Medication Reconciliation at BID-Plymouth

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ABSTRACT

Medication regimens prescribed at the time of admission/discharge sometimes inadvertently created discrepancies in the patient's medication profile. These discrepancies place patients at risk for adverse drug events (ADEs), which have been shown to be one of the most common types of adverse events after hospital discharge. Inpatient providers were noting errors in the patient's home medication list. Community Providers were noting an increase in the number of errors in discharge medication lists.

Medication Reconciliation is a well known National Patient Safety Goal. It refers to the process of avoiding such inadvertent discrepancies across transitions in care by reviewing the patient's complete medication regimen at the time of admission, transfer, and discharge and comparing it with the regimen being considered for the new setting of care. The scope of our initiative focused on the hospital admission process and the discharge/transfer process.

Through the use of rapid cycle improvement tools, the multidisciplinary team analyzed the current process and implemented strategies that enabled a more comprehensive medication reconciliation process which led to seven times the number of patients being assessed for medication reconciliation and an 8% increase in the number of medication discrepancies identified.

Team goals were:

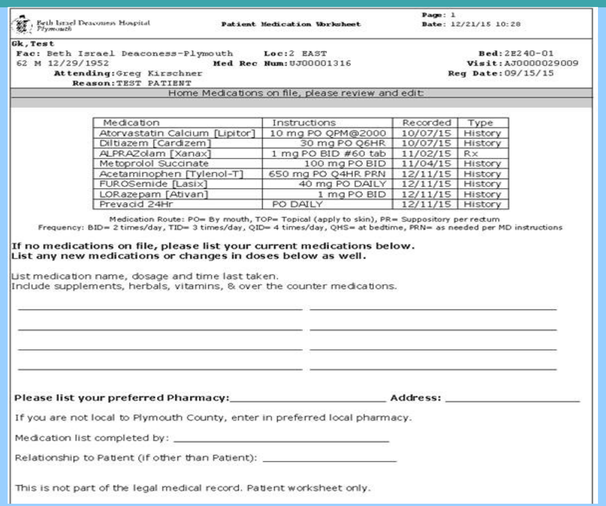
- To improve the effectiveness, efficiency, timeliness and safety in the current medication reconciliation process on admission and at the time of transfer or discharge
- To reduce the number of erroneous medications in the patients medication list at the time of admission and hence at the time of discharge
- To modify the existing process based on improvement strategies and implement change using rapid cycle improvement process

The team was led by a Hospitalist and the Sr. Director of Quality and Patient Safety. The team was comprised of Physicians, Nurses, Pharmacists, Case Manager, Clinical Informatics, CMIO, Lean Coordinator, Social Worker, Pharmacy Medication Reconciliation Tech, Patient Access Manager, Quality Manager, and STARR community members.

Interventions

- Developed strategies to eliminate extra steps in the process
- Engaged the patient in the Medication Reconciliation Process (patient/family reviews current meds at the time of registration/triage)
- Hired Pharmacy Med Rec Technician to support the highest admission times from the ED (2-10p)
- Utilized Pharm D Interns (M-F) to complete Med Rec within 24 hours of admission on patients not seen by the pharmacy Medication Reconciliation tech
- Implemented Dr. First - Pharmacy Med Rec Tech reviews all outpatient medications recently filled at the patients pharmacy
- Engaged the medical staff to work with the Med Rec Tech to ensure accurate medication lists
- Engaged Community partners that receive our patients post discharge to obtain feedback on the process as we implemented change
- Simplified Patient discharge Medication List

Engaging Patients in the Process



Beth Israel Deaconess Hospital – Plymouth — **Patient Medication Worksheet** — Page: 1 — Date: 12/21/15 10:28

Gk,Test
Fac: Beth Israel Deaconess-Plymouth **Loc:** 2 EAST **Bed:** 2E240-01
62 M 12/29/1952 **Med Rec Num:** UJ00001316 **Visit:** A70000029009
Attending: Greg Kirschner **Reg Date:** 09/15/15
Reason: TEST PATIENT

Home Medications on file, please review and edit:

Medication	Instructions	Recorded	Type
Atorvastatin Calcium [Lipitor]	10 mg PO QPM@2000	10/07/15	History
Diltiazem [Cardizem]	30 mg PO Q6HR	10/07/15	History
ALPRAZolam [Xanax]	1 mg PO BID #60 tab	11/02/15	Rx
Metoprolol Succinate	100 mg PO BID	11/04/15	History
Acetaminophen [Tylenol-T]	650 mg PO Q4HR PRN	12/11/15	History
FUROSemide [Lasix]	40 mg PO DAILY	12/11/15	History
LORazepam [Ativan]	1 mg PO BID	12/11/15	History
Prevacid 24Hr	PO DAILY	12/11/15	History

Medication Route: PO= By mouth, TOP= Topical (apply to skin), PR= Suppository per rectum
Frequency: BID= 2 times/day, TID= 3 times/day, QID= 4 times/day, QHS= at bedtime, PRN= as needed per MD instructions

If no medications on file, please list your current medications below.
List any new medications or changes in doses below as well.

List medication name, dosage and time last taken.
Include supplements, herbals, vitamins, & over the counter medications.

Please list your preferred Pharmacy: _____ **Address:** _____

If you are not local to Plymouth County, enter in preferred local pharmacy.

