One Academic Medical Center's Approach to Effective Medication Reconciliation At The Point Of Transfer

Karin M. Ganetis MSN, RN, CPHQ ❑ Denise Westman MS, RN ❑ Jude Webber RN, BSN, CCRN
Abby Forster BSN, RNC ❑ John G. Bruno Pharm.D. ❑ Wayne Bellucci MD ❑ Patrick Lynch MD

STONY BROOK UNIVERSITY MEDICAL CENTER

Carolyn Santora MS, RN, CNAA-BC Associate Director Patient Safety and Regulatory Affairs ❑ Joseph Decristofaro MD Assistant Medical Director for Patient Safety
Richard Barnett MD Chief Medical Information Officer ❑ Lee Anne Xippolitos CNAA, BC, NP, CS, CARN Chief Nursing Officer

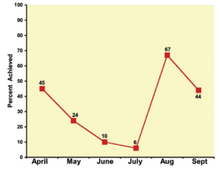
Background

To comply with The Joint Commission's National Patient Safety Goal to accurately and completely reconcile medications across the continuum of care, a process was developed to collaboratively reconcile medications that are prescribed, dispensed and administered throughout a hospital stay. This process requires consistent communication between physician, nurse and pharmacist through accurate documentation of the reconciliation process.

In November 2007, a taskforce was formed to address the patient transfer portion of the medication reconciliation process as it currently existed. Data consistently demonstrated weakness in checking the medications prescribed by/at different services and/or locations with the initial medication history obtained at the time of admission.

Physicians, nurses and pharmacists were included in the taskforce as well as representatives from Clinical Informatics. A collaborative process was developed that utilized the patient's Pharmacy Profile, Medication Administration Record (MAR) and the Medication History and Reconciliation Form. A patient Transfer Order Form was developed to facilitate communication about the patient's medications between sending and receiving physicians and sending and receiving nurses. The patient's Pharmacy Profile was the source of a printout of all the patient's current pharmacy orders at the time of transfer. The reconciliation and subsequent ordering of medications occurred on the Transfer Order Form.

The process was piloted between the Cardiac Intensive Care unit (CICU) and the Cardiac Acute Care unit (CACU) in July and August of 2008. The process flow was developed for patients who were being transferred from the CICU to the CACU since medications are often discontinued or put "on hold".



2008 PRE-CPOE Point of Transfer Medication Reconciliation

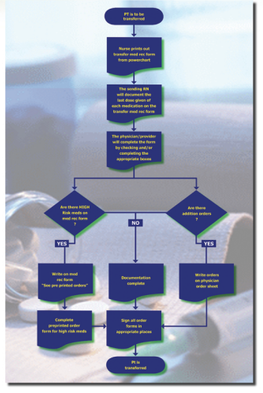
Purpose

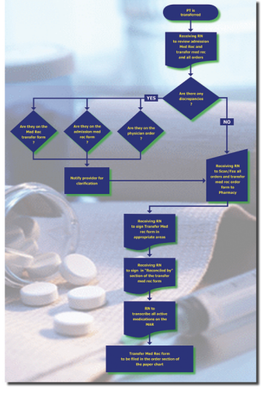
The intent of the pilot was to develop a transfer reconciliation process that would serve as a bridge between paper documentation and the implementation of CPOE in 2009. The process focused on patient transfers from CICU to CACU. This point of transfer was selected due to the difference in acuity of a patient transferred into an ICU level of care. At that point the pilot process became time consuming and most medications were not amenable to reconciliation.

Observed Improvements

- Staff became more aware of what role Pharmacy was able to provide and how Physician's orders were interpreted from a medication 'provision' department.
- The Pharmacy had to respond to the need for nursing's attention to medication parameters (i.e. when medications were held or rescheduled.)
- The staff became more familiar with what the future e-MAR would look like, making the assimilation process easier.
- Communication between Pharmacy and the unit became more frequent and productive (i.e. medications that were not being given but were on the medication profile were identified and corrected in a more timely fashion then prior to the pilot).
- Better legibility offered quick interpretation of physician's orders verses the time it requires to find the MD and clarify the orders.
  This benefit would remain in CPOE.
- Use of the current Medication History and Reconciliation Form was a part of the Orders for Transfer Report process. This enhanced the compliance and utilization of the Medication History and Reconciliation Form because there was focused activity in completing forms prior to patient transfer.

Medication Reconciliation/Orders Transfer Process at Stony Brook University Hospital





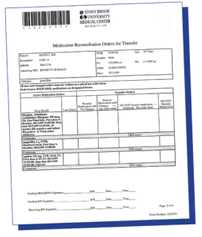
RN to print report from power chart by going to TASK → Reports → Med rec transfer.
Complete each appropriate column on the form

Drug Details	RN responsibility Last taken	MD responsibility Resume medications with no changes	MD responsibility Resume medications with changes noted	MD responsibility DO NOT resume medication Replaced by this medication	MD responsibility DO NOT Resume medication
This will be printed from the patients medication profile in power chart	Sending RN to document the date and time when the medication was last taken. If medication is discontinued, RN to write D/C'd in this box	If there are no changes to this medication place a check mark in this box	If you want the same medication to continue with a change, check this box and write order changes on a physician order sheet	If you want to stop a medication and replace it with a new medication, check this box and write order changes on a physician order sheet	Check this box if you want to discontinue this medication.

