

# EBMonFHIR

## Project Information

### Project Insight

- The Fast Healthcare Interoperability Resources (FHIR) Resources for Evidence-Based Medicine (EBM) Knowledge Assets project (EBMonFHIR) was approved on May 16, 2018 as an HL7 project.
- EBMonFHIR is sponsored by the Clinical Decision Support Work Group and co-sponsored by the Clinical Quality Information Work Group and Biomedical Research and Regulation Work Group.
- The goal of EBMonFHIR is to provide interoperability (standards for data exchange) for those producing, analyzing, synthesizing, disseminating and implementing clinical research (evidence) and recommendations for clinical care (clinical practice guidelines).
- You can contact Brian Alper, the project lead, at [balper@computablepublishing.com](mailto:balper@computablepublishing.com). Brian is the Vice President of Innovations and Evidence-based Medicine Development at EBSCO Health. He is the Founder of DynaMed and is board certified in Family Medicine and Clinical Informatics. He is a contributing member of Guidelines International Network (G-I-N), HL7 Workgroups, HIMSS, AMDIS, NIH, MCBK, PCCDSL.N.
- There was an EBMonFHIR track at four HL7 Connectathons: Baltimore September 2018, San Antonio January 2019, [Montreal May 2019](#), [Atlanta September 2019](#), [Sydney February 2020](#), [virtually May 2020](#).
- [Project Scope Statement](#)

## Introduction

- [Introduction Video to EBMonFHIR and COVID-19 Knowledge Accelerator Project](#)
- [Video 1 - Introduction to FHIR and Evidence Based Medicine \[7 minutes\] \(Out of Date\)](#)
- [Video 2 - EBMonFHIR and the Statistic resource in detail \[36 minutes\] \(Out of Date\)](#)

## Meeting Information

- The EBMonFHIR project has expanded to include the [COVID-19 Knowledge Accelerator Project](#).
- We meet multiple times a week via [Microsoft Teams meeting link](#), To join by phone, dial: **+1 929-346-7156** for United States with Conference ID:324 918 025#, or see [Local Phone Numbers](#).
- You can also join the Google Group mailing list: <https://groups.google.com/forum/#!forum/ebmonfhir>
- We are now communicating using Zulip: <https://chat.fhir.org/> And join the "EBMonFHIR" stream.

### Weekly Meeting Schedule

Day	Time (Eastern)	Team	Team Set
Monday	7-8 am	Standards Development (FHIR, Terminologies)	Systems
Monday	9-10 am	Project Coordination	Project
Monday	4-5 pm	Summarization Process Development	Process
Tuesday	10-11 am	Evidence Evaluation and Reporting Tools Development	Systems
Tuesday	2-3 pm	Classifying Content Process Development	Process
Wednesday	8-9 am	Recommendations/CDS Liaison	Project
Wednesday	9-10 am	Statistics Process Development	Process
Thursday	7-8 am	Standards Development (FHIR, Terminologies)	Systems
Thursday	9-10 am	Content Citation and Classification Tools Development	Systems
Thursday	4-5 pm	Project Coordination	Project
Friday	9-10 am	Quality/Certainty Rating Process Development	Process
Friday	10-11 am	Communications (Awareness, Scholarly Publications)	Project

## Status

- [Member list Google Sheet \(Future Presentations and Conferences\)](#)
- The CDS, CQI, and BRR WGs and FHIR management group approved the draft PSS in May of 2018.
- {To Do: List issues or link to issues tracking repository (Jira or GForge)}

## Presentations

- [Presentations folder on the Google Drive \(for comments\)](#)
- [GIN and Cochrane EBMonFHIR presentation](#)

## Project Documents

- [Evidence Resource](#)
- [Statistic DataType](#)
- [OrderedDistribution DataType](#)
- [EBMonFHIR working Agenda](#)
- [Working Instructions for EBMonFHIR Working Group](#)
- [Changes being made to the FHIR Clinical Reasoning module](#) (email us for edit access)
- [Open Consortial Projects to Advance Healthcare Decision Making with Technology](#) (Document)
- [Chlorpromazine vs. Placebo Example Resources](#) (JSON Tree Writer)
- [Evidence Data Entry Form \(PREVIEW\)](#)
- [EBMonFHIR document for the Annual MCBK meeting](#)
- [EBMonFHIR Google Drive](#)
- [EvidenceVariable resource on build.fhir.org](#)
- [Group resource in FHIR](#)
- [ClinicalProfiles Hapi Server](#) and with an example of a [Statistic resource on it](#).

