# FHIR Pharmacy STU3 Updates

Parallel Effort to Standardize
Medication List Lessons

# Agenda

- Introduction
- FHIR Medication Resources
  - Changes in STU3
  - Pharmacy Resource Profiles in STU2 vs STU3
  - Mapping to Key Medication List Elements
- Review Implementation Guide
- Feedback

# HL7 FHIR® Pharmacy Resources

http://hl7.org/fhir/STU3/medications-module.html

# Pharmacy STU3 Resources

▶ MedicationRequest (aka Prescription or Order)

  ▶ Represents an instruction for the administration of medication to a patient - both in the inpatient (hospital) and community setting.

▶ MedicationDispense

  ▶ Represents the provision of a supply of a medication with the intention that it is subsequently consumed by a patient (usually in response to a prescription).

▶ MedicationAdministration

  ▶ A record of a patient actually consuming a medicine, or if it has otherwise been administered to them

▶ MedicationStatement

  ▶ A medication statement is not a part of the prescribe->dispense->administer sequence, but is a report that such a sequence (or at least a part of it) did take place, resulting in a belief that the patient has received a particular medication. It may be used to construct a patients 'Current Medications' list.

▶ Medication

  ▶ The medication resource represents an actual medication that can be given to a patient, and referenced by the other medication resources.

# Changes in STU3

- Changes to Timing  Datatype to support specific dosages
- FHIR STU3 update across all resources to align "event" and "request" patterns
- Clarifications
- Additional guidance and examples added to clarify
- Dosage is  harmonized across resources

# Changes in STU3 – Bottom Line

Name changes

New attributes

# Resource Specific Changes in STU3

| Resource | Changes |
|---|---|
| MedicationRequest | • Changed name from MedicationOrder to MedicationRequest<br>• Supports Dosage<br>• EventHistory now references Provenance<br>• Supports including clinical alerts through detectedIssue<br>• Additional search parameters |
| Medication Dispense | • Supports Dosage<br>• EventHistory now references Provenance<br>• Supports including clinical alerts through detectedIssue<br>• Additional search parameters |

# Resource Specific Changes in STU3

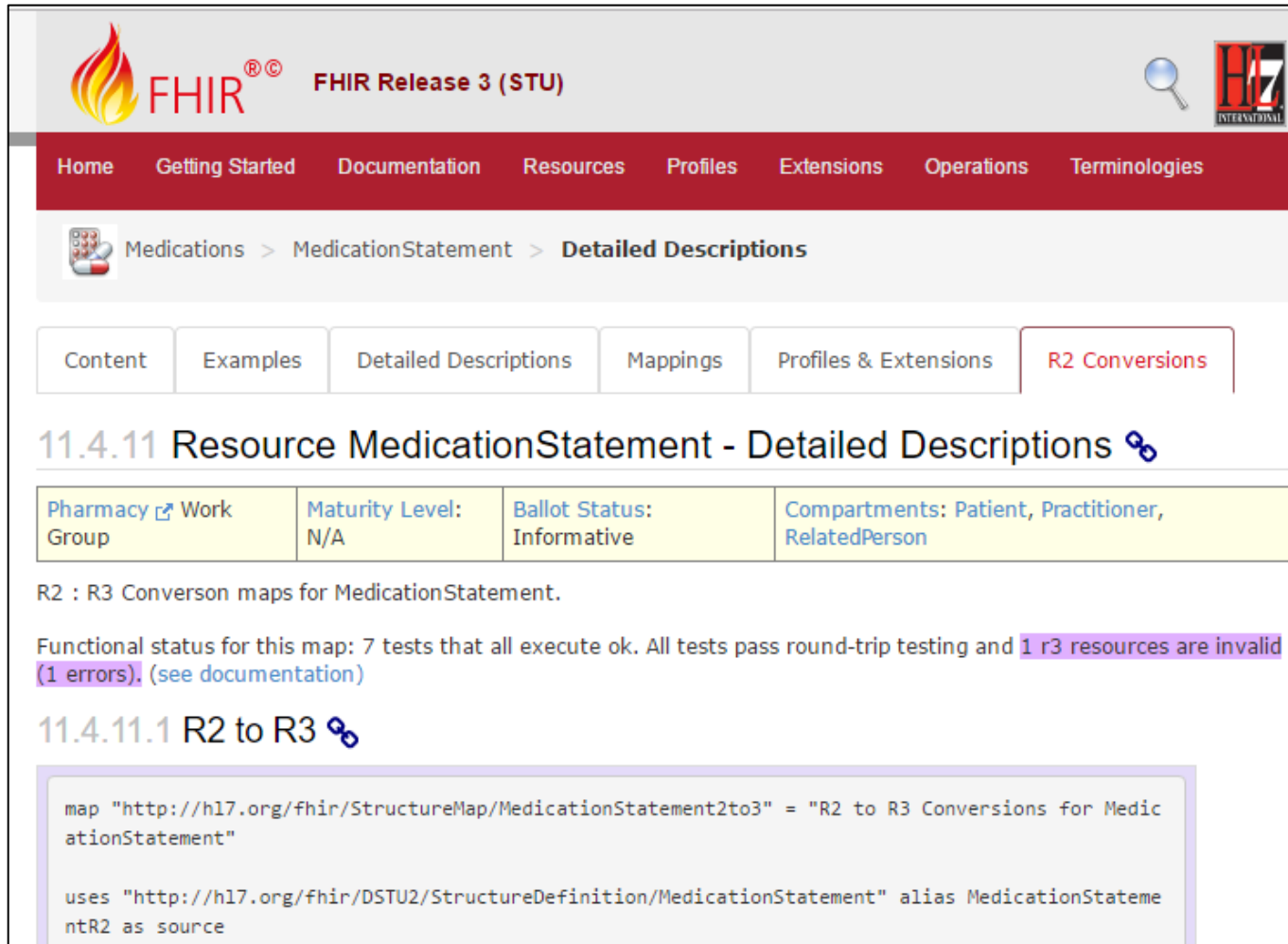| Resource | Changes |
|---|---|
| Medication Administration | <ul><li>EventHistory now references Provenance</li><li>Additional search parameters</li></ul> |
| MedicationStatement | <ul><li>Supports Dosage</li><li>New attributes – derivedFrom, taken, InformationSource, taken</li><li>Updated guidance on the the use of "taken" and "informationSource" in queries</li><li>Additional search parameters</li></ul> |

