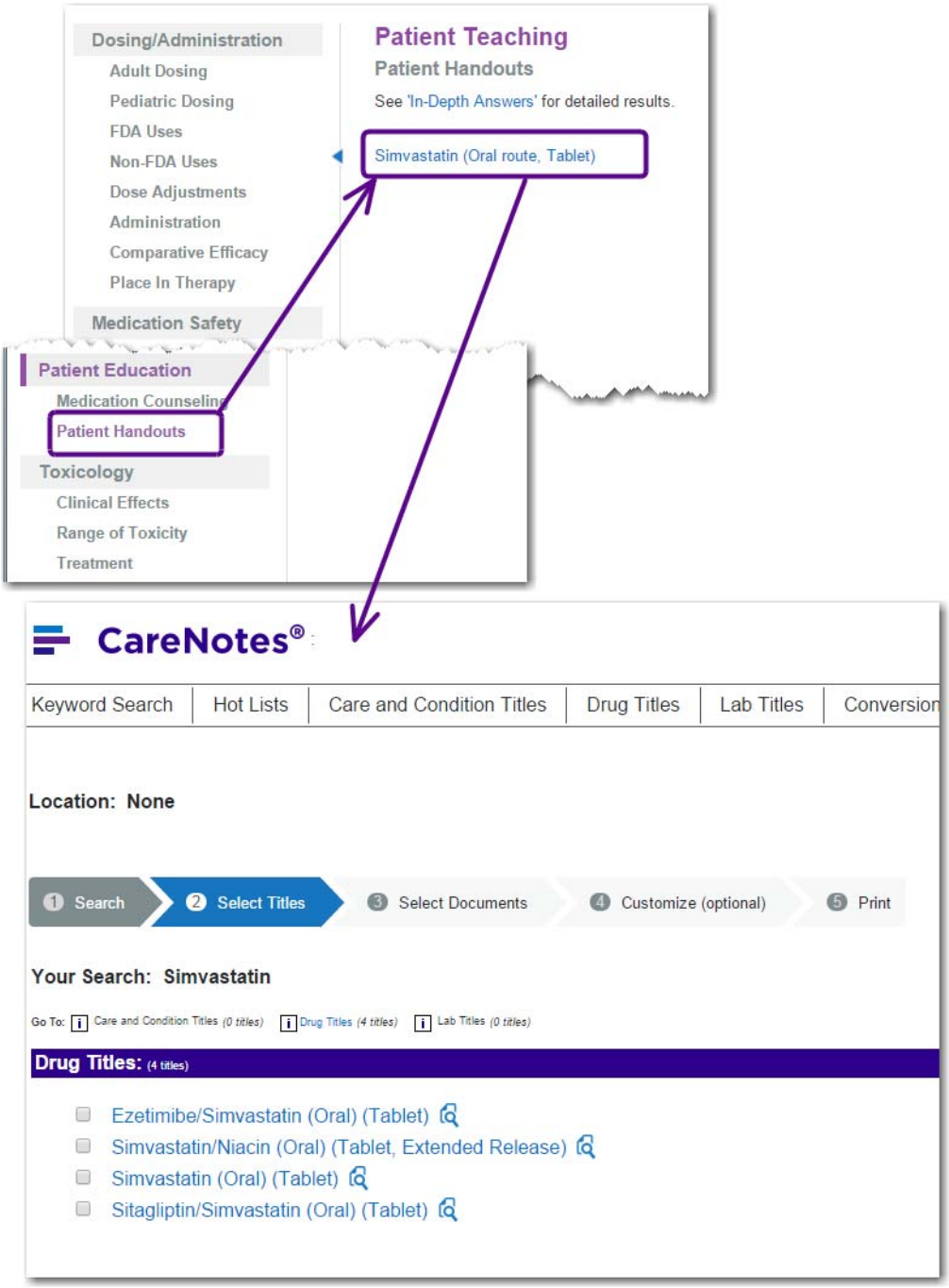
Click on the **Medication Counseling** link under *Patient Education* in the left panel.

© 2017 Truven Health Analytics LLC



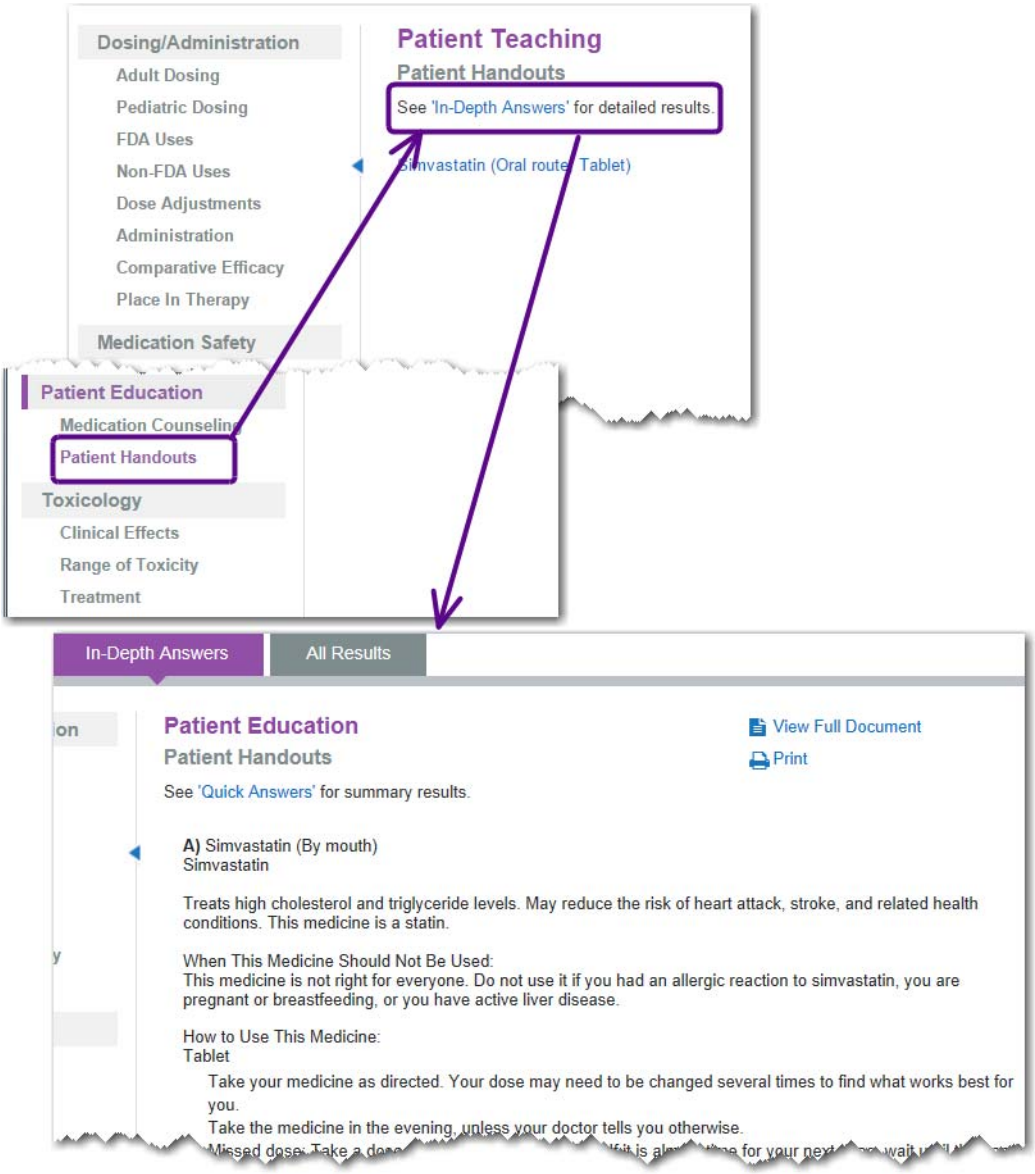
In addition, if you subscribe to Micromedex® CareNotes®, you can link directly to the patient handouts for the drug. In the left panel under *Patient Education* click the **Patient Handouts** link. Then click the drug name and route link. The CareNotes application is opened to the list of applicable Medication Instructions.

© 2017 Truven Health Analytics LLC



If you do not have access to CareNotes, click on the **In-depth Answers** link to display a Patient Handout within the detailed drug information, which can be printed for the patient.

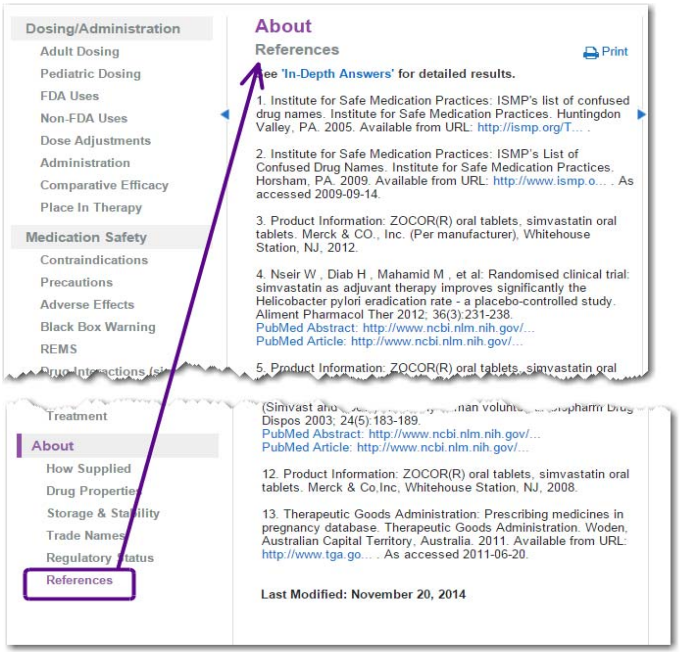
© 2017 Truven Health Analytics LLC



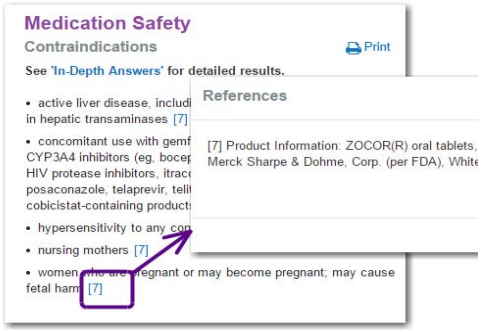
References

You can view the references by clicking on the **References** link in the left panel or by clicking a citation number with in the text, which opens a pop-up window containing the reference.

© 2017 Truven Health Analytics LLC



OR



Last Modified Date

Summary Drug Information includes a *last modified date* at the bottom of the References section.

Printing

Click the **Print** icon (Print) to print the summary monograph. For more details on printing see "Printing" on page 57.

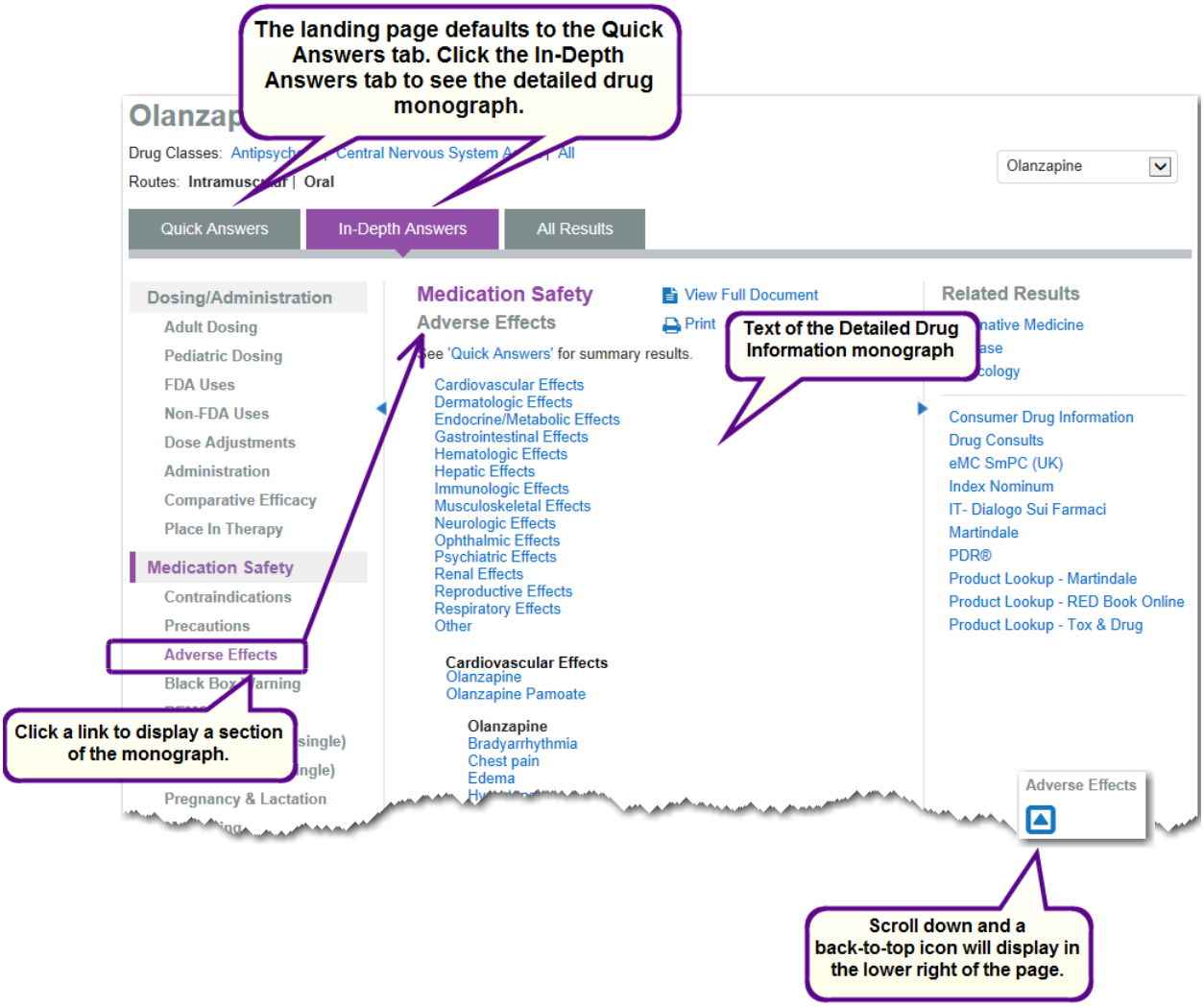
© 2017 Truven Health Analytics LLC

DETAILED DRUG INFORMATION

DRUGDEX® Detailed Drug Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Drug Information.

From the landing page click the **In-Depth Answers** tab, and the detailed drug monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for “olanzapine” results in the Olanzapine landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed drug monograph.



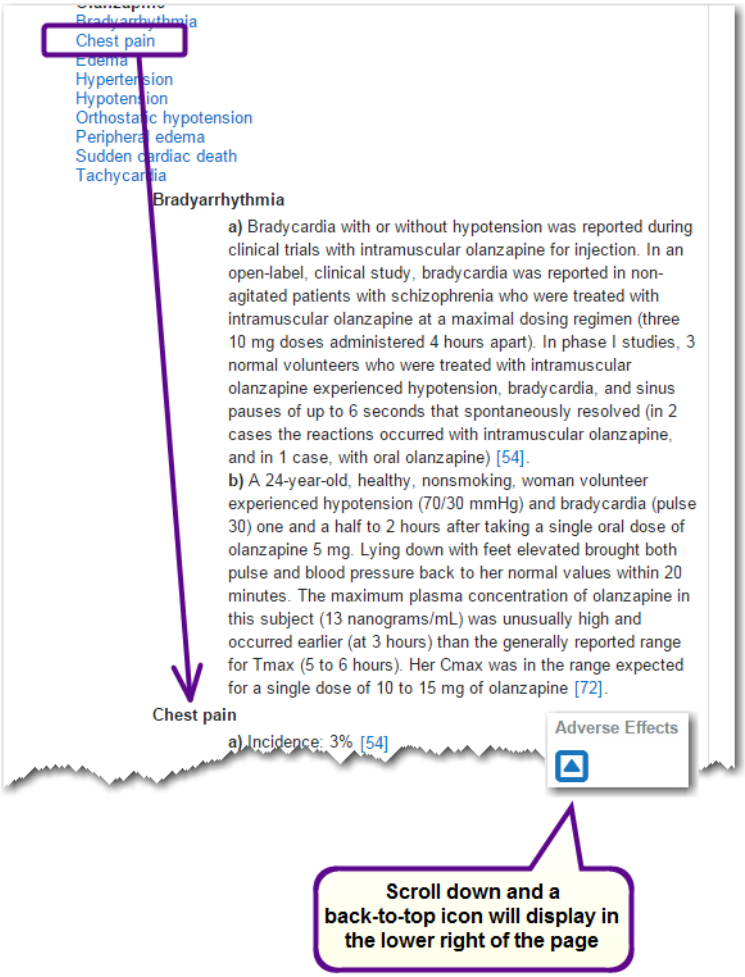
Navigating Document Sections

You can use the following methods to navigate within the detailed document sections:

- Arrow Up/Down keys
- Page Up/Down keys

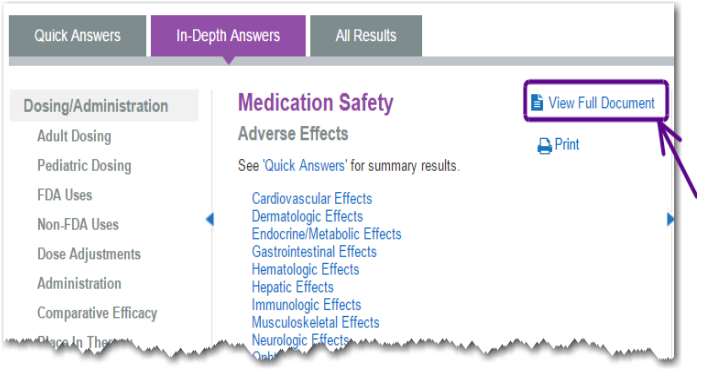
© 2017 Truven Health Analytics LLC

- Browser scrollbar
- Click a sub-section link to go directly to that location
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

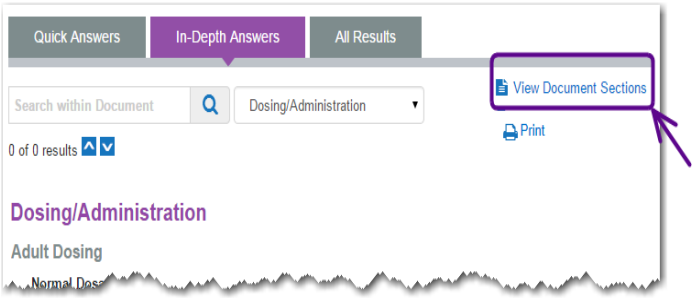


© 2017 Truven Health Analytics LLC

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



Click **View Document Sections** to return to the panel view.

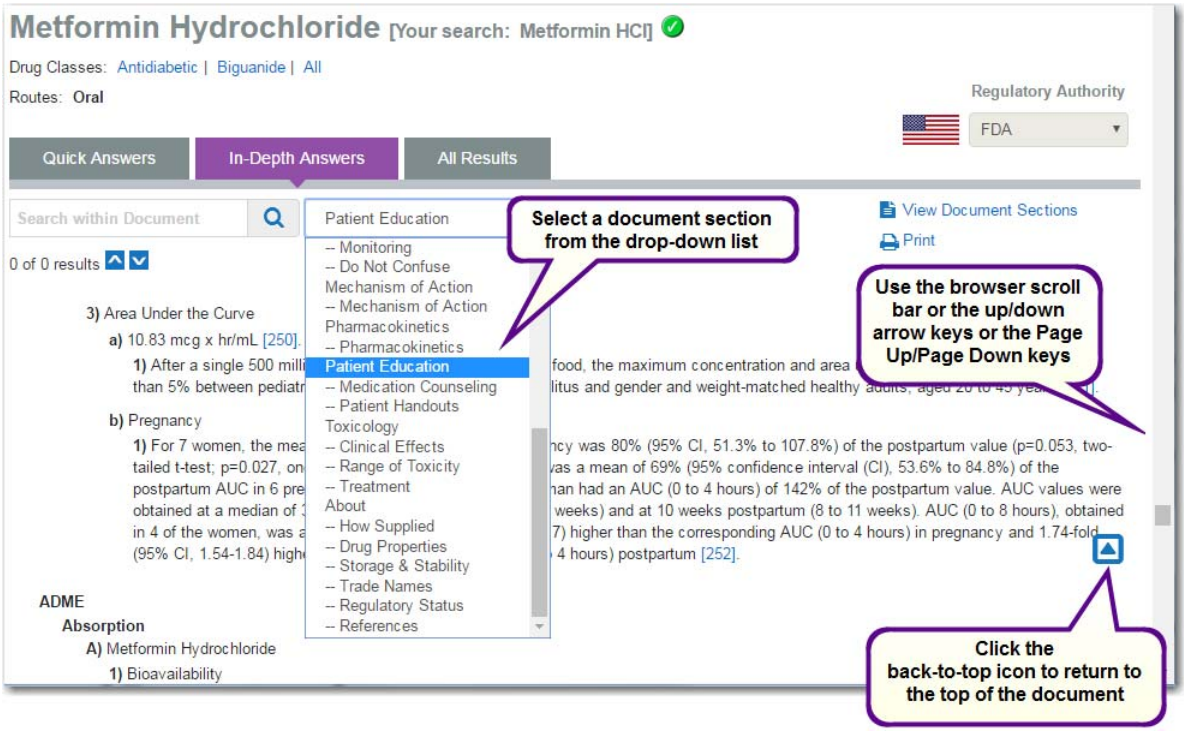
Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.

© 2017 Truven Health Analytics LLC

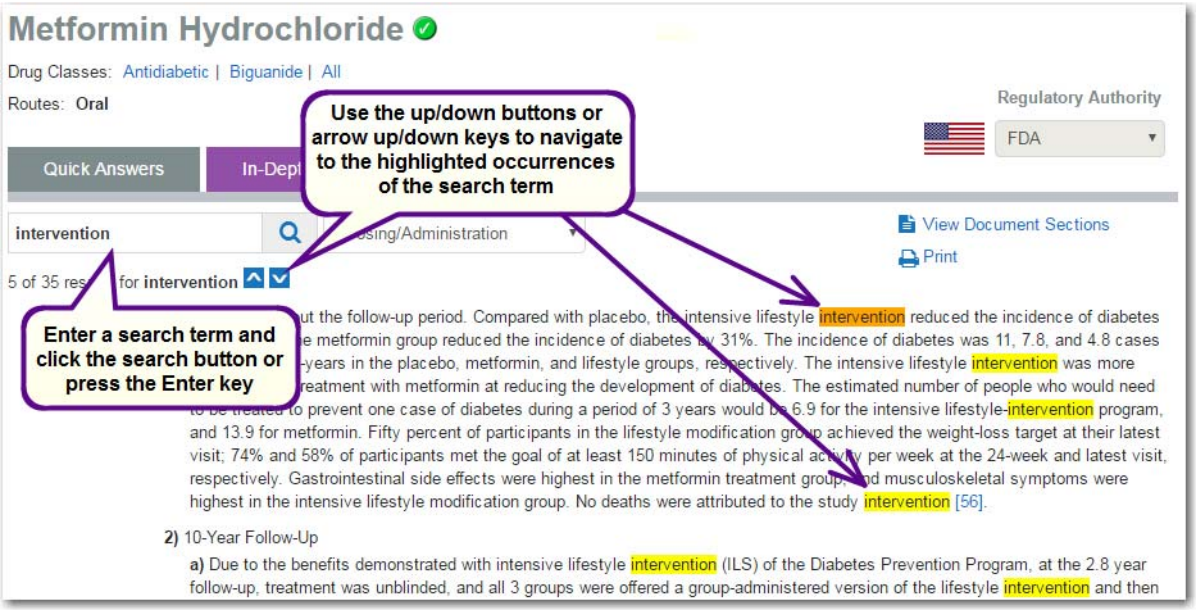
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.



Searching Within a Document

When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search** button or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down** buttons (⌃ ⌄) to move from one highlighted occurrence to another.

© 2017 Truven Health Analytics LLC



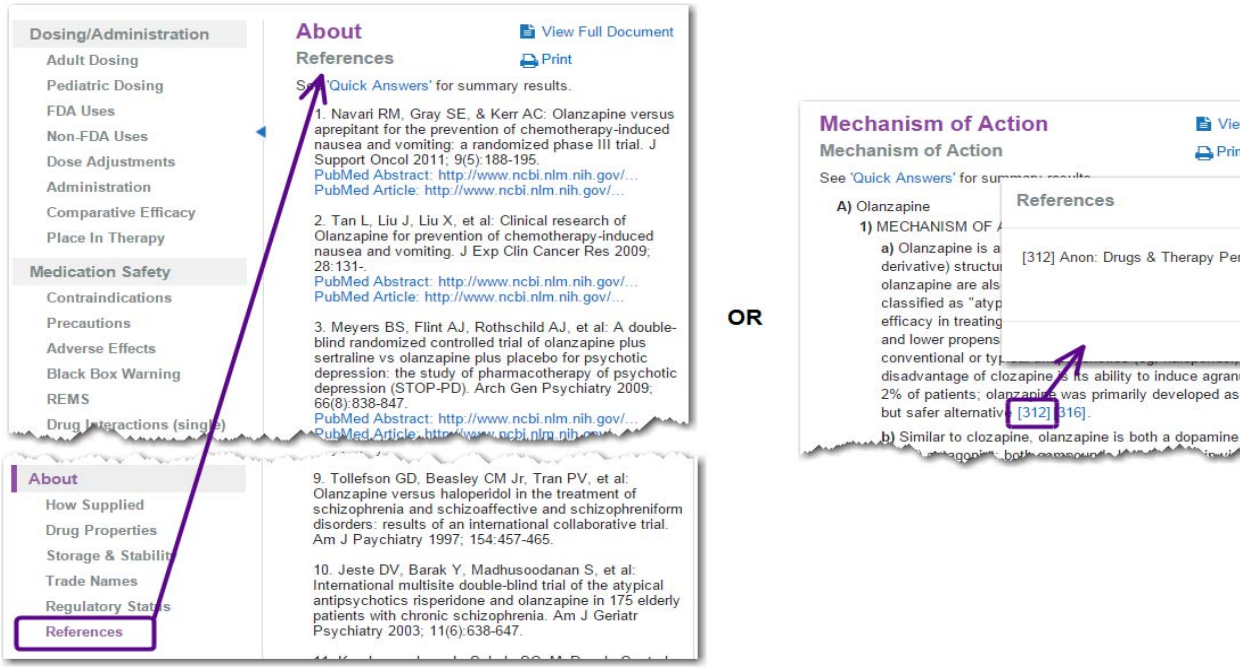
Printing

Click the Print icon (Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see "Printing" on page 57.

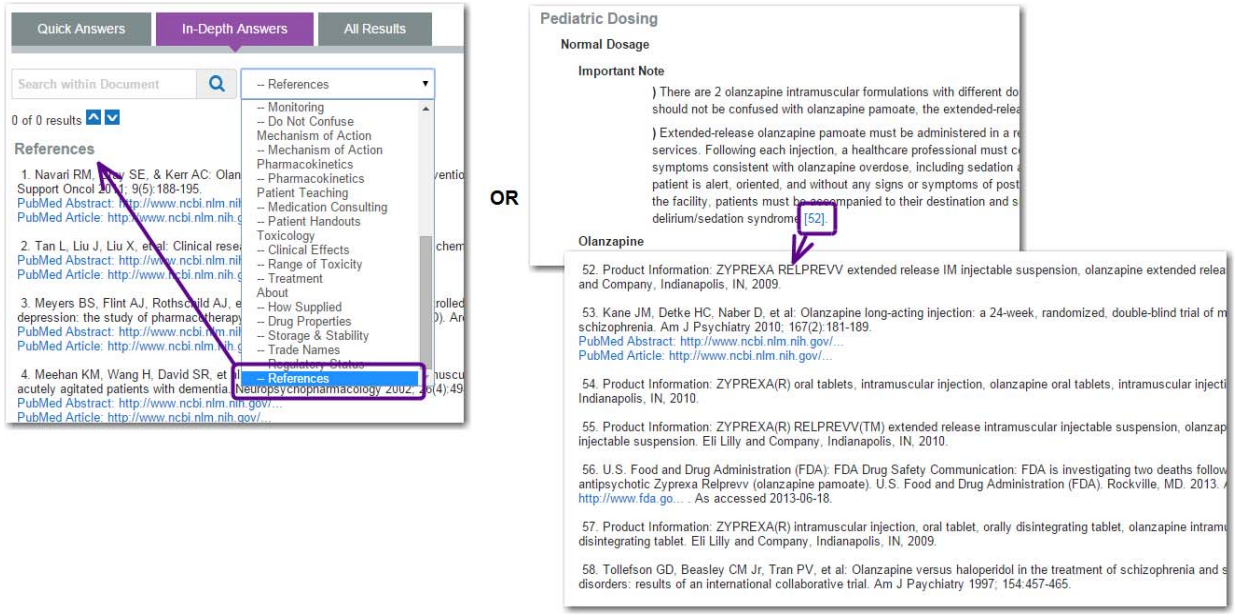
References

When in the panel view you can view the references by clicking on the **References** link in the left panel or by clicking a citation number within the text, which opens a pop-up window containing the reference.

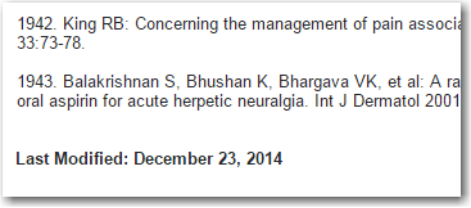
© 2017 Truven Health Analytics LLC



When viewing the full document you can view the references by selecting **References** from the section drop-down box or by clicking a citation number within the text, which takes you to that specific reference in the References section.



© 2017 Truven Health Analytics LLC



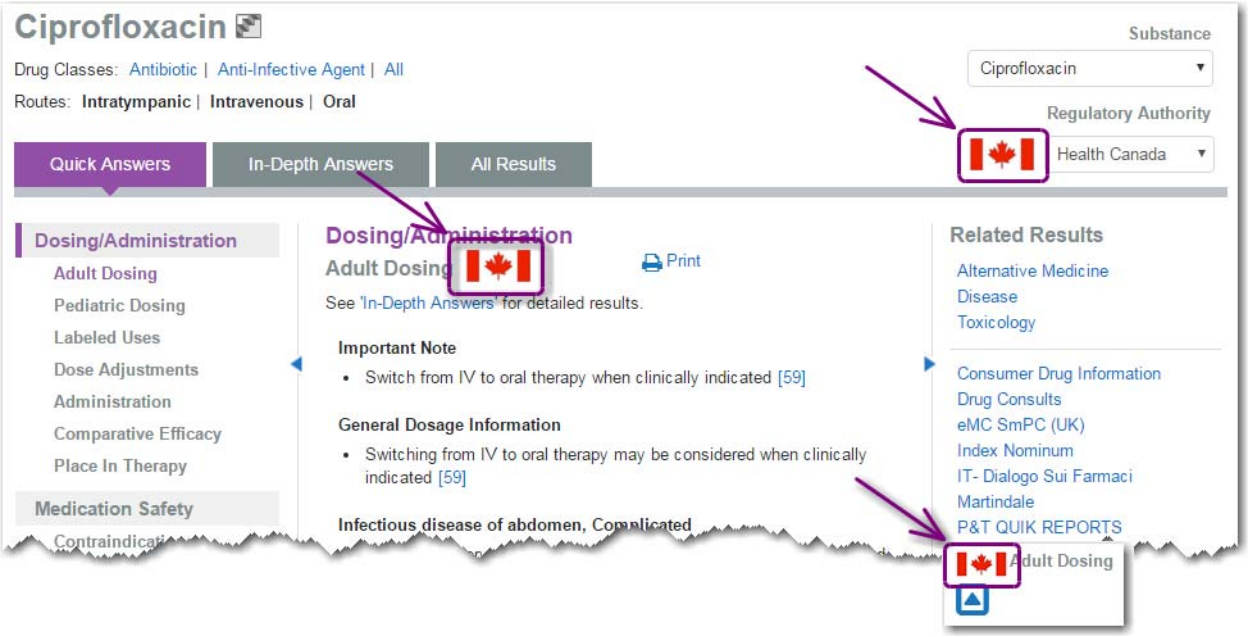
Last Modified Date

Detailed drug information monographs contain a *last modified date* at the bottom of the References section.

REGULATORY AUTHORITY INFORMATION

Drug information from the Food and Drug Administration (FDA) is available for all prescription and nonprescription drugs. Information from Health Canada and European Medicines Agency (EMA) is available for a subset of prescription drugs. Click an item from the Regulatory Authority drop-down list on the Quick Answers and In-Depth Answers tabs to view drug information from a specific regulatory authority.

Note: If drug information is available from only one source, the Regulatory Authority drop-down list is disabled.



A flag identifying the selected regulatory authority displays next to the Regulatory Authority drop-down list and on the middle panel of the Quick Answers and In-Depth Answers tabs. The flag also displays above the back-to-top icon that allows you to return to the top of the document.

Information from Health Canada and EMA is available only for the following sections:

- Adult Dosing
- Pediatric Dosing
- Labeled Uses

© 2017 Truven Health Analytics LLC

Note: The Labeled Uses section title changes to FDA Uses when FDA is the selected regulatory authority.

- Dose Adjustments
- Black Box Warning
- Trade Names

FDA is the default regulatory authority. If you select a different authority, that selection is retained for all drugs for which information from the selected authority is available. If no information is available from the selected authority, the regulatory authority automatically defaults to FDA.

RELATED RESULTS

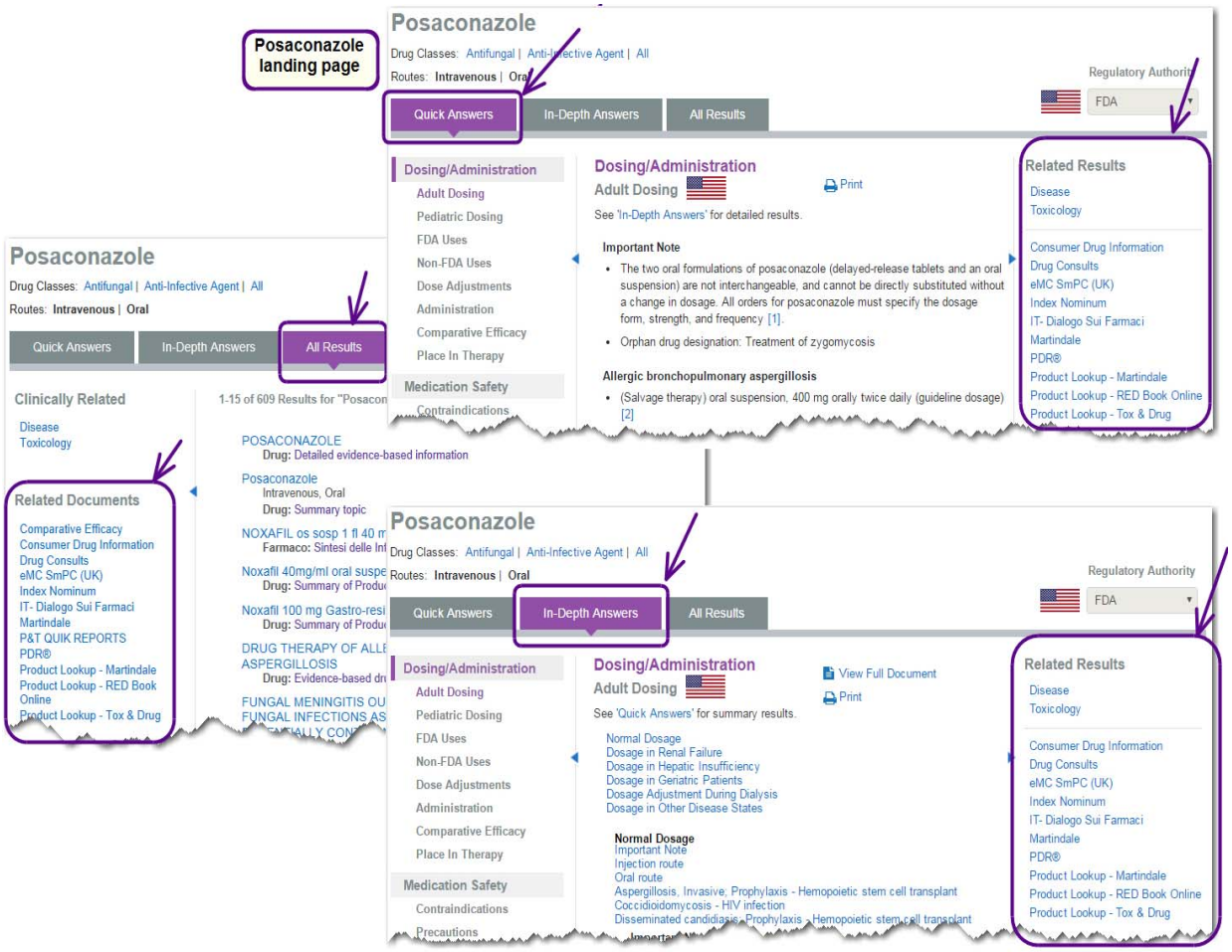
The following related information can be accessed from the landing page:

- Chapter 7: Alternative Medicine Information on page 117
- Chapter 5: Disease Information on page 93
- Chapter 6: Toxicology Information on page 107
- “Consumer Drug Information (Detailed Drug Information for the Consumer)” on page 89
- “Drug Consults” on page 90
- “Global \ International Drug Information” on page 90
- “P&T Quick Reports (Formulary Considerations)” on page 90
- “Physicians’ Desk Reference® (PDR)” on page 90

© 2017 Truven Health Analytics LLC

- "Product Lookup - Martindale" on page 90
- "Product Lookup - RED BOOK Online" on page 91
- "Product Lookup - Tox & Drug" on page 91

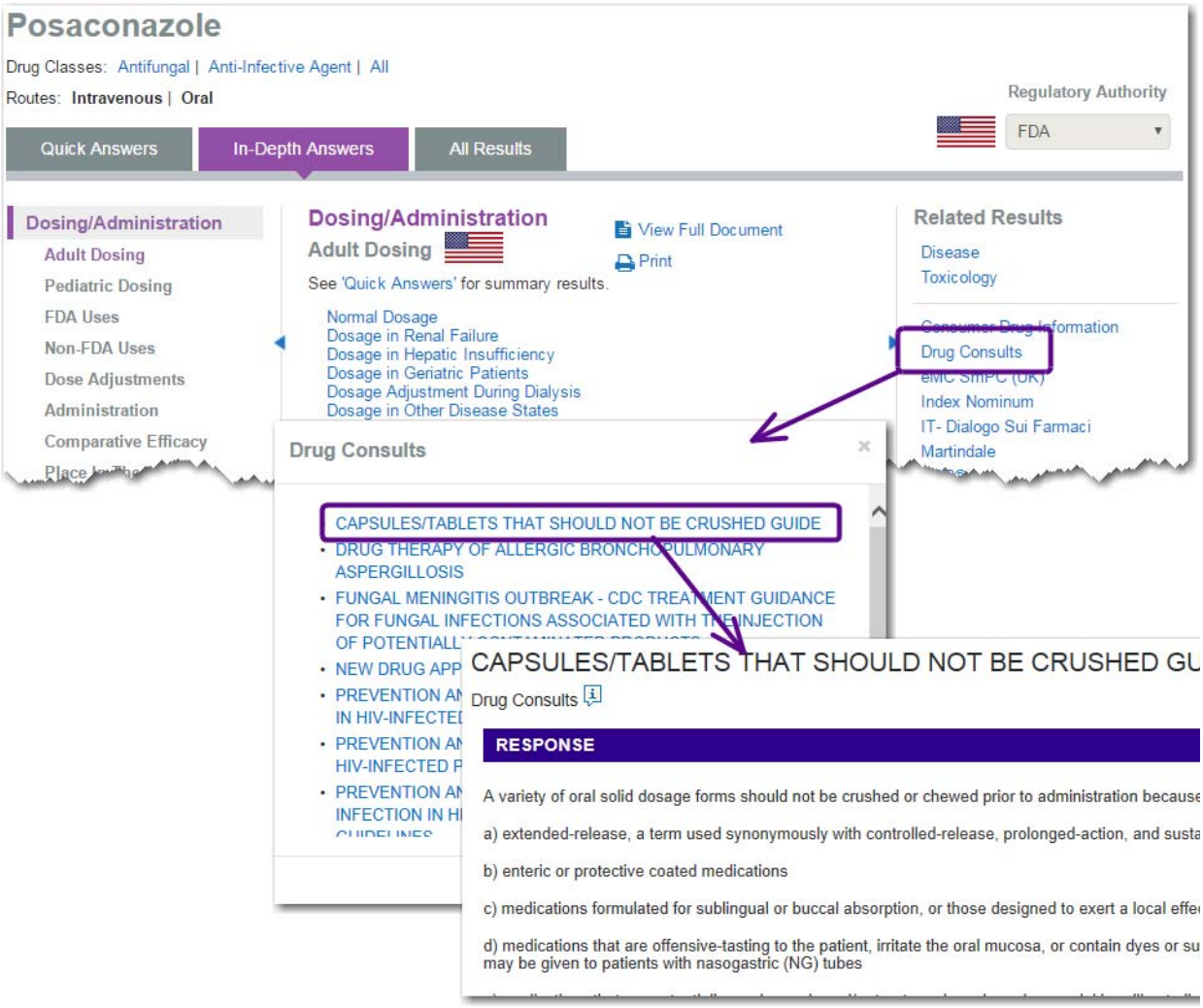
In the following example a search was performed for "posaconazole," and the Posaconazole landing page is displayed. Links to related information are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers* tab and in the left panel when viewing the *All Results* tab.



For more information on landing pages see "Landing Pages" on page 16.

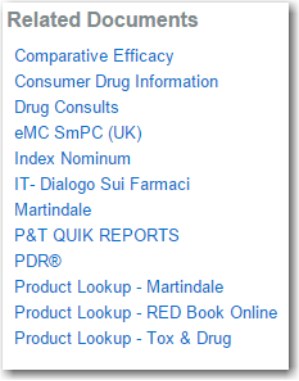
Clicking on a link under *Related Results* displays a list of all related documents in that database. Click a title to display the document or landing page.

© 2017 Truven Health Analytics LLC



.

Consumer Drug Information (Detailed Drug Information for the Consumer)



Consumer Drug Information provides patient-oriented drug information to help patients understand and successfully follow their drug regimens. Written at a 12th-grade literacy level, documents provide greater detail than most patient education leaflets and include brand names, descriptions, proper use, precautions, and side effects. Instructions for how to handle missed doses are included, as are guidelines for when to seek medical assistance or supervision.

© 2017 Truven Health Analytics LLC

Drug Consults

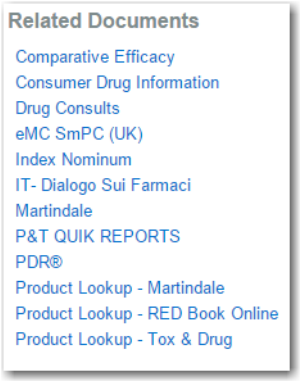
DRUGDEX® Drug Consults are evidence-based, fully-referenced articles covering drug therapies and drug guidelines. Some Drug Consults present patient related, referenced consultations with case histories. They are also an excellent resource for information on herbal medications, medical and surgical materials, excipients, drugs of abuse, and health foods. Drug Consults are provided for investigational, international, FDA-approved, and over-the-counter preparations. In addition to accessing Drug Consults from a landing page, you can perform a targeted search to see all Drug Consults or all Drug Consults containing comparative tables. See "Targeted Searches" on page 41 for more details.

Global \ International Drug Information

International drug information can be included in your subscription. Databases can include: Martindale: The Complete Drug Reference, Index Nominum, Herbal Medicines: A Guide for the Health-Care Professional, Dialogo sui Farmaci, or eMC SmPC. The international drug information is integrated into all searches in Micromedex. In addition to accessing international drug information from a landing page and intermediate search results, you can perform a search on an international brand name. See "International Drug Searching" on page 56 for more details.

P&T Quick Reports (Formulary Considerations)

P&T QUIK Reports assists pharmacists in preparing for Pharmacy and Therapeutics Committee meetings. P&T QUIK contains monographs on drugs being considered by P&T Committees for placement on the hospital formulary. Included are drugs recently approved by the FDA, those of intense interest, or drugs suggested by subscribers. Twelve monographs are added each quarter, and the most recent 24 months of monographs are available.



Physicians' Desk Reference® (PDR)

The electronic Physicians' Desk Reference provides fast, easy access to information found in the popular Physicians' Desk Reference® (PDR), the PDR for Nonprescription Drugs and Dietary Supplements™, and the PDR for Ophthalmic Medicines. The content includes current FDA-approved prescription drugs, commonly used over-the-counter drugs, and specialized ophthalmic pharmaceuticals. It provides detailed data on ingredients, drug interactions, side effects, recommended dosages, clinical pharmacology, pediatric use, contraindications, and available forms. Information on drug manufacturers is also included.

Product Lookup - Martindale

Clicking this link performs a search for *Globally distributed drug products in Martindale* in the Tox & Drug Product Lookup tool. See Chapter 14: Tox & Drug Product Lookup Tool for more details.

© 2017 Truven Health Analytics LLC

Product Lookup - RED BOOK Online

Clicking this link performs an *Active Ingredient* search in the RED BOOK Online tool. See Chapter 16: RED BOOK Online on page 191 for more details.

Product Lookup - Tox & Drug

Clicking this link performs a *Product or substance name* search in the Tox & Drug Product Lookup tool. See Chapter 14: Tox & Drug Product Lookup Tool for more details.

TARGETED DRUG INFORMATION SEARCHES

Micromedex provides some highly focused drug searches that present you with results that are specific to your clinical question. These include:

- **Black Box Warnings**

  An alphabetical list of all drugs in Micromedex with a black box warnings. Search results return the list of drugs (with a black box warning) as links, to directly access the black box warning topic in the drug information. See "Black Box Warning List" on page 42 for additional information.

- **Comparative Tables**

  A complete list of all DRUGDEX Drug Consults articles that have comparative tables. See "Comparative Tables" on page 43 for more information.

- **Do Not Confuse Drug List**

  An alphabetical list of confused drug names, including look-alike and sound-alike name pairs. See "Do Not Confuse Drug List" on page 44 for more information.

- **Drug Classes**

  This search displays an alphabetical list of the drug classes in Micromedex Solutions that can be browsed to find all of the drugs in a particular class. See "Drug Classes" on page 46 for more information.

- **Drug Consults**

  A complete list of all Drug Consults articles available in Micromedex Solutions. See "Drug Consults" on page 49 for more information.

- **REMS: Risk Evaluation and Mitigation Strategies**

  Provides a list of drugs and biological products that have FDA-approved REMS. Drug names are displayed as links to the REMS information for the drug. See "REMS: List of Drugs With a Risk Evaluation and Mitigation Strategy" on page 50 for more information.

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

CHAPTER 5: DISEASE INFORMATION

The Micromedex® Solutions application supports disease management with unbiased, evidence-based information and identification of best practices for treating diseases. It lets clinicians quickly reference the most current treatment of choice at the point of care to help minimize errors, prevent unnecessary tests or procedures, reduce treatment costs, and improve patient outcomes. Micromedex delivers both etiology and treatment information, with summary overviews for each medical condition providing recommendations for appropriate care.

Micromedex Disease Information provides trusted information to help clinicians make confident decisions when treating emergent, acute, and chronic disorders, and supports meaningful outcomes and ensures the highest standards of care.

We create a summary monograph and a detailed monograph for each topic. The Summary Disease Information monographs support quick decisions at the point of care, and the Detailed Disease General Medicine and Detailed Disease Emergency Medicine monographs support further research and aid clinicians when making difficult treatment decisions. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

This chapter describes the types of disease information available in Micromedex Solutions. For information on how to search in Micromedex Solutions see "Chapter 3: Searching Micromedex Solutions" on page 13.

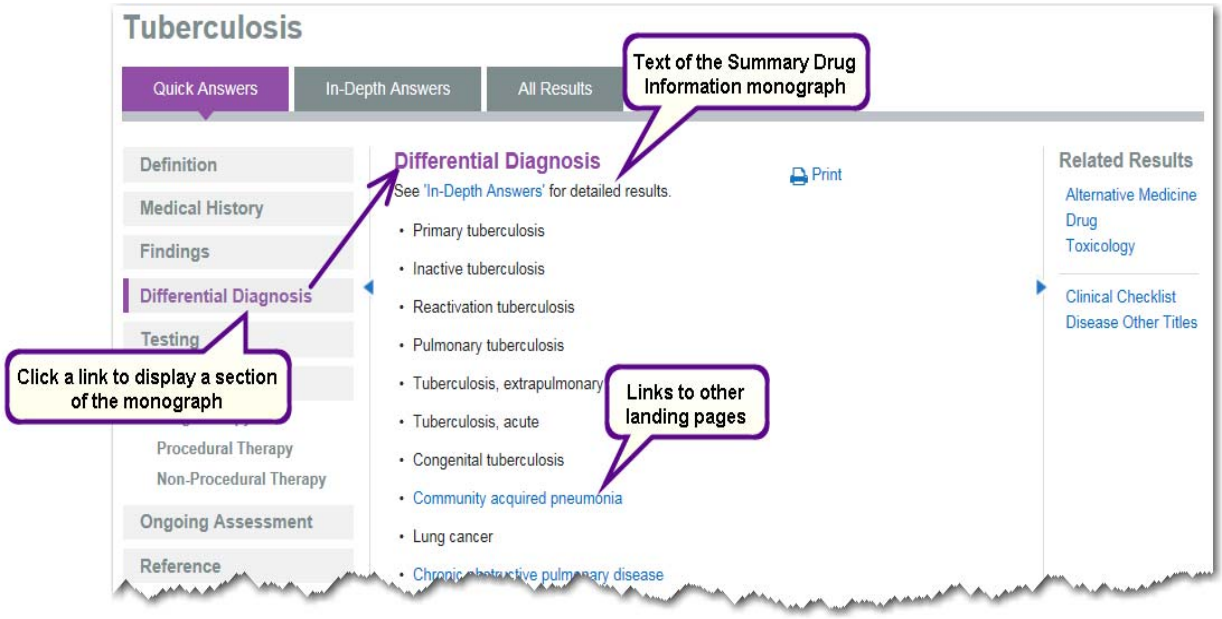
SUMMARY DISEASE INFORMATION

Summary Disease Information is succinct, actionable at the point-of-care, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

Hyperlinked information within the content links directly to drug, lab, toxicology, and other disease landing pages.

For example, a search for “tuberculosis” results in the following landing page:

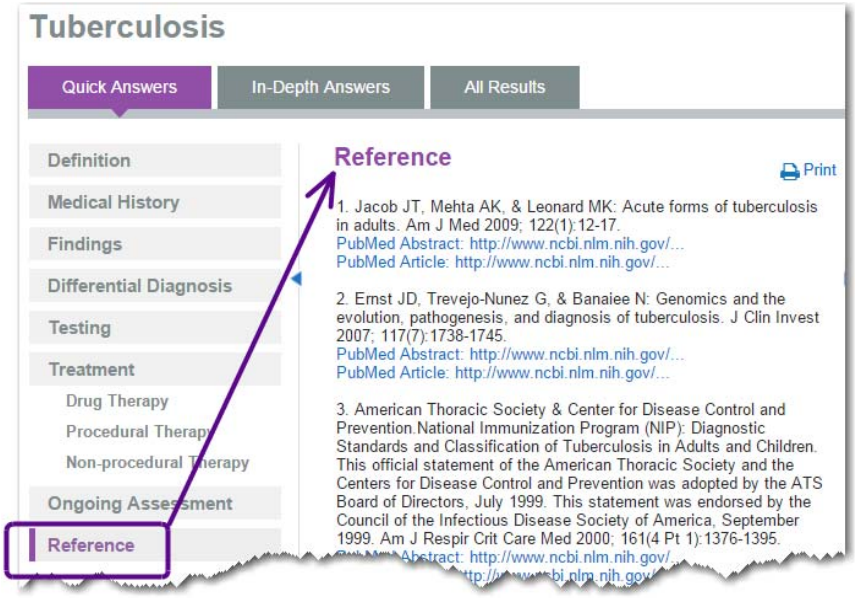
© 2017 Truven Health Analytics LLC



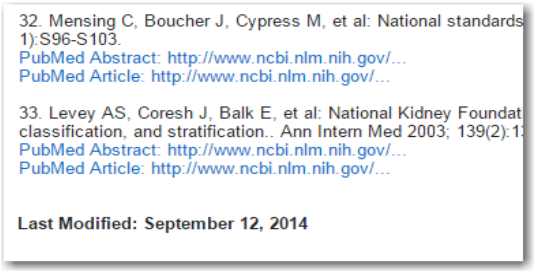
© 2017 Truven Health Analytics LLC

References

You can view the references by clicking on the **Reference** link in the left panel or by clicking a citation number with in the text, which opens a pop-up window containing the reference.



OR



Last Modified Date

Summary Disease Information includes a *last modified date* at the bottom of the Reference section.

© 2017 Truven Health Analytics LLC

Printing

Click the **Print** icon (Print) to print the summary monograph. For more details on printing see "Printing" on page 57.

DETAILED DISEASE INFORMATION

Detailed Disease General and Emergency Medicine Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Disease Information.

From the landing page click the **In-Depth Answers** tab, and the detailed disease monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for "sepsis" results in the Sepsis landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed disease monograph.

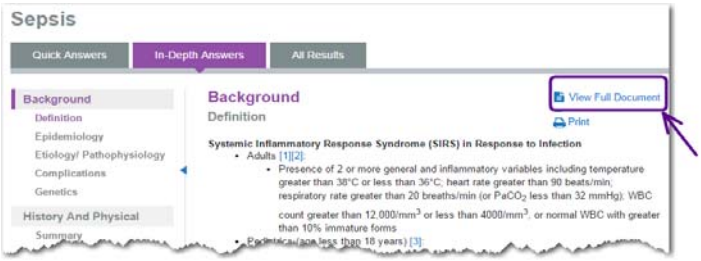
© 2017 Truven Health Analytics LLC

Navigating Document Sections

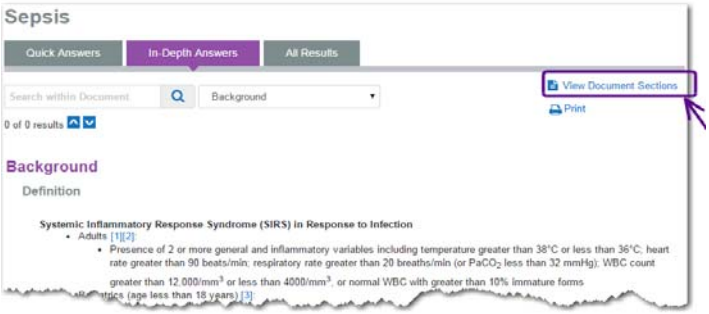
You can use the following methods to navigate within the detailed document sections:

- Arrow up/down keys
- Page up/down keys
- Browser scrollbar
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



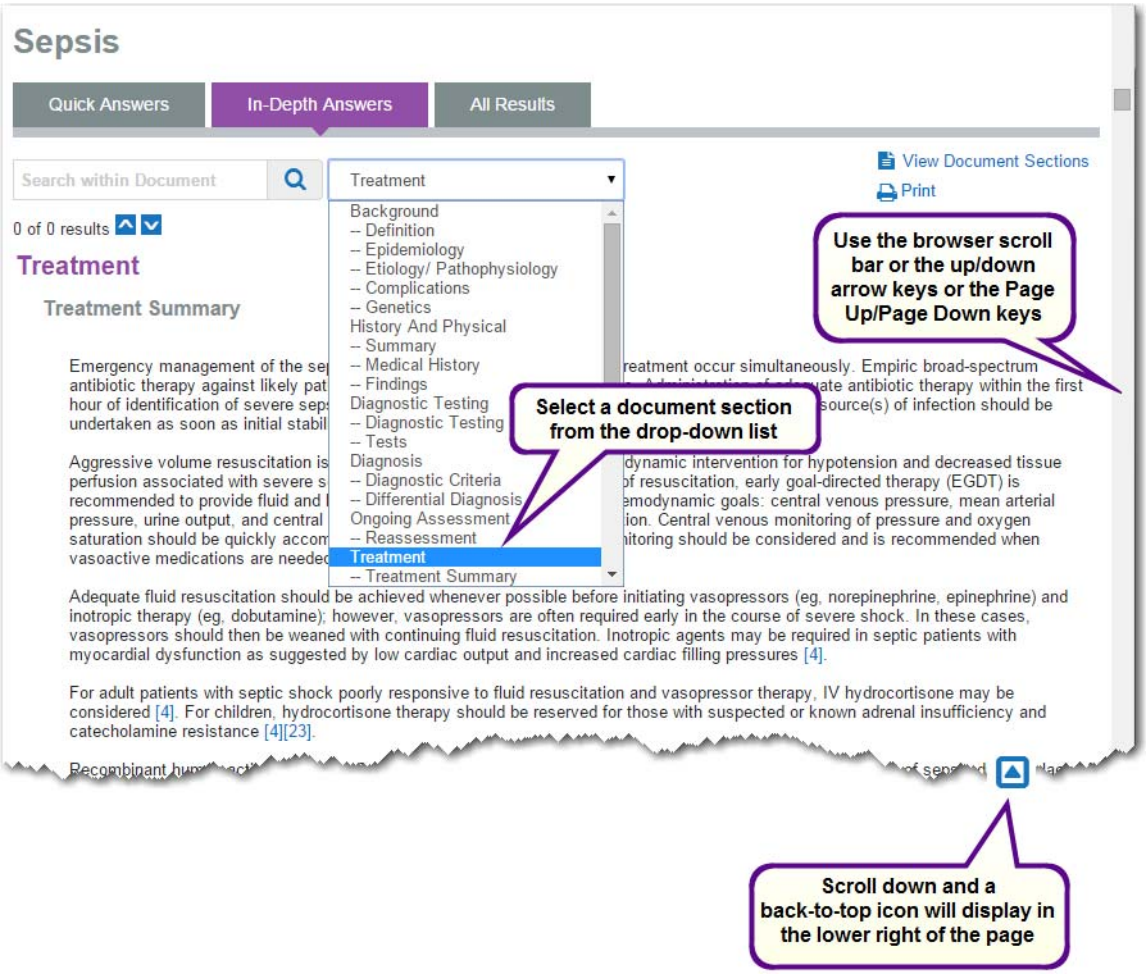
Click **View Document Sections** to return to the panel view.

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

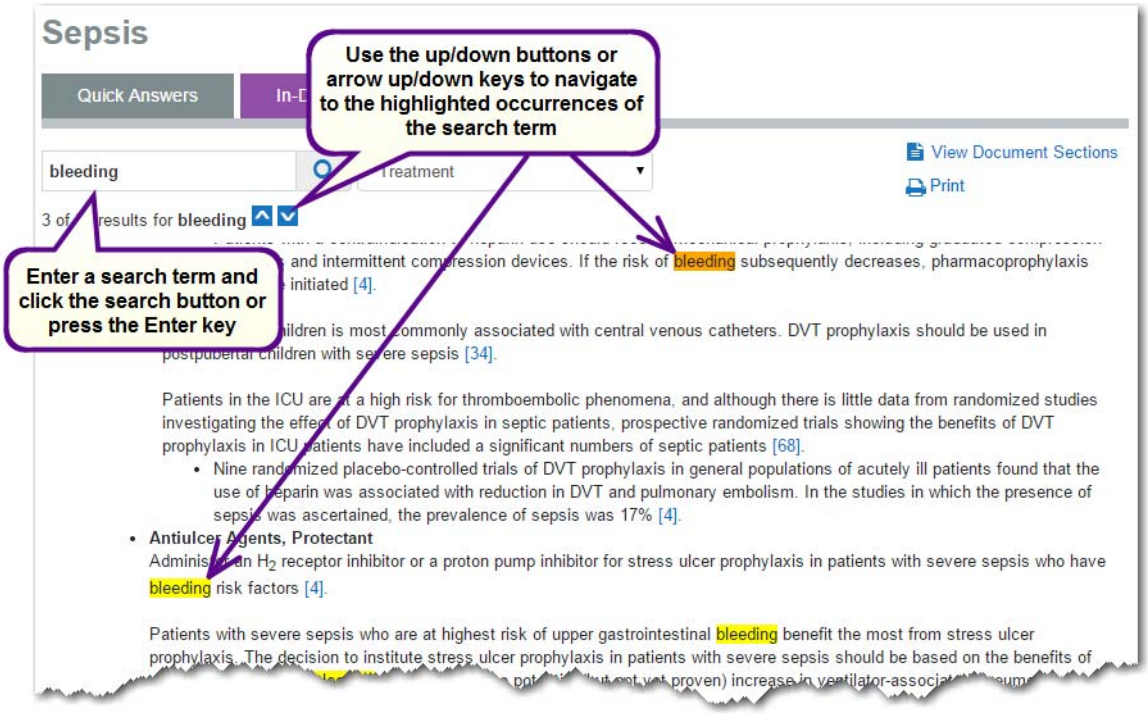
© 2017 Truven Health Analytics LLC



Searching Within a Document

When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down buttons** ( ) to move from one highlighted occurrence to another.

© 2017 Truven Health Analytics LLC



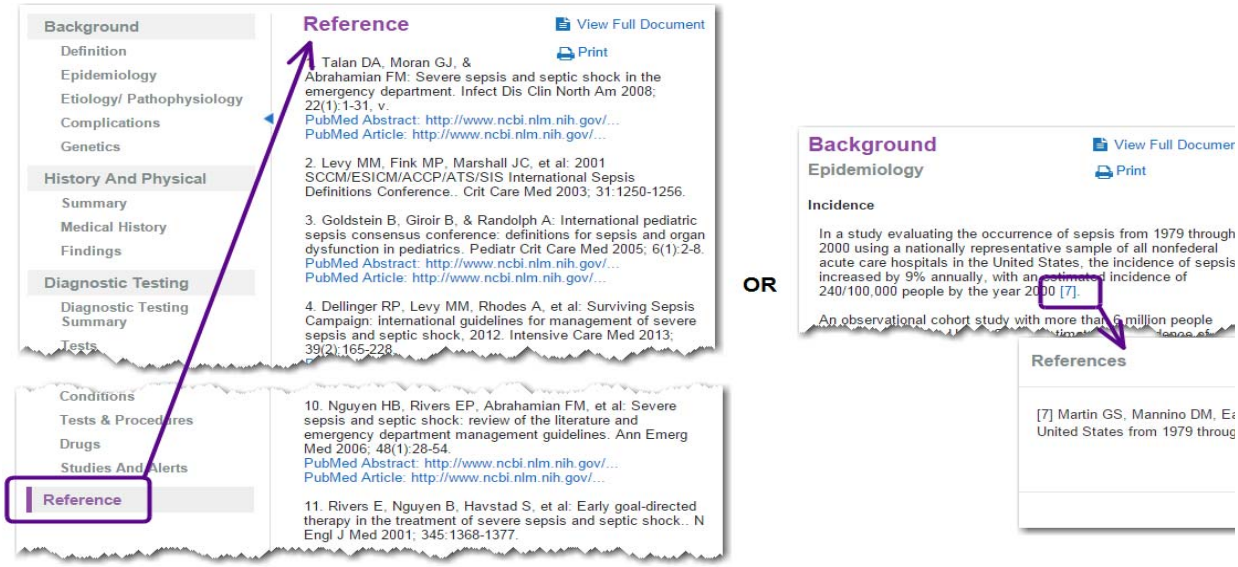
Printing

Click the Print icon (Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see "Printing" on page 57.

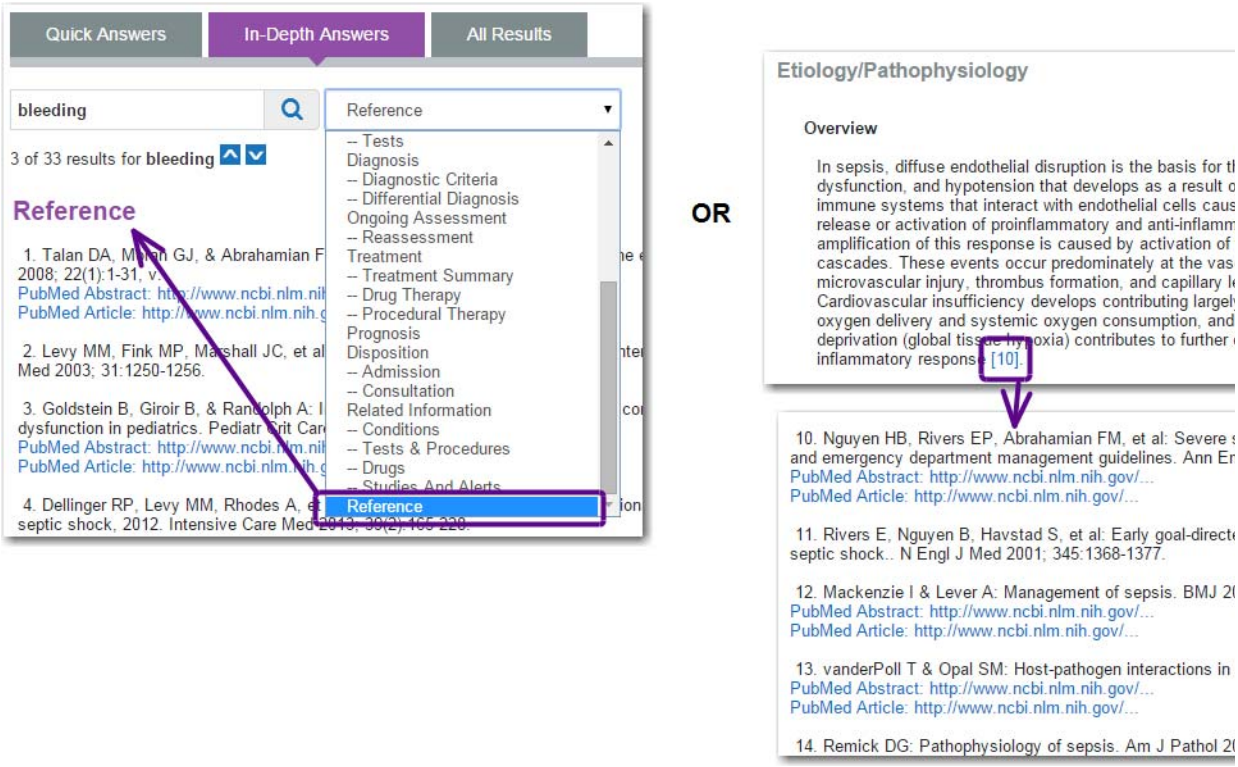
© 2017 Truven Health Analytics LLC

References

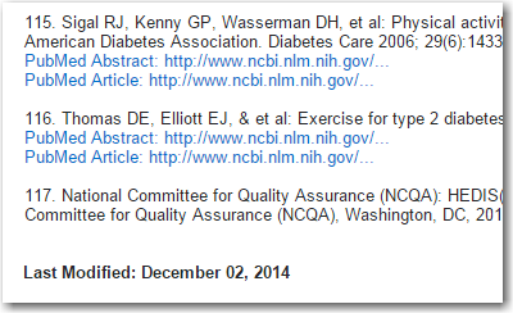
When in the panel view you can view the references by clicking on the **Reference** link in the left panel or by clicking a citation number within the text, which opens a pop-up window containing the reference.