### Blank Resources (Templates)

- [Blank Evidence Resource Entry Form](#) (JSON Tree Writer)
- [Blank EvidenceVariable Resource Entry Form](#) (JSON Tree Writer)
- [Blank Group Resource Entry Form](#) (JSON Tree Writer)
- [Blank EvidenceReport Entry Form](#) (For the COVID-19 Knowledge Accelerator project) (JSON Tree Writer)
- [Blank Citation Entry Form](#) (For the COVID-19 Knowledge Accelerator project) (JSON Tree Writer)

### Patients with Stroke Alteplase vs. Placebo

- Evidence Bundle (65 resources): ([XML](#)), ([JSON](#)), ([JSON Tree Writer](#), takes a couple minutes to load)
- EvidenceVariable Bundle (10 resources): ([XML](#)), ([JSON](#)), ([JSON Tree Writer](#))
- ActivityDefinition Bundle (1 resource): ([XML](#)), ([JSON](#)), ([JSON Tree Writer](#))
- Group Bundle (75 resources): ([XML](#)), ([JSON](#)), ([JSON Tree Writer](#), takes a couple minutes to load)

### Artur's Data Example using Sublingual Specific Immunotherapy (Out of Date)

- [Artur's Data Table Example](#)
- [Artur's Statistic Example 01 \(Pairwise Comparative Statistic\) and in XML format. \(Out of Date\)](#)
- [Artur's Statistic Example 02 \(Comparative\)](#), [Artur's Statistic Example 03 \(Comparative\)](#), [Artur's Statistic Example 04 \(Univariate\)](#), [Artur's Statistic Example 05 \(Univariate\)](#), [Artur's Statistic Example 06 \(Univariate\)](#), [Artur's Statistic Example 07 \(Univariate\)](#) (Out of Date)
- [Artur's Group & EvidenceVariable Examples: \[Group "Allergic Rhinitis"\], \[Group "Sublingual Immunotherapy"\], \[Group "No Sublingual Immunotherapy"\], \[EvidenceVariable "Quality of Life"\], \[EvidenceVariable "Withdrawal due to adverse effect"\]](#) (Out of Date)

### Linn's Data Example using Outcomes from Patients with Sepsis using Corticosteroids (Out of Date)

- [Linn's MAGICApp Data Table Example](#)
- [Linn's Statistic Example 01 \(Pairwise Comparative Statistic\) \(Out of Date\)](#)
- [Linn's Example in JSON Tree Writer \(Single Outcome\) \(Out of Date\)](#)

### Other Examples (Work In Progress)

- [Lisa's Data Table Example](#) Currently in the process of converting to EBMonFHIR JSON
- TO DO:
- {Link to working documents/Confluence Pages}
- {Link to [project GForge](#)}
- {Link to reference documentation on [GForge](#), HL7 Web site [WG Documents/Presentations page](#), Confluence documents page, or external web pages}
- {Name the [project listserv](#) if a special one exists}

## Meeting Notes and Recordings

- [2018-05-21](#)
- [2018-05-24](#)
- [2018-05-29](#)
- [2018-05-31](#)
- [2018-06-05](#)
- [2018-06-11](#)
- [2018-06-18](#)
- [2018-06-28](#)
- [2018-07-05](#)
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- [2018-08-02](#)
- [2018-08-09](#)