# Resource Specific Changes in STU3

| Resource | Changes |
|---|---|
| Medication | • Product element removed<br>• Form is now a child of Medication<br>• Additional attribute on Ingredient – isActive<br>• Batch now a child of package<br><br>*additional changes are expected to Medication to support formulary requirements and use in terminologies |

# Pharmacy Profiles

| STU2 | STU3 |
|---|---|
| Argonaut MedicationStatement Profile | US Core MedicationStatement Profile |
| Argonaut MedicationOrder Profile | US Core MedicationRequest Profile |
| Argonaut Medication Profile | US Core Medication Profile |
| MedicationDispense (none) | US Meds MedicationDispense Profile |
| MedicationAdministration (none) | US Meds MedicationAdministration Profile |

# R2-R3 Migration

Ongoing discussion: http://wiki.hl7.org/index.php?title=FHIR_R2/R3_Transformation_page

# Pharmacy Resource Mapping File

| Data element | How high a priority is the data for med list project? High or Low [ONC guesstimate | FHIR attribute - STU3 |
|---|---|---|
| Medication Concept | Hi | MedicationStatement.medicationCodeableConcept.coding.code |
| Medication Name(see format section below), e.g., "Zocor (simvastatin)" | Hi | MedicationStatement.medication.CodeableConcept.coding.display |
| Medication Name including Dose Form, e.g. "Zocor (simvastatin) oral tablet" | Hi (if applicable) | MedicationStatement.medication.CodeableConcept.coding.display |
| Medication Name including Route, e.g. "Zocor (simvastatin) oral" | Hi (if applicable) | MedicationStatement.medication.CodeableConcept.coding.display |
| Medication Name including Strength, Route, Dose Form (prescription ordering/dispensing level description), e.g. "Zocor (simvastatin) 10mg oral tablet" | Hi (if applicable) | MedicationStatement.medication.CodeableConcept.coding.display |
| Instructions (sig) (includes in-office dose) | Hi (if applicable) | MedicationStatement.Dosage.text |

# US Meds Implementation Guide

# US Meds Implementation Guide

▶ Based on FHIR STU3

▶ Uses US Core Profiles (Argonaut on STU3!)

▶ Patient and provider access to patient medications from Electronic Health Record Systems (EHRs)

▶ Formal guidance for accessing patients active, historical and future medications, and medication orders.

▶ http://build.fhir.org/ig/Healthedata1/FHIR-ONC-Meds/index.html

# Contents includes

- Guidance
  - Use Case: Patient and Provider access to a patient's medications
    - Fetching All Medications
    - Active Medications,
    - Active Medications for an Encounter
    - Fetching Active Medications Orders

- Profiles
  - In addition to the US Core medication Profiles these two profiles have been defined for this implementation guide:
    - MedicationAdministration Profile
    - MedicationDispense Profile

- Examples

# Use Cases Planned for Future Versions

▶ Medication list update

▶ Create new outpatient Prescription*

▶ Dispense medication from Pharmacy*

*the US implementers have not used these resources sufficiently to provide best practices and guidance

# How do I provide Feedback?

- We are looking for more input into the Implementation Guide

  - http://build.fhir.org/ig/Healthedata1/FHIR-ONC-Meds/index.html

- HL7 FHIR Tracker

  - http://gforge.hl7.org/gf/project/fhir/tracker

- Provide feedback directly to Project Team

  - Eric Haas ehaas@healthedatainc.com

  - Brett Marquard - brett@riverrockassociates.com

  - Melva Peters – mpeters@gevityinc.com

# Questions?

# Thank You!