When viewing the full document you can view the references by selecting **Reference** from the section drop-down box or by clicking a citation number within the text, which takes you to that specific reference in the Reference section.



© 2017 Truven Health Analytics LLC


115. Sigal RJ, Kenny GP, Wasserman DH, et al: Physical activit
American Diabetes Association. Diabetes Care 2006; 29(6):1433
PubMed Abstract: http://www.ncbi.nlm.nih.gov/...
PubMed Article: http://www.ncbi.nlm.nih.gov/...

116. Thomas DE, Elliott EJ, & et al: Exercise for type 2 diabetes
PubMed Abstract: http://www.ncbi.nlm.nih.gov/...
PubMed Article: http://www.ncbi.nlm.nih.gov/...

117. National Committee for Quality Assurance (NCQA): HEDIS(
Committee for Quality Assurance (NCQA), Washington, DC, 201

Last Modified: December 02, 2014

Last Modified Date

Detailed Disease Information includes a *last modified date* at the bottom of the Reference section.

RELATED RESULTS

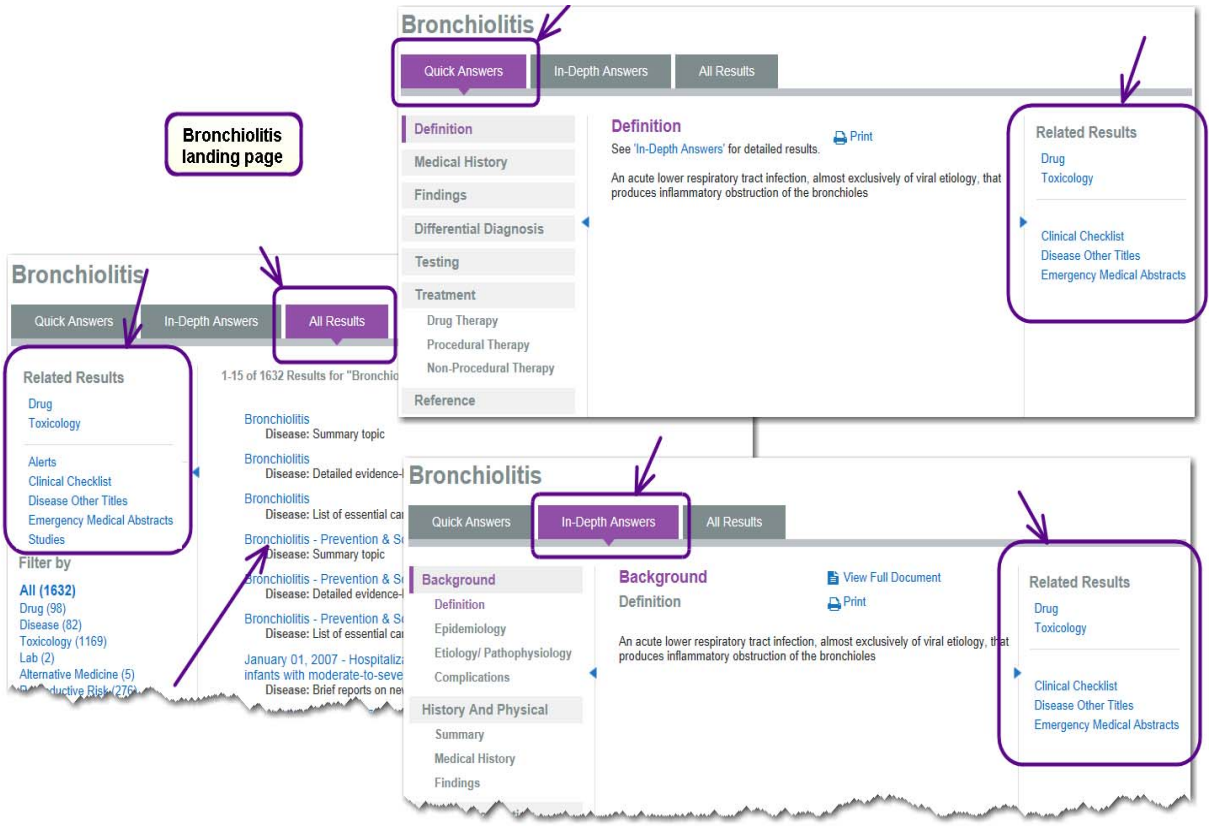
The following related disease information can be accessed from the landing page:

- Chapter 7: Alternative Medicine Information
- Chapter 4: Drug Information
- Chapter 6: Toxicology Information
- “Disease Other Titles” on page 104
- “Emergency Medical Abstracts” on page 104
- “Clinical Checklist™” on page 104

In the following example a search was performed for “bronchiolitis,” and the Bronchiolitis landing page was displayed. Links to related disease, drug, and toxicology information are

© 2017 Truven Health Analytics LLC

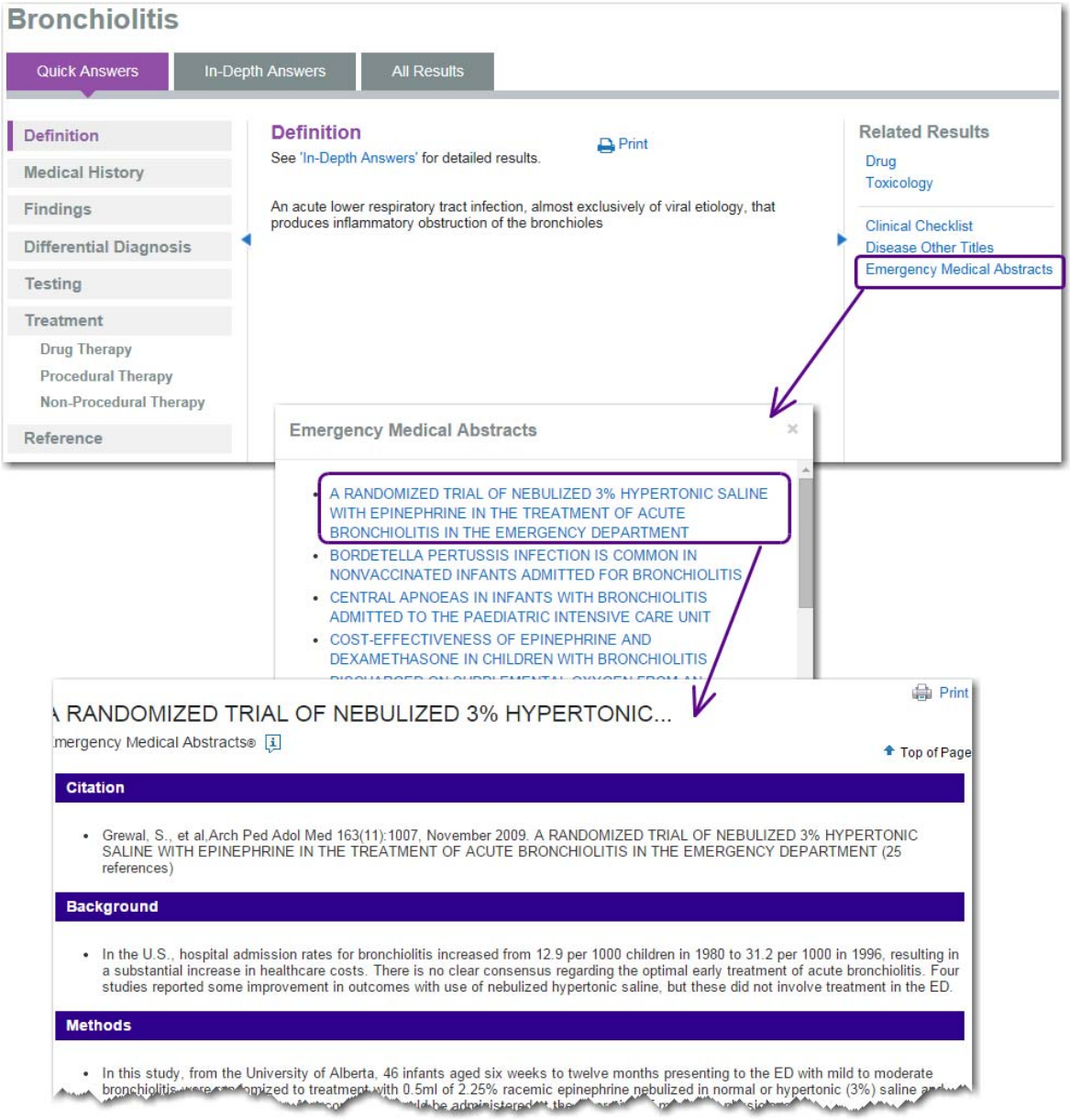
available in the right panel when viewing the *Quick Answers* and *In-Depth Answers t*ab and in the left panel when viewing the *All Results* tab.



For more information on landing pages see "Landing Pages" on page 16.

Clicking on a link under *Related Results* displays a list of the related documents. Click a title to display the document or landing page.

© 2017 Truven Health Analytics LLC



© 2017 Truven Health Analytics LLC

Disease Other Titles

Click this link to see other types of disease information documents for the same topic. The following type of disease information are available:

- *Acute* - Emergency or immediate care presentations
- *Chronic* - On-going health conditions and issues
- *Prevention & Screening* - Relevant assessment and screening information.

It is possible for a topic with an Acute or Chronic document to also have a Prevention & Screening document. The Acute or Chronic document displays via the landing page. You can click the **Disease Other Titles** link to see the Prevention & Screening document, if one exists.

Emergency Medical Abstracts

EMA from Rick Bukata, MD and Jerry Hoffman, MD is a definitive source of literature review covering a broad scope of topics.

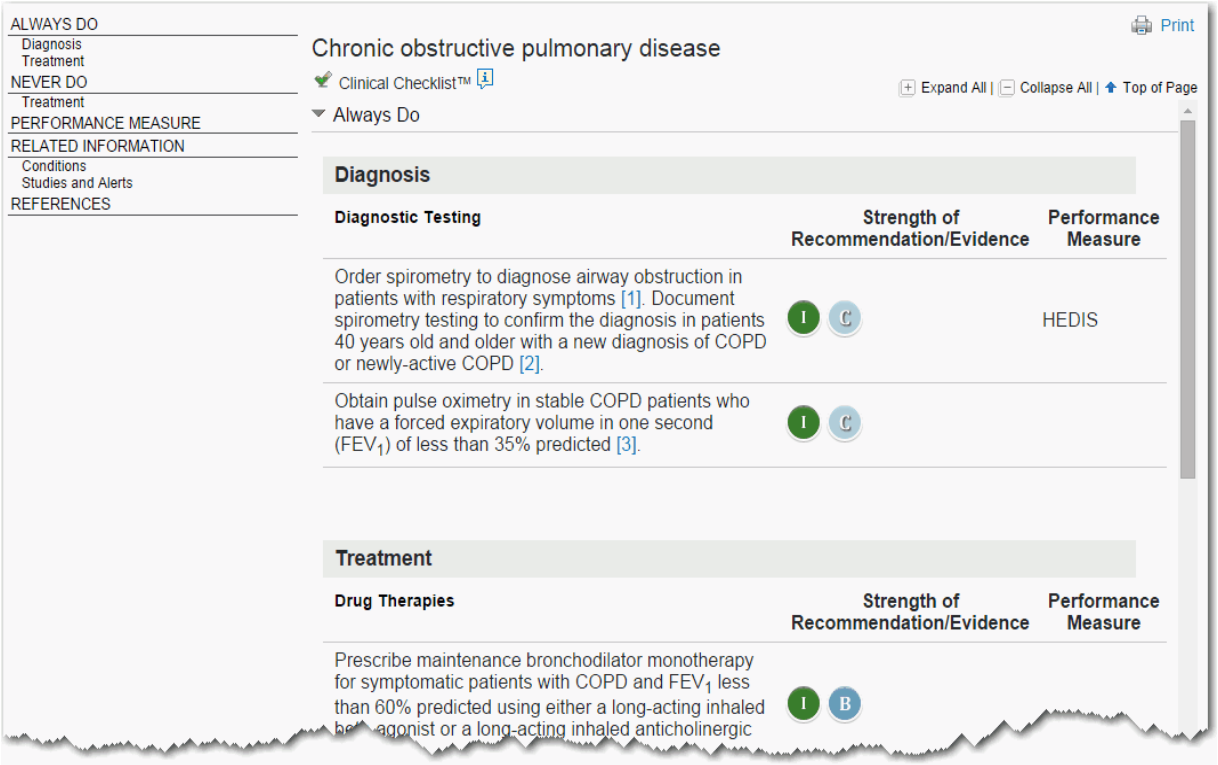
Clinical Checklist™

The Clinical Checklist system presents the "must do" "never do" patient care procedures and interventions. It is a compilation of the most pertinent patient care interventions on commonly encountered conditions that should always, or never, be done. The information is action-oriented, concise, and based on nationally recognized quality standards and the highest rated medical evidence.

Each checklist item contains graded recommendation and evidence information. These evidence ratings embed evidence-based medicine into clinical operations, and ultimately, maximize reimbursement by ensuring that clinical decisions are in compliance with the latest national quality standards and evidence-based practices.

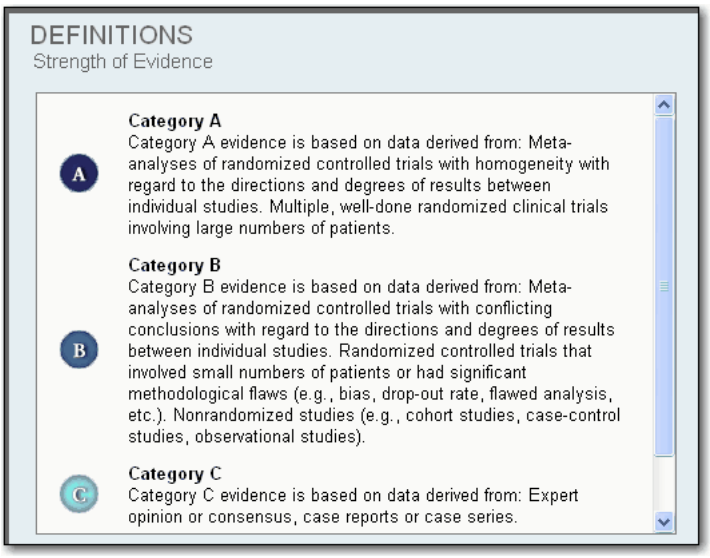
The Clinical Checklist topic may include links to other summaries for more detailed and in-depth information (based on your subscription). Links to related information in drug, lab, disease, and toxicology are also included when appropriate and available.

© 2017 Truven Health Analytics LLC



Each item is shown with the corresponding Strength of Recommendation and Strength of Evidence icon to visually portray the validity and strength associated with the information. Clicking the icon opens the definitions:

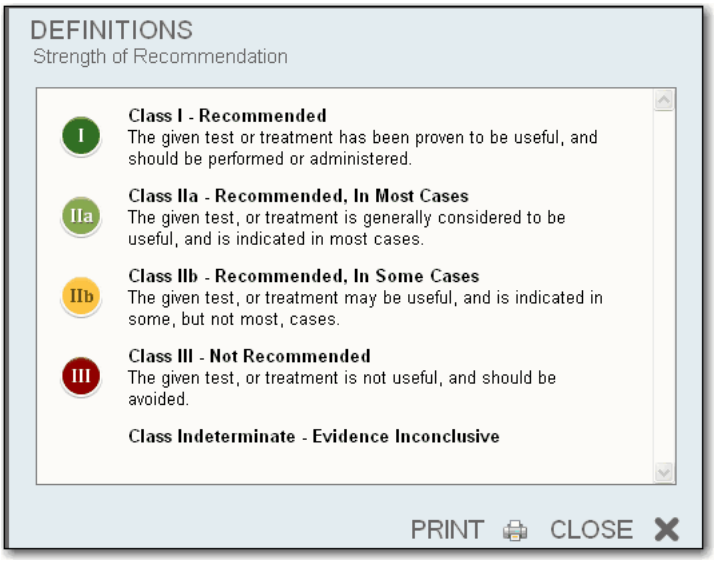
Strength of Evidence



A legend is also available at the bottom of the topic.

© 2017 Truven Health Analytics LLC

Strength of Recommendation



Performance Measures

Clinical Checklist can help clinicians and hospitals comply with key quality and performance measures (i.e., guidelines published by the Joint Commission, Centers for Medicare & Medicaid Services, etc.) at the point of care. Organizations providing credentialing standards or compliance measures are listed by their abbreviation in the Performance Measure column. The full organization name is found below the table.

Organizations

Currently six organizations performance measures are included:

Joint Commission - (formerly Joint Commission on Accreditation of Healthcare Organizations)

CMS - Centers for Medicare & Medicaid Services

AHRQ - Agency for Health Research & Quality

AH - American Healthways

NQF - National Quality Forum

HEDIS - Health Plan Employer Data and Information Set

© 2017 Truven Health Analytics LLC

CHAPTER 6: TOXICOLOGY INFORMATION

Accidental poisonings occur with even the most common and seemingly harmless substances. In such situations, having instant access to critical information can save lives. Relied upon in 100% of U.S. poison control centers, the Truven Health Analytics POISINDEX® System identifies ingredients for hundreds of thousands of commercial, biological, and pharmaceutical products. Micromedex® Solutions links that information directly to detailed documents providing data on clinical effects, range of toxicity, and treatment protocols for exposure.

We create a summary monograph and a detailed monograph for each topic. The Summary Toxicology Information monographs support quick decisions, and POISINDEX Detailed Toxicology monographs support further research and assist in the management of all toxic exposures. They include in-depth knowledge on lab tests, monitoring, toxicokinetics, and more and breaks out data by severity of exposure. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

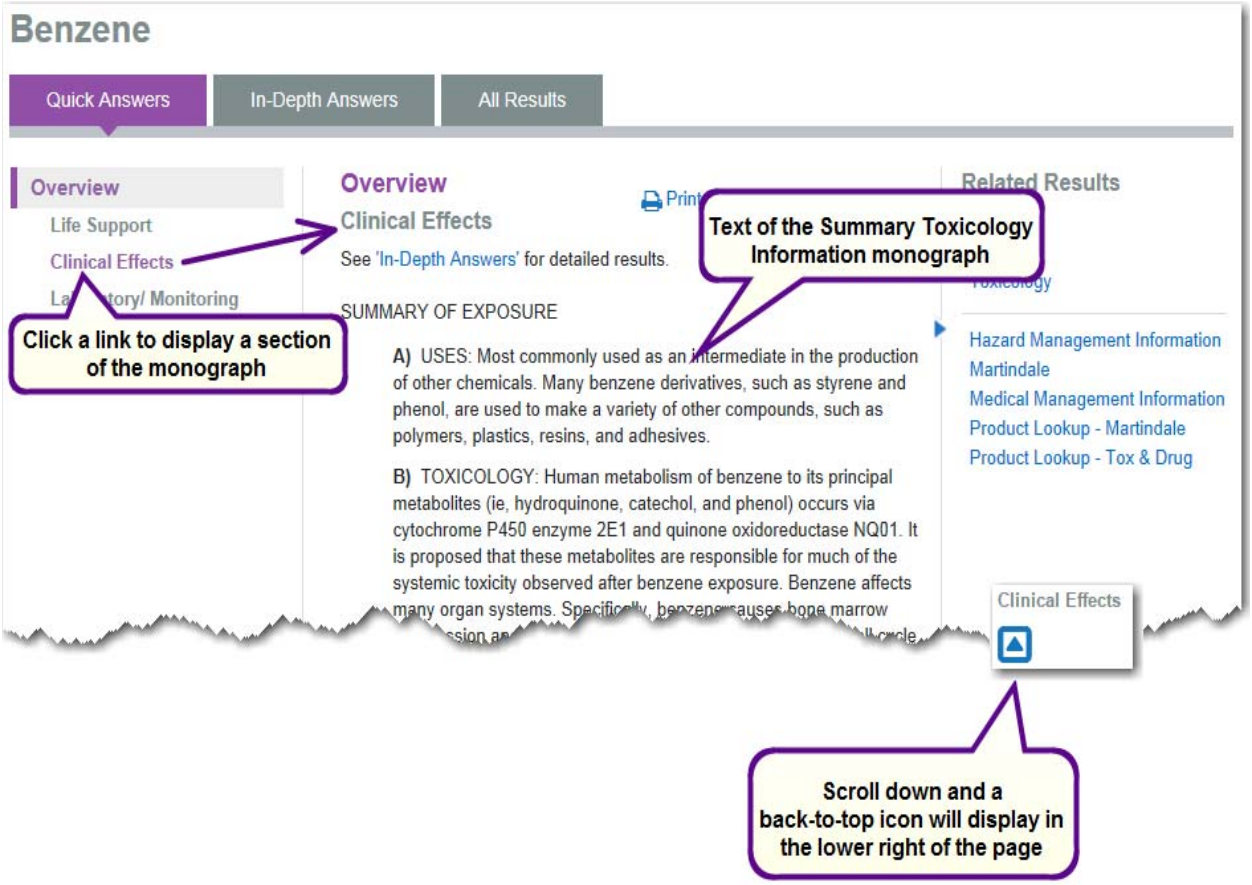
This chapter describes the types of toxicology information available in Micromedex Solutions. For information on how to search in Micromedex Solutions see "Chapter 3: Searching Micromedex Solutions" on page 13.

SUMMARY TOXICOLOGY INFORMATION

Summary Toxicology Information is succinct, actionable, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

For example, a search for “benzene” results in the following landing page:

© 2017 Truven Health Analytics LLC



Printing

Click the Print icon (Print) to print the summary monograph. For more details on printing see "Printing" on page 57.

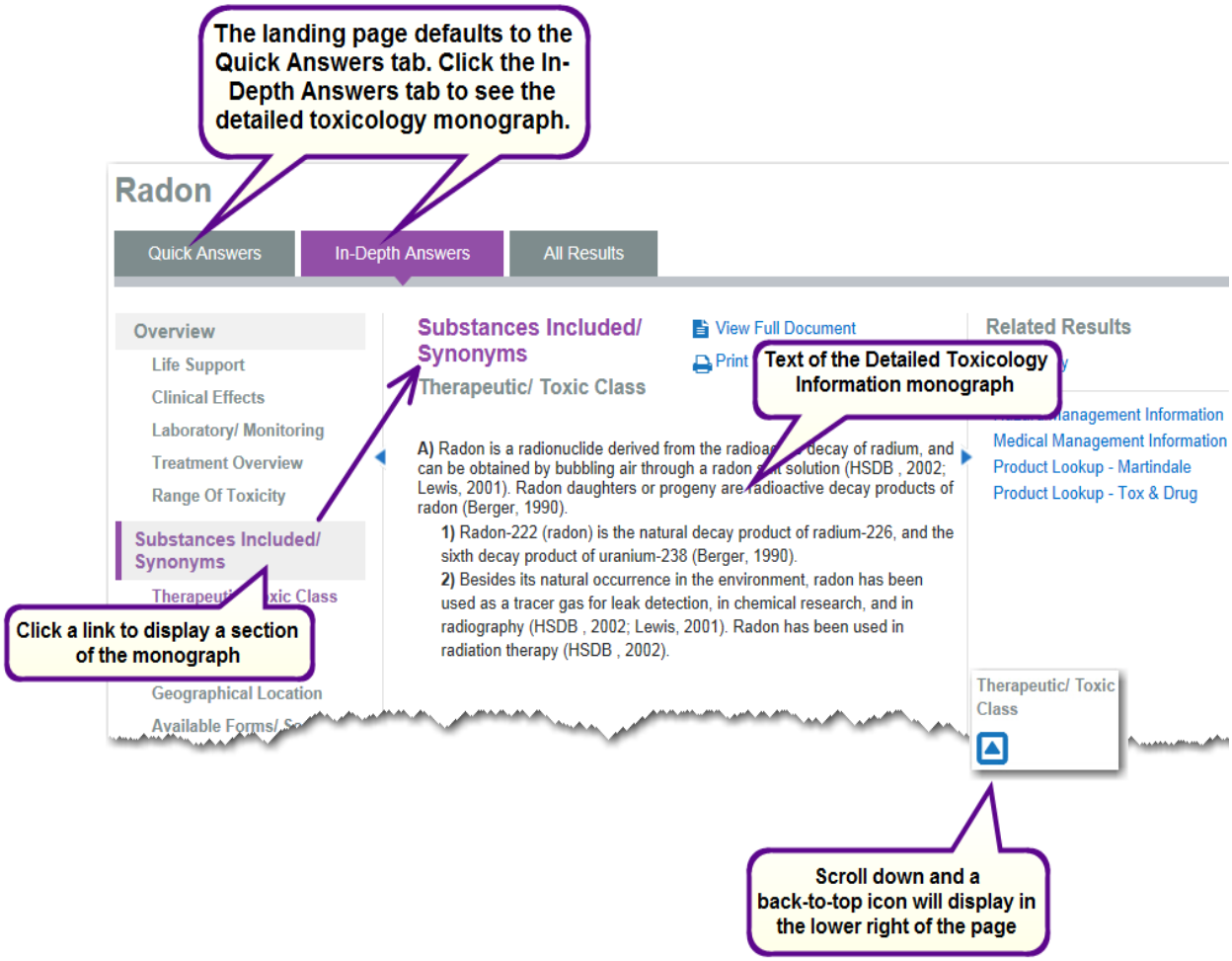
DETAILED TOXICOLOGY INFORMATION

Detailed Toxicology Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Toxicology Information.

From the landing page click the **In-Depth Answers** tab, and the detailed toxicology monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for "radon" results in the Radon landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed toxicology monograph.

© 2017 Truven Health Analytics LLC



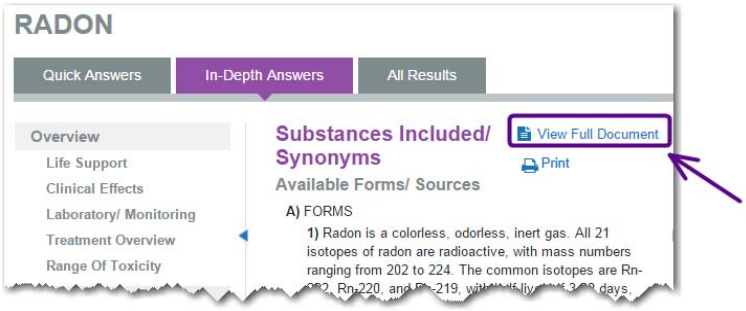
Navigating Document Sections

You can use the following methods to navigate within the detailed document sections:

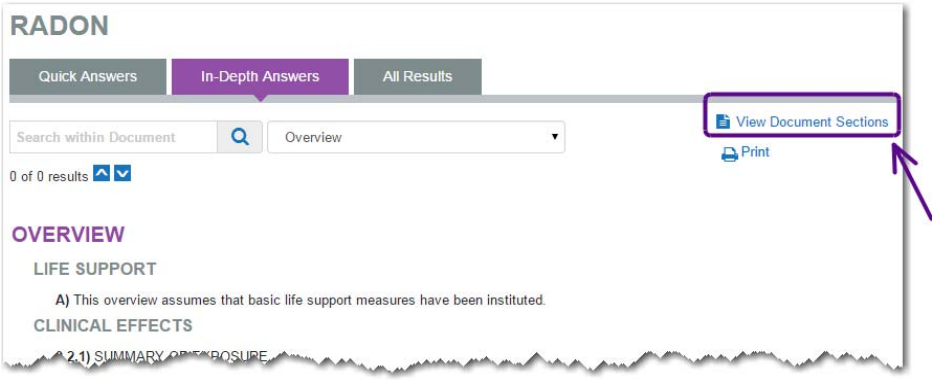
- Arrow up/down keys
- Page up/down keys
- Browser scrollbar
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

© 2017 Truven Health Analytics LLC

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph .



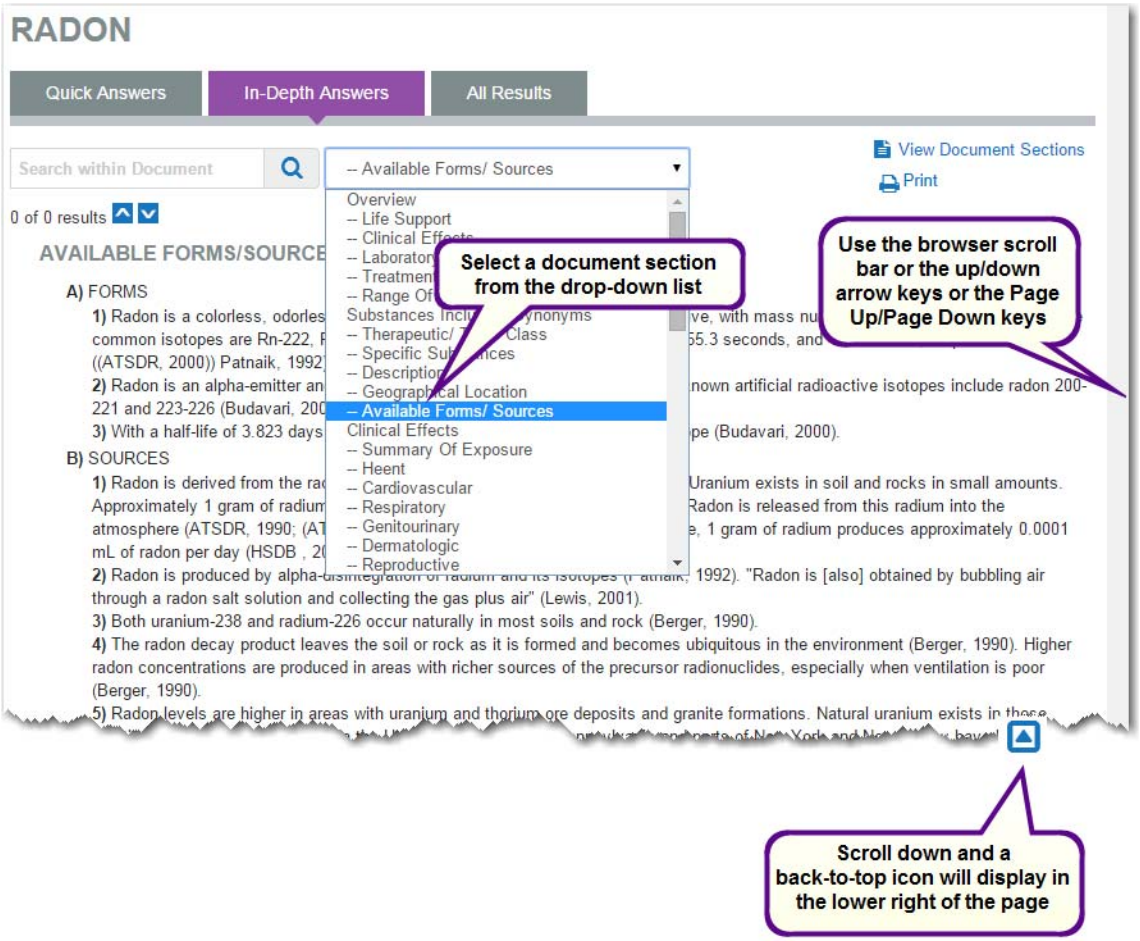
Click **View Document Sections** to return to the panel view.

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

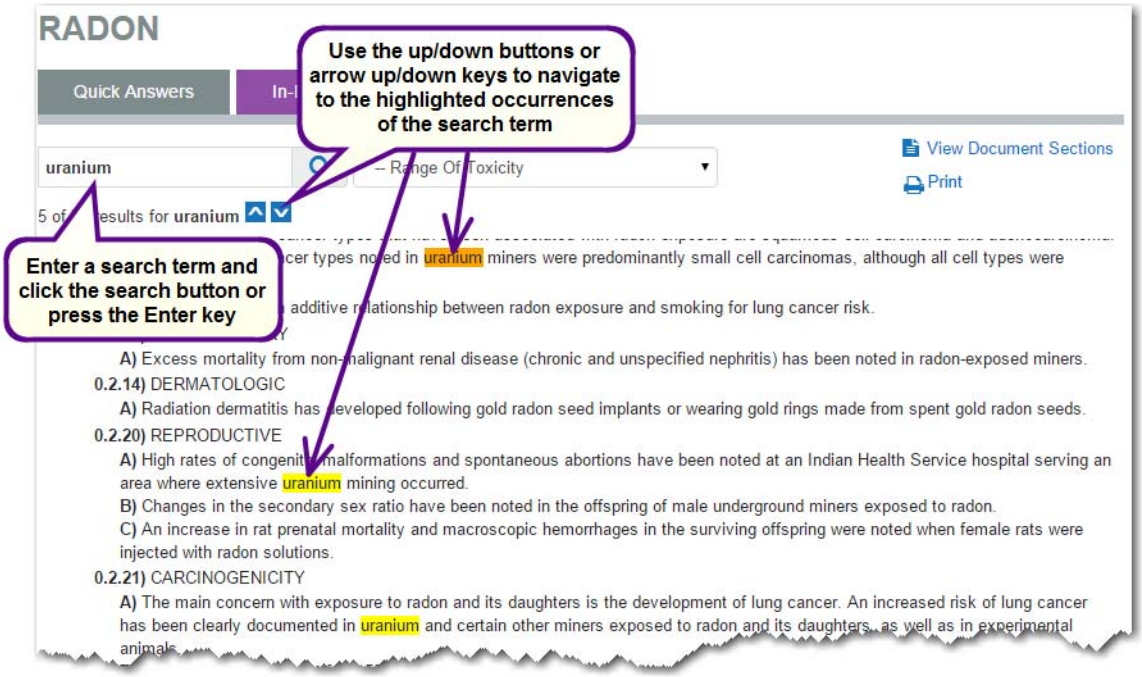
© 2017 Truven Health Analytics LLC



Searching Within a Document

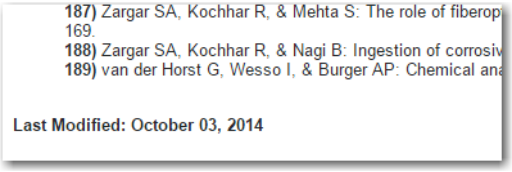
When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down buttons** ( ) to move from one highlighted occurrence to another.

© 2017 Truven Health Analytics LLC



Last Modified Date

Detailed Toxicology Information includes a *last modified date* at the bottom of the References-General Bibliography section.



Printing

Click the Print icon (Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see "Printing" on page 57.

RELATED RESULTS

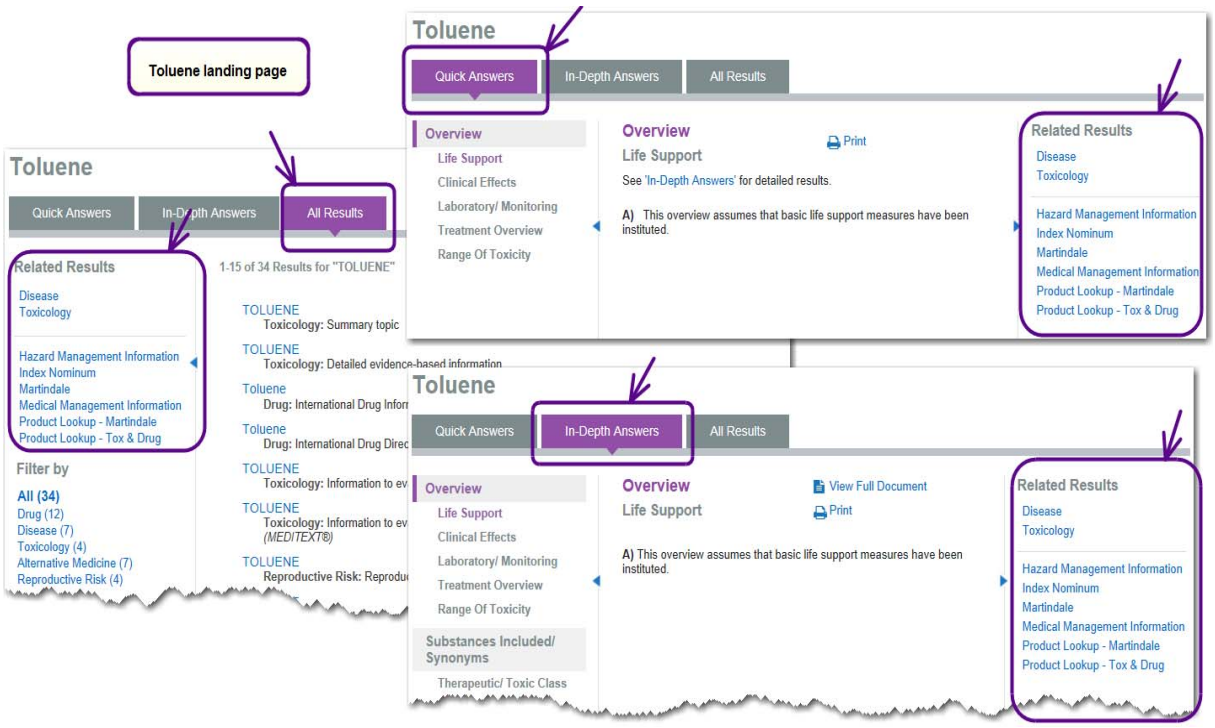
The following related information can be accessed from the landing page:

- Chapter 7: Alternative Medicine Information
- Chapter 5: Disease Information

© 2017 Truven Health Analytics LLC

- Chapter 4: Drug Information
- “Hazard Management Information” on page 115
- “Index Nominum” on page 115
- “Martindale” on page 115
- “Medical Management Information” on page 115
- “MSDS (Material Safety Data Sheets)” on page 115
- “Product Lookup - Martindale” on page 115
- “Product Lookup - Tox & Drug” on page 115

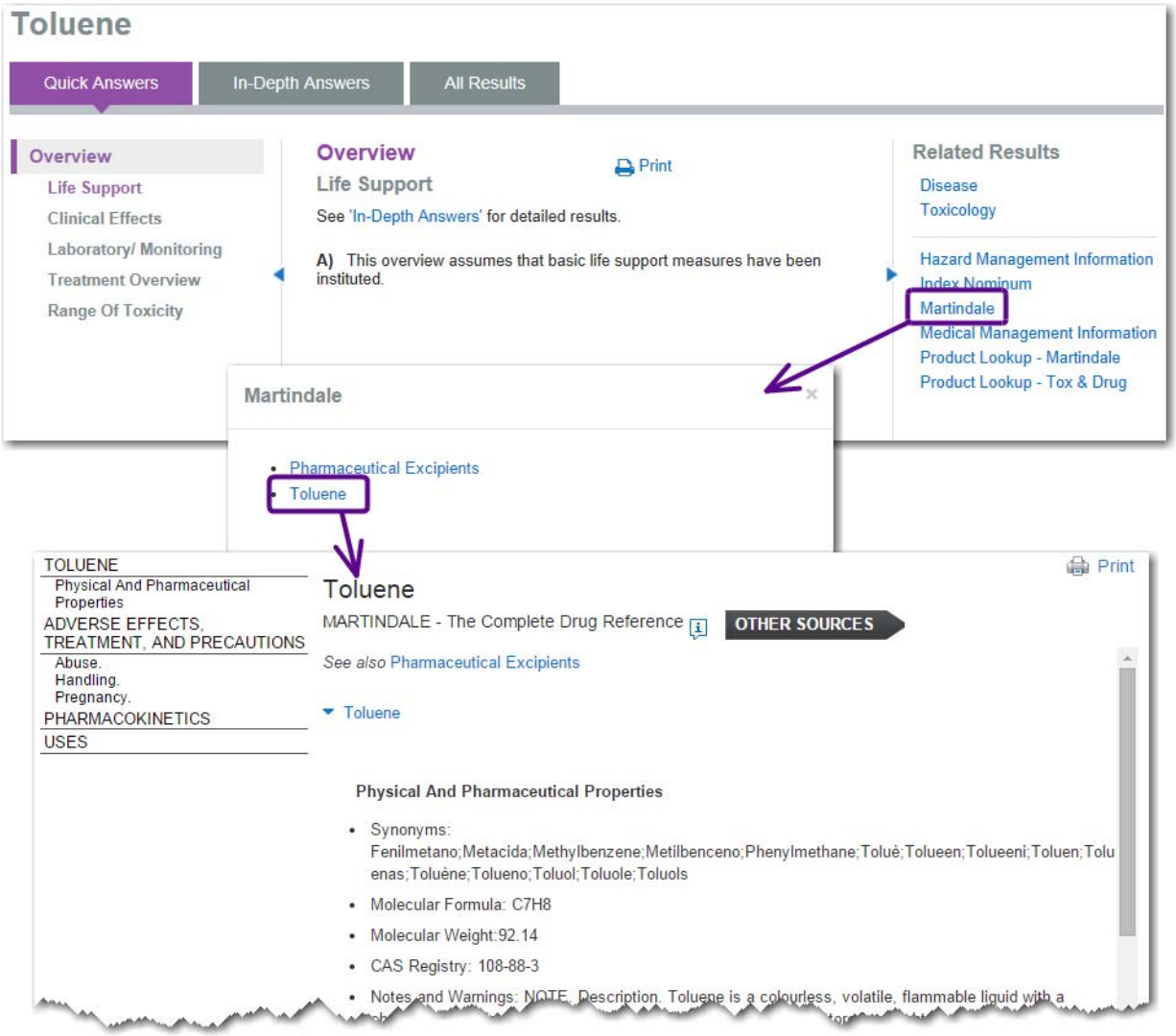
In the following example a search was performed for “toluene,” and the Toluene landing page was displayed. Links to related results are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers t*ab and in the left panel when viewing the *All Results* tab.



For more information on landing pages see “Landing Pages” on page 16.

Clicking on a link under *Related Results* displays a list of the related documents. Click a title to display the document or landing page.

© 2017 Truven Health Analytics LLC



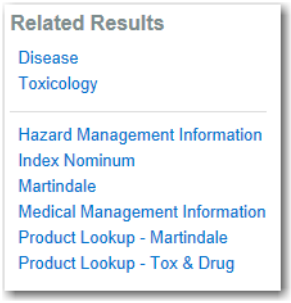
© 2017 Truven Health Analytics LLC

Hazard Management Information

Hazard Management Information documents can help you understand the issues related to environmental impact including how to implement emergency reaction to chemicals and their impact: Fire, Clean up, Personal protection. These documents also help you manage chemicals safely in the workplace.

Index Nominum

Recognized worldwide, Index Nominum is an international drug directory providing access to over 5,300 substances and derivatives, more than 12,800 synonyms, and over 41,800 tradenames from more than 45 countries. For more details see "Index Nominum" on page 238.



Martindale

This content offers extensive, unbiased, evaluated information on worldwide drugs and related substances. It provides quick and easy searching for pharmacological and therapeutic data, synonyms, and manufacturers' brand names. For more details see "Martindale: The Complete Drug Reference" on page 239.

Medical Management Information

The Medical Management Information monographs can help you evaluate issues associated with exposure. They deliver information on acute exposure, treatment, and adverse health effects.

MSDS (Material Safety Data Sheets)

Prepared by the US Pharmacopeial Convention, Material Safety Data Sheets are a vital part of every hospital/company Hazard Communication Program. This electronic version of more than 1,000 MSDS issued by the US Pharmacopeial Convention offers quick access to drug and chemical information, including health hazards, handling procedures, and government regulations.

Product Lookup - Martindale

Clicking this link performs a search for *Globally distributed drug products in Martindale* in the Tox & Drug Product Lookup tool. See Chapter 14: Tox & Drug Product Lookup Tool for more details.

Product Lookup - Tox & Drug

Clicking this link performs a *Product or substance name* search in the Tox & Drug Product Lookup tool. See Chapter 14: Tox & Drug Product Lookup Tool for more details.

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

CHAPTER 7: ALTERNATIVE MEDICINE INFORMATION

Self-medicating with herbals and other dietary supplements is commonplace, as is treatment with acupuncture, chiropractic care, and homeopathy. You can give your patients a better understanding of these healthcare alternatives with the information found in the alternative medicine content of Micromedex® Solutions.

Micromedex can provide you a reliable, comprehensive source of referenced, scientifically sound information about complementary and alternative medicine (CAM) therapies and practices. Designed for healthcare professionals, the information found in Alternative Medicine Information is an indispensable tool for answering the growing number of patients' CAM questions and exploring the possibilities.

We create a summary monograph and a detailed monograph for each topic. The Summary Alt Med Information monographs support quick decisions at the point of care, and the In Depth Alt Med Information monographs support further research and aid clinicians when making difficult treatment decisions. Because one editorial group creates all the Micromedex content, treatment recommendations are consistent.

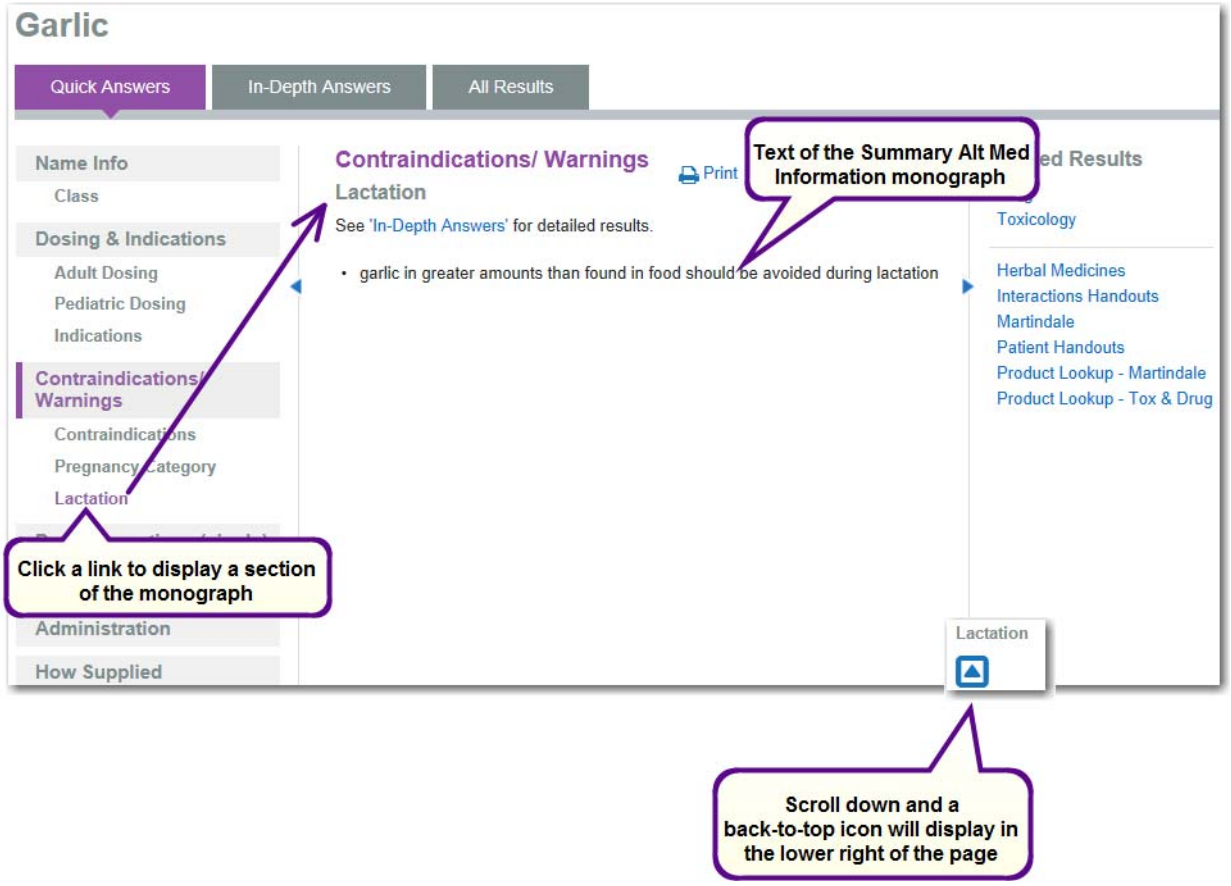
This chapter describes the types of alternative medicine information available in Micromedex Solutions. For information on how to search in Micromedex Solutions see "Chapter 3: Searching Micromedex Solutions" on page 13.

SUMMARY ALT MED INFORMATION

Summary Alt Med Information is succinct, actionable at the point-of-care, and designed to get you an answer very quickly. It is displayed on the middle panel of the *Quick Answers* tab on the landing page. The left panel contains links for navigating the sections of the summary monograph. Click on a link to display that section in the middle panel.

For example, a search for “garlic” results in the Garlic landing page being displayed:

© 2017 Truven Health Analytics LLC



Printing

Click the **Print** icon (Print) to print the summary monograph. For more details on printing see "Printing" on page 57.

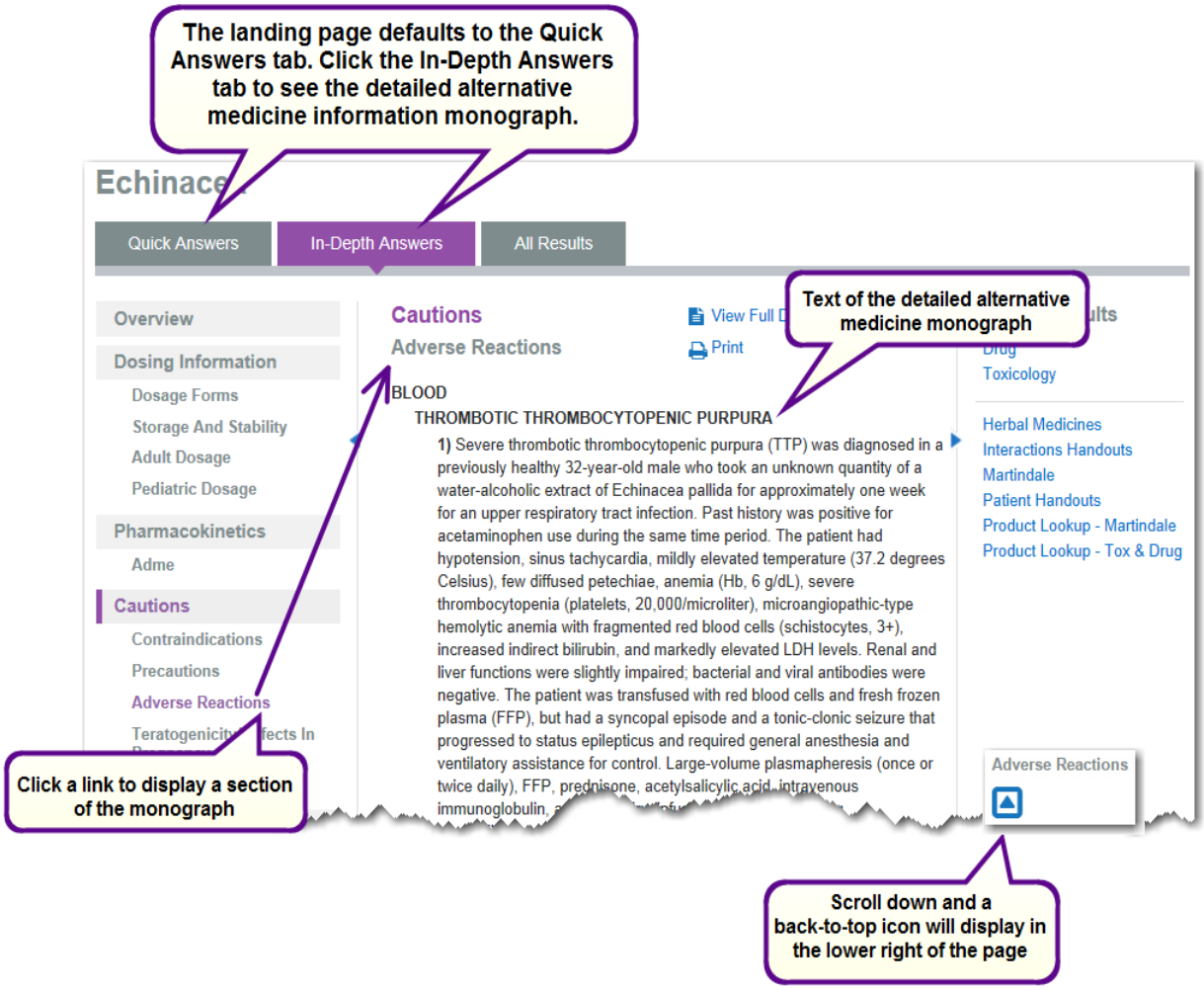
IN DEPTH ALT MED INFORMATION

In Depth Alt Med Information contains the details required to answer more complex questions, and it is clinically consistent with the Summary Alt Med Information.

From the landing page click the **In-Depth Answers** tab, and the detailed alternative medicine monograph is displayed in the middle panel. The left panel contains links for navigating the sections of the detailed monograph. Click on a link to display that section in the middle panel.

For example, a search for "echinacea" results in the Echinacea landing page, which defaults to the *Quick Answers* tab. Click the **In-Depth Answers** tab to view the detailed alternative medicine monograph.

© 2017 Truven Health Analytics LLC



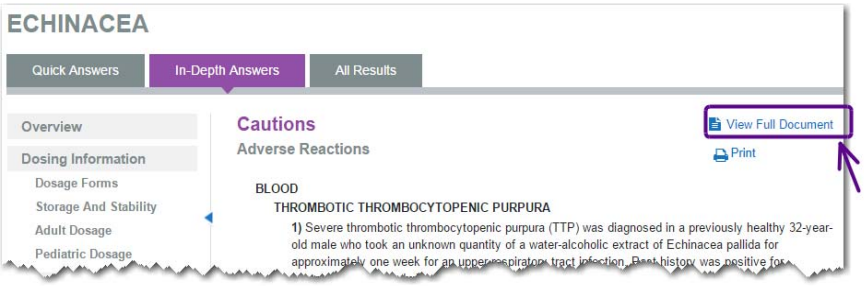
Navigating Document Sections

You can use the following methods to navigate within the detailed document sections:

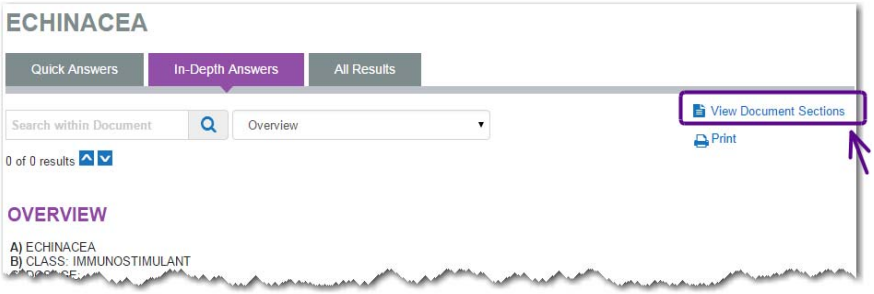
- Arrow up/down keys
- Page up/down keys
- Browser scrollbar
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

© 2017 Truven Health Analytics LLC

Viewing the Full Document



Click **View Full Document** to view the entire detailed monograph.



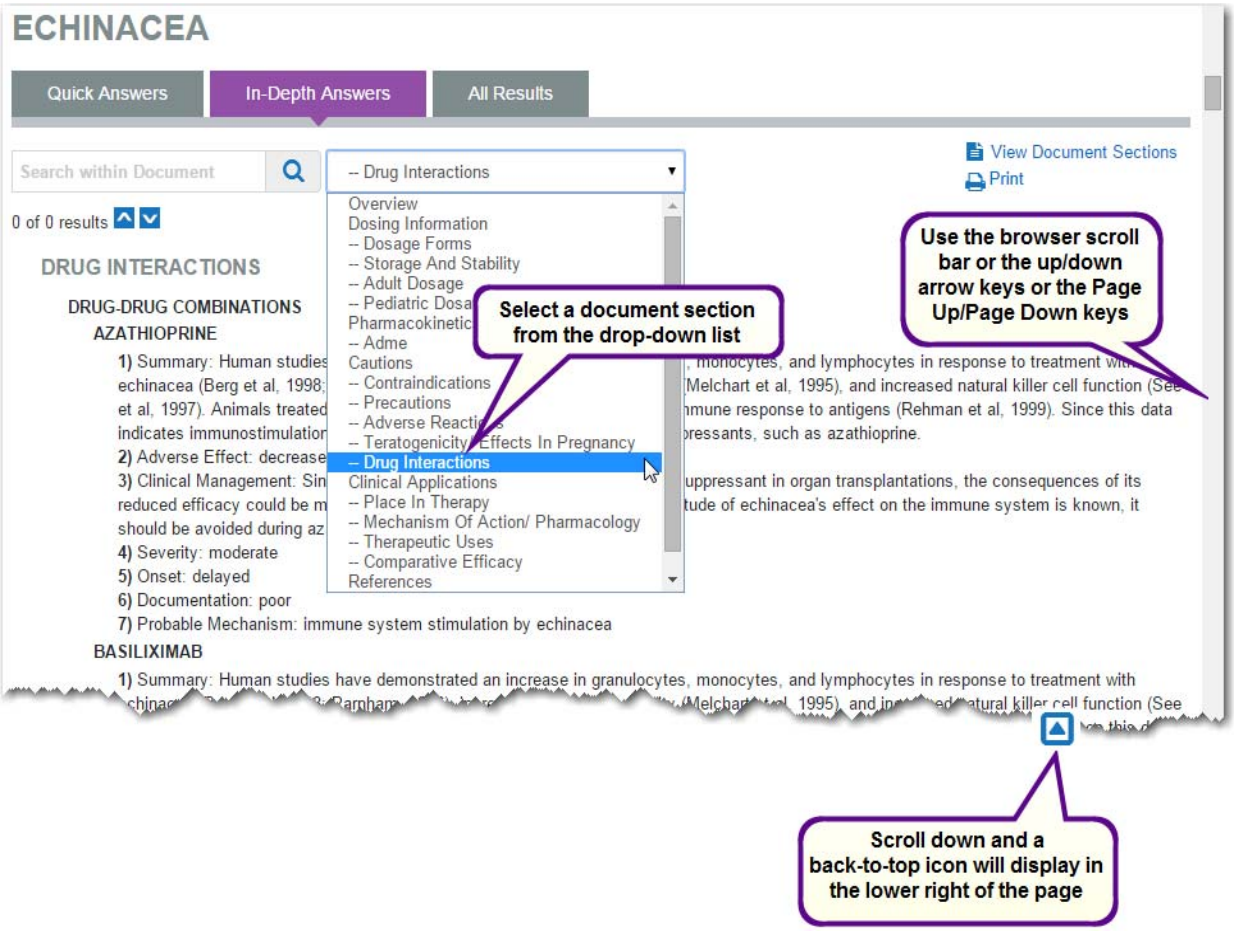
Click **View Document Sections** to return to the panel view.

Navigating the Full Document

When viewing the full detailed monograph you have the following options for moving within the document:

- Arrow Up/Down keys
- Page Up/Page Down keys
- Browser scrollbar
- Drop-down box under the landing page tabs - Select a document section from this list to go directly to that section.
- If you move down in the monograph, a back-to-top icon displays in the lower right of the page.

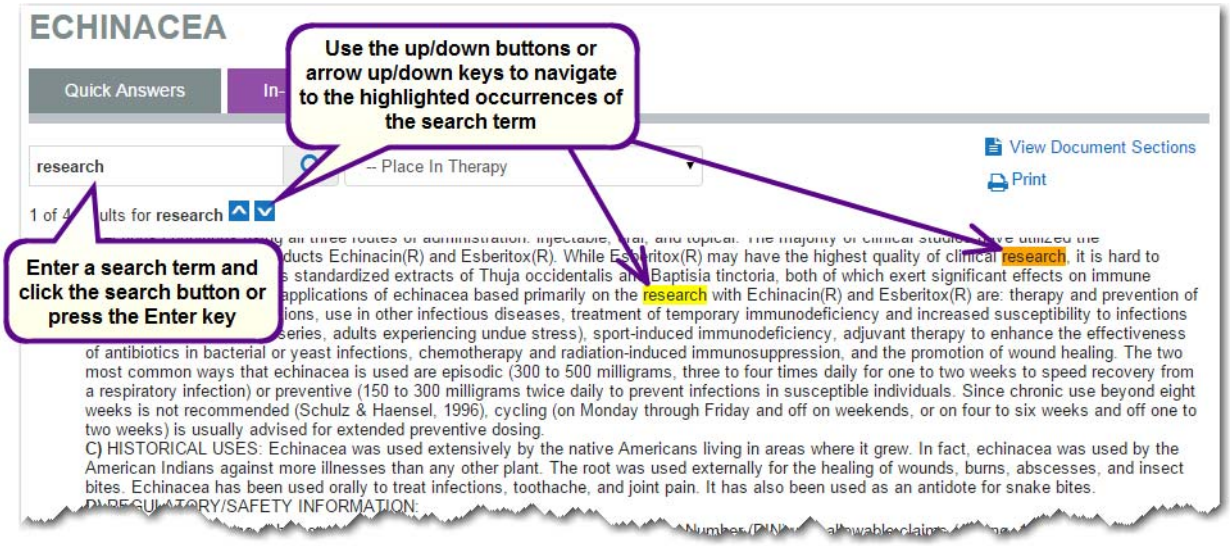
© 2017 Truven Health Analytics LLC



Searching Within a Document

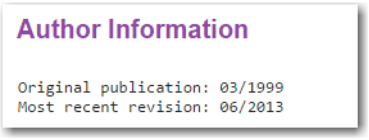
When viewing the full detailed monograph you can search within the document. Simply enter a word or phrase in the search box located below the landing page tabs and click the **search button** or press the **Enter** key. The first occurrence of your search term is highlighted in orange, and subsequent occurrences are highlighted in yellow. Use the **arrow up/down** keys or the **up/down buttons** ( ) to move from one highlighted occurrence to another.

© 2017 Truven Health Analytics LLC



Most Recent Revision

In Depth Alt Med Information contains a *most recent revision date* in the Author Information section.



Printing

Click the Print icon (Print) to print the detailed monograph. This is available when viewing the document sections or the full document. For more details on printing see "Printing" on page 57.

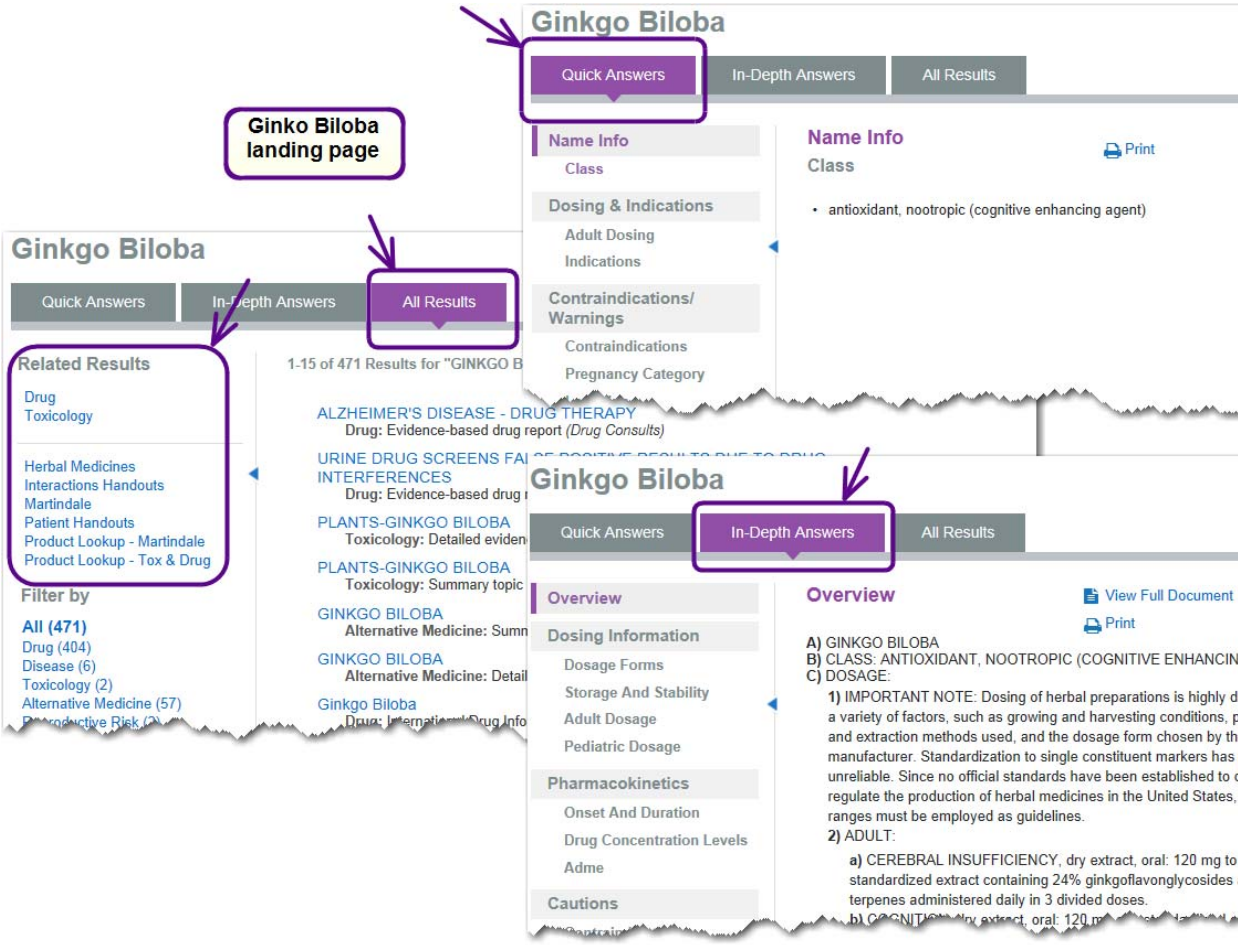
RELATED RESULTS

The following related information can be accessed from the landing page:

- Chapter 5: Disease Information
- Chapter 4: Drug Information
- Chapter 6: Toxicology Information
- "Herbal Medicines" on page 125
- "Interactions Handouts" on page 125
- "Martindale" on page 125
- "Patient Handouts" on page 125

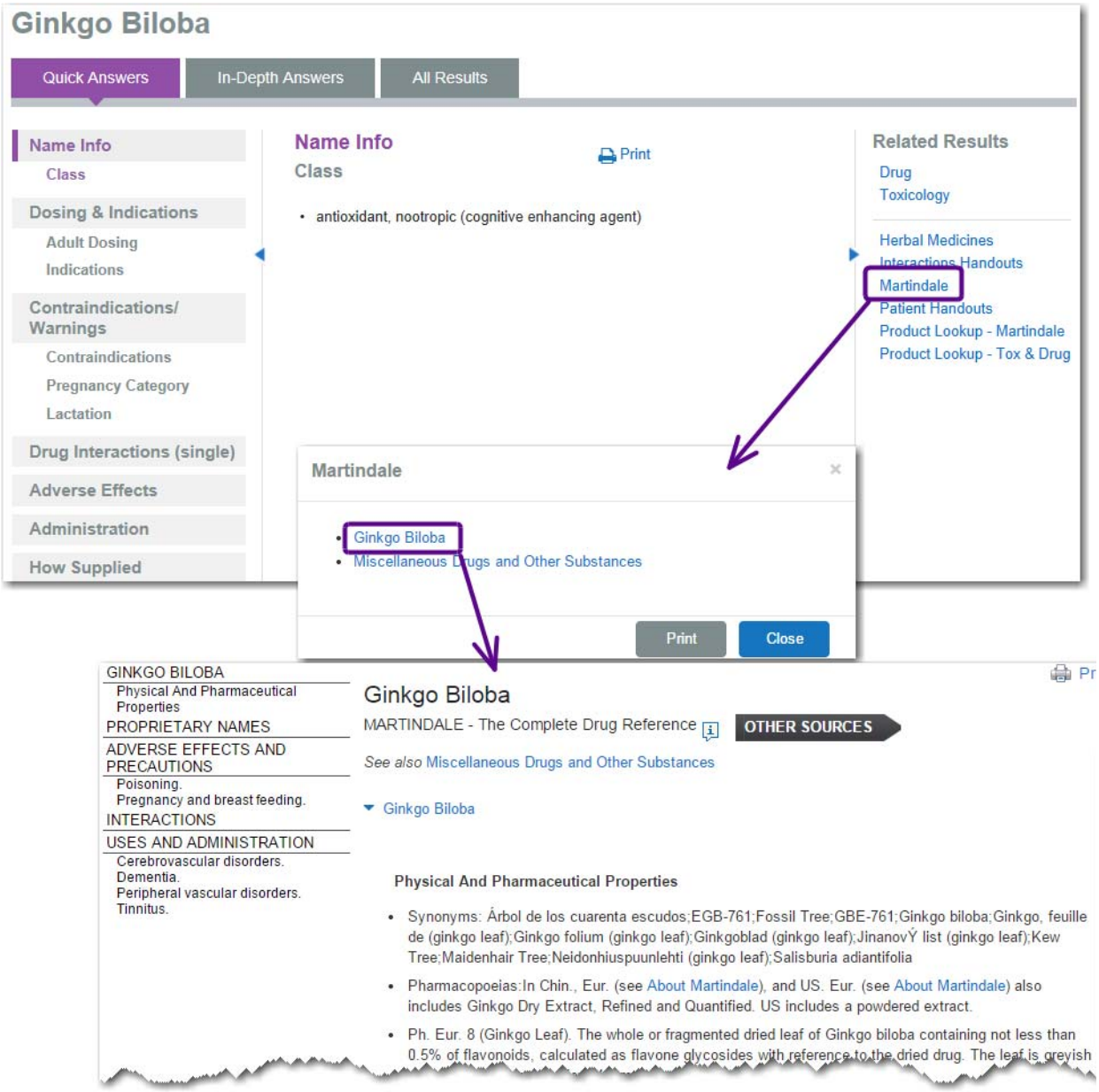
© 2017 Truven Health Analytics LLC

In the following example a search was performed for “ginkgo,” and the Ginkgo Biloba landing page is displayed. Links to related results are available in the right panel when viewing the *Quick Answers* and *In-Depth Answers t*ab and in the left panel when viewing the *All Results* tab.



