A systems engineering approach for disseminating and implementing shared decision making around breast and lung cancer screening using decision aids embedded in electronic health records

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Shared Decision Making (SDM) • Should include a balanced explanation of potential benefits and harms, taking into account patient values and preferences • Is appropriate when offering clinical preventive services as patients are often unaware of benefits and harms of screening • Has had suboptimal uptake due, in part, to lack of clinician training and a limited number of decision aids (DAs) embedded in electronic health records (EHRs) to facilitate SDM

- Project goals: 
  - Create a SDM training program for clinicians, focusing on use of DAs for breast and lung cancer screening 
  - Employ systems engineering approaches to develop pragmatic strategies for primary care clinicians leading to increased SDM and use of DAs for breast and lung cancer screening 
  - Provide clinician teams with best practices to efficiently and effectively engage in SDM with patients

Setting • Pilot project within UW Health, an integrated, academic health system of University of Wisconsin-Madison 

• Funded by UW Health, demonstrating a commitment to SDM as part of its quality assurance model 

• Adult primary care clinicians in urban primary care settings 

Family Medicine (17 clinics; 182 clinicians) 

• General Internal Medicine (10 clinics; 87 clinicians)

HealthDecision® Patient Decision Aids 

- Individualized risk assessment with visual prediction of possible outcomes of screening 

- DAs for lung cancer & breast cancer screening integrated within UWHealth EHR system 

- Clinician use of DAs are being monitored throughout the project

HealthDecision® DAs are available: HealthDecision.org

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Clinician Training • Comprehensive training curriculum developed by a multi-disciplinary team 

- Training incorporates CCO model (Choice Talk, Option Talk, Decision Talk) 

- Curriculum incorporates contemporary breast and lung cancer screening recommendations 

- 20-minute didactic presentation (live and recorded) 

- Interactive role-play pieces (live or self-study) 

- Professionally produced videos demonstrating frequently encountered SDM situations 

- Training handouts 

- Patient handouts on breast and lung cancer screening

Three training workshops have been held for UW Health clinicians: 

- Department of Family Medicine & Community Health 

- Development Day (52 participants) 

- General Internal Medicine Grand Rounds (27 participants)

- Advanced Practice Providers Grand Rounds (26 participants)

Training Participant Self Evaluation 

- Of 102 SDM training participants, 37 (35%) completed pre/post evaluations 

- Participants were asked to rank their pre/post confidence on key elements of SDM using the scale: 

  1. Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree 

- The participants’ post training confidence rankings were significantly higher than pre training rankings

Conclusions and next steps 

- Primary care clinicians see value in SDM, but <10% consistently use DAs available in their EHR 

- Users of DAs increased after a SDM training workshop, but the increase was temporary 

- Use of the DA for lung cancer screening was more challenging than for mammography, possibly due to inaccessibility of the lung cancer screening DA in the EHR and less familiarity with lung cancer screening 

- The clinic implementation phase will conclude in 2019 with development of dissemination and implementation strategies to follow 

- Results will inform development of a tool kit summarizing best practices for SDM, which can be applicable to any clinical encounter requiring a decision

References