

The Use of a Wiki to Enhance Anesthesiology Resident Education

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Learner Audience: The context for this educational innovation is a Department of Anesthesiology training program containing 46 residents. As adult learners, residents fundamentally have the desire and capability to share their knowledge, participate in the knowledge growth of their peers and maximize the use of available technologies for knowledge acquisition and efficiency.

Background: The ACGME mandates that residents have ready access to rotational information including goals and objectives, rotation manuals and access to didactic presentation materials. It is left to the discretion of individual training programs as to how best to achieve this access for residents. The advent of Web 2.0, a new generation of web-based tools for collaboration and communication (including wikis, blogs and podcasts), has substantially increased options and opportunities for medical educators to deliver educational content and engage residents in learning in novel ways.

Needs Assessment: Our previous Learning Management system met the ACGME requirements by storing curricular and rotational information electronically. However, the system was reportedly cumbersome to use and only a select few administrative users uploaded information to the system. Our department desired to design a system of curricular storage that is not only a repository of information, but also a growing and participatory body of collective knowledge. In addition, we hoped to utilize technology to make information more readily retrievable by, 1) organizing the information according to our own rotations and block schedules, and 2) making the information searchable by keywords. After consulting with department technology leaders, as well as completion of courses in medical education technology, we decided to utilize a wiki to achieve our goal of creating a web-based collaborative educational tool and curriculum management system.

Hypothesis: Utilizing the web-based participatory model of a wiki to create and disseminate educational materials will increase access to the materials, and increase learner participation in the creation of a growing body of educational information.

Curriculum Design: The Department of Anesthesiology developed an internal Anesthesiology Wiki with two primary workspaces. One workspace is devoted to information for each rotation during residency. This workspace includes goals and objectives, rotation manuals, presentations, links to key articles, and other items found to be educationally and practically pertinent by the rotation directors. The second workspace contains a calendar of all didactic presentations, and includes direct links to presentation materials, links to podcasts of presentations for download and an on-line mechanism for residents to evaluate the quality of didactic presentations. All residents and faculty have the capacity to upload relevant documents to the wiki, comment on others work and add resources and web-links. All materials on the wiki are searchable by keywords. Residents have the ability to upload daily keyword definitions with direct links to source materials including articles, illustrations and videos. The wiki is password protected and thus is not accessible or able to be changed by persons outside the department.

Outcome: Developing an educational wiki is realistically feasible and reproducible in most academic teaching institutions. The technology requires very little technical expertise or training and is available to the public via free or low cost options. Future research on the wiki will reveal resident perceptions concerning ease of use and usefulness of the wiki, and whether there is a correlation between resident use of the wiki and performance on standardized examinations (e.g. Block Exams and In Training Exams).