

BRONX-LEBANON SPECIAL CARE CENTER

Title of Poster: Promoting Medication Safety Systems
Initiative Utilizing Physician Order Entry

Project Staff: Peter Kennedy, LNA,
Geoffrey Lord, Pharm.D

Project Leaders: Robert Walsh, MD,
Peter Kennedy, LNA,
Geoffrey Lord, Pharm.D,
Lawrence Schiller RPh, MS
Kyoung-Sil Kang, Pharm.D

PROJECT OVERVIEW

This project is to advance safe prescribing practices for vulnerable populations namely, the elderly and HIV-positive adults using health information technology and health information exchange in long-term care facilities. The Bronx-Lebanon Special Care Center (BLSCC) will implement a Computerized Physician Order Entry (CPOE) system with clinical decision support and customized prescribing tools. The system will provide a computer generated E-MAR for nursing. This will advance us closer to a paperless system (no paper faxing or missing documents). Also, Patient information will be shared within our healthcare network.

GOAL AND OBJECTIVE

With CPOE decision support system implemented, the following changes are expected:

- Average time to first dose will be decreased
- Eliminate illegible medication orders
- Eliminate unacceptable abbreviations
- Eliminate omission errors
- Eliminate transcription errors

CHAMPLAIN VALLEY PHYSICIANS HOSPITAL MEDICAL CENTER

Title of Poster: North Country Pharmaceutical Patient Safety Project

Project Staff: Elena Napper, Pharm. D.: Thomas Gosrich, R.Ph., J.D.

Project Leader: Michael Garvey Pharm. D.

PROJECT OVERVIEW

In order to increase patient safety and quality of care, a Clinical Pharmacist became a vital component of a multidisciplinary effort to accurately complete admission and discharge medication reconciliation for inpatients at Champlain Valley Physicians Hospital Medical Center (CVPHMC). This project served a rural and largely poor, medically underserved population in Clinton County, New York. Five objectives were identified and a Clinical Pharmacist was hired to meet project goals. Objectives focused not only on improving CVPHMC's medication reconciliation process, but also on reaching out to the community to gain and share valuable information.

To achieve desired outcomes, the Clinical Pharmacist reviewed medication reconciliation tools used at admission and discharge. When necessary, the Clinical Pharmacist corrected and completed medication reconciliation. Attendance at daily discharge rounds helped to assist in the identification of patients ready for discharge.

Throughout the course of the project, key connections were made with community partners and healthcare professionals at CVPHMC. For example, a weekly meeting was held between the Clinical Pharmacist and the Nurse Liaison from the Clinton County Health Department. The fourth objective allowed for education about the Vital Link Document, which is given to all patients upon discharge from CVPHMC. Vital Link is a single source document that allows patients to maintain their medical history, allergies and current medication list. The Clinton County Office for the Aging provided education about the Vital Link Document to local Emergency Medical Services and patients throughout the community.

GOAL AND OBJECTIVE

To increase patient safety and quality of care by improving the medication reconciliation process for admission and discharge utilizing a Clinical Pharmacist working with key community partners. This project will serve a rural and largely poor, medically underserved population in Clinton County.

SETON HEALTH

Title of Poster: Saving Lives Using An Easily adoptable, Cost-Neutral, Patient Medication Safety Initiative

Project Staff: JB Goss
Pi Amin
Latefa Goldberg

Project Leaders: JB Goss

PROJECT OVERVIEW

-Patient safety and cost reduction are mutually *inclusive*.

-Patients safety is enhanced and better therapeutic outcomes are ensured by intensive pharmacotherapeutics.

-These efforts are cost-neutral via cost-offset in Formulary expense and decreases in length of stay achieved by optimized therapeutics and adherence to established best practices.

GOAL AND OBJECTIVE

Produce Patient Safety and Cost-Avoidance Data To Demonstrate The Effectiveness Of Our Easily Reproducible Program.

We decreased readmission by 32 % via better and safer use of medications. An independent health care economist valued the cost -avoidance at over \$250,000 for a six month period by using two Clinical pharmacists in our program.

