

NIH Summer Research Program 2004

POSTER TITLE: Evaluation of the Use of Wireless Technology in a Clinical Environment

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ABSTRACT:

The purpose of this study was to investigate the use and response of clinical staff to new Wireless Technology for patient care support. A convenience non-probability sample of clinical staff was surveyed utilizing the Wireless Technology "USE" tool. This tool measured three areas: type of user, frequency of use, and location of use. Results indicated that there were 351 episodes of wireless technology use over a four-week period. Registered Nurses used wireless technology most frequently (86.9%) The technology was used to a lesser degree by Research Support Assistants (10.5%), Physicians (2.3%), and Nurse Practitioners (1.7%). Each use of wireless technology was commonly greater than five minutes (90%). Most users spent greater than thirty minutes per encounter with wireless technology (31.3%). Wireless technology was used most frequently at the nurses station (52.7%). Other areas such as, conference rooms, patient rounds, and unit lounges were also locations where wireless technology was commonly used (36.5%) Inpatient areas reported use of wireless technology was greatest in the mental health unit (39%) followed by pediatric oncology (25.1%) and neurology (14.8%) units. This study indicated that wireless technology was used frequently by staff throughout clinical areas to support patient care.

PURPOSE:

The purpose of this pilot was to investigate the use and response of clinical staff to new Wireless Technology for patient care support.

CONCLUSIONS:

- ◆ Clinicians found value in using technology on clinical rounds
- ◆ Wireless was used most frequently away from patient
- ◆ Clinicians acknowledge under reporting of actual use
- ◆ Resisted removal of wireless technology at the end of the pilot
- ◆ Nurses were the most frequent users
- ◆ During the study, patients requested use of portable computers
- ◆ Use was mostly over 15 minutes per episode
- ◆ Minimal technical problems and no interference with other biomedical equipment
- ◆ Use of wireless did not interfere with patient care and provide convenience to clinicians
- ◆ Portable wireless may offer advantages over bedside computers
- ◆ Systematic investigation on usefulness, ease of use, and impact of wireless technology in a clinical environment
- ◆ Use of evaluation of wireless technology needs to be extended throughout the facility