2020-09 COVID-19 In-Person Pre-Arrival Clinical Workflow

This track is postponed for Connectathon 26.

Track overview

Short Description

To address the emerging COVID-19 treatment challenges, clinicians are encouraged to rely on electronic clinical data to determine which patients should be prioritized for being tested, hospitalized, and/or isolated. Failure to include or exclude patients in COVID-19 **screening, testing, and treatment** could lead to life-threatening situations for patients and could impact the overall trajectory of the outbreak at a population-level.

COVID-19 symptoms and pre-existing conditions are important to triage patient triage and FHIR resources and implementation guides can be used to record patient-reported information, create findings/observation, and then apply them to business process automation. (see additional background). Semantic interoperabity requires an integrated terminology knowledge base that allows sharing information provided by patients with EHR rercord information about problem lists (e.g., diabetes, cancer treatment).

This track is supporting project Guidelines for a Standardized Terminology Knowledge base Project.

Long Description

This track is demonstrating the process of collecting and applying medical triage questionnaire to pre-arrival evaluation processes for suspected COVID-19 patients.

It uses the following resources:

- Questionnaire - describing a COVID-19 pre-visit screening form reusing Structured Data Capture IG
- QuestionnaireResponse - containing the patient's self-reported and validated by the patient with elements pre-filled by EHR, if available
- Observation - resources auto-generated from patient responses into statements for analysis and decision points specified in the BPM+ process that uses BPMN and DMN (see Notional Pre-arrival Assessment and Triage Business Process Model)
    - Pulse Oximetry Result consistent wiht FHIR US Core
    - Analysis-ready observations based on ANF
- Business Process Automation consistent wiht OMG BPM+ as described Logica Health Project will use FHIR "search" operations to look up the pre-existing condition and other findings necessary for patient triage (e.g. temperature measurements, oxygen saturation/pulse oximetry, blood pressure).

Additionally, this track is validating BPM+ process automation (BPM process description for pre-arrival triage) and fulfilling a set of clinical and interoperability objectives and provides value to clinicians and improved outcomes for patients,

Type

Applicable:

- Test the design of a Resource/set of Resources: Questionnaire, QuestionnaireResponse, Observation
- Test an Implementation Guide (draft ANF Implementation Guide, Structured Data Capture)
- Test a FHIR-associated specification (ANF Logical Model)
- Educate on the use of a FHIR technology/IG - use of FHIR to support OMG BPM+ runtime environments

Submitting Work Group/Project/Accelerator/Affiliate/Implementer Group

- Vocabulary Work Group
- Logica Health
- Deloitte

Proposed Track Lead

Ioana Singureanu ioana.singureanu at bookzurman.com - track lead, Standards Architect

Keith E. Campbell MD, PhD - Subject Matter Expert

Related tracks

None

FHIR Version

- Current build

Specification(s) this track uses

- Logica Health BPM+ use cases
- ANF Logical Model
- FHIR Questionnaire, QuestinnaireReponse consistent with Structured Data Capture IG
- Example transformation: https://logica.atlassian.net/wiki/spaces/SOLOR/pages/1012367686/Does+patient+have+a+history+of+Diabetes

Artifacts of focus

- Questionnaire - describing a COVID-19 pre-visit screening form reusing Structured Data Capture IG
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Clinical input requested (if any)

Patient input requested (if any)

Expected participants

Zulip stream

https://chat.fhir.org/#narrow/stream/256830-BPM_plus_covid_19_workflows

#BPM_plus_covid_19_workflows

Track Orientation

Track details

System Roles

Role 1 Name

Scenarios

Scenario Step 1 Name

Action:

Precondition:

Success Criteria:

Bonus point:

TestScript(s)

Security and Privacy Considerations