

Background

We have a web based electronic medication management system (Source System) to replace the traditional paper medication charts which addresses four essential phases of medication management, namely

- Prescribing Medication (including generation of printed PBS and Authority scripts)
- Medication Reconciliation (At admission, transfer and discharge)
- Pharmacy review of medication orders (including creation of dispense queues)
- Electronic recording of Medication Administration at the bed-side.

Co-Signatures

Prescribing

There are circumstances during the medication prescribing workflow where a co-signature is required

The most common of these relates to nurses administering medications.

In the paper world when these medications are administered there are 2 nurses at the patient bedside. The first nurse will verify the patient details and sign the paper chart to indicate the drug was administered. The second nurse will then also sign the chart to confirm that:

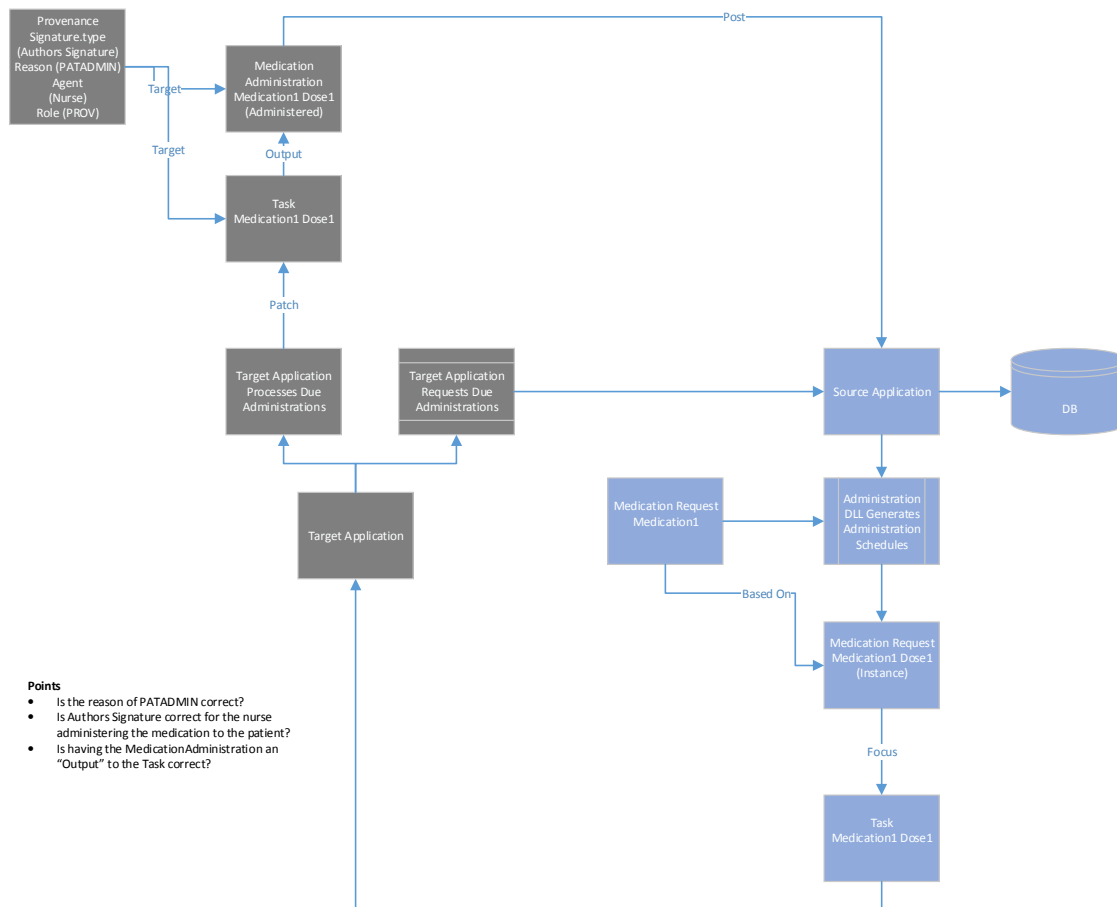
- a) The nurse verified that the patient was the correct patient for the medication
- b) The medication being given was the correct medication and the correct dose
- c) The full dose of the medication was administered

This processing is emulated in the source system by prompting for a second user id / password to be entered at the time the nurse selects the medication dose and confirms the patient and dose details.

Following discussions on the FHIR chat site we think the below flows may be appropriate but would appreciate clarification.

Simple Administration Flow

- 1) From Target Application (TA) nurse requests list of medications due for administration
- 2) Source Application (SA) returns a list of medications due / available for administration
 - a. MedicationRequest Instance *based on* original MedicationRequest
 - b. Task with the MedicationRequest Instance as its *focus*
- 3) Nurse confirms patient identity, medication to be given etc.
- 4) Nurse administers medication and flags Task as complete
- 5) TA returns updated administration event details to SA
 - a. Updated Task (is this "Patch" or "Put") which still has the MedicationRequest Instance as its *focus*
 - b. MedicationAdministration for the actual administered dose as an *Output* of the Task (this should be a "Post" but can we have a "Patch" / "Put" in the same bundle as a "Post")
 - c. Provenance covering the nurse signing for the administration with both the Task and the MedicationAdministration as *Targets* using PATADMIN as Reason and Authors Signature as Signature.type



Simple Administration Flow With Co-Signature

- 1) From Target Application (TA) nurse requests list of medications due for administration
- 2) Source Application (SA) returns a list of medications due / available for administration
 - a. MedicationRequest Instance *based on* original MedicationRequest
 - b. Task with the MedicationRequest Instance as its *focus*
 - c. Requirement for co-signature as *Input* to Task
- 3) Nurse confirms patient identity, medication to be given etc.
- 4) Nurse administers medication and flags Task as complete
- 5) Second nurse witnesses the administration event
- 6) TA returns updated administration event details to SA
 - a. Updated Task (is this "Patch" or "Put") which still has the MedicationRequest Instance as its *focus*
 - b. MedicationAdministration for the actual administered dose as an *Output* of the Task (this should be a "Post" but can we have a "Patch" / "Put" in the same bundle as a "Post")
 - c. Provenance covering the nurse signing for the administration with both the Task and the MedicationAdministration as *Targets* using PATADMIN as Reason and Authors Signature as Signature.type
 - d. Provenance covering the nurse co-signing for the administration with the Task, the MedicationAdministration and the "administration" Provenance as *Targets* using PATSFTY as Reason and Event Witness Signature as Signature.type

