Why Didn't **I** Think of **That**...?

Using a Wiki Solution to Improve Communication and Information Sharing

By Rick A. Tharp, RPh

HEARTLAND REGIONAL MEDICAL CENTER IS A JCAHO-ACCREDITED, 350-bed, Level II trauma center. The pharmacy is staffed 24/7 with 23 full and part-time pharmacists. In 2004, our rapidly evolving pharmacy department faced a growing knowledge deficit. We were grappling with a series of changes, ranging from a new pharmacy information system to a renewed focus on clinical pharmacy activities. In the process, important directives and therapeutic interchange opportunities were lost, information was not communicated to all shifts, and clinical interventions were missed due to a lack of focus. Staff pharmacists were overwhelmed with ever-changing information and new expectations.

One of our biggest challenges was developing a system for quickly distributing new information, while also retaining it for future reference. One problem with the tools traditionally used to deliver information is their volatility: a note written on a white board is here today and erased tomorrow; sticky notes become unstuck and are swept into the trash; memos and e-mails are read, discarded, and often forgotten. We needed a solution that would allow us to dispense information as quickly as possible, and, just as importantly, would ensure that the material remained readily available and easily accessible.

Our initial decision was to publish a traditional Web page. This original Web page displayed tables of therapeutic interchanges, therapeutic alternatives, and drugs requiring pharmacist intervention. The information on this Web page was well received, and we realized that a similar approach could be used to convey other useful bits of information. However, the shortcomings of a traditional Web page soon became apparent to us. Global searches through multiple Web pages were not easy or intuitive. To find information, the searcher must first know what category the topic was indexed under. We also realized that updating the Web pages and maintaining an index was too time consuming for one person.

What Is a Wiki?

Wiki software, a simple, yet powerful information-sharing tool, was proposed as a solution. Shortened from the Hawaiian word for quickly (*wikiwiki*), wiki has also been described by the "backronym" What I Know Is. Wiki software provides a framework for organizing a freely expandable collection of hyperlinked pages. The software automatically indexes new pages, permitting a powerful global search function. Wiki also tracks page edits and provides the ability to easily roll back changes.

Because wikis are Web-based, they present little or no learning curve. To browse through a wiki, you click links, just as you would if browsing the Internet, and you can search the wiki, just like you might perform a search using Google.com. Using a wiki is very intuitive for anyone who has surfed the Web. Wikis are also cheap, extensible, and easy to implement, and they do not require a massive software roll-out.

There are nearly 200 different wiki software packages available. We chose Notebook, a PC-based program, because it is non-commercial and open-source, and does not require a Web server. No special installation is necessary; we simply dropped Notebook into a folder on the hospital intranet, and gave all of our pharmacists access to it. All wiki software is based on the premise of simplicity, with no special skills required to use it. Notebook follows this principle, and it is incredibly easy to browse, search, and edit topics.

Putting the Wiki to Work

We seeded the original wiki with four main topics: Clinical Pearls, Formulary, IV Admixture Tips, and What's New. Subtopics under the formulary page included: automatic therapeutic interchanges, recommended therapeutic interchanges, restricted drugs, and drugs requiring special monitoring. The "What's New" topic is an automatic log page. To edit today's entry, or to create a new entry for today, simply click on "Edit Today's Entry." In the ensuing two years, our pharmacy wiki has grown to over 200 pages, with topics as diverse as Pyxis information, order entry tips, tray times, currently unavailable/backordered drugs, and a telephone directory.

One unique aspect of wiki software, and one important key to the wiki solution, is open co-authoring; anyone can edit anything. The offshoot of this principle is that staff members do not need permission to be helpful; anyone can contribute to the shared knowledge base. Two pharmacy staff members regularly review the entries and make sure the posted information is correct, but we do not stifle input, or dress

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someone down for making a mistake; we just correct it and go on. Because of this, the staff has taken ownership of our wiki, drawing from the knowledge and experience of the pharmacists working in the trenches.

Wikis can also link to external documents, such as Web pages and intranet documents. One page in our wiki consists of links to helpful Web resources for pharmacists. We also added links to frequently visited hospital standards on the intranet. We have found that it is much faster to find these standards in our wiki than it is to search the hospital intranet.

Our wiki is has become a resource for practical information — a central repository of those bits and pieces of information that we pharmacists need to have at our fingertips. Wiki software gave us the tool we needed to capture and preserve our shared knowledge base. It "saves the day" each and every day. ■

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