

Medication Management

Annual Program Appraisal

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This Annual Program Appraisal is based on outcomes achieved during the measurement of our program's performance during last year. Outcomes are identified through review of performance measurement data, information resulting from our committee / team meetings (minutes available), as well as interviews and discussions conducted with staff and leaders throughout our Medical Center. Our global objective is to sustain performance gains achieved last year and continually improve all dimensions of patient care, service and safety during the coming 12 months.

OBJECTIVES:

To to provide safe, effective, and efficient medication management, consistent with regulations, best practices, and accreditation standards. The achievement of meeting our Objectives is reflected below in the Performance section of this annual appraisal.

SCOPE:

The scope of the program encompasses oversight, monitoring and improvement of the eight core processes of medication management throughout our Medical Center.

PERFORMANCE:

(Note: Measures may meet more than one core process.)

Core Process	Medical Center Process	Performance	Comment
Planning			
	Interdisciplinary policy development	P&T revised or developed 16 MM policies	Example new PP: Order Set Mngmnt IV Admixture Personnel-med admin Pharmacy consults
	Planning for expanding care service units.	Designed storage, distribution, administration workflow for CC, NICU, M/B	Transition to cartless distribution improved turnaround time (med availability).
	Pharmacist staffing	Increased staffing for CC and 3 rd floor; expanded NICU/M/B coverage	Met pharmacy goals for service this past year.
	High-alert medications	Insulin pen labeled with patient name: improved from 50 – 77% (dispensed via Pyxis)	ISMP/CDC alerts on use of pens for multiple patients; added clinical alert in Pyxis, educational efforts, ISMP newsletter highlights. Continue measurement and improvement process into our next year.

Core Process	Medical Center Process	Performance	Comment
Selection/ Procurement			
	Drug shortage management	Developed dept policy Designed/implemented Share Point site Implemented new communication plan Informatics collaboration	Manage average of 60 shortage meds/week. Weekly email communication. Utilize technology to support action plans.
Storage			
	Medication storage in patient drawers	LEAN project w/ pulmonary unit: redesign of med drawer improved organization, expanded house-wide	Increased bedside nursing time from 36-57% w/ improved efficiency in med administration.
	Controlled substance accountability	Monthly review of staff trends/Pyxis withdrawals completed 97% (avg)	Improvement from last year (95%); goal 100% Continuing to work with nursing.
	Controlled substance accountability	Narcotic discrepancies from return bin OR/L&D: 1-3%	New measure for this year; Assess for goal and investigate discrepancy
Ordering			
	HEO advisors	222 advisors available. Multidisciplinary team reviews for evidence-based care and safety.	New approval process including P&T begins this coming year.
	HEO prescribing alerts	Baseline monthly data: Allergy alerts = 3510 orders canceled = 12.5% Drug intx alerts = 847 Orders canceled = 8.7%	Plan: Analyze data to understand % resulting in order cancellation, develop action plan for this coming year.
	Antimicrobial utilization program	Pilot completed: skin, skin structure infections. Improvement in all areas: Appropriate empiric therapy 59% → 72%; Abx cost/patient discharge \$76 → \$64; Usage pip/tazo days therapy 81.1 → 47.5; C.diff cases 16 → 9/mo.	Plan: Expand program to include all patients on broad spectrum antibiotics.
	Medication reconciliation	Pharmacy team pilot in ED: 9.7 +/- 7.3 discrepancies/pt. Annualized error avoidance = 25,244 (2.1% potential harm)	Plan: Continue to monitor hospital-wide.