These data reconfirm out previous study in 2007 that found a minimum of \$165,000 saved by one specially trained clinical pharmacist over 1 year.

Both studies found that not only does our program not cost anything to replicate, but it actually generates savings in excess of staffing costs in the amount of \$100,000/year primarily in length of stay reduction.

Further, these data do NOT capture savings we generated by reduction in long term healthcare risks, readmission, costs to society in lost productivity and litigation for pain and suffering.

Our method deploys a Clinical Pharmacist driven Disease-based pharmacotherapeutic model that leverages adherence to best practices and selection of the safest medications for our patients. Using this method we also identified the medications and diagnostic codes most at risk for treatment failures. They are CHF, COPD and Anticoagulation Management.

ELLENVILLE REGIONAL HOSPITAL

Title of Poster: Ellenville Regional Hospital Medication and Patient Safety Expansion Project

Project Staff: Ashima Butler, MS, CPCS

Project Leader: Michael Stearns, Rph

PROJECT OVERVIEW

Ellenville Regional Hospital's Medication and Patient Safety program successfully established a source of accurate patient medication information that is available to all persons involved in the primary health care of an individual. We have expanded our clinical pharmacy services through medication and patient safety project by collaborating with Albany College of Pharmacy and Health Sciences, The Institute for Family Health site in Ellenville, Matthews Pharmacy, Ellenville Senior Housing and other local practitioners to enable effective hands off communication with standardized universal medication reconciliation list. This has enabled us to create a seamless process of medication management as patient transitions across care settings within and/or across organizations. ERH's medication safety committee has established systems to facilitate medication event reporting and identification, practice transparency by implementing this reporting system, encourage reporting of ADEs and medication errors and share results with staff and organizational leadership on a routine basis. We have implemented medication reconciliation on admission, transfer and discharge, a post discharge call back system, a RPM Performance Improvement project documenting medication event reduction and measuring medication reconciliation, a Universal Medication List of which over 750 were given out, presence at various health fairs, and development of an outreach program with Matthews Pharmacy for access to a clinical pharmacist and a nurse for blood pressure/ blood glucose screenings. Our pharmacist is available to counsel and educate our community, providers and consumers on proper medication use, safety, dosage and interactions, medication reconciliation and disease state management.

GOAL AND OBJECTIVE

- To expand the scope of activities of the existing Medication Safety Committee.
- To develop our Patient Safety and Clinical Pharmacy Collaborative within the Ellenville community and the surrounding areas.

MEDICATION MANAGEMENT RESEARCH NETWORK UNIVERSITY AT BUFFALO

Title of Poster: Pharmaceutical Safety Initiative: Enhancing Patient Safety with Information Technology and Bioinformatics

Project Staff: Cara Felton, PharmD; Farzia Sayidine, BA;
Mark Wrobel, PharmD;

Project Leader(s): Gene D. Morse, PharmD

PROJECT OVERVIEW

Medication errors and their impact on health outcomes have led to a national movement to integrate meaningful use of electronic health information technology (eHIT) in patient care. The Pharmaceutical Safety Initiative (PSI) evaluated the efficacy of several medication management approaches including: 1) Telepharmacy for centralized medication review; 2) Integration of Health Information Exchange data; 3) Medication reconciliation through the Just Ask Campaign; 4) digitization of medication profiles. The research involved collaboration from numerous medical practice sites, the Western New York Clinical Information Exchange (WNYCIE), and University at Buffalo faculty and developed models for the use of HIT to optimize medication management and promote enhanced patient safety through the integration and exchange of health information. The PSI also investigated and identified barriers to increased adoption and use of ePrescribing in WNY. Through this initiative we have conducted the evaluation and analysis of the NYS DOH Patient Safety Center's Just Ask Campaign, which sought to enhance the communication between the patient and the hospital pharmacist and promote medication health literacy. The pilot initiatives in this PSI have shown the potential value of ePrescribing/EMR and the role of a pharmacist in patient care to enhance medication management, reduce health care costs and improve patient safety through reductions in medication errors.

