

Canada's virtual forum on Patient safety and quality improvement



RightRx: A cluster-randomized trial of medication reconciliation at discharge from hospital

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Medication Reconciliation

- Is a required organizational procedure
- Is a simple task in a highly complex environment
- May decrease preventable adverse drug events
- May not be a one-size-fits-all solution



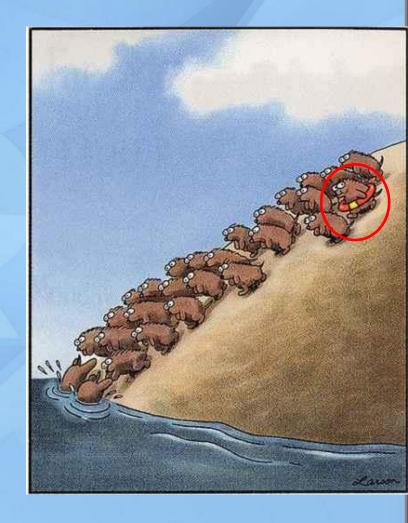




Safety is:

 The avoidance, prevention and amelioration of adverse outcomes of injuries stemming from the processes of health care

(National patient safety foundation at the AMA, May 24, 1999)





Effect of an Electronic Medication Reconciliation Application and Process Redesign on Potential Adverse Drug Events

A Cluster-Randomized Trial

Arch Intern Med; 2009; 169:771-780.

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Boston Partners Healthcare 8-weeks, 2 hospitals, 322 patients, 14 teams

Table 2. Incidence and Relative Rates of Potential Adverse Drug Events Due to Unintentional Medication Discrepancies

Outcome	PADEs, No. (per Patient) in the Control Arm (n=160)	PADEs, No. (per Patient) in the Intervention Arm (n=162)	Unadjusted RR (95% CI)	Adjusted and Clustered RR
All PADEs	230 (1.44)	170 (1.05)	0.74 (0.60-0.89)	0.72 (0.52-0.99)
PADEs by type of error ^c	• •	` '	,	
History errors	153 (0.96)	125 (0.77)	0.81 (0.64-1.02)	0.80 (0.55-1.15)
Reconciliation errors	80 (0.50)	52 (0.32)	0.64 (0.45-0.91)	0.62 (0.29-1.34)
PADEs by time of occurrence			· · · ·	
PADEs at admission	49 (0.31)	44 (0.27)	0.89 (0.59-1.33)	0.87 (0.51-1.52)
PADEs at discharge	181 (1.13)	126 (0.78)	0.69 (0.55-0.86)	0.67 (0.49-0.98)











RightRx Our Canadian Solution





Cluster-randomized trial

To determine if:

- reconciliation of community and hospital drugs at discharge when facilitated by electronic retrieval of community drug lists, AND
- communication of treatment changes to the communitybased prescribing physicians and pharmacists

will reduce the risk of Advers Drug Events, ER visits and hospital readmissions in the 30 days post-discharge.





Study Overview



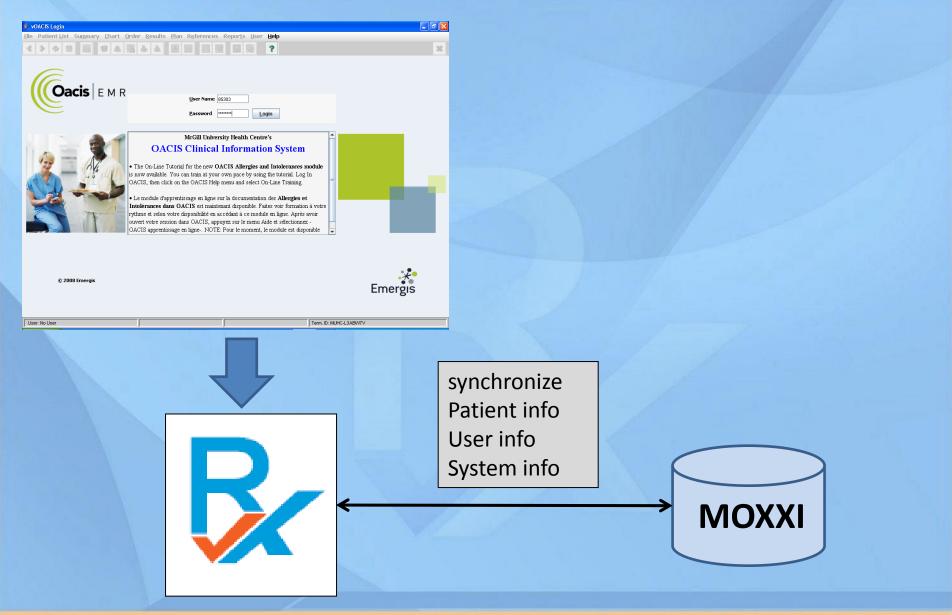
- ▶ Ward pairs
 - ► GERIATRICS (MGH-13E | RVH-S9E) 47 beds
 - ► INTERNAL MEDICINE (MGH-15 | RVH-6M+10M) 90 beds
 - ► GENERAL SURGERY (MGH-18 | RVH-S9W) 63 beds
 - ► THORACIC, CARDIAC SURGERY (MGH-11E | RVH-S8E) 59 beds
 - ▶ URO, PLASTICS, VASC SURG (MGH-19 | RVH-R5) 47 beds
- ► Admitted adults to target units, RAMQ-insured
- ▶ 12-months, 3800 patients



