
Information about drugs is central to the skillful provision of anesthetic. Often, information is needed about a patient's daily maintenance drugs that are far outside the anesthetic realm. If you are like me, a good drug reference book is always at the other end of the operating room when I need it and has been moved when I get there. The ability to carry a drug reference with me would make it more likely that I would have pertinent drug information when I need it. Handheld computers running the Palm or Windows CE operating systems make this possible.

LexiDrugs is the software version of Lexi-Comp's Drug Information Handbook. LexiDrugs works on any Palm Operating System handheld computer (eg, Palm Pilot, Handspring Visor) running version 2.0 or higher. Since memory on handheld computers is often limited, LexiDrugs is available in 3 different installations: mini, main, and mega; each requiring progressively greater memory. The “mini” installation requires about 1.3 MB of memory while the “mega” installation takes up more than 2.3 MB of memory. The larger the installation the more information that is included for each drug.

The “main” installation must be loaded for information on mechanisms of action to be included and the “mega” installation for pharmacokinetics and pharmacodynamics. Students should plan on using the largest installation. I tend to like to have a lot of drug information available and use the mega configuration despite its large demand on memory. Other anesthetists will want to try a couple different configurations for a while to see which one they like the best.

The LexiDrugs drug database is excellent. Drugs are listed alphabetically and the index listing indicates whether or not the drug is available over the counter. Information on dose, interactions, contraindications, adverse reactions, mechanism of action, toxicity, and pharmacokinetics/pharmacodynamics is extensive and well organized. Once you have chosen a drug name it is easy to quickly find and read any information about that drug. I have used LexiDrugs for several months now, and I have yet to encounter any errors in the drug database.

LexiDrugs will interface with 2 other applications by the same company. One is "Five Minute Clinical Consult," a database of medical conditions, and the other “Apothecarium,” a program that analyzes drug interactions given the list of drugs a patient is taking. These 3 programs work well together but will consume the majority of memory available on an 8 MB handheld computer. To learn more about either of these programs, visit the Lexi-Comp Web site: http://www.lexi.com/.

Those who use their Palm computer in healthcare are usually aware of the free ePocrates drug reference program. I have used ePocrates in the past and at first liked it. It was after all free, and it had some quick and dirty drug information. When I became aware of LexiDrugs I initially thought, “Why would I pay for a program that does something I can get for free?” The answer is there is no comparison between ePocrates and LexiDrugs. LexiDrugs has much more information and is much more complete. It is clearly superior. I have no desire to give up LexiDrugs and go back to ePocrates.

As computers get smaller and smaller we can do more and more with what fits in the pocket of our scrubs. Perhaps soon the wireless network will extend into the operating room, and we will be able to see the latest Aldrete score for our last patient and the anesthesia history for our next one from anywhere in the hospital. For now, there are a number of excellent healthcare applications available for the Palm and Windows CE operating systems. LexiDrugs is one of them.

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Handheld computing has come of age in the new millennium. Yet anesthesia providers in general
have seemed to lag behind other healthcare providers in their appreciation of the importance of this healthcare development. The *Anesthesiology and Critical Care Drug (AnCCDrugs)* handheld computing program provides a compendium of more than 2,000 drug monographs and 512 generic medications that affords an easily accessible and valuable reference to students, as well as the practicing clinician.

Finally, a tool that practitioners have long awaited has come of age. The format is succinct, convenient, and easy to load on handheld computers utilizing a Windows CE or palm-based operating system (ie, Palm Pilot, Handspring Visor).

The *AnCCDrugs* program appears to have been envisioned as a convenient clinical reference designed for anesthesiology professionals at any level of training or experience, requiring quick and easy access to concise and inclusive data covering the use of medications in the clinical setting. It includes a comprehensive database that, once accessed, keeps the topic drug highlighted in the upper left section of the display screen while in use. The program is organized into several monograph sections, which are listed below:

- **US brand names**
- Drug Interactions
- Pregnancy Information
- Adverse Reactions
- Administration

Canadian Brand Names
Use
Precautions/Warnings
Dosage Forms
Mechanism of Action
Restrictions
Dietary Considerations
Monitoring Parameters

**Usual Dosage**
Contraindications
Therapeutic Category
Overdose/Toxicology
Test Interactions
Pharmacodynamics/Kinetics

The sections are easy to understand, accurate, but sometimes incomplete, with some sections deserving a more detailed discussion than is found in the program (ie, while regional anesthetic drugs are thoroughly discussed, no mention of half-life or relative dosing frequency is mentioned). The program does permit the user an opportunity to retrieve the *AnCCDrugs* drug list simply by touching the “list” icon located above the selected drug information, and it allows the user an opportunity to personalize drugs/notes of their choice.

This reviewer made use of the program while it was loaded on the Handspring Visor Deluxe. While the *AnCCDrugs* program does use 4 MB of memory (a strain on memory less than 8 MB), the operator also has the liberty of adding to this database, drugs of his or her own liking. The *AnCC-

Drugs program while easy to use, is in a locked program that may not, and understandably so, be beamed to another handheld set. The *AnCCDrugs DB* (database) files and the *AnCCDrugs* personal DB files, which are the database segments of this program, however, do not share this restriction, so that sharing valuable personal “clinical gems” with others is effortless.

Though no target audience is specifically identified, this handheld program has utility for any person who wishes to expand his or her repertoire of drug exposure. While the material is in an alphabetized format, beginners and more experienced clinicians will find this program helpful and a breeze to use. Overall, this is a valuable program for anyone who has access to a handheld computer during the course of anesthesia and critical care or anyone who simply wants the convenience of drug information with the tap of a handheld screen. The developers of *Anesthesiology and Critical Care Handbook* are to be commended for a worthy effort and for what is surely the beginning of a long line of computerized educational creations for anesthesia and critical care clinicians.

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