FY03 Innovations in Teaching with Technology Awards: PDAs and Psychiatry Residents

Proposal Title: PDAs and Psychiatry Residents
Original proposal is not available.

This project sought to bring PDA technology into the psychiatry residency program in an innovative and educational way. The benefit of using PDAs will be the increase in time devoted to medical education. The ease of delivery and access of information will streamline and enhance the process of patient care. Such goals and benefits include:

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<tr>
<th>Goals</th>
<th>Benefits</th>
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<tr>
<td>Improve continuity of care</td>
<td>Improved transfer of information for decision making</td>
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<td>Enhance decision making</td>
<td>Provide decision support such as drug-drug interaction and medical</td>
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<td>Enhance data accuracy</td>
<td>reference texts</td>
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<td>Facilitate follow-up care</td>
<td>Clear legibility of machine text versus handwriting</td>
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<td>Improve management of information</td>
<td>Organize and prioritize patient care needs</td>
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<td>Improve attendance</td>
<td>Easy lookup of diagnosis coding, criteria, and drug dose; disseminate lecture schedules; links with Lotus Notes;</td>
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<td>Immediate access the resident calendar via the departmental Web-site</td>
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<td>improves access to educational activities</td>
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**Implementation**

Implementation of PDAs took into consideration many factors. Preliminary discussion has led to the conceptualization of three phases of development. Phase One involved electronic transfer of residency training information, email, schedules, and reference material.

**Phase One Completed**

ITS provided support on installing the systems onto the University system, technical support for when problems arise, and they will eventually offer wireless (WiFi) access throughout the hospital.

Recent events have delayed ITS support and we are working on minimizing their level of involvement and using our own resources to implement the project.

**Outcome Measures**

- Residents polled pre- and post-implementation on the access they have to information when making decisions about patients.
- Access to information will be assessed before and after implementation.
• Attendance at didactics will be compared for the year following implementation of PDA's with the year prior to implementation. Lecture attendance has been correlated with improved performance on standardized tests, and if PDA's can improve access to educational resources and ability to learn for patients, scores on the Psychiatry Residency In-Training Exam will improve.

The PDA Pre-Implementation Survey

After consultation with OCRME, we elected to use a published survey on computer literacy, with data reported over the last decade and the ability to compare to a medical student population.

Pre-Implementation Survey results

1. Residents were experienced in use of computers

   • 100% had used Internet Explorer or Netscape
   • 100% had used the Web to search for information
   • 90% had written a paper using a word-processing program
   • 95% had performed a computerized literature search
   • 59% had used a computerized spreadsheet
   • 100% had used an IBM compatible computer
   • 78% had used a Mac computer
   • 98% had a personal computer
   • 95% had an Internet service provider, all high speed
   • 59% had used a computerized spreadsheet

2. Residents were not over-experienced in computer usage

   • 37% ever had a course in computer software
   • 27% ever had a course in computer programming
   • 7% have a Web page
   • 17% ever used a mainframe computer
   • 22% did not know their CD-ROM drive speed

3. Residents want additional technology education

   • 73% Medical resources on the Web
   • 63% Medical decision making/dx software
   • 61% Literature searching
   • 24% Word
   • 5-15% Email, searching the Web, USENET news groups

4. PDAs were not widely used by residents prior to the study

   • 34% have a PDA
   • 1/3 of those use them daily
5. Residents have a positive attitude about the project

- 83% expected to use their PDA daily as a result of the project

The PDA project will continue over the course of the 2003-2004 academic year, and we plan to publish the results of the project, as well as present the results at a national meeting (AADPRT).

**How will it improve student learning? What resources will you need?**

We purchased a total of 48 PDAs (26 general psychiatry residents, 10 medicine-psychiatry residents, 6 family medicine-psychiatry residents, and 6 child psychiatry residents) at a cost of $317/PDA, total cost of the project: $15,200.

The Department of Psychiatry covered the cost of the hardware that was not covered by the grant, as well as the software, and IT support to develop a departmental Web-site.

**Rough estimate of costs**