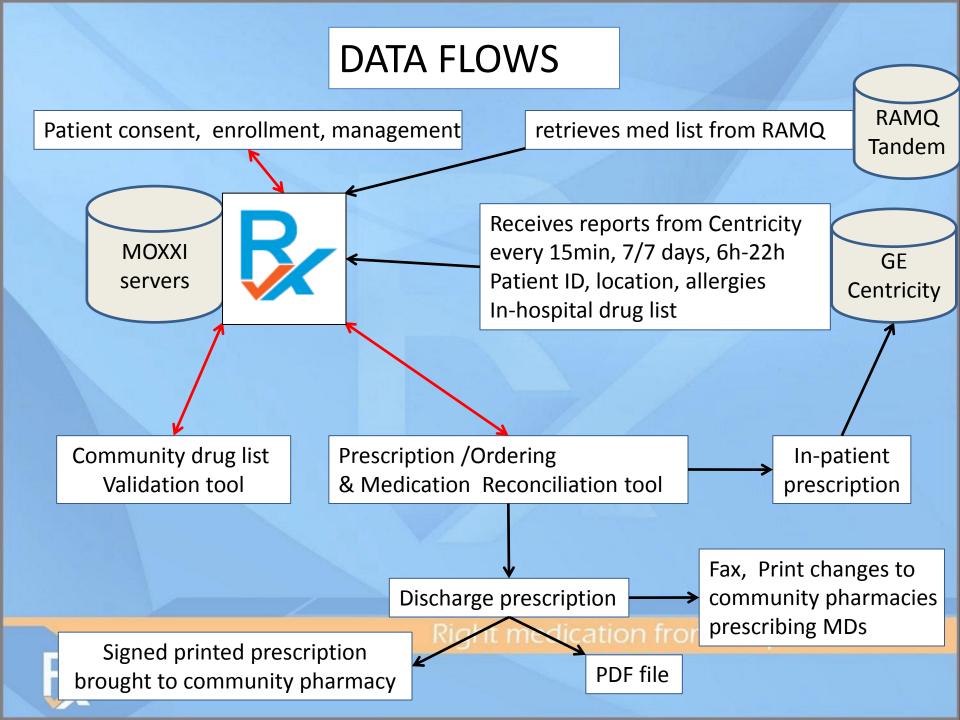
Processes

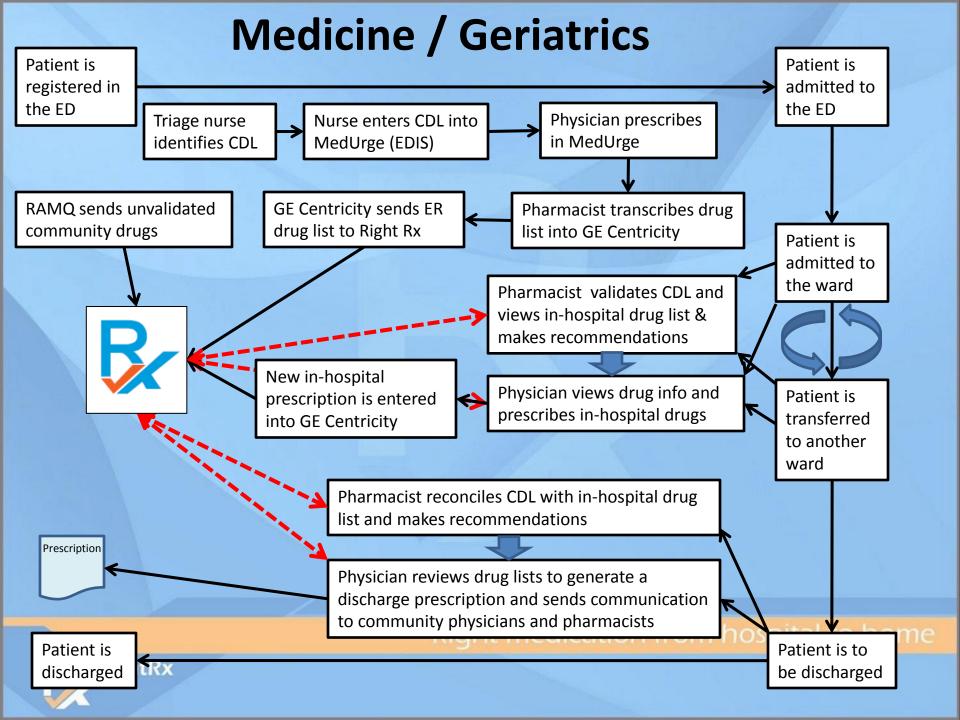
- e-Tools (2 steps in release 1)
 - Validation of the community drug list and generation of the Best Possible Medication History
 - Discharge prescription writing
 - Embedded medication reconciliation
 - Drug interactions checking and alerts
- Buy-in from Hospital
 - Quality management
 - Operations (change management, harmonization)