Clicking on a link under *Related Results* displays a list of the related documents. Click a title to display the document or landing page.

© 2017 Truven Health Analytics LLC



© 2017 Truven Health Analytics LLC

Herbal Medicines

Herbal Medicines: A Guide for Health-Care Professionals, published by the Pharmaceutical Press, London, UK, presents fully referenced information to assist with the identification, application, safe use, and assessment of commonly found herbal medicines. Its quick, easy-to-access content addresses pharmacological actions, side effects, contraindications, and safety and efficacy issues.

Interactions Handouts

Alternative Medicine Reactions documents contain easy-to-understand materials to help you educate patients about potential herbal and dietary supplement interactions. They discuss the potential for interactions between alternative medicines and other drugs, dietary supplements, food, alcohol, and tobacco. Designed to help educate patients, supporting evidence and advice about what to do if experiencing an interaction are included.

Martindale

This content offers extensive, unbiased, evaluated information on worldwide drugs, herbs, and related substances. It provides quick and easy searching for pharmacological and therapeutic data, synonyms, and manufacturers' brand names. For more details see "Martindale: The Complete Drug Reference" on page 239.

Patient Handouts

Alternative Medicine for Patient documents offer fully referenced patient counseling materials, written and peer reviewed by representatives from both conventional Western medicine and the alternative medicine communities. For more details see **"Alternative Medicine for Patient" on page 232**.

OTHER ALTERNATIVE MEDICINE INFORMATION

In addition to the Summary Atl Med Information and In Depth Alt Med Information and their related documents, all searches in Micromedex Solutions included the following alternative medicine content:

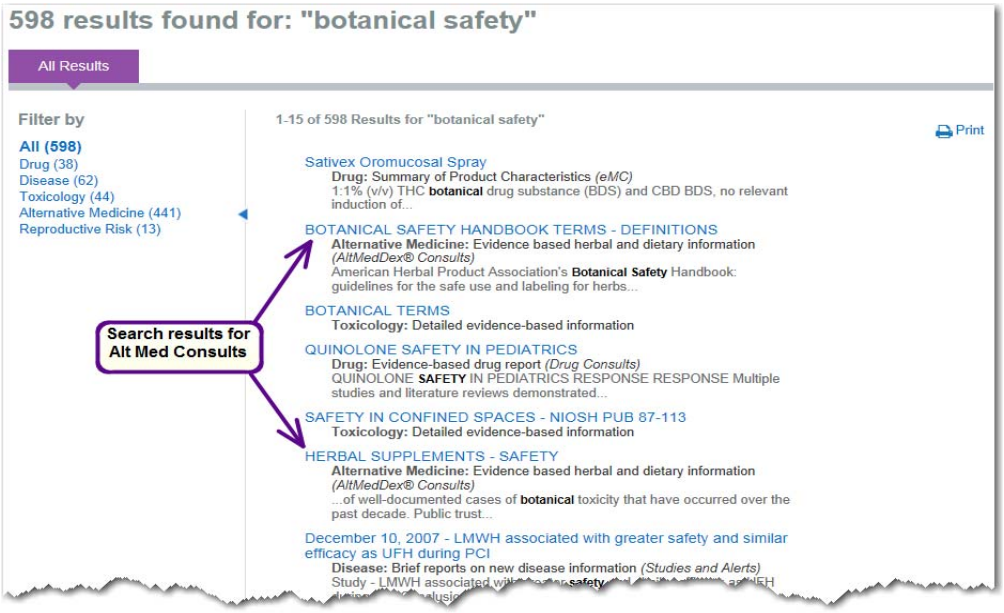
- **Alt Med Consults** - These documents provide crucial information of interest to those needing information on herbal medicines and other dietary supplements. Topics include FDA warnings, pregnancy risk categories, and guidelines on dosing, safety and efficacy issues.
- **Alt Med Protocols** - Alt Med Protocols provide complementary and alternative medicine (CAM) information and recommends methods for successfully blending CAM therapies with conventional medicine to offer patients a full range of options and help optimize their treatment outcomes.

The following examples depict scenarios where these documents are available from the intermediate search results. For more details on intermediate search results see "Intermediate Search Results" on page 54.

Example 1 - Alt Med Consults

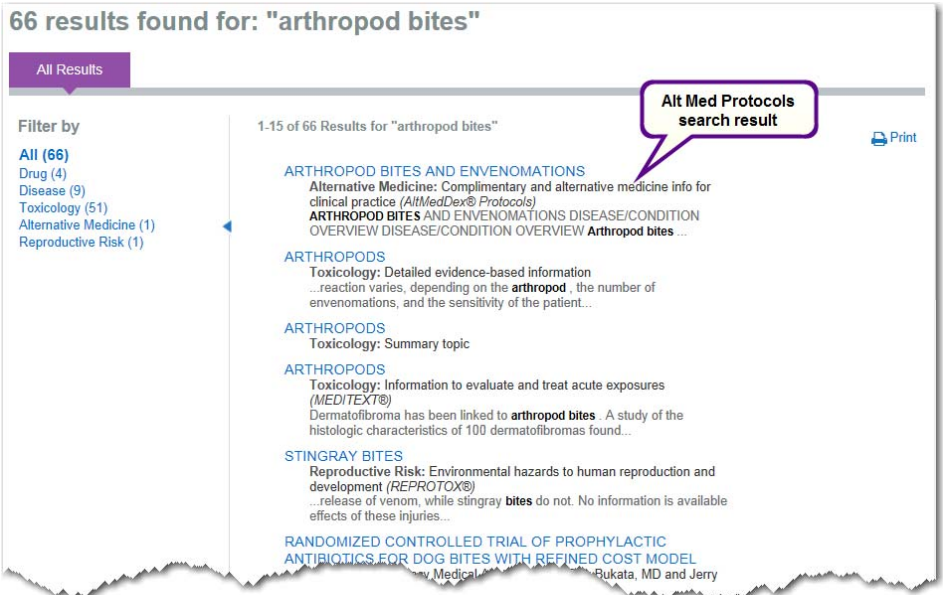
© 2017 Truven Health Analytics LLC

1. Perform a search for “botanical safety.”
2. There are multiple results for Alt Med Consults documents in the intermediate search results, including the title BOTANICAL SAFETY HANDBOOK TERMS - DEFINITIONS.



Example 2 - Alt Med Protocols

1. Perform a search for “arthropod bites”
2. The Alt Med Protocol document ARTHROPOD BITES AND ENVENOMATIONS is in the intermediate search results.



© 2017 Truven Health Analytics LLC

CHAPTER 8: LAB INFORMATION

Micromedex® Solutions provides current, accurate, and concise lab information you can use with confidence. It also provides the most critical knowledge presented at the summary level with quick access to more detailed information.

The Lab Recommendations database contains critical information relevant to:

- Physicians
  - Saves time by providing information on which tests are appropriate for a condition or diagnosis. Reduces the dependency on the lab, the library, or reference textbooks.
  - Saves time by providing guidance and information when interpreting test results. Reduces the research time required to consult additional sources of information.
- Nurses
  - Answers questions about proper collection, storage, and administration procedures.
  - Provides information on unfamiliar or rarely administered tests.
  - Enables nurses to find answers to lab-related questions after lab hours or when a lab technician is unavailable
- Lab Personnel
  - Saves time by reducing the number of calls from clinicians
  - Can communicate lab protocols, or reference ranges, or notes specific to your facility
- Pharmacy Personnel
  - Provides information when monitoring patient drug levels, therapeutic levels, and possible side effects related to lab tests

This chapter describes the lab information available in Micromedex Solutions and gives general instructions for how to search for it. For detailed information on how to search in Micromedex Solutions see "Chapter 3: Searching Micromedex Solutions" on page 13.

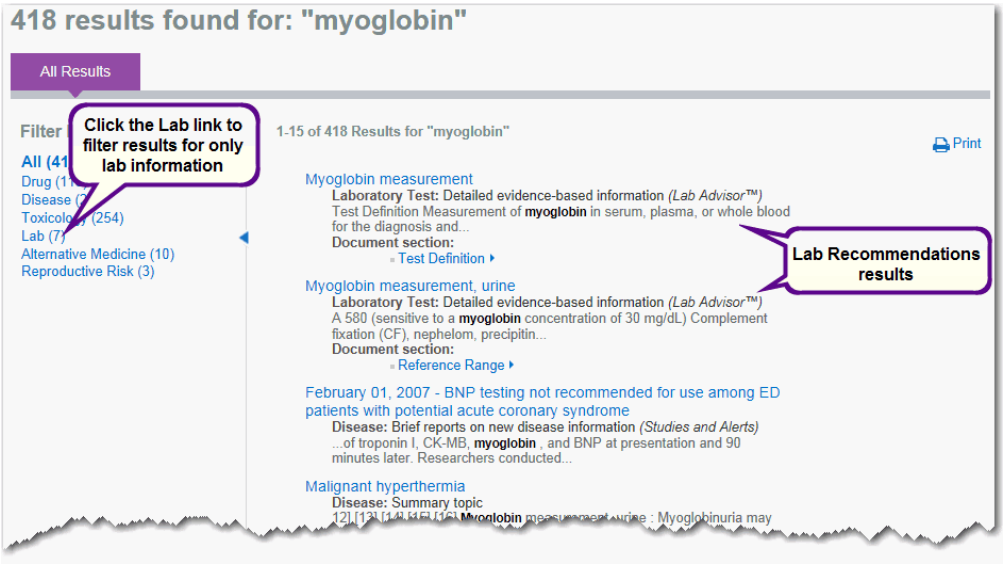
Searching for Lab Information

Laboratory test information can be found by searching on a test name, a LOINC code, or keyword. Lab Recommendations documents can be accessed from the intermediate search results and from the All Results tab on a landing page. For more details see “Intermediate Search Results” on page 54 and “Landing Pages” on page 16.

Searching by Name

The following example depicts the intermediate search results that are displayed when performing a search for “myoglobin.” You can click the **Lab** link on the left side of the page to filter the results for only lab information.

© 2017 Truven Health Analytics LLC



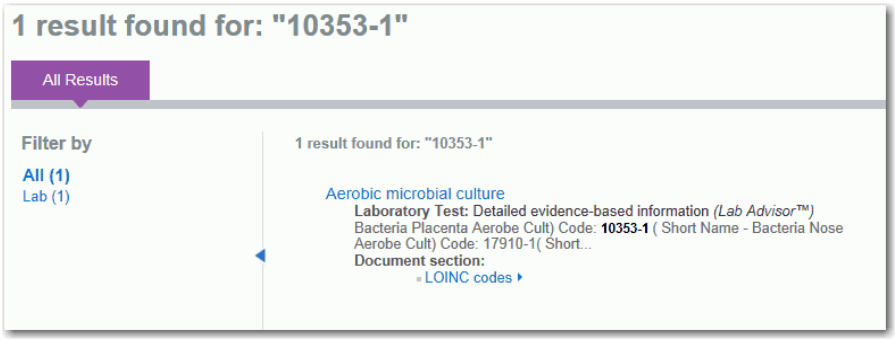
Searching by LOINC Code

On occasions where the LOINC code is known rather than the lab test name, searching by using the LOINC Code may be the most appropriate search term. LOINC® (Logical Observations Identifiers, Names, Codes), is a universal standard for identifying laboratory observations, produced by the Regenstrief Institute.

LOINC is one of a suite of designated standards for use in U.S. Federal Government systems for the electronic exchange of clinical health information.

In 1999, LOINC was identified by the HL7 Standards Development Organization as a preferred code set for laboratory test names in transactions between health care facilities, laboratories, laboratory testing devices, and public health authorities.

In the following example a search was performed for “10353-1.”



Searching by Keyword

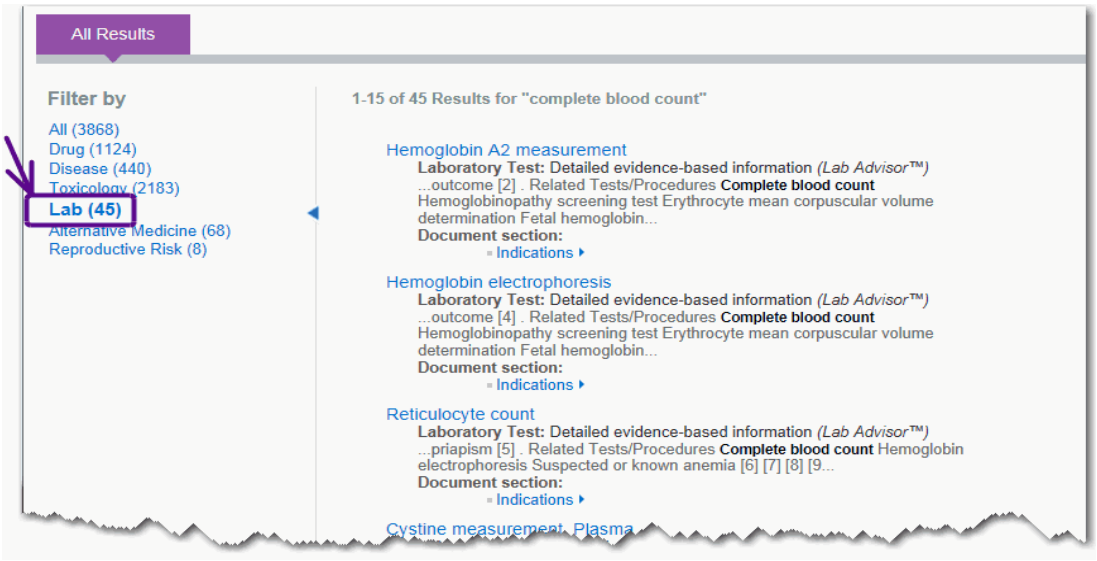
You can also search for lab information using any of the following as your search term:

- Signs and symptoms

© 2017 Truven Health Analytics LLC

- Diagnoses
- Indications
- Any context string that can be found within the summary

In the following example a search was performed on “complete blood count,” and then the user clicked the **Lab** link on the left side of the intermediate search results page.



Viewing Lab Information

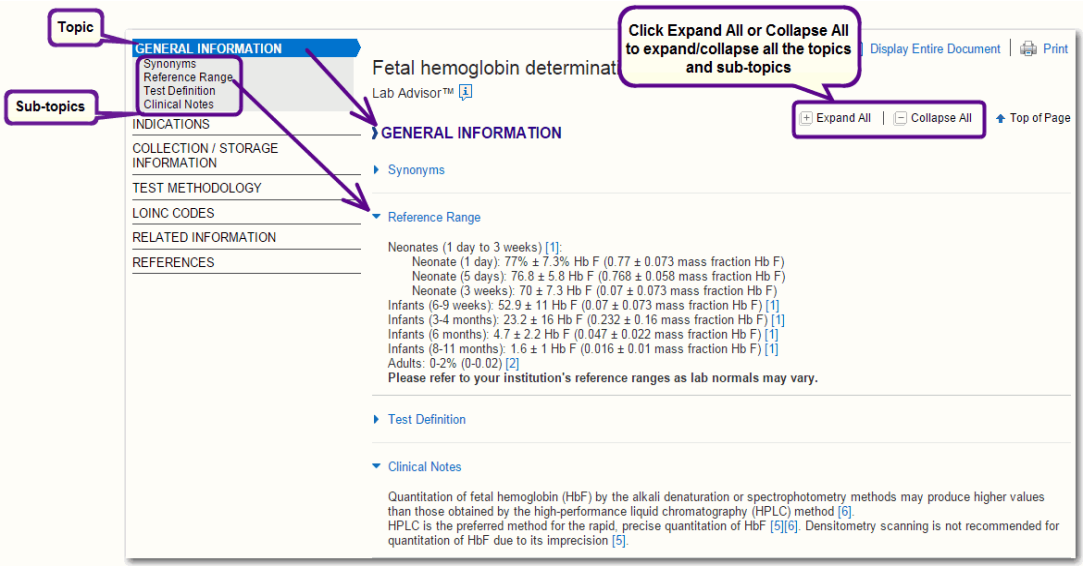
When you click on a Lab Recommendations title in the intermediate search results, the document is displayed at the *General Information* section. You have the following options for moving within the document:

- Outline links on the left side of the page for other topics (and sub-topics)
- Links to other lab information and other content
- Browser scrollbar
- Arrow Up/Down keys
- Page Up/Page Down keys

Topics Links

All topics with information for this laboratory test are shown as active links in the outline list on the left side of the page. Clicking the link opens the page positioned at the beginning of the selected topic.

© 2017 Truven Health Analytics LLC



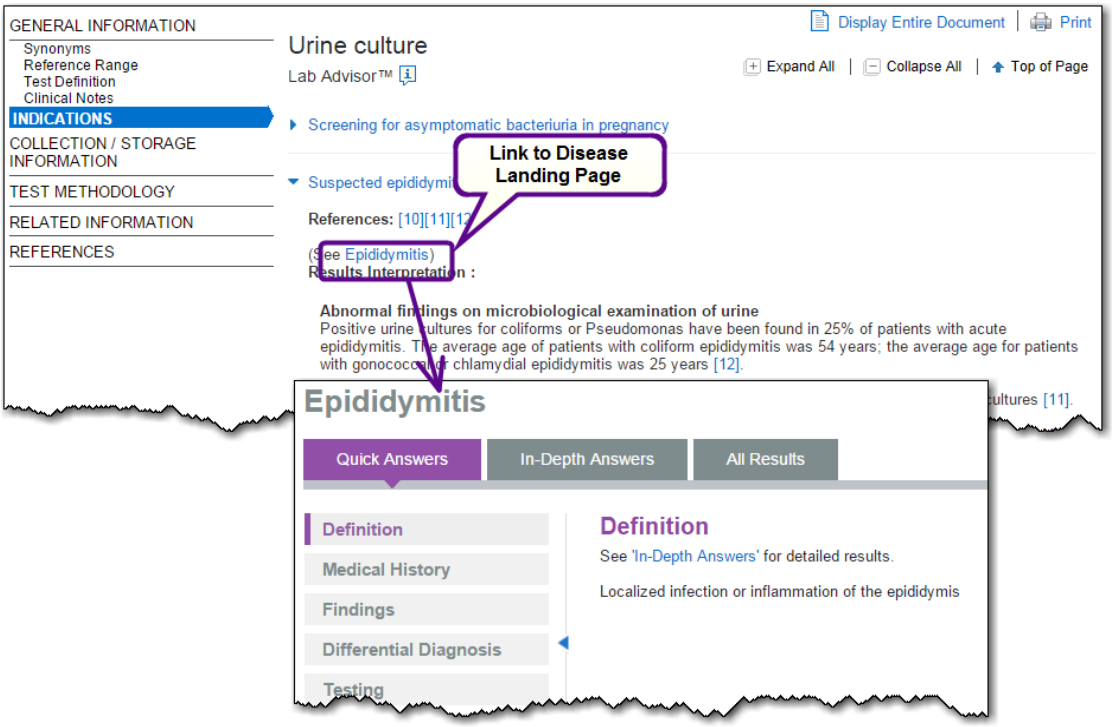
Sub-topics

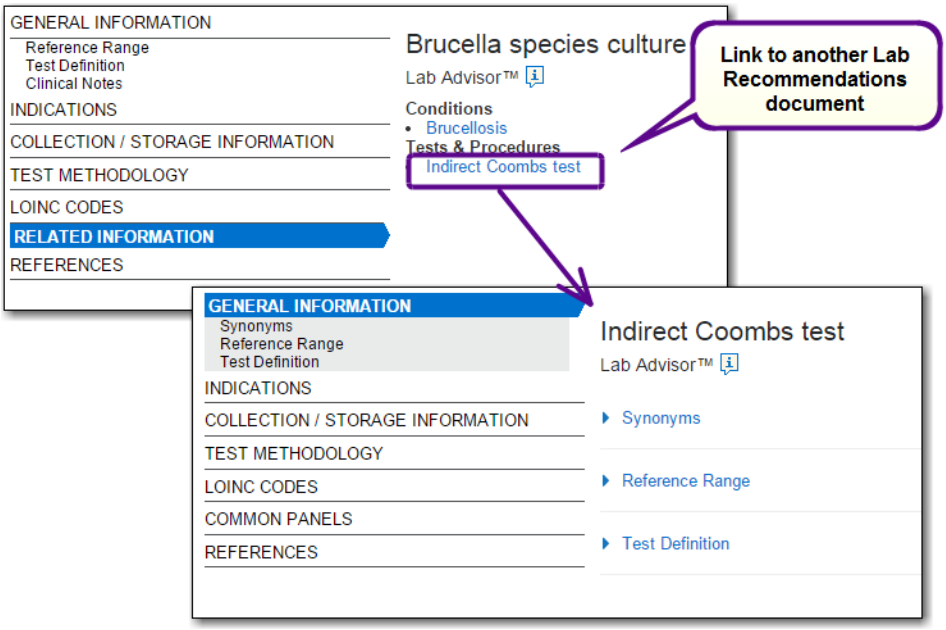
If sub-topics exist, clicking on the topic link expands the list showing the sub-topics below. Go directly to a sub-topic by clicking the sub-topic link.

Links Within Lab Recommendations

Links shown within the lab summary mean that further or related information exists within Lab Recommendations or in other types of content. Links can also open definitions for items shown in the information, such as: Strength of Evidence, Strength of Recommendation. Click the link to view the information.

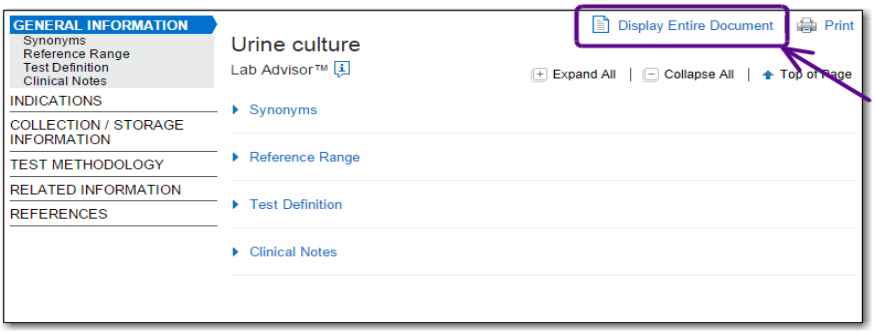
© 2017 Truven Health Analytics LLC



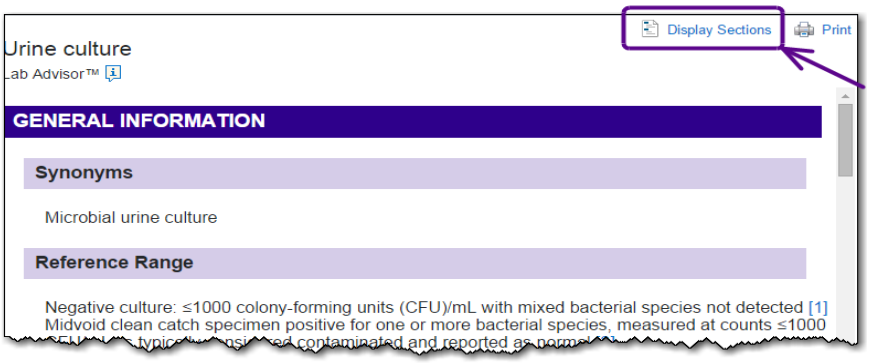


© 2017 Truven Health Analytics LLC

Viewing Entire Document



Click **Display Entire Document** to view the entire monograph.

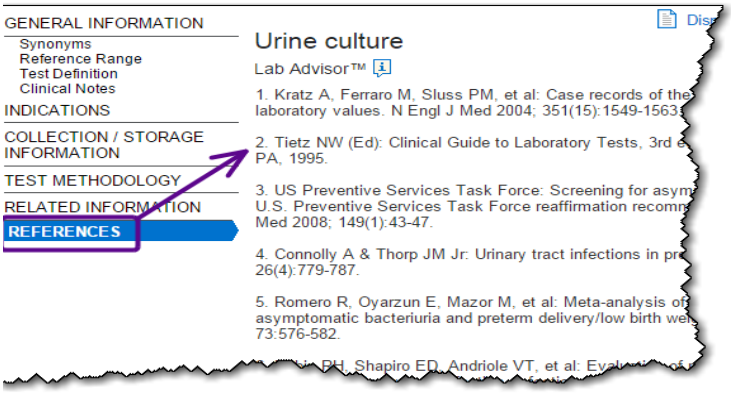


Click **Display Sections** to return to the section view.

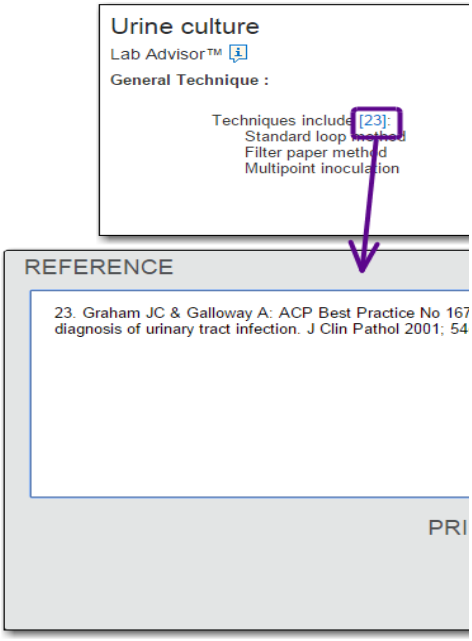
References

When in the section view you can view the references by clicking on the **References** link in the outline on the left side of the page or by clicking a citation number within the text, which opens a pop-up window containing the reference.

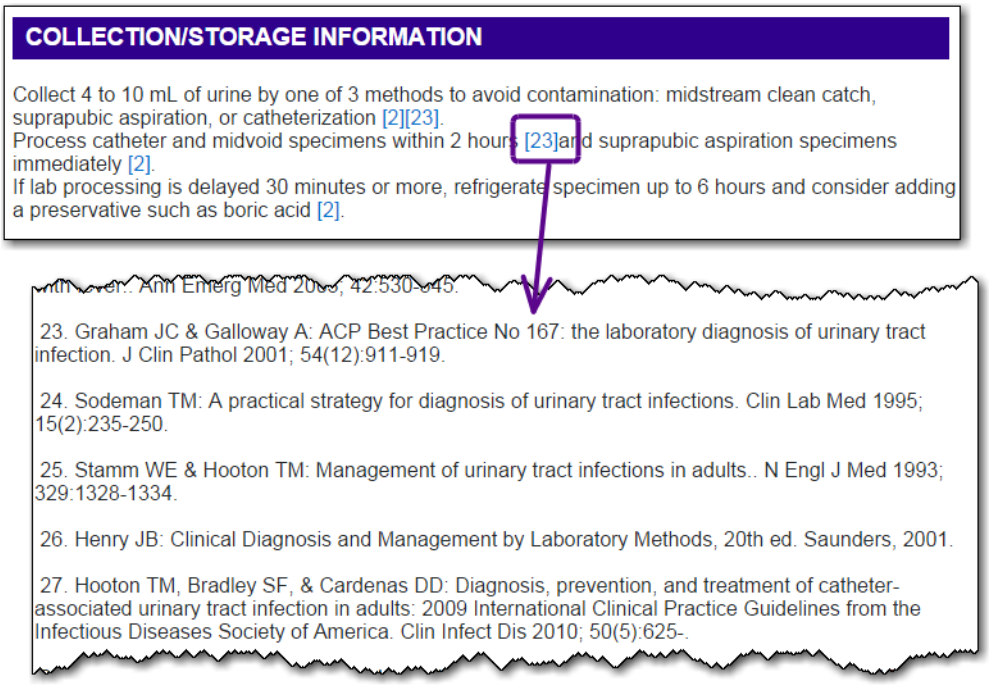
© 2017 Truven Health Analytics LLC



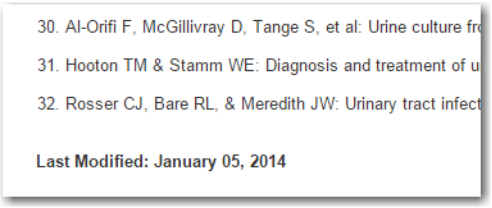
OR



When viewing the entire document you can view the references by clicking a citation number within the text, which takes you to that specific reference in the References section.



© 2017 Truven Health Analytics LLC



Last Modified Date

Lab Information includes a *last modified date* at the bottom of the Reference section.

Printing

Click the Print icon (Print) to print the monograph. This is available when viewing the document sections or the entire document. For more details on printing see "Printing" on page 57.

© 2017 Truven Health Analytics LLC

CHAPTER 9: REPRODUCTIVE RISK INFORMATION

Reproductive Effects content is an essential tool in supporting patient outcomes in reproductive contexts. It is proven to help identify potential hazards, reduce exposures, prevent possible medical and legal complications, and educate patients to make informed decisions. As a medical counseling tool, the set of databases is the single most comprehensive compilation of reproductive risk information databases available.

Exposures to even common substances can be dangerous. Reproductive Effects in Micromedex® Solutions presents in-depth reviews on full-range health effects of chemicals and substances commonly encountered in the home and workplace.

Reproductive Effects includes the following modules:

- REPROTEXT® Reproductive Hazard Reference: Presents in-depth reviews on full-range health effects of industrial chemicals commonly encountered in the workplace.
- REPROTOX® Reproductive Hazard Information, from the Reproductive Toxicology Center, Bethesda, MD: Covers the impact of the physical and chemical environment on human reproduction and development.
- Shepard's Catalog of Teratogenic Agents, Developed by Dr. Thomas H. Shepard, Professor Emeritus of Pediatrics, University of Washington, and co-authored by Dr. Janine E. Polifka, Clinical Lecturer of Pediatrics, University of Washington: Contains up-to-date information on teratogenic agents including chemicals, food additives, household products, environmental pollutants, pharmaceuticals, and viruses.
- TERIS Teratogen Information System, developed by the University of Washington: Provides current information on the teratogenic effects of drugs and environmental agents. Agent summaries derived from thorough literature reviews rate reproductive risk and explain data used to determine the rating. Retrieval of agent summaries can be done using domestic, international, generic, and proprietary names.

This chapter describes the reproductive risk information available in Micromedex Solutions and gives general instructions for how to search for it. For detailed information on how to search in Micromedex Solutions see "Chapter 3: Searching Micromedex Solutions" on page 13.

Searching for Reproductive Risk Information

Reproductive risk information documents can be accessed from the intermediate search results and from the All Results tab on a landing page. See “Intermediate Search Results” on page 54 and “Landing Pages” on page 16.

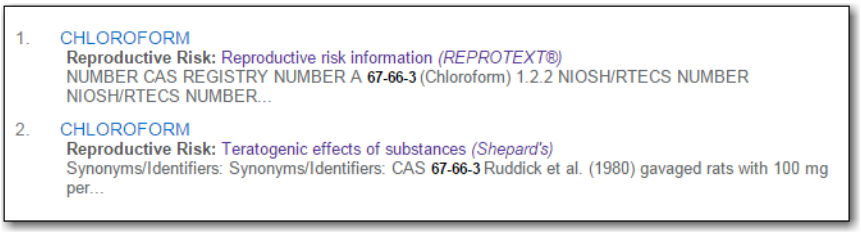
The following steps are an example for accessing reproductive risk information:

1. Perform a search for “natural gas”
2. Click **Reproductive Risk** on the left side of the intermediate search results page

© 2017 Truven Health Analytics LLC

3. Click a title in the results to view the document

Searching by CAS Registry Number



You can search by CAS Registry Number (unique numerical identifier assigned by Chemical Abstracts Service to every chemical substance described in the open scientific literature) to find Reprotext and Shepard's documents. For example, a search for "67-66-3" returns these reproductive risk results.

© 2017 Truven Health Analytics LLC

CHAPTER 10: DRUG INTERACTIONS TOOL

The Drug Interactions tool in Micromedex® Solutions helps with checking for interacting drug ingredients, their effects, and clinical significance.

With the correct information available at the point of care, a significant number of adverse drug events can be prevented. The interactions tool provides instant access to drug-drug, drug-food, drug-ethanol, and drug-lab test reactions.

Some additional features and information presented in drug interactions may depend on your subscription. Customers subscribing to the Complete Drug Interactions will see functionality and links not displayed to subscribers of Standard Drug Interactions. For example, Complete Drug Interactions customers will also see drug-tobacco, drug-pregnancy, drug-lactation, and drug-allergy reactions.

Note: ANVISA (Brazil National Health Surveillance Agency) approved drugs are also available in the Drug Interactions Tool. Interactions for these drugs include: Drug-Drug, Drug-Food, Drug-Ethanol, Drug-Lab, Drug-Tobacco, Drug-Allergy, Drug-Disease, Drug-Pregnancy, Drug-Lactation, General Precautions, and Ingredient Duplication.

SCREENING FOR DRUG INTERACTIONS

A single drug can be checked for all known interactions, or you can screen for interactions for a list of drugs. Patient drug allergies can also be added into the interaction check. Use the *Drug Interactions* page to check for interaction information. Results are grouped by interaction type: drug-drug, drug-food, drug-lab, etc. Interactions found within each type are sorted by severity.

- **Contraindicated** - the drugs are contraindicated for concurrent use
- **Major** - the interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects
- **Moderate** - the interaction may result in an exacerbation of the patient's condition and/or require an alteration in therapy
- **Minor** - the interaction would have limited clinical effects. Manifestations may include an increase in the frequency or severity of side effects but generally would not require a major alteration in therapy.
- **Unknown** - unknown

Documentation Ratings

© 2017 Truven Health Analytics LLC

The level of documentation available for the interaction is also shown. A complete legend of all documentation ratings is shown at the bottom of the page. Hovering over the rating in the legend opens a pop-up with the full definition. The ratings and their definitions follow:

- *Excellent* - controlled studies have clearly established the existence of the interaction
- *Good* - documentation strongly suggests the interactions exists, but well-controlled studies are lacking
- *Fair* - available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or, documentation is good for a pharmacologically similar drug
- *Unknown* - unknown

Building the Search for Interactions

1. Type the first drug (brand name or generic) in the *Search* field. If you are unsure of the spelling, just type as many characters as you know.

Tip: You can build an interaction search using a brand name, generic name, or herb/supplement name.

---

2. As you type, the application narrows your search results in the *Matching Drug Names* list based on the characters you have entered. The more characters you type, the more focused the results. The number of matches to the drug name is also updated as you type.

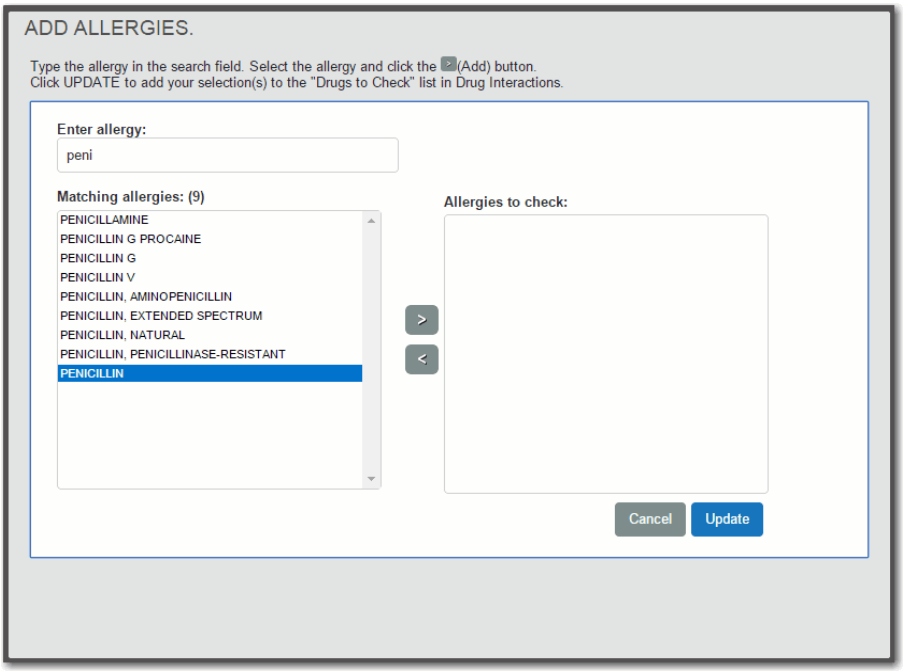
3. If the drug you are interested in is listed in the *Matching Drug Names* list:
   - Click on the drug name and then click the > button to add the drug to the *Drugs to Check* list - or -
   - Press the **Enter** key (if the drug is shown highlighted in the "Matching *Drug Names"* column) - *or* -
   - Double-click the drug name

4. Repeat these steps until you have all the drugs you wish to check for interactions in the *Drugs to Check* list.

   If you accidentally add a drug in the *Drugs to Check* list, select the drug by clicking it, then remove it from the list by clicking the < button.

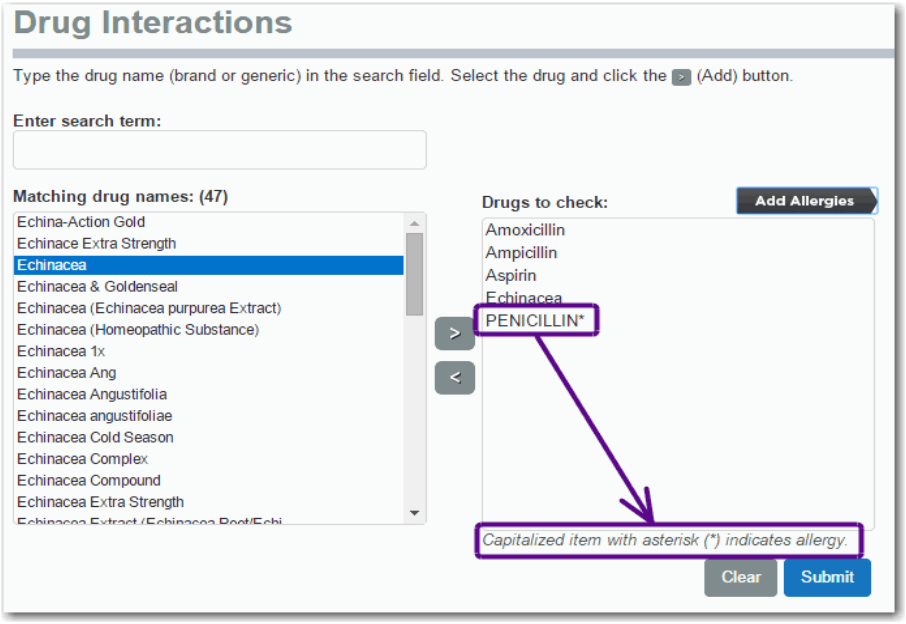
5. Add Allergies **Drug Allergies:** (Complete Drug Interactions customers only) Patient allergies can be added to the list to screen the drugs against the allergy. Click the **Add Allergies** button to open the allergy window.

© 2017 Truven Health Analytics LLC



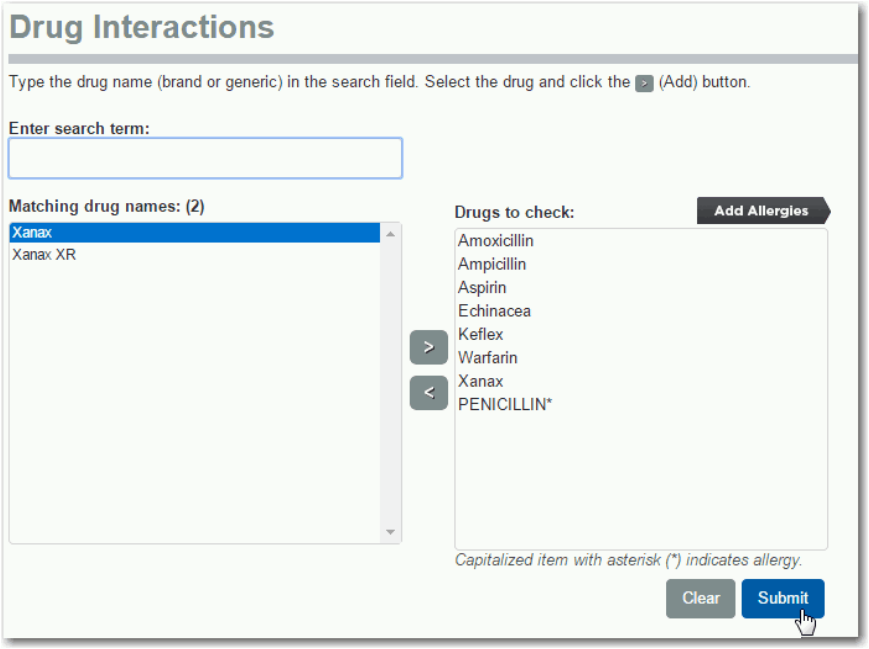
6. Type the first drug (brand or generic) in the *Enter Allergy:* field. If you are unsure of the spelling, just type as many characters as you know.

   If the drug the patient is allergic to is listed in the *Matching Allergies* list, click on the item and then click the > button to add the drug to the *Allergies to Add* list.



7. Repeat this until all patient drug allergies have been added to the allergy list, then click the **UPDATE** button to return to the *Drug Interactions* page. You will notice the allergies entered appear UPPERCASE, with an asterisk (*) in the *Drugs to check* list.

© 2017 Truven Health Analytics LLC



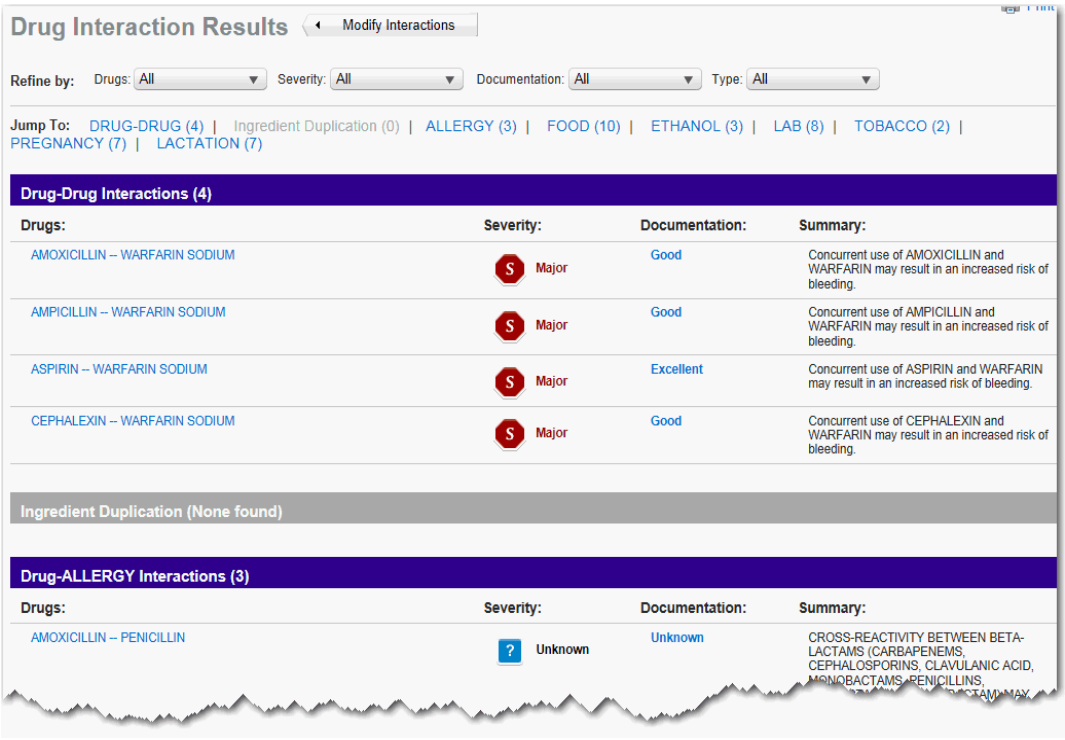
8. When all drugs and allergies to check are in the *Drugs to check* list, click the **Submit** button.

   If you want to remove all drugs from the *Drugs to Check* list and start over, click the **Clear** button.

© 2017 Truven Health Analytics LLC

Drug Interactions Search Results

Interaction information is displayed on the *Drug Interactions Results* page.



Interactions Results

Interactions are grouped by interaction type. Within each interaction type, interactions are shown ranked by severity. Any interaction marked *Contraindicated* is displayed first, followed by *Major*, *Moderate*, and *Minor*. See "Severities" on page 141 for the complete list of severities.

The level of the supporting documentation (Excellent, Good, Fair, etc.) behind the interaction is also shown for each interaction listed. See "Documentation Ratings" on page 142.

The summary column displays brief, high-level interaction information.

Severities

Interaction severities are indicated by an icon and one word definition. A complete legend of all severities is shown at the bottom of the page. Hovering over the icon in the legend opens a pop-up window with the full definition. The full definitions follow:

- **Contraindicated** - the drugs are contraindicated for concurrent use
- **Major** - the interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects
- **Moderate** - the interaction may result in an exacerbation of the patient's condition and/or require an alteration in therapy

© 2017 Truven Health Analytics LLC

- **Minor** - the interaction would have limited clinical effects. Manifestations may include an increase in the frequency or severity of side effects but generally would not require a major alteration in therapy.
- **Unknown** - unknown

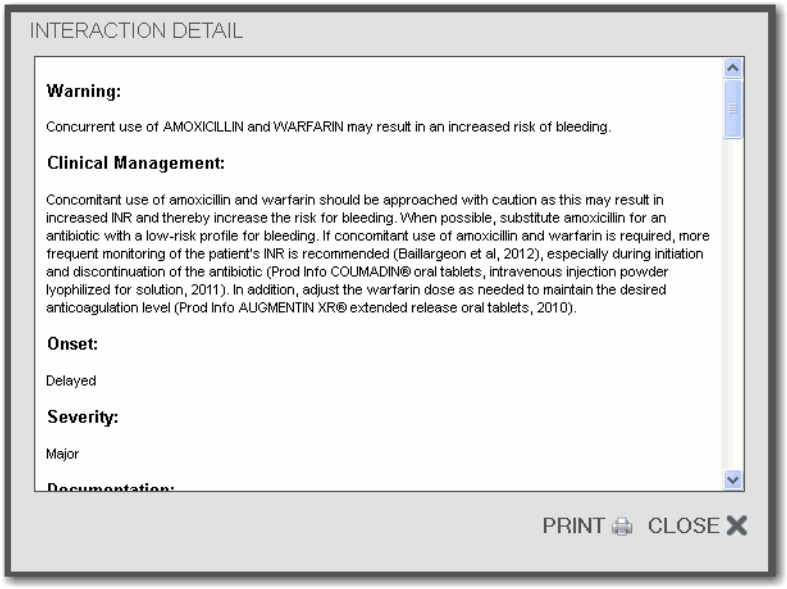
Documentation Ratings

The level of documentation available for the interaction is also shown. A complete legend of all documentation ratings is shown at the bottom of the page. Hovering over the rating in the legend opens a pop-up with the full definition. The ratings and their definitions follow:

- *Excellent* - controlled studies have clearly established the existence of the interaction
- *Good* - documentation strongly suggests the interactions exists, but well-controlled studies are lacking
- *Fair* - available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or, documentation is good for a pharmacologically similar drug
- *Unknown* - unknown

Interaction Details

Complete Drug Interactions subscribers are able to view additional interaction information by clicking the link on the drug name to open interactions details. Additional information may include: clinical management, onset, probable mechanism, literature summaries, and references for this interaction.



Change the list of drugs to search

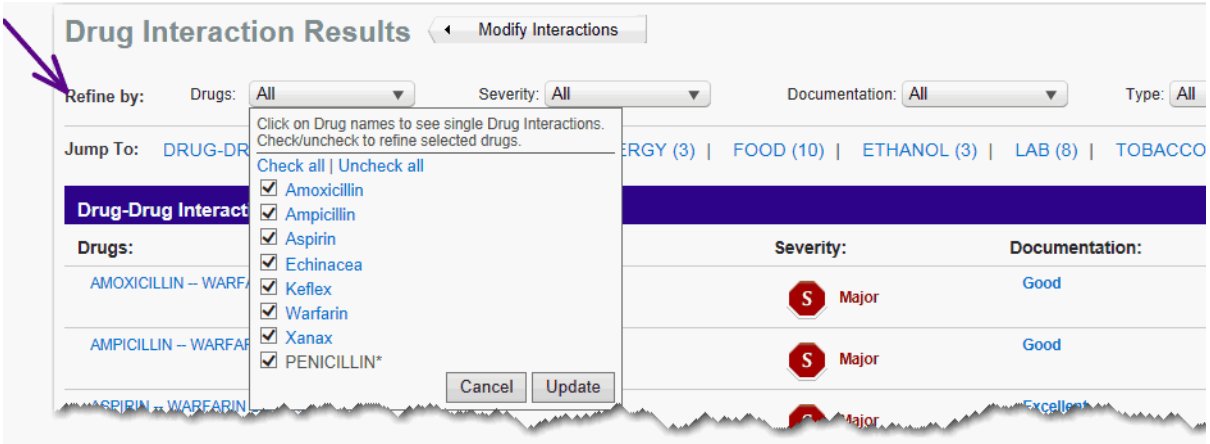
You can add, change, remove items from the list of drugs to search by clicking the **Modify Interactions** button. All items selected to this point are retained. When changes have been completed, click the **Submit** button to screen interactions based on the updated drug and allergy list

© 2017 Truven Health Analytics LLC

.

Note: Information displayed on the drug interactions results page may depend on your subscription. Customers subscribing to Complete Drug Interactions will see links to additional information about the interaction that is not displayed to subscribers of Standard Drug Interactions.

Refine by



The drop-down lists allow you to modify the interactions results to suit your specific needs.

1. The *Drugs* drop-down allows you to remove any of the drugs previously selected from the interactions check. De-select (uncheck) any drug you wish to remove, then click the **Update** button.
2. The *Severity* drop-down allows you filter interactions by level of severity. De-select (uncheck) any severity you wish to remove, then click the **Update** button.
3. By default, all *Documentation* types (Excellent, Good, Fair, and Unknown) are included and shown in the results. To filter by level of documentation de-select (uncheck) any level you wish to remove, then click the **Update** button.
4. The *Type* drop-down allows you to filter for specific interaction types only. De-select (uncheck) any interaction type you wish to remove, then click the **Update** button.

Jump To

Interactions are shown grouped by interaction type. Drug-drug interactions are shown first on the page, followed by ingredient duplication, allergy, food, ethanol, lab, tobacco, pregnancy and lactation.

The **Jump To** links show at a glance how many interactions of each type exist, and allow you to go quickly to a particular type. Click the link to go immediately to the first entry in the interaction type.

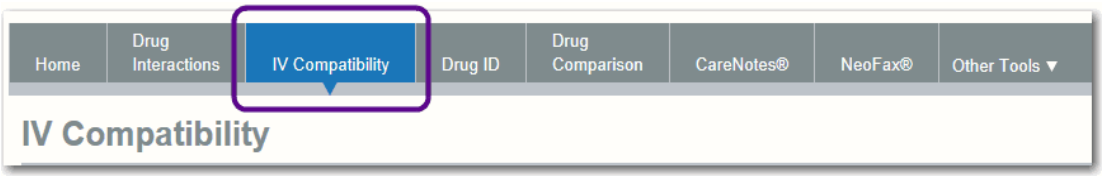
© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

CHAPTER 11: IV COMPATIBILITY TOOL

Use the Trissel's™ 2 IV Compatibility tool to avoid potentially dangerous drug combinations. When multiple IV medications are combined, the risk of complication is very real. Efficacy of one or more drugs can be reduced or a potentially dangerous incompatibility can occur.

The IV Compatibility Tool provides easy access to Trissel's™ 2 Clinical Pharmaceutics Database (Parenteral Compatibility) with proven data to support safe decisions for administering injectable drugs in combination. Using information from leading IV compatibility expert, Lawrence Trissel, MS, FASHP, IV Compatibility in Micromedex® Solutions presents compatibility results for parenteral drug combinations.



Features

The IV Compatibility tool offers compatibility information for drugs:

- In solution
- Combined via Y-Site
- Combined via Admixture
- Combined via Syringe
- Combined with TPN/TNA solutions

Building an IV Compatibility Search

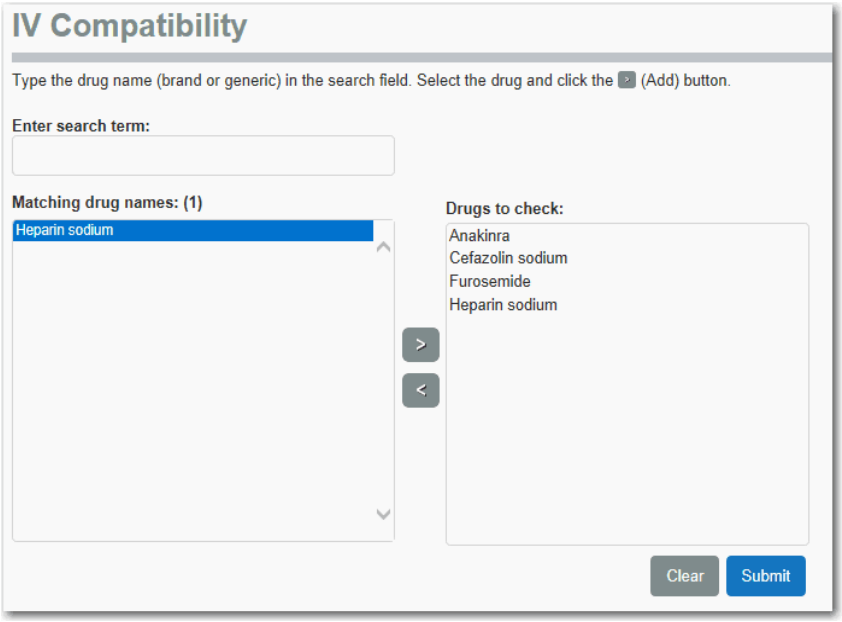
1. Type the first drug (brand or generic) in the *Enter Search Term:* field. If you are unsure of the spelling, just type as many characters as you know.

Note: IV Compatibility searches must be built using a drug. Do not build a search using a Solution as a search term.
Compatibility with Solutions is returned for the drug.

2. *Matching Drug Names*
   As you type, the word wheel begins to narrow your search results in the *Matching Drug*

© 2017 Truven Health Analytics LLC

Names list based on the characters you have entered. The more characters you type, the more focused the results. The number of matches to the drug name is also updated as you type.



3. If the drug you are interested in is listed in the *Matching Drug Names* list, click on the drug and then click the > button to add the drug to the *Drugs to Check* list.

4. If you are looking for compatibility information for a single drug, then click the **Submit** button. However, if more than one drug should be screened, repeat steps one through three until you have all the drugs you wish to check for compatibility in the *Drugs to Check* list.

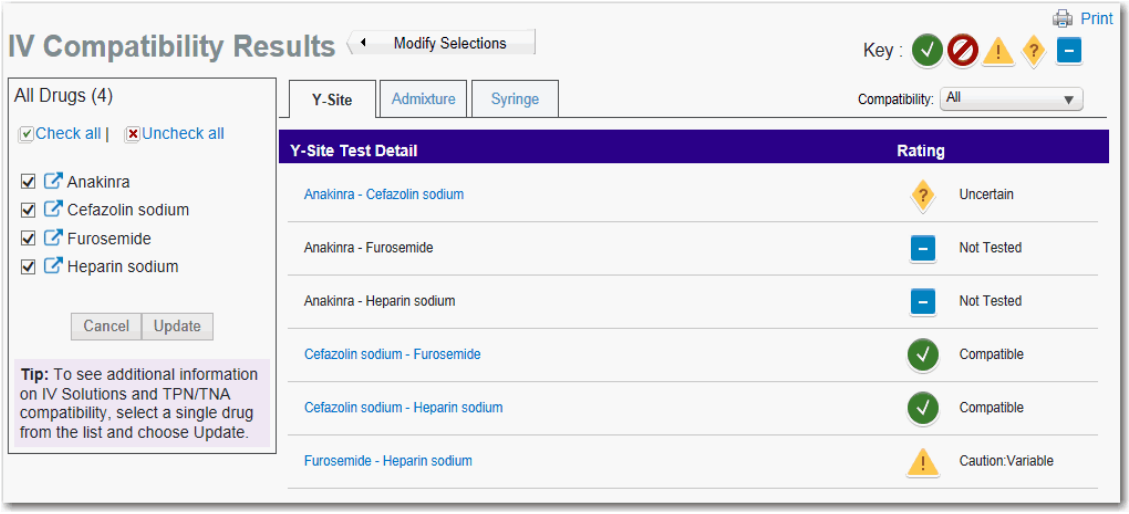
   If you accidentally add a drug in the *Drugs to Check* list, select the drug by clicking it, then remove it from the list by clicking the < button.

5. When all drugs to screen are in the *Drugs to Check list*, click the **Submit** button. If you want to remove all drugs from the *Drugs to Check* list and start over, click the **Clear** button.

Compatibility Search Results

Compatibility results for Y-Site, Admixture, and Syringe are separated onto different tabs, so that you can quickly access the method in which you are interested.

© 2017 Truven Health Analytics LLC



Compatibility is denoted by an icon and simple description. A key at the top of the page lists all compatibility types, and hovering your mouse over the icon will open a pop-up with the full compatibility description. The full descriptions follow:

- *Compatible* - All studies showed these items as compatible
- *Caution: Variable* - Study results show IV compatibility is variable
- *Incompatible* - All studies showed these items as incompatible
- *Uncertain* - Study results were inconclusive, compatibility wasn't determined
- *Not Tested* - IV compatibility has not been tested

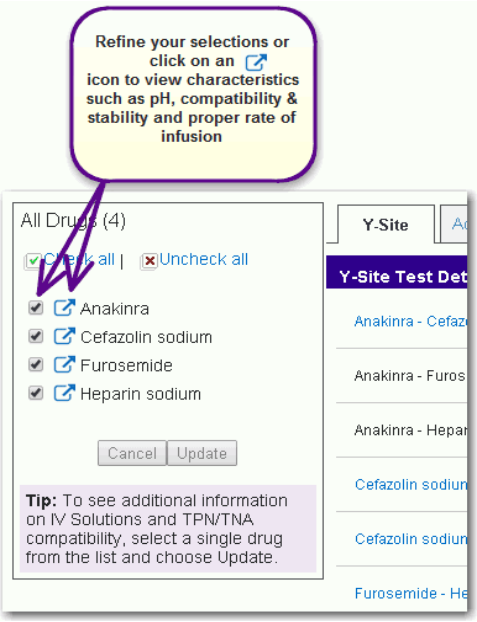
Note: By default, *all Compatibilities* are displayed.

Modify the Drugs to Include

Remove one or more drugs from the drugs selected for inclusion in the compatibility results.

The drugs included are displayed on the left side of the page. To remove a drug, click the checkbox and then click the **Update** button to update compatibility results for the drugs in the list.

© 2017 Truven Health Analytics LLC



Tip: To view IV Compatibility for one drug (and view Solution and TPN/TNA compatibility) select one substance from the list and click **Update**

The *Compatibility*: drop-down shows all compatibilities selected by default. Remove any compatibility indicator by de-selecting it and clicking the **Update** button.

Modify Drug Selections

To add drugs to a compatibility profile, or to start over from the beginning, click the **Modify Selections** button. You will return to the initial page with the current selections shown in the Drugs to Check column.

View Drugs and Solutions Data

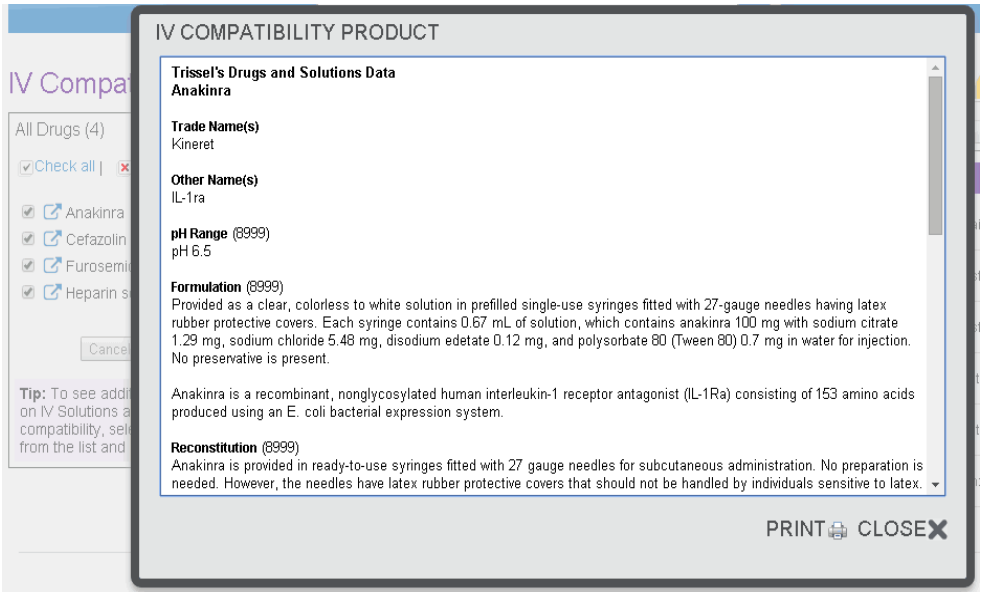
Parenteral drugs and solutions are administered by injection, most often intravenously, but also commonly by intramuscular and subcutaneous injection. To prevent adverse effects, it is important to have access to relevant characteristics of parenteral products, such as pH, compatibility and stability, and proper rate of infusion. This information is critical in making decisions related to the preparation, storage, and administration of parenteral products.

Click on the icon next to the drug to view Trissel's drugs and solutions data for that drug. Information may be shown for:

- pH Range
- Formulation
- Reconstitution
- Osmolality
- Storage

© 2017 Truven Health Analytics LLC

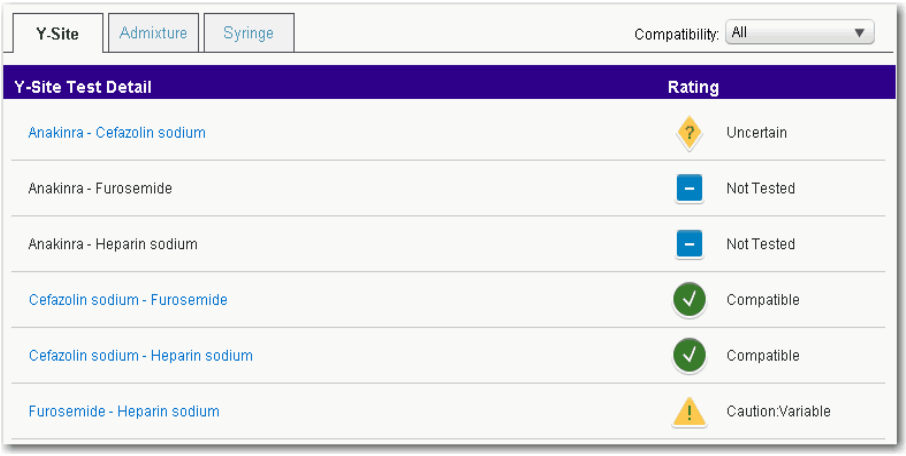
- Stability (detailed)
- ...and more



The information shown in the Trissel's Drug and Solutions Data pop-up can also be printed by clicking on the **PRINT** link or icon.

Y-Site

Results for Y-site compatibility are presented first by default.

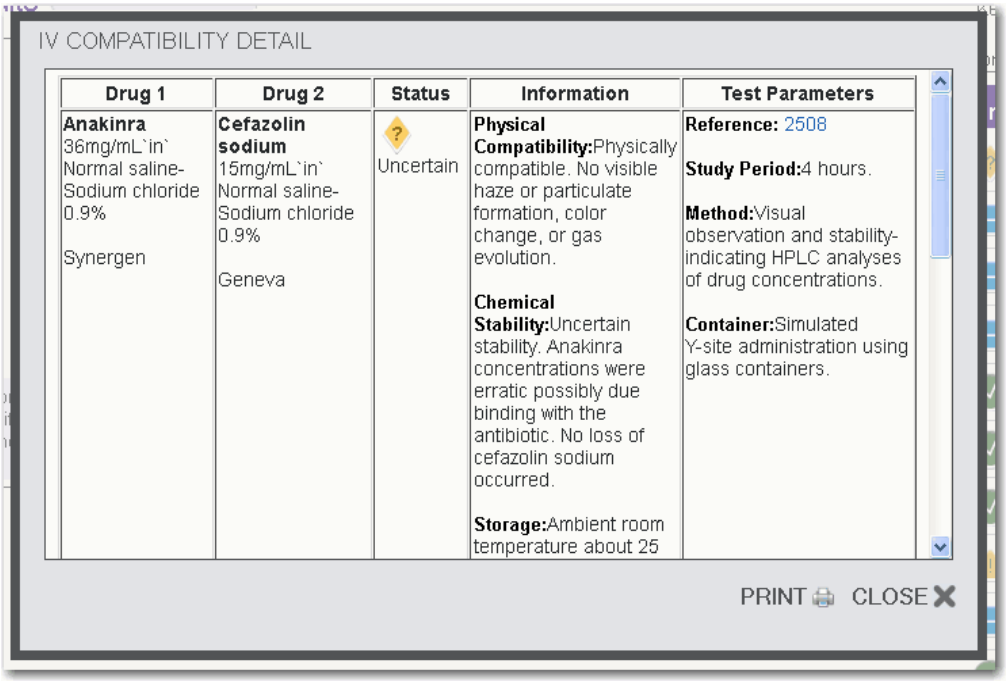


Click on the drug pair link to view study details.