- [2018-08-16](#)
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- [2018-09-06](#)
- [2018-09-20](#)
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- [2018-10-26](#)
- [2018-11-02](#)
- [2018-11-09](#)
- [2018-11-16](#)
- [2018-11-23](#)
- [2018-11-30](#)
- [2018-12-07 Notes & Video Recording](#)
- [2018-12-14 Notes & Video Recording](#)
- [2018-12-21 Notes & Video Recording](#)
- [2018-12-28 Notes & Video Recording](#)
- [2019-01-04 Notes & Video Recording](#)
- [2019-01-11 Notes](#)
- [2019-01-25 Notes & Video Recording](#)
- [2019-02-01 Notes & Video Recording](#)
- [2019-02-08 Notes & Video Recording](#)
- [2019-02-15 Notes & Video Recording](#)
- [2019-02-22 Notes & Video Recording](#)
- [2019-03-01 Notes & Video Recording](#)
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- [2020-05-28 Notes](#)
- [2020-06-04 Notes](#)
- [2020-06-11 Notes](#)
- [2020-06-18 Notes](#)
- [2020-06-25 Notes](#)
- After June 25, 2020 the EBMonFHIR group decided to stop broad-scope weekly meetings and become the COVID-19 Knowledge Accelerator Initiative with 10 active working groups having weekly meetings. The meeting notes for each of the active working groups can be found in continuous logging in the following documents:
  - **Standards Development:** Refine the FHIR® schema and terminologies
    - This work group will maintain the FHIR Citation, Evidence, EvidenceReport, and EvidenceVariable Resources.
    - Click here to view the [Standards Development Work Group Progress Report](#).
    - Meeting time: **Mondays** at 7:00am to 8:00am ET, and **Thursdays** at 7:00am to 8:00am ET
  - **Content Citation and Classification Tools Development:** Refine or contribute to providing user interfaces or APIs or transformations
    - This work group will allow system developers to share knowledge and tools.
    - Click here to view the [Content Citation and Classification Tools Development Work Group Progress Report](#).
    - Meeting time: **Thursdays** at 9:00am to 10:00am ET
  - **Evidence Evaluation and Reporting Tools Development:** Refine or contribute to providing user interfaces or APIs or transformations
    - This work group will allow system developers to share knowledge and tools.
    - Click here to view the [Evidence Evaluation and Reporting Tools Development Work Group Progress Report](#).
    - Meeting time: **Tuesdays** at 10:00am to 11:00am ET
  - **Classifying Content:** Define and demonstrate concepts and processes to classify content (study design, PICO elements)
    - The COKA Classifying Content Process Development Work Group will develop and maintain processes for classification of COVID-19 related articles. Classifications may include: article type, study design, domain, and detailed description of PICO elements and other evidence variables.
    - Click here to view the [Classifying Content Process Development Work Group Progress Report](#).
    - Meeting time: **Tuesdays** at 2:00pm to 3:00pm ET
  - **Statistical Content:** Define and demonstrate concepts and processes to report statistics
    - The COKA Statistics Process Development Work Group will develop and maintain processes for expression of statistical data.
    - Click here to view the [Statistical Content Process Development Work Group Progress Report](#).
    - Meeting time: **Wednesdays** at 9:00am to 10:00am ET
  - **Rating Quality:** Define and demonstrate concepts and processes to rate study quality (including certainty of evidence)
    - The COKA Quality/Certainty Rating Process Development Work Group will develop and maintain processes for expression of assessments of quality or certainty regarding evidence at both the level of study results and bodies of evidence.
    - Click here to view the [Quality/Certainty Rating Process Development Work Group Progress Report](#).
    - Meeting time: **Fridays** at 9:00am to 10:00am ET
  - **Summarization:** Define and demonstrate concepts and processes to summarize content
    - The COKA Summarization Process Development Work Group will develop and maintain processes for summarization of evidence results.
    - Click here to view the [Summarization Process Development Work Group Progress Report](#).
    - Meeting time: **Mondays** at 4:00pm to 5:00pm ET
  - **Recommendations/CDS:** Liaise with other groups to coordinate with COKA efforts
    - The COKA Recommendation/CDS Liaison Work Group will coordinate with other consortia (e.g. ACTS, CDC ACG, COVID-END) to apply COKA related concepts to knowledge acceleration for recommendations and clinical decision support.
    - Click here to view the [Recommendations/CDS Liaison Work Group Progress Report](#).
    - Meeting time: **Wednesdays** at 8:00am to 9:00am ET

- **Coordination:** Project coordination
  - Click here to view the [Project Coordination Work Group Progress Report](#).
  - Meeting time: **Mondays** at 9:00am to 10:00am ET, and **Thursdays** at 4:00pm to 5:00pm ET
- **Communications:** Increase awareness of the effort, including scholarly communication
  - Click here to view the [Communications Work Group Progress Report](#).
  - Meeting time: **Fridays** at 10:00am to 11:00am ET