

Project Submission:
2009 Delaware Valley Patient Safety Award

HAHNEMANN UNIVERSITY HOSPITAL

*“Medication Reconciliation
Electronic Software Process and Development”*

Medication Reconciliation Electronic Software Process and Development

An interdisciplinary team of Physicians, Nurses, Pharmacists and Information specialists was formed in January 2008 to develop an electronic software program and a process to comply with medication reconciliation. The primary goal of the team was to ensure compliance to the Joint Commission's National Patient Safety goal on "Medication Reconciliation". The requirement is that healthcare organizations implement a process for obtaining and documenting a complete list of patient's home medications in order to reconcile them against all medications ordered in the institution; along with providing a comprehensive medication list at discharge to the patient and the next provider of care to avoid medication errors. Reconciliation is the process of comparing medications prior to and during admission, in order to resolve or clarify any discrepancies. By performing this process, errors of omission, transcription, duplication and drug interactions can be avoided. A Home grown electronic Medication Reconciliation software was built to document the collection of the most accurate list of home medications while integrating medication orders entered into the clinical information system throughout the patient's hospital stay. This comprehensive electronic list allowed medication reconciliation to occur on admission, transfer and at discharge. The software also provided all historical data on reconciliation from previous admissions. At discharge the patient received a complete and accurate medication list, along with patient educational material. The team was successful in developing a policy and procedure as well as software that would ensure medication safety. Performance improvement measures were established to track errors avoided by using an electronic software program instead of paper documentation.

Medication Reconciliation Electronic Software Process and Development

Goals: A solid Medication Reconciliation program across the continuum of care is an essential step in ensuring medication compliance. As patients are admitted to healthcare facilities, every opportunity needs to be taken to ensure accurate medication histories are being collected and evaluated. Many Hospital admissions are a result of poor medication regimens or poor compliance to them. Polypharmacy practices have increased admissions to healthcare facilities over the last decade. In an effort to decrease costly admissions, decrease the need for polypharmacy and increase the quality of patient care, a task force was established to develop electronic software and a new process to perform medication reconciliation on admission, on transfer and at discharge.

As a result of developing this software and changing our process, patients will have decreased hospital admission associated with poor medication regimens. By utilizing this process, medication errors associated with omission, transcription, duplication and serious adverse events can be avoided.

At discharge, the patient will receive a comprehensive list of which medications to take and which medication to discontinue.

Baseline data: Hospital reported 64 adverse events associated with medication use in 2008.

Interventions: The Medication reconciliation software program and process will avoid the types of adverse events associated with the 64 reported adverse events. The process will create a comprehensive on-line electronic medication list that will be updated on admission, transfer and discharge.

Results: Avoidance of medication errors associated with omission, transcription, duplication and adverse drug interactions as a result of polypharmacy practices.

Replication: The software and polices developed can be utilized in other facilities.