Compatibility Details

Compatibility details for multiple drug compatibility tests are shown in a five-column table:

© 2017 Truven Health Analytics LLC



IV COMPATIBILITY DETAIL

Drug 1	Drug 2	Status	Information	Test Parameters
Anakinra 36mg/mL`in` Normal saline-Sodium chloride 0.9% Synergen	**Cefazolin sodium** 15mg/mL`in` Normal saline-Sodium chloride 0.9% Geneva	Uncertain	**Physical Compatibility:**Physically compatible. No visible haze or particulate formation, color change, or gas evolution. **Chemical Stability:**Uncertain stability. Anakinra concentrations were erratic possibly due binding with the antibiotic. No loss of cefazolin sodium occurred. **Storage:**Ambient room temperature about 25	**Reference:** 2508 **Study Period:**4 hours. **Method:**Visual observation and stability-indicating HPLC analyses of drug concentrations. **Container:**Simulated Y-site administration using glass containers.

PRINT CLOSE

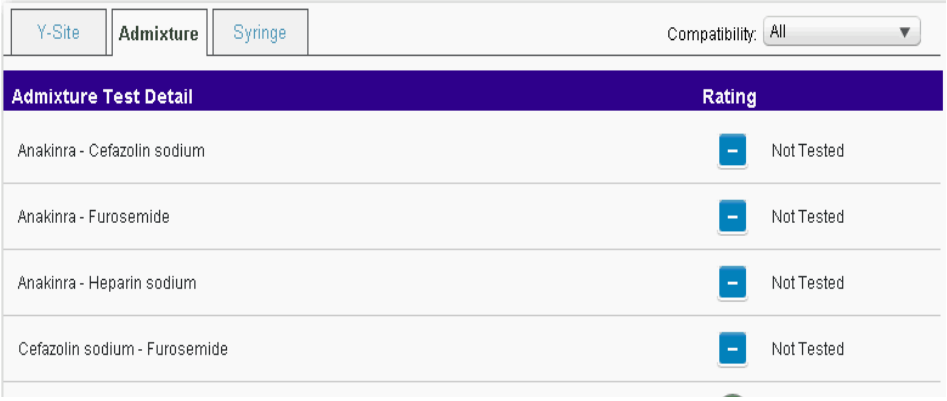
- **Drug 1** - contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** - shows the secondary drug name, concentration, and manufacturer's name
- **Status** - lists the compatibility result icon and description
- **Information** - displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** - contains a referenced link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

Return to the *Overview* page by clicking the **CLOSE** link.

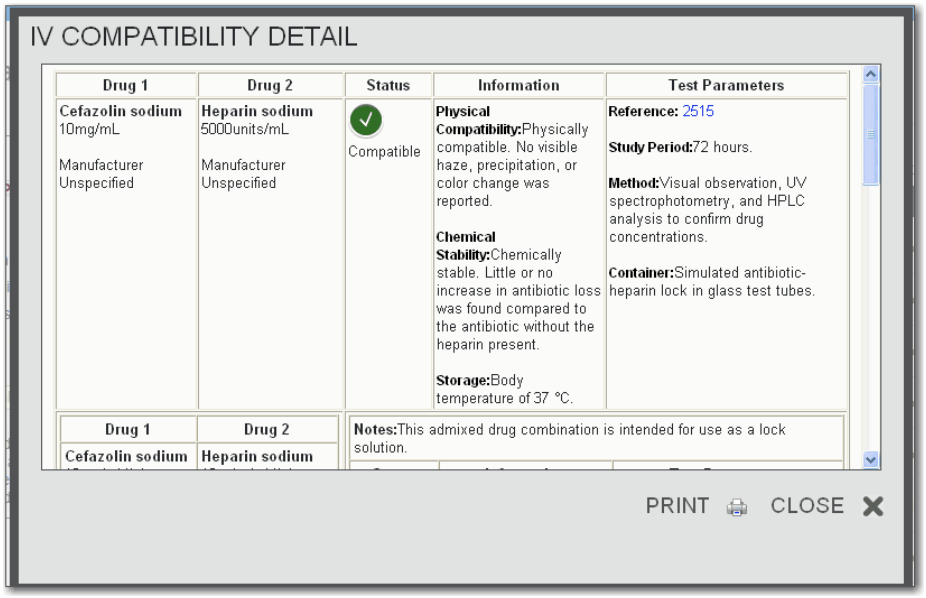
© 2017 Truven Health Analytics LLC

Admixture

Click the **Admixture** tab to view results. Overview information for multiple drug admixture compatibility is shown with the associated compatibility icon and description.



Click the drug pair link to view study details.



Admixture compatibility details for multiple drug compatibility searches are shown in a five-column table:

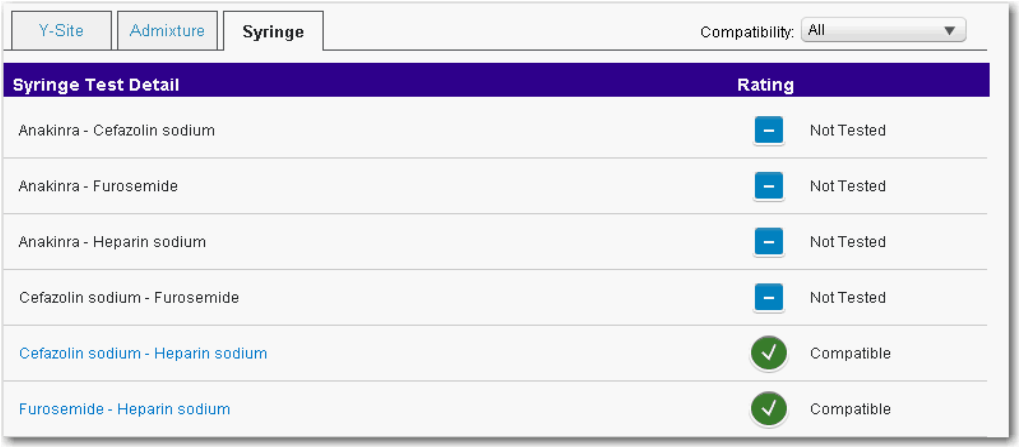
- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, and manufacturer's name
- **Status** lists the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a referenced link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

Return to the *Overview* page by clicking the **CLOSE** link.

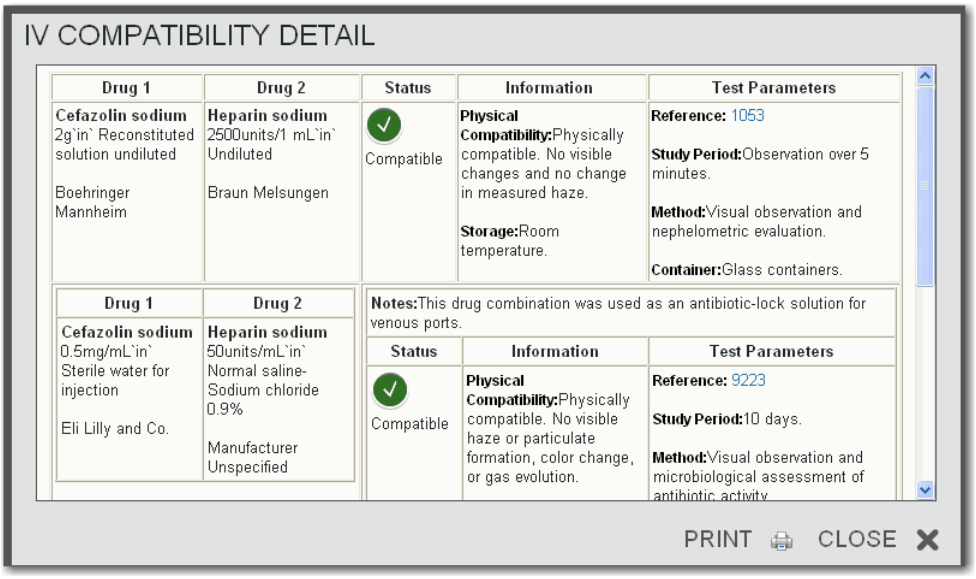
© 2017 Truven Health Analytics LLC

Syringe (Complete IV Compatibility customers)

Click the Syringe tab to view results. Overview information for multiple drug syringe compatibility is shown alphabetically by drug name, with the associated compatibility icon and description.



Click the drug pair link to view study details.



Syringe compatibility details for multiple drug compatibility searches are shown in a five-column table:

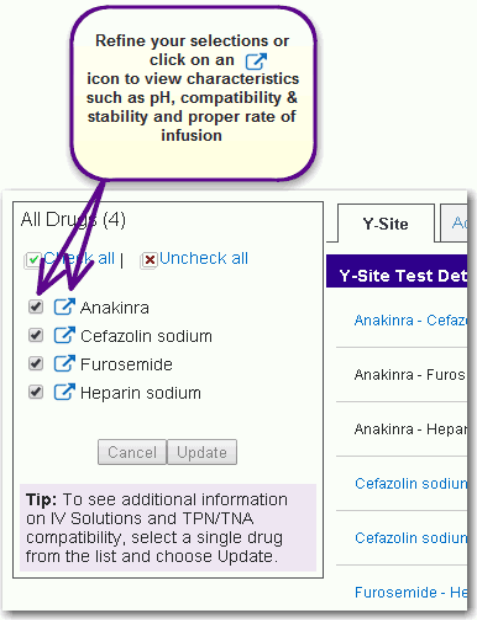
- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the secondary drug name, concentration, and manufacturer's name
- **Status** column lists the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a referenced link, the study period, the study methods, and the container information for this particular combination

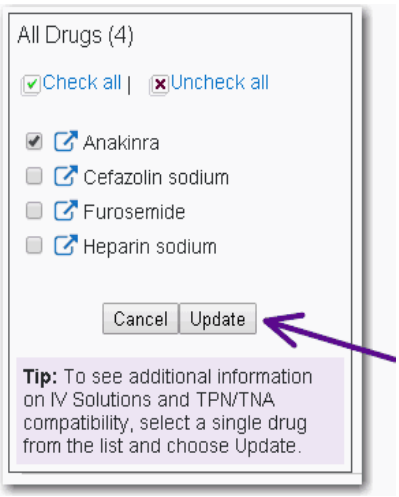
© 2017 Truven Health Analytics LLC

- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

Single Drug IV Compatibility

Compatibility in Common Solutions and with TPN/TNA therapies is only available when a single drug is selected for consideration. This can be accomplished by building an IV Compatibility profile for one drug, or by de-selecting all but one drug from a compatibility results screen and clicking the **Update** button.

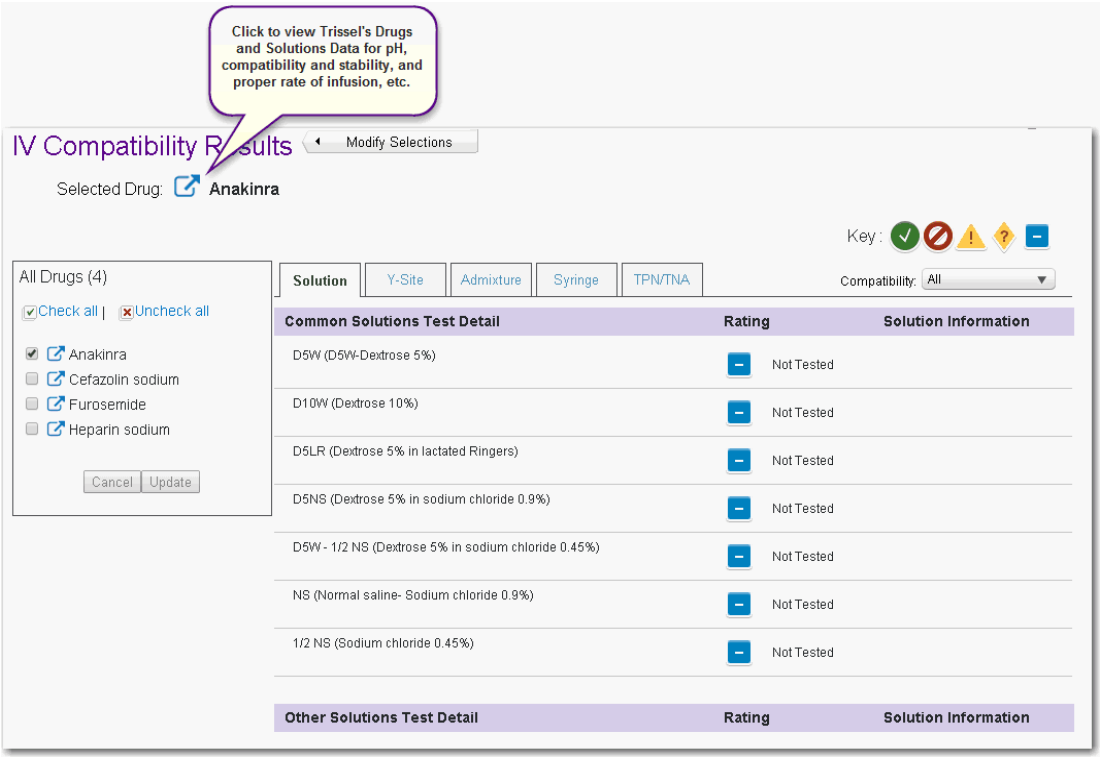




© 2017 Truven Health Analytics LLC

Common Solutions

Solution compatibility is provided for common and other standard IV fluids.



Common Solutions:

- *D5W* - D5W-Dextrose 5%
- *D10W* - Dextrose 10%
- *D5LR* - Dextrose 5% in lactated Ringers
- *D5NS* - Dextrose 5% in sodium chloride 0.0%
- *D5W* - 1/2 NS - Dextrose 5% in sodium chloride 0.45%
- *NS* - Normal saline - sodium chloride 0.9%
- *1/2 NS* - sodium chloride 0.45%

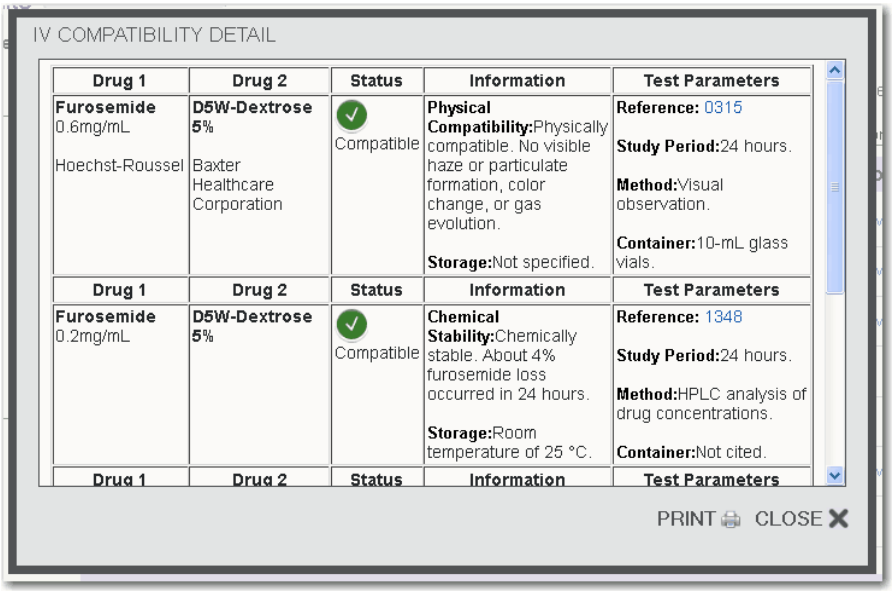
Where detailed results are available, the solution is shown as an active link. Click the solution link to view the additional information.

References for the information can be found by clicking the numbered link. Close the Compatibility Details by clicking the *Close* link.

Other Solutions can include Dextran, Dextrose, Fat emulsion, Fructose, Isolytes, Lactated Ringer's, to name a few.

Click on a tested solution link to view the compatibility details.

© 2017 Truven Health Analytics LLC



IV COMPATIBILITY DETAIL

Drug 1	Drug 2	Status	Information	Test Parameters
Furosemide 0.6mg/mL Hoechst-Roussel	**D5W-Dextrose 5%** Baxter Healthcare Corporation	Compatible	**Physical Compatibility:**Physically compatible. No visible haze or particulate formation, color change, or gas evolution. **Storage:**Not specified.	**Reference:** 0315 **Study Period:**24 hours. **Method:**Visual observation. **Container:**10-mL glass vials.
Drug 1	**Drug 2**	**Status**	**Information**	**Test Parameters**
Furosemide 0.2mg/mL	**D5W-Dextrose 5%**	Compatible	**Chemical Stability:**Chemically stable. About 4% furosemide loss occurred in 24 hours. **Storage:**Room temperature of 25 °C.	**Reference:** 1348 **Study Period:**24 hours. **Method:**HPLC analysis of drug concentrations. **Container:**Not cited.
Drug 1	**Drug 2**	**Status**	**Information**	**Test Parameters**

PRINT CLOSE

Solution compatibility details are shown in a five-column table:

- **Drug 1** contains the drug name, the concentration, and the manufacturer's name
- **Drug 2** shows the fluid and manufacturer's name
- **Status** column lists the compatibility result icon and description
- **Information** displays the physical compatibility, chemical stability (if applicable), and storage information
- **Test Parameters** contains a referenced link, the study period, the study methods, and the container information for this particular combination
- **Notes** for the test (if applicable) are shown in red text at the top of the detailed study information

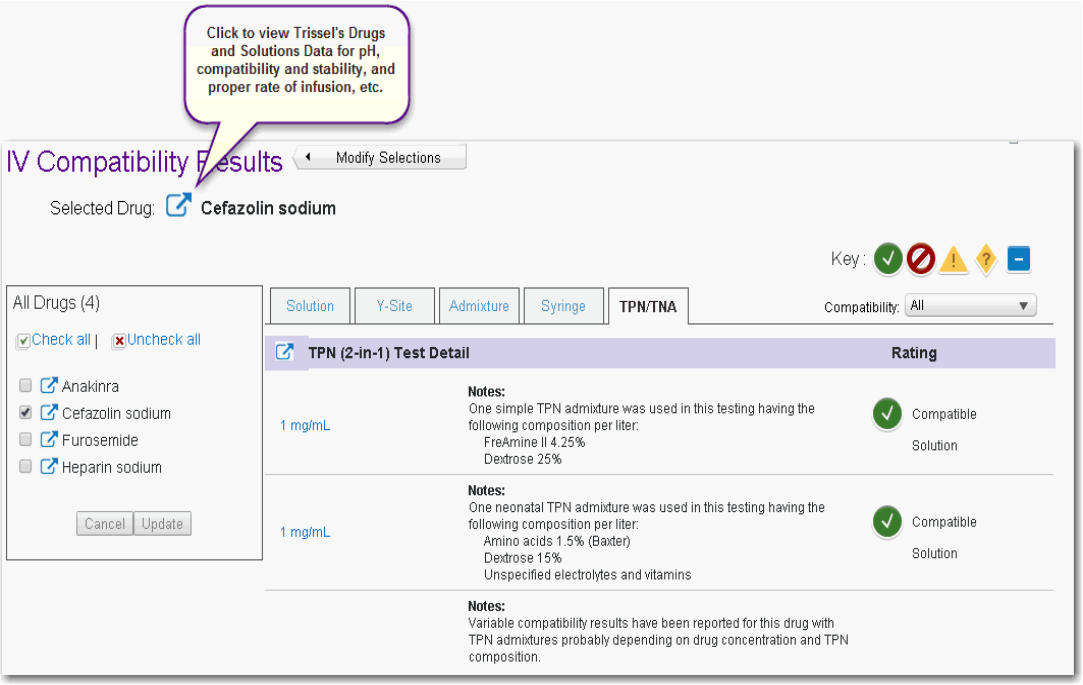
View Drugs and Solutions Data

Parenteral drugs and solutions are administered by injection, most often intravenously, but also commonly by intramuscular and subcutaneous injection. To prevent adverse effects, it is important to have access to relevant characteristics of parenteral products, such as pH, compatibility and stability, and proper rate of infusion. This information is critical in making decisions related to the preparation, storage, and administration of parenteral products.

Click on the icon next to the drug to view Trissel's drugs and solutions data for that drug.

TPN/TNA Overview

© 2017 Truven Health Analytics LLC



Overview information for single drug TPN (2-in-1) (total parenteral nutrition) is shown, followed by TNA (3-in-1) (total nutritive admixture) compatibility.

Note: TPN and TNA results are not result type specific. They can be a Y-Site, solution, or admixture result. Results are comprised of all compatibility tests where the drug name searched is being included with a TPN or TNA solution.

Within each TPN/TNA grouping, the results are sorted alphabetically by TPN or TNA admixture name, with the associated compatibility icon and description, followed by high level notes, including composition of the TPN/TNA, on these tests.

Click the admixture name link to view the details of these tests.

View Drugs and Solutions Data

Parenteral drugs and solutions are administered by injection, most often intravenously, but also commonly by intramuscular and subcutaneous injection. To prevent adverse effects, it is important to have access to relevant characteristics of parenteral products, such as pH, compatibility and stability, and proper rate of infusion. This information is critical in making decisions related to the preparation, storage, and administration of parenteral products.

Click on the icon next to the drug to view Trissel's drugs and solutions data for that drug.

TPN/TNA Details

© 2017 Truven Health Analytics LLC

IV COMPATIBILITY DETAIL

2in1FreAminell	Furosemide	Physical Compatibility:	Reference: 0349
Compatible Solution **Notes:** Variable compatibility results with furosemide in TPN admixtures may occur due to its relative alkalinity depending on drug concentration and TPN composition. One simple TPN admixture was used in this testing having the following composition per liter: FreAmine II 4.25% Dextrose 25%	0.04 mg/mL (40 mcg/mL) Hoechst-Roussel	Physically compatible. No visible haze or particulate formation, color change, or gas evolution. **Storage:** Refrigerated at 4 °C for 22 hours followed by 2 hours equilibrating to room temperature.	**Study Period:** 24 hours. **Method:** Visual observation and microscopic examination. **Container:** Glass containers.

PRINT CLOSE

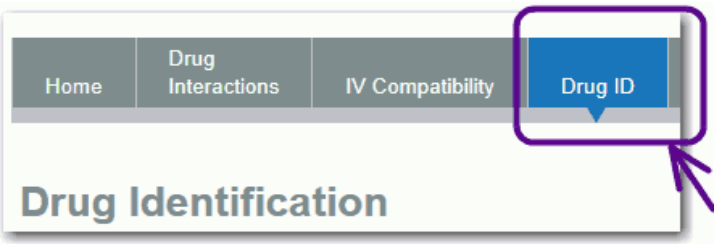
© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

CHAPTER 12: DRUG ID TOOL

IDENTIFY DRUGS BY IMPRINT OR PHYSICAL CHARACTERISTICS

The Drug ID tool can assist you in identifying pharmaceutical tablets, caplets, and capsules by any of their physical characteristics such as shape, color, pattern, or imprint code.



Micromedex® Solutions for Poison Centers customers can display additional information in the search results, including:

- Excipients
- Regulatory Status
- AAPCC Code
- Availability
- Product ID
- Contact Information

Micromedex® Solutions for Poison Centers customers can also open the toxicologic management for the substance from search results. When an overdose or toxic ingestion or exposure is suspected, this can close the information loop from identification to management.

Micromedex returns a full-color image of the drug whenever possible, with a link to detailed product information.

Poison Center users can find additional information in "Appendix D: Poison Center Integration" on page 273.

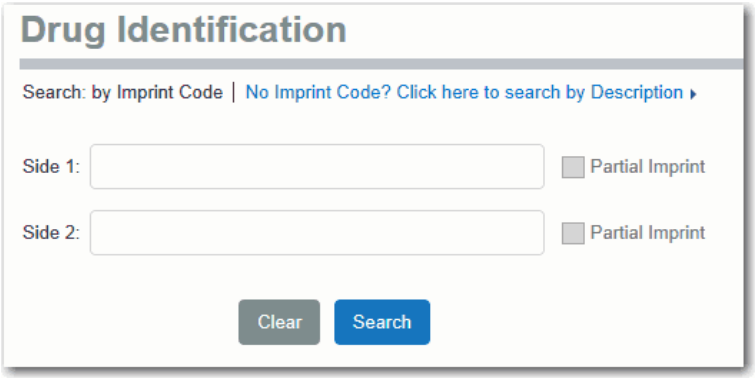
Create Your Search

Search by Imprint Code

Type imprint codes in the Side 1 and Side 2 fields. Side order (Side 1 or Side 2) does not matter. A search for Side 1 = 1025 and Side 2 = 93 produces the same match as Side 1 = 93 and Side 2 = 1025.

© 2017 Truven Health Analytics LLC

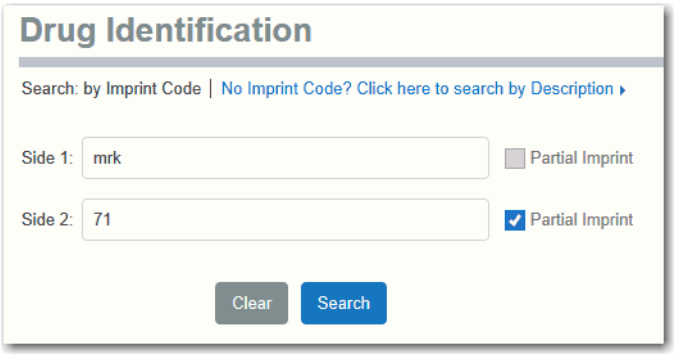
Both Side 1 and Side 2 are not required. Search on only one imprint code if you are not able to read the second imprint.



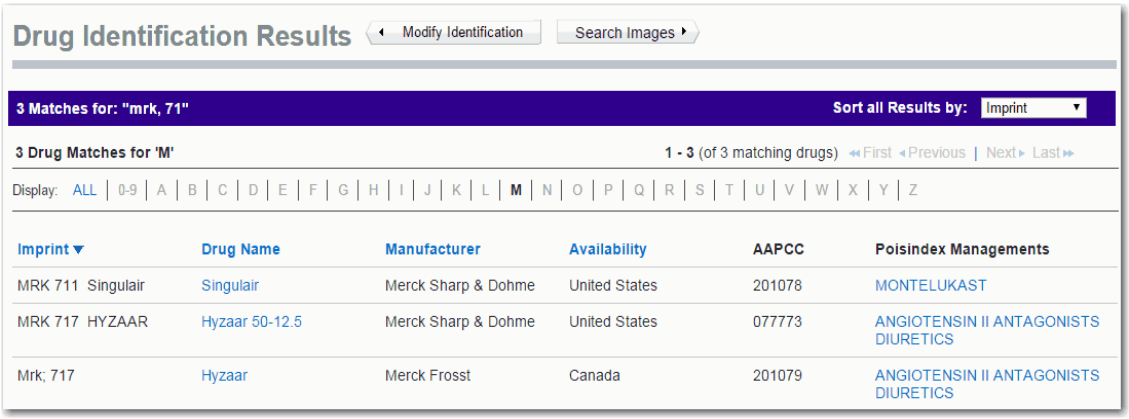
Partial Imprint

There may be times or conditions when you are not sure of the entire imprint code. When this is the case, click the *Partial Imprint* checkbox to perform the search looking for the characters entered anywhere in the imprint code.

Using the example of Side 1 = mrk and Side 2 = 71 (with the *Partial Imprint* checkbox selected) will find the imprint 71 anywhere in the imprint code; in this case three matches found: MRK 711, MRK 717, and Mrk 717.

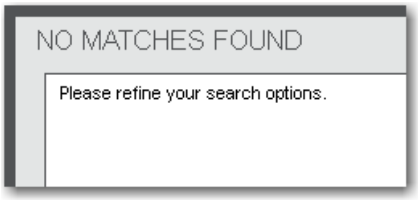


© 2017 Truven Health Analytics LLC



Without the *Partial Imprint* checkbox selected, the default Drug ID search looks for *exactly* what is entered as the search term. This means *all* terms and conditions must match to be considered a match. This executes like the Boolean 'AND' search operator.

Using the same example: Side 1 = MRK and Side 2 = 71, but without the *Partial Imprint* checkbox selected, results in "*No Matches Found*", as there are no drugs with the imprint of MRK AND 71.



If only one side is legible, you can search using a single imprint code. For example, you could search on Side 1 = 71. This search finds all drugs with 71 as an imprint, which may produce a large list of matches.

Logos and Pictures

If the drug has something other than letters or numbers, you can search on the term 'logo'. The example shown here could be found by searching Side 1 = 100 and Side 2 = logo.

Imprint Code Search Results

Search Results Page

All matches found for your search criteria are shown in a search results table. Links to additional information on: drug information, Manufacturer, Availability, and POISINDEX® Managements are available.

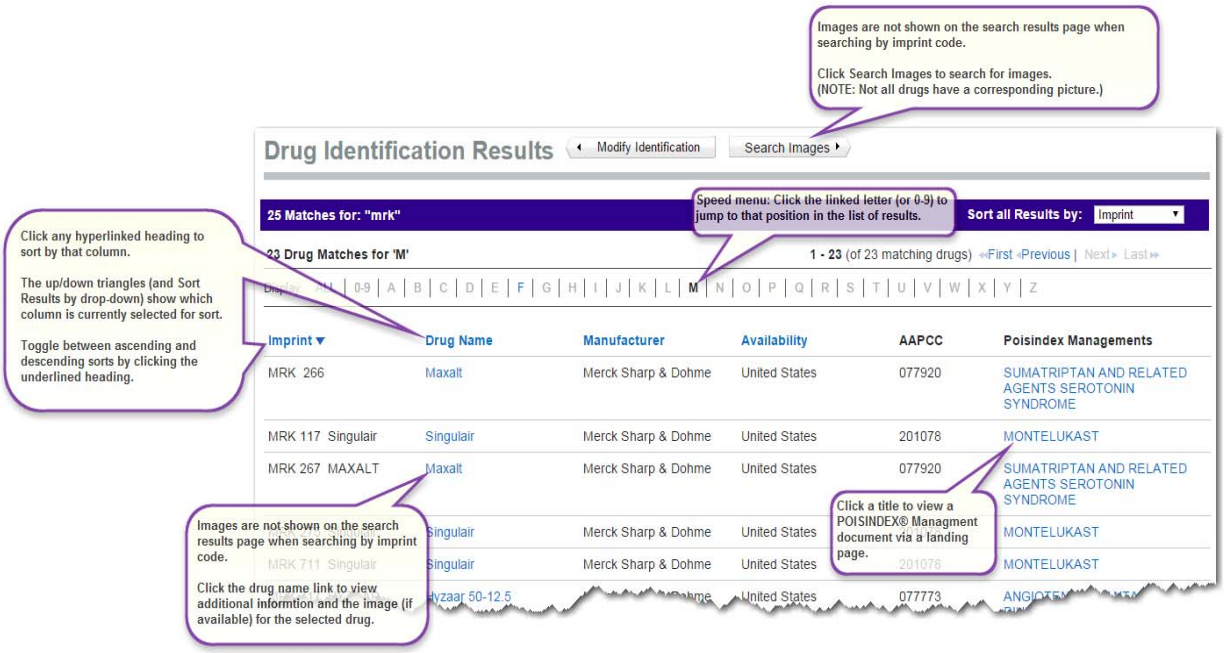
Searching by Imprint will not display any pictures in the search results table. Images may be available on the Drug Info page (see "Viewing Drug Information" on page 163). If you need to

© 2017 Truven Health Analytics LLC

view a picture of the substance to match it to the pill in question, it may be available by searching the Images database. Click the **Search Images** button to search using the same search terms and parameters in the Images database.

Note: Not all substances found through an imprint search will have a corresponding image/picture in the Images database.

If you wish to create a new search, click the **Modify Identification** button to return to the search page.



The results page opens positioned to results that most closely match your term(s). The number of drugs found for that letter (or number 0-9) is shown. You can view imprints matched that begin with other letters by clicking the speed menu letter (or number 0-9). Any letter shown with bold text denotes that a match to that letter was found for the search term.

Search results display sorted alphabetically by the imprint code. The sort order is an alphabetical ascending sort (0-9, A-Z). You can reverse the sort order by clicking on the blue arrow. When the sort order is changed, the direction of the arrow changes.

If more than one page of matches is found, move through the pages using the **<<First, <Previous | Next> and Last>>** navigation buttons.

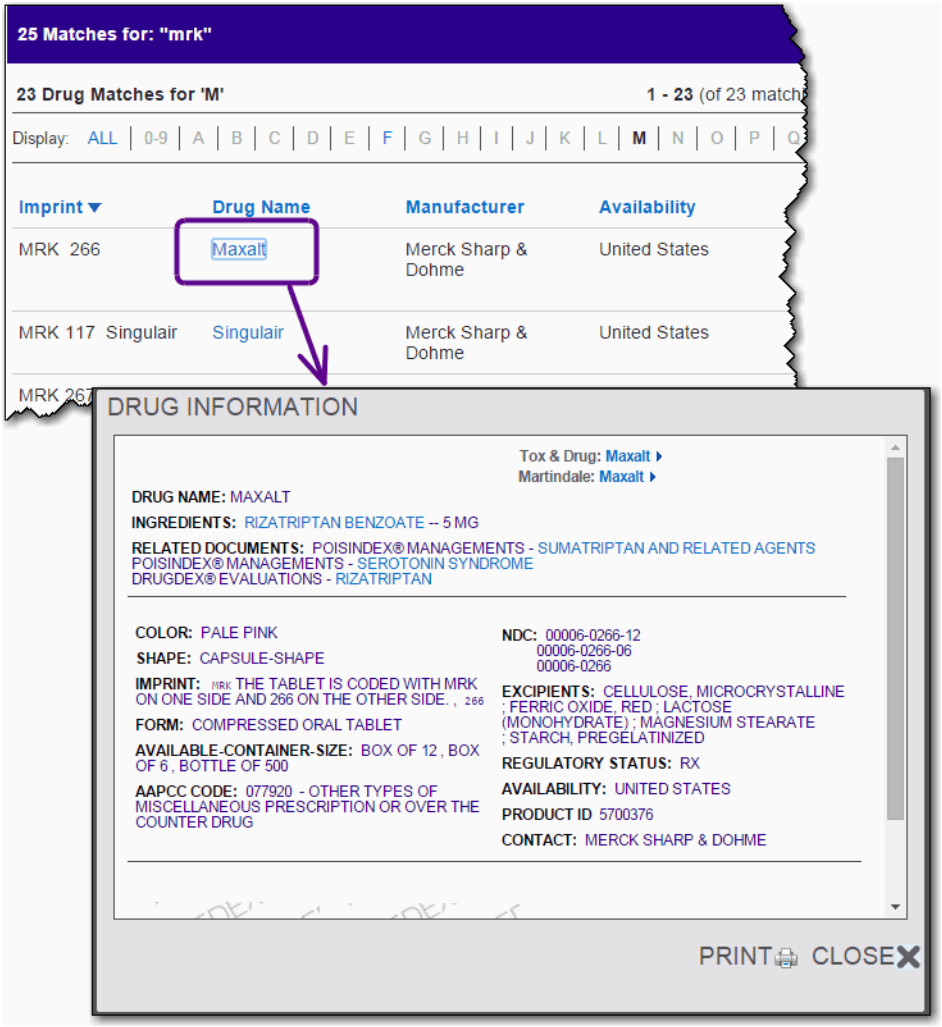
© 2017 Truven Health Analytics LLC

Sort All Results by

You can sort the search results by the Imprint Code, Drug Name, Manufacturer or Availability. Click the *Sort all Results by:* drop-down and select from the list.

Viewing Drug Information

Click a drug name link to open the *Drug Information* page for the substance.

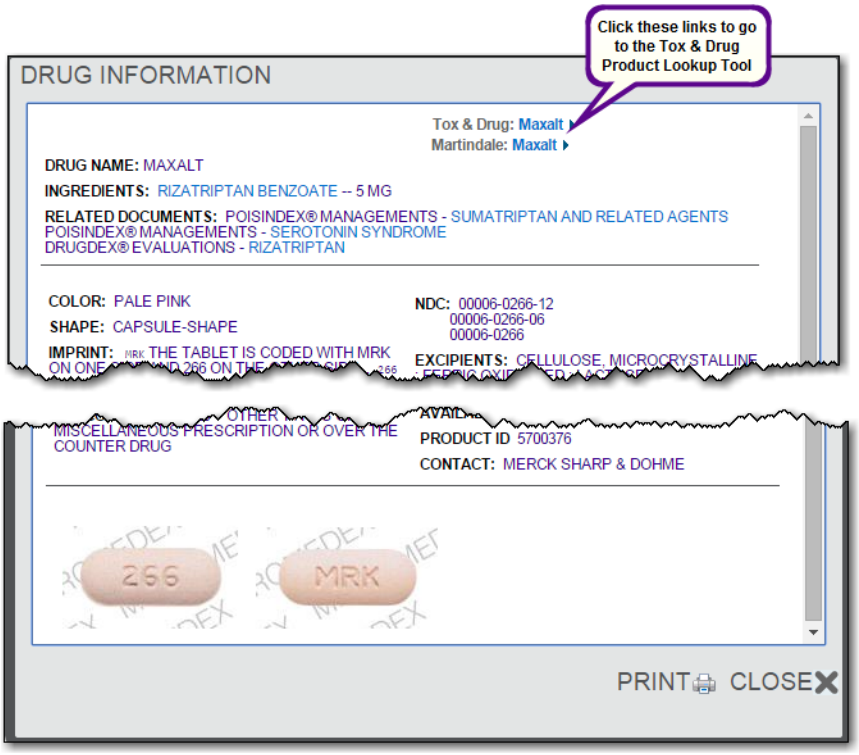


© 2017 Truven Health Analytics LLC

The following information may be displayed on the *Drug Information* page:

- Drug Name
- Ingredients
- Related POISINDEX® Management
- Color
- Shape
- Imprint
- Route
- Form
- Available Container Size (Packaging information)
- AAPCC Code
- NDC Code
- Excipients
- Regulatory Status
- Availability
- Product ID
- Contact (Manufacturer) Information

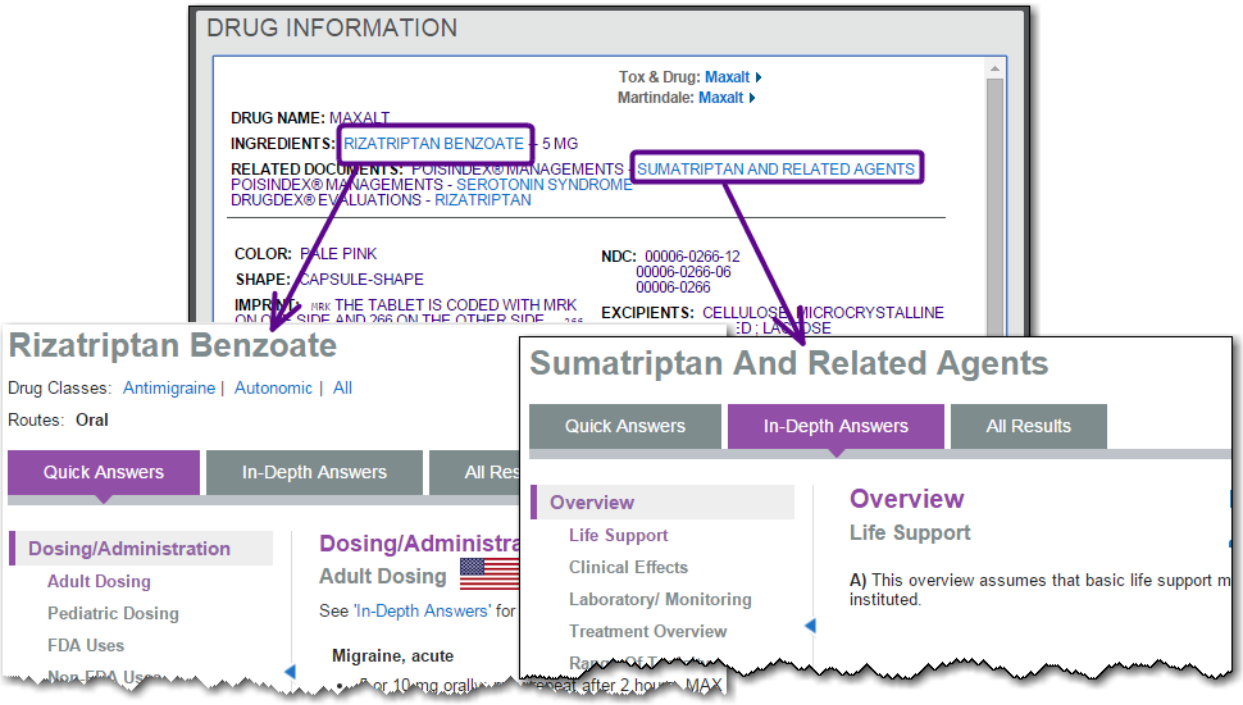
You can go directly to the *Tox & Drug Product Lookup Tool* (see "Tox & Drug Product Lookup Tool" on page 175) for the selected drug by clicking the link located near the top (right) of the window.



If an image of the pill is available, it is shown at the bottom of the *Drug Information* page.

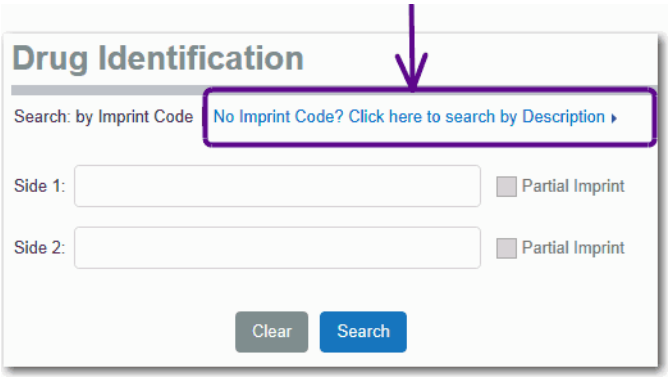
You can also link to drug and toxicology landing pages (see "Landing Pages" on page 16).

© 2017 Truven Health Analytics LLC



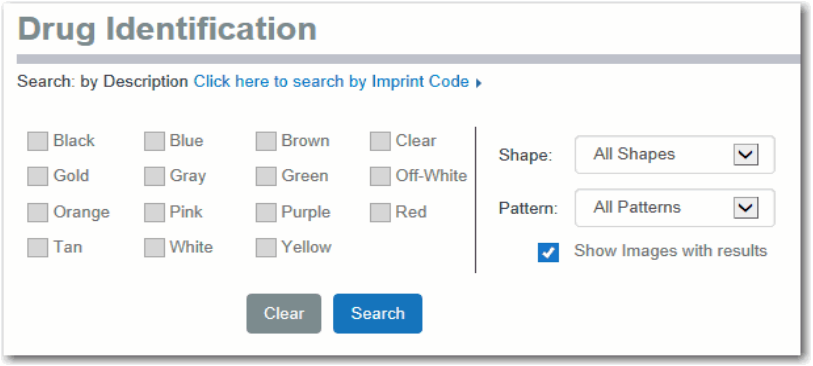
Print the information or close the page using the links on the bottom right side of the page.

Drug ID by Description - No Imprint Code Available



There may be times when no imprint code is available or legible. Click the **No Imprint Code? Click here to search by Description** link to open selection criteria for searching by the physical characteristics of the drug.

© 2017 Truven Health Analytics LLC

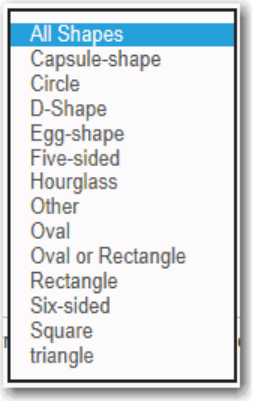


Type or select the known physical characteristics and then click the *Search* button to begin the search for matches to your criteria. Searches on this page execute using the Boolean 'OR' operator.

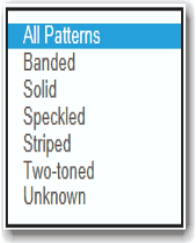
Description

Color
Select from the checkboxes to narrow results to specific colors and color combinations.

Shape
The default selection is to look for substances of all shapes, but you can select a specific shape from any of the shapes shown in the drop-down list.



Pattern
The default selection looks for all patterns, but you can select a specific pattern from any shown in the drop-down list.



If you do not wish to see the full-color images with your results, remove the checkbox selection from *Show Images with Results.*

Tip: Searching by physical characteristics (by Description) uses the Boolean 'OR' operator. This means that a substance that matches *any* checkbox will be considered a match.

To illustrate this, a search selecting Color = Pink; Color = Red, means the search would look for any items that were:

© 2017 Truven Health Analytics LLC

Color = Pink; OR
Color = Red; OR
Color = Pink and Red

Tip: There may be occasions where a match cannot be found in the Images database, but exists in the Imprints database. If an imprint can be used, return to the imprint search by clicking the *Click here to search by Imprint Code* link.

If you have typed the wrong information or selected parameters in error and wish to begin again, click the **Clear** button to remove all selections and characteristics and start over.

Search Results When Searching by Description

There is no Manufacturer, Availability, or AAPCC information available when searching using descriptive criteria (shape, color, pattern, etc.). If this type of information is what you need, you may be able to find it by performing a search strictly on the imprint code (no description criteria). See "Imprint Code Search Results" on page 161 for more information.

If you wish to create a new search, click the **Modify Identification** button to return to the search page.

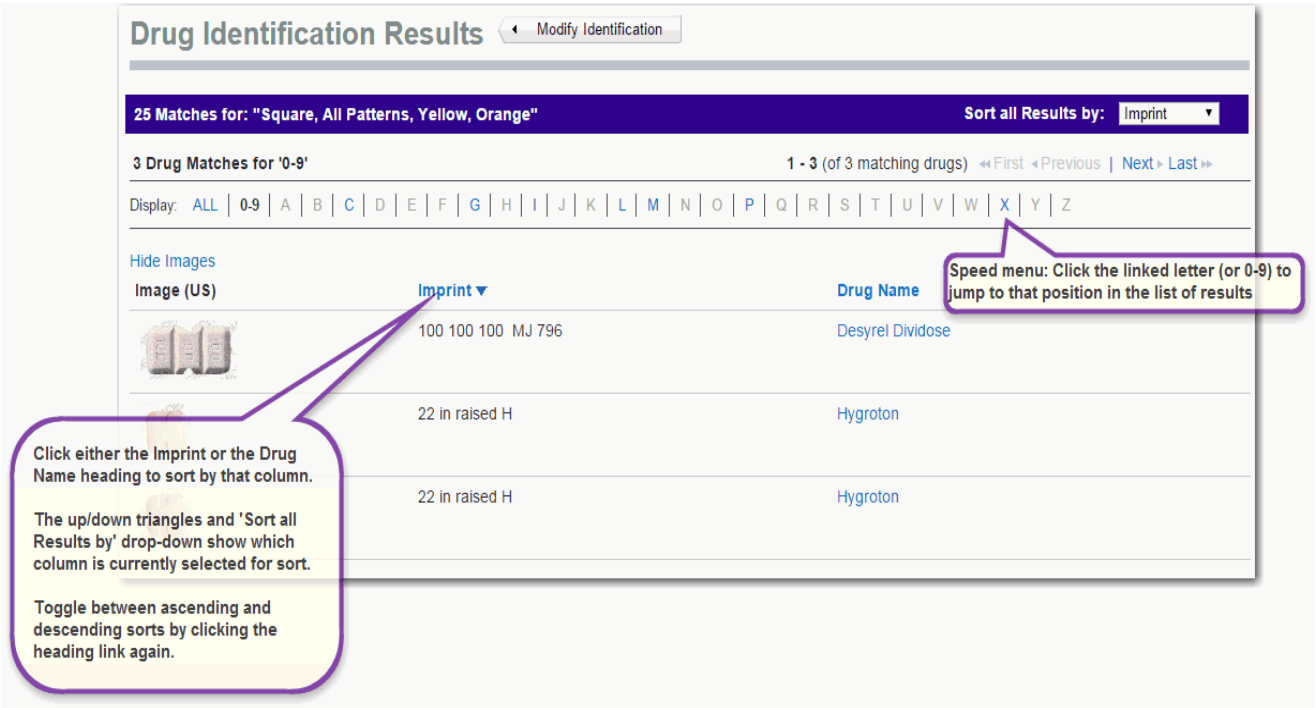
The total number of matches found for your search term is shown just above the speed menu on the left side of the page. Your search term(s) and all search criteria are displayed.

The results page opens positioned to the first results (numeric or alphabetic). For example, a search for "Square, Orange, Yellow" opens at the beginning of the "0-9" imprints. You can view imprints matched that begin with other letters by using the speed menu. Any letter shown with bold text denotes that a match to that letter was found for the search term. View all results by clicking the **ALL** link.

Search results display sorted alphabetically by the imprint code. The sort order is an alphabetical ascending sort (0-9, A-Z). You can reverse the sort order by clicking on the blue

© 2017 Truven Health Analytics LLC

arrow. When the sort order is changed, the direction of the arrow changes.



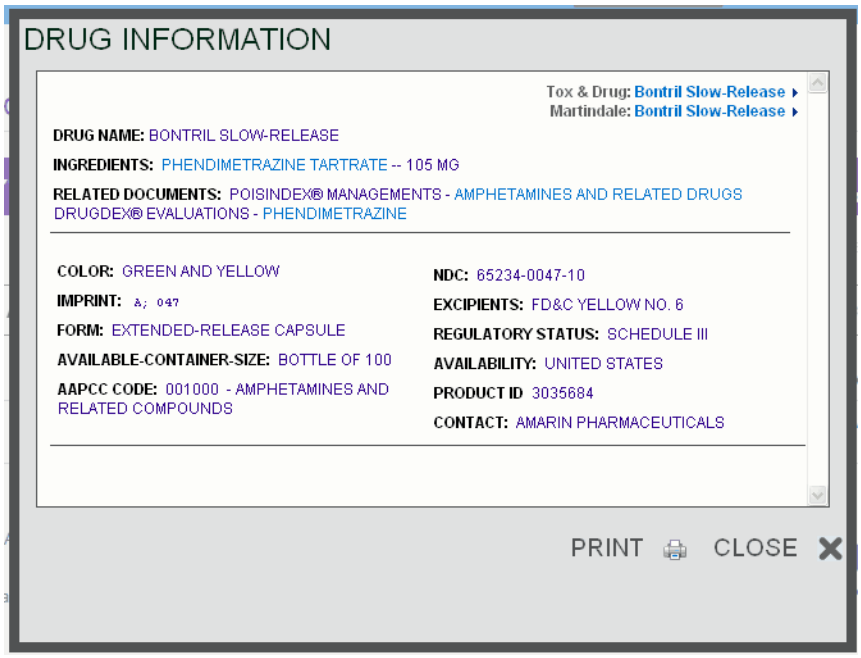
If more than one page of matches is found, move through the pages using the **<<First, <Previous | Next> and Last>>** navigation buttons.

Sort All Results by

When results are found in the images data, you can sort results by the Imprint Code or the Drug Name. Click the **Sort all Results by*:*** drop-down and select from the list.

Click the drug name link to view the details and open the *Drug Information* page for this substance.

© 2017 Truven Health Analytics LLC



The following information may be displayed in the *Drug Information* page:

- Color
- Shape
- Imprint
- Route
- Form
- NDC Code(s)

You can link to the same information from this Drug Information page as when reaching this page from an imprint search. For more information see "Viewing Drug Information" on page 163.

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

CHAPTER 13: DRUG COMPARISON TOOL

The number of drugs available today is enormous, and the vast amount of information about these drugs can be mind boggling. Use the **Drug Comparison** tool to harness this information and give you easy access to side-by-side drug information.

Reviewed by experts, Micromedex® Solutions drug information is evidence-based, covers FDA-approved prescription and nonprescription drugs. Areas discussed include dosing, indications, availability (prescription or over-the-counter), black box warnings, pharmacokinetics, cautions, interactions, clinical applications, adverse effects, and comparative efficacy.

View and compare drugs side-by-side with the **Drug Comparison** feature. Compare attributes such as: dosing, administration, indications, contraindications, precautions, adverse effects, and interactions to assist you in making the most informed choice.

Building the Search to Compare Drugs

1. Type the drug (brand or generic) in the *Enter Search Term:* field. If you are unsure of the spelling, just type as many characters as you know.
2. *Matching Drug Names*
   As you type, the word wheel begins to narrow your search results in the *Matching Drug Names* list based on the characters you entered. The more characters you type, the more focused the results. The number of matches to the drug name is also updated as you type.

   If the drug you are interested in is listed in the *Matching Drug Names* list, click on the drug and then click the add button (>) to add the drug to the *Drugs to Compare* list.

   If you add a drug in error, remove it from the list by clicking on the drug, then click the remove button (<).
3. *Related Names*
   Results shown in the *Matching Drug Names* list populate strictly based on the characters used in the search. Results shown in the Related Names list can be:

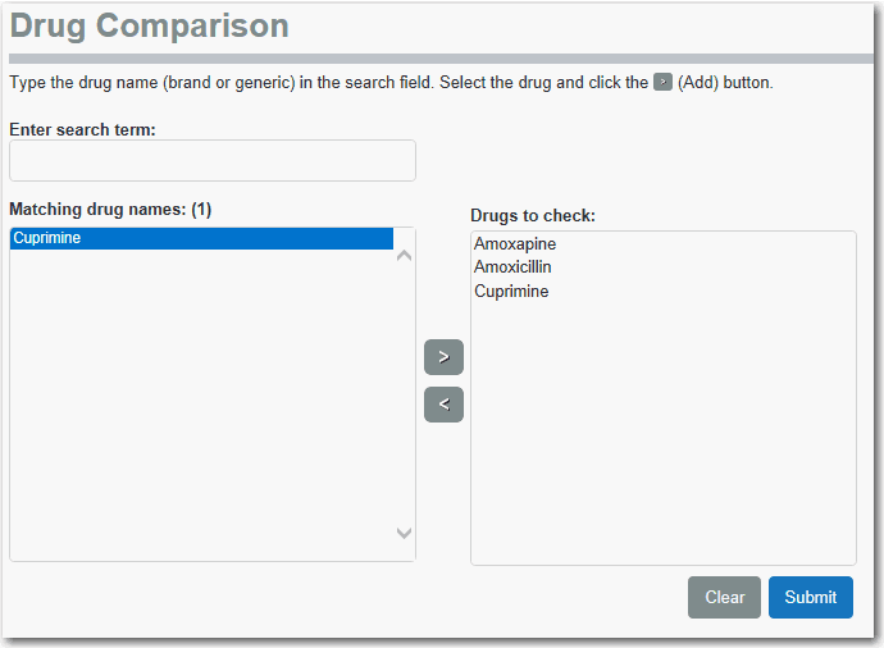
- The generic name if the search was for a branded or trade name drug
- The brand or trade name if the search was for a generic drug or synonym

© 2017 Truven Health Analytics LLC

- A synonym for the drug name

  For example: type ‘keflex’ in the *Enter Drug Name:* field and the Matching Drug Names list displays: Keflex, and the *Related Names* list populates with: Bio-Cef, Cefalexin, Cephalexin, and Panixine DisperDose.

  If the drug you are interested in is listed in the *Related Names* list, click on the item and then click the add button (>) to add the drug to the *Drugs to Compare* list.



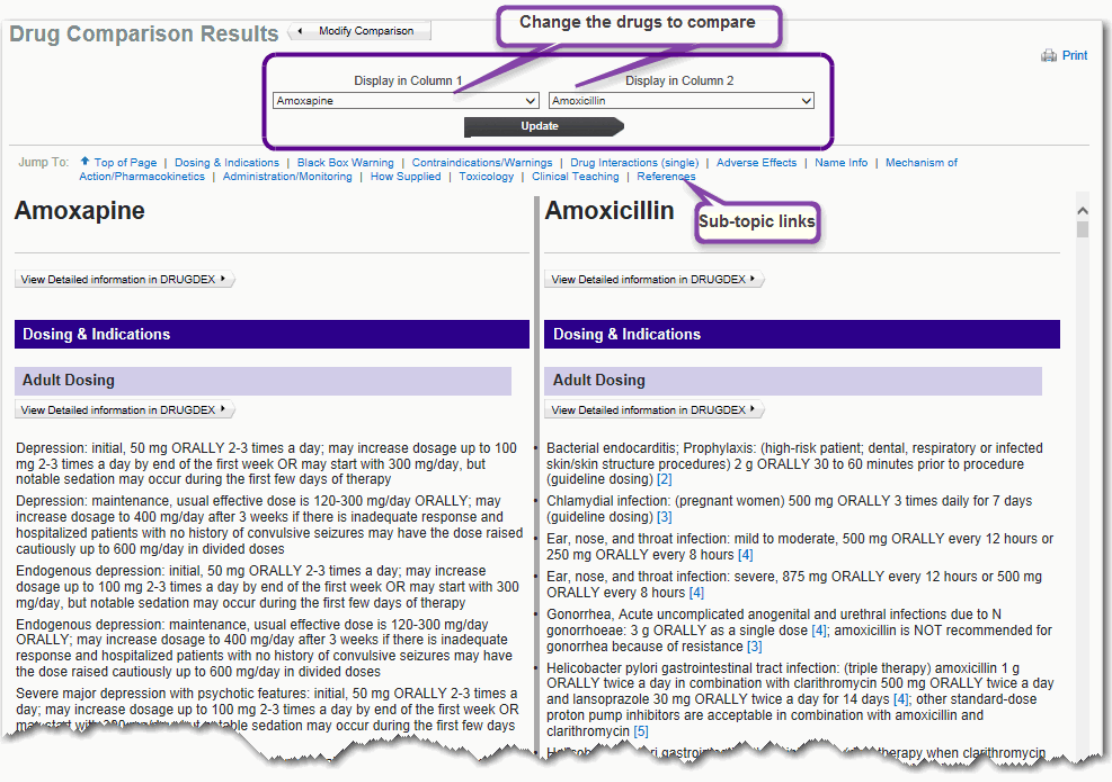
4. Repeat steps 2 through 3 until your list of *Drugs to Compare* contains all the items you are interested in viewing. Up to 20 drugs can be compared at a time. When the list is complete, click the **Submit** button to view the information.

Drug Comparison Results

The comparison page displays the information for the topic selected in a side-by-side layout to allow you to quickly compare and contrast the selected

© 2017 Truven Health Analytics LLC

drugs.



Selected Topic

The results display the Dosing & Indications topic by default. Click the desired topic link in the *Jump To* area to view other topics available for comparison.

Select another topic by clicking the item in the list.

.

Topic Outline Section	Description
Dosing & Indications	Can include adult and pediatric dosing information; dose adjustments; and indications (FDA and non-FDA labeled).
Tradenames/How Supplied/Regulatory Status/Generic Availability	Includes: Trade names, synonyms, class, regulatory status, and generic availability. How Supplied information includes: routes, forms, and names. Lists whether a drug is Rx or OTC; and if generics are available.

© 2017 Truven Health Analytics LLC

Topic Outline Section	Description
Black Box Warning	A black box warning (also sometimes called a black label warning) is a type of warning that appears on prescription drugs that may cause serious adverse effects.
Contraindications/ Warnings	Includes contraindications, precautions, pregnancy category, and breast feeding information.
Drug Interactions (Single)	Interactions with the drug to: other drugs, food, ethanol, and labs.
Adverse Effects	Categorized into common and serious adverse affects.
Mechanism of Action/ Pharmacokinetics	Pharmacokinetics can include: absorption, metabolism, excretion, and elimination half life.
Administration/ Monitoring	Information on how to administer the drug; how to monitor the patient while using the drug.

Jump to: Topic links

A topic is a logical area of information. For example, adult dosing and pediatric dosing are sub-topics of the Dosing & Indications topic. The topics available are shown as links at the top of the page. Navigate quickly to a topic (or sub-topic) by clicking the link.

Selected Drugs (Display in Column 1 | Display in Column 2)

Click the drop-down to place a different drug in either column. Up to twenty drugs can be selected for a comparison, but only two are shown on the comparison page at any one time.

Hypertext Links

Links shown on the comparison page mean that further information exists. Click the link to view the information. Links shown as numbers within brackets (e.g., [1]) link to the reference or citation for the information. Links can also open definitions for items shown in the summary information (such as, Breast Feeding Categories, Strength of Evidence, Strength of Recommendation, to name a few).

Linked information is presented in its own pop-up box that can be printed if desired.

Modify Your Search

Return to the Drug Comparison home page to change the list of drugs to compare by clicking the Modify Comparison button. You are presented with the drug comparison page, populated with your previous drug selections. Add or change the drugs to compare and then click the **Submit** button to show the drugs side-by-side again.

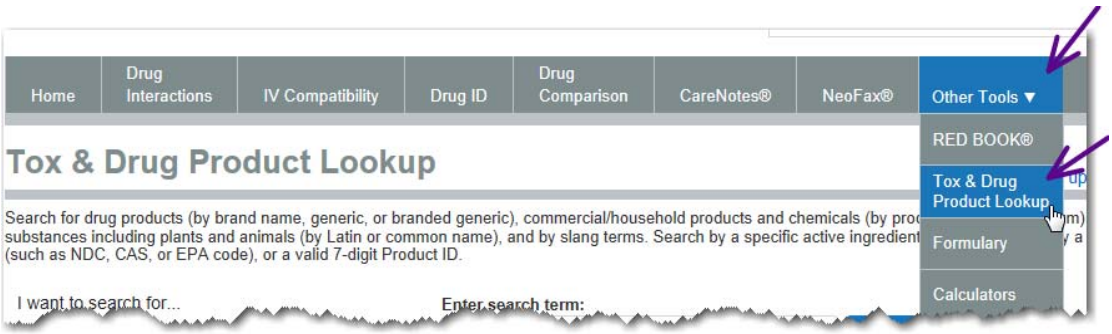
© 2017 Truven Health Analytics LLC

CHAPTER 14: TOX & DRUG PRODUCT LOOKUP TOOL

Use the Tox & Drug Product Lookup Tool to search for information about:

- Drug products (by brand name, generic, or branded generic)
- Commercial/household products and chemicals (by product name or synonym)
- Other substances including plants and animals (by Latin or common name)
- Slang terms/street names for drugs or substances

The Tox & Drug Product Lookup Tool is accessed from the Micromedex toolbar. Depending on your subscription it may be visible in the toolbar or it my under the Other Tools option.



INFORMATION INCLUDED IN THE TOX & DRUG PRODUCT LOOKUP TOOL

Information on hundreds of thousands of products and substances is gathered into the Tox & Drug Product Lookup Tool. POISINDEX® identifies ingredients for hundreds of thousands of commercial, pharmaceutical, and biological substances. Each substance is linked to one or more treatment/management protocols providing information on clinical effects, range of toxicity, and treatment protocols for exposures involving the substances.

The Tox & Drug Product Lookup allows you to search by:

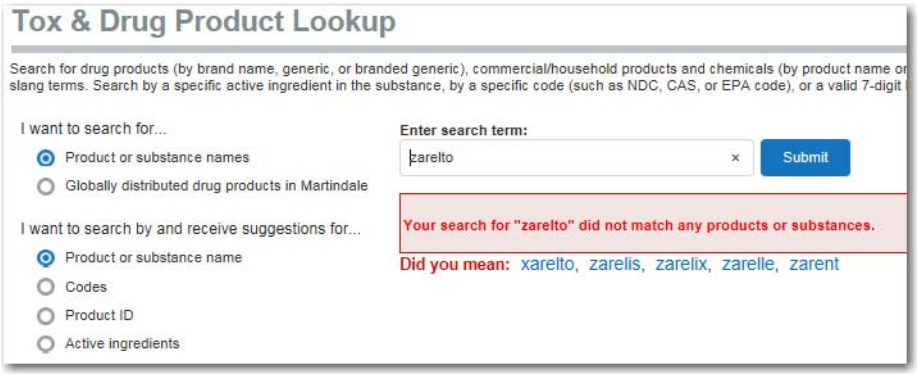
- **Name** (see page 176)
- **Specific code** - such as: NDC, CAS, or EPA code (see page 181)
- Valid 7-digit **Product ID** (see page 184)
- **Specific active ingredient** in the substance (see page 185)
- Look up **AAPCC Codes** (available by subscription) shown as a link from the Tox & Drug Product home page (see page 182)

Search results include links to the associated POISINDEX® Management.

© 2017 Truven Health Analytics LLC

Spelling Help

For each type of search if you enter a search term that does not produce results but is similar to a valid search term, you will receive alternative search term suggestions that link to results.



SEARCHING BY PRODUCT OR SUBSTANCE NAME

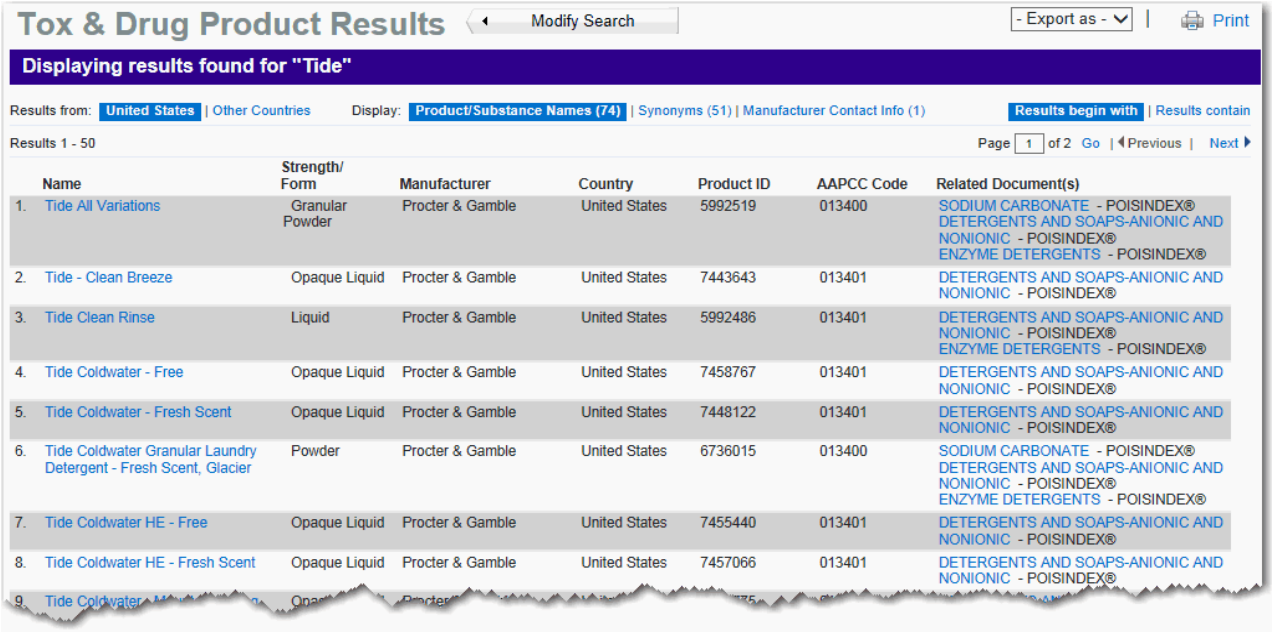
Select the *Product or substance name* option to search by common product or substance, name or synonym. The application will return results for items where the search term begins with the search term as well as for items where the search term is contained within the name or synonym (or Manufacturer name).

