PHA 5943
Practicum III

Project Abstracts: 2002

Inpatient Sites

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Practicum Site: Monroe Regional Medical Center, Ocala

Preceptor(s): Mike Harper

Practicum Students: Brandy Karn
Paul Ferguson
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Project Title: *Nursing awareness of the timely entering of complete patient demographic data upon the patient's admission*

Purpose: To raise nursing awareness of the importance of the timely entering of complete patient demographic data into the hospital computer system upon the patient's admission. This data, especially height, weight and allergies, is required by the pharmacy department to ensure proper dosing of medications and to ensure that contraindicated medications are not dispensed.

Methods: The individual nursing units will be listed with the total number of admissions into the unit along with the number of admissions with incomplete demographic data. A letter will be sent to each nursing unit that will include their number of admissions and how many of them were incomplete. This letter will include the reasons for the importance of getting this information to the pharmacy department in a timely manner (i.e. fewer calls from pharmacy, medications will be available much sooner). A second set of data will be collected to see if there are any improvements in getting complete data.

Results/Conclusions: The findings and conclusion will be listed in the same format as the other data.

Practicum Site: North Florida Reception Center

Preceptor(s): Jackie Roberts

Practicum Students: Bambi Nelson
Diana Hunt
Claudia Lopez
Maria Jose Pallares

Project Title: *Prescribing Discrepancies at North Florida Reception Center for Antipsychotic Medications*

Purpose: The pharmacy manager at the North Florida Reception Center (NFRC) notices that the pharmacy constantly discontinues and reenters the same prescriptions for the same patients for psychiatric medications. The time to discontinue and reenter the prescriptions and the amount of pills lost accumulates and results in a net loss. The purpose of this project is to reveal to the administration the costly nature of the prescribing practices of physicians at the NFRC so as to reevaluate those practices and therefore encourage cost effective prescribing. The study focuses on prescribing discrepancies involving five psychiatric medications: Celexa, Paxil, Seroquel, Zoloft, and Zyprexa.

Methods: A list of patients on these medications during last year was provided by NFRC. The study looked for early discontinuation dates versus new start dates and the net loss between each discrepancy. Net loss was calculated based on the cost to discontinue and reenter a new prescription (for the same drug, quantity, and directions) - time to fill a new prescription, time to discontinue a prescription, pay rate, and minimal materials (drug cards for pre-packaged 30 day supply).

Results/Conclusions: The study showed that the average cost to fill a prescription is $86.96 and the total cost to discontinue and refill the same prescription is $88.48. Data collection is still in progress; however, the trend is toward early discontinuation of prescriptions, which results in lost time and money for the Pharmacy.

Practicum Site: Shands Hospital

Preceptor(s): Kathleen Reilly

Practicum Students: Anna Battaglia
Lovetta Epie
Damien Haynes
Theresa Okorochukwu
Sergeson Richard

Project Title: *Shands Hospital Discrepancies Between nurse's handwritten Medication Administration Records (MARs) and the pharmacy database*

Purpose: The purpose of this project is to define what information is currently being put on hand written MAR's by the nursing staff and Shands hospital and what discrepancies exist between the current hand written MARs and the Shands pharmacy data base. The data from this project will be used by Shands in implementing a new computer system in January 2003. Part of the implementation will include generating computer MARs.

Methods: The design of the project includes comparing pharmacy profiles to MARs at designated nursing units in Shands. Discrepancies will be recorded daily on a data sheet, which categorizes the discrepancies.

Results/Conclusions: To date the most frequent discrepancy found has been between the time at which the pharmacy says a medication is to be administered and the times at which the nurses record that the medication is to be administered. Also noted are any comments that appear on the nursing MARs that do not appear on the pharmacy database so that these maybe included efficiently when MARs are computer generated.

Practicum Site: Shands Hospital

Preceptor(s): Kathleen Reilly

Practicum Students: Tapan Shah
Arthur Yeung
William Terneus
Tim Cheung
Robert Rantinella

Project Title: *How Often Recommended Dose Adjustments Actually Occur*

Purpose: To determine if the recommended medication dose changes made by the Pharmacist, based on creatinine clearance levels, are being implemented. There are two routes available for drugs to be eliminated from the body, hepatic metabolism and renal excretion. If a drug is extensively eliminated by the kidneys, impairment in renal function would significantly reduce the amount of the drug eliminated. Ultimately causing an increased concentration of the drug in the body, out of therapeutic range and possibly toxic.

