

InfoBot: Evaluation of an Evidence Based Practice System

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INTRODUCTION

This study sought to evaluate the evidence based practice (EBP) InfoBot, a system designed to automatically search and deliver patient-specific information linked from within the electronic medical record (EMR) directly to the clinician. The purpose of the EBP InfoBot is to provide the clinician with a convenient collection of evidence-based resources to facilitate evidence-based care. This system automatically extracts documented patients' problems from the interdisciplinary team notes and queries selected resources using the extracted terms. Currently over 5,000 clinical users of the EMR have accessed the EBP InfoBot. A non-experimental, descriptive research design utilizing a convenience sample was used to evaluate the system. Automatic tracking of usage, user navigation, electronic surveys and focus groups were used as evaluation methodologies.

Purpose

This study sought to determine the extent to which the EBP InfoBot system was useful, user friendly, and relevant to clinical staff.

METHODS

Study Design

- Non-experimental, descriptive research design utilizing an online survey sample. We collected usage data using an audit trail and conducted a survey during the first three months after implementation.

Setting

- National Institutes of Health Clinical Center

Population Sample

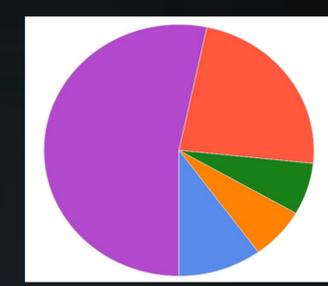
- An estimated 900 Clinical Research Nurses and Research Nurse Coordinators potentially utilized the EBP InfoBot.

Procedures

- Data was collected via an online survey within the InfoBot system and through the use of tracking tools built into the system.

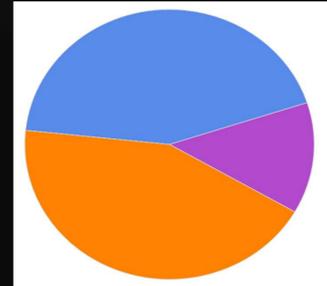
RESULTS

Overall the information found by the InfoBot was:



N=30

Was the InfoBot system easy to navigate?



N=30

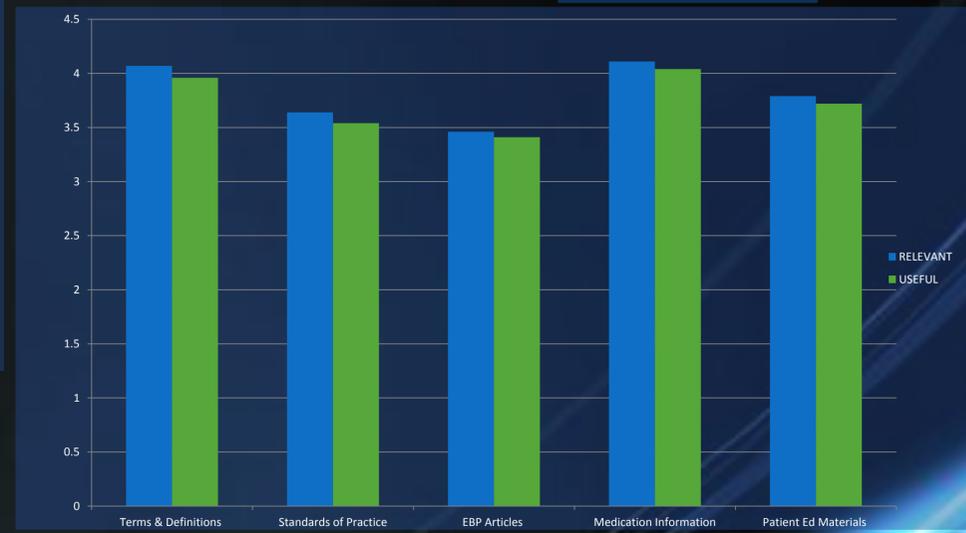


Figure 1: Useful and Relevant Items for Care Plan Development

Table 1: EBP InfoBot Usage from Aug 2009 to Sep 2012

Item	Number	Item	Number
Total Transactions	29,946	Definitions	827
Total users	5,490	PubMed	738
Repeat users	2,836	Medline Plus	654
Micromedex	2,318	Pill Box	287
General Searches	2,262	Standards of Practice	68
Clinical Trials	1,774		

FINDINGS

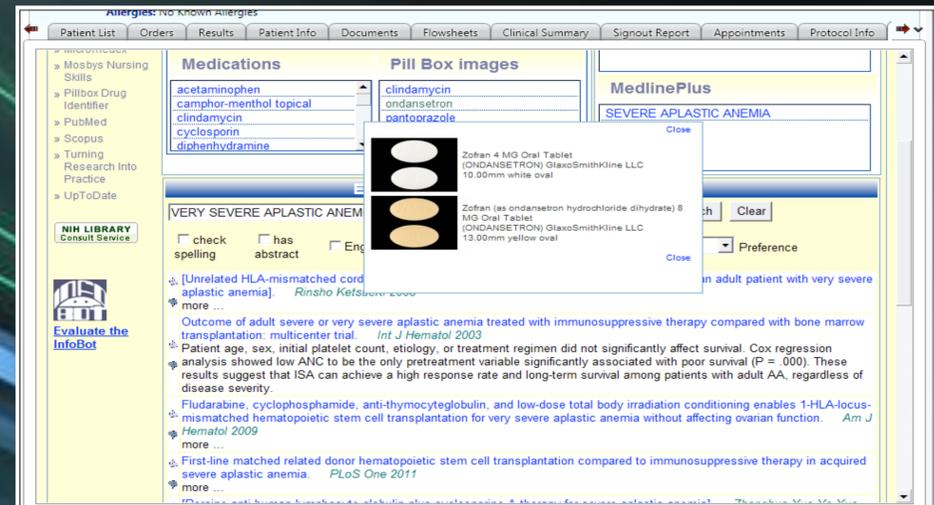
- The majority of the respondents were baccalaureate or masters prepared (89%), female (93%), clinical research nurses(73%), age (41-60) (70%), working day shift (90%).
- The system was found to be intuitive and easy to use by the respondents.
- The majority (70%) of respondents indicated there was adequate information available with 30% requesting expansion to additional resources.
- Results show that the system was well liked and provided useful information in support of patient care.
- Mean scores for "usefulness" and "relevance" ranged from 3.5 and above indicating a high level of satisfaction with information provided
- Since August 2009 there were close to 30,000 transactions recorded related to EBP InfoBot usage.
- Micromedex was the most frequently used option with Generic Searches, Clinical Trials and Definitions high on the list of activities.
- Guidelines and Standards of Practice were the least used items due to links that were unavailable during the first year of implementation.

CONCLUSIONS

Based on user input and findings, several enhancements were made to the InfoBot system.

- Search capability was added to the EBP Search Results
- Number of articles increased from 10-15
- Pill Box Images added
- Screen color changed to complement CRIS environment

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User Interface Example