

## General Data:

Field	Value
subject-id	cc-pat-pnoelle
patient-name	Patricia Noelle
ckd-careplan-id	cc-careplan-pnoelle-ckd

## Resources:

All resources can be found at <https://github.com/MccCareplan/connectathon>.

All resources are based off Betsy Johnson.

## Scenario 1: Retrieve Patient's Chronic Kidney Disease Care Plan from an EHR

Profile	Data Element	Sample Data	Code
Chronic Kidney Disease Care Plan	CarePlan.addresses:SliceChronic KidneyDisease	Patient has chronic kidney disease (CKD) and has a CKD Care Plan in the reference EHR	SNOMED CT: 709044004 Chronic kidney disease (disorder)  VSAC Value Set: 2.16.840.1.113762.1.4.1222.159

**Action:** A Client calls the EHR server to request a CKD focused MCC care plan from the Server

**Precondition:** Patient and Care Plan exist on server.

**Success Criteria:** The Client receives the care plan as expected based on the in parameters provided to the server and successfully displays the data

**Bonus Point:** Query using MCC Chronic Condition Value Set (2.16.840.1.113762.1.4.1222.159)

Basic Query Flow:

1. Find the Condition for the patient matching the CKD
2. Find CarePlans that address this Condition

Basic Query - By Steps:

1. `{{Server}}/Condition?subject={{subject-id}}&code=709044004`
2. Extract **condition-id** (i.e. Condition id, e.g cc-cond-pnoelle-ckd)
3. `{{Server}}/CarePlan?condition={{condition-id}}`
4. Extract the Care plan id as **careplan-id**

Example:

1. GET `/MCCeCarePlanDraft/open/Condition?subject=cc-pat-pnoelle&code=709044004`
2. GET `/MCCeCarePlanDraft/open/CarePlan?condition=cc-cond-pnoelle-ckd`

Basic Query - Chained:

1. GET `{{Server}}/CarePlan?subject={{subject-id}}&condition:Condition.code=709044004`

Example

1. GET `{/MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&condition:Condition.code=709044004`

#### Bonus Query:

1. `{{Server}}/Condition?subject=cc-pat-pnoelle&code:in=2.16.840.1.113762.1.4.1222.159`
2. Extract **condition-id** (i.e. Condition id, e.g cc-cond-pnoelle-ckd)
3. `{{Server}}/CarePlan?condition={{condition-id}}`
4. Extract the Care plan id as **careplan-id**

#### Example:

1. GET `/MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code:in=2.16.840.1.113762.1.4.1222.159`
2. GET `/MCCeCarePlanDraft/open/CarePlan?condition=cc-cond-pnoelle-ckd`

**Scenario 2: Update Client MCC CKD Care Plan CKD Condition (Health Concern) Supporting information from CKD stage 3 to CKD Stage 4**

Profile	Data Element	Sample Data	Code or URL
Chronic Kidney Disease Care Plan	CarePlan.supportingInfo.Condition.ChronicKidneyDiseaseCondition	Patient has chronic kidney disease (CKD) condition profile instance in client Care Plan	<a href="http://hl7.org/fhir/us/mcc/StructureDefinition/ChronicKidneyDisease">http://hl7.org/fhir/us/mcc/StructureDefinition/ChronicKidneyDisease</a>
Existing: ChronicKidneyDiseaseCondition	Condition.code	Chronic kidney disease stage 3 (disorder)	433144002
Update: ChronicKidneyDiseaseCondition	Condition.code	Chronic kidney disease stage 4 (disorder)	431857002

**Action:** A Client calls the EHR server to request for (CKD Condition) updates within CKD focused MCC care plan and/or from the EHR Server Problem List

**Precondition:** Patient and Care Plan exist on server. Problem list (or encounter occurred(?)) where a CKD Stage 4 Condition/Problem was added to the Problem list or added as Health Concern to Care Plan in an EHR Care Plan.

