

Carteret Health Care

Standard 4.7 Studies of Quality

2016 – Voice Orders Error Prevention

Quality Improvement Coordinator: Liz Moore, BSN, RN-BC, CNOR

Problem Identified (This study is being conducted to determine the root cause of this problem):

Q1 2016 (FY) (October – December 2015) Oct/Nov 2015 = 177 errors/394 orders; Dec 2015 = 114 errors/226 orders = error percentage rate: **47%**

Errors identified:

- Allergy information discrepancies
- Lab result/guideline discrepancies
- Cycle # discrepancies
- Volume and rate of medication missing
- Missing patient identifiers
- Height/Weight discrepancies
- Order/Concise Treatment Plan discrepancies
- Changes in orders handwritten and not added in Voice Orders

Study Methodology and Criteria for Evaluation:

Pharmacy staff documented on daily schedule any orders that contained errors for specified time period – February, March, and April 2016

October – December 2015; February 2016: Pharmacist manually counted number of orders received during the time period

October – December 2015; February 2016: Pharmacist calculated error percentage by using number of errors/ number total orders

March – April 2016: Pharmacist calculated error percentage by using clinical statistics collected by scheduler using number of outpatient chemo patients

National Benchmark or Guideline for Comparison:

References:

1. <http://www.ismp.org/tools/pathwaysection1.pdf>
2. <https://www.ashp.org/DocLibrary/BestPractices/MedMisGdlAntineo.aspx>

Goal: 100% order accuracy; 0 errors

Analysis of Study Findings and Results:

January 2016 no data collected during the change of processes

February 2016 = 28 errors/150 orders = error percentage rate: **19%**

March 2016 = 4 errors/207 orders = error percentage rate: **1.9%**

April 2016 = 1 error/193 orders = error percentage rate: **0.5%**

Comparison of Data with National Benchmark or Guideline:

ISMP Pathways for Medication Safety: Leading a Strategic Planning Effort

- a. *Reduce the risk of errors with high-alert medications prescribed and administered to high-risk patient populations or at vulnerable periods of transfer through the health care system.*
- b. *Establish standard order sets for high-alert medications use as appropriate.*
- c. *Establish a consistent process for a cognitive, independent double check of all high-alert medications, e.g. chemotherapy, before administration.*
- d. *Establish institutional, therapy-specific dose limits to decrease opportunities of an improper dose reaching the patient.*

<http://www.ismp.org/tools/pathwaysection1.pdf>

ASHP Guidelines on Preventing Medication Errors with Chemotherapy and Biotherapy

1. *Medication profiles for cancer patients should, at a minimum, include the following information:*
 - a. *Patient's name and a unique identifying code or number.*
 - b. *A brief medical history that identifies a patient's cancer diagnosis.*
 - c. *Known drug-related adverse events, allergies, and medication-, nutrient-, and food-related sensitivities.*
 - d. *Vital statistics that may affect treatment intensity, particularly those needed to calculate medication doses, including height, weight, BSA, age, sex, and pertinent laboratory values (e.g., serum creatinine, creatinine clearance, liver transaminases)*
 - e. *Data about all prescription, over-the-counter, and complementary and alternative medications used by a patient...*
 - f. *Drug dosage and reason(s) for any dose adjustments, as appropriate;*
 - g. *Total drug dosage administered per unit interval (e.g., day, week, treatment cycle);...*
 - h. *Administration schedule as a function of the treatment plan (e.g., every 3 hours, days 1, 8, and 15, with the specific treatment dates);...*
 - i. *Prescribed duration of use (e.g., number of doses to administer; number of treatment hours, days, or weeks);...*
 - j. *An up-to-date treatment history...*
2. *Standardize Medication Ordering. To the extent possible, medication prescribing, preparation, dispensing, and administration should be standardized....*
3. *Patient-care facilities should develop and use standardized preprinted medication-order forms or forms that are retrievable from a computerized database for requesting frequently used chemotherapy treatments and treatment related services. Well-designed standardized, regimen-specific, medication-order forms decrease potential errors by organizing treatment information in a clear, consistent, and uniform format.*

<https://www.ashp.org/DocLibrary/BestPractices/MedMisGdlAntineo.aspx> (pages 3-4)

Corrective Action Plan and Follow up Actions:

1. Create Pop-up requiring allergy information to be entered
2. Prior to provider signing order enable a double check by Pharmacist to review set up.
Items for review:
Labs
Cycles
Volume/rate
Ht/wt
3. Separate pre-meds from other information on order
4. Develop templates for every medication
5. Define providers intent of different frequencies on the order

Quality Improvement Implemented: February 2016

Changes made in Voice Orders:

1. Created Pop-up requiring allergy information to be entered
2. Prior to provider signing order enabled a double check by Pharmacist to review set up.
Items delineated for review:
Labs
Cycles
Volume/rate
Ht/wt
3. Separated pre-meds from other information on orders
4. Developed templates for every chemotherapy medication
5. Defined providers intent of different frequencies on the order(s)