FHIR Workflow

Speaker

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FHIR Workflow

Workflow is an essential part of healthcare - orders, care protocols, referrals are the drivers of most activity within in-patient settings and a great deal of activity in community care as well.

FHIR is concerned with workflow when there's a need to share information about workflow state or relationships, when there's a need to coordinate or drive the execution of workflow across systems and when there's a need to define allowed actions, dependencies and conditions on behavior.

http://build.fhir.org/workflow.html

FHIR Workflow Resources

Definitions Resources that define something that can potentially happen in a patient and time-independent manner

- ActivityDefinition
- Measure

- OperationDefinition

- PlanDefinition

- Questionnaire

Requests Resources that ask for or express a desire/intention for something to be done

- Appointment*
- AppointmentResponse*
- CarePlan
- Claim
- CommunicationRequest

- Contract
- CoverageEligibilityRequest
- DeviceRequest
- EnrollmentRequest

- ImmunizationRecommendation
- MedicationRequest
- NutritionOrder
- ServiceRequest

- Task‡
- SupplyRequest
- VisionPrescription

Events Resources that express that something has been done and which can potentially be done because of a request

- ChargeItem
- ClaimResponse
- ClinicalImpression
- Communication
- Composition
- Condition (aka Problem)
- Consent
- Coverage
- CoverageEligibilityResponse
- DeviceUseStatement

- DiagnosticReport
- DocumentManifest
- DocumentReference
- Encounter
- EnrollmentResponse
- EpisodeOfCare
- ExplanationOfBenefit
- FamilyMemberHistory

- GuidanceResponse
- ImagingStudy
- Immunization
- MeasureReport
- Media
- MedicationAdministration
- MedicationDispense
- MedicationStatement

- Observation
- PaymentNotice
- PaymentReconciliation
- Procedure
- QuestionnaireResponse
- RiskAssessment
- SupplyDelivery
- Task‡

http://build.fhir.org/workflow.html#list

FHIR Workflow Development

- Bi-weekly calls for over two years
- Final results – new section in specification for "Workflow"
  - Resource Patterns of Definition/Request/Event

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Opportunities for Referrals and FHIR

Argonaut Scheduling Implementation Guide

- Supports both patient and provider scheduling
- Fetch and book available appointments
- Locate providers using the Argonaut Provider Directory

CDS Hooks

- Standard method for invoking clinical decision support in a clinician work flow
- Many possible EHR triggers (hooks): patient-view, medication-prescribe, etc.

Argonaut Questionnaire Implementation Guide

- Capture additional information required for referral
- Focused on simple questionnaires

Referral Initiator Requirements

Initiate a referral request to an external system
* Include patient identifiers, referral identifiers, and clinical information (C-CDA or FHIR resources)

Receive update messages from an external system
* Decline, Accept, In progress, Complete

Initiate a cancellation message

Process completion of referral and corresponding clinical information

Initiation system must notify a provider if:
* No response to a referral request
* No referral outcome in a timely manner

Referral Receiver Requirements

Receive a referral request from an external system
- Store imitator provided patient identifier and referral identifier

Receive cancel messages from an external system

Support sending a cancel confirmation
- Accept/Decline/Complete

Support sending an Accept/Decline/Complete statuses

Create and send referral outcome and corresponding clinical information

Bonus: Provide available schedule, and allow external scheduling

Industry Today

360x support still minimal

- Infrastructure and constituent parts (Direct, XDM, C-CDA, HL7 v2) are mostly available today
- Comprehensive specification that covers the base referral requirements

FHIR workflow, even less

- Infrastructure and constituent parts (FHIR Task Resource, FHIR Subscription, FHIR messaging, possible FHIR workflow-specific services or operations) are not currently widely available
- Missing Implementation Guides to cover the base requirements

Opportunity

Define base initiator and receiver requirements and encourage pilots, 360x or otherwise.