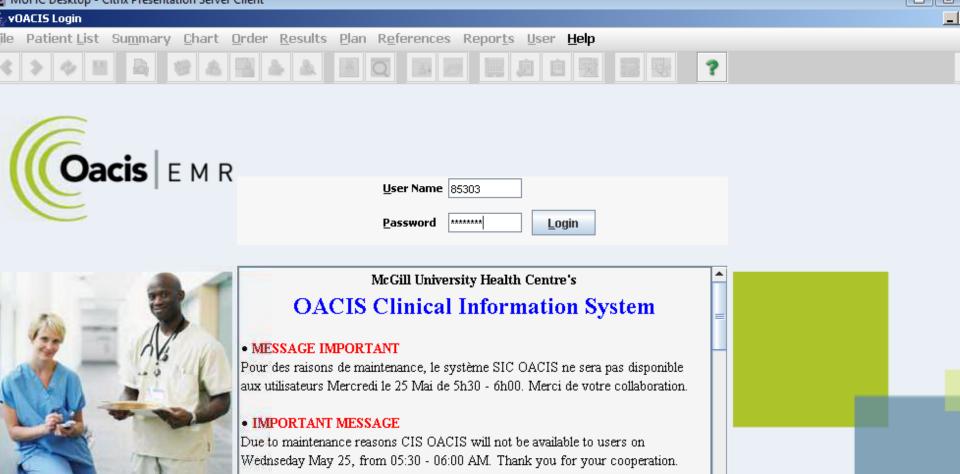






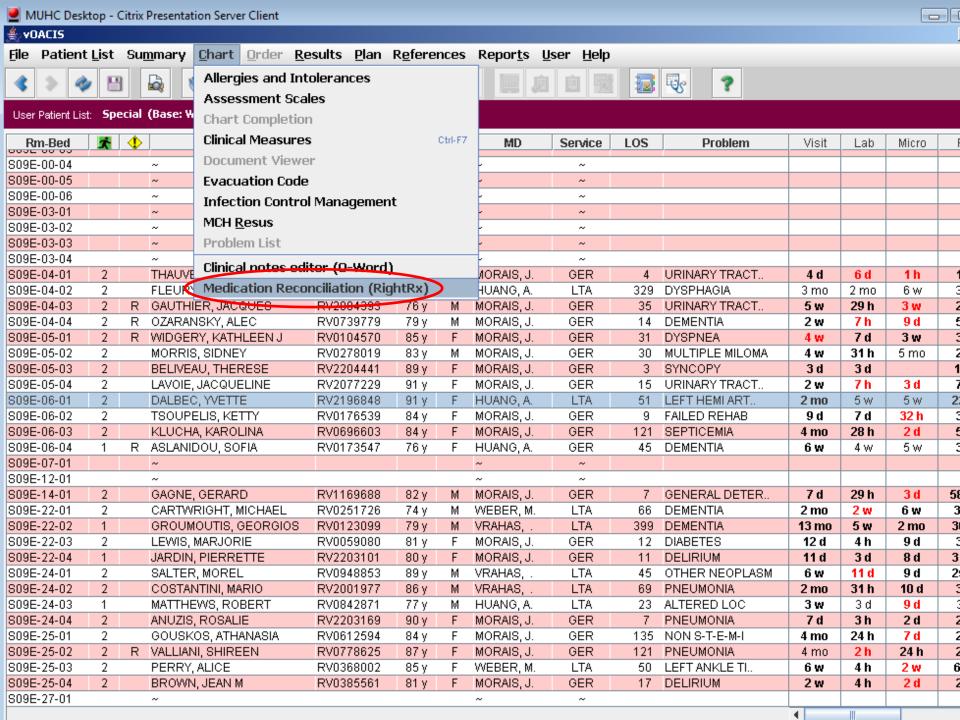


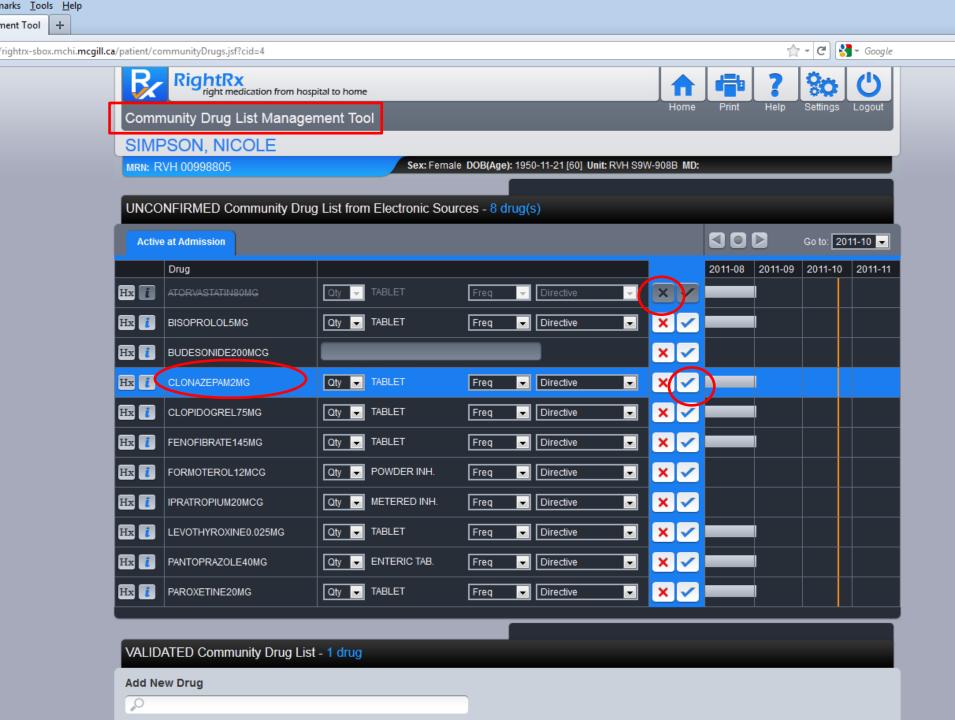