GOAL AND OBJECTIVE

To conduct an ePrescribing demonstration project to compare medication dispensing accuracy between the "standard of care" dispensing system compared to a seamless, integrated prescriber-pharmacy network utilizing barcode and/or smart card technology and the National Library of Medicine RxNorm drug nomenclature system in patients receiving HIV/AIDS, end-stage renal disease and diabetes medications.

IPRO

Title of Poster: The Safety and Quality of Prescribing by Medical Residents Study

Project Staff: Stephanie Cannoe-Petersen, MA

Project Leaders: Darren M. Triller, PharmD

PROJECT OVERVIEW

Medication-related problems are major contributors to avoidable morbidity and mortality, and unique environmental and system factors may increase the risk of patients encountering problems with prescriptions originating from academic medical centers and issued by medical residents. While emerging electronic prescribing technology has the potential to eliminate some types of prescribing problems, it is unclear whether existing e-prescribing technology has the ability to address problem types most commonly associated with prescriptions issued at large academic medical centers.

The present study captured real-time data on problems encountered with prescriptions presented to pharmacies in close proximity to large academic medical centers in New York. It categorized the problems by type, frequency, and prescriber type (resident, attending physician, or other), and utilized a Technical Expert Panel to characterize the clinical impact of the problems and to determine whether e-prescribing is capable of addressing the most frequently encountered problem types.

GOAL AND OBJECTIVE

The goals of the study were to:

- Evaluate the rate and characteristics of prescription-related problems identified in pharmacies in close proximity to large academic medical centers
- Determine whether available electronic prescribing technology is capable of addressing encountered problem types

JAMAICA HOSPITAL MEDICAL CENTER

Title of Poster: Improving Pharmacotherapy through Pharmacist Consultation In Transitional and Home Health Care

Project Staff: A. Canedo, Ph.D., N. Nicholas Pantaleo, MS, R.Ph.,
Patricia Gentile, DPS, OTR/L, Louis Cosenza, MS, R.Ph.
Louis Kaplan, MS, R.Ph, Ann Fitzpatrick, RN

Project Leaders: A. Canedo, Ph.D.
Patricia Gentile, DPS, OTR/L

PROJECT OVERVIEW

This project seeks to determine the clinical efficacy as well as the cost-effectiveness of a pharmacist consultation service to patients discharged from the Transitional Care Unit /Rehabilitation Unit to the community/home health care. The project is a multi- disciplinary collaboration across the continuum of care. It involves The Jamaica Hospital Pharmacy Department, the TCU /Rehab teams, including physicians, nursing, social work and case management, and The Jamaica Hospital Home Health Agency.

GOAL AND OBJECTIVE

GOAL

Implement a pharmacist consultation service to reduce adverse drug events and related hospital readmissions.

Reduce emergency department visits for medically complex, poly-pharmacy patients discharged from a TCU/ REHAB UNIT to the community /home health care.

The objective is to impact on clinical efficacy and to improve cost effectiveness.

OBJECTIVES

- Patients discharged from Jamaica Hospital TCU/ REHAB UNIT to community/ home health care and their family members and/or caregivers will receive a one-hour educational program about the patient's prescribed medications.
- Patients discharged from TCU/ REHAB UNIT to Jamaica Hospital Home Health Agency will participate in a comprehensive in-home medication reconciliation process conducted by a home health nurse in consultation with a pharmacist consultant within 7 days of their date of discharge.
- TCU/REHB UNIT patients discharged who are participating in the pharmacist consultation service will experience a higher level of patient satisfaction and knowledge about their medication regimen.

KINGSBROOK JEWISH MEDICAL CENTER

Title of Poster: EVALUATION OF THE EFFECTIVENESS OF A DRUG INFORMATION CENTER FOR PATIENTS AND HEALTH PROFESSIONALS AT A COMMUNITY HOSPITAL

Project Staff: Lauryn Solomon, Pharm.D., Coordinator of Drug Information
Antonia Alafriis, Pharm.D., CGP
Associate Director of Pharmacotherapy Services

Project Leader: Henry Cohen, M.S., Pharm.D., FCCM, BCPP, CGP
Chief Pharmacotherapy Officer

