In diesem Dokument sollen Umfang und TODOs in den einzelnen Argonaut-Profilen analysiert werden als Vorbereitung für die Erstellung äquivalenter deutscher Profile.

Quelle: http://build.fhir.org/ig/Healthedata1/Argo-DSTU2/profiles.html

Abgleich soll erfolgen mit

a) den FHIR-Basis-Profilen von HL7-Deutschland https://simplifier.net/basisprofilde?fhirVersion=STU3
b) dem International Patient Summary (IPS): http://hl7.org/fhir/uv/ips/profiles.html#list-of-profiles
c) dem Kerndatensatz der MI-Initiative: http://art-decor.org/art-decor/decor-project--mide-
d) dem MedikationsplanPlus https://simplifier.net/medikationsplanplus/~resources?category=Profile&fhirVersion=STU3
e) Gematik-Notfalldatensatz (link?)
f) KBV-Verordnungssystem-Schnittstelle

Hinweis: alle <ResourceType>.status-Elemente sind an fest verankerte FHIR-ValueSets gebunden und bereits in der FHIR-Kernspezifikation als Pflichtfelder gekennzeichnet. Diese müssen unverändert in deutsche Profile übernommen werden und bedürfen daher keiner gesonderten Betrachtung.

Argonaut AllergyIntolerance Profile

Summary of the Mandatory Requirements

1. One patient reference in `AllergyIntolerance.patient`
2. One Identification of a substance, or a class of substances, that is considered to be responsible for the adverse reaction risk in `AllergyIntolerance.code` which has an extensible binding to:
    - Argonaut Substance-Reactant for Intolerance and Negation Codesvalue set
3. One status in `AllergyIntolerance.status` which has a required binding to: - AllergyIntoleranceStatus value set

Argonaut CarePlan Profile

Complete Summary of the Mandatory Requirements

1. A narrative summary in `CarePlan.text`
    - CarePlan.text.status is either "generated" or "additional"
2. One reference to a patient in `CarePlan.subject`
3. One status in `CarePlan.status`
    - CarePlan.status is bound to CarePlanStatus Value set
4. A category in `Careplan.category` which must have:
    - a fixed `Careplan.category.coding.system` = http://argonaut.hl7.org
    - a fixed 'Careplan.category.coding.code' = "assess-plan"

Argonaut CareTeam Profile

Complete Summary of the Mandatory Requirements

1. One reference to a patient in `CareTeam.subject`
2. A status code in `CareTeam.status` which has a required binding to theCarePlanStatus value set.
3. A category in `Careplan.category` which must have:
    - a fixed `Careplan.category.coding.system` = "http://argonaut.hl7.org/"
    - a fixed `Careplan.category.coding.code` = "careteam"
4. One participant role for each careteam member in`CareTeam.participant.role` which has an extensible + max valueset binding to the to the CareTeam Provider Role Value Set value set.
5. Careteam members in `CareTeam.participant.member`

Argonaut Condition Profile

Complete Summary of the Mandatory Requirements

1. One patient reference in `Condition.patient`
2. One Identification of the problem or health concern in `Condition.code`which has an extensible binding to Condition Clinical Status Codes.
3. One category code in `Condition.category` which has a preferred binding to Argonaut Condition Category Codes.
4. Conditionally One clinical status in `Condition.clinicalStatus`
    - Invariants
        - required if `Condition.verificationStatus != 'entered-in-error'`
        - not present if `Condition.verificationStatus = 'entered-in-error'`
    - Condition.clinicalStatus is bound to Condition Clinical Status Codesvalue set
5. One code in `Condition.verificationStatus`
    - Condition.clnicalStatus is bound to ConditionVerificationStatus value set
    - Problem Value Set value set.

Argonaut Device Profile

Complete Summary of the Mandatory Requirements

1. A code in `Device.type` which has an extensible binding to:
    - Device Types (SNOMED-CT) value set.
2. One udicarrier string in `Device.udicarrier`
    - The Human Readable Form (HRF) representation of the barcode string as printed on the packaging of the device *SHALL* be used. The AIDC representation cannot be conveyed in FHIR, Because of limitations on character sets in XML and the need to round-trip JSON data through XML.
3. One patient reference in `Device.patient`

Argonaut DiagnosticReport Profile

Complete Summary of the Mandatory Requirements

1. One status in `DiagnosticReport.status` which has an required binding to:
    - DiagnosticReportStatus value set.
2. One category in `DiagnosticReport.category` which must have:
    - a fixed `DiagnosticReport.category.coding.system`= "http://hl7.org/fhir/DiagnosticReport-category"
    - a fixed `DiagnosticReport.category.coding.code`= "LAB"
3. One code in `DiagnosticReport.code` which has an extensible binding to:
    - LOINC Diagnostic Report Codes
    - Other additional codes are allowed - e.g. system specific codes. All codes *SHALL* have a system value
4. One patient in `DiagnosticReport.subject`
5. A date and time in `DiagnosticReport.effectiveDateTime` or `DiagnosticReport.effectivePeriod`
6. A date and time in `DiagnosticReport.issued`
7. A practitioner or organization in `DiagnosticReport.performer`