Core Process	Medical Center Process	Performance	Comment
Preparing/Dispensing			
	Pyxis overrides	Met goal <4% for 11 of 12 months	Continue to measure, review override meds for adherence w/criteria.
	Sterile product preparation	<1% (2/216) surface sample sites exceeded action limits	Actions taken, following samples without contamination.
	Drug recalls	Managed extensive recalls from NECC and Ameridose	Plan purchase this coming year, implementation of recall software
	Unit dose dispensing	Transitioned to unit-dose dispensing for oral liquids for all inpatients.	Increase in scope from pediatric liquids
Administration			
	IV infusion administration	Utilization of BBraun med library = 79%	Met goal (>74%).
	Bar-code verification	Consistently > 90%	Met goal
	INR documentation prior to warfarin admin	84% - does not meet goal (90%)	Slight decrease from previous year – reassess goals, continue working with nursing.
Monitoring			
	Anticoagulant therapeutic duplication	Reduced therapeutic duplication via multiple strategies by >90% post changes; increase to 1/mo over last qtr.	New type of alerts in HEO, HMM. Intensive education program for pharmacists (dept goal). Investigating reason for increase.
	Vitamin K usage	Improved appropriate dose and route from 80% (last year) to 85% (this current year). No doses administered IM this current year.	Continue to monitor and improve.
	Sedation for ventilated patients	# pt days on vent avg this past year = 5.26; Met goal	Goal = ≤ 7.9
	Novel antidotes	Developed templates for ordering/dispensing HEO, HMM; education	
Evaluation			

Core Process	Medical Center Process	Performance	Comment
	Renal dosing program	Compliance improved from 76% (previous year) to 87% this past year (Goal 90%) Expanded scope of program.	Assess goal for coming year.
	ICU electrolyte replacement	Reduced lab utilization by 17.4%, reduced costs > \$300,000/6 mo.	Implemented electronic protocol to standardize care
	Review/use external safety information	ISMP: assess/change practices for 44 recommendations FDA MedWatch: >33% resulted in action taken	

EFFECTIVENESS

1. Increase in cart-less distribution model improved turnaround time for antibiotics, critical care infusions, and other medications, and improved compliance with IV compounding standards.
2. Improved safety and effectiveness for managing shortages, through use of a Share Point documentation page and a new communication plan, including weekly updates.
3. Standardized organization of medication storage in patient med drawers housewide as result of a LEAN project. This resulted in increased bedside nursing time from 36 – 57% with improved efficiency in medication administration.
4. Antimicrobial utilization program pilot improved appropriate therapy, reduced antibiotic costs, and decreased Clostridium difficile associated disease cases from 16 to 9/month.
5. The program in ED for medication reconciliation by a pharmacy team reduced medication errors, with a potential annual cost savings of \$10 million if implemented house-wide.
6. Sustained improvement in Pyxis override rate from 17.5%, to 4.9% in, to 3.8% these previous three (3) years. Next year's target goal is <4%.
7. Completed transition to unit-dose dispensing for oral liquids for all inpatients.
8. Met current goals for utilization of smart pump safety medication library (BBraun).
9. Critical care electrolyte replacement protocol reduced lab utilization by 17.4% and reduced costs by over \$300,000/6 months.
10. Reduced therapeutic duplication of anticoagulants by over 90% post changes for 4 months using A3 problem solving techniques. Applied two types of new technology alerts.
11. Employed HEO advisors to enhance use of evidence-based medication therapy, increase compliance with TJC standards, and improve medication safety.
12. Reviewed and distributed 36 Institute for Safe Medication Practice (ISMP) Newsletters, and assessed practices for 44 recommendations, with actions taken based on assessments.
13. Distributed 27 FDA MedWatch Medication Safety Alerts, and over 33% resulted in practice change at WMC.

NEXT YEAR'S PERFORMANCE GOALS:

1. Improve efficiency and documentation of medication recalls through implementation of technology solutions.
2. Enhance medication security and distribution functionality through Pyxis upgrade.
3. Improve timeliness of IV safeguard medication library updates using infusion pump wireless upload features.
4. Assess labeling of insulin pens and implement actions for improvement.
5. Using new baseline measurements, establish goals for controlled substance accountability.
6. Analyze alert data to reduce alert fatigue and improve effectiveness of medication-related alerts during ordering, dispensing, and administration systems.
7. Revise smart pump library and increase library utilization goal to 80%.
8. Work with nursing on assessment of INR prior to warfarin administration, to meet 90% goal.
9. Continue formal review and assessment of ISMP recommendations through SafeMed Team.
10. Analyze reasons for increase in anticoagulation therapeutic duplication at end of last year, and create action plan.

Respectfully submitted,

. Program Manager Medication Safety
, Director of Pharmacy

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