A Team-Based Approach to Integrating Evidence into Population Health

Amanda Davis, MPH, RD, CHES, Quality and Patient Safety Department, Medical University of South Carolina, Charleston, SC; Elizabeth Crabtree, MPH, PhD(c), Department of Library Science and Informatics & Department of Public Health Sciences, Medical University of South Carolina, Charleston, SC; Emily Brennan, MLIS, Department of Library Science and Informatics & Department of Pediatrics, Medical University of South Carolina, Charleston, SC;

Ideally, health care decisions are based on the best available scientific evidence. However, in reality this is not always the case. There are many barriers to applying the principles of evidence-based practice in everyday practice for healthcare providers, which can lead to wide variations in patient care. The Center for Evidence-Based Practice at the Medical University of South Carolina (MUSC) was established in 2013 to develop interdisciplinary, enterprise-wide evidence-based recommendations and point-of-care clinical decision support tools for healthcare providers at MUSC.

**Evidence-Based Practice (EBP)**

Is a problem-solving approach to clinical practice that integrates best research evidence from primary literature & existing guidelines with clinicians interpretation of the evidence based on their clinical experiences and expertise, taking into account local patient values & preferences to improve point-of-care, medical decision-making

**Clinical Content Expert Team**

- Includes representatives from all disciplines involved in the care of the identified patient population
- Creates an environment of inclusion for interpreting evidence
- As engaged “champions” of EBP, clinical content experts are an integral component of the development and dissemination of evidence-based, point-of-care decision support tools and training materials

**MUSC Center for Evidence-Based Practice**

*Changing What’s Possible...With Evidence*

- Uses an interdisciplinary, team-based approach to develop evidence-based guidelines to assist clinicians in providing high quality patient care
- This framework includes:
  - Establishing focused, searchable clinical questions using the PICO format
  - Appraising existing guidelines for the patient population using the University of Pennsylvania Trustworthiness Guideline rating scale
  - Searching for relevant literature with the assistance of a medical librarian
  - Critically analyzing the body of evidence using GRADE criteria
  - Presenting evidence summary findings to clinical content experts
  - Facilitating the development of clinical practice recommendations & clinical decision support materials in the EMR
- Promotes clinical inquiry and the delivery of comprehensive, coordinated, evidence-based care across the healthcare continuum
- Links research, evidence-based practice and quality improvement by asking “Are we doing the best thing for our patients, the best way, every time?”
Though initially focused on coordinating evidence-based, point-of-care guidelines for diagnosis and treatment, MUSC’s Center for EBP has expanded its reach to include the development of total population health evidence-based guidelines with a focus on primary prevention.

### Tobacco Cessation Guideline Development
- Interdisciplinary team with representatives from public health, tobacco treatment, medicine, pharmacy, patient support, and research
- Focus on operationalizing existing tobacco cessation guidelines effectively into the EMR
- Developed evidence-based recommendations for clinician education, changes to documentation, and appropriate referral in the inpatient and ambulatory settings

### Tobacco Cessation MUSCare Plan Clinical Practice Recommendations
- Operationalized the use of a silent alert in the EMR that automatically enrolls patients in the MUSC telephone-based tobacco treatment system and provides clinicians with pharmacotherapy recommendations at point-of-care
- Standardized the location, timing and clinician review of patients’ tobacco use in the EMR
- Standardized the location, timing and clinician review of pediatric patients’ environmental tobacco smoke exposure in the EMR
- Established evidence-based first and second-line medication therapy options for tobacco cessation
- Established specific protocols for follow-up assessment in patients 1) who are attempting to quit, 2) not yet willing to quit, and 3) who have previously quit to assess for relapse