1. Leave or select the default search option as: **Product or substance name.**
2. Begin typing the name in the *Enter search term* field. The word wheel will populate with matches after you have typed at least three characters.
3. Continue to type the entire product name, then click **Submit** (or press the **Enter** key)
   - or -
   Type the partial product name, scroll down until you find the item in the list. Click on the item to select it and then click **Submit**
   - or -
   Type the partial product name and click **Submit** (or press the **Enter** key).

Tox & Drug Product Lookup Results

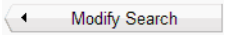
Matches found for your search are displayed on the Tox & Drug Product Lookup Results page. Poison Center users can find additional information in "Appendix D: Poison Center Integration" on page 273.

© 2017 Truven Health Analytics LLC



	Name	Strength/ Form	Manufacturer	Country	Product ID	AAPCC Code	Related Document(s)
1.	Tide All Variations	Granular Powder	Procter & Gamble	United States	5992519	013400	SODIUM CARBONATE - POISINDEX® DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX® ENZYME DETERGENTS - POISINDEX®
2.	Tide - Clean Breeze	Opaque Liquid	Procter & Gamble	United States	7443643	013401	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX®
3.	Tide Clean Rinse	Liquid	Procter & Gamble	United States	5992486	013401	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX® ENZYME DETERGENTS - POISINDEX®
4.	Tide Coldwater - Free	Opaque Liquid	Procter & Gamble	United States	7458767	013401	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX®
5.	Tide Coldwater - Fresh Scent	Opaque Liquid	Procter & Gamble	United States	7448122	013401	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX®
6.	Tide Coldwater Granular Laundry Detergent - Fresh Scent, Glacier	Powder	Procter & Gamble	United States	6736015	013400	SODIUM CARBONATE - POISINDEX® DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX® ENZYME DETERGENTS - POISINDEX®
7.	Tide Coldwater HE - Free	Opaque Liquid	Procter & Gamble	United States	7455440	013401	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX®
8.	Tide Coldwater HE - Fresh Scent	Opaque Liquid	Procter & Gamble	United States	7457066	013401	DETERGENTS AND SOAPS-ANIONIC AND NONIONIC - POISINDEX®
9.	Tide Coldwater						

Modify Search



To start a new product or substance search, click the **Modify Search** button. You will be presented with the Tox & Drug Product Lookup home page where you can select the type of search and type your search term(s).

Exporting Search Results

Search results can be exported to a Microsoft® Excel® (.xls) file, or a Comma Separated Values (.csv) file. Select the file type that you want to save the results as from the drop-down menu. A dialog box appears that provides the ability to select the location to which you want to save the file.

Print

The results page can be printed. Click the **Print** icon to print the current page.

Results from UNITED STATES | OTHER COUNTRIES

Products and substances are grouped into two categories: **United States and Other Countries.** Products available Worldwide, and products available in the United States and Canada, are also placed into the United States group of results.

© 2017 Truven Health Analytics LLC

Items that fall into the United States category are shown first by default, but you can quickly change the results to products outside of the United States by clicking the Other Countries link shown to the right of the *Results from* display area.

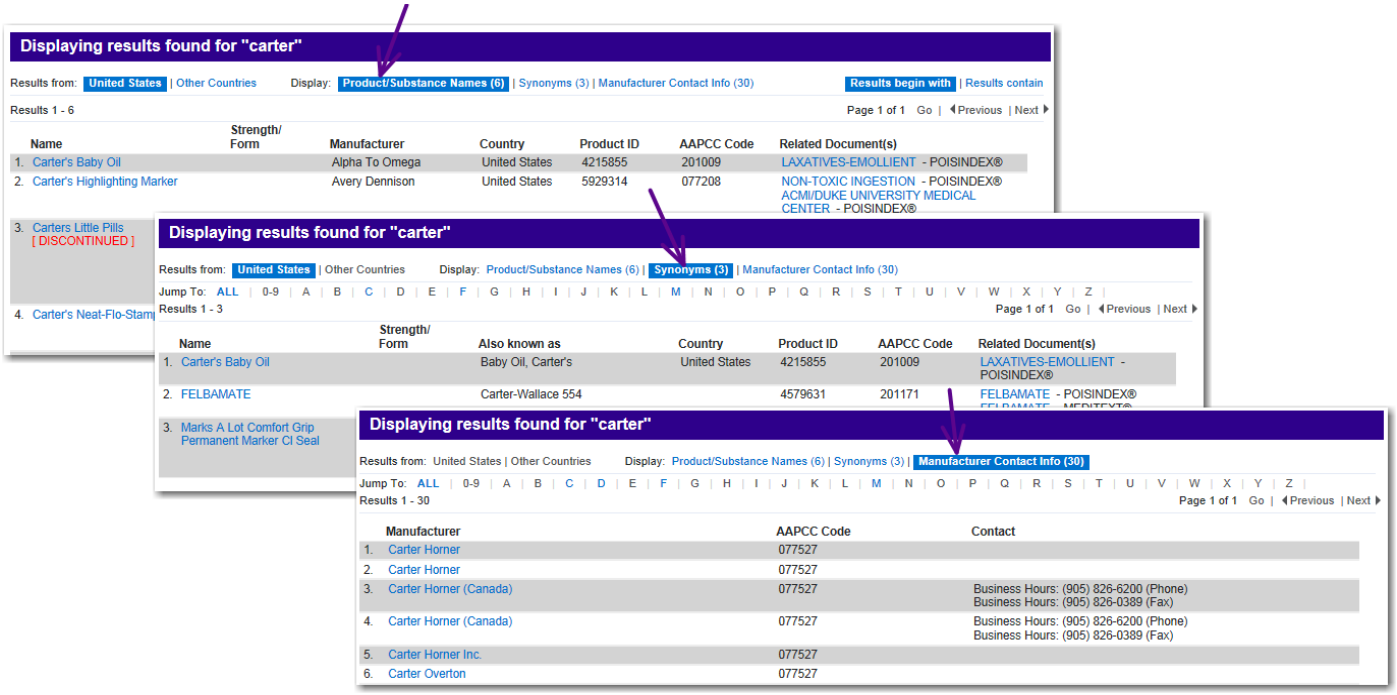
If no products and substances are found for the Other Countries category, the link is disabled.

If no products and substance are found for the United States (and Worldwide) categories, the Other Countries search results are shown and the United States link is disabled.

Display

Product/Substance Names | Synonyms | Manufacturer Contact Info

Matches to search terms are grouped into three categories: **Product/Substance Names (x), Synonyms (x), and Manufacturer Contact Info (x).** Results in the Product/Substance Names category are shown first by default. Switch the view to any available category by clicking the applicable link. Links to categories with no matches to the search will show a count of zero (0) and are disabled.



The type and layout of information displayed varies slightly depending on the link selected.

The Product/Substance Names link displays:

- Name link to the product information details
- Strength/Form (if applicable)
- Manufacturer
- Country
- Product ID
- AAPCC Code
- Related Documents links to the applicable POISINDEX® Managements

© 2017 Truven Health Analytics LLC

The Synonyms link displays:

- Name link to the product information details
- Strength/Form (if applicable)
- Also known as (product name synonym)
- Country
- Product ID
- AAPCC Code
- Related Documents links to the applicable POISINDEX® Managements

The Manufacturer Contact Info link displays:

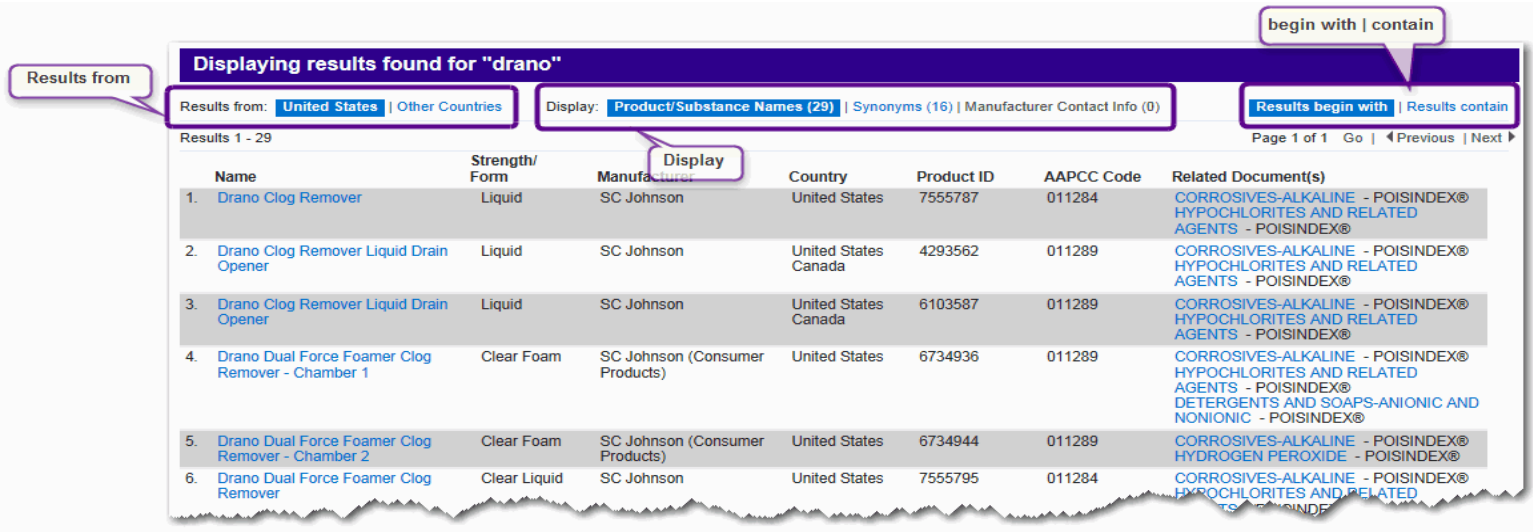
- Manufacturer name link to contact information
- AAPCC Code
- Contact information

Results begin with | Results contain

Product or substance names which begin with the search term(s) are shown first by default when both “begin with” and “contain” matches are found. The results display can be quickly switched to results where the search term(s) are *contained* in the product/substance or synonym by clicking the **Results contain** link. The corresponding counts for Products/ Substance Names, Synonyms, and Manufacturer Contact Info are updated when the applicable link (begin with or contains) is clicked.

If either link is shown as disabled (greyed out), it signals that there were no results found for that search condition.

Note: The **Results begin with | Results contain** option is not available when displaying Synonyms or Manufacturer Contact Info.



© 2017 Truven Health Analytics LLC

Results

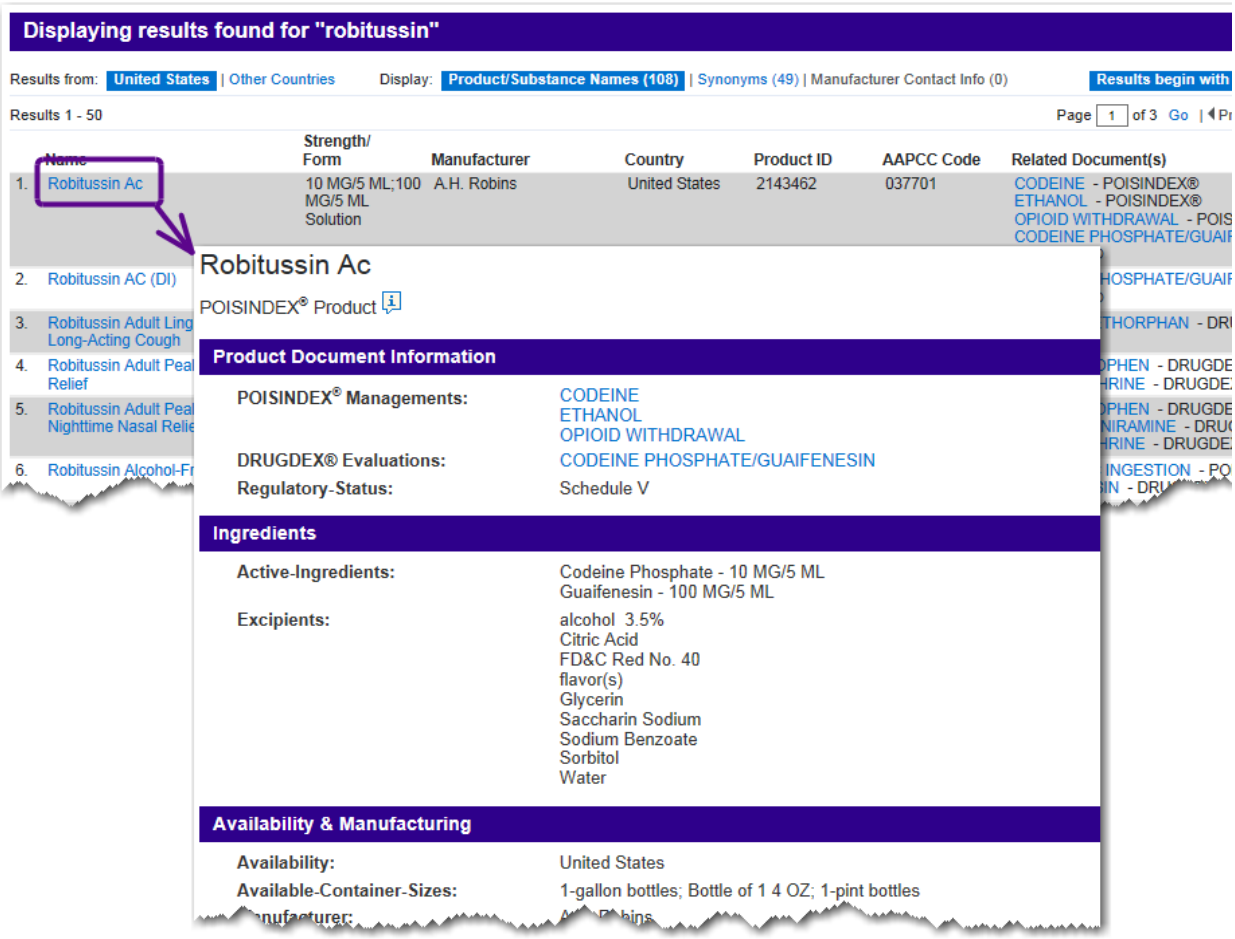
The current count and position of the results you are viewing is displayed. Up to 50 per page are shown at any one time.

Page *x* of *x* | Go | Previous | Next

The current page of the total number of pages is shown as Page x of x (i.e., Page 1 of 5). To jump to a different page of results, type the page number in the field and then click **Go**.

Jump ahead (or back) one page at a time using the **Next** or **Previous** navigation links.

The Product Page



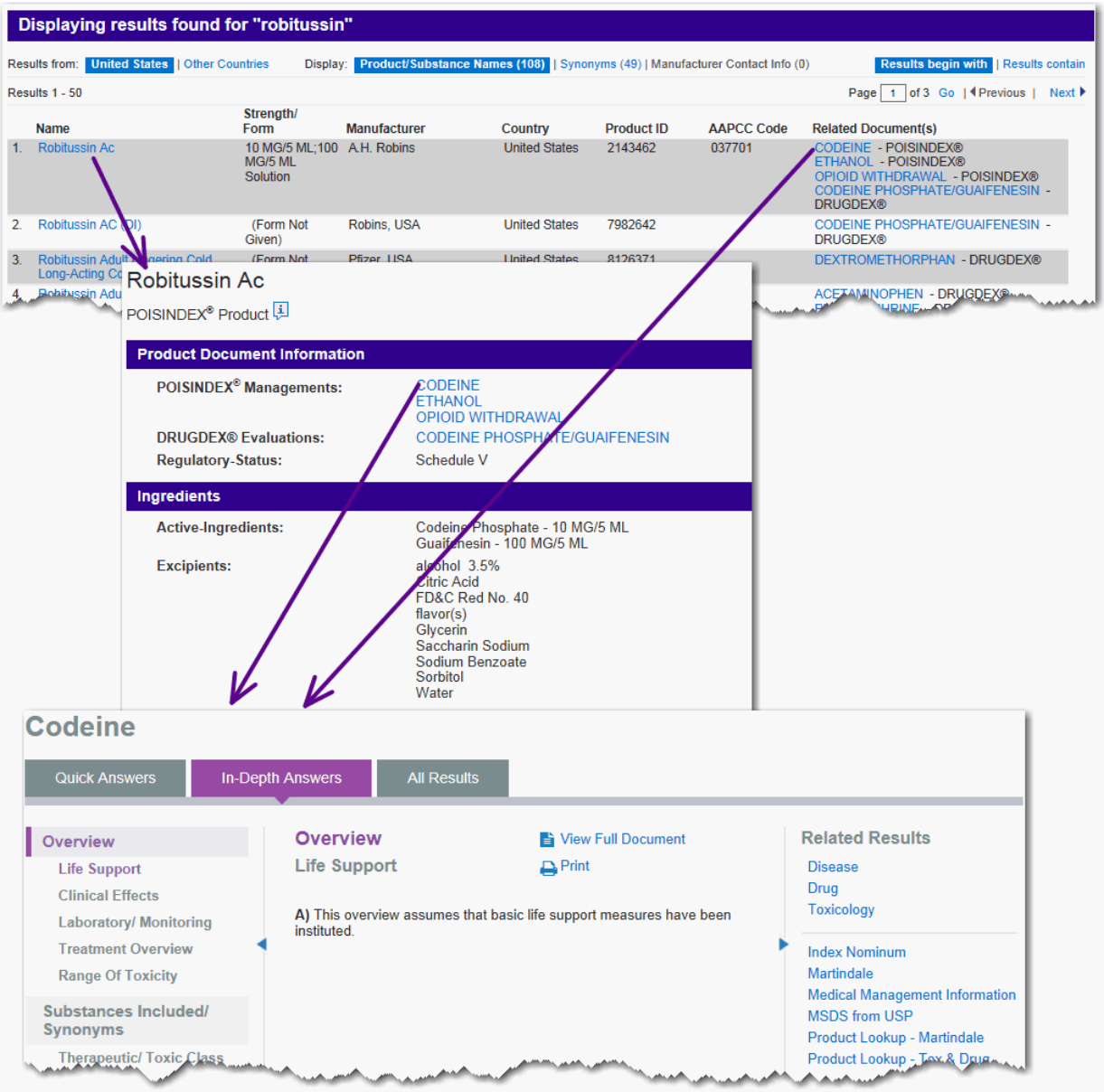
To view product information, click the **Name** link of the desired product. The associated POISINDEX® product page opens.

Information shown on the Product page may include: Ingredients (active ingredients, excipients), Availability & Manufacturing (availability, packaging information), contact, product ID, AAPCC code, registry numbers, Notes, and Physical Description.

© 2017 Truven Health Analytics LLC

Viewing Drug and Toxicology Information

You can link to drug and toxicology landing pages (see "Landing Pages" on page 16) from the search results and from the product page.



Searching by Code

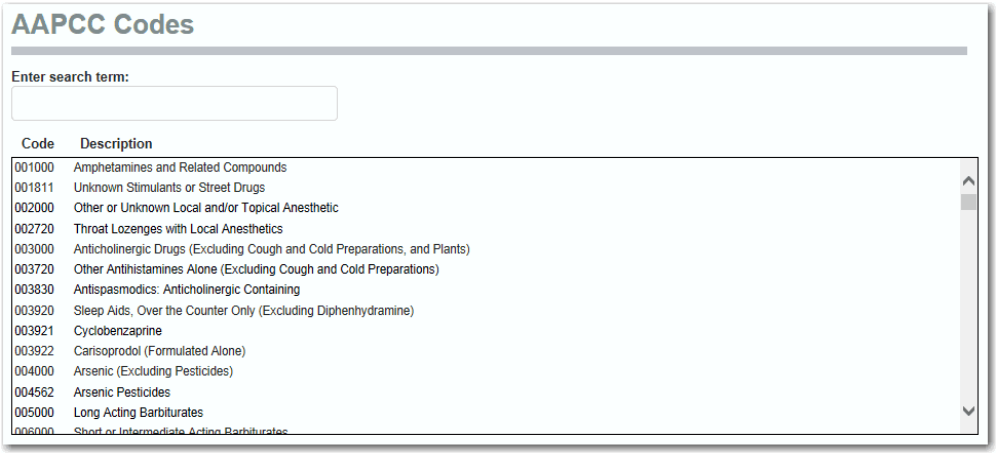
The DRUGDEX® and POISINDEX® products databases can be searched using a code as the search parameter.

© 2017 Truven Health Analytics LLC

AAPCC Codes

Available by subscription, and primarily used by Poison Centers, subscribers can look up a product description by using the *Look up AAPCC Codes* link, shown in the top, right corner of the Tox & Product Lookup page.

Clicking the *Look up AAPCC Codes* link opens the AAPCC Codes Search page.



Scroll the List

You can review the entire list of codes and definitions by using the scrollbar.

Print the Codes

The complete list of codes and descriptions can be printed for reference. Simply click the Print icon Print to send the printout to your local printer.

Product Code Search

Searchable Codes

NDC (National Drug Codes). The standard code format is 5-digits, 4-digits, 2-digits all separated by a dash (such as: 00220-9313-04). This search is very much like the '*contains*' search, therefore searching on: 00220-9313 will return 00220-9313-01, 00220-9313-02, 00220-9313-03, and so on.

CAS numbers (Chemical Abstracts Service). CAS registry numbers standard format is 2- to 6-digits, then 2-digits, followed by 1-digit all separated by a dash (such as: 361377-29-9)

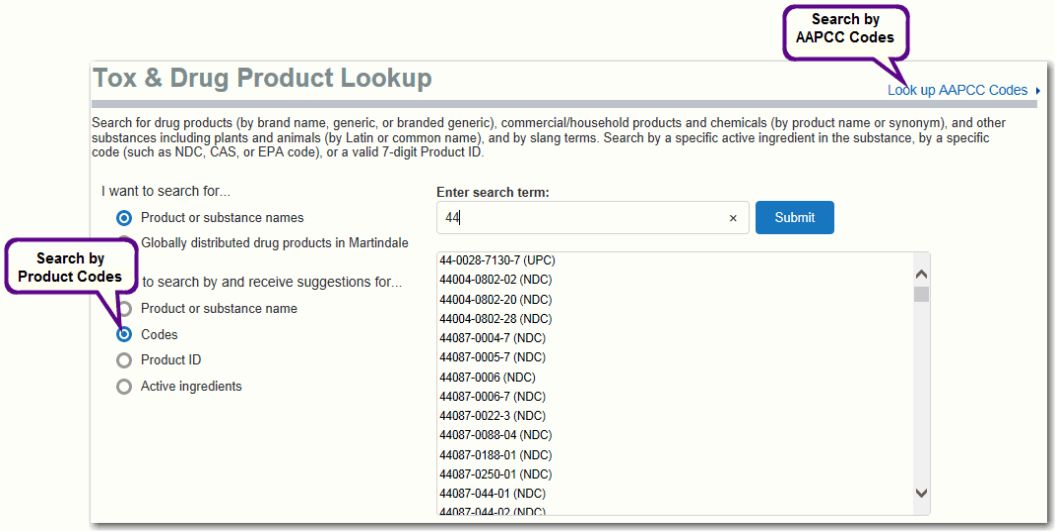
DIN codes (Drug Identification Number). DIN numbers can be an 8-digit code, or 5-digits, then 4-digits, separated by a dash (example: 00004588, or 00002-6069).

EPA codes (Environmental Protection Agency codes). Type the code exactly (e.g., 1332-58-7, or 475-237, or 4-30-869).

UPC codes (Universal Product Code). UPC numbers follow no standard format or layout. Be sure to type the code exactly, including spaces, letters, and dashes (for example: 0 49424 13610 0, or XN-1014-3526-3, or 38753 31590).

© 2017 Truven Health Analytics LLC

Other codes that can be searched are: **PCP** (Pest Control Product), **CRN** (California Registry Number), and **Fertilizer Act**.

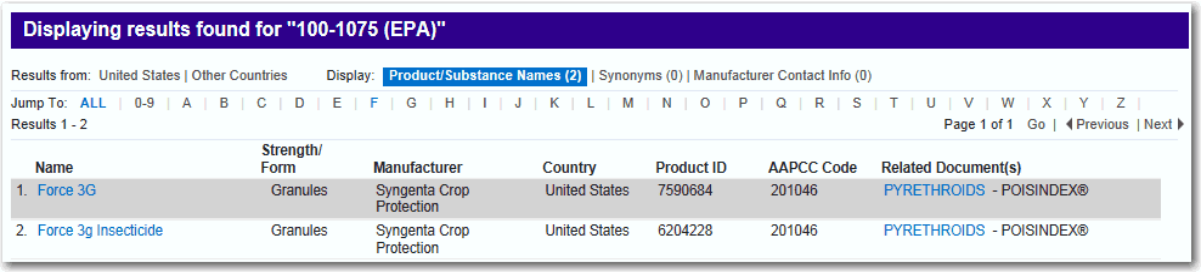


1. Select *I want to search by and receive suggestions for...* **Codes** option.
2. Begin typing the code for the desired product. The word wheel appears as soon as one digit is typed, showing the first match to the digit(s) typed. As additional digits are typed, the result set narrows.
3. Type the entire code and press the **Enter** key
   - or-
   Type a partial code and scroll down the list. Click on the desired code to select it, then click **Search.**

Search Results

The information shown on the results page is the same as is shown by default for a Product or Substance Name search. See "Tox & Drug Product Lookup Results" on page 176 for a full explanation. However, when searching by codes, viewing: Synonyms or Manufacturer Contact Info, Begins with or Contains view options are not available.

Navigating links to product information and related documents function the same as described for a Product or Substance search. See "The Product Page" on page 180 for a full description.



Jump To

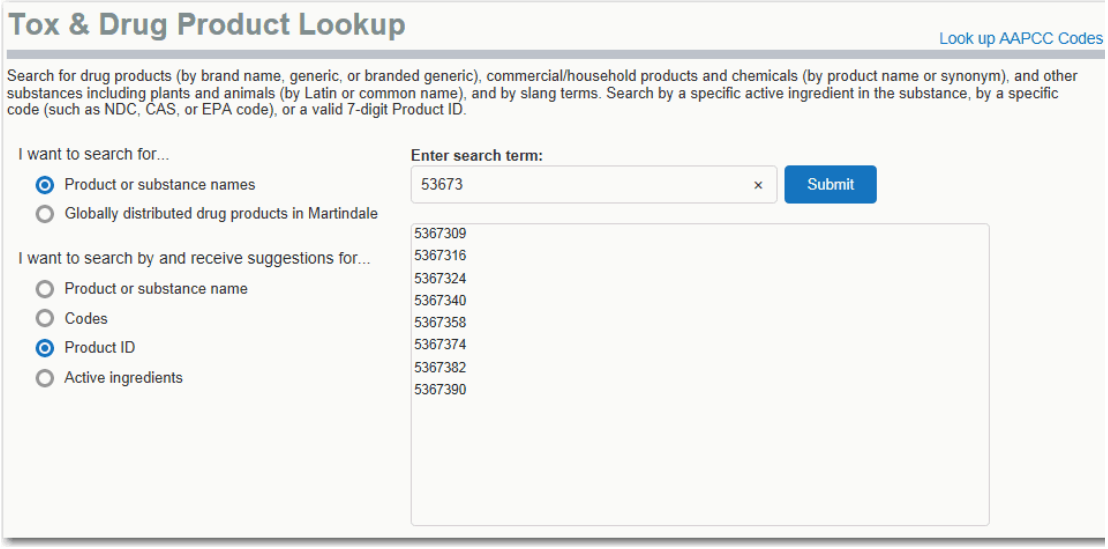
© 2017 Truven Health Analytics LLC

All products or substances found for the search are returned on the *Tox & Drug Product Lookup Results* page in alphanumeric sort order. Navigate quickly to a product by using the *Jump To* letter link of the product name. For example, click the **G** link to jump to product names that begin with the letter G.

The total number of pages found is shown when the *ALL* Jump To option is selected. When a specific letter is chosen, the number of pages available for the selected letter is displayed.

Product ID Search

Search by 7-digit product ID code.

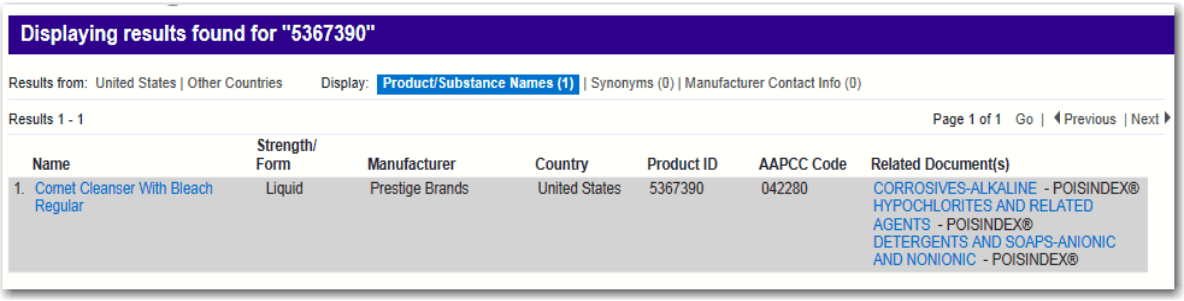


1. Select *I want to search by and receive suggestions for...* **Product ID** option.
2. Begin typing the 7-digit Product ID for the desired product. The word wheel appears when one or more digits have been typed, showing the first match to the digit(s) entered. As additional digits are typed, the result set narrows.
3. Type the entire code and press the **Enter** key
   - or -
   Type the partial product ID, scroll down the list and click to select. Once selected, click **Search.**

Search Results

A single product is returned in the results.

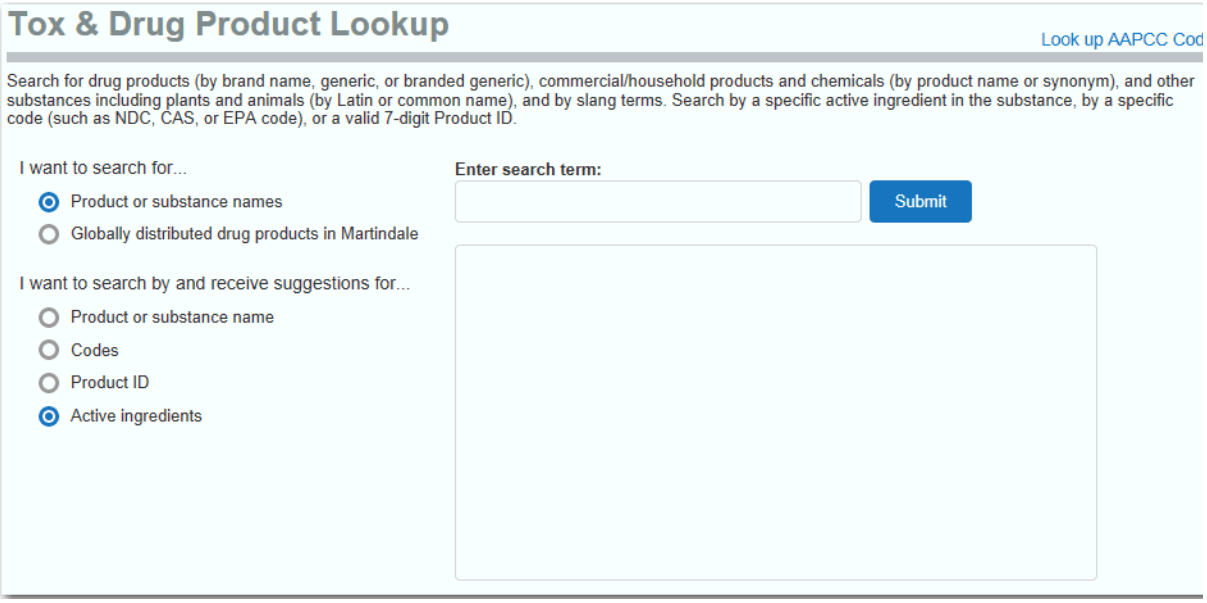
© 2017 Truven Health Analytics LLC



The information shown on the results page is the same as is shown by default for a Product or Substance Name search. See "Tox & Drug Product Lookup Results" on page 176 for a full explanation.

Navigating links to product information and related documents function the same as described for a Product or Substance search. See "The Product Page" on page 180 for a full description.

Active Ingredient Search



1. Select *I want to search by and receive suggestions for...* **Active ingredients** option.
2. Begin typing the ingredient name. The word wheel appears as soon as one character or digit is typed, showing the first match to the information entered. As additional characters or digits are typed, the result set narrows.
3. Type the entire ingredient and press the **Enter** key
   - or -
   Type the partial ingredient name, scroll down the list and click to select. Once selected, click **Search**

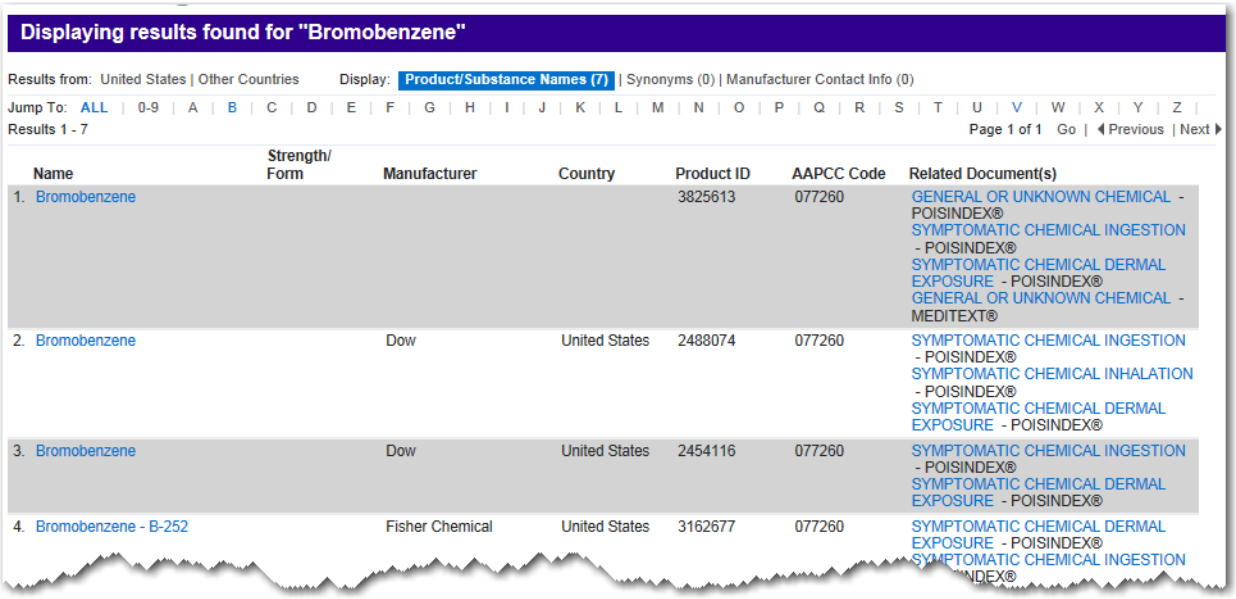
© 2017 Truven Health Analytics LLC

- or -

Type the partial active ingredient name and click **Search.**

Search Results

The information shown on the results page is the same as is shown by default for a Product or Substance Name search. See "Tox & Drug Product Lookup Results" on page 176 for a full explanation. However, when searching by active ingredient, viewing: Synonyms or Manufacturer Contact Info, Begins with or Contains view options are not available.



Displaying results found for "Bromobenzene"

Results from: United States | Other Countries Display: Product/Substance Names (7) | Synonyms (0) | Manufacturer Contact Info (0)

Jump To: ALL | 0-9 | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |

Results 1 - 7 Page 1 of 1 Go | Previous | Next

Name	Strength/ Form	Manufacturer	Country	Product ID	AAPCC Code	Related Document(s)
1. Bromobenzene				3825613	077260	GENERAL OR UNKNOWN CHEMICAL - POISINDEX® SYMPTOMATIC CHEMICAL INGESTION - POISINDEX® SYMPTOMATIC CHEMICAL DERMAL EXPOSURE - POISINDEX® GENERAL OR UNKNOWN CHEMICAL - MEDITEXT®
2. Bromobenzene		Dow	United States	2488074	077260	SYMPTOMATIC CHEMICAL INGESTION - POISINDEX® SYMPTOMATIC CHEMICAL INHALATION - POISINDEX® SYMPTOMATIC CHEMICAL DERMAL EXPOSURE - POISINDEX®
3. Bromobenzene		Dow	United States	2454116	077260	SYMPTOMATIC CHEMICAL INGESTION - POISINDEX® SYMPTOMATIC CHEMICAL DERMAL EXPOSURE - POISINDEX®
4. Bromobenzene - B-252		Fisher Chemical	United States	3162677	077260	SYMPTOMATIC CHEMICAL DERMAL EXPOSURE - POISINDEX® SYMPTOMATIC CHEMICAL INGESTION

Navigating links to product information and related documents function the same as described for a Product or Substance search. See "The Product Page" on page 180 for a full description.

Jump To

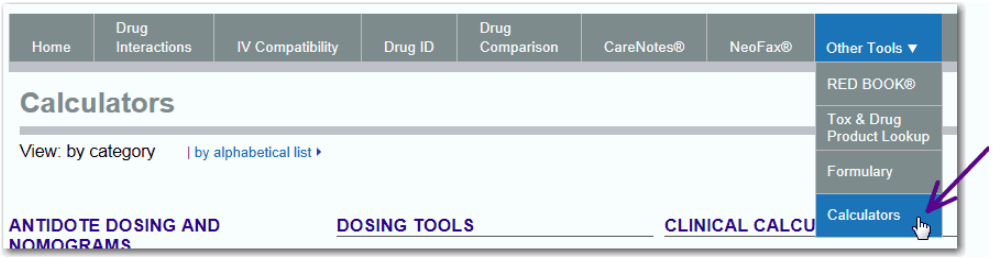
All products or substances found for the search are returned on the *Tox & Drug Product Lookup Results* page in alphanumeric sort order. Navigate quickly to a product by using the *Jump To* letter link of the product name. For example, click the **G** link to jump to product names that begin with the letter G.

The total number of pages found are shown when the ALL Jump To option is selected. When a specific letter is chosen, the number of pages available for the selected letter is displayed.

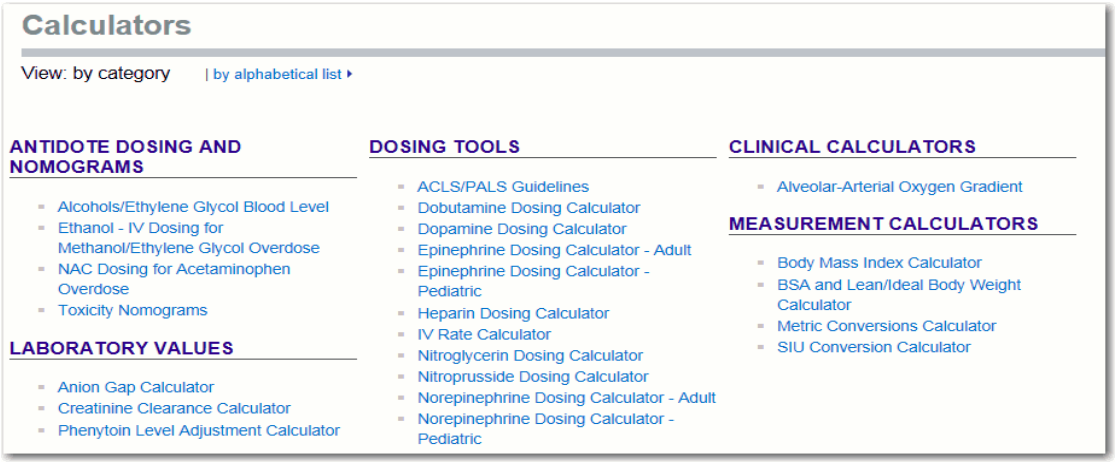
© 2017 Truven Health Analytics LLC

CHAPTER 15: CALCULATORS

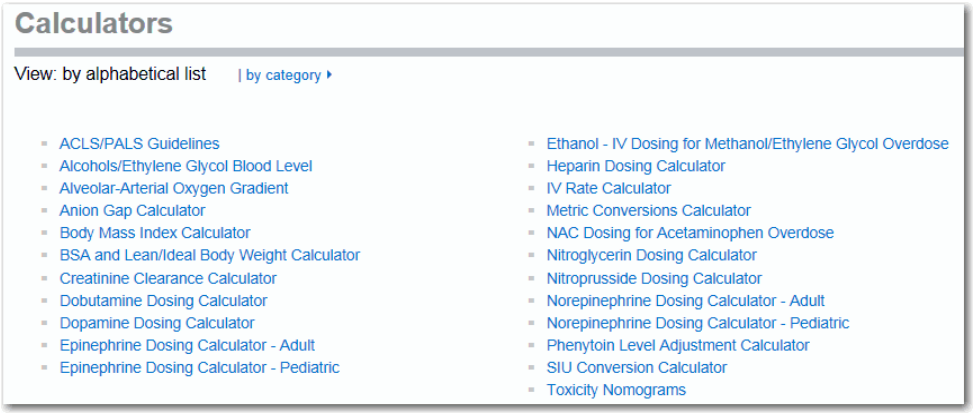
All of the calculators available in Micromedex® Solutions can be found by clicking the **Calculators** toolbar option. Depending on your subscription, it may be visible in the toolbar or it may be under the Other Tools option.



The calculators are grouped into logical areas to make it quick and easy to find the calculator you need.



However, if you want to browse a full alphabetical list of all the calculators, click the **View Alphabetical List** link.



© 2017 Truven Health Analytics LLC

A brief description of each calculator follows.

Antidote Dosing Calculators and Nomograms

Alcohols/Ethylene Glycol Blood Level

Provides levels for a single, acute ingestion.

Calculate the blood levels for: ethanol, methanol, ethylene glycol, or isopropyl alcohol.

Ethanol/IV Dosing for Methanol/Ethylene Glycol Overdose

Options are available to calculate for initiation of therapy, or to adjust a maintenance dose based on plasma level.

NAC Dosing for Acetaminophen Overdose

Calculates acetaminophen overdose treatment based on the patient's weight, including the loading dose and maintenance dose.

Toxicity Nomogram

Calculates the toxicity risk of Acetaminophen. You provide the blood plasma level (and unit measurement: mcg/ml, mg/dcl or SI Units) as well as the time since ingestion of Acetaminophen.

Results can be displayed in graph or table format.

Laboratory Values

Anion Gap Calculator

Enter the sodium, chloride, bicarbonate, and potassium levels to calculate anion gap.

Creatinine Clearance Calculator

This calculator calculates **adult** creatinine clearance, based on the patient's age, current serum creatinine level in mg/dl, and a body weight value (in kg or lb) that has been appropriately adjusted according to the patient's body mass index (BMI). It can also calculate creatinine clearance for **pediatric** patients using length (cm or inches), serum creatinine (mg/dL), and a k constant value, which is based on age (in months or years) and gender. For either patient type, enter all appropriate values as indicated in the entry screen, then click the **Submit** button to generate the results.

Phenytoin Level Adjustment Calculator

Utilized by clinicians to adjust reported serum phenytoin levels in patients that have low serum albumin levels or renal impairment. Hypoalbuminemia and/or renal impairment changes the binding affinity of phenytoin which results in a reported total phenytoin level that is of little value clinically. This calculator estimates what the total phenytoin level would be if the patient did not have these comorbid conditions. Calculates the adjusted Phenytoin Level using current values for: Phenytoin Level (mcg/mL), Albumin (gm/dL) and Creatinine Clearance (mL/min).

© 2017 Truven Health Analytics LLC

Dosing Tools

ACLS/PALS Guidelines

Based on pediatric or adult weight, (in kilograms or pounds) this calculator displays the American Heart Association medication and recommendation guidelines for ACLS/PALS/ neonatal resuscitation.

When printed these tables will automatically have appropriate page breaks and repeating headers. You can configure additional formatting by using your browser's Print Setup (Internet Explorer **File-> Page Setup**; Chrome **Print**; Firefox **File -> Page Setup**).

Dobutamine Dosing Calculator

Calculate based on weight (kg/lb) and the initial dose. Results are in mcg/kg/min with the selected solution.

Dopamine Dosing Calculator

Calculate based on weight (kg/lb) and the initial dose. Results are in mcg/kg/min with the selected solution.

Epinephrine Dosing Calculator - Adult

The adult calculator displays recommendations based on initial dosing and the solution concentration.

Epinephrine Dosing Calculator - Pediatric

The pediatric calculator also factors in the weight (kg/lb) of the pediatric patient.

Heparin Dosing Calculator

Formulates recommendations based on weight (kg/lb) and units/ml.

IV Rate Calculator

Enables clinicians to quickly and easily determine the infusion rate for medications that require complicated calculations. This flexible dosing tool is not specific to a particular drug, but calculates an infusion rate for a variety of medications, dosing options, and solution concentrations.

Nitroglycerin Dosing Calculator

Dosing calculations are for adults only (weight >= 40 kg). Calculations are not based on patient weight. Recommendations can be calculated based on concentration and mcg/min and whether or not the patient is on fluid restriction.

Nitroprusside Dosing Calculator

Calculations are based on patient weight (kg/lb) and mcg/kg/min and the concentration of the solution used.

Norepinephrine Dosing Calculator - Adult

The adult calculator displays recommendations based on initial dosing and the solution concentration.

© 2017 Truven Health Analytics LLC

Norepinephrine Dosing Calculator - Pediatric

The pediatric calculator also factors in the weight (kg/lb) of the pediatric patient.

Clinical Calculators

Alveolar-Arterial Oxygen Gradient

Allows you to calculate the alveolar oxygen concentration and gradient with notes related to the results obtained. You can also determine atmospheric pressure for a specific area or country.

Measurement Calculators

Body Mass Index Calculator

Body Mass Index (BMI) is a calculated value that shows body weight adjusted for height and indicates the weight status in adults. Calculates BMI based on weight (kg/lbs) and height (cm/in).

BSA and Lean/Ideal Body Weight Calculator

Calculates body surface area and lean/ideal body weight based on age (years or months), weight (kg/lbs), height (cm/in), and sex (male/female).

Metric Conversions Calculator

Provides conversions between Metric and English standard units for many common conversions utilized in clinical practice. The conversions include measurements of weight, length, volume, temperature, and parts per million.

SIU Conversion Calculator

Allows you to calculate and convert amounts based a selected substance and a chosen conversion unit.

© 2017 Truven Health Analytics LLC

CHAPTER 16: RED BOOK ONLINE

Introduction to RED BOOK Online

RED BOOK Online is the essential resource healthcare professionals reach for every day to find the latest drug product pricing and packaging information on prescription and over-the-counter drug products.

By providing all of the drug product pricing and packaging data you need in one source, RED BOOK Online simplifies the identification, analysis, and comparison of drug and non-drug items. RED BOOK Online supports formulary management, cost containment, and drug utilization review, and provides consistent and unbiased Average Wholesale Price (AWP) pricing information for brand name and generic drugs. See “Average Wholesale Price (AWP) Policy” on page 265. for more information on the Truven Health Analytics AWP policy.

RED BOOK Online provides:

- Drug pricing and product information for more than 200,000 active and deactivated drugs
- An intuitive online user interface
- Daily updates to provide the most up-to-date information
- Notification of new pricing information
- Available via the Micromedex® Solutions interface which can provide access to a broad range of clinical decision support tools available from Truven Health.

Searching RED BOOK Online

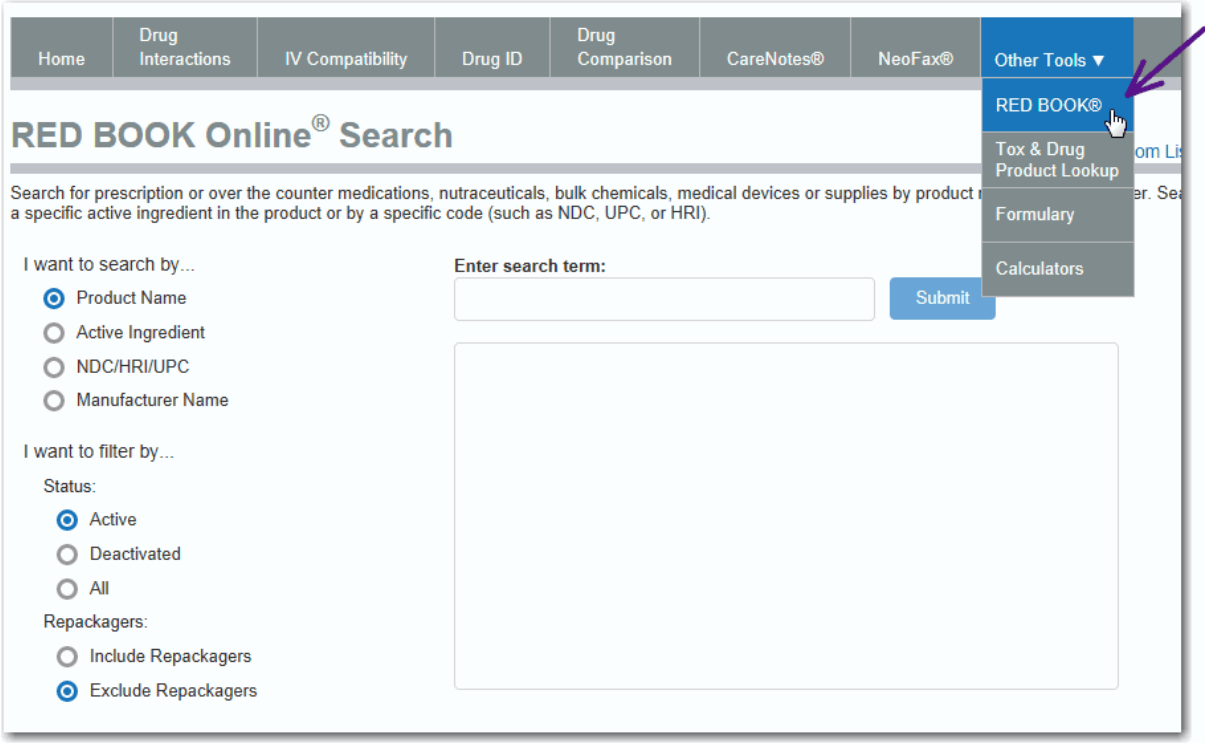
To begin using RED BOOK Online®, you must first log into the application. Navigate to the URL through which you access RED BOOK Online and log in.

The options displayed on the toolbar will vary depending upon your Micromedex® Solutions subscriptions. RED BOOK Online may be visible in the toolbar or it may be under the Other Tools option.

Click the **RED BOOK Online** toolbar item.

The *RED BOOK Online Search* page displays.

© 2017 Truven Health Analytics LLC



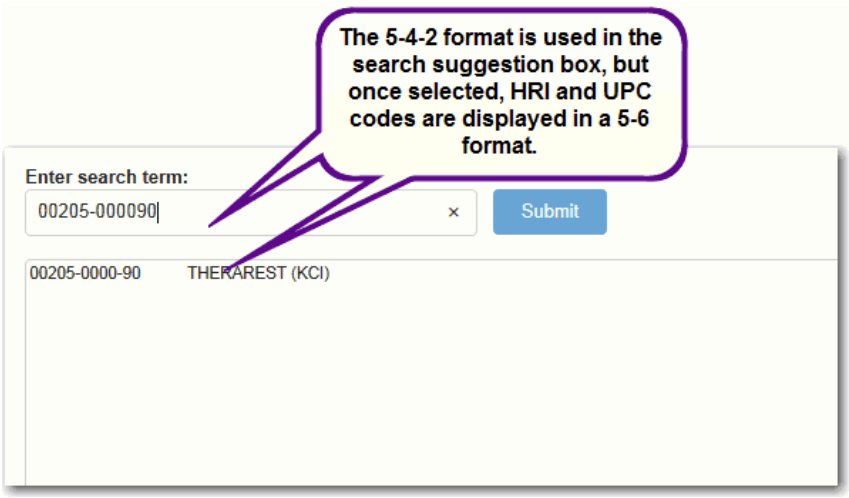
From the *RED BOOK Online Search* page, you can search by:

- Product Name
- Active Ingredient
- NDC/HRI/UPC Code
- Manufacturer Name

You can also filter your search by status and repackagers. See “Filters” on page 194. for more information.

© 2017 Truven Health Analytics LLC

Note: NDC, HRI, and UPC codes are displayed in two formats within RED BOOK Online. When performing a search by code, the search box displays the code in a 5-4-2 format (e.g., 12345-6789-00) for an NDC, HRI, or UPC code. When an HRI or UPC code is selected from the search box, the code is displayed in a 5-6 format (e.g., 12345-678900). The identifying code has not changed, only the format has changed, as shown below.



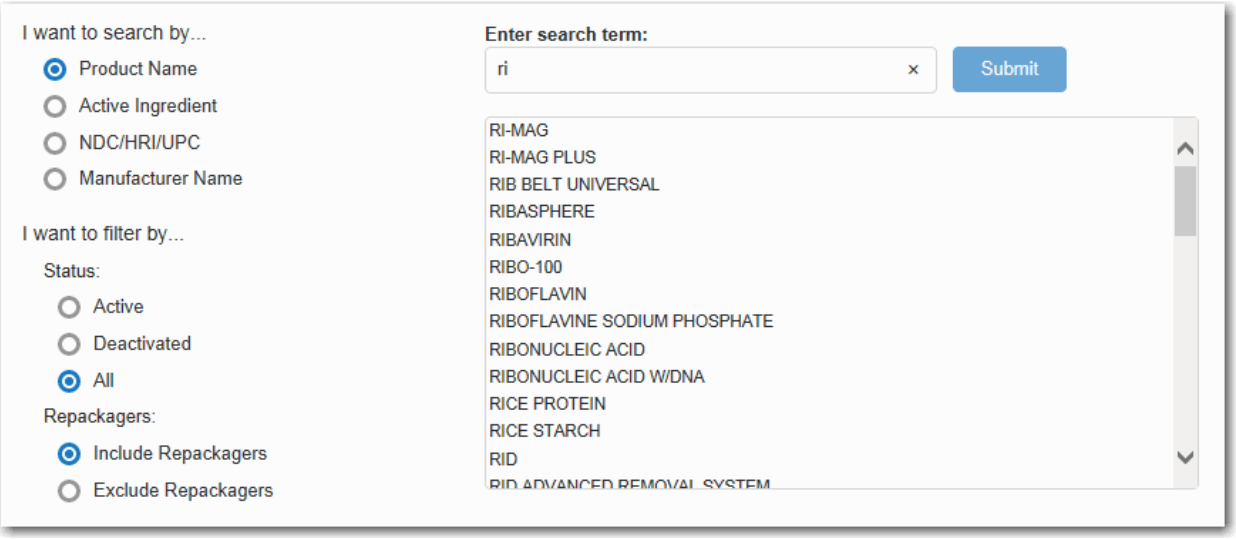
On the *RED BOOK Online Search Results* page and *Product Details* pop-up box, NDC codes are displayed in the 5-4-2 format. HRI and UPC codes are displayed in the 5-6 format.

Search Options

Next, enter the search term you want to use. For the purposes of this guide, the Product Name search will be used in conjunction with the search term *Rizatriptan Benzoate*.

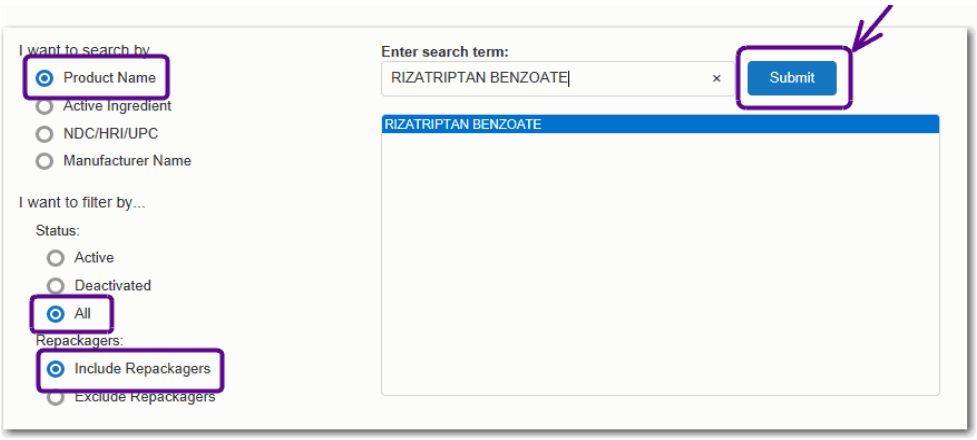
Begin typing in the *Enter search term:* field. As you enter characters into the field, the application makes suggestions based on the characters entered, as shown below.

© 2017 Truven Health Analytics LLC



The more characters you enter, the more focused the application-based suggestions will be. Highlight the term in the suggestion list on which you want to search and click the **Submit** button.

Note: The **Submit** button will be inactive until a search term is selected from the suggestion list.



Note: If you receive a message when performing a search that no results matched the term and options selected, try adjusting your filters (Active/Deactivated/All or Include/Exclude Repackagers) to see if your search returns different results.

Filters

By default, the "active" filter option will be selected when searching by product name and active ingredient. Active drugs are those that are currently marketed while deactivated drugs are not currently marketed.

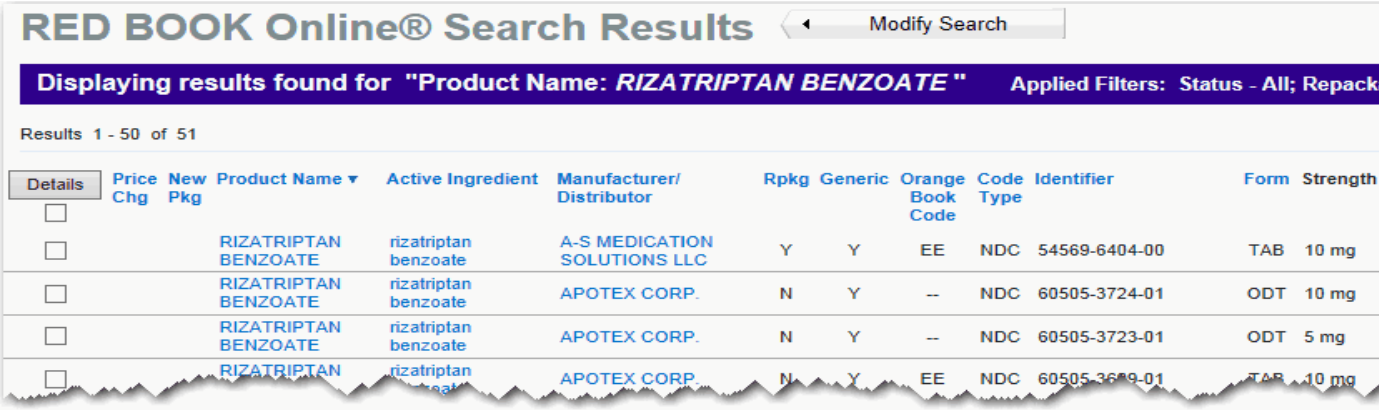
© 2017 Truven Health Analytics LLC

The "Exclude Repackagers" option will be selected by default when searching by Product Name or Active Ingredient. Repackagers can be included in the search by selecting the corresponding radio button.

Filter options are not available when searching by Manufacturer or NDC/HRI/UPC.

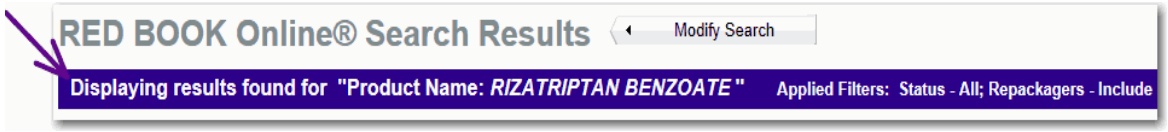
Understanding RED BOOK Online Search Results

The search results page displays detailed information about your search query. An example search with multiple results is shown below.



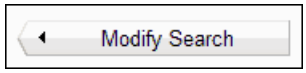
Results are displayed in rows, with links to additional information. Data can be re-sorted by most of the column headings.

Search Results Header



At the top of the search results is the search header information. Moving from left to right, the first item displayed is the page title (*RED BOOK Online® Search Results*).

Adjacent to the title is the **Modify Search** button.

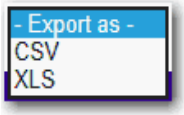


Click the **Modify Search** button to return to the RED BOOK Online search tool and modify your search, or perform a new search either by typing in a new search term or by changing your filter options.

Exporting Search Results

Search results can be exported to a Microsoft® Excel® (.xls) file, or a Comma Separated Values (.csv) file. Select the file type that you want to save the results as from the drop-down menu. A dialog box appears that provides the ability to select the location to which you want to save the file.

© 2017 Truven Health Analytics LLC



Printing Search Results

On the right side of the page is the **Print** icon. Clicking the **Print** icon launches the Windows® Print dialog window and allows you to print your RED BOOK Online search results.

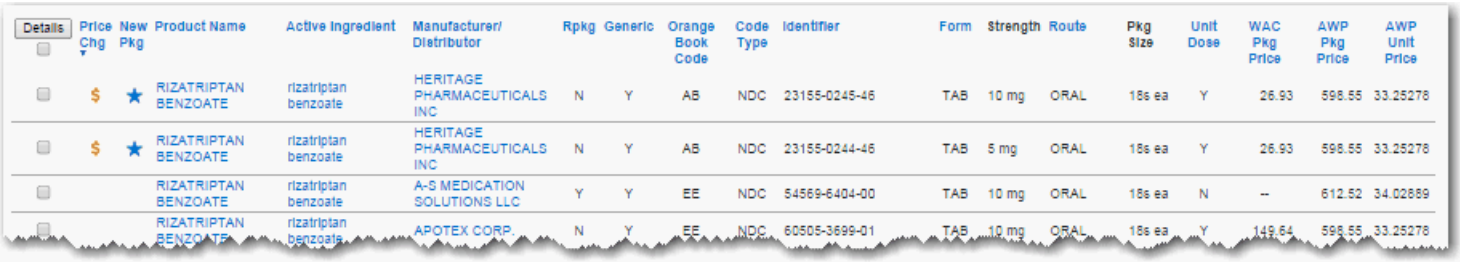
Additional Search Results Information

Below the search results header is the number of results returned for this particular search. In the example shown here, 104 results were found and results 1-50 are displayed on the first page.

On the right side of the page, the number of pages within the search result are displayed.

For this example, page 1 of 2 is being displayed. When the search results contain multiple pages, you can use the **Previous** and **Next** links to page through the search results, or you can enter a page number in the **Page** box and click **GO** to move directly to that page of the results.

Column Headings



Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
	$	★	RIZATRIPTAN BENZOATE	rizatriptan benzoate	HERITAGE PHARMACEUTICALS INC	N	Y	AB	NDC	23155-0245-46	TAB	10 mg	ORAL	18s ea	Y	26.93	598.55	33.25278
	$	★	RIZATRIPTAN BENZOATE	rizatriptan benzoate	HERITAGE PHARMACEUTICALS INC	N	Y	AB	NDC	23155-0244-46	TAB	5 mg	ORAL	18s ea	Y	26.93	598.55	33.25278
			RIZATRIPTAN BENZOATE	rizatriptan benzoate	A-S MEDICATION SOLUTIONS LLC	Y	Y	EE	NDC	54569-6404-00	TAB	10 mg	ORAL	18s ea	N	--	612.52	34.02889
			RIZATRIPTAN BENZOATE	rizatriptan benzoate	APOTEX CORP.	N	Y	EE	NDC	60505-3699-01	TAB	10 mg	ORAL	18s ea	Y	149.64	598.55	33.25278

All columns with headings in blue can be sorted in ascending or descending order. Click on the column heading to sort on the column. The display refreshes based on the sort selection with a secondary sort on product name. Click again to reverse the sort order.

The various column headings/items and their function are described in the following table:

© 2017 Truven Health Analytics LLC

Columns on the RED BOOK Online Search Results

Column Name	Description
Details Button	The **Details** button is related to the checkboxes that correspond to each line item in the search results. Clicking the checkbox for either a single or for multiple products and then clicking the **Details** button launches the *Product Details* pop-up box. The *Product Details* pop-up provides detailed information for the product(s) selected. See "Product Details Search Results" on page 204. for more information.
Price Chg	The **Price Chg** (price change) column indicates if the selected product has had a price change that is effective within the last 30 days of the date the search was performed. If a price change has occurred within this time window, a dollar sign icon displays. Hovering the cursor over the icon displays the effective date of the price change. Price Change 09/15/2014
New Pkg	The **New Pkg** column indicates if the product on which you searched is a new entry in the RED BOOK Online database that became effective within the previous 30 days of the date the search was performed. New entries in the database are indicated by a star icon in this column. Hovering the cursor over the icon displays the effective date of the new entry. New Product 09/15/2014
Product Name	The **Product Name** column displays the name of all the individual products retrieved by your search. You can click the column header to sort the search results by this column.
Active Ingredient	The **Active Ingredient** column displays the active ingredient(s) for the product for which you searched. You can click the name of the active ingredient to view other products that contain the same active ingredient, strength, form, and route (See "Searching for Similar Products in RED BOOK Online" on page 199. for more information). Hovering the mouse over the name of the active ingredient displays the information you can view by clicking the link. Select this item to see a list of all other drugs with the same active ingredient, form, strength, and route. If a product contains more than one active ingredient and you click the name of the active ingredients link, RED BOOK Online will search for other products containing all of the active ingredients specified. If you want to search for other products that contain just one of the active ingredients listed, return to the search page and perform an active ingredient search on that one item.

© 2017 Truven Health Analytics LLC

Column Name	Description
Manufacturer/ Distributor	The **Manufacturer/Distributor** column displays the manufacturer/ distributor of an individual product in your search results. A single product name can be associated with multiple manufacturers/ distributors.
Rpkg	The **Rpkg** column indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A "Y" indicates that the listed manufacturer/distributor is a repackager of the product. An "N" indicates that the listed manufacturer/distributor is not a repackager.
Generic	The **Generic** column indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.
Orange Book Code	If a product has a corresponding Orange Book Code, that code will appear in the **Orange Book Code** column. Not all products will have an associated Orange Book Code. When there is no associated Orange Book Code, two dashes (--) will appear in the column. See “Orange Book Codes” on page 271. for more information.
Code Type	The **Code Type** column identifies the registry listed for the identifier, either NDC; HRI; or UPC. This code type is related to the value that appears in the **Identifier** column.
Identifier	The **Identifier** column displays the NDC, HRI, or UPC code that is associated with the item for which you searched.
Form	The **Form** column displays the dosage form (tablet, solution, syrup, etc.) of a product.
Strength	The **Strength** column displays the active ingredient strength for the product for which you searched. The **Strength** column is limited to 24 characters. Entries in this field that exceed 24 characters are truncated. A longer description can be viewed on the *Product Details* page.
Route	The **Route** column displays the route of administration for the product. See “Route Listing” on page 270. for more information.
Pkg Size	The **Pkg** (package) column displays the quantity of individual items in the package. This quantity is expressed in National Council for Prescription Drug Programs (NCPDP) units (each, grams, milliliters).
Unit Dose	The **Unit Dose** column indicates if the product retrieved in your search is available in unit dose packaging. A "Y" indicates that the product is available in unit dose packaging. An "N" indicates that the product is not available in unit dose packaging.
WAC Pkg Price	The **WAC Pkg Price** column displays the Wholesale Acquisition Cost of the package.
AWP Pkg Price	The **AWP Pkg Price** column displays the Average Wholesale Price per package.
AWP Unit Price	The **AWP Unit Price** column displays the Average Wholesale Price per unit. See “Unit Price Calculations” on page 266. for information on how unit prices are calculated.