PROJECT OVERVIEW

A full-time clinical pharmacist responds to drug inquiries, in-person, by telephone, mail, and e-mail regarding drug dosing, adverse drug events and appropriate drug related therapies. Kingsbrook Jewish Medical Center (KJMC) inpatients, discharged patients, and KJMC Community Residents are afforded this service where timely and appropriate medication advice is provided. For each drug information inquiry, the DIC pharmacist will document the call electronically in a customized Microsoft Access database management system recording the following information: unique identifying number of patient inquiry, date and time inquiry received, type of inquiry, caller (KJMC patient versus healthcare provider), referral source if relevant, requester's name, address, and contact information (unless the caller is anonymous), whether the communication method is via telephone, e-mail, fax, or in-person, question asked, category of request, requester data obtained to answer question, response to question, method of response delivery, references consulted, name of person answering the inquiry, and time used to answer the inquiry. Drug information questions will also be entered into a secondary intervention database, Clinical Measures[®], which will enable automatic capture and reporting of required data, such as number of medication errors, adverse drug events, number of physician office, and emergency department visits prevented.

GOAL AND OBJECTIVE

Provide a centralized hospital resource (Drug Information Center) for health professionals and patients in Kingbrook's service area to enhance the quality of patient care and improve patient safety.

WOMEN'S & CHILDREN'S HOSPITAL OF BUFFALO

Title of Poster: Incident Reports and Medication Reporting Events in Three Pediatric Emergency Departments in a Research Network.

Project Staff: Richard M. Ruddy, MD
Prashant V. Mahajan, MD
Richard Lichenstein, MD
Cody S. Olsen, MS
Meridith Sonnet, MD
Stephen blumberg, MD
Heather Gramse, MS
Alecia Peterson, MS
Sally Jo Zuspan, RN, MSN
Charles Casper, PhD
Debra York, MPH
Brian Woo, MD
Jardiris Collado

Project Leaders: Kathleen A. Lillis, MD, James M. Chamberlain, MD,
Kathy Shaw, MD

PROJECT OVERVIEW

Incident reporting is widely used in Hospitals but has limited effectiveness at improving patient safety at a National level Fear of legal consequences and a punitive or Regulatory approach have limited sharing among hospitals. Using a Collaborative research network, we examined incident reports that involved pediatric Emergency departments (PED) at three hospitals in New York State. In addition, we examined three randomly assigned Emergency department records per day for each of the three PEDs over a 12-month period.

GOAL AND OBJECTIVE

To classify information from ongoing incident report monitoring, including actual and near-miss medical events (ie. Qualitative surveillance)

To monitor medication error rates using systematic sampling and review of medical records (I.e. quantitative surveillance)

MAIMONIDES MEDICAL CENTER

Title of Poster: Increasing Patients' and caregiver's knowledge and awareness of Medication administration after discharge.

Project Staff: Joan Evanzia, RN, MSN
Director Training/HR/Regulatory/Grants for MIS
Frederick Cassera RPh, MBA
Director of Pharmaceutical Services
Susan Goldberg, RN, MSN, MPA, AVP
Organizational Performance
Dennis Louie, RPh
Clinical Analyst, MIS Department
Cammile Scarciotta, RN, MSN
Associate VP Nursing

Project Leaders: Joan Evanzia, RN, MSN
Frederick Cassera, RPh, MBA

PROJECT OVERVIEW

The project will utilize both digital and computer technology to assist patients and their caregivers with the accurate administration of their home medications. Reinforcement will begin in the hospital environment using digital signage. These are strategically located digital monitors that will continuously deliver information to patients and caregivers regarding the administration of their medications at home and questions that they should ask their providers before they are discharged. The signage will be in the prevailing languages of our community; Hebrew, Russian and English. At the time of discharge, the patient will receive his medication discharge information log that will be generated by the computer. The log utilizes easily recognized symbols to give the patient the information of when and how often to take his medication. The patient can take this to his provider on each office visit.

GOAL AND OBJECTIVE

The goal of the project was to develop methods of utilizing current technology, that are patient and caregiver focused, easily readable and maintained and that can be utilized in the patient's home environment and portable between home, hospital physician offices, to increase the safe administration of home medications.