Each DiagnosticReport Must Support:

1. One or more `DiagnosticReport.result` and/or `DiagnosticReport.image`and/or `DiagnosticReport.presentedForm`

Argonaut DocumentReference Profile

Summary of the Mandatory Requirements

1. One reference to a patient in `DocumentReference.subject`
2. One document type code in `DocumentReference.type` which is bound to Document Type Value Set
3. One dateTime value in `DocumentReference.indexed`
4. One status in `DocumentReference.status`
    - DocumentReference.status is bound to DocumentReferenceStatusValue set (Code set)
5. One url of the document in `DocumentReference.content.attachment`
    - a mime type in `DocumentReference.content.attachment.contentType`which is bound to MimeType value set (code set)
    - a url of the document in `DocumentReference.content.attachment.url`
6. One format code in `DocumentReference.content.format` with an extensible binding to DocumentReference Format Code Set

SHOULD have:

1. One identifier in `DocumentReference.identifier`
2. One dateTime value in `DocumentReference.created`
3. One time period value in `DocumentReference.context.period`

Argonaut Goal Profile

Complete Summary of the Mandatory Requirements

1. A patient reference in `Goal.subject`
2. A text description in `Goal.description`
3. A status in `Goal.status` which has an required binding to:
    - GoalStatus value set.

Argonaut Immunization Profile

Complete Summary of the Mandatory Requirements

1. One status in `Immunization.status` which has an required binding to:
    - Immunization Status value set.
2. One dateTime in `Immunization.date`
3. One vaccine code in `Immunization.vaccineCode` which:

    - has an extensible + max valueset binding to the CVX value set
    - SHOULD have a translation to the NDC value set
4. One patient in `Immunization.patient`
5. One boolean value in `Immunization.wasNotGiven`
6. One boolean value in `Immunization.reported`

Argonaut Medication Profile

Complete Summary of the Mandatory Requirements

1. Either:
    - One drug code in `Medication.code` which has an extensible binding to:
        - Medication Clinical Drug (RxNorm) value set

Argonaut MedicationOrder Profile

Complete Summary of the Mandatory Requirements

1. One date in `MedicationOrder.dateWritten`
2. One status in `MedicationOrder.status` which has an required binding to:
    - MedicationOrderStatus value set
3. One patient reference in `MedicationOrder.patient`
4. One practitioner in `MedicationOrder.prescriber`
5. One medication via `MedicationOrder.medicationCodeableConcept` or `MedicationOrder.medicationReference`
    - `MedicationOrder.medicationCodeableConcept` has an extensiblebinding to Medication Clinical Drug (RxNorm)

Argonaut MedicationStatement Profile

Complete Summary of the Mandatory Requirements

1. One patient reference in `MedicationStatement.patient`
2. One date `MedicationStatement.dateAsserted`
3. One status in `MedicationStatement.status` which has an requiredbinding to:
    - MedicationStatementStatus value set.
4. One medication via `MedicationStatement.medicationCodeableConcept` or `MedicationStatement.medicationReference`

- `MedicationStatement.medicationCodeableConcept` has an extensiblebinding to Medication Clinical Drug (RxNorm) value set.

Summary of the Must Support Requirements

1. One date or period in `MedicationStatement.effectiveDateTime` or `MedicationStatment.effectivePeriod`

Argonaut Observation Results Profile

Complete Summary of the Mandatory Requirements

1. One status in `Observation.status` which has an required binding to ObservationStatus
2. A category in `Observation.category` which must have:
    - a fixed `Observation.category.coding.system`="http://hl7.org/fhir/observation-category"
    - a fixed `Observation.category.coding.code`="laboratory"
3. One code in `Observation.code` which has an extensible binding to LOINC Observation Codes
    - Other additional codes are allowed - e.g. system specific codes. All codes SHALL have a code system value
4. One patient in `Observation.subject`
5. Either one `Observation.value[x]` or one code in `Observation.DataAbsentReason` (unless the Observation.code is a panel code)
    - Observation.valueQuantity has an preferred binding to UCUM units
    - Observation.valueCodeableConcept has an preferred binding to Observation Value Codes (SNOMED-CT)
    - Observation.DataAbsentReason has an extensible binding to Observation Value Absent Reason

Each Observation *SHOULD* have:

1. A date and time in `effectiveDateTime` or `effectivePeriod`
2. A reference range if applicable in `Observation.referenceRange`

Argonaut Patient Profile

Complete Summary of the Mandatory Requirements

1. One or more medical record numbers in `Patient.identifier`
    - each Patient.identifier must have:

        - an `identifier.system`
        - an `identifier.value` that is unique within the system.
2. One or more names in `Patient.name`
    - each Patient.name must have:
        - a `name.family`
        - a `name.given`
3. One administrative gender in `Patient.gender`
    - Patient.gender is bound to AdministrativeGender Value set (Code Set)

Summary of the Must Support Requirements

Additionally the following data-elements must be supported. See the Argonaut definition of Must Support.

