

POSTER ABSTRACTS

15th Annual HMO Research Network Conference
April 26-29, 2009 – Danville, PA

11:30 am–Noon & 1:30–2:00 pm
Monday, April 27th • Lobby

PS1 – 35

Use of Web-Based Rheumatology Practice Visual Display Tools with an Electronic Health Record (EHR)

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Background: A variety of different types of data (i.e., patient-reported, lab, imaging, clinician-documented) are required to guide and improve rheumatologic treatment decisions. Although these data elements are available in the electronic health record (EHR), the demands of a busy practice do not allow sufficient time to effectively review all sources of data. Moreover, the EHR does not offer a facility to bring relevant but disparate data together in an integrated visual display. We developed a novel web-based software program—Rheum-PACER (Patient Centric Electronic Redesign) that displays relevant data in a web-based dashboard format. We report on the results of the first phase of implementing Rheum-PACER, i.e., identifying key data elements and designing the user interface.

Methods: Rheum-PACER is a web-based program that obtains, aggregates, and/or exchanges information from/with four sources: patients, nurses, rheumatologists, and the EHR. It is separate from, but accessed seamlessly from within, the EHR. An iterative consensus process was used to identify the data elements desired by/from each of these four sources.

Results: The Rheum-PACER dashboard is comprised of 4 key tabs, each of which allows the provider to complete a specific task within a single interface. The “Outcomes General” tab displays parallel temporal trends of patient reported outcomes (PRO), labs, and rheumatic medications. The “Outcomes Composite” tab displays temporal trends of composite PRO scores and physician-recorded data (e.g., tender joint counts), labs, and rheumatic medications over a 12-month period. The “Demographics” tab visually parses rheumatic versus other diagnoses and medications and allows for entry of data not typically found in the EHR (i.e., date of first rheumatic disease diagnosis). The “Construction” tab is used to construct a visit progress note. This tab incorporates pre-populated patient reported data (e.g., events since last visit, review of systems) and EHR data (e.g, medications, lab values) and allows for entry of nurse and physician-derived measures (e.g., physical exam, global scores).

Conclusions: Web-based software tools that are external to, but which interact with, the EHR have the potential to improve clinical practice and clinical decision-making by providing clinicians with information that is aggregated, formatted, and presented in a way that reflects their cognitive clinical decision-making process.