

The Kang Health Record Evaluation Tool (KaHRET): A Novel Instrument to Evaluate the Characteristics, Content, and Readability of Patient Health Records

Christine O. Kang, MD, MHS, MS,¹ Rima E. Rudd, ScD,² Mario S. Feranil, BS,³ Bernard T. Lee, MD, MBA, MPH, FACS,¹ Sigall Bell, MD⁴

¹Division of Plastic and Reconstructive Surgery, Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

²Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, MA

³Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

⁴Department of Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

Background. As health information transparency spreads, patients increasingly access their electronic health records (EHR), including clinical visit notes. A patient's health record is becoming an important tool for surgeons to communicate not only with other physicians but also with patients. The EHR is complex and tries to meet demands of various stakeholders and now patients. Access to visit notes has demonstrated patient-reported benefits, but whether these extend to patients with low health literacy is not well understood.

Methods. We aimed to create a novel tool to examine: 1) clinical note formatting characteristics, 2) content, and 3) literacy that could be used by researchers and health professionals to uniformly measure note readability and actionability. We used mixed methods to inform the development of a surgical patient visit note literacy evaluation tool that entailed five stages: literature review, consultation with health literacy expert, development of the Kang Health Record Evaluation Tool (KaHRET) based on existing health literacy metrics and common medical note templates, pilot testing with a focus group of multidisciplinary researchers, tool revision based on feedback.

Results. The final KaHRET instrument contains 20 items that assess the clinical note structure (i.e. type, length, format, and organization), text (i.e. background, key points, and plan), and health literacy metrics (i.e. readability and numeracy). The KaHRET offers a systematic method to assess electronic health records in a unique way that will encourage standardized efforts to improve patient surgeon communication.

Conclusions. Evaluating the degree to which patients understand EHR information is of increasing importance in the context of growing health information transparency. Further research is needed to assess the impact of such a tool on clinician note-writing behavior, shared decision-making and patient-physician communication.