- **Note:** ChronicKidneyDiseaseCondition (stage 3) has Condition.abatement.DateTime that equals the ChronicKidneyDiseaseCondition (stage 4) Condition.onset.dateTime - Based on Latest Onset

**Success Criteria:** The Client receives the added stage 4 CKD problem as expected based on the in parameters provided to the server and successfully displays the updated data

- `GET {{Server}}/CarePlan?subject={{subject-id}}&condition:Condition.code=433144002)`

Notes:

SupportingInfo is not a CarePlan Search Parameter

Process flow:

1. Retrieve CarePlan addressing stage 3(`GET {{Server}}/CarePlan?subject={{subject-id}}&condition:Condition.code=433144002)`)
2. (PUT/POST) Add Stage 4 Condition
3. (PUT) Update Addresses Stage 4, and add Stage 3 to Supporting Info

**Bonus Point:** NA (Note, for the NEXT connectathon we could test querying for stage in condition.stage vs as precoordinated code

### Scenario 3: Retrieve patient CKD relevant labs from EHR

Profile	Data Element	Sample Data	Code or URL
EstimatedGlomerularFiltrationRate	CarePlan.supportingInfo.USCoreLaboratoryObservationProfile	Glomerular filtration rate/1.73 sq M.predicted among females [Volume Rate/Area] in Serum, Plasma or Blood by Creatinine-based formula (MDRD)	<a href="http://hl7.org/fhir/us/mcc/StructureDefinition/EstimatedGlomerularFiltrationRate">http://hl7.org/fhir/us/mcc/StructureDefinition/EstimatedGlomerularFiltrationRate</a>  50044-7
SerumCreatinine	CarePlan.supportingInfo.USCoreLaboratoryObservationProfile	Creatinine [Mass/volume] in Serum or Plasma	<a href="http://hl7.org/fhir/us/mcc/StructureDefinition/SerumCreatinine">http://hl7.org/fhir/us/mcc/StructureDefinition/SerumCreatinine</a>  2160-0

**Action:** A Client calls the EHR server to request for chronic pain conditions for EHR Problem list (or encounter documentation (??)).

**Precondition:** A completed LHC Form for <https://loinc.org/75259-2/> exists in the EHR server

**Success Criteria:** The Client receives the completed FHIR R4 Compliant QuestionnaireResponse from EHR server

**Bonus Point:** Contain Pain perception QuestionnaireResponse on CarePlan.supportingInfo.Condition.ChronicPainCondition in Condition.evidence.detail (QuestionnaireResponseResource)

· GET /MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code=709044004/supportingInfo/QuestionnaireResponse.PainPerception

Options: Simple Observation GET statement, Observations explicitly Reference as Supporting Data in Careplan. Maybe Observations based on the Careplan

1) Simple Fetch of Labs and CarePlan

2) Add to Supporting Information

## **Scenario 4: Retrieve MedicationStatement or MedicationRequest Bonus**

Profile	Data Element	Sample Data	Code or URL
TBD	TBD	TBD	TBD

**Action:** TBD

**Precondition:** TBD

**Success Criteria:** TBD

**Bonus Point:** NA

· `GET /MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code=709044004/USCoreGoal/WeightTarget`

## Scenario 5: Retrieve QuestionnaireResponse for pain perception from EHR

Profile	Data Element	Sample Data	Code or URL
ChronicPainConditions	CarePlan.supportingInfo.QuestionnaireResponse.PainPerception	Patient has completed a pain perception Questionnaire in the EHR and QuestionnaireResponse is available	LOINC 38212-7 Pain assessment panel <a href="https://loinc.org/75259-2/">https://loinc.org/75259-2/</a>



**Action:** A Client calls the EHR server to request for chronic pain conditions for EHR Problem list (or encounter documentation (??)).

