Transport Resource Proposal

- 1 Owning work group name: Orders and Observations
- 2 Committee Approval Date:
- 3 Contributing or Reviewing Work Groups: Patient Administration
  FHIR-I
- 4 FHIR Resource Development Project Insight ID: OO FHIR DSTU Monitoring and Maintenance (1115)
Scope of coverage:

The Transport resource will capture the requested movement and movement history of persons and items in the healthcare spectrum. Borrowing heavily from the design of the Task resource, the Transport resource will follow an event pattern for the request and completion and also yield the move history of an entity. While the current use cases are focused on the lab and the movement of patients, this resource will be easily extensible to handle the movement of anything in healthcare.

Use Cases:

For lab:

- Movement of a specimen between distinct healthcare locations (clinic to lab, lab to lab, lab to biorepository) without the use of a third-party transport system (e.g. a courier)
- Movement of a specimen between distinct healthcare locations (clinic to lab, lab to lab, lab to biorepository) with the use of a third-party transport system (e.g. a courier)
- Accessing the current location (tracking) and the complete location history (audit) for a given specimen.

For patients:

- Movement of a patient within a healthcare setting (changing floors of the hospital)
- Movement of a patient between healthcare settings (moving a patient from one hospital to another)

RIM scope:

Act

Resource appropriateness:
We were given guidance by FHIR-I to build a new resource.

Expected implementations:

EMRs, LISs, lab automation systems, specimen transport systems, courier management solutions, patient transport systems (ambulances, ride share)

Content sources:

SET (IHE)

Example Scenarios:

For lab:

- A specimen is collected in a clinic and needs to be transported via courier to the laboratory for analysis. Once the specimen collection is completed, a transport request is made via the transport resource. Next, a courier is notified via the resource that a specimen is ready for transport. The courier arrives, picks up the specimen, and takes the specimen to the laboratory. During the transport, the receiving lab is notified that a specimen is on the way. Upon arrival at the laboratory, the specimen is received, and the transport request is fulfilled.
- A specimen in one laboratory in a hospital has additional orders for tests that are done in another laboratory in the same hospital. The LIS (or laboratory instrument) notifies lab staff that the specimen needs to be moved to the other lab within the facility for subsequent testing. Lab staff act on the notification and move the specimen from one lab bench to the other. Once the specimen is placed in the other lab, the transport request is fulfilled.
- A lab test on a specimen drawn at an outside facility has failed, and there is a question about the time involved in the transport of the specimen. The LIS queries the transport resource for the specimen in question, and the entire move history from transport request to transport fulfillment is made available for review which shows the entire chain of custody.

For patients:

- A patient in the ICU needs to be moved to a step-down unit. The care team makes a transport request in the EMR to move the patient, and in-house patient couriers respond to the request and move the patient from ICU to the step-down unit.
- A hospital patient is being discharged to a skilled nursing facility. The care team makes a transport request in the EMR, and a 3rd party patient transport service receives the request and arrives at the hospital to pick up the patient. During the transport, the real-time location of the patient is provided to both the care team and the patient’s family via the transport resource. Upon arrival at the skilled nursing facility, the patient is officially received and the transport request is fulfilled.

Resource Relationships:

"owner" and "requestor" to Practitioner, PractitionerRole, Organization, CareTeam, HealthcareService, Patient, Device, RelatedPerson

"focus" and "for" relationships on Any
The transport resource will also relate to PlanDefinition and ActivityDefinition to allow for the sequencing of multiple movements to fulfill various clinical scenarios.

Resource Boundaries:
1. Would follow the event pattern. Can be requested by a ServiceRequest or by a Task.
2. This resource is only for the documentation of the physical movement of material items (people, animals, things). To operationalize the movement of people and things, Task should be used.
3. Provenance can be used to document the steps but that is for the resource aspect, not the actual movement history of the item.

Timelines:

gForge Users:

When Resource Proposal Is Complete:

When you have completed your proposal, please send an email to FMGcontact@HL7.org

FMG Notes