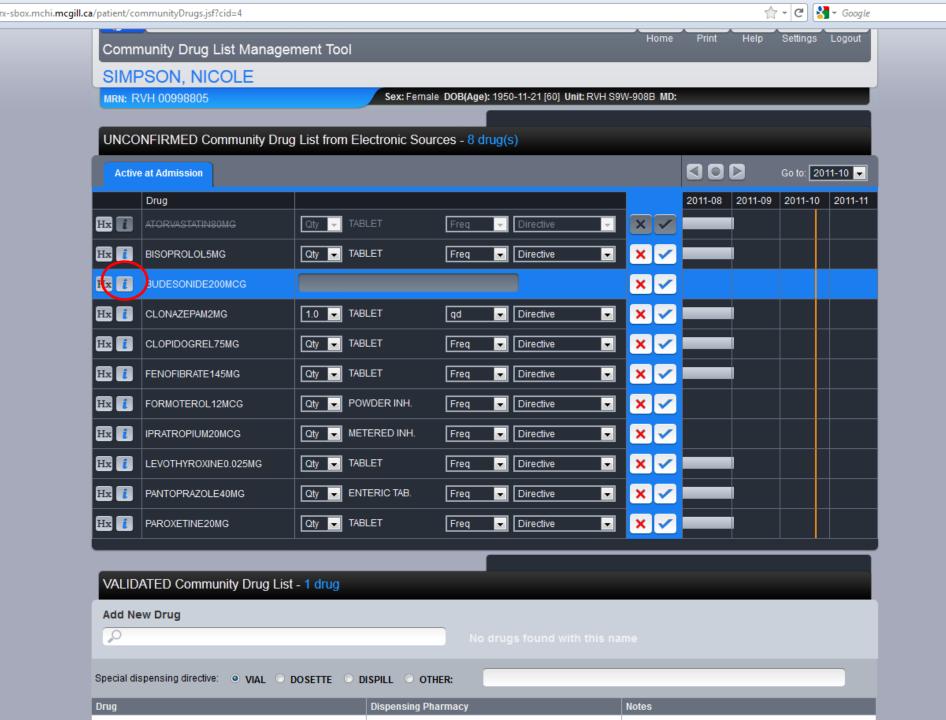


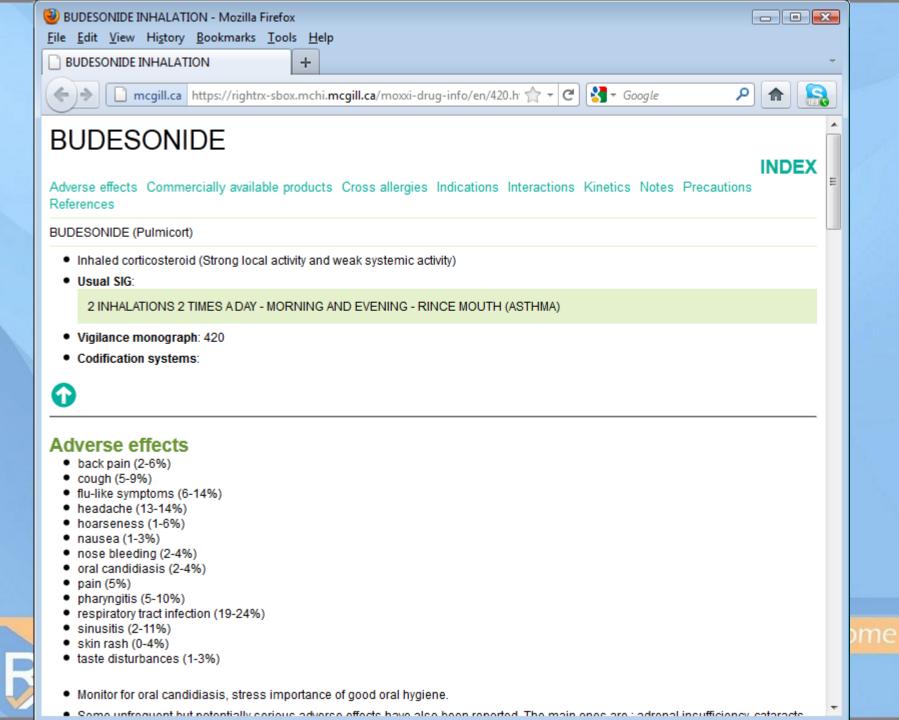
New in OACIS May 16

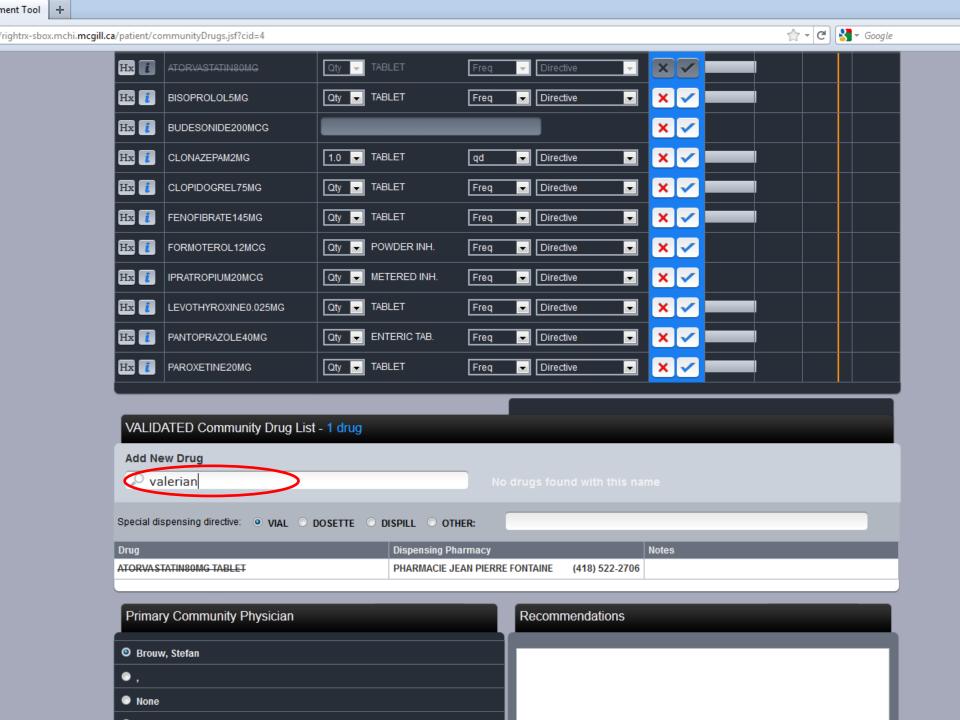