**Precondition:** A completed IHC Form for <https://loinc.org/75259-2/> exists in the HER server

**Success Criteria:** The Client receives the completed FHIR R4 Compliant QuestionnaireResponse from EHR server

**Bonus Point:** Contain Pain perception QuestionnaireResponse on CarePlan.supportingInfo.Condition.ChronicPainCondition in Condition.evidence.detail (QuestionnaireResponseResource)

· GET /MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code=709044004/supportingInfo/QuestionnaireResponse.PainPerception

Options: use QuestionnaireResponse resource or Observation Derived from a QuestionnaireResponse

Main

- 1) Fetch from Right Questionnaire Response
- 2) Add Condition based Questionnaire

Bonus

1. Scan Questionnaire for Correct Item
2. Fetch Response
3. Get Right Item
4. Create Condition for Chronic Pain

**Scenario 6: Retrieve Patient's Chronic Pain Condition from EHR and add to Client MCC Care Plan**

Profile	Data Element	Sample Data	Code
ChronicPainCon ditions	CarePlan.supportingInfo.Condition.Chron icPainCondition	Patient has chronic pain on EHR Problem list or in EHR Care Plan	SNOMED CT:  102481003 Generalized chronic body pains (finding)

**Action:** A Client calls the EHR server to request for chronic pain conditions for EHR Problem list (or encounter documentation (??)).

**Precondition:** A chronic pain condition has been added to the problem list in the EHR

**Success Criteria:** The Client receives the chronic pain condition (profile instance) as expected based on the in parameters provided to the server and successfully displays the data

**Bonus Point:** Contain Pain perception QuestionnaireResponse on CarePlan.supportingInfo.Condition.ChronicPainConditon in Condition.evidence.detail (QuestionnaireResponseResource)

· GET  
/MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code=709044004/supportingInfo/ChronicKidneyDis  
easeCondition=102481003

Options: Straight forward Condition Query to confirm scenario 5

## Scenario 7: Retrieve Patient's Weight observation from EHR and add to Client MCC Care Plan

Profile	Data Element	Sample Data	Code or URL
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BodyWeight (CIMI)	Observation	Patient has body weight observation in EHR	<a href="http://hl7.org/fhir/us/vitals/StructureDefinition/BodyWeight.observation.code=29463-7">http://hl7.org/fhir/us/vitals/StructureDefinition/BodyWeight.observation.code=29463-7</a>
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**Action:** A Client calls the EHR server to request for a body weight observation.

**Precondition:** A body weight observation has been added in the EHR

**Success Criteria:** The Client receives the body weight observation (profile instance) as expected based on the in parameters provided to the server and successfully displays the data

GET {{Server}}/Observation/?subject={{subject-id}}&code=29463-7

**Bonus Point:** NA

· GET /MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code=709044004/supportingInfo/StructureDefinition-BodyWeight

Options: Straight forward observation query

## Scenario 8: Retrieve Patient's Weight Goal from EHR and add to Client MCC Care Plan

Profile	Data Element	Sample Data	Code or URL

Body Weight Target (Goal)	BodyWeightTarget <a href="http://hl7.org/fhir/us/mcc/StructureDefinition/BodyWeightTarget">http://hl7.org/fhir/us/mcc/StructureDefinition/BodyWeightTarget</a>	29463-7	Body weight  Lose 10 pounds in 3 months
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**Action:** A Client calls the EHR server to request for a patient weight goal

**Precondition:** A patient weight goal has been added to the EHR Care Plan

**Success Criteria:** The Client receives the weight goal (profile instance) as expected based on the in parameters provided to the server and successfully displays the data

GET {{Server}}/Goal/S?subject={{subject-id}}&code=29463-7

**Bonus Point:** NA

· GET /MCCeCarePlanDraft/open/CarePlan?subject=cc-pat-pnoelle&code=709044004/USCoreGoal/WeightTarget

Options: Scan CarePlan for goal matching matching code - Should be a simple query

## Scenario 9: Retrieve Patient's Dietician Referral (BSeR) **Bonus**

Profile	Data Element	Sample Data	Code or URL
TBD	TBD	TBD	TBD

**Action:** TBD

**Precondition:** TBD

**Success Criteria:** TBD

**Bonus Point:** NA

· GET TBD

Extras:

Adding new Weight Observation.