



Handbook on Injectable Drugs, 19th Edition

By: ASHP

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Reviewer: Patrick J. McDonnell, PharmD (Temple University School of Pharmacy)

Pharmacists who work with injectable drugs, especially those who work in hospitals, are certainly familiar with the *Handbook on Injectable Drugs*, published by ASHP since 1977. Sometimes referred to as "Trissel's," in reference to Lawrence A. Trissel, who has been a distinguished author of ASHP's first research on injectable drugs, this is one of the most valuable references on the compatibility and stability of injectable drugs. This edition updates the 2015 edition.

The purpose is to provide one single, standardized source of primary research on the stability, compatibility, and incompatibilities of injectable drugs. Even in this age of, where pharmacists and nurses may look to online resources for injectable drug information, there is still something about the ease of having a complete reference at one's fingertips with the full text, which of course is fully referenced. (Incidentally, this title is also available as an online version or as an app for Android and iOS devices.)

The audience is primarily pharmacists who are often called upon to provide stability and incompatibility information regarding the use of parenteral drugs. This can be useful for pharmacists who work in hospitals, home infusion companies, IV compounding facilities, or any facility that prepares and dispenses injectable drugs. The authors are primarily pharmacists and clinicians specializing in this area.

This edition follows the traditional format of recent editions, now with over 360 drug monographs, alphabetized for easy reference. This edition adds 27 new injectable drug monographs, with more than 3,000 references supporting the information on stability, compatibility/incompatibility. Monographs highlight the products' administration, stability, compatibility (often with solutions and other drugs, hence also incompatibilities) and other specific drug information. Product information also may include the pH and osmolality of resultant solutions, sodium content (if applicable), and other specifics regarding injection/infusion of these drugs. This format has worked for over 40 years and still does.

As a hospital pharmacist for over two decades, I have used other online resources, but still favor having the full print reference at my fingertips. When I work as a pharmacist, I can cross-reference two or more drugs just by double checking the monographs. I include this in my annual picks of core titles in pharmacy for Doody's Core Titles, and the current edition still meets the criteria for my recommendation.

Weighted Numerical Score: 98 - 5 Stars!

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[REVIEWER'S EXPERT OPINION]

Laurence A. Goldberg

This book is justified in being described as the “gold standard” for information on injectable drugs and it is widely used by pharmacists and other healthcare professionals across the world. No other reference source examines parenteral drug stability and compatibility in such detail. Information is gathered from published literature on the pharmaceutics of parenteral medicines as applied to the clinical setting.

The 19th edition brings together, in 365 monographs, information on injectable drugs available commercially in the United States and other countries. A total of 27 new monographs have been added to this edition and over 300 monographs have been revised and updated. The sources are accumulated from more than 3,100 references, including 235 new to the 19th edition. Although primary peer-reviewed literature remains the major source of information on stability and compatibility, information from pharmaceutics research carried out by the pharmaceutical industry has also been incorporated.

Drug monographs are organised alphabetically by non-proprietary name. The names of the drugs follow the style of the USP Dictionary of Drug Names. American Hospital Formulary Service Drug Information reference codes are conveniently located at the top of each monograph to refer the reader to more detailed information. The monographs are divided into the following subheadings: products, administration, stability, compatibility and other information. The tables of compatibility for the subject drug in infusion solutions and with other drugs in admixtures, syringes and during simultaneous administration through manifolds and Y-sites are arranged by category. The section on “products” lists the sizes, strengths, volumes and pharmaceutical forms along with the other components of the formulation and instructions for reconstitution. The pH and the osmotic value of the resultant solutions are also presented, along with miscellaneous information such as sodium content.

In addition to the print format, this title is also available as an online version and as an app for iOS and Android devices. The interactive formats feature search functions that allow users to check an unlimited number of medicines for two-drug combination compatibility. They also offer quarterly updates, US Food and Drug Administration MedWatch alerts and wall chart views of compatibility results. Pharmacists have long complained that the expiry times, supplied

by the manufacturers for reconstituted injections are conservative and, in many cases, research shows that longer expiry times are feasible. A particularly useful feature of the online version is that it has gathered together much of this information for both parenteral drugs and nutritional solutions.

The aim of this book has remained unchanged over the past 40 years. It is an essential reference source for all professionals involved in the preparation or clinical use of injectable drugs. The 19th edition follows in the footsteps of all previous editions.