

IHE Work Item Proposal (Short)

# Proposed Work Item: <Reconciliation on FHIR>

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**Domain:** Patient Care Coordination (PCC) Technical

# The Problem

IHE provided Reconciliation of clinical content and Care Provider Profile which enables the ability to communicate that reconciliation has occurred, when it happened and who did the reconciling as a component of clinical workflow. We need the ability to assist in reconciling and consolidating data that will assist with the heavy lifting and make it easier for human intervention using FHIR Resource. The intent is not to replace human action, but is meant to augment and assist in the act of reconciling and consolidating clinical information.

When patient care plan information is exchanged and shared, there needs to be a way to reconcile and consolidate data so that information is easy to understand and patient care is optimized. IHE provided the ability to electronically reconcile and consolidate clinical and care provider data as well as communicate this information using CDA constructs. This profile will provide the same workflow needs using FHIR resources

# Key Use Case

Integration Problem Use Case:

Clinician receives Care Plan information in home health EHR from two different providers about the same patient. Patient is post hip replacement surgery. Activity intervention from provider A (Primary Care Provider) is bed rest, turn Q2 hrs with assistance due to right hip fracture. Provider goal is to prevent skin breakdown. Activity intervention from provider B (Orthopedic Surgeon) is for patient to ambulate TID utilizing a walker status post total right hip replacement surgery. Provider goal is to increase patient ambulation at least ten feet with a walker. Manual reconciliation and consolidation is needed to determine which activity intervention, goal and care provider is the most appropriate for the patient at this time.

How it should work Use Case:

Home Health clinician receives Care Plan information in home health EHR from two different providers about the same patient. Patient is post hip replacement surgery. Activity intervention from provider A (Primary Care Provider) is bed rest, turn Q2 hrs with assistance with goal to prevent skin breakdown. Activity intervention from provider B (Orthopedic Surgeon) is for patient to ambulate TID utilizing a walker with goal of ambulating at least ten feet utilizing a walker.

Upon receipt of the two different ambulation intervention, goal and provider information, the home health EHR determines which intervention and goal is the most recent. The home health EHR also compares indication for both interventions and goals and determines which is the most recent. All information is presented to the user. User is better able to determine the intervention, goal and care provider that are most appropriate for the patient at this time or if follow-up with the provider(s) is required.

# Standards & Systems

**Existing Systems:**

* Primary Care Physician’s EHR
* Specialist Physician (Orthopedic Surgeon) EHR
* Home Health EHR
* Hospital EHR
* Care Management EHR
* HIE Systems
* PHRs

**Applicable Standards:**

* + HL7 Patient Care and Service Oriented Architecture Work Groups Care Plan Reconciliation Project
  + Content
    - FHIR
    - HL7 Patient Care DAM
    - IHE RECON Profile
    - CDA Medical Summary Document
    - CCDA
    - HL7 Version 2, 3
    - HL7 CDA Release 2
  + Vocabularies
    - LOINC
    - SNOMED
    - HL7

# Discussion

Reconciliation of clinical information is a task that occurs during every new admission, consultation and discharge or transfer/transition of care. Patients with complex medical history can have dozens of care plan related issues, making it extremely difficult for healthcare providers to keep track of and audit the relevant information.

In the Magic Number Seven, Plus or Minus Two[[1]](#footnote-1), George Miller argues that the average human memory can hold seven plus or minus two units of information. Subsequent studies reduce this figure when the units of information are words. Numerous research studies indicate that the average number of medications taken by high risk populations (elders, patients with chronic conditions, et cetera) approaches or exceeds seven. For complex cases, the task would then exceed the average capacity of human working memory.

IHE in collaboration with HL7 provides the support necessary to automate this complex, repetitive and high risk task that every healthcare provider performs.

1. Available on the web at <http://psychclassics.yorku.ca/Miller/> [↑](#footnote-ref-1)