Standard 4.8 - Quality Improvements

Implement an interdisciplinary process for patient safety related to establishing standards for Chemotherapy Ordering

Department(s): Pharmacy

Date: March 2014

Rationale - Reason for monitoring this process/procedure **Plan**	Chemotherapy is an important, but obviously complex element of cancer treatment. The rapid influx of new medications, strict requirements for preparation and administration, and increasing volume of patients, present a challenge to pharmacists and nurses. Clear and accurate chemotherapy orders are critical to providing excellent and safe care to our patients in a timely manner. Implement an interdisciplinary process for patient safety for preventing chemo errors and near misses**.** This was a quality study completed in 2013 (Standard 4.7) that the Cancer Committee would like to monitor in 2014.
Opportunity or Problem Statement - Define process being monitored **Plan**	• Inpatient and outpatient Oncology orders are manually written using a standardized order form. • Chemotherapy orders are not always completed before patient arrives for appointment. • Pharmacists routinely identify and correct medication errors in their review of written chemotherapy orders and patient histories, prior to preparation and dispensing. • If these errors had not been intercepted by pharmacists, they may have resulted in Medication Errors Levels D through I. • Clarification and Correction interrupts workflow, causes delays in treatment, and negatively impacts patient satisfaction. • Chemotherapy orders for patients receiving treatment between January 1, 2013 and June 30, 2013 were reviewed for errors. • Errors were defined as: o Incomplete order form o Wrong dose prescribed o Calculation error o Missing medication o Inaccurate patient demographic (height, weight, lab results) o Illegible handwriting o Improper utilization of form (Cross-outs, "White-out", unauthorized abbreviations, etc.) • Overall percentage of medication errors prevented was calculated by dividing number of errors identified and corrected (numerator) by the total number of orders written (denominator). Error types were also recorded.
Before Measures - Analyze Baseline **Plan**	• 710 chemotherapy order forms reviewed, corresponding to 24,220 data points. • 5400 errors identified and corrected by pharmacists (22.3% of all orders). • Errors found in every area of the order form. (Number in parentheses represents percentage of total errors.) o Demographics: n=3189 (59.06%) o Physician identifier/signature: n=923 (17.09%) o Pre-medications: n=764 (14.15%) o Chemotherapy medication orders: n=524 (9.7%) • 1058 individual orders with 524 errors identified and corrected: <u>49.5% of all chemotherapy medication orders contained errors that were prevented from reaching the patient.</u>
Opportunities for Improvement Identified & Change Implemented **Do**	• Form team to evaluate impact of chemotherapy errors o Pharmacy, Medical Staff, Nursing, Risk Management, Compliance • Pharmacy workflow changes immediately implemented: o Inpatient and Outpatient chemo/infusion preparation consolidated to one location in OPI satellite. o Increased pharmacist staff in OPI. o Direct phone line to satellite to expedite call-backs.

	• Ongoing
	  o Data collection: Chemotherapy orders January 1, 2014 to June 30, 2014
	  ▪ In addition to previous data points collected: Ordering physician, Medication Error Level, and costs associated with ordering errors.
	• Provide in-service to physicians in their offices.
	  o Present data and associated patient impact
	  o Review proper use of Chemotherapy order form.
	• Establish and enforce scheduling procedures with regard to incomplete orders.
	• Update Chemotherapy Order form
	  o Preprinted, regimen specific

After Measures – Evaluate Results **Check**	None at this time still looking for software that will best fit the needs at CMC.
Assessment of Action Taken & Future Plan **Act/Plan**	No update to create pre-printed regimen specific forms due to follow–up issues with physicians. CMC is looking into electronic software. We will follow up under the evaluation of the cancer committee 2014- Present time: CMC is presently working on an internal program, for the chemotherapy program forms, to reduce the errors until the system can purchase a centralized program for all Barnabas Health facilities.