© 2017 Truven Health Analytics LLC

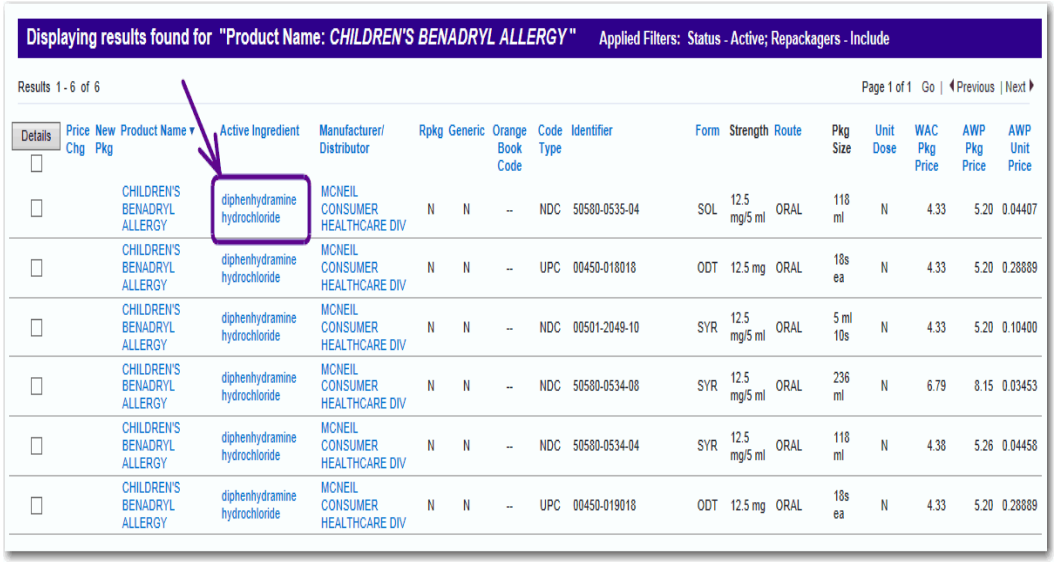
Note: The default sort order for search results is by the Product Name and then Manufacturer columns. If you sort the results by a different column, Product and Manufacturer become the second and third sort criteria.

Columns for which no data is returned will contain two dashes (--).

Searching for Similar Products in RED BOOK Online

From the *RED BOOK Online Search Results* page, you can perform a secondary query to locate products that contain the same active ingredient(s), in the same strength, form, and route, as a product on which you have already retrieved your primary search. Searching for similar products can be performed from any RED BOOK Online search results page that displays the **Active Ingredient** column.

For this example, a product search for *Children's Benadryl Allergy* has been performed. The **Active** filter and the **Include Repackagers** radio button have been selected. The results displayed are similar to the following:



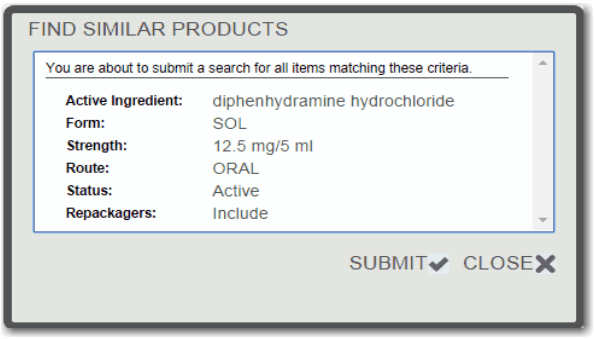
Displaying results found for "Product Name: *CHILDREN'S BENADRYL ALLERGY*" Applied Filters: Status - Active; Repackagers - Include

Results 1 - 6 of 6 Page 1 of 1 Go | Previous | Next

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0535-04	SOL	12.5 mg/5 ml	ORAL	118 ml	N	4.33	5.20	0.04407
			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	UPC	00450-018018	ODT	12.5 mg	ORAL	18s ea	N	4.33	5.20	0.28889
			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	00501-2049-10	SYR	12.5 mg/5 ml	ORAL	5 ml 10s	N	4.33	5.20	0.10400
			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0534-08	SYR	12.5 mg/5 ml	ORAL	236 ml	N	6.79	8.15	0.03453
			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0534-04	SYR	12.5 mg/5 ml	ORAL	118 ml	N	4.38	5.26	0.04458
			CHILDREN'S BENADRYL ALLERGY	diphenhydramine hydrochloride	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	UPC	00450-019018	ODT	12.5 mg	ORAL	18s ea	N	4.33	5.20	0.28889

Click an active ingredient hypertext link. In this example, the active ingredient is *diphenhydramine hydrochloride*. The *Find Similar Products* pop-up box is displayed.

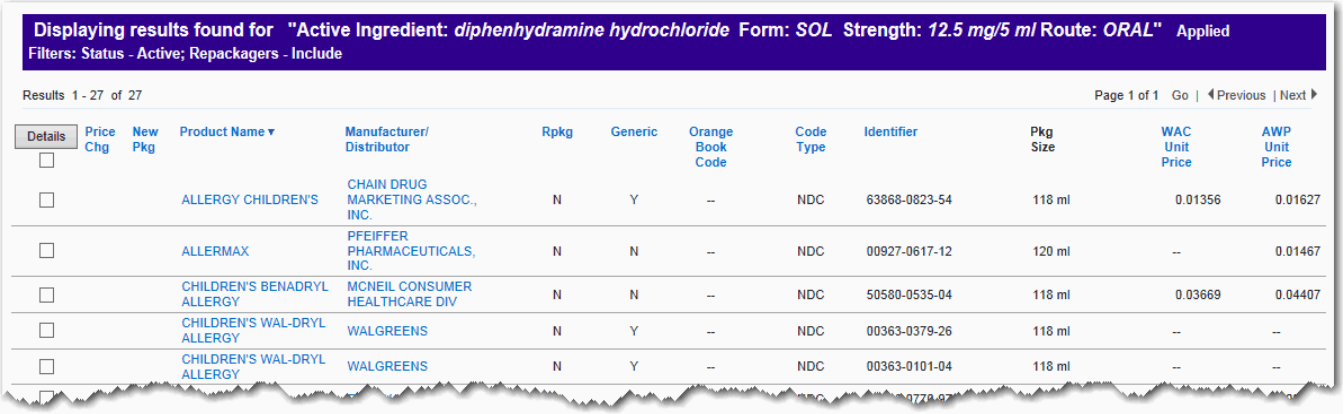
© 2017 Truven Health Analytics LLC



The *Find Similar Products* pop-up displays the following information about the product for which you are about to search, including any filters you selected for your search.

- Active Ingredient
- Form
- Strength
- Route
- Status (Active or Deactivated)
- Repackagers (Include or Exclude)

Confirm that the information displayed is the information on which you want to search. After confirming the information, click the **SUBMIT** icon. The *RED BOOK Online Similar Products* search results page displays.



Details	Price Chg	New Pkg	Product Name	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Pkg Size	WAC Unit Price	AWP Unit Price
			ALLERGY CHILDREN'S	CHAIN DRUG MARKETING ASSOC., INC.	N	Y	--	NDC	63868-0823-54	118 ml	0.01356	0.01627
			ALLERMAX	PFEIFFER PHARMACEUTICALS, INC.	N	N	--	NDC	00927-0617-12	120 ml	--	0.01467
			CHILDREN'S BENADRYL ALLERGY	MCNEIL CONSUMER HEALTHCARE DIV	N	N	--	NDC	50580-0535-04	118 ml	0.03669	0.04407
			CHILDREN'S WAL-DRYL ALLERGY	WALGREENS	N	Y	--	NDC	00363-0379-26	118 ml	--	--
			CHILDREN'S WAL-DRYL ALLERGY	WALGREENS	N	Y	--	NDC	00363-0101-04	118 ml	--	--

The Search Results header displays the query details.

For this example, the **Active Ingredient** searched was diphenhydramine hydrochloride. The **Form** is SOL (solution). The **Strength** is 12.5 mg/5 ml. The **Route** is ORAL. Also displayed are any filters that were applied to the search. In this example, the **Active** status was used and repackagers were included.

The *Similar Product Search Results* page displays much of the same information as any other RED BOOK Online search query (See "Understanding RED BOOK Online Search Results" on page 195.). However, since the active ingredient, form, strength, and route are now the same for all the products in the results set, these criteria are displayed in the Search Results header at the top of the results list to describe the exact search performed.

© 2017 Truven Health Analytics LLC

All columns with headings displayed in blue can be sorted in ascending or descending order. Click on the column heading to sort on the column. The display refreshes based on the sort selection with a secondary sort on product name. Click again to reverse the sort order.

The various column headings/items and their function are described in the table below.

Column	Description
Details Button	The **Details** button is related to the checkboxes that correspond to each line item in the search results. Clicking the checkbox for single or multiple products and then clicking the **Details** button launches the *Product Details* pop-up box (See "Product Details Search Results" on page 204.). The *Product Details* pop-up box provides detailed information for the product(s) selected.
Price Chg	The **Price Chg** (price change) column indicates if the selected product has experienced a price change effective within the last 30 days of the date the search is performed. $ If a price change has occurred within this time window, a dollar sign icon displays. Hovering the cursor over the icon displays the date the price change became effective. Price Change 09/15/2014
New Pkg	The **New Pkg** column indicates if the product on which you searched is a new entry in the RED BOOK Online database that became effective within the previous 30 days of the date the search was performed. New entries in the database are indicated by a star icon in this column. Hovering the cursor over the icon will display the effective date of the new entry. lew Product 09/15/2014
Product Name	The **Product Name** column displays the name of all the individual products retrieved by your search. You can click the column header to sort the search results by this column. When the results are initially displayed in response to your search, they are sorted by this column.
Manufacturer/ Distributor	The **Manufacturer/Distributor** column displays the manufacturer/ distributor of an individual product in your search results. A single product name may be associated with multiple manufacturers/ distributors. See "Manufacturer Product List Search Results" on page 202. for more information.
Rpkg	The **Rpkg** column indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A "Y" indicates that the listed manufacturer/distributor is a repackager of the product. An "N" indicates that the listed manufacturer/distributor is not a repackager.
Generic	The **Generic** column indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.

© 2017 Truven Health Analytics LLC

Column	Description
Orange Book Code	If a product has been assigned an Orange Book Code, that code will appear in the **Orange Book Code** column. Not all products will be associated with an Orange Book Code. When there is no associated Orange Book Code, two dashes (--) will appear in the column. See "Orange Book Codes" on page 271. for more information.
Code Type	The **Code Type** column identifies the registry listed for the identifier, either NDC; HRI; or UPC. This code type is related to the value that appears in the **Identifier** column.
Identifier	The **Identifier** column displays the NDC, HRI, or UPC code that is associated with each individual line item retrieved in your search.
Pkg Size	The **Pkg** (package) column displays the quantity of individual items in the package. This quantity is expressed in National Council for Prescription Drug Programs (NCPDP) units (each, grams, milliliters).
WAC Unit Price	The **WAC Unit Price** column displays the Wholesale Acquisition Cost per unit.
AWP Unit Price	The **AWP Unit Price** column displays the Average Wholesale Price per unit. See "Unit Price Calculations" on page 266. for information on how unit prices are calculated.

Note: Columns for which no data is returned will contain two dashes (--).

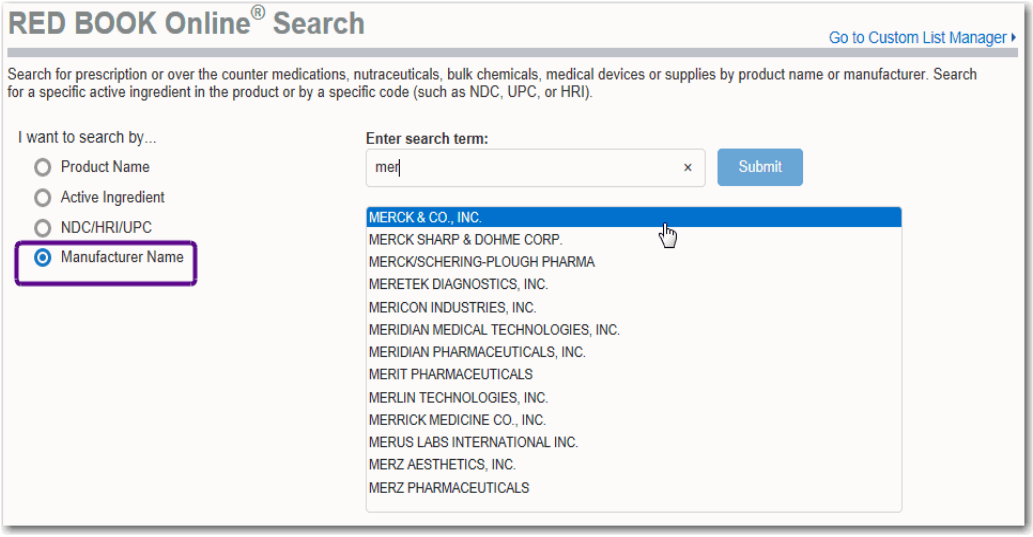
In addition to the information displayed, the *Similar Products Search Results* page provides the ability to view detailed product information; export the search results and save them to your computer; or to print your search results. This is the same functionality that is present on the main *RED BOOK Online Search Results* page.

Note: If only one item meets the search criteria, you will receive the following message: "There were no additional items found for this search."

Manufacturer Product List Search Results

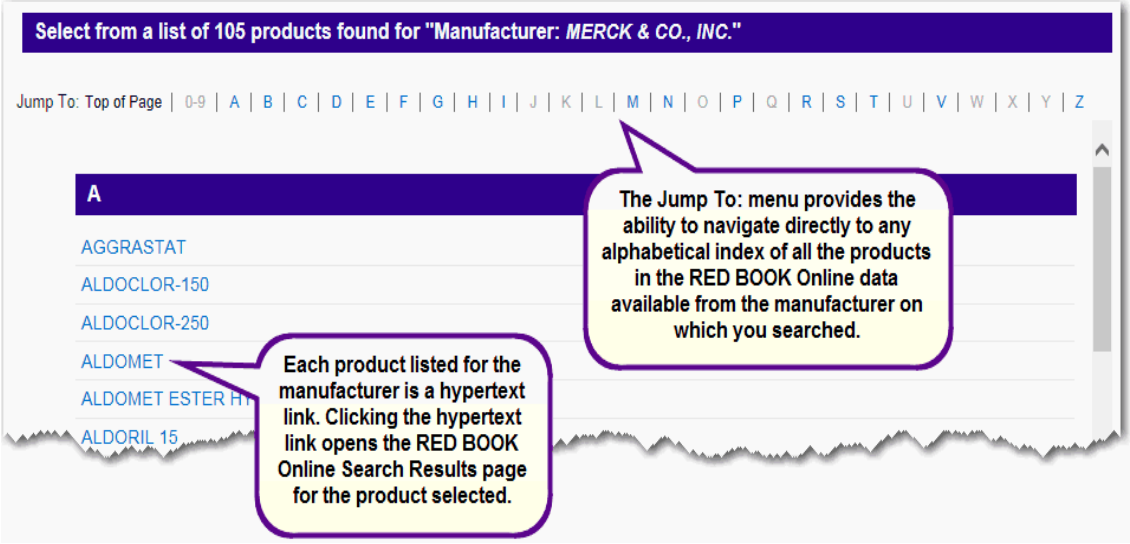
The Manufacturer search option enables you to view products in the RED BOOK Online data from a selected manufacturer.

© 2017 Truven Health Analytics LLC



Using the Manufacturer Name search option, RED BOOK Online displays a list of names for products manufactured or distributed by the company for which you searched.

In the example provided, a search has been performed for Merck & Co, Inc. An alphabetized listing of the name of each product (in the RED BOOK Online database) manufactured by Merck & Co, Inc. is returned. Each product name listed for the manufacturer is displayed as a hypertext link.



At the top of the page is the **Jump To:** menu. This menu provides the ability to navigate directly to an alphabetical index of all of the product names in the RED BOOK Online data available from the manufacturer for which you searched. Letters in the menu that are blue are hypertext links. When clicked, the hypertext link moves you down the page to the corresponding entries. Letters in the menu that are gray are not hyperlinks and indicate that there are no product names in the list of results that begin with that letter.

Additionally, each product listed in the index of products from the manufacturer is a hypertext link. Clicking the hypertext link opens the *RED BOOK Online Search Results* page for the product name selected. For example, performing a manufacturer search for Merck & Co, Inc.

© 2017 Truven Health Analytics LLC

and then clicking the hyperlink for the product name **Aggrastat** would return the following *RED BOOK Online Search Results* page.

Displaying results found for "Manufacturer: *MERCK & CO., INC.* Product Name: *AGGRASTAT*"

Results 1 - 3 of 3 Page 1 of 1 Go | Previous | Next

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
☐			AGGRASTAT DEACTIVATED	tirofiban hydrochloride	MERCK & CO., INC.	N	N	--	NDC	00006-3713-50	SOL	0.25 mg/ml	INTRAVENOUS	50 ml	N	396.96	496.20	9.92400
☐			AGGRASTAT DEACTIVATED	tirofiban hydrochloride	MERCK & CO., INC.	N	N	--	NDC	00006-3713-25	SOL	0.25 mg/ml	INTRAVENOUS	25 ml	N	198.48	248.10	9.92400
☐			AGGRASTAT DEACTIVATED	tirofiban hydrochloride	MERCK & CO., INC.	N	N	--	NDC	00006-3739-43	SOL	0.05 mg/ml	INTRAVENOUS	500 ml	N	700.00	840.00	1.68000

The Manufacturer search results can be saved as a Microsoft® Excel® (.xls) file or a Comma Separated Values (.csv) file by selecting one of the two options from the **Export** drop-down menu at the top of the page. Additionally, you can print the results by clicking the **Print** icon in the upper right corner of the page.

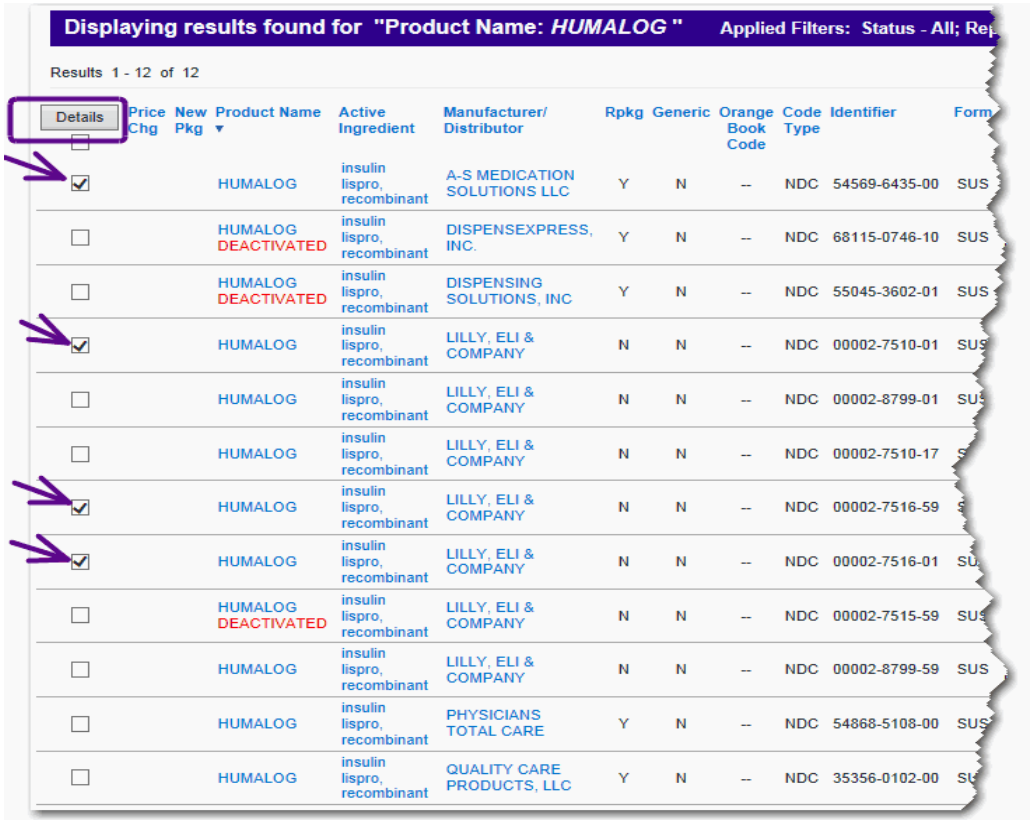
Note: Columns for which no data is returned will contain two dashes (--).

Product Details Search Results

RED BOOK Online® provides the ability to view detailed information for single or multiple products.

© 2017 Truven Health Analytics LLC

You can access the detailed product information from the *RED BOOK Online Search Results* page.



Displaying results found for "Product Name: *HUMALOG* " Applied Filters: Status - All; Rep

Results 1 - 12 of 12

Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form
☑			HUMALOG	insulin lispro, recombinant	A-S MEDICATION SOLUTIONS LLC	Y	N	--	NDC	54569-6435-00	SUS
☐			HUMALOG DEACTIVATED	insulin lispro, recombinant	DISPENSEXPRESS, INC.	Y	N	--	NDC	68115-0746-10	SUS
☐			HUMALOG DEACTIVATED	insulin lispro, recombinant	DISPENSING SOLUTIONS, INC	Y	N	--	NDC	55045-3602-01	SUS
☑			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7510-01	SUS
☐			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-8799-01	SU
☐			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7510-17	S
☑			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7516-59	S
☑			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7516-01	SU
☐			HUMALOG DEACTIVATED	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-7515-59	SUS
☐			HUMALOG	insulin lispro, recombinant	LILLY, ELI & COMPANY	N	N	--	NDC	00002-8799-59	SUS
☐			HUMALOG	insulin lispro, recombinant	PHYSICIANS TOTAL CARE	Y	N	--	NDC	54868-5108-00	SUS
☐			HUMALOG	insulin lispro, recombinant	QUALITY CARE PRODUCTS, LLC	Y	N	--	NDC	35356-0102-00	SU

Click the checkbox(es) to view detailed information for a single or multiple products.

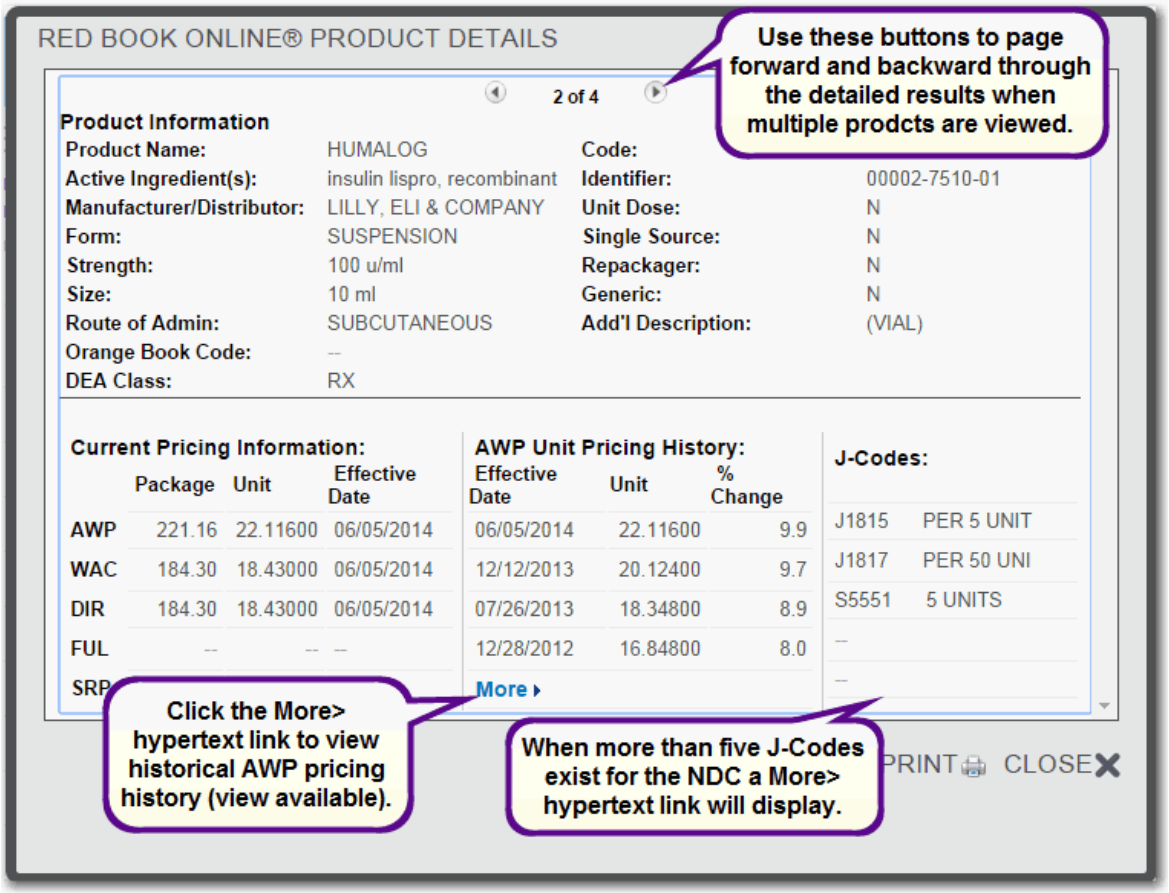
You can select the checkbox directly beneath the **Details** button to view detailed information for all items displayed on this page.

Select the product name hypertext link to display the details for a single product.

For this example, four (4) products were selected. After selecting the checkboxes, the **Details** button was clicked.

The *Product Details* pop-up box displays:

© 2017 Truven Health Analytics LLC



Detailed information for each product is shown. When more than one product was selected, navigation to the other products is accomplished using the right and left arrows at the top of the pop-up.

When more details are available, the **More>** link is presented. Click the link to view the additional information.

The *Products Detail* page is divided into two sections. The upper section of the page displays the following information:

Product Details Information

Field Name	Description
Product Name	This field displays the name of the product selected. If the product is not currently marketed its "deactivated" status is displayed directly underneath the product name.
Active Ingredient(s)	The active ingredient(s) for the product is/are displayed.
Manufacturer/Distributor	The manufacturer/distributor of the product is displayed.
Form	The dosage form for the product is displayed. For more information on dosage forms, See "Dosage Form Descriptions" on page 267..
Strength	The product strength, when applicable, is displayed. This field is limited to 75 characters.

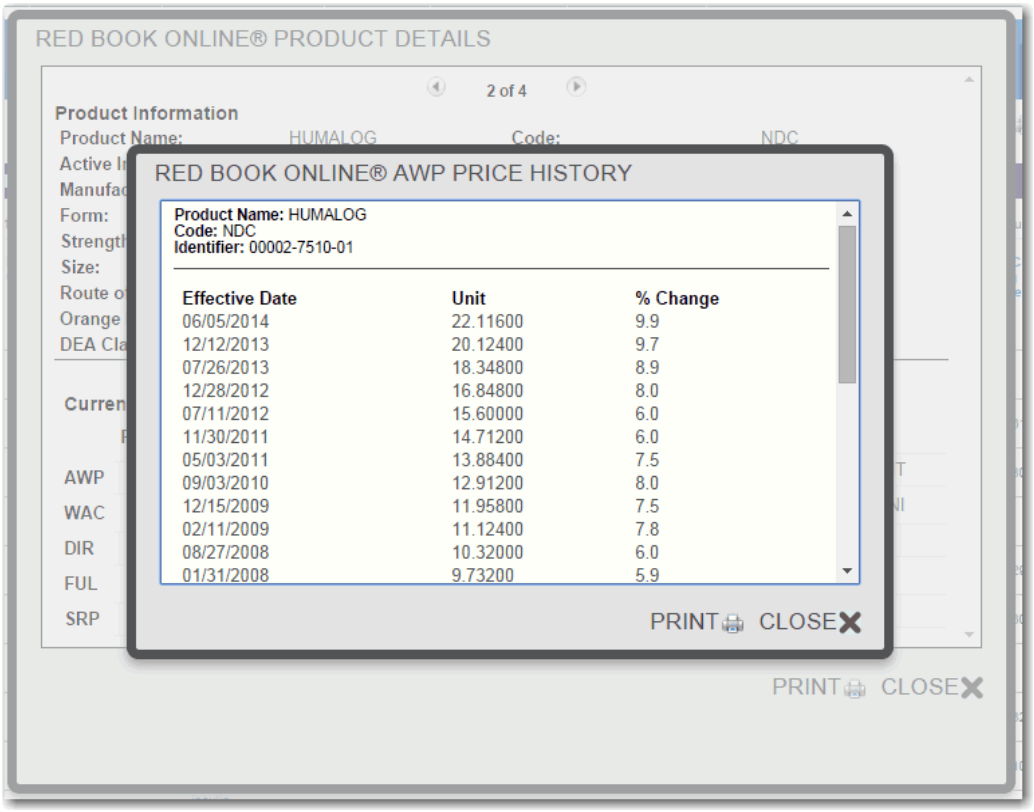
© 2017 Truven Health Analytics LLC

Size	The package quantity, volume, or mass is displayed.
Route of Admin	The route of administration for the product is displayed.
Orange Book Code	When applicable, the corresponding Orange Book Code for the product is displayed.
DEA Class	The Drug Enforcement Agency (DEA) classification code is displayed.
Code	The **Code Type** column identifies the registry listed for the identifier, either NDC; HRI; or UPC.
Identifier	The identifying code itself (NCD, HRI, or UPC) is displayed.
Unit Dose	The **Unit Dose** field indicates if the product retrieved in your search is available in unit dose packaging. A "Y" indicates that the product is available in unit dose packaging. An "N" indicates that the product is not.
Single Source	Single source “Y “ identifies the product as a drug formulation generally available from only one source. If the single source field contains an “N” the product is available from more than one source. In those occasional instances when branded products are cross-licensed, each product carries the single-source indicator.
Repackager	The **Repackager** field indicates whether or not the product is repackaged by the company listed as the manufacturer/ distributor. A "Y" indicates that the listed manufacturer/ distributor is a repackager. An "N" indicates that the listed manufacturer/distributor is not.
Generic	The **Generic** field indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.
Add'l Information	Additional information about the product, when it is available, is displayed in this field.

The lower section of the page displays the following information (See “RED BOOK Online Terms and Definitions” on page 271. for acronym definitions):

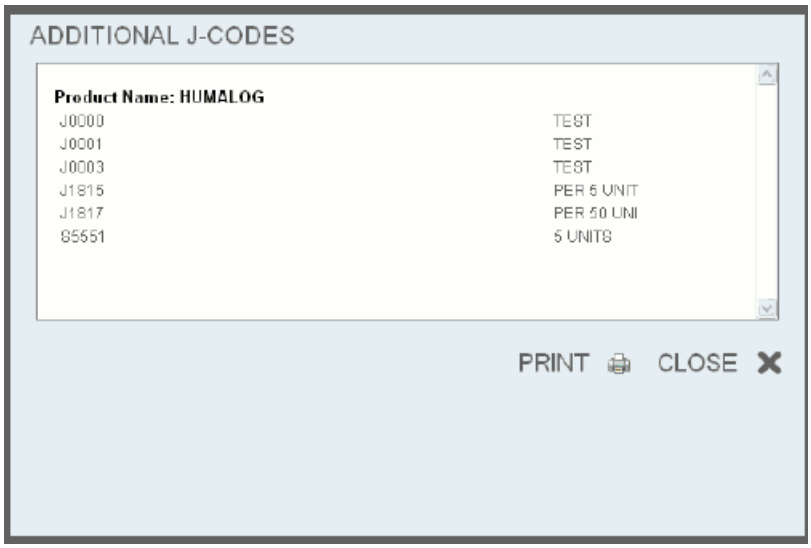
- **Current Pricing Information** - When available, this section of the page displays AWP, WAC, DIR, FUL, and SRP pricing information. This information is displayed by Package, Unit, and Effective Date.
- **AWP Unit Pricing History** - When available, this section of the page displays AWP, WAC, DIR, FUL, and SRP pricing information. This information is sorted by Effective Date, and displays Unit and % of Change. Occasionally, a **More >** hypertext link is available in this section. Click the link to view AWP Unit Pricing history, as shown below.

© 2017 Truven Health Analytics LLC



You can print the AWP Price History by clicking the **PRINT** icon. Click the **CLOSE** icon to exit the pop-up box and return to the *Product Details* page.

- **J-Codes** - When applicable, J-Code information for the product is displayed. Occasionally, a **More >** hypertext link is available in this section. Click the link to view additional J-Codes for the associated NDC.



© 2017 Truven Health Analytics LLC

Note: Columns for which no data is returned will contain two dashes (--).

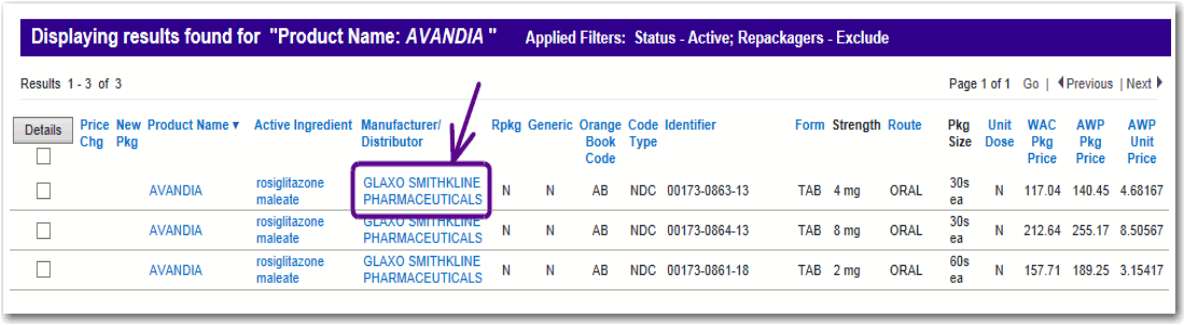
The information displayed on the *Product Details* page can be printed by clicking the **PRINT** icon at the bottom of the page.

Click the **CLOSE** option to exit the page.

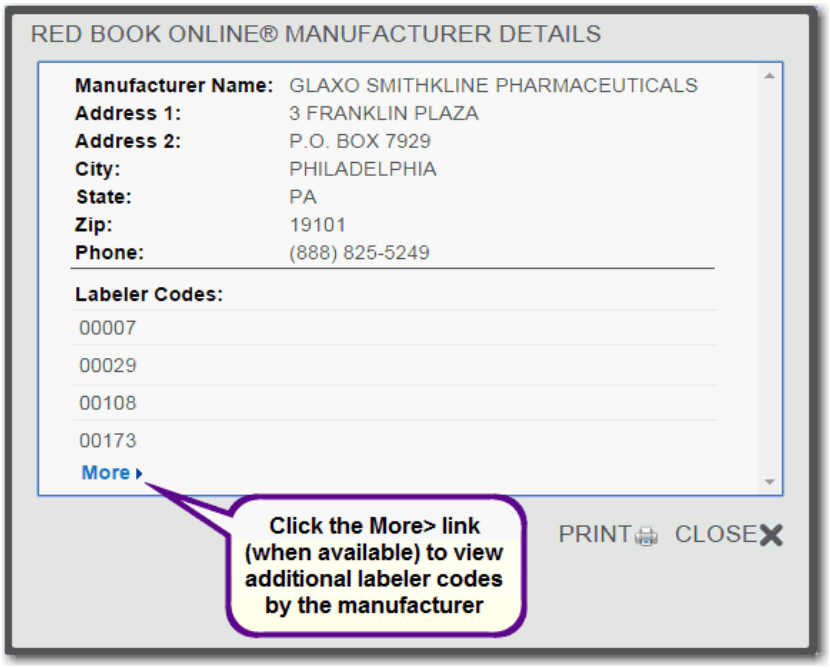
Viewing Manufacturer Contact Details

From any *RED BOOK Online Search Results* page that displays a manufacturer name, you can obtain manufacturer contact information.

Click a manufacturer's name, as shown in the example below.



The *Manufacturer Details* pop-up box is displayed.



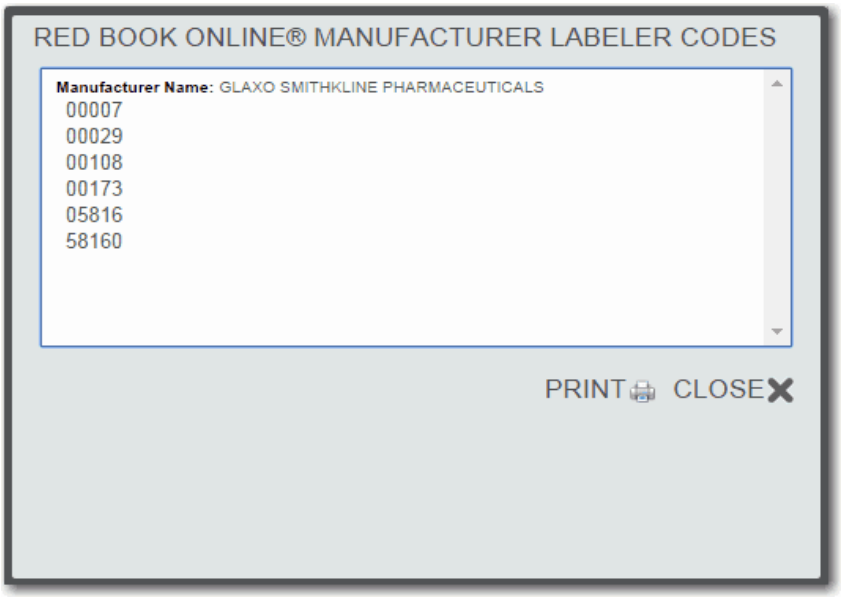
© 2017 Truven Health Analytics LLC

The *Manufacturer Details* pop-up box displays the following information about a manufacturer:

- Manufacturer Name
- Address 1
- Address 2
- City
- State
- Zip Code
- Telephone Number

Also displayed are labeler codes for the manufacturer. Most manufacturers have a specific set of labeler codes which they use. A labeler code is a five-digit number that corresponds with the first five characters in an NDC number.

Occasionally, a **More >** hypertext link is available in this section. Click the link to view additional labeler codes used by the manufacturer, as shown below.



You can print the *Manufacturer Labeler Codes* information shown in the pop-up by clicking the **PRINT** icon. Click **CLOSE** to exit the pop-up box and return to *Manufacturer Details* pop-up.

Note: Columns for which no data is returned will contain two dashes (--).

You can print the *Manufacturer Details* information by clicking the **PRINT** icon. Click **CLOSE** to exit the pop-up and return to the original search results.

THE CUSTOM LIST MANAGER

The Custom List Manager provides the ability to create and edit a list of products for tracking purposes. The list of products can be saved to your local computer or network and re-run

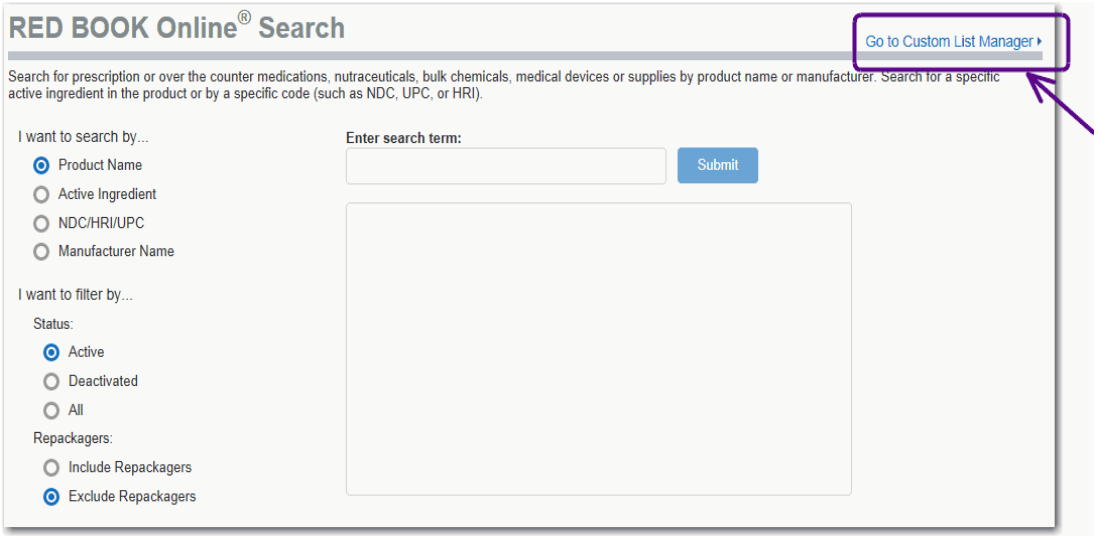
© 2017 Truven Health Analytics LLC

through RED BOOK Online to check for product changes. The ability to save a product list to your local system allows you to perform product searches on a set of products of interest to you without manually entering each product every time you want to check for changes to those products.

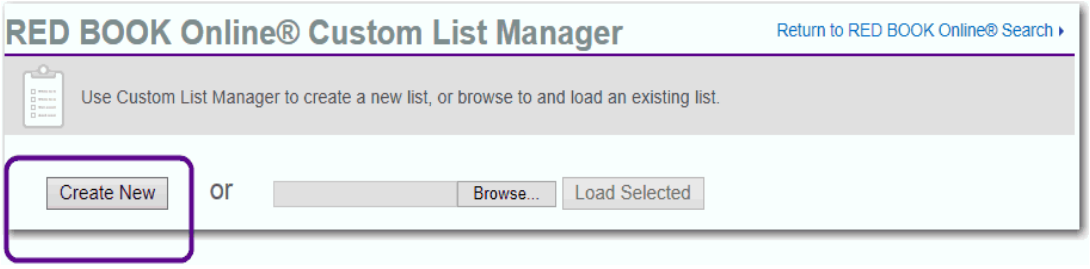
Note: The maximum allowable number of products in a custom list is 2,000.

Creating a Custom List

To begin building a custom list, click the **Go To Custom List Manager >** hypertext link on the main *RED BOOK Online Search* page.



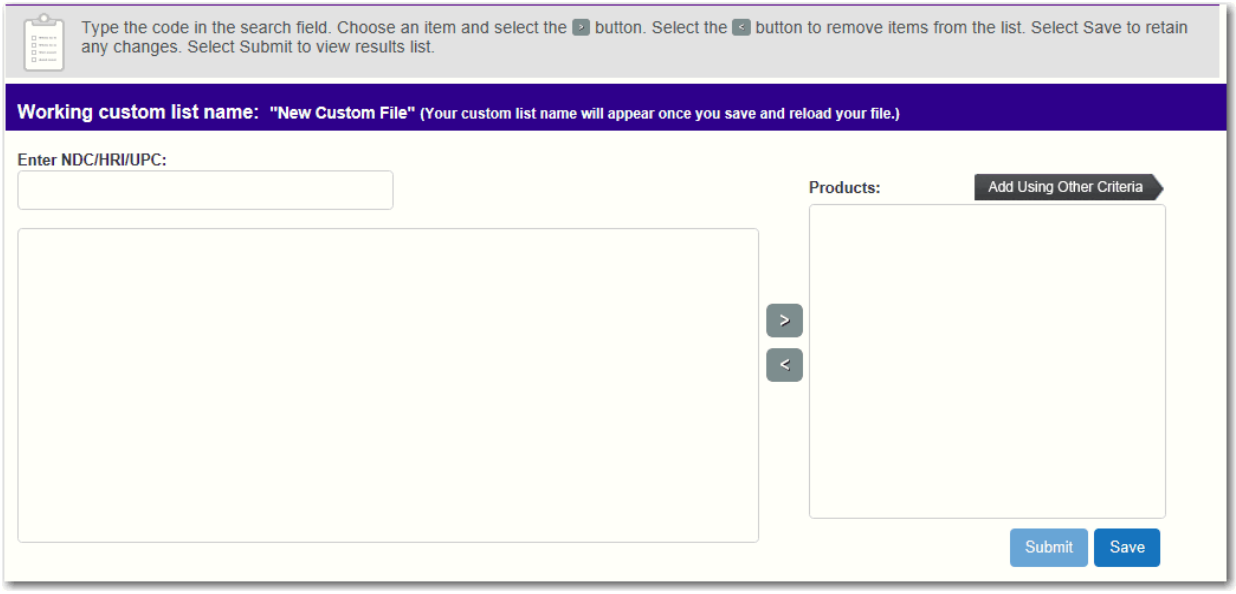
The *RED BOOK Online Custom List Manager* page displays.



Click the **Create New** button.

© 2017 Truven Health Analytics LLC

The *Custom List Edit* page displays.



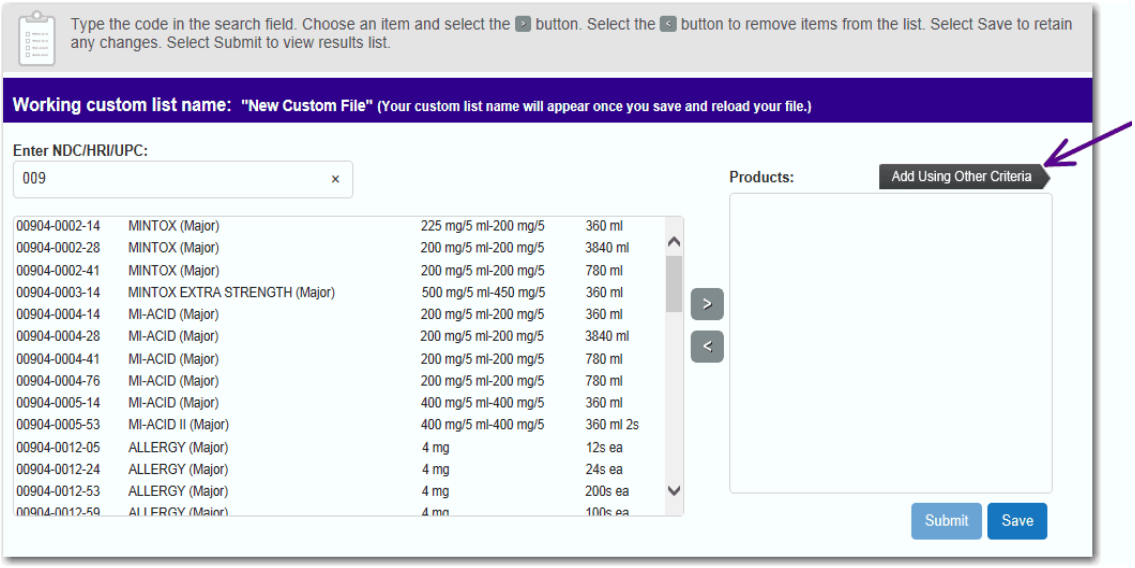
Custom lists can be built using:

- A code number (NDC/HRI/UPC) (see page 212)
- Product name, active ingredient, or manufacturer's name (see page 213)

By default, the search by NDC/HRI/UPC code search page is shown.

Creating a Custom List by: NDC/HRI/UPC Code

If you choose to create your custom list searching by a code, begin entering the code number in the *Enter NDC/HRI/UPC* field. As you type, RED BOOK Online will make product suggestions based on the characters entered.



© 2017 Truven Health Analytics LLC

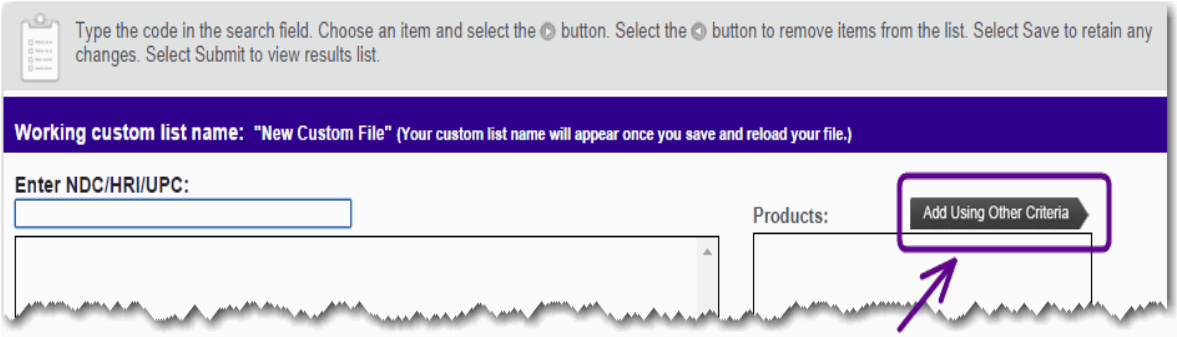
Select the desired product by highlighting it with your cursor, then click the > right-pointing arrow to move the product into the *Products:* box.

To remove a product from the *Products:* box, highlight the product and click the < left-pointing arrow. The item is removed.

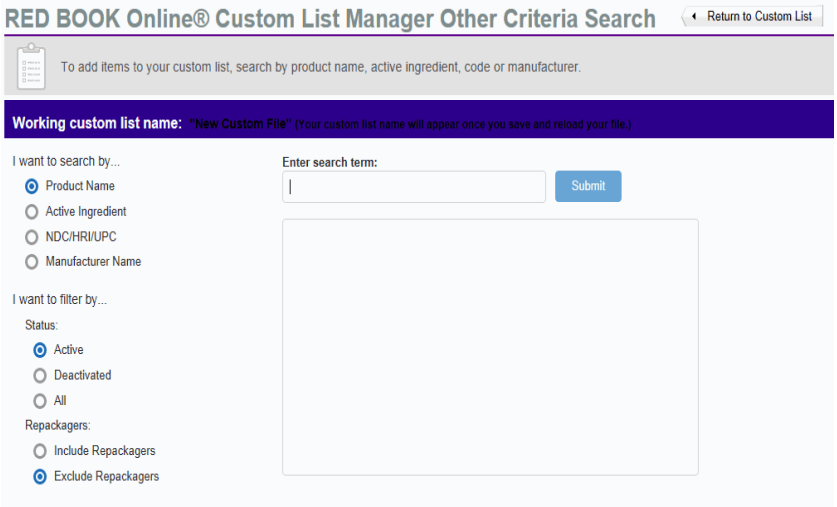
Note: Duplicate entries cannot be saved to the Custom List. If you accidentally try to add a duplicate product to your Custom List, you will be presented with an error message.

You can continue creating a custom list based on NDC/HRI/UPC codes, *or* you can click the **Add Using Other Criteria** button at the top of the page to continue building your custom list by searching by product name, active ingredient or manufacturer name.

Creating a Custom List by: Name, Active Ingredient or Manufacturer



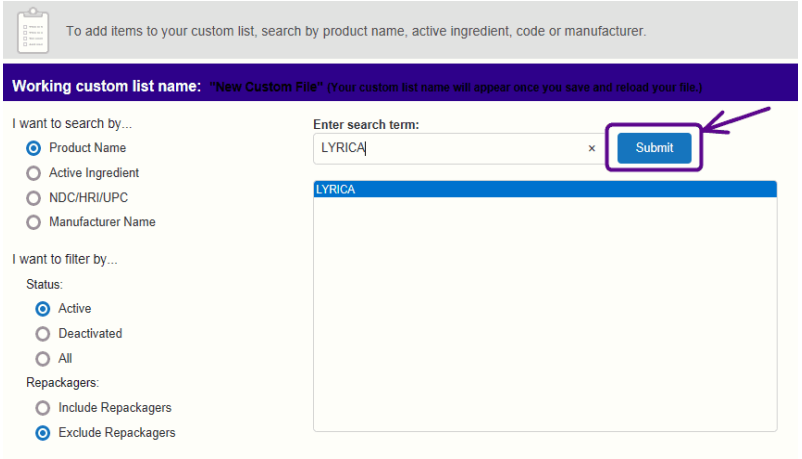
RED BOOK Online allows you to create a custom list using a product name, active ingredient, or manufacturer's name as a search term. Click the **Add Using Other Criteria** button located directly above the *Products:* box on the initial *Custom List Manager Edit* page.



© 2017 Truven Health Analytics LLC

The *RED BOOK Online Custom List Manager Other Criteria Search* functions exactly like the regular RED BOOK Online search tool. See "Searching RED BOOK Online" on page 191. for more information.

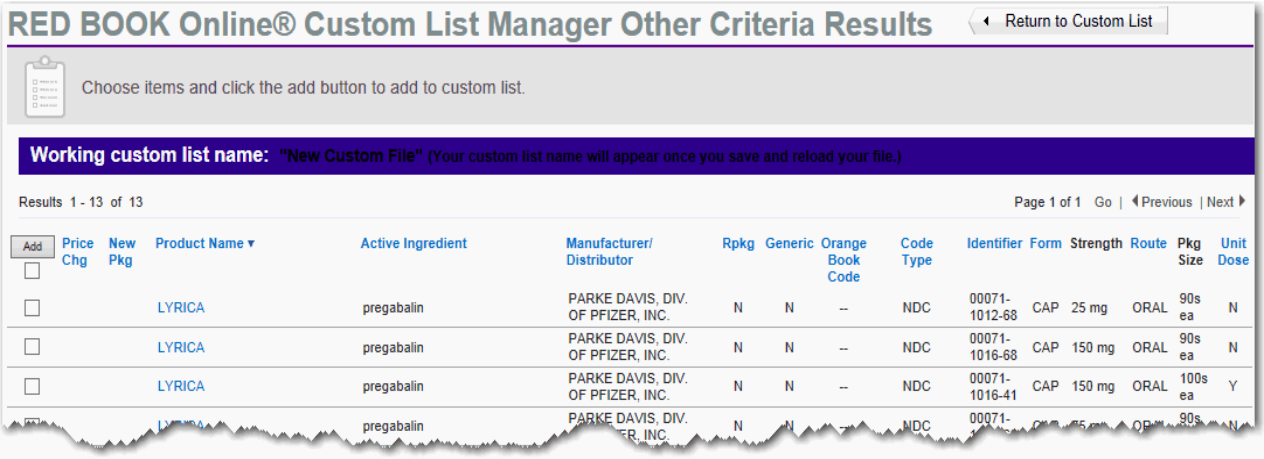
For example, perform a search for *Lyrica* from the *RED BOOK Online Custom List Manager Other Criteria Search* page. Highlight the product name in the suggestion box, and then click the **Submit** button.



The *RED BOOK Online Custom List Manager Other Criteria Results* page displays. This page provides the product matches for the search term you used.

Custom List Manager Search Results

Results are displayed in rows, with links to additional information. Data can be re-sorted by most of the column headings. All columns with headings in blue can be sorted in ascending or descending order. Click on the column heading to sort on the column. The display refreshes based on the sort selection with a secondary sort on product name. Click again to reverse the sort order.



© 2017 Truven Health Analytics LLC

The column headings and their functions are described in the table below.

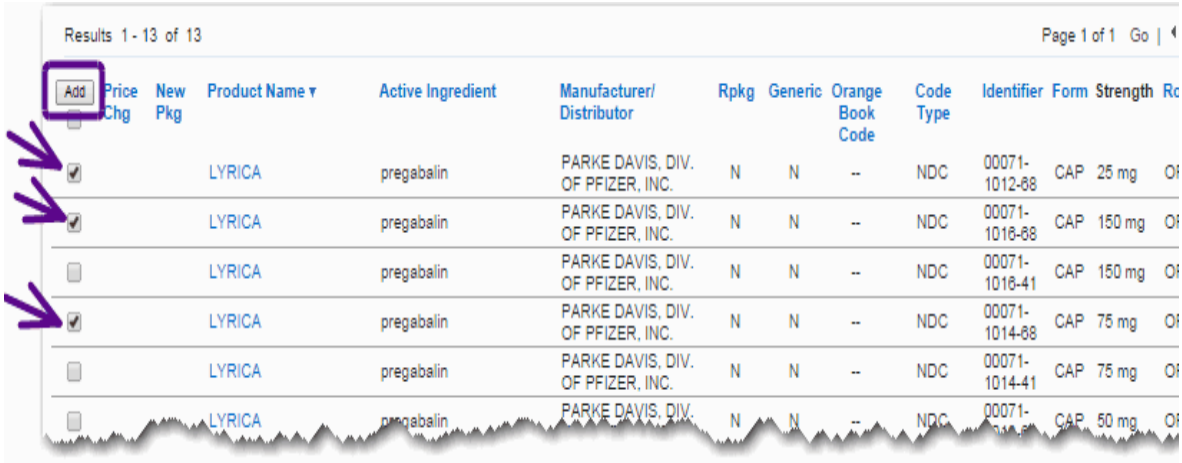
Column	Description
Add Button	The **Add** button is related to the checkboxes that correspond to each line item in the search results. Clicking the checkbox for a single or for multiple products and then clicking the **Add** button launches the *Products Added* pop-up box. The *Products Added* pop-up confirms that the products selected have been added to your custom list.
Price Chg	The **Price Chg** (price change) column indicates if the selected product has experienced a price change effective within the last 30 days of the date the search is performed. If a price change has occurred within this time window, the dollar sign icon displays. Price Change 09/15/2014 Hovering the cursor over the icon displays the date the price change became effective.
New Pkg	The **New Pkg** column indicates if the product on which you searched is a new entry in the RED BOOK Online database that became effective within the previous 30 days of the date the search was performed. New entries in the database are indicated by a star icon in this column. New Product 09/15/2014 Hovering the cursor over the icon will display the effective date of the new entry.
Product Name	The **Product Name** column displays the name of all the individual products retrieved by your search. You can click the column header to sort the search results by this column. When the results are initially displayed in response to your search, they are sorted by this column.
Active Ingredient	The **Active Ingredient** column displays the active ingredient(s) for the product for which you searched.
Manufacturer/ Distributor	The **Manufacturer/Distributor** column displays the manufacturer/ distributor of an individual product in your search results. A single product name may be associated with multiple manufacturers/distributors. See “Manufacturer Product List Search Results” on page 202. for more information.
Rpkg	The **Rpkg** column indicates whether or not the product is repackaged by the company listed as the manufacturer/distributor. A "Y" indicates that the listed manufacturer/distributor is a repackager of the product. An "N" indicates that the listed manufacturer/distributor is not a repackager.
Generic	The **Generic** column indicates whether or not the particular line item is a generic product. A "Y" indicates that the product is a generic version. An "N" indicates that the product is not a generic product.

© 2017 Truven Health Analytics LLC

Orange Book Code	If a product has been assigned an Orange Book Code, that code will appear in the **Orange Book Code** column. Not all products will be associated with an Orange Book Code. When there is no associated Orange Book Code, two dashes (--) will appear in the column. See “Orange Book Codes” on page 271. for more information.
Code Type	The **Code Type** column identifies the registry listed for the identifier, either NDC; HRI; or UPC. This code type is related to the value that appears in the **Identifier** column.
Identifier	The **Identifier** column displays the NDC, HRI, or UPC code that is associated with each individual line item retrieved in your search.
Form	The **Form** column displays the dosage form (tablet, solution, syrup, etc.) of a product. See “Dosage Form Descriptions” on page 267. for more information on dosage forms.
Strength	The **Strength** column displays the active ingredient strength for the product for which you searched. **NOTE**: The **Strength** column is limited to 24 characters. Entries in this field that exceed 24 characters are truncated. A longer description can be viewed on the *Product Details* page. See “Product Details Search Results” on page 204..
Route	The **Route** column displays the route of administration for the product.See “Route Listing” on page 270. for more information.
Pkg Size	The **Pkg** (package) column displays the quantity of individual items in the package. This quantity is expressed in National Council for Prescription Drug Programs (NCPDP) units (each, grams, milliliters).
Unit Dose	The **Unit Dose** column indicates if the product retrieved in your search is available in unit dose packaging. A "Y" indicates that the product is available in unit dose packaging. An "N" indicates that the product is not available in unit dose packaging.

Note: Columns for which no data is returned will contain two dashes (--).

© 2017 Truven Health Analytics LLC

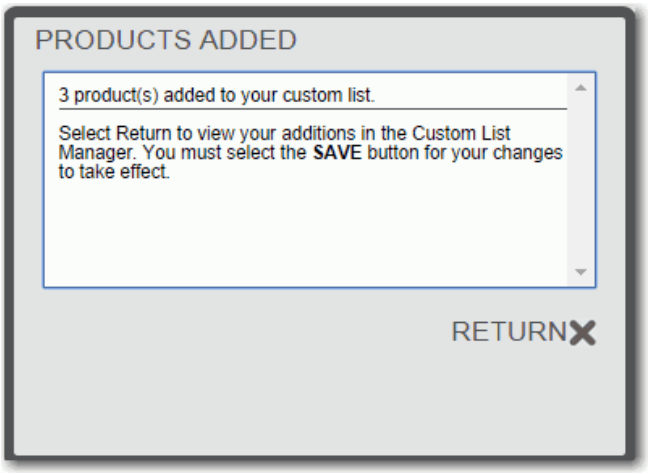


Results 1 - 13 of 13 Page 1 of 1 Go

Add	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Ro
☑			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1012-68	CAP	25 mg	Of
☑			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1016-68	CAP	150 mg	Of
☐			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1016-41	CAP	150 mg	Of
☑			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-68	CAP	75 mg	Of
☐			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-41	CAP	75 mg	Of
☐			LYRICA	pregabalin	PARKE DAVIS, DIV.	N	N	--	NDC	00071-	CAP	50 mg	Of

Locate the product(s) that you want to add to the custom list you are building. Click the checkbox(es) adjacent to the line item(s) you want to include. To add the selected items to your custom list, click the **Add** button located at the top of the page.

The *Products Added* pop-up appears.

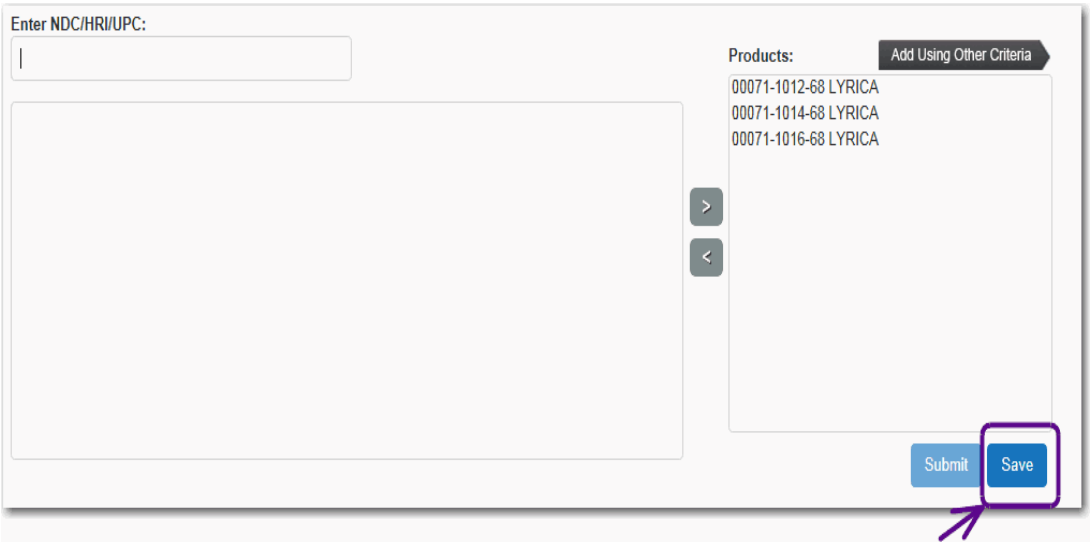


The *Products Added* pop-up confirms that your selection has been added to the list you are building.

Click the **RETURN** button to exit the pop-up box and return to the *Custom List Edit* page.

© 2017 Truven Health Analytics LLC

The *Custom Products* box displays the products you have added to your custom list.



You can continue adding products to the list you are creating, or you can save your list by clicking the **Save** button.

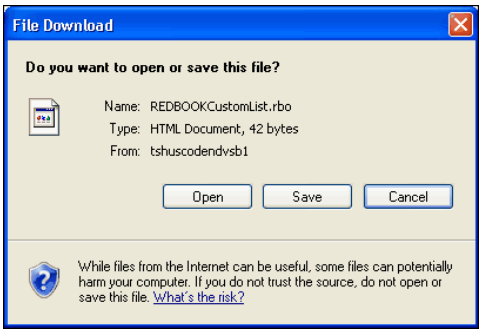
Note: You must save your custom list before the **Submit** button is active.

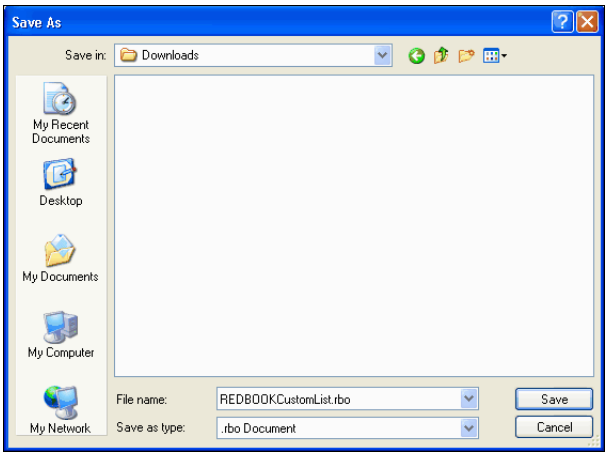
Saving Your Custom List

After you have finished adding products to your custom list, you will want to save the file. Saving the custom list allows you to retrieve and run the same search repeatedly without entering each individual product.

Click the **Save** button. The *File Download* dialog is displayed. Click the **Save** button. The *Save As* window is displayed.

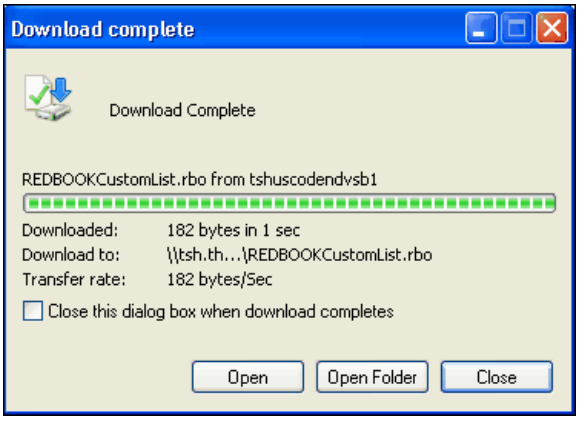
© 2017 Truven Health Analytics LLC





Enter the name for your custom list in the File name field. By default, the file will be named REDBOOKCustomList.rbo. Navigate to the location to which you want to save the file. Click the **Save** button to save the file to your computer.

Note: The file extension must be **.rbo**, indicating it is a RED BOOK Online custom list file.



