Draft of ImagingReference for R5

Note: While this is a new resource it could be implemented by modified the now-retied ImagingManifest resource

Latest version of ImagingManifest in STU3 prior to removal in R4 can be found at https://github.com/HL7/fhir/tree/master/source/imagingmanifest

See also https://gforge.hl7.org/gf/project/fhir/tracker/?action=TrackerItemEdit&tracker_item_id=17183

ImagingReference

- rename
- remove short name
- Definition: a selection of DICOM SOP instances and/or frames within a single Study and Series.
- identifier
    - confirm cardinality (probably 0..*)
    - this should not be a UID or tied to SOP Instance UID since this is specifically not a KOS. Need to figure out what a more appropriate identifier would be.
    - Do we need a separate identifier, or just an id?
- clear short name
- definition:
- patient
    - change to subject, and align with ImagingStudy.
- authoringTime
    - change to issued (as per Observation)
- author
    - change to performer (as per DiagnosticReport and Observation)
    - add PractitionerRole.
- title
    - change valueset name from KOStitle. Figure out what the actual value set should be (don't use a DICOM CID).
    - Still needed?
- study
    - Remove, and promote all subitems to top level.
- uid
    - Rename to studyUid and change type to id (or is it Identifier?)
- imagingStudy
    - rename to studyReference (?) or basedOn (?) derivedFrom?
- endpoint (study-level)
    - all ok
- series
    - Remove and promote all subitems to top level.
- uid
    - rename to seriesUid. confirm type as id?
- endpoint (series)
    - remove
- instance
    - ok.
- sopClass
    - change to 0..1
- uid
    - confirm type as id?
- frameNumber
    - ok.
- add observation
    - see below
- add imageRegion
    - see below
- Review summary elements.
- Review against event pattern
- Review against w5

Structure

Name	Flags	Card.	Type	Description & Constraints
ImagingReference			DomainResource	Key Object Selection Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
identifier		0..1	Identifier	SOP Instance UID
subject		1..1	Reference(Patient)	Patient of the selected objects
issued		0..1	dateTime	Time when the selection of instances was made

⤴ performer		0..1	Reference(Practitioner | Practitioner Role | Device | Organization | Patient | RelatedPerson)	Author (human or machine)
description		0..1	string / CodeableConcept	Description text
studyUid		1..1	oid	Study instance UID
⤴ derivedFrom		0..1	Reference(ImagingStudy)	Reference to ImagingStudy
⤴ endpoint		0..*	Reference(Endpoint)	Study access service endpoint
seriesUid		1..1	oid	Series instance UID
instance		0..*	BackboneElement	The selected instances. If no instances are included the entire series is selected.
sopClass		0..1	oid	SOP class UID of instances
uid		1..1	oid	Selected instance UIDs
frameNumber		0..*	integer	Selected frames
observationUid		0..*	oid	Selected observations in a DICOM SR
imageRegion		0..1	BackboneElement	Specifies region in a DICOM image / frame
regionType		1..1	Coding	Specifies the type of region Need to make http://dicom.nema.org/medical/dicom/current/output/chtml/part03/sect_C.10.5.html#sect_C.10.5.1.2 into a code table
coordinateList[x]		1..1		Specifies a sequence of coordinates.
2dCoordinateList		0..*	decimal	Specifies a sequence of (x,y) coordinates
3dCoordinateList		0..*	decimal	Specifies a sequence of (x,y,z) coordinates