MASSENA MEMORIAL HOSPITAL

Title of Poster: Patient Safety with Bedside Medication Verification at Massena Memorial Hospital

Project Staff: Kelley Tiernan, CFO, Sue Beaulieu MA, RN, Eric Miller, RPH, Marilyn Carr RN, Julie Bradley RN, Leo Tallman RN

Project Leaders: Marilyn Carr RN, Julie Bradley RN, Leo Tallman RN

PROJECT OVERVIEW

Massena Memorial Hospital received grant funding to support the implementation and training component of the point-of-care bar coding medication administration system. The grant funding was essential to ensuring a successful transition to a computerized “systems” approach to medication management. The focus of our grant project is the prevention of medication errors and providing education on pharmaceutical and patient safety.

Massena Memorial Hospital began using Meditech Bedside Medication Verification system to administer medications to inpatients on Medical, Surgical, Pediatric, Telemetry and Intensive care units April 22, 2010.

Bedside Medication Verification **BMV Safety Features:**

- Prevents Administration Errors
- Increases Communication between Disciplines
- 5-Rights Ensured through Medication and Patient Scanning

Bedside Medication Verification (BMV) allows caregivers to utilize bar code scanning technology prior to administering medications to confirm patient identity and medication information against data readily available via MEDITECH's electronic Medication Administration Record. Immediate access to a patient's current pertinent results and medication administration information greatly reduces preventable medication errors. The use of bar code scanning increases accuracy and efficiency of caregivers completing medication administration records, providing physicians faster and easier access to critical information to manage patient care.

You can use BMV and the eMAR to do the following:

- View critical patient information such as allergies, latest test results, and vital signs
- Document the administration of medications
- Enter comments relating to the administration of medications
- Enter reasons why a medication is not being administered
- Adjust the actual dose being administered
- View and change a medication's scheduled administration time
- View a medication's order and dose instructions
- View a medication's label comments
- View a medication's clinical indicator
- View a medication's monograph
- View patient allergies
- View associated data for specific medications.

Note: Audit reports are available to detail the patients electronic Medication Administration Record.

GOAL AND OBJECTIVE

The overall goal of implementing a point-of-care barcode medication administration system is to increase patient safety, reduce medication errors, and reinforce the Medical Center's commitment to promoting a culture of safety. The overall objective of the proposed grant project is to develop a formalized implementation and training program with the support of Meditech to ensure a smooth transition to the point-of-care barcode medication administration system.

NORTHEAST HEALTH ALBANY MEMORIAL AND SAMARITAN HOSPITAL

Title of Poster: Pharmacist Medication Reconciliation

Project Staff: Administration, Nursing and Pharmacy

PROJECT OVERVIEW

The team used the Lean tool “Value Stream Mapping” to review the pharmacy workflow. A work plan was developed that would allow changing pharmacist assignments to allow more time for medication reconciliation. Daily huddles with assignments were instrumental in directing the department. The team received real-time information to improve the rate of medication reconciliation.

GOAL AND OBJECTIVE

- Increase medication reconciliation at Albany memorial and Samaritan Hospital by Pharmacists to 100% of patients within twenty four hours of admission
- Increase pharmacy workflow...efficiencies
- Improve efficiencies of transition of care as patients move from one area to another
- Reduce medication errors
- Reduce redundant orders at admission & discharge
- Reduce drug costs/stay
- Increase pt and family awareness
- Reduce waste (drugs, staff time, etc.)
- Reduce diversion & opportunities for controlled substances by our pts.
- Set outcome standards
- Reduce variation in accuracy & completeness of medication reconciliation

SOUTH NASSAU COMMUNITIES HOSPITAL

Title of Poster: Improving Medication Management Following Hospital Discharge through Patient-Centered Education and In-Home Monitoring

Project Staff: Debra Winchester, RN DON; Dorothy Wolff, RN Home Care Assistant Director of PI/Staff Development; Debra Guerrini RN Director Case Management; Diane Ambrose LMSW, Director of Social Work; Julian Herraro Cultural Initiatives; Michael Autorino, Pharmacist; Meg Gambale, Assistant Risk Manager; Gail Heenan, Nurse Manager; Valella Rhem, Nurse Educator; Patricia Roth, Clinical Nurse Specialist Behavioral Health