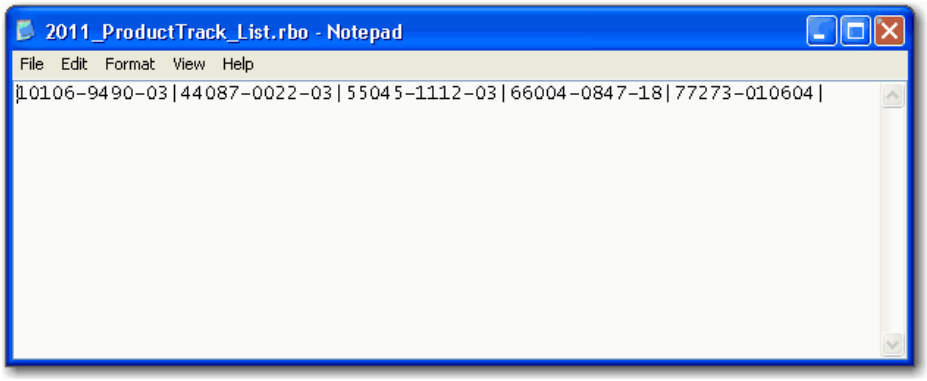
Click the **Close** button. The file is now saved. You can use this file to perform a search on this list of products, as necessary.

© 2017 Truven Health Analytics LLC

Creating a Custom List Manually

You can create a Custom List completely outside of the RED BOOK Online application using any text editor or third-party word processor, as long as you create the list according to the following guidelines:

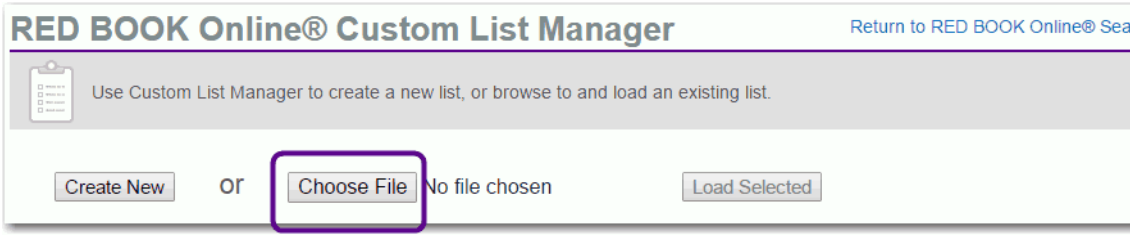
- The filename must carry the .rbo file extension (e.g., `product_list_name.rbo`)
- The file structure must be pipe-delimited (|)
- All entries must follow the appropriate code format of 5-4-2 or 5-6 (e.g., 12345-6789-00 or 12345-678900).



Searching RED BOOK Using a Saved Custom List

After creating and saving a custom list, you can upload that list into RED BOOK Online and run a search, based on the items in the custom list.

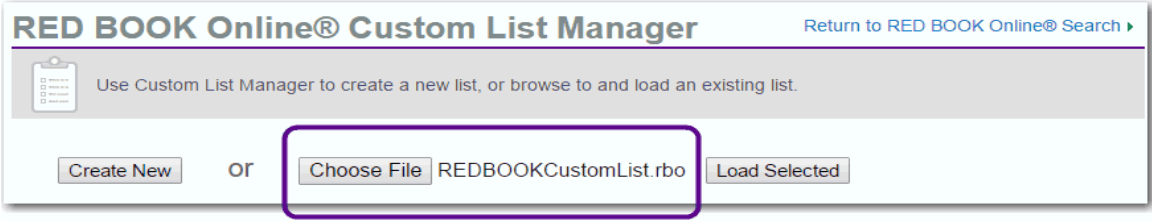
1. Log into RED BOOK Online and click **Go To Custom List Manager >** located on the top right side of the page. The *RED BOOK Online Custom List Manager* page displays.



2. Click the **Choose File** button. The *Choose file* dialog displays.
3. Navigate to the location of your saved custom list file. Highlight the file and then click the **Open** button.

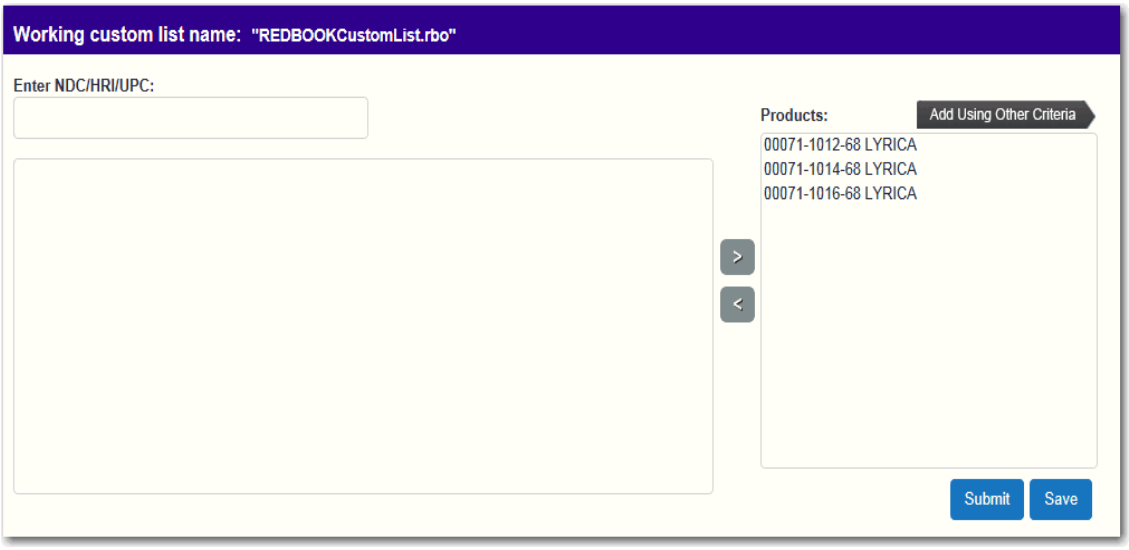
   The *Choose file* window closes and the *RED BOOK Online Custom List Manager* page is displayed again.

© 2017 Truven Health Analytics LLC



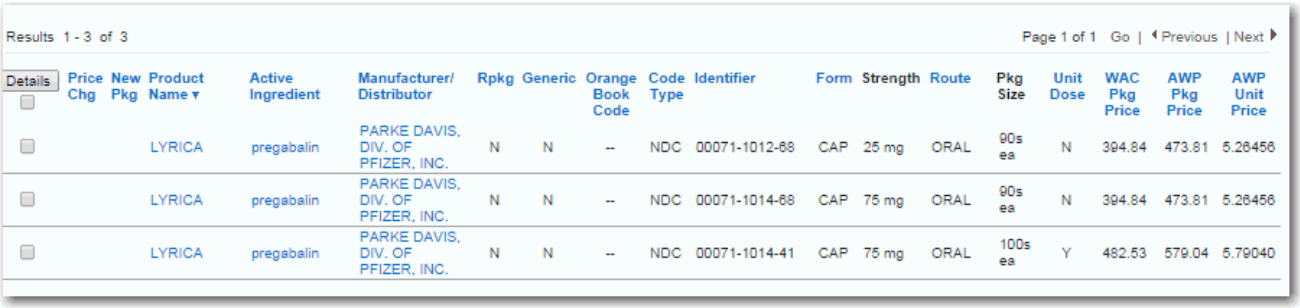
The location path of the file now appears in the field to the right of the **Choose File** button and the **Load Selected** button is now active.

4. Click the **Load Selected** button. The custom list is loaded into RED BOOK Online and is displayed in the *Product:* box on the *Custom List Edit* page.



With the list selected and loaded, you can now:

- Edit your custom list by adding additional products - *or* -
- Perform a search on your custom list by clicking the **Submit** button



Details	Price Chg	New Pkg	Product Name	Active Ingredient	Manufacturer/ Distributor	Rpkg	Generic	Orange Book Code	Code Type	Identifier	Form	Strength	Route	Pkg Size	Unit Dose	WAC Pkg Price	AWP Pkg Price	AWP Unit Price
			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1012-68	CAP	25 mg	ORAL	90s ea	N	394.84	473.81	5.26456
			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-68	CAP	75 mg	ORAL	90s ea	N	394.84	473.81	5.26456
			LYRICA	pregabalin	PARKE DAVIS, DIV. OF PFIZER, INC.	N	N	--	NDC	00071-1014-41	CAP	75 mg	ORAL	100s ea	Y	482.53	579.04	5.79040

RED BOOK Online searches all of the products in the custom list and returns a *Custom List Manager Results* page.

© 2017 Truven Health Analytics LLC

The type of information and layout of the results page from a custom list search is the same as a standard RED BOOK Online search. See “Understanding RED BOOK Online Search Results” on page 195. for information on RED BOOK Online search results.

© 2017 Truven Health Analytics LLC

CHAPTER 17: MICROMEDEX FOR MOBILE DEVICES

Much more than quick drug look-ups, *mobile*Micromedex® powers your mobile device with a wealth of clinical knowledge from Truven Health, the industry's leading provider of evidence-based clinical information.

ACCESS MICROMEDEX FROM YOUR TABLET

The same clinical evidence content you get on your desktop is also available to you on your tablet at no additional charge.

Note: Drug information from Health Canada and European Medicines Agency (EMA) is available only for the Micromedex desktop application. See Chapter 4: Regulatory Authority Information on page 86 for more information.

Follow these easy steps to access web-based *mobile*Micromedex on your tablet:

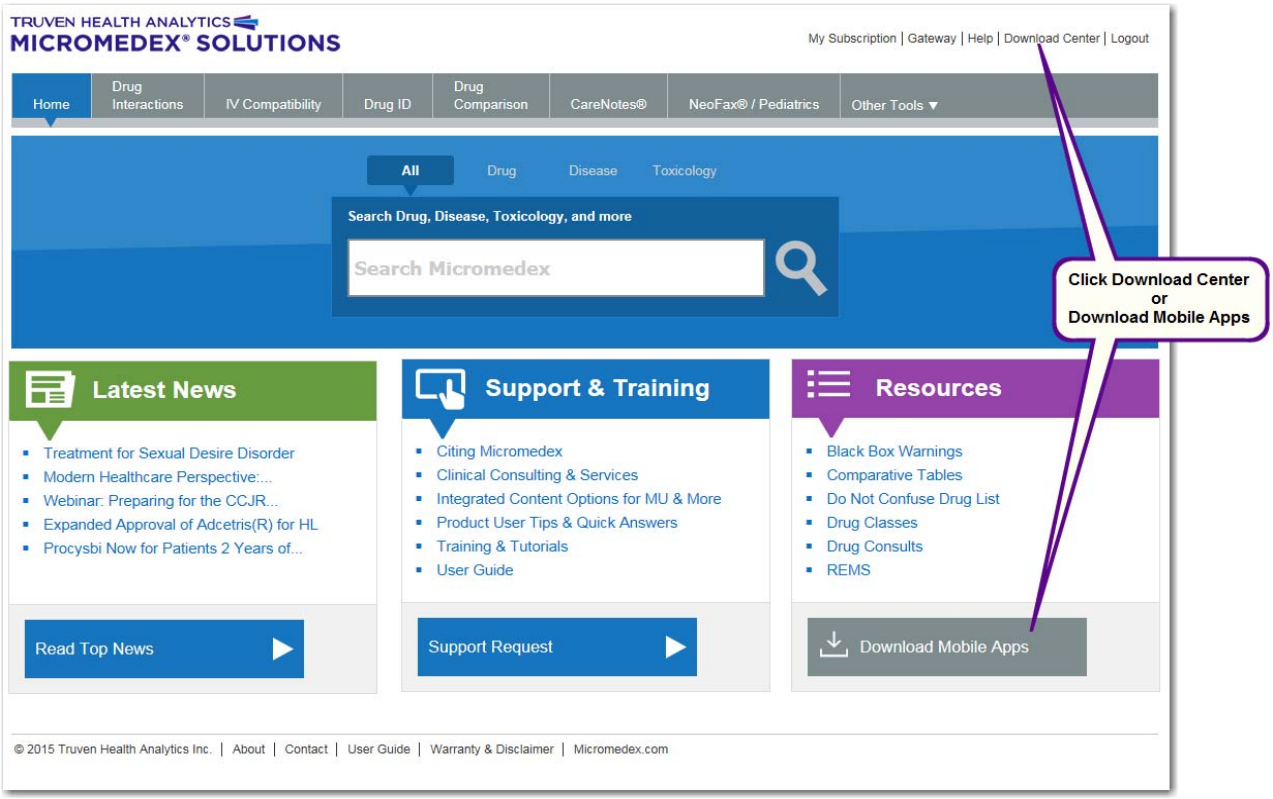
1. Open your Internet browser.
2. Go to http://www.micromedexsolutions.com/micromedex2/librarian
3. Enter your authentication information.

   If you access Micromedex from your desktop with a username and password, you may use the same credentials to access Micromedex on your tablet.

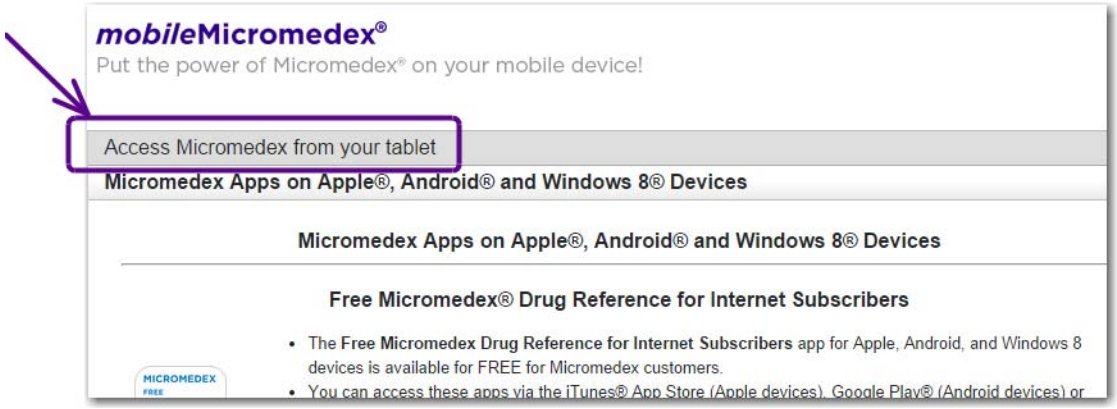
   If you do not access Micromedex from your desktop with a username and password, follow these steps to retrieve the credentials:

   1.From the Micromedex home page click **Download Mobile Apps** under Resources or from any page click **Download Center**.

© 2017 Truven Health Analytics LLC

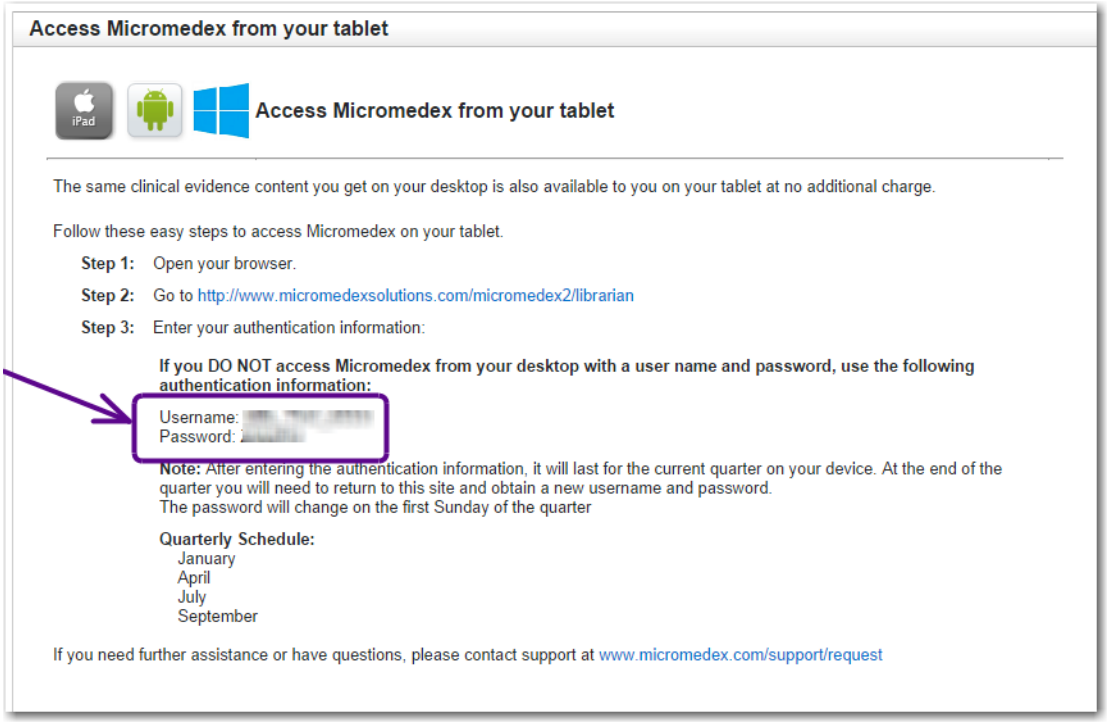


b. Click **Access Micromedex from your tablet.**



c. Use the authentication information provided.

© 2017 Truven Health Analytics LLC



Note: The username and password will change each quarter.

Find out more at: micromedex.com/support/device-compatibility

If you need further assistance or have questions, please contact support at: www.micromedex.com/support/request

APPS AVAILABLE FOR DOWNLOAD

Free Micromedex Drug Reference for Internet Subscribers

Access the same, evidence-based Micromedex® content you rely on everyday directly from your mobile device(s). All apps contain the industry's most comprehensive drug information and are backed by the same thorough, unbiased editorial process used for all Micromedex solutions.

- The **Free Micromedex Drug Reference for Internet Subscribers** app for Apple, Android, and Windows 8 devices is available for FREE for Micromedex customers.

© 2017 Truven Health Analytics LLC

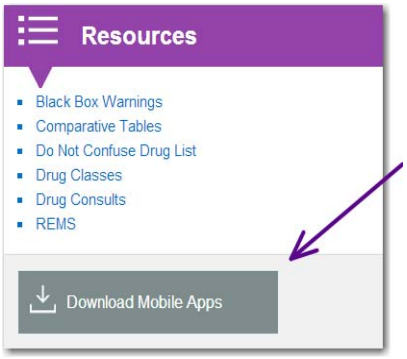
- You can access these apps via the iTunes® App Store (Apple devices), Google Play® (Android devices) or the Windows Store® (Windows 8 devices).
- Android users only: the app is called **Free Micromedex Drug Reference** in the Google Play store.
- You can activate the app by following the simple instructions below.

Simple instructions for installation:

Step 1

Visit the iTunes App Store (Apple devices), Google Play (Android devices) or the Windows Store (Windows 8 devices) and search for "Micromedex."

Note: You can also click on **Download Mobile Apps** in the *Resources* column on the Micromedex Internet home page to access direct links to the app on the iTunes App Store, Google Play, and the Windows Store.



Step 2

From the Micromedex app results, select **Free Micromedex Drug Reference for Internet Subscribers** (Apple devices and Windows 8 devices) or **Free Micromedex Drug Reference** (Android devices). You may be prompted to enter your Apple, Google or Windows ID.

Step 3

The app should download directly to your device. (If you visited the iTunes App Store on your PC rather than your device, you may have to sync your device to iTunes on your PC, in order to load the app onto your device.)

Step 4

Open the app on your device. To begin using **Free Micromedex Drug Reference for Internet Subscribers** enter the password which can be found on the *mobile*Micromedex page in the Micromedex Internet application by clicking on **Download Mobile Apps** in the *Resources* column on the Micromedex home page.

© 2017 Truven Health Analytics LLC

The password is case-sensitive. Please enter it exactly as it appears on the *mobile*Micromedex page.

Note: A valid password is required to download the apps and on a recurring (annual) basis. When downloading for the first time and when prompted from within the app, return to the *mobile*Micromedex page in the Micromedex Internet application to obtain the current password.

Micromedex® Drug Interactions

The **Micromedex Drug Interactions** app for Apple and Android devices is available for FREE for Micromedex customers.
You can access these apps via the iTunes® App Store (Apple devices) or Google Play® (Android devices).

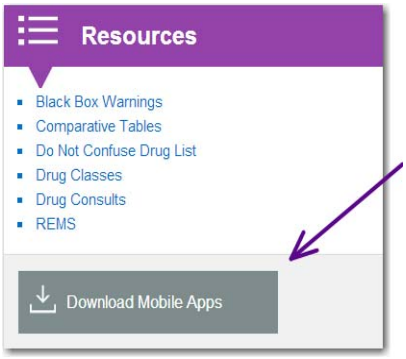
Simple instructions for installation:

Step 1

Visit the iTunes App Store (Apple devices), or Google Play (Android devices) and search for "Micromedex."

© 2017 Truven Health Analytics LLC

Note: You can also click on **Download Mobile Apps** in the *Resources* column on the Micromedex Internet home page and scroll to the Micromedex Drug Interactions section to access direct links to the app on the iTunes App Store and Google Play.



Step 2

From all the Micromedex app results, select **Micromedex Drug Interactions**. You may be prompted to enter your Apple or Google ID.

Step 3

The app should download directly to your device. (If you visited the iTunes App Store on your PC rather than your device, you may have to sync your device to iTunes on your PC, in order to load the app onto your device.)

Step 4

Open the app on your device. To begin using **Micromedex Drug Interactions** enter the password which can be found on the *mobile*Micromedex page in the Micromedex Internet application by clicking on **Download Mobile Apps** in the *Resources* column on the Micromedex home page and scrolling to the Micromedex Drug Interactions section.

The password is case-sensitive. Please enter it exactly as it appears on the *mobile*Micromedex page.

© 2017 Truven Health Analytics LLC

Note: A valid password is required to download the apps and on a recurring (annual) basis. When downloading for the first time and when prompted from within the app, return to the *mobile*Micromedex page in the Micromedex Internet application to obtain the current password.

Micromedex® IV Compatibility

The **Micromedex IV Compatibility** app for Apple and Android devices is available for FREE for Micromedex customers with a current subscription to IV Compatibility.
You can access these apps via the iTunes® App Store (Apple devices) or Google Play® (Android devices).

Simple instructions for installation:

Step 1

Visit the iTunes App Store (Apple devices) or Google Play (Android devices) and search for "Micromedex.."

Note: You can also click on **Download Mobile Apps** in the *Resources* column on the Micromedex Internet home page and scroll to the Micromedex IV Compatibility section to access direct links to the app on the iTunes App Store and Google Play.

Step 2

From the Micromedex app results, select **Micromedex IV Compatibility**. You may be prompted to enter your Apple or Google ID.

Step 3

© 2017 Truven Health Analytics LLC

The app should download directly to your device. (If you visited the iTunes App Store on your PC rather than your device, you may have to sync your device to iTunes on your PC, in order to load the app onto your device.)

Step 4

Open the app on your device. To begin using **Micromedex IV Compatibility** enter the password which can be found on the *mobile*Micromedex page in the Micromedex Internet application by clicking on **Download Mobile Apps** in the *Resources* column on the Micromedex home page and scrolling to the Micromedex IV Compatibility section.

The password is case-sensitive. Please enter it exactly as it appears on the *mobile*Micromedex page.

Note: A valid password is required to download the apps and on a recurring (annual) basis. When downloading for the first time and when prompted from within the app, return to the *mobile*Micromedex page in the Micromedex Internet application to obtain the current password.

© 2017 Truven Health Analytics LLC

APPENDIX A:DATABASE DESCRIPTIONS

Truven Health Analytics publishes clinical decision support databases and tools. Micromedex® Solutions provides a wide range of databases tailored to meet the needs of clinicians and healthcare professionals, including information related to drugs, acute care, toxicology, complementary and alternative medicine, and patient education.

Micromedex Databases

Alternative Medicine for Patient
Alternative Medicine Information
- Summary Alt Med Info
- In Depth Alt Med Info
- Alt Med Consults
- Alt Med Protocols
- Alternative Medicine Reactions

Complete Drug Interactions
Complete IV Compatibility with Trissel's 2™
Detailed Drug Information for the Consumer™
Disease Information
- Summary Disease Information
- Emergency Medicine
- Emergency Medical Abstracts
- General Medicine
- Clinical Checklist™

DRUGDEX® System
- Summary Drug Information
- Detailed Drug Information
- Drug Consults

Herbal Medicines: A Guide for the Health-Care Professional
IDENTIDEX® System
Index Nominum
Italian Drug Database - Dialogo sui Farmaci
Lab Recommendations
Martindale: The Complete Drug Reference
Material Safety Data Sheets (MSDS)
P&T QUIK® Reports
Physicians' Desk Reference® (PDR)
POISINDEX® System
- Summary Toxicology Information
- Detailed Toxicology Information

Reproductive Effects
- REPROTEXT®
- REPROTOX®
- Shepard's
- TERIS

TOMES System
- HAZARDTEXT®
- INFOTEXT®
- MEDITEXT®

United Kingdom Drug Information - eMC SmPC

© 2017 Truven Health Analytics LLC

Alternative Medicine for Patient

Patient Education for Complementary and Alternative Medicine

As part of the Complementary and Alternative Medicine (CAM) Series, Alternative Medicine for Patient documents offer fully referenced patient counseling materials, written and peer reviewed by representatives from both conventional Western medicine and the alternative medicine communities.

What's in Alternative Medicine for Patient?

- Dietary Supplement documents
- Disease state/Medical condition documents
- Therapy documents

Dietary Supplement documents

Dietary supplement documents provide concise information on indications, dosage, storage, interactions, side effects and warnings associated with the most frequently used herbal medicines, vitamins, minerals, and other CAM-related substances. Disease States/Medical Condition documents

These documents provide information on common diseases or medical conditions and how to treat them using CAM therapies. A description of the condition, causes, signs and symptoms, wellness recommendations, and complementary treatments are presented.

Therapy documents

Therapy, or modality documents, offer overviews on biofeedback, aromatherapy, acupuncture, and other frequently used CAM therapies and treatments.

Alternative Medicine Information

Herbal and Dietary Information

Part of the Complementary and Alternative Medicine (CAM) Series, Alternative Medicine Information offers evidence-based, clinical information on herbal, vitamin, mineral and other dietary supplements. The unbiased information is peer reviewed by a team of experts from both alternative medicine and traditional medicine communities. Editorial board members performing the reviews include MDs, DOs, RPhs, RNs, and NDs.

What's in Alternative Medicine Information?

- Evaluations
- Consults
- Protocols

Summary Alt Med Info

Summary Alt Med Info provides brief highlights of dosing, indications, contraindications, adverse effects, drug interactions, therapeutic class, pregnancy, and lactation for herbals, vitamins, minerals and other dietary supplements. The documents deliver answers quickly and efficiently. They link directly to more in-depth information in In Depth Alt Med Info documents.

In Depth Alt Med Info

In Depth Alt Med Info monographs appear in a standardized format that allows you to easily find the information you need. Specific topics include the following:

- Dosing Information

© 2017 Truven Health Analytics LLC

- Synonyms
- Pharmacokinetics
- Cautions (contraindications, adverse reactions, drug interactions)
- Place in therapy
- Mechanism of Action
- Therapeutic Uses
- Comparative Efficacy

Alt Med Consults

Alt Med Consults provide crucial information of interest to those needing information on herbal medicines and other dietary supplements. Topics include FDA warnings, pregnancy risk categories, and guidelines on dosing, safety and efficacy issues.

Alt Med Protocols

Provides practical advice to help you integrate complementary and alternative medicine into clinical practice.

Every day healthcare professionals are being asked to combine alternative medicine therapies with more traditional treatment practices. Alt Med Protocols provides complementary and alternative medicine (CAM) information and recommends methods for successfully blending CAM therapies with conventional medicine to offer patients a full range of options and help optimize their treatment outcomes.

Alternative Medicine Reactions

Contains easy-to-understand materials to help you educate patients about potential herbal & dietary supplement interactions

Increased use of herbals and dietary supplements means increased risk of harmful interactions. Without knowledge of the possibilities, inadvertent mixing of medications can result in adverse drug events or decreased efficacy. Alternative Medicine Reactions discusses the potential for interactions between alternative medicines and other drugs, dietary supplements, food, alcohol, and tobacco. Designed to help educate patients, supporting evidence and advice about what to do if experiencing an interaction are included.

Complete Drug Interactions

Drug Interactions

Complete Drug Interactions allows clinicians to check for interacting drug ingredients, their effects, and their clinical significance. It provides drug-drug, food-drug, drug-allergy, drug-alternative medicine, drug-ethanol, drug-laboratory, drug-tobacco, drug-pregnancy, and drug-lactation interactions and screens for ingredient duplication. The tool screens for therapeutic duplication of ingredients in the terms entered and identifies ingredients or products that are therapeutically antagonistic. However, please note that not all additive adverse effects or therapeutic antagonist effects are included in the tool.

Complete Drug Interactions information is drug-specific rather than class-specific, although many drug-specific interactions are included for known or suspected interactions based on class characteristics or metabolic activity. The specificity to individual drugs is helpful for accurate interpretation of interaction data. The program is able to distinguish between and equate trade names and generic drug names, eliminating possible duplication of interaction data on the page. A large number of concurrent clinical conflicts can be reviewed, and the

© 2017 Truven Health Analytics LLC

response speed of this database demonstrates negligible degradation in data retrieval as the number of drugs being screened is increased.

Complete IV Compatibility - Trissel's™ 2 Clinical Pharmaceutics Database

- Features Trissel's 2™, the latest database from the ultimate authority on IV compatibility - Lawrence Trissel, MS, FASHP
- Enhances patient safety by pinpointing potentially lethal combinations
- Supports confident decisions with multiple studies and full study information including manufacturer, concentration, stability, and other conditions
- Helps clinicians interpret conflicting compatibility results by identifying contributing factors
- Includes 600 unique drugs and solutions
- Over 50,000 compatibility results
- Provides solution, Y-Site, syringe, and admixture compatibility information
- Includes TPN/TNA data
- Allows for either single or multiple drug searches

Detailed Drug Information for the Consumer™

Easy-to-understand, in-depth materials to help educate your patients about medications and their proper use. Today's patients are informed patients. Now you can give them an educational resource to match their proactive role in their care.

Detailed Drug Information for the Consumer™ - Drug Information in Lay Language provides patient-oriented drug information to help patients understand and successfully follow their drug regimens. Written at a 12th-grade literacy level, documents provide greater detail than most patient education leaflets and include brand names, descriptions, proper use, precautions, and side effects. Instructions for how to handle missed doses are included, as are guidelines for when to seek medical assistance or supervision.

Disease Information

Summary Disease Information

Summary Disease Information provides brief highlights of treatment, diagnosis, and key point information. The documents deliver answers quickly and efficiently. They also link directly to the more in-depth Disease Emergency Medicine and Disease General Medicine documents.

Disease Emergency Medicine

Comprehensive source of urgent and acute care information

Disease Emergency Medicine provides actionable information extracted from an extensive library of medical journals. With over 40,000 key terms and synonyms, Emergency Medicine helps clinicians quickly access current and crucial data organized by both condition and diagnosis.

© 2017 Truven Health Analytics LLC

Disease Emergency Medicine includes:

Emergency and Acute Care Summaries and detailed information on emergency conditions and treatments covering:

- Treatment
- Diagnosis
- Key Points

Emergency Medical Abstracts

EMA from Rick Bukata, MD and Jerry Hoffman, MD - a definitive source of literature review covering a broad scope of topics.

Disease General Medicine

Evidence-based, current disease information

Disease General Medicine supports disease management and treatment decisions in ambulatory and inpatient care settings.

General Medicine content enables clinicians to quickly reference the most current treatment of choice information at the point of care to help minimize errors, prevent unnecessary tests and procedures, reduce treatment costs, and improve patient outcomes.

Each General Medicine document covers:

Management highlight	Prognosis
Background	Advising the Patient
Diagnosis	Follow-up
Treatment	Prevention and Screening
Complications	Key References
Special Circumstances	Literature Cited
When to Consult or Refer	Tables and Images

Clinical Checklist™

The Clinical Checklist System is the “must do” “never do” database. It is a compilation of the most pertinent patient care interventions on commonly encountered conditions that should always or never be done. The interventions are presented as alerts within Micromedex. The information is action-oriented and concise and is based on nationally recognized quality standards and the highest rated medical evidence.

Each checklist item contains graded recommendation and evidence information. These evidence ratings embed evidence-based medicine into clinical operations, and ultimately, maximize reimbursement by ensuring that clinical decisions are in compliance with the latest national quality standards and evidence-based practices.

© 2017 Truven Health Analytics LLC

DRUGDEX® System

Detailed Drug Information
Drug & Pharmaceutical Information

Designed to deliver unbiased drug information for those who prescribe, order, dispense, or administer medications, the DRUGDEX System provides independently reviewed data gathered from major drug centers and pharmacology services worldwide. FDA-approved and investigational drugs, along with over-the-counter and non-U.S. preparations, are covered with regard to dosage, pharmacokinetics, cautions, interactions, clinical applications, and comparative drug efficacy. Information is reviewed by the Truven Health Analytics editorial board and can be retrieved by generic name, manufacturer brand name, or indications.

What's in DRUGDEX?

DRUGDEX includes the following modules:

- Drug Evaluations
- Drug Consults
- Product Index
- Summary Drug Information

Summary Drug Information

Summary Drug Information provides brief highlights of dosing, drug interactions, adverse effects, pregnancy warnings, indications, cautions, therapeutic class, and brand information. The content provides answers quickly and efficiently. The documents also link directly to more in-depth DRUGDEX® Detailed Drug Information (available only with a current DRUGDEX subscription).

Drug Evaluations

Drug evaluation monographs appear in a standardized format that allows you to easily find the information you need. Specific topic areas include the following:

- Dosage
- Pharmacokinetics
- Interactions
- Cautions
- Interactions
- Adverse side effects
- Contraindications/precautions
- Comparative drug efficacy
- Clinical applications
- Comparative drug efficacy
- Indications
- Therapeutic uses
- Generic names
- Indications
- Adverse side effects

© 2017 Truven Health Analytics LLC

Drug Consults

Drug Consults are evidence-based, fully-referenced articles covering drug therapies and drug guidelines. Some Drug Consults present patient related, referenced consultations with case histories. They are also an excellent resource for information on herbal medications, medical and surgical materials, excipients, drugs of abuse, and health foods. Drug Consults are provided for investigational, international, FDA-approved, and over-the-counter preparations.

DRUGDEX® Product Index

Product documents offer comprehensive search results listing trade names, manufacturers, and dosage forms for investigational, international, FDA-approved, and over-the-counter preparations.

Herbal Medicines: A Guide for the Health-Care Professional

Invaluable reference for everyone interested in herbal medicines and their uses

While the use of herbal remedies has dramatically increased, the availability of factual information about such substances has not. Herbal products are not regulated in the same manner as drugs, so credible, proven data about them is scarce. As part of the International Drug content in Micromedex® Solutions, Herbal Medicines: A Guide for Health-Care Professionals, published by the Pharmaceutical Press, London, UK, presents fully referenced information to assist with the identification, application, safe use, and assessment of commonly found herbal medicines. Its quick, easy-to-access content addresses pharmacological actions, side effects, contraindications, and safety and efficacy issues.

IDENTIDEX® System

Tablet & Capsule Identification

The IDENTIDEX database identifies pharmaceutical tablets and capsules by imprint code and secondary characteristics, such as color and shape. Prescription and over-the-counter drugs (both trademarked and generic) are listed, along with manufacturers' telephone numbers and logo descriptions. Many international and street drugs are included, as is an extensive index of drug-related slang terms.

What's in IDENTIDEX?

IDENTIDEX identifies substances from unmarked containers in emergency situations. It includes prescription and nonprescription drugs with information about the manufacturer and provides an extensive library of information on street drugs and slang terms. IDENTIDEX documents follows this standard outline:

- Imprint code
- Color
- Dosage form
- Active ingredients
- Manufacturer
- AAPCC code

© 2017 Truven Health Analytics LLC

Index Nominum

Recognized worldwide, Index Nominum is an international drug directory providing access to over 5,300 substances and derivatives, more than 12,800 synonyms, and over 41,800 tradenames from more than 45 countries.

The Truven Health version of Index Nominum in Micromedex® Solutions, edited by the Swiss Pharmaceutical Society, provides electronic access to an international drug directory of generic substances, drug tradenames, synonyms, chemical formulas, therapeutic classes, and manufacturer information. Designed to meet the drug information needs of drug and poison information centers, pharmacists, physicians, research and medical centers, pharmaceutical companies and libraries, the system presents area-specific information from more than 45 countries for preparations used in human and veterinary medicine.

Index Nominum enables users to locate information by entering a substance name, therapeutic category, brand name, synonym, chemical name, manufacturer name, or country as the keyword or search term. Each monograph provides detailed information about a drug's name and synonyms, chemical structure diagrams, and a list of manufacturers. Name and address information enables the user to conveniently identify manufacturers worldwide.

Index Nominum contains:

- Drug tradenames
- Official and unofficial synonyms
- Substances and derivatives
- Manufacturer names and addresses
- Therapeutic classes
- CAS numbers
- ATC codes
- Chemical structures
- Molecular weights

Italian Drug Database - Dialogo sui Farmaci

The Italian Drug Database from Dialogo sui Farmaci is a compilation of all pharmaceuticals marketed and approved for use in Italy - currently at approximately 16,000 products and is updated on a monthly basis. The database includes both products with pharmaceutical active ingredients as well as over-the-counter drug products. Bulk products such as Ringer's Lactate and Saline solutions are also included in the database.

The following information is available in Dialogo sui Farmaci product documents:

- MINSAN Code - code for each medicine, given by the Ministry of Health
- Brand Name
- Form, strength, packaging and route of administration
- ATC codes
- Italian and English INN
- Price
- Reimbursement class

© 2017 Truven Health Analytics LLC

- Class A - Essential drugs and those for chronic diseases
  These drugs are fully reimbursed by the National Health Service (NHS).
- Class H - Drugs that are fully reimbursed and must be used only in hospitals
- Class C - Drugs not reimbursed by the NHS
  Among Class C drugs are:
  SOP: drugs that can be sold without prescription but for which advertisement is not allowed.
  OTC: drugs sold without prescription. Advertisement is allowed.
- Limitative note
- Distribution criteria
- Registry
- Prescribing criteria
- Authorized prescriber
- Drug manufacturer
- Off-patent drugs
- Italian indications

Lab Recommendations

Lab Recommendations is a clinical laboratory database which presents the most critical information about which laboratory tests are appropriate for a given condition, interpretation and management of results, normal ranges, test methodology, and other laboratory related information.

Lab Recommendations will:

- Describe which tests are appropriate for a given indication
- Help streamline workflow by providing actionable information that eliminates the need to call the lab or library with questions about administering and interpreting labs
- Aid in the interpretation of test results
- Link to summary level drug, disease, and toxicology documents for more detailed information on the topic or substance
- Provide evidence-based testing information on how and when to monitor drug levels, therapeutic levels and side effects
- Provide normal or therapeutic range to enable appropriate triage of lab test results
- Provide information on how to interpret unfamiliar tests when evaluating patients
- Provide information on how to collect samples and submit tests

Martindale: The Complete Drug Reference

This electronic version of the highly respected MARTINDALE reference book published by The Royal Pharmaceutical Society of Great Britain offers extensive, unbiased, evaluated information on worldwide drugs and related substances. It provides quick and easy searching for pharmacological and therapeutic data, synonyms, and manufacturers' brand names.

What's in MARTINDALE?

© 2017 Truven Health Analytics LLC

The MARTINDALE database contains information on drugs in clinical use worldwide, as well as selected investigational and veterinary drugs, herbal medicines, pharmaceutical excipients, vitamins and nutritional agents, vaccines, radiopharmaceuticals, contrast media and diagnostic agents, medicinal gases, drugs of abuse and recreational drugs, toxic substances, disinfectants, and pesticides. Sections of text summarize the relevant information, followed, if appropriate, by referenced abstracts or reviews that expand upon the details given in the text or add additional information. The contents may be categorized as follows:

- Generic drugs names, including U.S., British, and international approved names
- Synonyms/chemical names
- Molecular formula/molecular weight, CAS registry numbers
- Pharmacopeias
- Physical characteristics
- Adverse effects and their treatment
- Precautions, including contraindications
- Interactions
- Pharmacokinetics
- Uses and Administration, including pharmacology and dosage
- Preparations and brand names

Preparations summaries of more than 70,000 proprietary products from 17 countries are included. Information is provided on brand name, manufacturer, country of origin, active constituents, and licensed uses. Cross-references link each ingredient to an appropriate drug monograph when possible.

In addition, more than 600 disease treatment reviews offer overviews of the diseases and drugs used in their treatment, along with key references. Cross-references are provided between disease reviews and relevant drug monographs.

MARTINDALE coverage includes:

- More than 5,300 drug monographs
- Over 70,000 proprietary preparations
- At least 6,000 manufacturers
- More than 600 disease treatment reviews
- Over 200 herbal medicine monographs
- At least 5,000 herbal preparations

Material Safety Data Sheets (MSDS)

Prepared by the US Pharmacopeial Convention

Material Safety Data Sheets are a vital part of every hospital/company Hazard Communication Program. This electronic version of more than 1,000 MSDS issued by the US Pharmacopeial Convention offers quick access to drug and chemical information, including health hazards, handling procedures, and government regulations.

Information Included in MSDS:

Each sheet contains summaries of key information about hazardous substances in the following format:

© 2017 Truven Health Analytics LLC

- Identify
- Hazardous ingredients
- Physical and chemical characteristics
- Physical hazards
- Health hazards
- Special protection information
- Special precautions and spill/leak procedures

P&T QUIK® Reports

P&T QUIK Reports assists pharmacists in preparing for Pharmacy and Therapeutics Committee meetings. P&T QUIK contains monographs on drugs being considered by P&T Committees for placement on the hospital formulary. Included are drugs recently approved by the FDA, those of intense interest, or drugs suggested by subscribers. Twelve monographs are added each quarter, and the most recent 24 months of monographs are available.

Physicians' Desk Reference® (PDR)

The electronic Physicians' Desk Reference provides fast, easy access to information found in the popular Physicians' Desk Reference® (PDR), the PDR for Nonprescription Drugs and Dietary Supplements™, and the PDR for Ophthalmic Medicines. The content includes current FDA-approved prescription drugs, commonly used over-the-counter drugs, and specialized ophthalmic pharmaceuticals. It provides detailed data on ingredients, drug interactions, side effects, recommended dosages, clinical pharmacology, pediatric use, contraindications, and available forms. Information on drug manufacturers is also included.

POISINDEX® System

Commercial, Pharmaceutical, Biological Substance Identification & Management

The POISINDEX System identifies ingredients for hundreds of thousands of commercial, pharmaceutical, and biological substances. Each substance is linked to one or more management documents providing information on clinical effects, range of toxicity, and treatment protocols for exposures involving the substances.

What's in POISINDEX?

The system contains the following modules:

- Product/Substance Identification
- Toxicological Managements
- Summary information

Product/Substance Identification:

POISINDEX® Product/Substance Identification contains information on over 1,000,000 different household items, such as:

- Common household products (cleaners, personal care, insect protection)
- Industrial chemicals (manufacturing agents)
- Industrial products (cleaners, protective agents)
- Pharmaceutical products (prescriptions, generic, trade, OTC, veterinary)

© 2017 Truven Health Analytics LLC

- Biological entities (botanic, zoologic, food poisoning)

Summary Toxicology Information

Summary Toxicology Information provides brief highlights of clinical effect, treatment, and range of toxicity information. The content delivers answers quickly and efficiently. The documents also link directly to the more in-depth POISINDEX® System Toxicological Managements (available only with a current POISINDEX subscription).

Toxicological Managements:

Toxicological Managements offers over 850 detailed courses of treatment for someone exposed to a substance.

Reproductive Effects

Reproductive Risk Information

Reproductive Effects is a unique collection of reproductive risk information databases. It provides information covering full-range health effects that is helpful when assessing reproductive risks of drugs, chemicals, and physical and environmental agents. Risks to females, males, and unborn children are discussed.

What's in Reproductive Effects?

Reproductive Effects can define potential problems for women, men, and the effect on unborn children. It also can define risks associated with drugs and other substances, both legal and illicit. It suggests treatment plans to minimize risks during pregnancy.

Reproductive Effects includes the following modules:

- REPROTEXT® Database
- REPROTOX® Reproduction Hazard Information
- Shepard's Catalog of Teratogenic Agents
- TERIS Teratogenic Information System

REPROTEXT® Database

Reproductive Hazard Reference

REPROTEXT includes information such as the following:

- Presents in-depth reviews on full-range health effects of industrial chemicals commonly encountered in the workplace
- Covers physical agents including heat, noise, and radiation
- Describes effects on human reproduction of acute and chronic exposures to substances, as well as reproductive, carcinogenic, and genetic influences
- Includes unique Dual Health Hazard Ranking System for general toxicity, and "grade-card" scale suggesting level of reproductive hazard
- Helps set risk reducing priorities by combining hazard rankings with exposure estimates
- Assists with development of programs to improve employee protection guidelines

REPROTOX®

© 2017 Truven Health Analytics LLC

Reproductive Hazard Reference
Developed by the Reproductive Toxicology Center, Columbia Hospital for Women Medical Center, Washington, D.C.

REPROTOX includes information such as the following:

- Provides information regarding the impact of the physical and chemical environment on human reproduction and development
- Covers all aspects of reproduction including fertility, male exposures, and lactation
- Discusses reproductive influences of industrial and environmental chemicals; prescription, over-the-counter, and recreational drugs; and nutritional agents
- Includes latest, most relevant teratology articles

Shepard's

Catalog of Teratogenic Agents
Developed by Dr. Thomas H. Shepard, Professor of Pediatrics, University of Washington, Co-authored by Dr. Ronald J. Lemire, Professor of Pediatrics, University of Washington; Director, In-Patient Services at Seattle Children's Hospital and Regional Medical Center

Shepard's includes information such as the following:

- Electronic version of Shepard's Catalog
- Up-to-date information on teratogenic agents including chemicals, food additives, household products, environmental pollutants, pharmaceuticals, and viruses
- Includes research methods, results, and citations from both Japanese and Russian literature

TERIS

Teratogen Information System
Developed by the University of Washington

TERIS includes information such as the following:

- Current information on the teratogenic effects of drugs and environmental agents
- Agent summaries derived from thorough literature reviews rate reproductive risk and explain data used to determine the rating

TOMES® System

Handling hazardous chemicals is routine in many workplaces. The TOMES® System provides the critical medical and hazard data needed for immediate, effective response to exposure and accidents in chemical handling. Designed to help reduce the risk of exposure and injury, the TOMES System provides:

- Treatment guidelines for acute chemical exposures
- Evacuation procedures
- Chemical disposal information

General areas unrelated to chemicals are addressed such as ergonomics and human health risk assessment. The System's three databases - MEDITEXT®, HAZARDTEXT®, and INFOTEXT® - are integrated to ensure quick access to the fully reviewed, referenced information.

The TOMES System includes:

© 2017 Truven Health Analytics LLC

Hazard Management Information

Hazard Management Information documents can help you understand the issues related to environmental impact including how to implement emergency reaction to chemicals and their impact: Fire, Clean up, Personal protection. These documents also help you manage chemicals safely in the workplace.

INFOTEXT® Documents

Infotext documents provide regulatory listings and other general health and safety data. Includes industry-related areas (not chemical-specific) including ergonomics, endocrine disruptors, and human health risk assessment.

Medical Management Information

The Medical Management Information monographs can help you evaluate issues associated with exposure. They deliver information on acute exposure, treatment, and adverse health effects.

United Kingdom Drug Information - eMC SmPC

The United Kingdom Drug Information database is a compilation of all pharmaceuticals marketed and approved for use in the United Kingdom. It is made up of the Summary of Product Characteristics (SmPC) from the electronic Medicines Compendium (eMC).

The SmPC is used by healthcare professionals, such as doctors, nurses and pharmacists, and explains how to use and prescribe a medicine. They are written and updated by pharmaceutical companies and are based on their research and product knowledge. The SmPC is then checked and approved by the UK or European medicines licensing agency.

The contents may be categorized as follows:

- Name of the medicinal product
- Qualitative and quantitative composition
- Pharmaceutical form
- Clinical particulars - Therapeutic indications, Posology and method of administration, Contraindications, Special warnings and precautions for use, Interactions with other medicinal products and other forms of interaction; Pregnancy and lactation, Effects on ability to drive and use machines; Undesirable effects and Overdose
- Pharmacological properties - Pharmacodynamic properties; Pharmacokinetic properties; Preclinical safety data
- Pharmaceutical properties - List of excipients, Incompatibilities, Shelf life
- Special precautions for storage, Nature and contents of container, Special precautions for disposal and other handling
- Marketing authorization holder
- Marketing authorization number(s)
- Date of first authorization/renewal of the authorization
- Date of revision of the text
- Dosimetry
- Instructions for preparation of radiopharmaceuticals
- Legal category

© 2017 Truven Health Analytics LLC

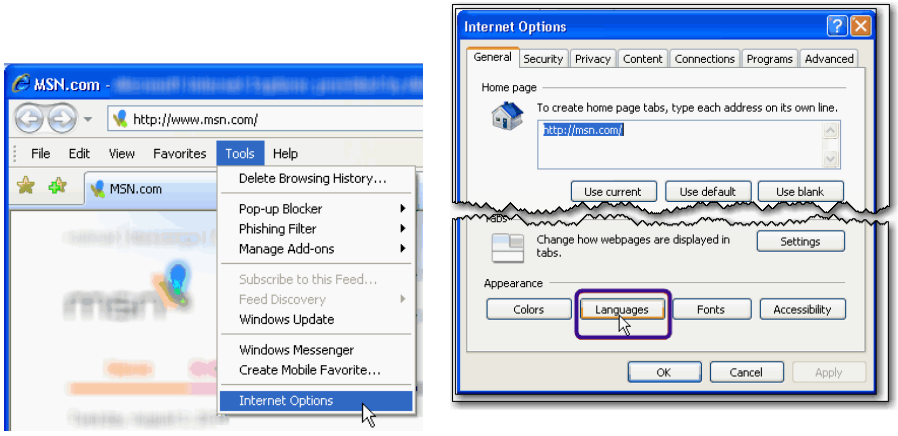
APPENDIX B: BROWSER SETTINGS

LOCALIZED LANGUAGE SUPPORT

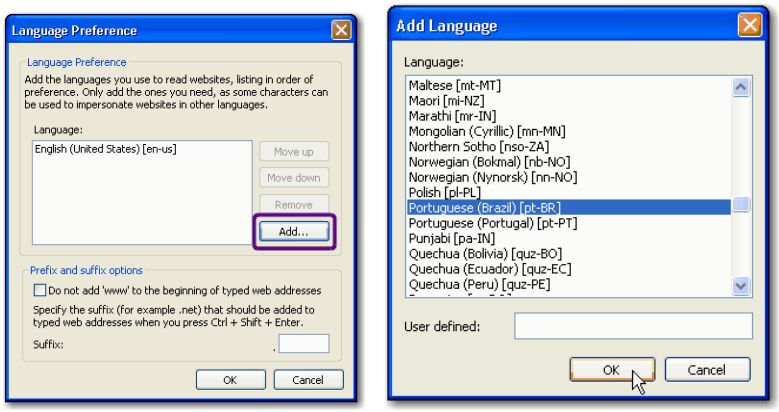
By modifying a few settings in your Internet browser, you can view some of the elements of the Micromedex interface in your local language. These settings only impact certain buttons and descriptions on the interface; the content is not translated.

Setting Up Language Support in Microsoft Internet Explorer

1. From the **Tools** menu, select **Internet Options**.



2. Click **Languages**.
3. From the *Language Preference* dialog, click **Add**.

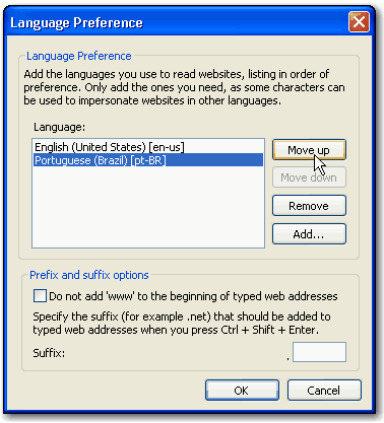


© 2017 Truven Health Analytics LLC

4. From *Add Languages*, scroll to the desired language, click to select, then click **OK**.

Note: The following language sets are supported:
Italian = Italian (Italy) [it-IT]
Chinese (simplified) = Chinese (PRC) [zh-CN]
Chinese (traditional) = Chinese (Taiwan) [zh-TW]
German = German (Germany) [de-DE]
Korean = Korean [ko-KR]
Portuguese (Brazilian) = Portuguese (Brazil) [pt-BR]
Spanish = Spanish (International Sort) [es-ES]

5. From *Language Preference* select the language added in the previous step and then click **Move Up** to place it first (as the default).

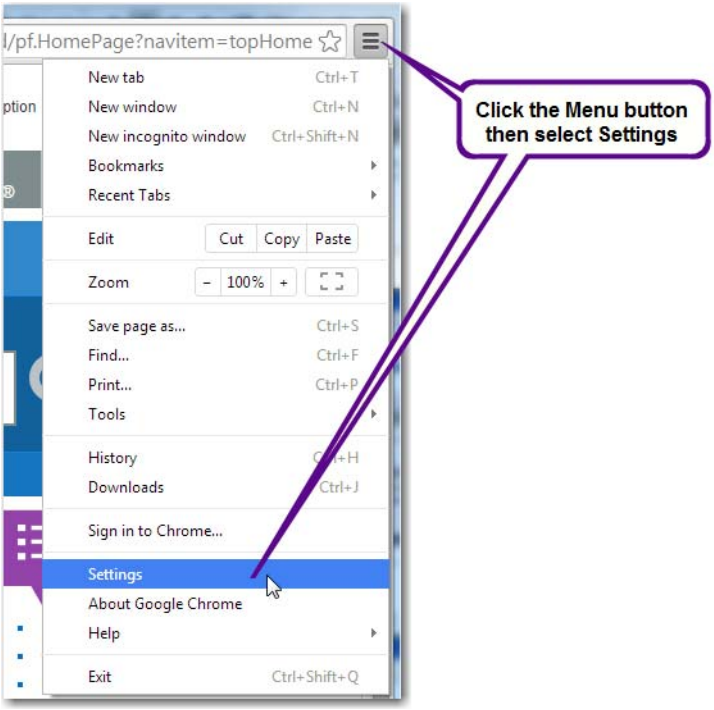


6. Click **OK** until the Tools menu closes and you return to the browser.
7. Open Micromedex Solutions. The default language is reflected in the user interface.

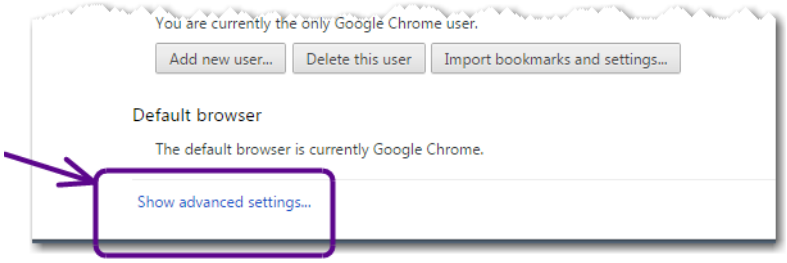
© 2017 Truven Health Analytics LLC

Setting Up Language Support in Google Chrome

1. Click the **Menu** button in the upper right corner of the browser and select **Settings**.

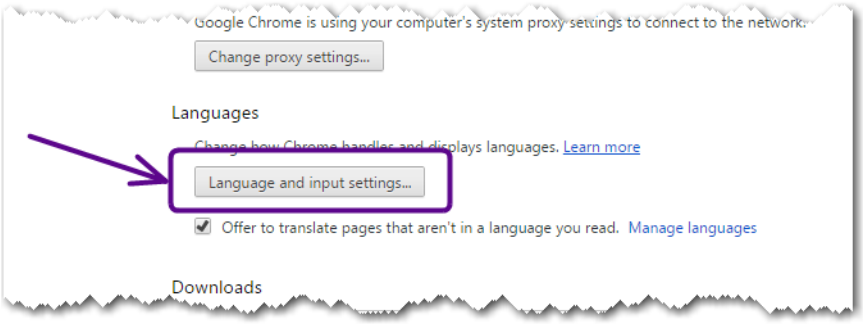


2. At the bottom of the page click **Show advanced settings...**



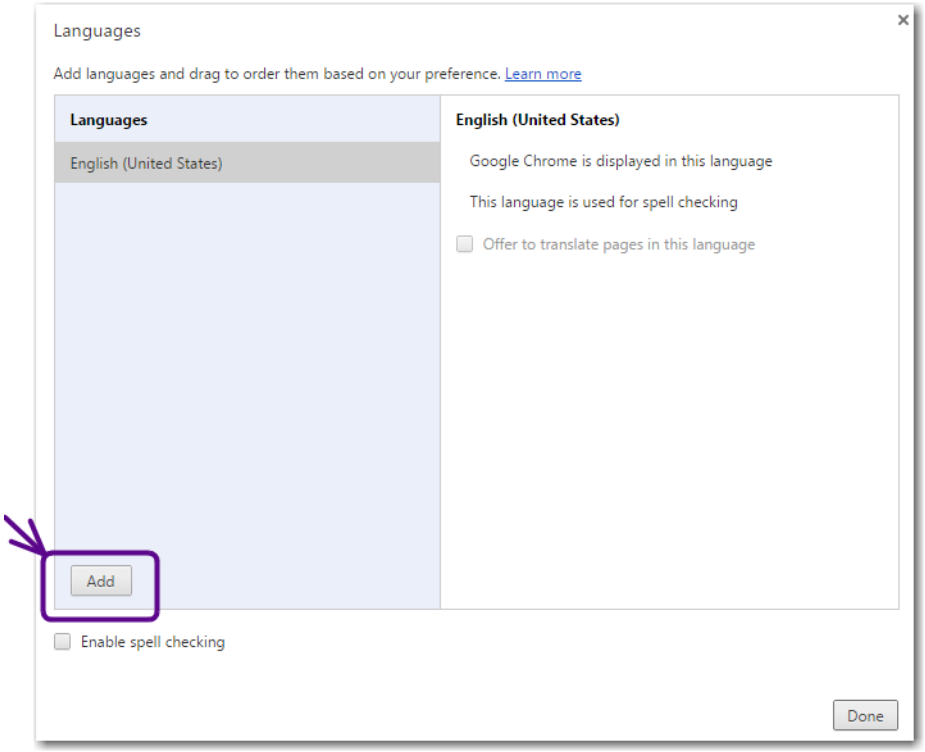
3. Scroll down and click the **Language and input settings...** button.

..



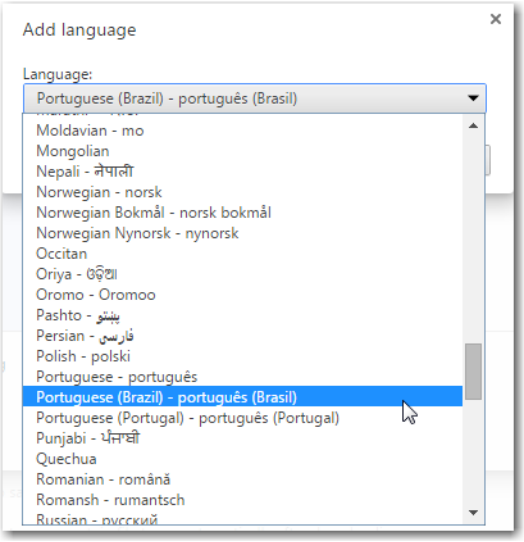
© 2017 Truven Health Analytics LLC

4. On the *Languages* screen click the **Add** button.



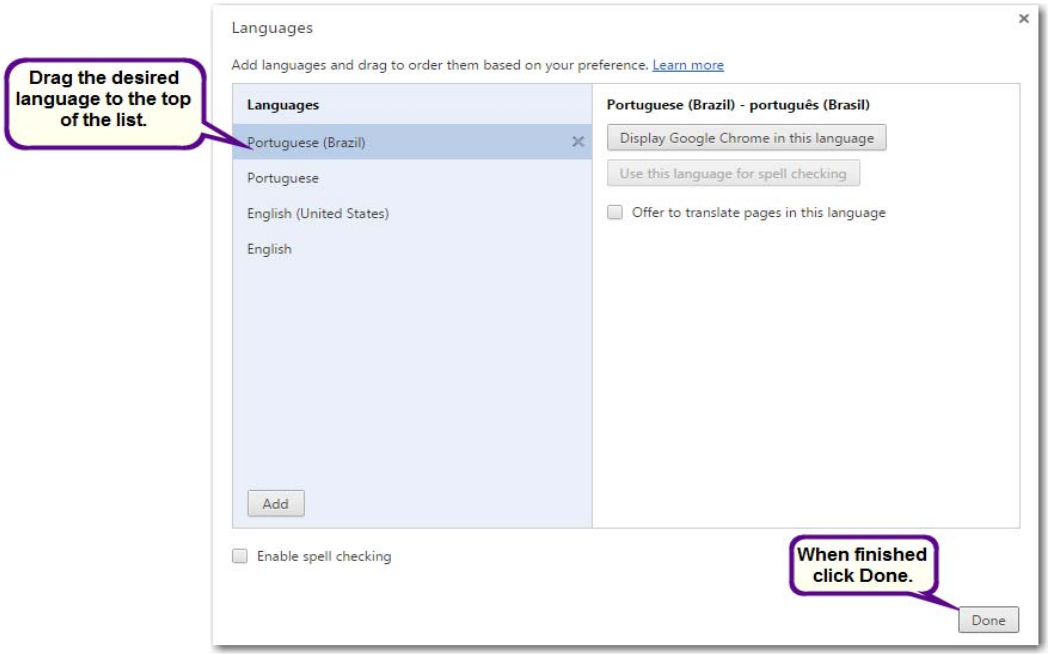
5. Select a language from the *Add language* drop-down and click **OK**.

Note: The following languages are supported:
Chinese (simplified)
Chinese (traditional)
German - Deutsch
Italian - italiano
Portuguese (Brazilian) - portugues (Brasil)



© 2017 Truven Health Analytics LLC

6. On the left side of the *Languages* screen highlight the language you selected in Step 5 and drag it to the top of the list. Then click **Done**.

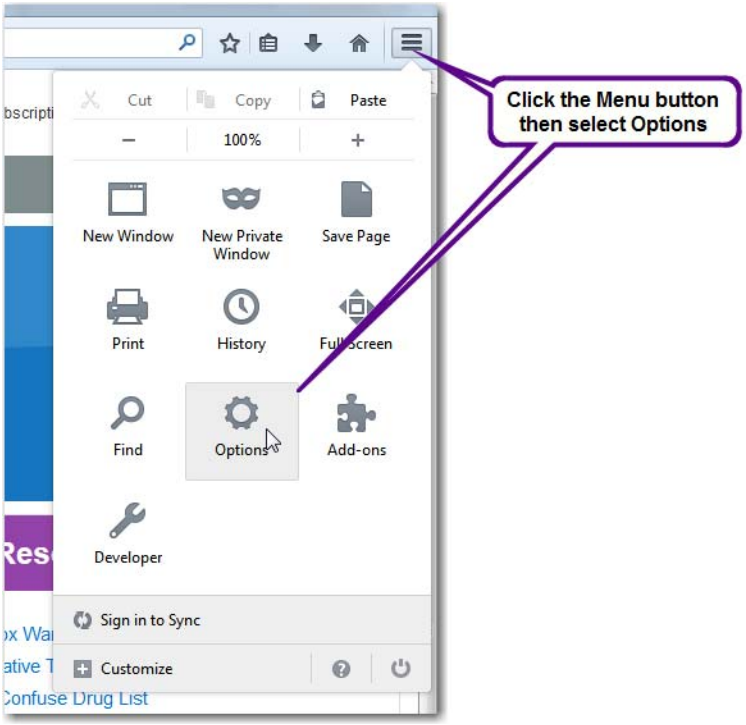


7. Open Micromedex Solutions. The default language is reflected in the user interface.

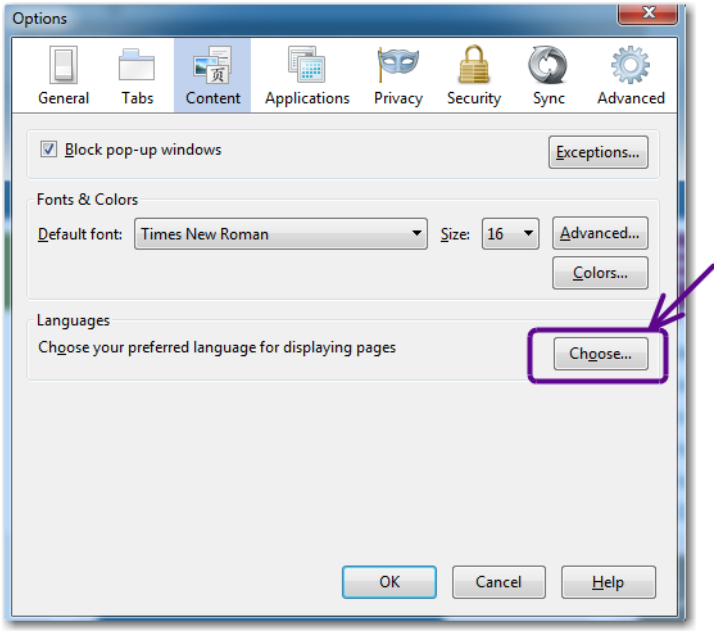
© 2017 Truven Health Analytics LLC

Setting Up Language Support in Mozilla Firefox

1. Click the **Menu** button in the upper right corner of the browser and select **Options**.

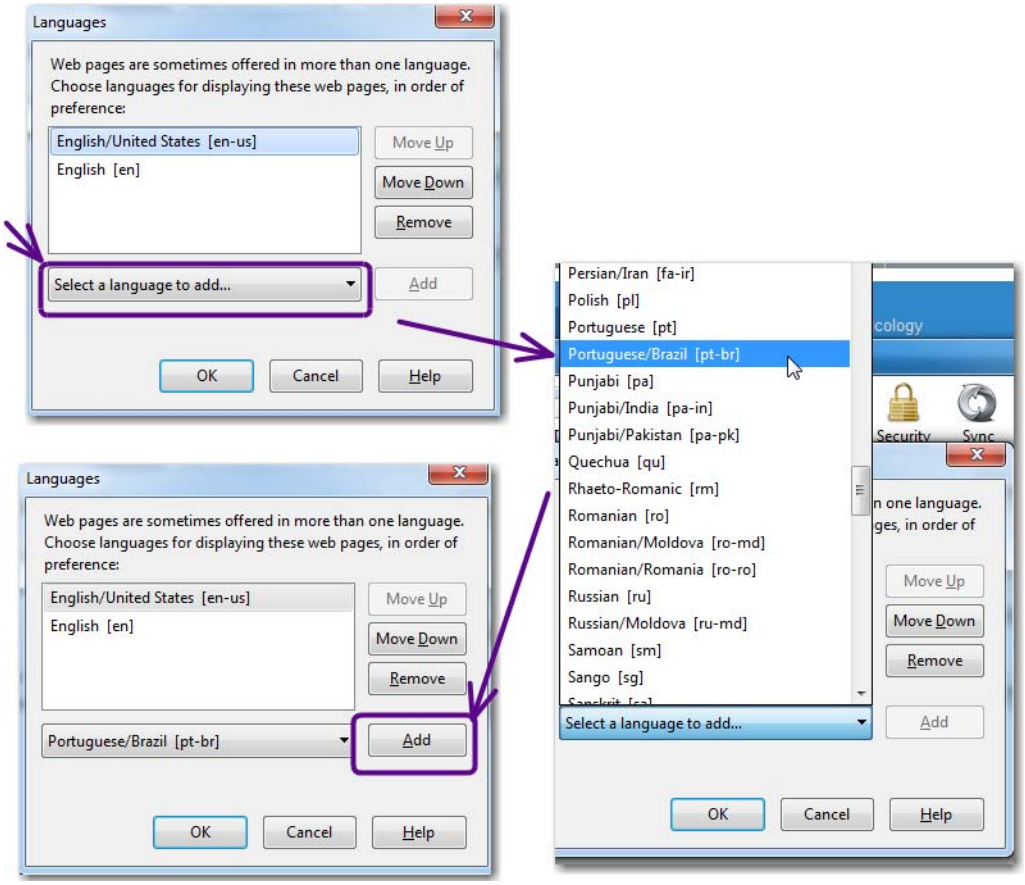


2. On the *Options* dialog next to Languages click the **Choose...** button.



© 2017 Truven Health Analytics LLC

3. From the *Language* dialog click the **Select a language to add...** drop-down, select a language, and click **Add**.



Note: The following languages are supported:
Chinese/China [zh-cn]
Chinese/Taiwan [zh-tw]
German/Germany [de-de]
Italian [it]
Korean/South Korea [ko-kr]
Portuguese (Brazilian) = Portuguese (Brazil) [pt-BR]

4. Click **OK** until you return to the browser.
5. Open Micromedex Solutions. The default language is reflected in the user interface.