Drug Details	Last Taken	Resume medications with no changes	Resume medications with changes noted	DO NOT Resume medications Replaced by this medication	DO NOT Resume medication
Med order information	Pharmacist to review last time med was given.	Pharmacist to renew existing order in Pharmnet	Pharmacist will not make changes based on the section, orders must be written on separate physician order sheet	Pharmacist to look for changes on new physician order sheet	Pharmacist to discontinue medication in pharmnet

All HIGH RISK DRUGS MUST be ordered separately
Any additional medications that are not on this form need to be written on a physician order sheet
Receiving MD will review Admission Med Rec, and transfer orders. Any discrepancies the MD will reconcile
The receiving RN will scan/fax all the pages of the med rec form along with any other new orders to the pharmacy
The receiving RN will then sign the Medication reconciliation transfer report in all the appropriate places including the section for point of transfer review
The med rec will be filed under the orders section of the paper chart
The receiving RN will transcribe all active meds to the MAR

SENDING RN , SENDING PHYSICIAN, and RECEIVING RN MUST SIGN MEDICATION RECONCILIATION ORDERS FOR TRANSFER

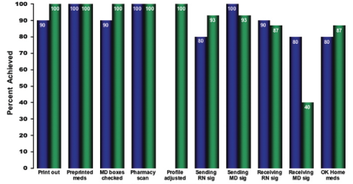


Medication Reconciliation Orders for Transfer

Pilot Process Findings

A total of 25 patient transfers were audited to determine the strengths and weaknesses of the process. Frequent discussions occurred during the pilot. The results of the pilot revealed pertinent information about the transfer reconciliation process.

2008 Point of Transfer Pilot Process % Compliance Transfer Order Form



Challenges

- There were layers of investigation needed to assure the sending unit medication profile was correct so the transfer orders written were appropriate for the patient.
- Medications taken at home that were to be continued according to the Medication History and Reconciliation Form did not always appear on the Pharmacy Profile.
- Medication History and Reconciliation Forms were illegible, missing one or both MD/RN signatures and did not always have the boxes checked to direct the nurse.
- Patients who were transferred/transported from outside Stony Brook often had medications from the sending institutions recorded as the "home" medications with no addition assessment of the home medication history.
- Parameters for medications that are included with the physician orders do not appear on the Pharmacy profile. Parameters for medication given in the CICU may be different from those expected in orders written for the CACU.
- One time doses do not appear on the Pharmacy Profile once administered.
- Medications that are "held" do not appear on the Pharmacy Profile after a period of time.

Conclusions

- The medication reconciliation process in the CICU and the CACU improved because of the pilot process.
- The heightened awareness and behaviors that were demonstrated during the pilot process have continued, resulting in a more accurate process for this patient population.
- Physician education is ongoing to compensate for the rotation of Resident physicians that occurs on these units.
- Pharmacy rounding was implemented in the CICU on Tuesday and Thursday to reconcile the Pharmacy Profile and MAR with nurses.
  This was in preparation for the rollout of the CPOE/e-MAR system in 2009.
- The taskforce agreed that the piloted process is not suitable for an organization rollout.
- What was learned from the pilot process will be communicated to IT to be applied to the next phase of technology currently in design.
- A summary of the pilot was presented to the Patient Safely Committee for discussion.
- A behavior needs to be identified that can be standardized to all staff to affect the improvement of the reconciliation of medications during the transfer of patients.

Taskforce Recommendations:

The taskforce agreed that the existing process of reconciliation needs to be incorporated into the electronic patient record (EPR) system by defining the steps of the process and process flow as the build continues.

The 'suspend incomplete and hold' option was identified as a way to identify medications that were previously stopped to avoid the need for the physician to scroll through a large list of medications at the time of patient transfer.

Since the initiation of reconciliation needs to occur in the ED, the taskforce recommended the creation a 24/7 Pharmacy position to complete the reconciliation of medications for all admitted patients that enter our system through the ED.

TRANSITION to CPOE/e-MAR

GOAL: technical proficiency, diminish process variances, best practice

The transition between medication reconciliation as a paper process and the EPR occurred in January, 2009. Prior to "go-live" medication orders were electronically synchronized by Pharmacy and the hand written Medication Administration Record (MAR) maintained by each nursing unit. Reconciliation was done on each patient every 24 hours using a sticker system to identify each admitted and transferred patient.
All patients' medications were reconciled on the day prior to go-live.

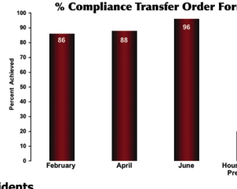
NEW PROCESS

- Nursing collects the home medication history upon admission. Physicians update or add medications as assessment progresses.
- Admitting physicians are responsible for performing the reconciliation as admission orders are written.
- At the point of transfer, the receiving physician performs the medication reconciliation as part of the ordering/review process.
- Currently discharge medication reconciliation is the responsibility of the discharging physician.

The CICU and CACU transitioned well. They have achieved 86-96% documented completion of the point of transfer medication reconciliation process on the CPOE record. A point prevalence of selected patients revealed other services have not yet embraced the point of transfer process to the same extent.

- The staff report behaviors learned during last summer's pilot process persist and assist the performance of medication reconciliation
- There is an increased awareness by the nurses to assure completion of medication reconciliation at the time of transfer
- Collaboration between physicians and nurses continues
- There is a conscious effort to complete the process
- There is an expectation that the process will be completed
- If a patient is transferred from another unit, the physicians are aware
- Attending physicians stress medication reconciliation with the Interns and Residents
- During "downtime", a form is used that was formatted similar to the Transfer Order Form
- The familiarity of the downtime form allows the staff to know what to look for and seek physician consultation as needed

2008 Point of Transfer Pilot Process % Compliance Transfer Order Form



ON THE JOURNEY TO NURSING EXCELLENCE CHARTING THE COURSE