Project Leaders: Maryann Demeo RN Assistant Vice President for Quality
Nancy Helenek Administrative Director for Care Continuum-Home Care

PROJECT OVERVIEW

Primary activities included: the creation of culturally and linguistically-appropriate patient medication education materials; the provision of patient-centered medication education for SNCH hospital inpatients and their caregivers, with nurses as primary teachers; and the provision of in-home medication education and monitoring via home care services for patients identified as in need of additional support for safe medication use following hospital discharge. Training was provided to hospital clinical staff regarding new protocols for patient medication education. Training was also provided to selected supervisory and field staff of SNCH Home Care in geriatric medication management to improve clinical outcomes for older home care patients, for whom medication compliance can be particularly challenging. In addition, SNCH Home Care piloted the use of remote medication monitoring devices for homecare patients meeting specified medication management risk criteria.

GOAL AND OBJECTIVE

Goal

The goal of the project is to improve patient safety and control healthcare system costs by improving post-discharge medication management for patients of South Nassau Communities Hospital (SNCH).

Objectives

- To improve patients' and caregivers' knowledge and understanding of the safe use of prescribed medications through patient-centered education during the hospital stay;
- To improve in-home medication monitoring and compliance through home care services for patients meeting specified criteria;
- To prevent adverse drug events and hospital re-admission due to problems arising from medication usage in the home.

ST. JOSEPH'S HOSPITAL HEALTH CENTER

Title of Poster: Preventing Negative Outcomes from Anticoagulation Therapy (P-NOAT)

Project Staff: Stacy Keppler , Pharm D, BCPS
Karen Whalen BS Pharm, BCPS
Deidre Pierce, Pharm D, BCPS

Project Leaders: Bernie Delello,BS, Pharm D.

PROJECT OVERVIEW

We plan to utilize a risk potential trigger tool and pharmacist intervention to prevent harm to patients from anticoagulation therapy. This would be accomplished by (1) utilizing a computerized surveillance program based on defined triggers to identify patients progressing toward a negative outcome, (2) having an Anticoagulation Program Management Pharmacist intervene in the patient's care before the negative outcome actually occurs, and (3) identifying and empowering an Anticoagulation Program Management Pharmacist to oversee the safe and effective use of anticoagulants in the hospitalized patient.

GOAL AND OBJECTIVE

The overall goal of *P-NOAT, Preventing Negative Outcomes from Anticoagulation Therapy*, is to decrease the number of negative outcomes for patients at St. Joseph's Hospital Health Center from the use of anticoagulants.

ST. ELIZABETH MEDICAL CENTER

Title of Poster: Implementation of a Point-of-Care Bar Code Medication Administration System

Project Staff: Kathy Ward, MA, RN
Mary Koury, R.Ph
Angela Renzi, R.Ph
Chris Todd, PharmD
Mike Millett, RN

Project Leaders: Kathy Ward, MA, RN
Mike Millett, RN

PROJECT OVERVIEW

St. Elizabeth Medical Center received grant funding from Health Research Inc. (HRI) to support the implementation and training component of the point-of-care bar coding medication administration system. The grant funding was essential to ensuring a successful transition to a computerized “systems” approach to medication management. The focus of our grant project is the prevention of medication errors and providing education on pharmaceutical and patient safety.

St. Elizabeth Medical Center selected Horizon Admin-Rx for our point-of-care medication administration system. The Admin Rx system is designed to receive and display real time patient medication orders that are processed through the pharmacy’s order-entry system. It allows for automated administration and charting of scheduled orders. The Admin Rx application validates the pharmacy-entered orders against the 5 Rights of administration to help ensure safe medication administration procedures; shifting to a “systems” check approach away from an individual/human check approach.

GOAL AND OBJECTIVE

The overall goal of implementing a point-of-care barcode medication administration system is to increase patient safety, reduce medication errors, and reinforce the Medical Center’s commitment to promoting a culture of safety. The overall objective of the proposed grant project is to develop a formalized implementation and training program with the support of McKesson to ensure a smooth transition to the point-of-care barcode medication administration system.