Medication list completed by: _____

Relationship to Patient (if other than Patient): _____

This is not part of the legal medical record. Patient worksheet only.

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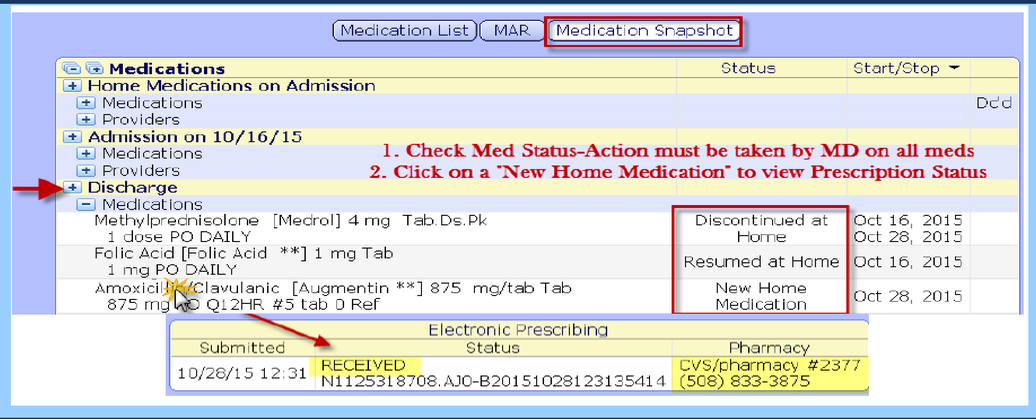
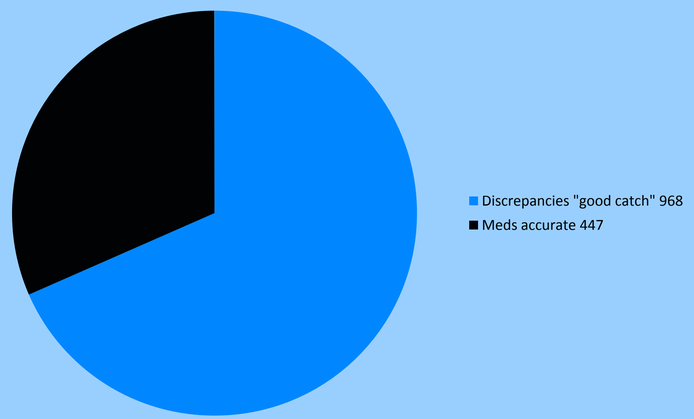
Multidisciplinary Discharge Process in Meditech



RESULTS

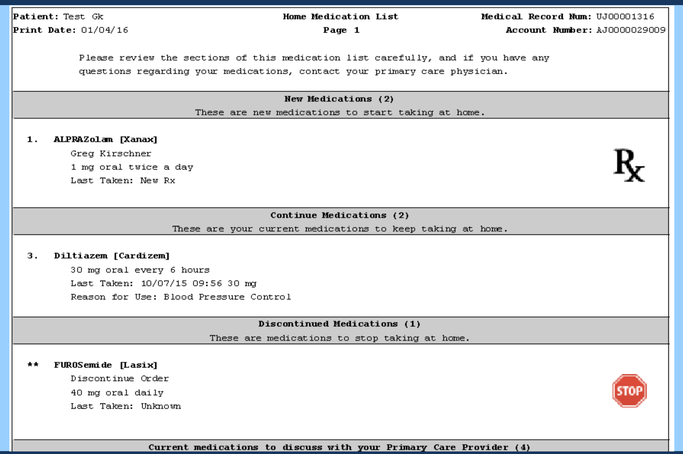
Admission Medication Reconciliation of 1415 patients



68% of Patients had at least one medication discrepancy in their Meditech home medication List. They were corrected at the time of admission to aid in preventing potential adverse drug events.

National benchmark is 60%-70% error rate

Patient Discharge List



Patient: Test Gk — Home Medication List — Medical Record Num: UJ00001316
Print Date: 01/04/16 — Page 1 — Account Number: AJ0000029009

Please review the sections of this medication list carefully, and if you have any questions regarding your medications, contact your primary care physician.

New Medications (2)
These are new medications to start taking at home.

1. **ALPRAZolam [Xanax]**
Greg Kirschner
1 mg oral twice a day
Last Taken: New Rx

Continue Medications (2)
These are your current medications to keep taking at home.

3. **Diltiazem [Cardizem]**
30 mg oral every 6 hours
Last Taken: 10/07/15 09:56 30 mg
Reason for Use: Blood Pressure Control

Discontinued Medications (1)
These are medications to stop taking at home.

** **FUROSemide [Lasix]**
Discontinue Order
40 mg oral daily
Last Taken: Unknown

Current medications to discuss with your Primary Care Provider (4)

CONCLUSIONS

- Collaboration with our Community Partners (STARR) was vital
- Medication Reconciliation is labor intensive and requires a team approach for accuracy
- Engaging the Patient in the process provides education for patients/families on the inability of computer systems to "talk to each other" and encourages ownership for accuracy
- Dr. First Technology is a very robust system for ensuring accuracy of current medications
- Work still needs to be done on meds with parameters/dosing

Next Steps

Expand Pharmacy Med Rec Tech coverage to PAT and weekend days

Monitor and reinforce compliance with Electronic Medication Reconciliation

Compliance with changes in home medications discovered during the admission

Monitor progress