Methods: Creatinine clearance volumes are routinely determined from patients over the age of 65 upon admission to the institution until they are discharged. The Pharmacist makes recommendations based on: 1) the route of elimination of a drug the patient is taking and 2) the patients creatinine clearance. We receive a copy of the daily recommended changes and compare them with the patient's charts after a period of 24 hours.

Results/Conclusions: Based on preliminary data, the Pharmacists recommendations are not being implemented.

Practicum Site: Shands Cancer Center Pharmacy

Preceptor(s): Kathleen Reilly

Practicum Students: Kristen Bell
Patrick Rogers
Mike Tesson

Project Title: *Documentation of CII use at Shand's Cancer Center Pharmacy*

Purpose: The purpose of this project is to document the use of CII substances at Shand's Cancer Center Pharmacy. Shands is applying for accreditation to be covered by a wider range of insurance companies. They are required to provide documentation of various statistics including use and disposal of these drugs. The CII's leave the pharmacy with general directions, the nurses give the dosage required, and any excess is recorded. The pharmacy has found that they are unable to track an exact amount of waste, which is what the insurance company would like to know.

Methods: Our project's design is to go to the nurse's station and check records of CII use over the past 4 months. We will document the amount given to the patient along with the amounts that were either discarded or returned to the pharmacy. The pharmacy intends to make this a new policy on inventory.

Results/Conclusions: Our data will be gathered up through the month of November and the findings tallied at that point. In summary, this documentation will help Shand's Cancer Center cover more patients under different insurances.

Practicum Site: Shands at AGH

Preceptor(s): Cynthia Batts

Practicum Students: Elham Alipour-Mohbpour
Stefanie Edinger
Teresa Finney
Megan Hedin-Jones
Karrie Rogers

Project Title: *Medication Error Prevention*

Purpose: The purpose of this research project is to bring to surface the quantity and range of errors that occur at Shands AGH, and to measure the outcomes. With this, the goal is to achieve a more efficient system to prevent errors from occurring.

Methods: In order to gather data, an error prevention form has been created for the pharmacist to complete when an error occurs. This form will contain the pharmacist, date, patient's initials and MR# for reference. It will categorize type of error, resolution, if any, time lapsed, and outcome. This information will be statistically analyzed to determine applicable patterns, if any.

Results/Conclusions:

	Number of errors	Errors resolved	Unresolved	Time to resolve	Prev. ADR	Dec. hospital stay	Dec. cost	Other
Illegible	1	1		2 minutes	1			
Patient Name								
Height and/or Weight								
Allergy	4	4		79 minutes	4		1	1
Wrong Medication for Indication	1	1		15 minutes	1			
Dose Adjustment	8	8		77 minutes	3			3
Frequency	3	3		318 minutes	2			1
Drug Interaction	2	2		20 minutes	2			
Non-formulary	5	3	2	184.5 minutes			1	1
Other	11	11		717 minutes	4		3	1

Practicum Site: Malcolm Randall VA Medical Center

Preceptor(s): Bill Garst

Practicum Students: Jason Beattie
Laura Busenbark
Pooravi Gohil
Heather Hardin
Christopher Hood

Project Title: *Implementing a Plan to Improve the Efficiency of the Research Pharmacy Quarterly Audit at the Malcolm Randall VA Medical Center*

Purpose: The purpose of this project is to implement a plan to increase the efficiency of audit procedures for non-pharmacy personnel at the Malcolm Randall VA Medical Center Research Pharmacy.

Methods:

1. Create audit forms.
2. Create written procedures for the audit.
3. Label/Organize shelves.
4. Organize inventory logbook.
5. Design map of research area for easier location of drugs.
6. Implement plan.

Results/Conclusions: The goal of the project is to find that our audit procedure reduces the amount of time that auditors (non-pharmacy personnel) spend while performing the required audit. The results of this project are yet to be seen, its outcomes seem promising. An explicit plan was implemented, in order to increase the efficiency of audit procedures for non-pharmacy personnel at the Malcolm Randall VA Medical Center.

Practicum Site: VA Medical Center

Preceptor(s): Bill Garst

Practicum Students: Annamma Varughese
Stephanie Luke
Thanh Nhat Nguyen
Avani Patel
Anisha Varghese

Project Title: *VA Medical Center Investigational Drug Patients Without Documented Drug Allergies*

Purpose: The purpose of this project is to note the patients in the VA investigational drug system that do not have documented drug allergies. After discovering those patients, we will attempt to contact the patients to obtain any currently known drug allergies for entry into the system and future reference.