© 2017 Truven Health Analytics LLC

MICROMEDEX SEARCH ACCELERATOR

Enjoy fast and easy access to clinical information in Micromedex® Solutions from any browser-based program, using the Micromedex Search Accelerator. With some simple modifications to your Internet browser settings, you can search Micromedex from other web applications (e.g., an EHR or HIS) or Internet browser sessions without having to first navigate to the Micromedex home page.

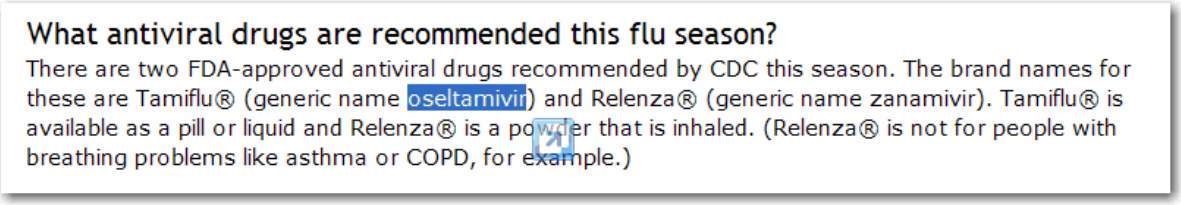
With an active Micromedex session (authenticated via a User Name and Password or a recognized IP address), you can be anywhere on the Web and go directly to a search results page in Micromedex.

This value-added feature is similar to Search Providers and Accelerator add-ons widely available on the web. Windows® Internet Explorer, Google Chrome, and Mozilla Firefox® all have this capability with some minor end-user browser configuration.

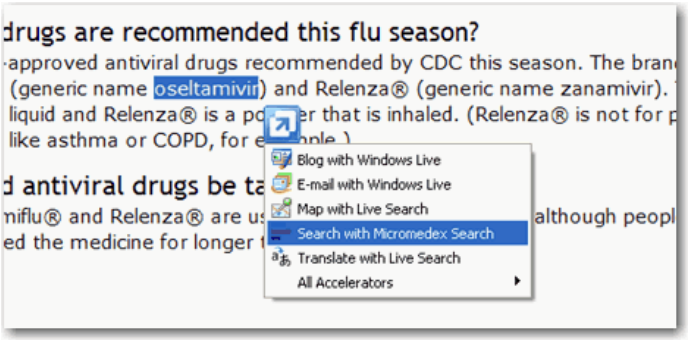
Workflow Example:

(*Example demonstrates the workflow in* Microsoft Internet Explorer Version 8*. Exact workflow can vary for other browsers and versions)*

From any Web page, highlight the term and either click on the accelerator icon or right-click the mouse to open the available options.

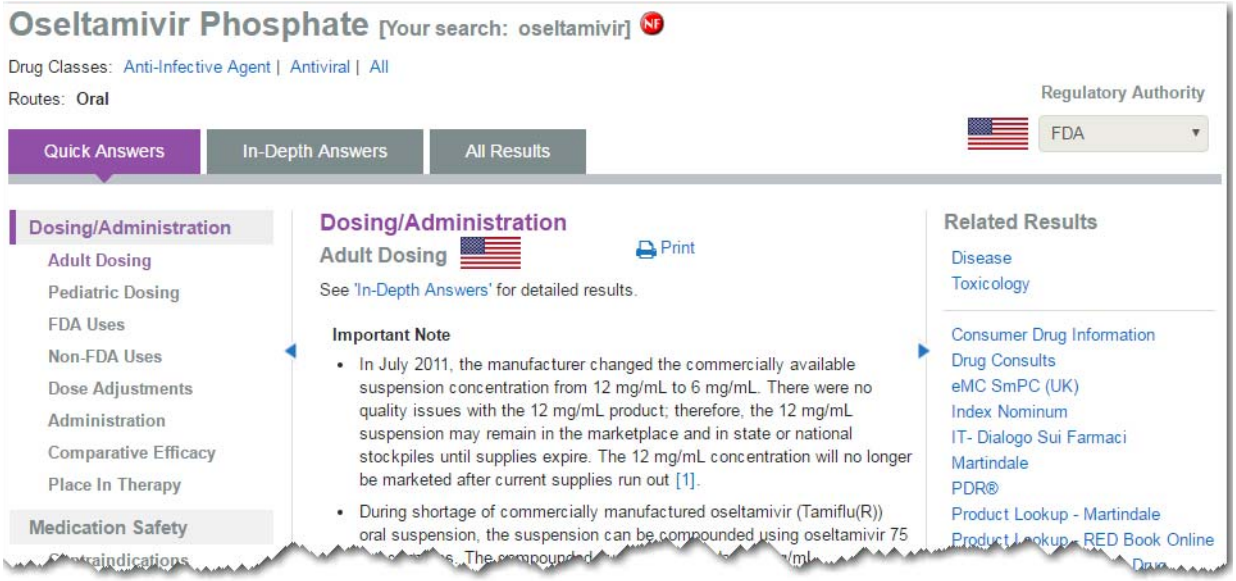


Select **Search with Micromedex Search**.



© 2017 Truven Health Analytics LLC

The Micromedex drug landing page displays:



Micromedex Search Accelerator Configuration

JUMP TO: Google Chrome | Mozilla Firefox | Information for System Administrators

Microsoft Internet Explorer

Please be aware, the installation, and workflow may vary slightly between versions of Internet Explorer.

Internet Explorer Version 9, 10, 11

Note: Internet Explorer Version 10 users (with **Microsoft Windows 8** operating system) - The Micromedex Search Accelerator functionality is available in the Desktop view only.

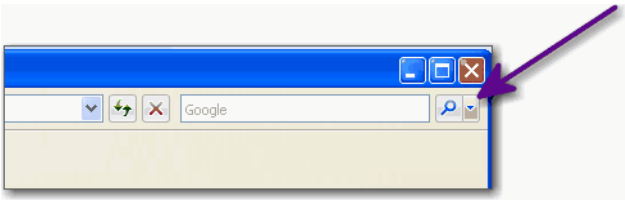
Installation of the search provider cannot be initiated by individual users. If you wish to use the Micromedex Search Accelerator and you have version 9, 10, or 11 installed, please contact your facility's Help Desk or systems administrator for assistance. Help Desk personnel or systems administrators will install Micromedex Search Accelerator utilizing Windows Group Policy. More information on the Windows Group Policy installation can be found in the section found at the end of this document titled, Information for System Administrators.

Internet Explorer Version 8

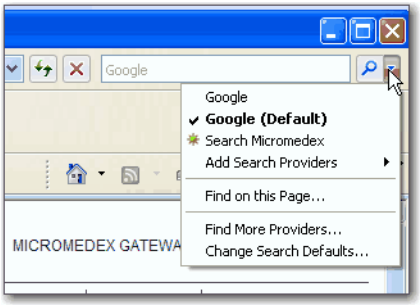
Note: If you do not see the options shown in the following steps, contact your systems administrator or Help Desk for assistance.

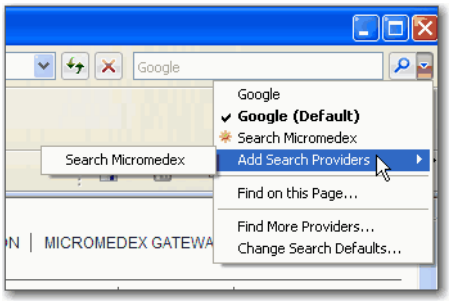
© 2017 Truven Health Analytics LLC

1. From an active Micromedex session, notice that the arrow in the Search drop-down is highlighted (yellow). This means that Micromedex is a supported Search Provider. Click on the on the arrow to open the menu.



2. Select **Add Search Providers**.





3. Select **Search Micromedex**.

Direct searches into Micromedex will now be available via the **Search Micromedex** option in the Search Provider box in the upper-right corner of the Internet Explorer.

With an active subscription and access via IP address or User Name and Password you can search Micromedex without first visiting the Micromedex home page.

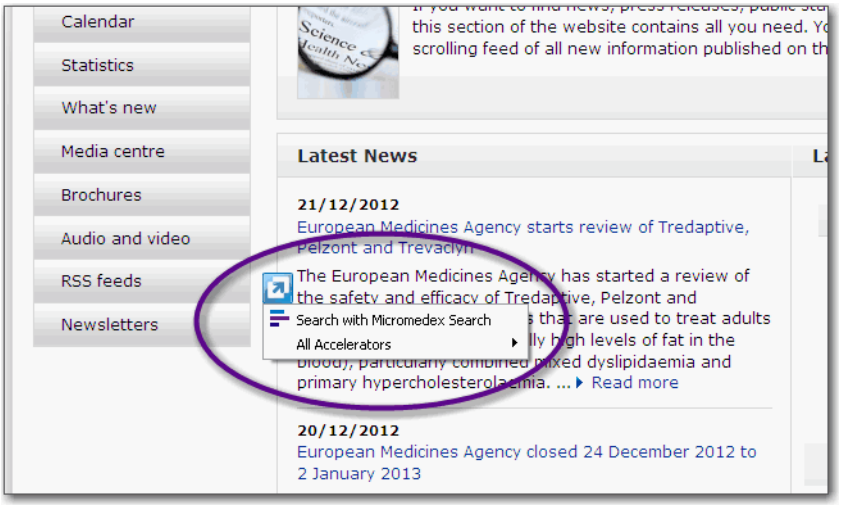
Note: Web-based applications such as an HIS or EHR system can also gain direct access using the Search Accelerator and the Internet Explorer Search Accelerator icon .

Micromedex Search Accelerator Workflow (Microsoft® Internet Explorer Version 8)

- Select or highlight a term or terms of interest in the web application you are using. The Search Accelerator icon appears.
- Click the icon.

© 2017 Truven Health Analytics LLC

Clicking the icon opens the search options menu, allowing a one-click search of your selected terms from your default Search Provider, or a selection option to use other Search Providers installed to your browser.



IP-Authenticated Users

The search should be seamless, requiring no additional steps or logins when searching using the search box, or the Micromedex Search Accelerator.

User Name and Password Users and Trusted source URL

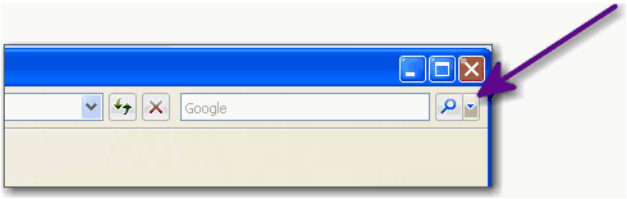
You will be required to login to Micromedex before initiating searches from external web pages. To limit having to repetitively enter your User Name and Password, use the "*Remember Password*" option (cookies must be enabled in your browser). Provided your browser session remains active, you may search Micromedex from any website or tool without first visiting the Micromedex home page.

If you wish to designate Micromedex Search as your default provider perform the following steps:

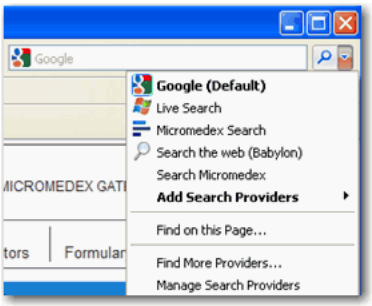
© 2017 Truven Health Analytics LLC

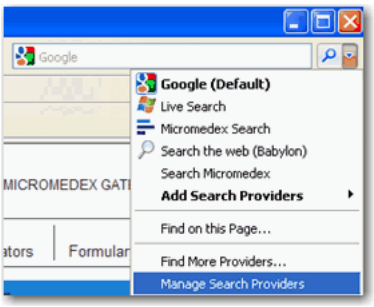
Designate Micromedex Search as your Default Search Provider (Internet Explorer 8)

1. Click the arrow on the Search drop-down.

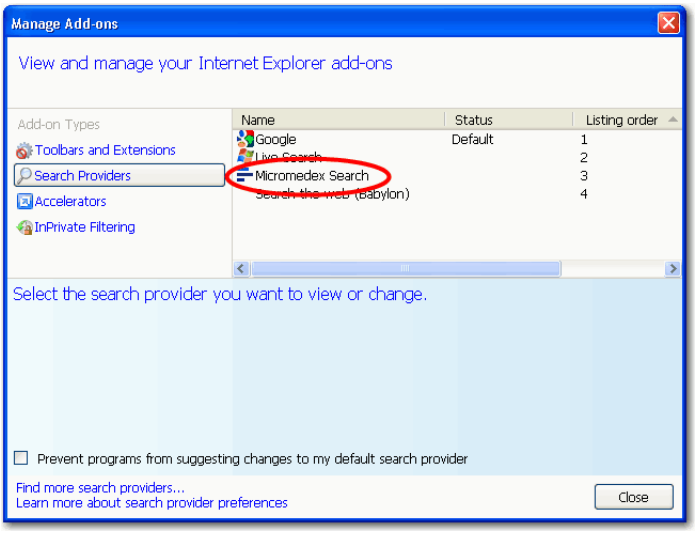


2. Click **Manage Search Providers**.



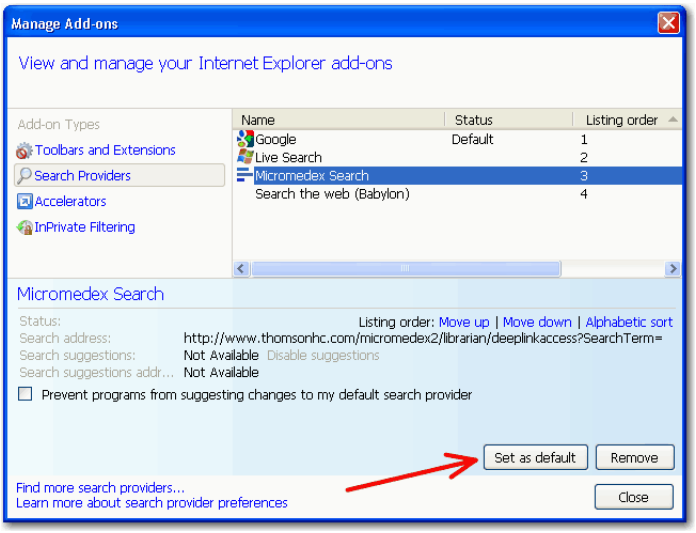


3. Click **Micromedex Search**.



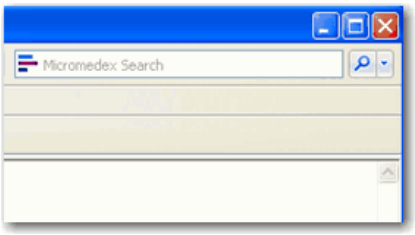
© 2017 Truven Health Analytics LLC

4. Click **Set as default**.



5. Click **Close**.

6. Now *Micromedex Search* displays in the Search Provider box as the default. You can enter a term and click the search button to go directly to the Micromedex search results page.



Google Chrome

Google Chrome supports adding search engines to the Google Omnibox. Google Chrome does not use the separate Search Provider box that is common to Microsoft® Internet Explorer and Mozilla Firefox®. Setup is fast and easy:

1. Open the Google configuration screen by selecting the ≡ icon in the upper-right, then select *Settings*.

2. Find the Search area of the settings screen and select **Manage Search Engines…**

3. On the Search Engines screen, scroll to the bottom of the screen to find the text boxes to enter the parameters of your new search:

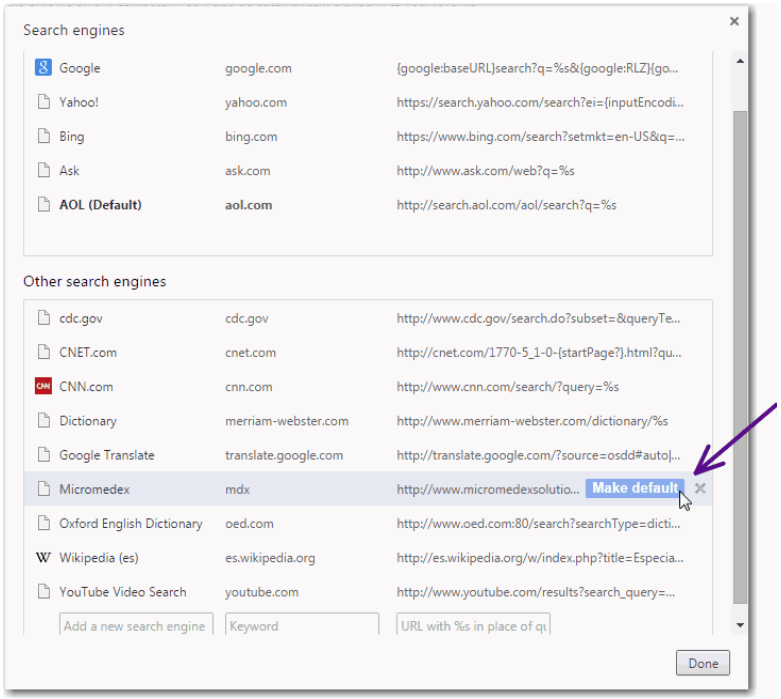
4. From left to right, enter the name, Micromedex, a shortcut trigger word of your choice (e.g. MDX), and the following URL with **no spaces or line breaks**:

© 2017 Truven Health Analytics LLC

```
http://www.micromedexsolutions.com/micromedex2/librarian/deeplinkaccess?SearchTerm=%s
```

WARNING **If you copy and paste the URL, a space may be inserted, which will prevent the Micromedex Search Accelerator from functioning.**

5. Press the **Enter** key. Micromedex is added to the list of *Other search engines*.
6. Hover your mouse over Micromedex and click **Make default**.

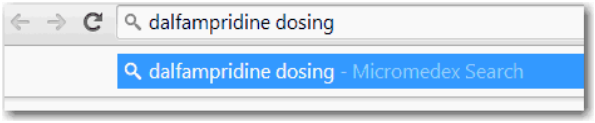


7. Click **Done**.

Note: If you choose to set Micromedex as the default search engine in Google Chrome, any terms entered into the Google Chrome Omnibox will search Micromedex first.

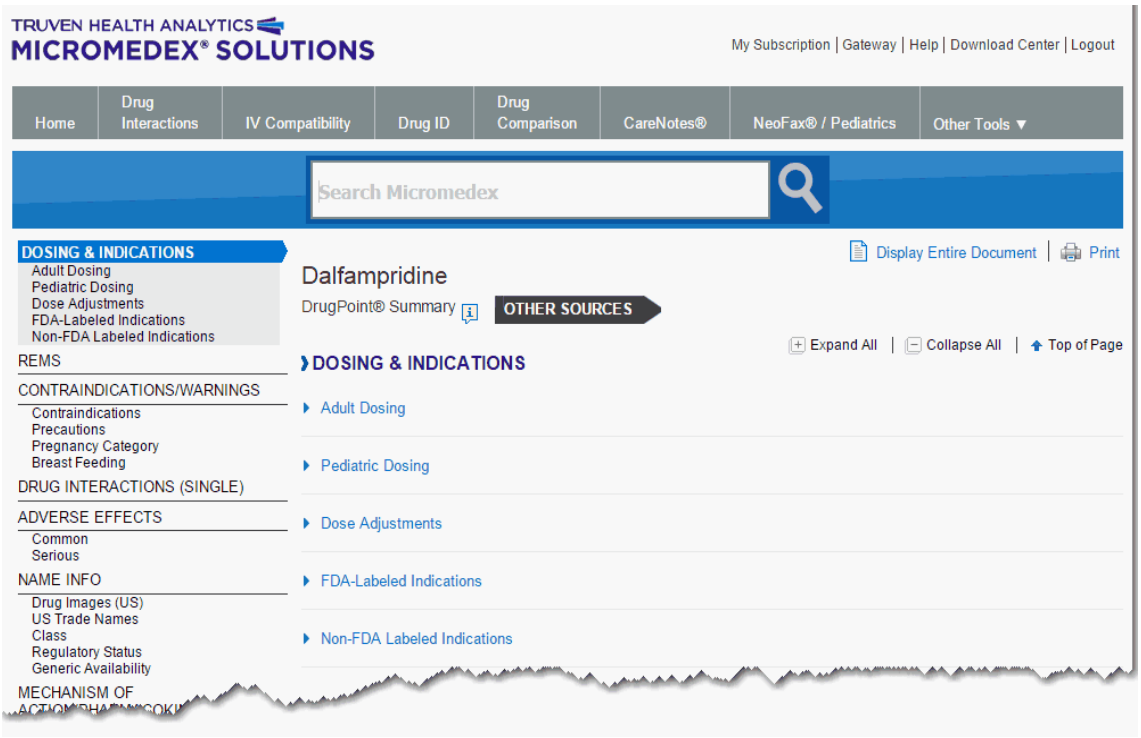
Search Accelerator Workflow (Google Chrome)

1. Type your search term(s) and press the **Enter** key.



© 2017 Truven Health Analytics LLC

2. In this example you will navigate directly to the Dosing section of the Micromedex Summary Drug Information monograph for Dalfampridine.



An additional benefit of using Google Chrome is that it will retain search history, saving time on re-entry of terms as you begin to build a search history. However, you are not able to launch a search for Micromedex from the body of a web page as in Internet Explorer and Firefox.

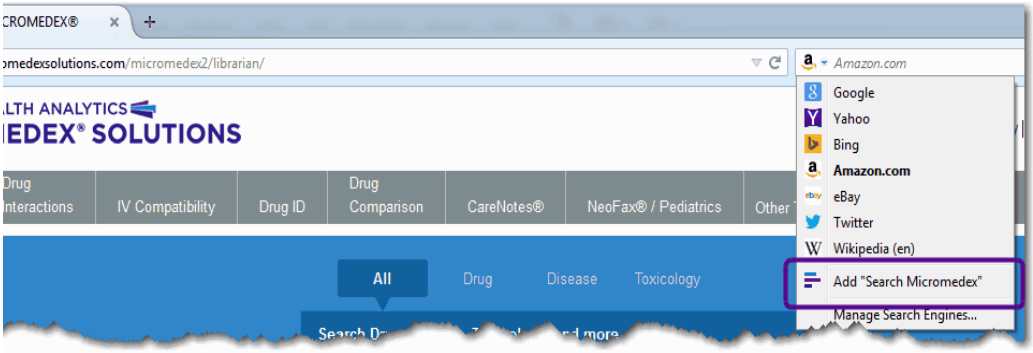
Mozilla Firefox

Micromedex® Solutions can also be added as a search engine in Firefox, but it requires an “Add-on” to the browser. In most cases, the workflow and user experience for the Search Accelerator is very similar to the experience in Microsoft Internet Explorer. Follow the instructions below:

1. Download and install the Add to Search Bar add-on, available from the Mozilla Add-ons website: https://addons.mozilla.org/en-US/firefox/addon/add-to-search-bar/
2. Login to Micromedex at: www.micromedexsolutions.com/micromedex2/librarian
3. On the Micromedex home page, select the arrow in the right-hand search box in the header of the browser.

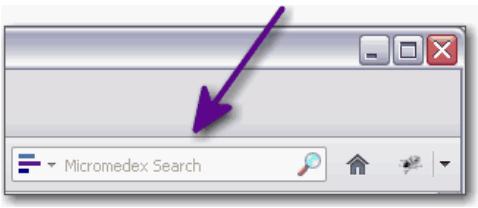
© 2017 Truven Health Analytics LLC

4. Select "**Add Search Micromedex**".

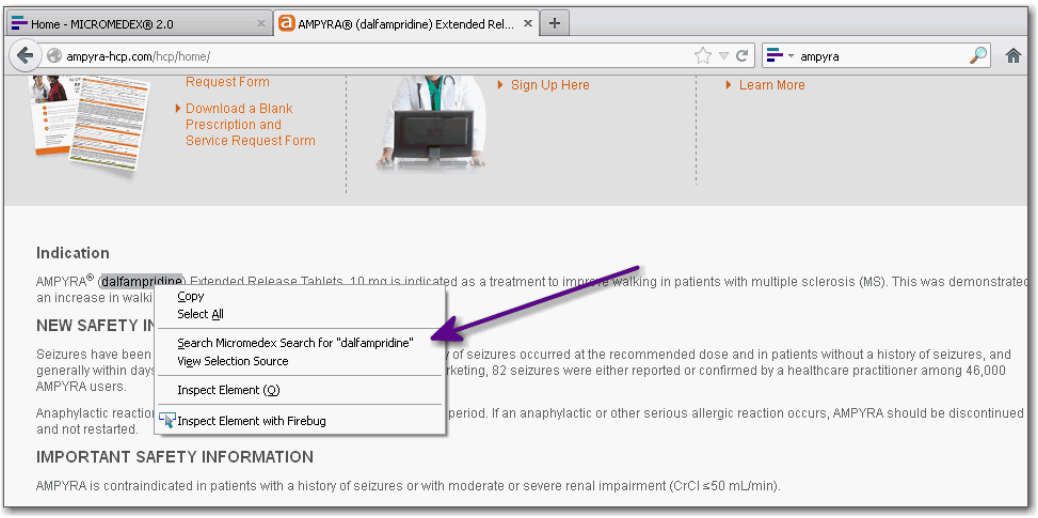


Using Micromedex as a Search Engine in Firefox

Once configured, a Micromedex Search is available from the search engine box in the upper-right corner of the browser. You can manage the priority of your search engines and establish a default from the drop-down.



With an active session in Micromedex and proper authentication, you can search without first visiting the Micromedex home page.



Note: Other web-based applications such as an HIS or EHR can also access Micromedex. Simply right-click on your selected terms and select the **Micromedex Search** option. Please note however that the Micromedex Search must be set as your default search engine.

© 2017 Truven Health Analytics LLC

Information for System Administrators

In the interest of managing end user desktops in a networked environment, some customers may have policies in place that limit their end users' ability to install plug-ins and add-ons to the web browser. The information in this section is included in the interest of aiding IT support professionals in deploying the Micromedex open search description to end user desktops according to group policy requirements.

Extending the Micromedex search to the Microsoft® Internet Explorer and Mozilla Firefox® browser is based on the OpenSearch specification (www.opensearch.org). Using an Open Search Description document, web developers have the ability to describe a search engine to a browser or search client application. The goal of the Micromedex open search is to allow faster and easier access to preferred clinical information.

For desktops installed with Internet Explorer, the Micromedex Search Accelerator can be distributed via Group Policy settings. Refer to the Microsoft Knowledge Base (http://support.microsoft.com/kb/918238, *How to create custom .adm or .admx files to add search providers to the toolbar search box in Internet Explorer*) and TechNet articles (http://technet.microsoft.com/en-us/library/cc985351.aspx, Group Policy and Internet Explorer 8) for suggestions on deploying custom Search Provider lists.

The policy to apply search providers to end user desktops can be found in the "*Add a specific list of search providers to the user's search provider list*" group policy.
If you have already applied restrictions on search providers, the "*Restrict search providers to a specific list of providers*" group policy may also apply. These policies reside in the Windows Components\Internet Explorer area of the group policy tree.

Adding the Micromedex Search Accelerator to the Preferred Provider List:

1. Using the Group Policy Management Editor (an Active Directory snap-in), create a new Group Policy Object (GPO) for the preferred provider list, which will include Micromedex Search.
2. Edit the newly created GPO to include Micromedex Search.
3. Policy is configured under User Configuration> Policies> Administrative Templates> Windows Components> Internet Explorer.
4. Enable the Add a specific list of search providers to the search provider list policy and include Micromedex.
   If your facility is currently in the practice of restricting Search Providers, it is recommended that you also configure the Restrict search providers to a specific list of providers policy, and include Micromedex.
5. Create the necessary .ADM file (e.g. providers.adm).

Note: Depending on your environment and other policies, this new template may need to be applied in both the Computer and User Configuration policy settings.

Right-click on Administrative Templates and select Add/Remove Templates and add the new .adm file

6. The GPO has now been created. Add groups and computers to the GPO to enforce your new policy.

© 2017 Truven Health Analytics LLC

If you require assistance, please contact us. See "Contact Truven Health Analytics" on page i..

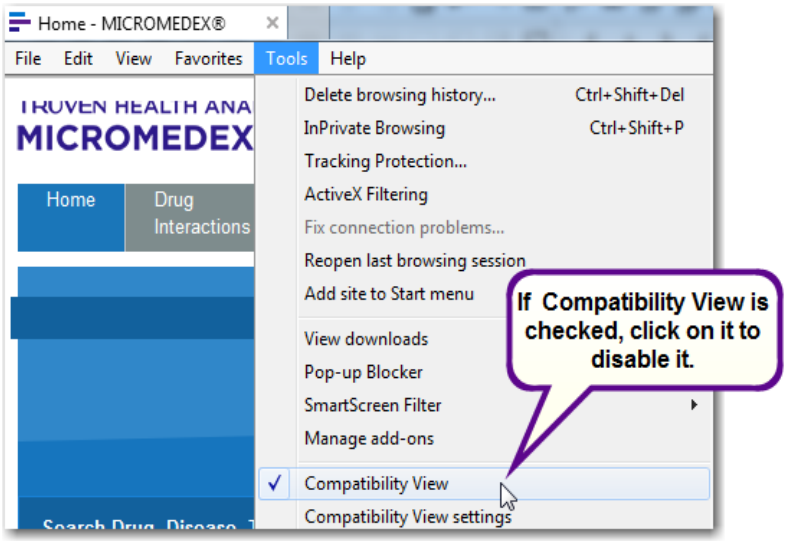
COMPATIBILITY VIEW IN INTERNET EXPLORER

If Micromedex Solutions does not display correctly in Internet Explorer, it may be because Compatibility View is enabled. Use one of the following options to disable Compatibility View.

Note: Depending on the version of Internet Explorer, your browser may look slightly different than the example.

Option 1

1. Click **Tools** in the Internet Explorer menu.
2. If Compatibility View is checked, click on it to disable it.

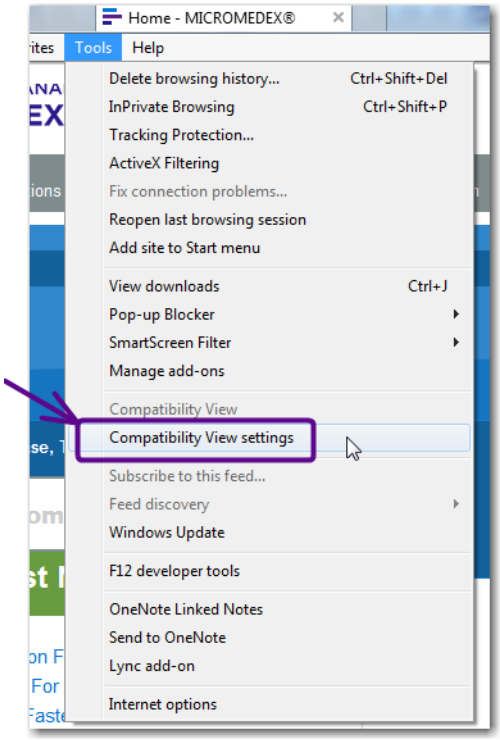


Option 2

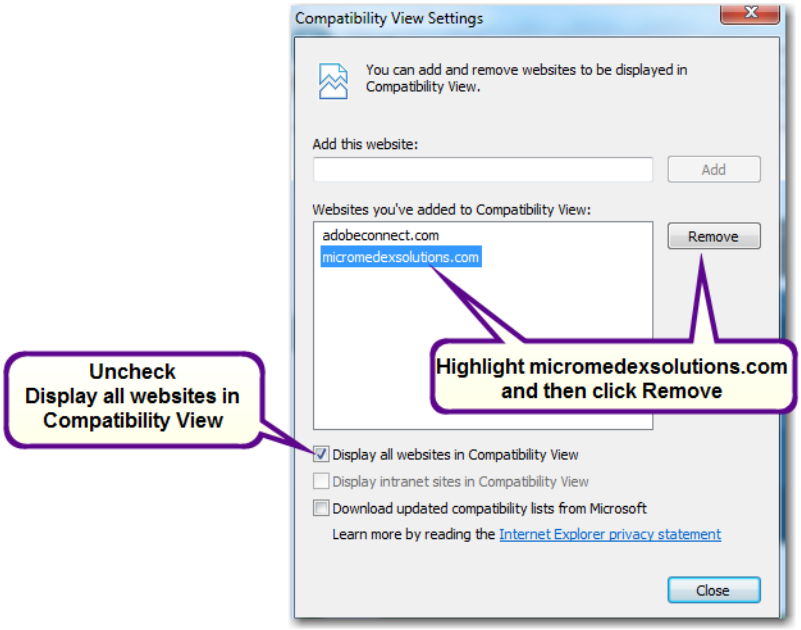
1. Click **Tools** in the Internet Explorer menu.

© 2017 Truven Health Analytics LLC

2. If Compatibility View is not checked, click **Compatibility View settings**.



3. Uncheck **Display all websites in Compatibility View**, if applicable.
4. If micromedexsolutions.com is listed in the box in the middle of the window, click on it and then click **Remove**.



5. Click **Close**.

If you need assistance, contact the Customer Resource Center. See "Contact Truven Health Analytics" on page i.

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

APPENDIX C: RED BOOK ONLINE - AWP POLICY

Revised: October 1, 2014

Average Wholesale Price (AWP) Policy

The Average Wholesale Price (AWP) as published by Truven Health Analytics℠ is in most cases the manufacturer's[1] suggested AWP and does not reflect the *actual* AWP charged by a wholesaler. Truven Health bases the AWP data it publishes on the following:

- AWP is reported by the manufacturer, **or**
- AWP is calculated based on a markup specified by the manufacturer. This markup is typically based on the Wholesale Acquisition Cost (WAC) or Direct Price (DIRP), as provided by the manufacturer, but may be based on other pricing data provided by the manufacturer, **or**
- Suggested Wholesale Price (SWP) is reported by the manufacturer

When the manufacturer does not provide an AWP, a markup formula from which AWP can be calculated, or an SWP, Truven Health will calculate the AWP by applying a standard 20% markup over the manufacturer supplied WAC. If a WAC is not provided, the standard markup will be applied to the DIRP.

When the manufacturer supplies an SWP, the Truven Health AWP for that drug will be the manufacturer's reported SWP, even if the manufacturer supplies either or both a WAC and DIRP. Consequently, the published AWP may be greater than a 20% markup over the manufacturer supplied WAC or DIRP.

Please note that Truven Health does not perform any independent analysis to determine or calculate the actual AWP paid by providers[2] to wholesalers. Truven Health also does not independently investigate the actual WAC paid by wholesalers to manufacturers or DIRP paid by providers to manufacturers. Truven Health relies on the manufacturers to report the values for these categories as described above.

Truven Health provides a list of the manufacturers that do not provide the AWP or a markup formula. The list of these manufacturers and products is available at:

http://www.micromedex.com/products/redbook/awp/

Additionally, an ASCII text file with this same information is available to download. For more information on this file and instructions on downloading, please contact Truven Health Technical Support at:

http://www.micromedex.com/support/request/

Please refer to this AWP Policy as you review the pricing information contained in the Truven Health products.

1.The term “manufacturer” includes manufacturers, distributors, repackagers, and private labelers.

2.The term “provider” includes retailers, hospitals, physicians, and others buying either from the wholesaler or directly from the manufacturer for distribution to a patient.

© 2017 Truven Health Analytics LLC

Unit Price Calculations

Each product record in RED BOOK Online® contains as many as three of the following price quotations:

- The Average Wholesale Price (AWP)
- The Manufacturer's Direct Price (DIR)
- The Suggested Retail Price (SRP)
- The Federal Upper Limit Price (FUL) from the Healthcare Financing Administration
- (HCFA)
- The Wholesale Acquisition Cost (WAC)

The unit price is determined by dividing the per-package price by the total size of the package expressed as NCPDP (National Council for Prescription Drug Programs) units as shown below. Unit prices thus can be denoted three ways:

1. Price per gram (for products measured by weight, such as powders and ointments)
2. Price per milliliter (for products measured by liquid volume)
3. Price each, or apiece (for products sold by the item, such as tablets, lozenges, and suppositories)

For products measured by weight or volume, the following factors are used in converting to grams or milliliters.

Liquid		Dry	
1cc =	1 ml	4 drams =	15 gm
1 oz =	30 ml	1 oz =	30 gm
1 pt =	480 ml	1 lb =	454 gm
1 qt =	960 ml		
1 gal =	3840 ml		

The following formulas are used to calculate unit prices.

Formula 1 (for products sold by the item)

Unit Price = Price per package / Package Quantity

e.g.

$15.00 / ---------- = $0.15 each

100 tablets

Formula 2 (for products sold by weight or volume)

© 2017 Truven Health Analytics LLC

Unit Price = Price per package or lot / Product-weight/volume

e.g.

$15.00 / ---------- = $0.50/gm / 30 gm

Formula 3 (for packages of multiple containers of the product)

Unit Price = Price per package / Product-weight/volume x Package Quantity

e.g.

$15.00 / ---------- = $0.15/ml / 5 ml 20s

Dosage Form Descriptions

Code	Description
ACC	Accessory
AER	Aerosol Liquid
ARO	Aerosol powder
BAN	Bandage
BAR	Bar
BEA	Beads
C12	Capsule, extended release, 12 hour
C24	Capsule, extended release, 24 hour
CAK	Cake
CAP	Capsule
CER	Capsule, extended release
CHI	Chip
CRE	Cream
CRY	Crystal
CTB	Chewable Tablet
DAP	Patch, Device Assisted
DEV	Device

© 2017 Truven Health Analytics LLC

DRE	Dressing
DSK	Disk
ECC	Capsule, delayed release
ECT	Tablet, enteric coated
ELI	Elixir
EMO	Emollient cream
EMU	Emulsion
FDS	Food, solid
FIL	Film
FLA	Flake
FOA	Foam
GAS	Gas
GEF	Powder, effervescent
GEL	Gel/jelly
GER	Powder for suspension, extended release
GFS	Gel forming solution
GRA	Granule
GUM	Gum
ICR	Insert, controlled release
Code	**Description**
IMP	Implant
INJ	Injectable
KIT	Kit
LEA	Leaf
LIQ	Liquid
LOT	Lotion
LOZ	Lozenge/troche
LUM	Lump
NMA	Enema
ODT	Tablet, disintegrating
OEM	Emollient ointment
OIL	Oil
OIN	Ointment
PAD	Pad
PAS	Paste
PDR	Powder for suspension
PDS	Powder for solution
PEL	Pellet
PI1	Powder for suspension, 1 month

© 2017 Truven Health Analytics LLC

PI3	Powder for suspension, 3 month
PI4	Powder for suspension, 4 month
PI6	Powder for suspension, 6 month
PKT	Packet
POD	Pod
POW	Powder
PRO	Prophylactic
PUD	Pudding
SER	Suspension, extended release
SGL	Capsule, liquid-filled
SHA	Shampoo
SHE	Sheet
SOA	Soap
SOL	Solution
SPE	Suppository, extended release
SPG	Sponge
SPR	Spray
STI	Stick
SUP	Suppository
Code	**Description**
SUS	Suspension
SWA	Swab
SYR	Syrup
T12	Tablet, extended release, 12 hour
T24	Tablet, extended release, 24 hour
TAB	Tablet
TAM	Tampon
TAP	Tape
TBS	Tablet for suspension
TCP	Tablet, delayed release
TDM	Patch, extended release
TDR	Tablet, disintegrating, delayed release
TEC	Tablet, extended release, chewable
TEF	Tablet, effervescent
TER	Tablet, extended release
TES	Test
TIN	Tincture
TSN	Tablet for solution
WAF	Wafer

© 2017 Truven Health Analytics LLC

WAX	Wax

Route Listing

Abbreviation	Route Listing
BC	BUCCAL MUCOSA
DE	DENTAL
EP	EPIDURAL
SG	GINGIVAL
IP	IMPLANTATION
IH	INHALATION
IJ	INJECTION
IC	INTRACAVERNOSAL
ID	INTRADERMAL
IM	INTRAMUSCULAR
IO	INTRAOCULAR
PT	INTRAPERITONEAL
PL	INTRAPLEURAL
IN	INTRATHECAL
IT	INTRATRACHEAL
IY	INTRATYMPANIC
IU	INTRAUTERINE
IV	INTRAVENOUS
IR	IRRIGATION
MR	MULTIPLE ROUTES
NS	NASAL
NA	NOT APPLICABLE
OP	OPHTHALMIC
PO	ORAL
MM	OROMUCOSAL
OT	OTIC
RC	RECTAL
NA	ROUTE NOT APPLICABLE
SC	SUBCUTANEOUS
SL	SUBLINGUAL
TP	TOPICAL APPLICATION
TD	TRANSDERMAL
UR	URETHRAL

© 2017 Truven Health Analytics LLC

IL	URINARY BLADDER
VG	VAGINAL

Orange Book Codes

The Orange Book Codes supply the FDA's therapeutic equivalence rating for applicable multi-source categories. Codes beginning with 'A' signify the product is deemed therapeutically equivalent to the reference product for the category. Codes beginning with 'B' indicate bio-equivalence has not been confirmed 'EE' is assigned by RED BOOK Online to products that have been evaluated by the FDA but for which an equivalence rating is not available.

Code	Interpretation
AA	No bioequivalence problems in conventional dosage forms
AB	Meets necessary bioequivalence requirements
AB1	Meets bioequivalence requirement to AB1 rated reference drug
AB2	Meets bioequivalence requirement to AB2 rated reference drug
AB3	Meets bioequivalence requirement to AB3 rated reference drug
AB4	Meets bioequivalence requirement to AB4 rated reference drug
AN	Solution or powder for aerosolization
AO	Injectable oil solution
AP	Injectable aqueous solution
AT	Topical product
BC	Controlled-release tablet, capsule, or injectable
BD	Documented bioequivalence problem
BE	Enteric coated oral dosage form
BN	Product in aerosol-nebulizer delivery system
BP	Potential bioequivalence problem
BR	Suppository or enema for systemic use
BS	Testing standards are insufficient for determination
BT	Topical product with bioequivalence issues
BX	Insufficient data to confirm bioequivalence
B*	Requires further FDA investigation and review
EE	This entry has been evaluated by the FDA, but a rating is not available for this labeler's product

RED BOOK Online Terms and Definitions

AWP: Average Wholesale Price

DIR: Direct Price

FUL: Federal Upper Limit

HRI: Health Related Item

© 2017 Truven Health Analytics LLC

J-Codes: J-Codes are a series of reimbursement codes created by the Centers for Medicare and Medicaid Services (CMS) to allow Medicare and Medicaid providers and carriers to communicate their services in a consistent manner and validate fee schedules through standardized coding. While originally developed for Medicare and Medicaid use, this nationally recognized coding system is required by many private insurance carriers for claims reimbursements. J-Codes are most often associated with drugs administered as part of an office-based procedure, such as injectables and drugs used in chemotherapy.

NDC: National Drug Code

SRP: Suggested Retail Price

UPC: Universal Product Code

WAC: Wholesale Acquisition Cost

© 2017 Truven Health Analytics LLC

APPENDIX D: POISON CENTER INTEGRATION

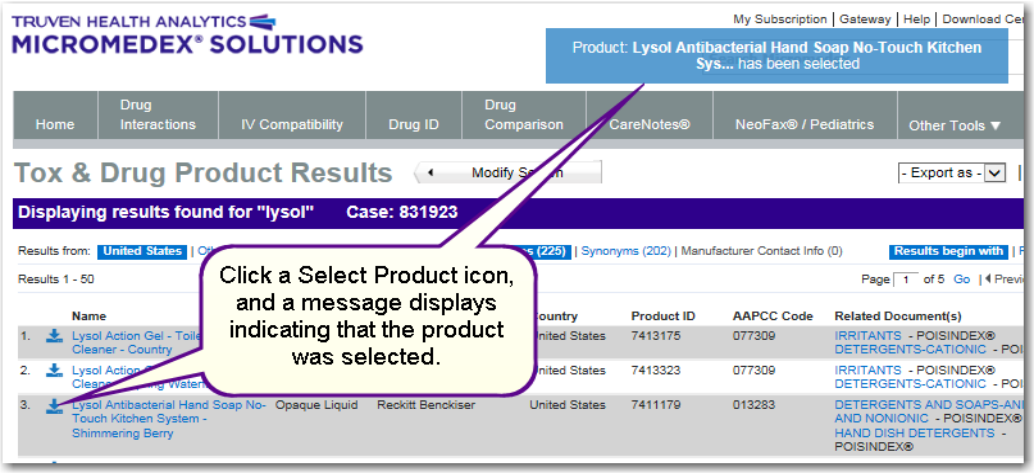
This appendix is applicable to Poison Centers that have integrated Micromedex® Solutions Poisindex® with their case management tool.

As a Specialist in Poison Information you can easily add Micromedex Solutions product documents and detailed management documents to cases in your case management tool. The examples provided here are intended to show the general functionality that is available. You may encounter slight differences with your case management tool configuration.

PRODUCT OR SUBSTANCE SEARCH

Adding a Product Document

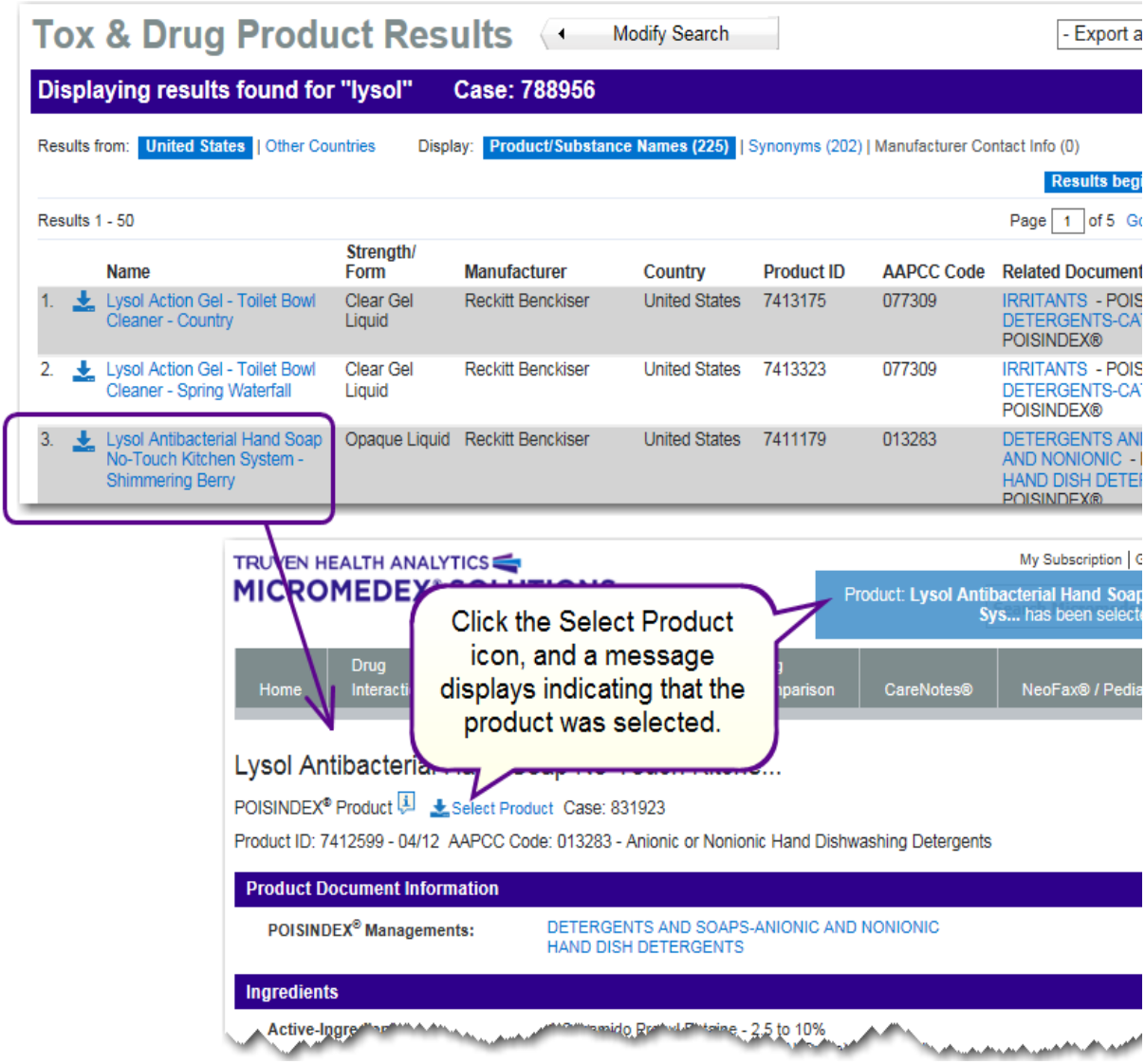
1. Enter a product or substance name, code, product ID, or active ingredient in your case management tool, and it initiates a search in Micromedex Solutions.
2. The Micromedex Solutions search results display in your Internet browser.
3. Click the **Select Product** icon next to one of the products to select it. Notice the message that temporarily displays indicating that the product was selected.



-OR-

4. Click a product name to view the product document. Then click the **Select Product** icon. Notice the message that temporarily displays indicating that the product was selected.

© 2017 Truven Health Analytics LLC

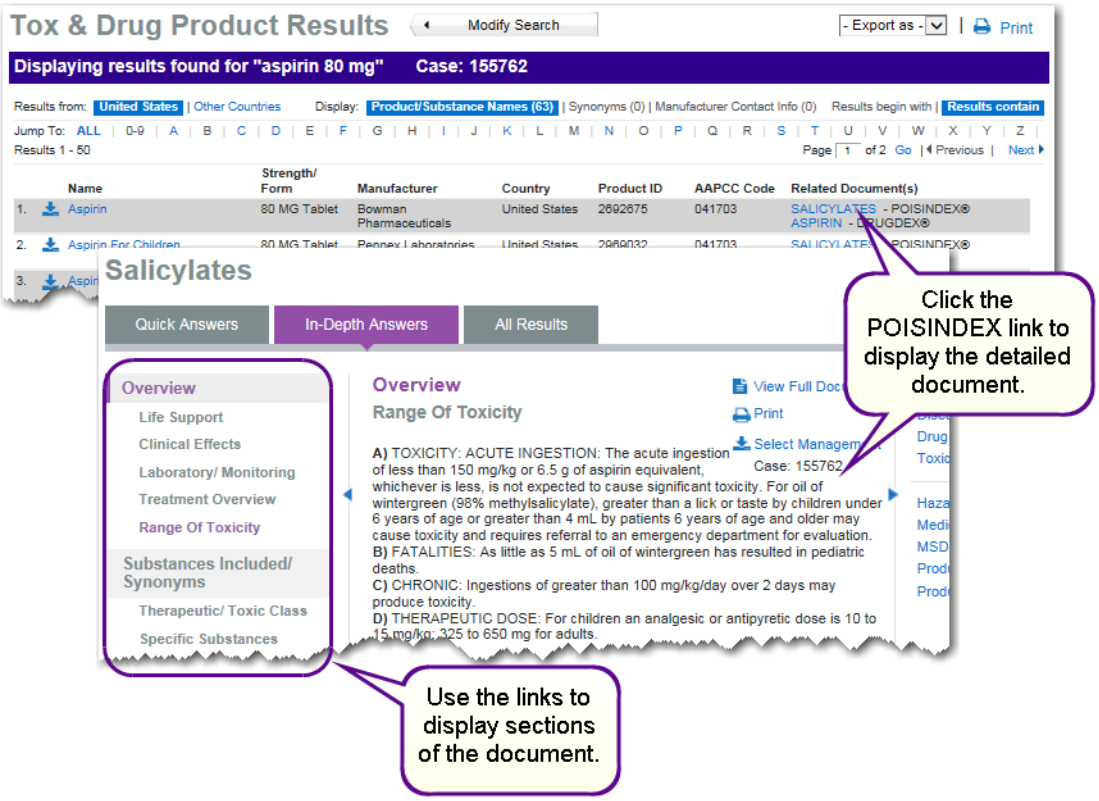


5. Depending on the configuration of your case management tool, the product document is automatically added to the case record or you perform another step within the tool to add it.

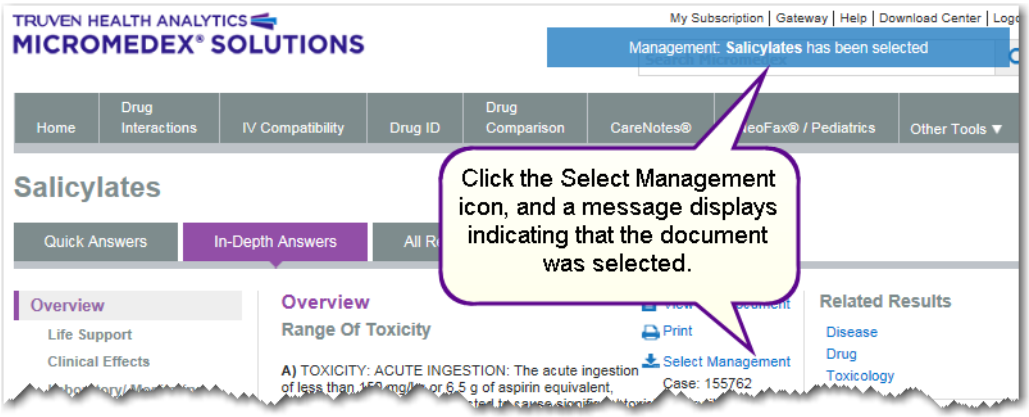
Adding a Detailed Management Document

1. Enter a product or substance name, code, product ID, or active ingredient in your case management tool, and it initiates a search in Micromedex Solutions.
2. The Micromedex Solutions search results display in your Internet browser.
3. Click on a Related Documents link for POISINDEX®, and the detailed management document displays. You can use the links on the left side of the page to view specific sections of the document, such as Range of Toxicity.

© 2017 Truven Health Analytics LLC



4. Click the **Select Management** icon to select the document. Notice the message that temporarily displays indicating that the management has been selected.



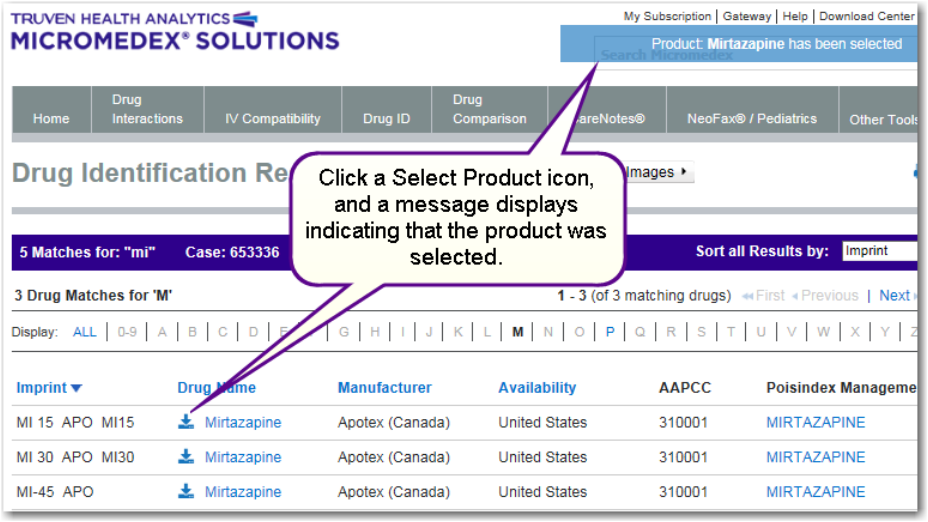
5. Depending on the configuration of your case management tool, the detailed management document is automatically added to the case record or you perform another step within the tool to add it.

© 2017 Truven Health Analytics LLC

DRUG IMPRINT SEARCH

Adding a Product Document

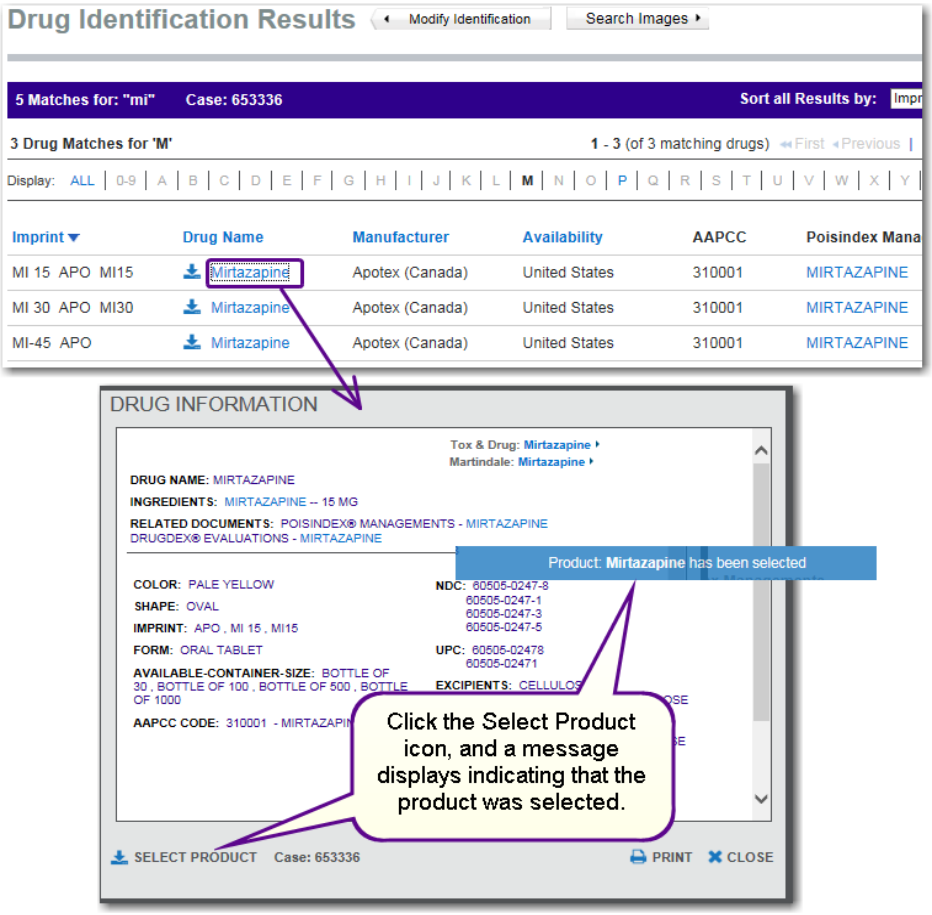
1. Enter the imprint on a pill you are trying to identify in your case management tool, and it initiates a search in Micromedex Solutions.
2. The Micromedex Solutions Drug Identification search results display in your Internet browser.
3. Click the **Select Product** icon next to one of the products to select it. Notice the message that temporarily displays indicating that the product was selected.



-OR-

© 2017 Truven Health Analytics LLC

4. Click a product name to view the product document. Then click the **Select Product** icon. Notice the message that temporarily displays indicating that the product was selected.



5. Depending on the configuration of your case management tool, the document is automatically added to the case record or you perform another step within the tool to add it.

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

APPENDIX E: LANDING PAGE HIERARCHY

When multiple landing pages exist for a search result (drug, disease, toxicology, alternative medicine), the landing page that is displayed for the search result is determined by where it falls in the hierarchy below. You can navigate to any and all available landing pages when multiple landing page types exist, but the following table explains which landing page opens by default.

If all of the following landing pages exist for a search:	**Then the landing page shown is:**
• Drug: Summary • Drug: Detailed • Alternative Medicine: Summary • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed	Drug Summary
• Drug: Detailed • Alternative Medicine: Summary • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed	Detailed Drug information (DRUGDEX®)
• Alternative Medicine: Summary • Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed	Summary Alternative Medicine
• Alternative Medicine: Detailed • Toxicology • Disease: Summary • Disease: Detailed	Detailed Alternative Medicine
• Toxicology • Disease: Summary • Disease: Detailed	Summary Toxicology
• Disease: Summary • Disease: Detailed	Summary Disease
• Disease: Detailed	Detailed Disease

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC

INDEX

A
AAPCC 182
Adverse Effects of a Drug 30
AH 106
AHRQ 106
Allergies 138
Alternative Medicine for Patient 232
Alternative Medicine Information 117, 232
Android 225
Apple 225
AWP Policy 265

B
BBW 7, 42, 91
Black Box Warnings 7, 42, 91
Brand Name Search 37

C
Calculators 187
- Antidote Dosing Calculators and Nomograms 188
  - Alcohols/Ethylene Glycol Blood Level 188
  - Ethanol/IV Dosing for Methanol/Ethylene Glycol Overdose 188
  - NAC Dosing for Acetaminophen Overdose 188
  - Toxicity Nomograms 188
- Clinical Calculators 190
  - Alveolar-Arterial Oxygen Gradient 190
- Dosing Tools 189
  - ACLS/PALS Guidelines 189
  - Dobutamine Dosing Calculator 189
  - Dopamine Dosing Calculator 189
  - Epinephrine Dosing Calculator - Adult 189
  - Epinephrine Dosing Calculator - Pediatric 189
  - Heparin Dosing Calculator 189
  - IV Rate Calculator 189
  - Nitroglycerin Dosing Calculator 189
  - Nitroprusside Dosing Calculator 189
  - Norepinephrine Dosing Calculator - Adult 189
  - Norepinephrine Dosing Calculator - Pediatric 190
- Laboratory Values 188
  - Anion Gap Calculator 188
  - Creatinine Clearance Calculator 188
  - Phenytoin Level Adjustment Calculator 188
- Measurement Calculators 190
  - Body Mass Index Calculator 190
  - Body Weight & Surface Area Calculator 190
  - Metric Conversions Calculator 190
  - SIU Conversion Calculator 190

California Registry Number 183
CAM 117
CAS number 182
Chronic 104
Cite Micromedex 5
Clinical Checklist 104, 235
Clinical Consulting 5
CMS 106
Color 166
Comparative Tables 7, 43, 91
Complete Drug Interactions 137, 138, 143, 233
Complete IV Compatibility 66, 152
Confused Drug List 44
Consulting 5
Consumer Drug Information 89
Contract Truven Health i
CRN 183

D
Detailed Disease Information 106
Detailed Drug Information 80
Detailed Drug Information for the Consumer 89, 234
Dialogo sui Farmaci 18, 20, 24, 56, 90, 238
DIN code 182
Direct Access Searching 15, 29
Disease Emergency Medical Abstracts 235
Disease Emergency Medicine 234
Disease General Medicine 235
Disease Information 93, 234
Do Not Confuse 7, 44, 91
Documentation Ratings 64
- Excellent 64, 138, 142
- Fair 65, 138, 142
- Good 65, 138, 142
- Unknown 65, 138, 142

Dosage Form Descriptions 267
Drug Classes 7, 46, 91
Drug Comparison 171
Drug Consults 7, 49, 90
Drug ID 159
Drug Information 59
Drug Interactions 137
DRUGDEX® System 236
Drugs That Cause 31
Drugs That Treat 34

E
eMC SmPC 18, 20, 24, 56, 90, 244
EPA code 182

F
Filtered Searching 3, 14, 16, 39

H
Hazard Management Information 244

© 2017 Truven Health Analytics LLC

HEDIS 106
Home Page 3

I
IDENTIDEX® System 237
Imprint Code 159
Index Nominum 238
INFOTEXT® Documents 244
Integrated Content 5
Intelligent Searching 16, 38
International Drugs 56, 90
Italian Drug Database 18, 20, 24, 56, 90, 238
IV Compatibility 145
- 1/2 NS 68, 154
- Admixture 69, 151
- Caution - Variable 67, 147
- Compatible 67, 147
- D10W 68, 154
- D5LR 68, 154
- D5NS 68, 154
- D5W 68, 154
- Incompatible 67, 147
- Not Tested 67, 147
- NS 68, 154
- Syringe 70, 152
- TPN/TNA 71, 155
- Uncertain 67, 147
- Y-Site 68, 149

IV Compatibility (Single) 66

J
Joint Commission 44, 106

L
Lab Information 127
Lab Recommendations 239
Landing Page 16
Latest News 4
LOINC Codes 128
look-alike 44

M
Meaningful Use 5
mobileMicromedex 8, 9, 223
- Apps 225
- Drug Interactions 227
- Drug Reference 225
- IV Compatibility 229

My Subscription 8

N
NAC Dosing for Acetaminophen Overdose 188
National Patient Safety Goal 44
NDC Code 169, 182
News 4
NQF 106

O
Orange Book Codes 271

P
P&T Quick 90
Pattern 166
PCP 183
PDR 90
Performance Measures 106
Pest Control Product 183
POISINDEX 241
Poison Control Centers 182
pop-up information 57
Prevention & Screening 104
Print 57

R
RED BOOK
- Filters 194
- Manufacturer Contact Details 209
- Manufacturer Product List 202
- Product Details 204
- Search Results 195
- Searching 191
- Similar Product Search 199
- Terms and Definitions 271

REMS 7, 50, 91
Reproductive Effects 242
Reproductive Risk Information 135
REPROTEXT® Database 242
REPROTOX® 242
Route Listing 270

S
Search Accelerator 252
Search Term Retention 14
Severities 63
- Contraindicated 64, 137, 141
- Major 63, 64, 137, 141
- Minor 63, 64, 137, 142
- Moderate 63, 64, 137, 141
- Unknown 63, 137, 142

Shape 166
Shepard's 242
sound-alike 44
Spelling Help 38
Strength of Evidence 105
Strength of Recommendation 106
Subscription 8
Summary Alt Med Info 233
Summary Disease Information 234
Summary Drug Information 236
Summary Toxicology Information 242
Support 5, 6, 11
Syringe 152

© 2017 Truven Health Analytics LLC

T

Tablet Access 223
Tall Man Lettering 45
Targeted Searches 16, 41, 91
TERIS 242
Tox & Drug Product Lookup 175
Toxicity Nomograms 188
Toxicology Information 107
Training 5

U

Unit Price Calculations 266
United Kingdom Drug Information 18, 20, 24, 56, 90, 244
UPC code 182
User Guide 11

W

Warranty and Disclaimer 11
Webinars 5
Windows 8 225

© 2017 Truven Health Analytics LLC

© 2017 Truven Health Analytics LLC