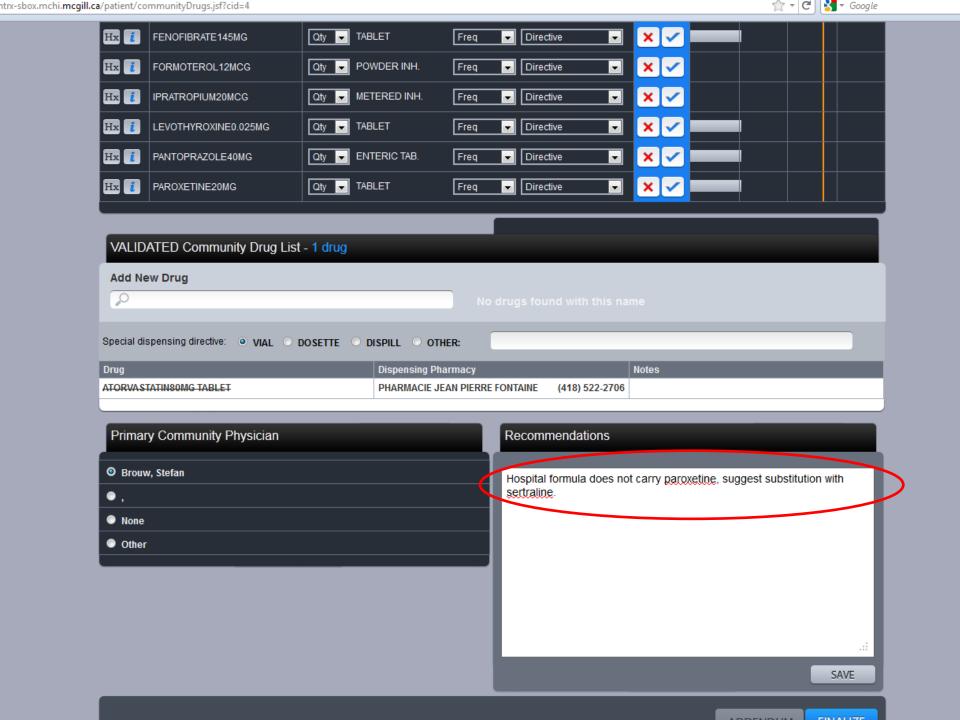


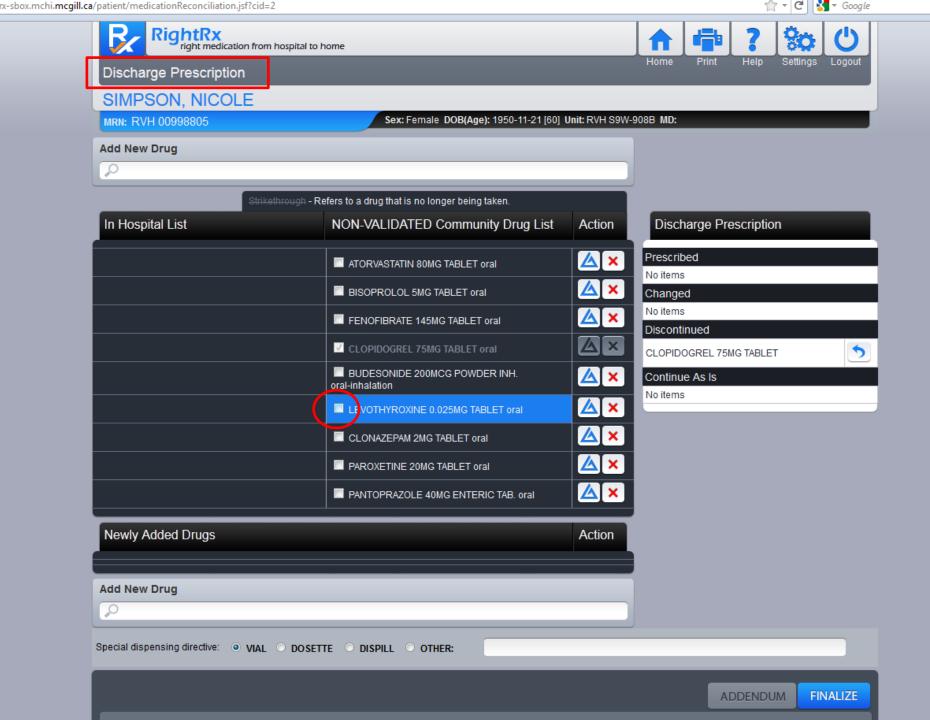


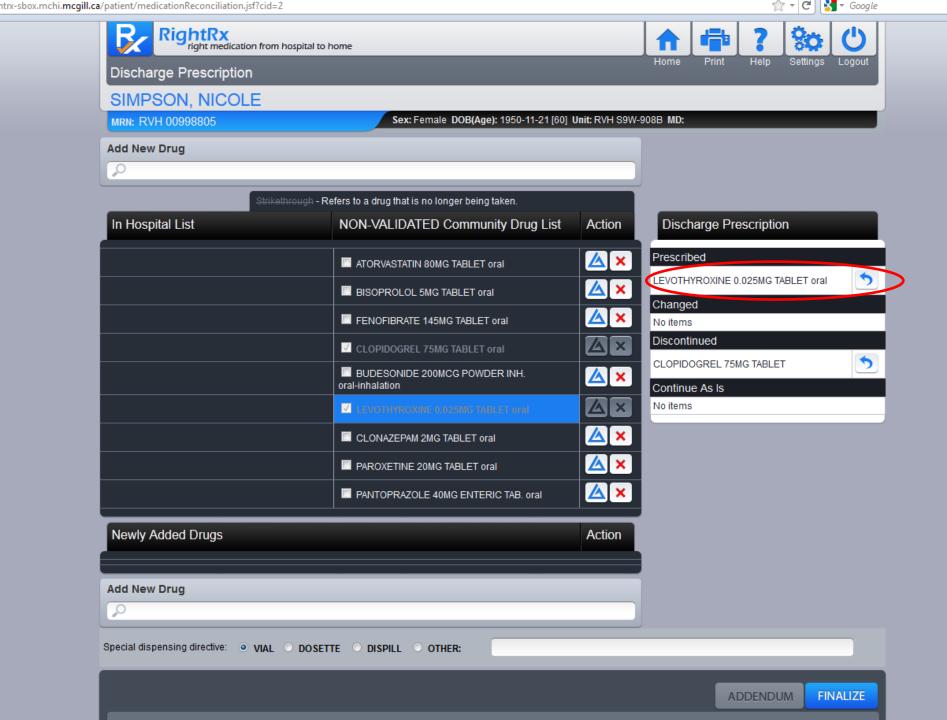


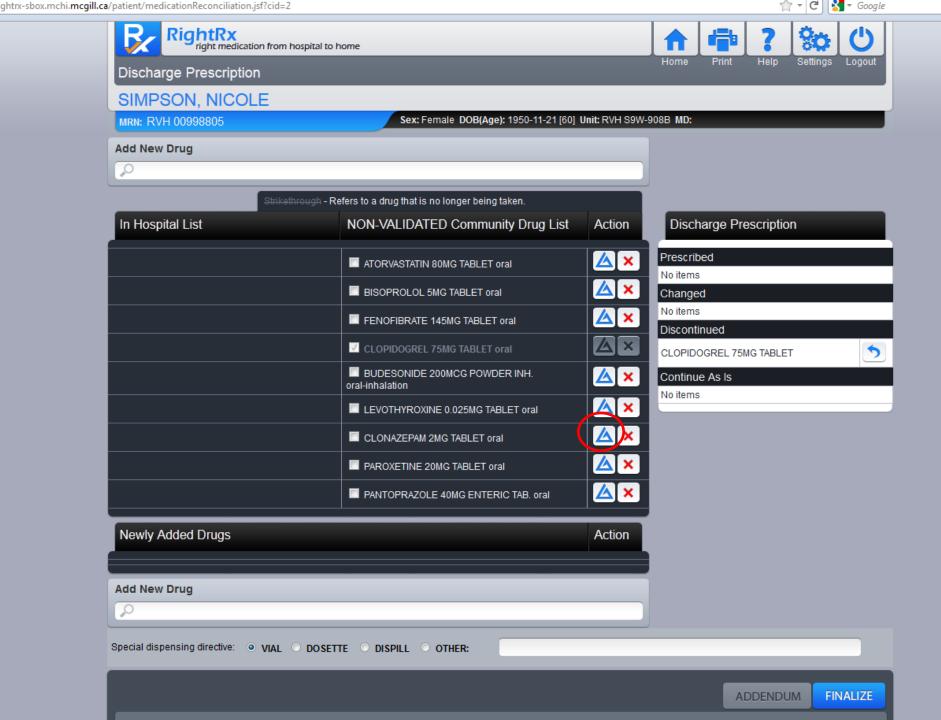