STATEN ISLAND UNIVERSITY HOSPITAL

Title of Poster: STUDY OF IMPROVED EFFICACY, SAFETY AND COMPLIANCE TO ADMINISTER INSULIN IN PEN DEVICES VS VIALS AND SYRINGES = DISCOVERY OF BARRIERS TO INSULIN INITIATION

Project Staff: Debra Marotta RN, BS, CDE (Diabetic Educator), Michael Coyne, MS, RPh (Pharmacy Project Director, Cynthia D'Auria, RN, BSN, CIC (Patient Safety Project Director), Janemarie Viscardi, BS, MS, Pharm.D. (Co- Investigator), Kiera Weiserbs, MHS, PhD (Statistician), Elaena Quattrocchi, BS, Pharm.D. FASHP (Assistant Project Mgr)

Project Leader: Jeffrey Rothman, MD, FACP, FACE

PROJECT OVERVIEW

In April 2009 our study team began to develop a trial of insulin pens as compared to syringe-and-vial therapy in an attempt to validate the hypothesis that pen devices improve safety by preventing dosing errors. A second safety assessment examines the relative frequency of hypoglycemia with the two methods of insulin administration. In addition, the study examines the question of whether pen devices increase adherence to therapy compared to syringes and vials. Patient satisfaction is assessed as well, since adherence to therapy is related to patient acceptance of the method of treatment.

GOAL AND OBJECTIVE

Our study group anticipated enrolling up to 235 patients (the number of subjects was based on budgetary considerations). Study entrance required an established diagnosis of diabetes or the discovery of diabetes during the hospitalization. The patient number was felt to be easily achievable given 8,371 patients were discharged from our institution in 2008 with either a primary or secondary diagnosis of diabetes.

After 7 months of pre-screening involving 1,342 patients, 35 patients were enrolled in the trial. In the course of the study it became apparent there were many barriers to initiation of therapeutically appropriate insulin treatment. In addition to performance of the clinical trial related to methods of insulin administration, the study direction shifted to focusing on the identification of barriers to initiation of insulin therapy. Once barriers were identified, a corrective action plan was developed consistent with best practices. The plan involved education of hospitalists, residents, primary care physicians and sub-specialty physicians on the importance of the appropriate use of insulin in the hospital setting and at discharge. Several educational endeavors were undertaken including the creation of both physician and patient education guides.

This project revealed problems related to the appropriate initiation of insulin. This is a cultural and behavioral problem that transcends the importance of the study as originally conceived. These findings will lead to attempts at changing physician behavior and institutional culture. A Certified Diabetic Educator will remain on staff post-study to accomplish these changes.

UNIVERSITY HOSPITAL AT STONY BROOK

Title of Poster: Polypharmacy in the Elderly: Utilizing an IT Program and an Emergency Department Pharmacy Consult for Medication Debulking, Adverse Drug Event Detection, and Cost Savings

Project Staff: Alaienia, Caesar, Pharm.D.; George, Sunil, M.D.;
Giouroukakis, Mary, Pharm.D.; Henry, Mark, M.D.;
Samu, Sherene, Pharm.D.; Tottenham, Dawn, M.D.

Project Leader: Melina Khwaja, M.D.

PROJECT OVERVIEW

Patients age 65 or older who are on greater than 5 or more medications and consent to the study will have a licensed pharmacist consultation during their ED stay. In addition to standard care from the Emergency physician, the pharmacist will take a full medication reconciliation for each patient. Utilizing computer programs accessible to them at SBUH- Micromedex, lexi-com, and Cerner- the pharmacist will make recommendations regarding the patients home medications. They may suggest removing certain medications because of redundancy, safety profile, or for other reasons which they will explain on their consult. They may recommend substituting existing medications with less costly alternatives that are just as efficacious. The consultation will be given to the Emergency physician who will review the suggestions and make changes accordingly. the pharmacy consultation will also be faxed to the patients PMD's office and attached to the patient's chart so all physicians involved in the patients care will have an opportunity to see the pharmacists recommendations. All patients enrolled will have 2 follow up calls placed by Emergency Department physicians at approximately 15 and 30 days post discharge from the ED. The PMDs will also receive 2 phone calls at 15 and 30 days post discharge to home. The follow up ED physician will be focusing on whether the pharmacist recommendations were followed and why or why not. They will specifically be looking at the number of medications the patient was on, and if the total number was reduced and by how many. Also, they will be inquiring about cost savings appreciated by the patient.