Methods: The design of the project includes multiple steps beginning with hardcopy listings of investigational drug dispensing. We organized the lists and eliminated the duplications. To keep track of all the patients and pertinent information throughout the project, we created several forms and data collections sheets. We have searched the VA computer system for documented allergies on each patient's file and the results were noted on the data collection form.

Results/Conclusions: To date, we have noticed that approximately 15-20% of the given patients have no allergies documented. We intend to compare documentation for each year, site of study, and individual study to measure the efficiency and accuracy of data collection within the VA pharmacy research department.

Practicum Site: Shands at Vista

Preceptor(s): Betsy Dodd

Practicum Students: Chris Workman
Jacob Reiche
Keith Lowe
Tuan Doan
Jitendra Saraswat

Project Title: *Monitoring Liver Function Test Results in Patients Receiving Potentially Hepatotoxic Medications*

Purpose: The purpose of this study is to determine if monitoring patients receiving potentially hepatotoxic medications is beneficial to prevent adverse reactions and possible liver failure.

Methods: This study involved monitoring liver function tests of in-patients that were undergoing rehabilitation, either physical or psychological, at Shands at Vista. The patients studied were receiving one or more of the following medications, which placed them at higher risk for hepatotoxicity: Atorvastatin, Simvastatin, Dilantin, Divalproex, Depakote, and Tizanidine.

Results/Conclusions: We hope to find trends in abnormal liver function tests for specific drugs, and identify possible trends of abnormalities related to patient's age or current condition. We also hope to find any trend that may put more emphasis on monitoring physical and psychological rehab patients. We hope to conclude with compelling evidence that monitoring liver function tests in patients on hepatotoxic drugs can improve their quality of life by decreasing the side effects related to toxicity and prevent end stage liver failure. Findings and conclusions are subject to change upon completion of study.

Practicum Site: Option Care

Preceptor(s): Randy Ealy

Practicum Students: Jennifer Steinberg
Amy Seibold
Brian Anger
Kerry Dennis
Victoria Taylor

Project Title: *Analysis of Medication Wastage in the Home Health Care Setting*

Purpose: The purpose of our project is to track medication wastage and to categorize the reasons for the wastage. The criteria we have chosen to classify wastage are *lab results were late, dose was changed, medication was discontinued, patient admitted to hospital/ patient deceased, or equipment failure.*

Methods: Data collection entails the practicum students tracking wastage when on site and recording information on a form we have created. When a practicum student is not present, pharmacy staff is kindly tracking and recording data on the form we have provided. Presently, we are in the data collection phase. Antibiotics and total parenteral nutrition (TPN) are the classes of medications where most wastage occurs. The categories chosen are adequately covering reasons for wastage.

Results/Conclusions: Currently, we are observing a lack of communication between the pharmacy, physician, and patient as a major cause of wastage. Our *patient admitted to hospital/patient deceased, medication was discontinued, and dose was changed* results are usually attributed to this explanation. Upon completion of data collection, we will analyze the feedback, present results, and make recommendations to reduce wastage. This process was approved by our preceptor and the staff is eagerly awaiting our results.

Practicum Site: Shands at AGH

Preceptor(s): Cynthia Batts

Practicum Students: Molina, Emerson
Waliji, Alifia
Dopp, Kathleen
Spitz, Benjamin
Abdullah, Nefertiti

Project Title: *Frequency of Missing Doses*

Purpose: The aim of this project is to determine the frequency of missing doses within the inpatient pharmacy. The purpose of such a task is to present the information to pharmacists and technicians so that the number of missing doses alleviates and technicians do not have to spend their time taking medications individually to particular floors within the hospital. Rather, all medications should be placed in the patient's drawer during the *cart fill* process.

Methods: The design of this project is to collect the following data: time and date the drug was reported missing, dosage form of the missing drug, department within the hospital that the missing drug/report originated (i.e. intensive care unit—ICU, cardiovascular floor, etc.), and the missing drug's name.

Results/Conclusions: The findings for the project presents that certain drugs were found missing particularly on a certain day and could be traced back to a particular technician or pharmacist. Additionally, nurses on patient floors sometimes misplace medication or simply do not see the drug in the patients' medication drawer. Hence, our conclusion is to present to pharmacists and technicians to insure that the correct drug is appropriately placed in the patient's medication drawer the first time the drug is requested by the physician.