1. A date of birth in `Patient.birthDate`
2. One or more languages spoken in `Patient.communication.language`which has an extensible binding to:
    - Common Languages Note: The extensibility is limited to All Languages
3. One or more race codes in `Patient.extension`= US Core Race Extensionwhich:
    - Must include at least one code from OMB Race Categories
    - May include additional race codes from CDC Race Codes
4. One or more ethnicity codes in `Patient.extension`=US Core ethnicity Extension which:
    - Must include one code from OMB Ethnicity Categories
    - May include additional race codes from CDC Ethnicity Codes
5. One Birth Sex in `Patient.extension`= US Core Patient Birth Sex which has an required binding to:
    - US Core Birth Sex

Argonaut Procedure Profile

Complete Summary of the Mandatory Requirements

1. One patient reference in `Procedure.patient`
2. A status code in Procedure.status which has a required binding to:
    - ProcedureStatus value set.
3. One Identification of the procedure in `Procedure.code` which has:
    - which has an extensible + max valueset binding to the Argonaut Procdure Type valueset (SNOMED CT or CPT-4/HCPC for procedures).
    - MAY have a translation to ICD-10-PCS or Code on Dental Procedures and Nomenclature (CDT Codes).
4. A date or a time period in `Procedure.performedDateTime` or `Procedure.performedPeriod`

Argonaut Smoking Status Observation Profile

Complete Summary of the Mandatory Requirements

1. One status in `Observation.status`which has an required binding to:
    - ObservationStatus value set.
2. One code in `Observation.code`
    - a fixed `Observation.code.coding.system`= http://loinc.org
    - a fixed `Observation.code.coding.code`=72166-2
3. One reference to a Patient in `Observation.subject`
4. One DateTime (instant) in `Observation.issued`
5. One `Observation.valueCodeableConcept`which has an extensible + max valueset binding to the Smoking Status value set.

Argonaut Vital Signs Observation Profile

Complete Summary of the Mandatory Requirements

1. One status in `Observation.status`which has an extensible binding to:
    - ObservationStatus value set.
2. One category in `Observation.category` which must have:
    - a fixed `Observation.category.coding.system`="http://hl7.org/fhir/observation-category"
    - a fixed `Observation.category.coding.code`="vital-signs"
3. A code in `Observation.code`
    - a fixed `Observation.code.coding.system`="http://loinc.org"
    - a LOINC code in `Observation.code.coding.code` which has an extensible binding to:
        - Vital Signs value set.
4. One patient in `Observation.subject`
5. A date and time in `effectiveDateTime` or `effectivePeriod`
6. Either one `Observation.valueQuantity` or, if there is no value, one code in `Observation.DataAbsentReason`
    - Each Observation.valueQuantity must have:
        - One numeric value in `Observation.valueQuantity.value`
        - a fixed `Observation.valueQuantity.system`="http://unitsofmeasure"
        - a UCUM unit code in `Observation.valueQuantity.code` which has an extensible binding to:
            - Vital Signs Units value set.
    - Observation.DataAbsentReason is bound to Observation Value Absent Reason value set.

7. When using component observations (Note: See the comments regarding blood pressure in the table above)
    - one or more `Observation.component.code` each of which must have:
        - a fixed`Observation.component.code.coding.system`="http://loinc.org" - a LOINC code in `Observation.code.coding.code` which has an extensible binding to:
            - Vital Signs value set.
    - Either one `Observation.component.valueQuantity` or, if there is no value, one code in `Observation.component.DataAbsentReason`
        - Each Observation.component.valueQuantity must have:
            - One numeric value in`Observation.component.valueQuantity.value`
            - a fixed `Observation.component.valueQuantity.system`="http://unitsofmeasure.org"
            - a UCUM unit code in`Observation.component.valueQuantity.code` which has an extensible binding to:
                - Vital Signs Units value set.
        - Observation.component.DataAbsentReason is bound to Observation Value Absent Reason value set.
8. When using related observations, one or more reference to Observations in `Observation.related.target`
    - a fixed `Observation.related.type`="has-member"