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Computers

An Easy Way to Evaluate Software for Your PDA

Maximize your handheld computer by picking programs that fit you best.

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Tool inside

The explosion of medical software for personal digital assistants (PDAs) makes it critical to accurately evaluate the programs that are out there. If you're going to invest in software, you want to know which programs are the most practical, applicable and useful for your practice. It is frustrating to buy a program and then never use it because you have trouble trusting or retrieving the information.

This article provides an approach to critically evaluate PDA medical applications in order to get the most value for your hard-earned dollar.

Step one: Evaluate the content

To determine whether an application may be right for your practice, first evaluate its content. Ask yourself, "Can I really trust the information in this software program?" Just as you evaluate a journal article,¹ look to see if the PDA program's content is accurate, verifiable and up-to-date. If the content is not valid, the usefulness of the software program must be questioned.

The more familiar you are with the software, the more easily you can judge its content. Therefore, PDA software based on a familiar textbook or resource that you value adds content validity

PDA software based on a familiar textbook or resource that you value adds content validity even before you evaluate it.

even before you evaluate it. Other PDA programs should be scrutinized more carefully for accuracy. If possible, you should compare them to a similar but more familiar product. For example, if you were looking for an infectious disease guide for your PDA, you probably would search for a program similar in content to the familiar Sanford Guide to Antimicrobial Therapy. For a drug handbook, a benchmark comparison could be the Tarascon Pocket Pharmacopoeia. If you were in the market for a PDA pregnancy calculator, you'd probably want to compare it to your trusty obstetric wheel.

The ability to rapidly update information is an important advantage of PDA software over a textbook counterpart. This adds intrinsic content validity, as the information is

updated and becomes more reliable. Many software companies utilize this advantage by auto-updating clinical content as it becomes available. This is particularly relevant with pharmaceutical updates. Newly approved drugs, black box warnings and changed clinical indications are a few of the important updates that can dramatically affect patient care.

| SAMPLE EVALUATION | |
|--|-------|
| The worksheet below can be downloaded as a MS Word document and adapted for individual use. | |
| Dr. Lee is a family physician who works in several offices. He is considering replacing his drug reference pocketbook with Epocrates Rx software for his PDA. | |
| During a 30-day demonstration period, Dr. Lee found Epocrates' content reliable, organized and easy to retrieve. That performance convinced Dr. Lee to make the switch. Of course, it didn't hurt that Epocrates Rx is free. Dr. Lee noted that if Epocrates ever starts charging for its software, he'll have to rethink its overall utility. | |
| Worksheet to evaluate PDA software | |
| Title of application: Epocrates Rx | |
| Content | |
| Is this a familiar product? | No |
| Can I trust this information? | Yes |
| Does it have an update feature? | Yes |
| Time | |
| Can I get to the information quickly (<30 seconds)? | Yes |
| Can this product potentially save me time? | Yes |
| Cost-effectiveness | |
| How much does it cost? | Free* |
| Is its price comparable to that of a similar textbook/product? | Yes |
| Is the price justified by the product's usability and portability? | Yes |
| Other features/notes: Program requires approximately 3 MB, is not card supported and auto-updates frequently. *Web site tracks user response during auto-updates. | |
| Overall: Yes, install new program | |

Step two: Assess time saved

Any time saved by a PDA application is due primarily to a carefully planned user interface. If it's faster to retrieve the information by running out of your office, looking it up in a book and returning to the patient, the program's user interface needs work.

Therefore, usability is perhaps the most critical aspect for the success of a PDA application.

This is where many PDA programs fail. Publishers often believe that if their book is good, then simply shoveling its content onto a PDA will make it a good program. Unfortunately, tables and drawings don't work well on a small screen. Remember, a PDA book is not the same as a book on a PDA. For a PDA program, I believe that the retrieval of information should be 30 seconds or less. I've seen programs such as Epocrates Rx and Griffith's 5-Minute Clinical Consult retrieve information in less than 15 seconds.

The evaluation of a program's user interface boils down to the question, "Does this program save me time in retrieving the information compared to the original resource?" If your answer is an unequivocal yes, then you have potentially great software on hand. This is rare, however, and you should not give up on a program just because it may cost you more time.

Step three: Weigh the costs


To determine a program's cost-effectiveness, compare its monetary cost to its usability and portability.

First, buying a PDA book should not cost much more than the regular textbook. If cost is higher, additional features, such as improved usability or portability, should offset the additional cost. For example, the standard textbook versions of the Sanford Guide and the Tarascon Pocket Pharmacopoeia are portable, have great content and cost less than \$10. However, the annual PDA subscription for both resources costs nearly three times the book price. In addition, the Sanford Guide's user interface is not efficient. I can usually find what I'm looking for in the book faster than the PDA version.

However, a higher cost may be justified if you value its additional features or its portability factor. Mobility shouldn't be overlooked; it's an important aspect of why many doctors own PDAs. Great software takes advantage of the portability factor and makes the resource indispensable to have on the PDA. If you are a physician who works in just one clinic, you may not find much value placing PDA software on a limited screen when you can use a desktop computer connected to the Internet. However, if you are a physician who takes care of inpatients, does obstetrics and has several office settings, the mobility of a PDA can be integral to improving your efficiency and productivity.

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A safer bet

To begin your evaluations, create a worksheet for your practice similar to the one shown [above](#). The tipping point for buying a program will be a personal decision, but in general, the more "yes" answers you have, the better. While you may not need to evaluate every program you install on your PDA, this approach can improve your odds of finding the right application for you and your practice. 

Dr. Oh is finishing a faculty development fellowship at Madigan Army Medical Center in Tacoma, Wash. He has been using a PDA at work since 1997. Conflicts of interest: none reported.

Send comments to fpmedit@aafp.org.

1. Shaughnessy AF, Slawson DC, Bennett JH. Becoming an information master: a guidebook to the medical information jungle. *J Fam Pract.* 1994;39:489-499.

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