GOAL AND OBJECTIVE

Main Goals:

1. **Reduce the number of medications prescribed to the elderly:** having pharmacist suggest medications that can be debulked because of various reasons, i.e. Redundancy, safety profile
2. **Increase physician awareness of potential adverse drug events:** having the pharmacist suggest medication changes or debulking because of side effect profile of drug, interaction with patients other drugs or disease state
3. **Reduce the cost incurred to the healthcare system (patient or insurance company):** having pharmacist suggest more cost effective drugs and give estimate on cost savings per month if change were to be instituted
4. **Other measurements:** length of time taken to utilize it systems for medication interactions and potential adverse drug events and length of time to do a thorough medication reconciliation in the ED.

SUNY DOWNSTATE MEDICAL CENTER

Title of Poster: PHARMACEUTICAL SAFETY INITIATIVE

Project Staff: Annie Mooser, BA

Project Leaders: Muhammad H. Islam, MS, MCH

PROJECT OVERVIEW

The initiative provided bedside education to patients on the medicine and medicine/surgery units regarding treatment for their condition, medication indications, and medication management plan outside of the hospital.

In the second phase of this project, correct response rates for patients who received education and responded to inquiry about the indications of their inpatient medications were noted. During each phase of the initiative, the principal focus of education was inpatient medications and their indications.

GOAL AND OBJECTIVE

This project was an effort to support the existing hospital staff and improve overall patient knowledge and encourage a responsible continuum of care. Overall goal is to nourish a culture of compassionate health care through patient education. Through this enhanced pharmaceutical education and safety initiative, our goal is to maximize patient safety with regard to medication usage.

SUNY UPSTATE UNIVERSITY HOSPITAL

Title of Poster: “Reducing Dispensing Errors in Hospitals Using an Innovative Packaging System to Replenish Automated Dispensing Cabinets”

Project Staff: Robert Wagner, Pharmacist Reviewer
Patricia DeMasso-Anderson, Clinical Research Assistant

Project Leader: Steven J. Ciullo, Principle Investigator, Director of Pharmacy Services

PROJECT OVERVIEW

Background:

It is estimated that there are between 380,000 to 450,000 preventable ADEs occurring in the hospital setting annually. Although dispensing error rates are relatively low in hospitals, the high volume of medication dispensed may contribute to 100 or more undetected dispensing errors a day in a busy hospital pharmacy department. An analysis of reported New York State medication errors found that most errors occurred during the administration process (41%) and that dispensing errors (18%) were not as prevalent. What has not been established is how often unidentified filling and dispensing errors contribute to administration errors.

Even when automated pharmacy carousel systems (APCSs) and pharmacy based bar code scanning verification systems are utilized, it is nearly impossible to scan every dose of medication prior to dispensing. Failure to fully read the medication label before dispensing is considered to be one of the most common at-risk behaviors. A pharmacy bar code technology system that does not include scanning every dose of a drug during the dispensing process significantly contributes to frequency of dispensing errors and the potential for ADEs and harm to patients.

GOAL AND OBJECTIVE

The goal of this study is to determine whether using “controlled packaging” in a hospital pharmacy setting would reduce filling and dispensing errors the potential for serious adverse drug events adverse drug events (ADEs). “Controlled packaging” is defined as packaging or repackaging of small volume parenterals (SVPs) that takes place under controlled conditions to insure that the contents are consistent with the external labeling. The package labeling includes the drug name, strength, concentration, vial size, expiration date and quantity, as well as bar-code symbology depicting the NDC number or hospital medication ID number.

The cost associated with utilizing a “controlled packaging” strategy was also evaluated to determine the sustainability and replication potential of this medication safety system.