

Striving towards interoperability of evidence, guidelines and recommendations in the digital age: The EBMonFHIR project

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Parallel Session 1B, Grand Ballroom 5, November 19, 2019, 13:30 - 15:00

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Oral and poster abstract text (Arial, size 10 font, left aligned, maximum 250 words)

Background

Guideline development and the creation of recommendations is an often time consuming and lengthy process. The recommendations and evidence from trustworthy guidelines should be implemented in practice to achieve optimal care provision for citizens in our society. However, there are currently many issues with the accessibility, interoperability and implementation of evidence into practice. By ensuring evidence is in a computable format we can better achieve a well-functioning evidence ecosystem.

Objectives

To develop standards for electronic health information exchange across guideline platforms, research tools, clinical decision support programs and electronic health record systems relating to evidence-based medicine.

Method

Health Level 7 (HL7) develops standards for electronic health information exchange. We are using and extending the HL7 Fast Healthcare Interoperability Resources (FHIR) standards to include components for evidence based medicine. The FHIR Resources for Evidence-Based Medicine Knowledge Assets project (EBMonFHIR) is an open, collaborative effort with working meetings weekly (<https://confluence.hl7.org/display/CDS/EBMonFHIR>).

Results

The technical and functional model for machine-interpretable expression of evidence is evolving. To make this usable for all components in the Evidence Ecosystem, we have included engagement from researchers, guideline creators and implementers. The current model includes descriptions of the research question, the statistical evidence, and its certainty (for example, GRADE ratings).

Conclusions (if applicable)

Working together we can achieve interoperability for the Evidence Ecosystem in the computable era to realise the technological breakthroughs we see in other domains such as navigation support and finance. Common frameworks to represent evidence and its certainty, will facilitate understanding, sharing and dissemination of EBM. Achieving interoperability with healthcare services will also enable easier dissemination into EHRs and other clinical systems.