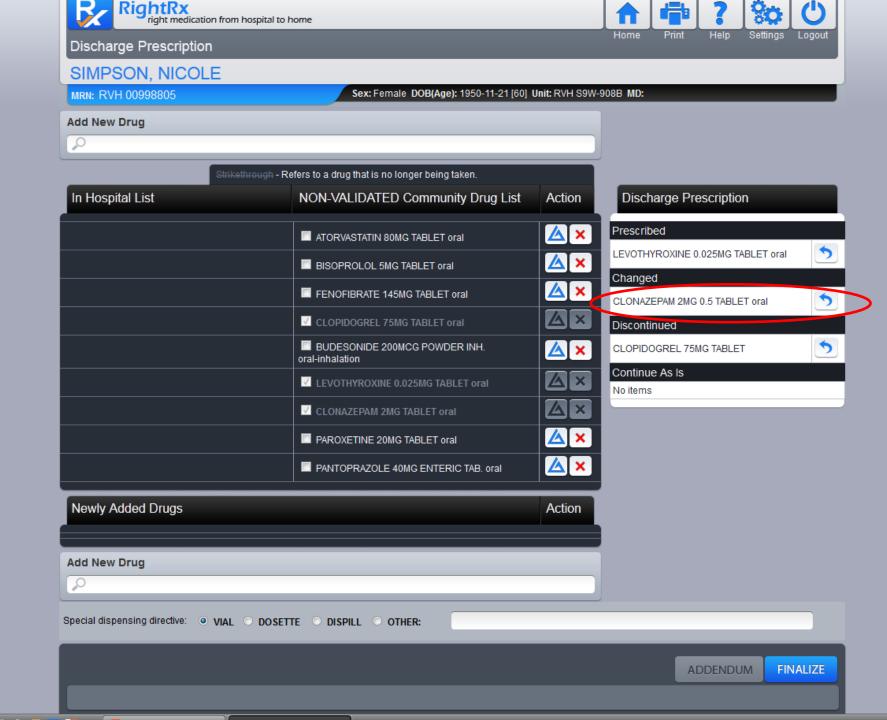


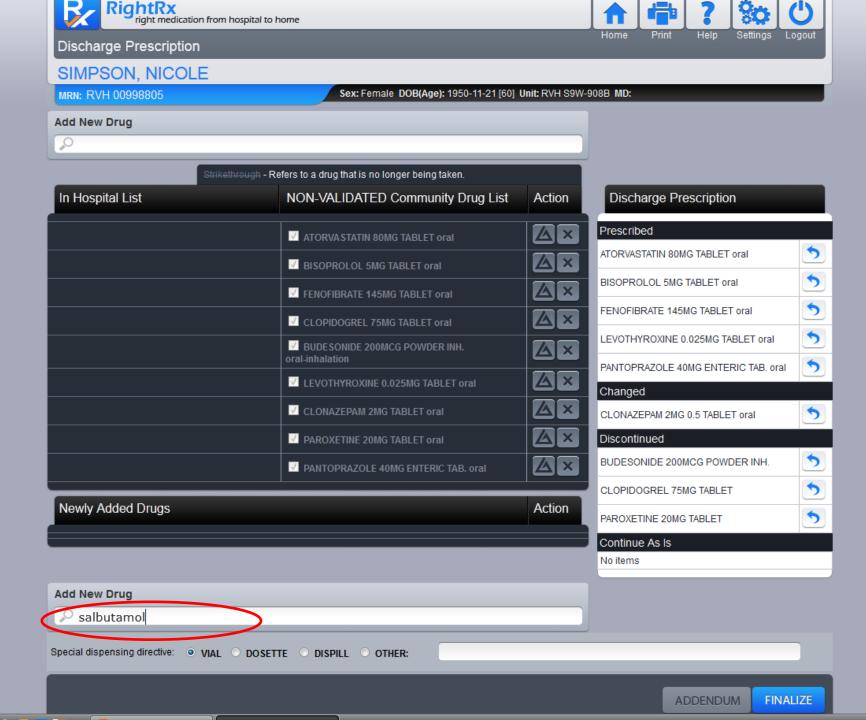












Current status

- Prototype system in test with real patients
 - Data feeds
 - Clinician usability
- Go Live
 - Geriatrics Jan 2012
 - Phased deployment Feb-April 2012
 - Release 2 development
 - decision support & alerts
 - Single combined pane interface





Thank you

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