

Submission Id: 5081

Title

Use of a Heat Map to Depict Patient Responses to a Depression Questionnaire to Facilitate Management Decisions

Priority 1 (Research Category)

Behavioral, psychosocial, and mental illness

Presenters

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Abstract

Context- Patients with major depressions being managed in a family medicine clinic.

Objective-To demonstrate that evaluation of a patient's responses to individual depression questions over time, rather than review of only the total depression survey score, can influence management recommendations.

Study design-Patients that had a follow-up visit for depression had real-time evaluation of their responses to each question in a depression questionnaire over time during the visit. In those patients that the clinician found this evaluation helpful, the study team reviewed the cases, using several different options to depict the data.

Setting-a rural family medicine clinic in Menomonie, Wisconsin (population 17,000)

Population-Patient ages 15-65 years with previous diagnosis of major depression that had a follow-up visit in family medicine clinic for depression during the study interval.

Instrument- We used the Patient Health Questionnaires for depression, specifically the PHQ-9 (for adults) and PHQ-9M (for adolescents). A Microsoft Excel spread sheet was used to create a heat map.

Outcome measure-the study team reviewed clinical scenarios to determine if review of the responses to individual depression questions was helpful in making management decisions as compared to only looking at total PHQ scores. We evaluated several different methods to depict the responses to depression questions over time.

Results-Data from 30 patients was reviewed at the time of a visit. The clinician determined that review of the responses to individual depression questions over time was helpful in 3 of these patients. After de-identification of the patient, the information was presented to the study team. In these 3 cases, the specific scenarios included medication side effects, anxiety, a thyroid disorder, and fibromyalgia as possible influencers of the PHQ-9 survey scores. The heat map helped clinicians determine how side

effects and co-existing conditions affect the depression responses and target recommendations to the patient's unique situation. We found that the use of a heat map created in an Excel spread sheet was more helpful than other formats we used to present this data.

Conclusion-We find that review of answers to specific depression questions, rather than looking at only total PHQ scores, can help influence clinical decisions in certain clinical scenarios. We found that the heat map we created helped clinicians analyze this data in a time efficient manner.