CHI Memorial
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PHARMACY AND THERAPEUTICS COMMITTEE

DATE: May 16, 2019 CALLED TO ORDER: 7:00 A.M.
LOCATION: Private Dining Room ADJOURNED: 8:00 A.M.

Members Present:		**Members Absent**:		**Guests**:
Nathan Schatzman, M.D David Dodson, M.D. Mark Anderson, MD Richard Yap, M.D. Nathan Chamberlain, M.D Chad Paxson, MD	Patrick Ellis, PharmD Rachel Kile, PharmD Linda Johnson, PharmD Melissa Roden, RN Susan Fuchs, RD	Nan Payne, RN Shannon Harris, RN Michael Stipanov, M.D. Rodney Elliott Scott Harbaugh, Finance Jeffrey Mullins, M.D Jamie Barrie, PharmD Allen Atchley, M.D. Avni Kapadia, M.D F. Lee Hamilton, M.D.	Elvira Smith, RN Petra Green, RN Rhonda Polson, CNO	Nisha Patel, Resident Courtney Pearson, Resident Megan Nesbitt, Resident

This meeting will be convened under the protection of the Tennessee Statute 63-6-219 and the Health Care Quality Improvement Act of 1986, Public Law 99-660. All information, case reviews, meeting minutes, statistics and correspondence are confidential and protected. Included in that protection are those that are involved in the review of the information. Any discussion of this information outside the realm of Peer Review constitutes a breach and violates the protection of the persons involved in the breach.

AGENDA ITEM	FINDINGS OR CONCLUSION	ACTION, RESPONSIBILITY	STATUS
Minutes	The February 2019 minutes were approved as submitted.	Approved	Complete
CHI P&T Committee	**CHI P&T Committee March Decision Brief**: The full decision brief was not included in the P&T packet as all new system formulary medications or formulary changes were either consistent with existing Memorial formulary decisions or are described in the "Therapeutic Interchanges and Formulary Changes" section of the minutes below. The miscellaneous medication review listed below is part of the ongoing system P&T review completed for the intent of national formulary standardization opportunities across the entire CHI system. *Sacubitril/valsartan (Entresto)*- Rachel reviewed the updated usage restriction criteria which also removes previous prescriber restrictions (no longer restricted to cardiology only).	Information Approved	Complete Complete
Therapeutic Interchanges and Formulary Decisions	**1. Drug Class Reviews –** The below medications and classes represent formulary variances from the current CHI Memorial formulary. Rachel reviewed the below proposed formulary modifications as noted below. **a. Ophthalmic anti-infectives class**: The following ophthalmic agents were recommended for non-formulary status per system review: bacitracin ointment, Pred G ointment or suspension, gentamicin ointment, and neomycin/polymixin B/hydrocortisone suspension. A therapeutic interchange table was presented. **b. Miscellaneous agents:** The following medications were recommended for non-formulary	Approved Approved	Complete Complete

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	status per system review. Each of the medications are low use and it was recommended to designate each "non-formulary", with details as listed below. i. Chlorpheniramine 4 mg tablet ii. Hemocyte Plus capsule: Interchange to: Multivitamin 1 tablet + ferrous sulfate 300 mg tablet iii. The following will be non-formulary but use of patient's own supply, if admitted on this as a home regimen, will be allowed: 1. Piroxicam 10 mg capsule 2. Cabergoline 0.5 mg tablet 3. Trimethobenzamide 300 mg capsule 4. Oxandrolone 2.5 mg tablet 5. Tolnaftate 15 gm cream		
	2. Vabomere® / Avycaz® Formulary Interchange – Vabomere (meropenem/vaborbactam) is an IV anti-infective agent for the treatment of multidrug resistant (MDR) gram-negative bacteria (GNB). Published literature demonstrates improved outcomes compared to best available therapy, including Avycaz, and it is more cost-effective. It was recommended to replace Avycaz with Vabomere as the formulary agent for MDR GNB, restricted to infectious disease service and in patients who meet specific clinical criteria. Vabomere will be dose-adjusted per pharmacist renal dose adjustment protocol.	Approved	Complete
	3. Andexanet alfa (Andexxa®) Xa reversal agent – Rachel shared the March CHI System P&T committee decision to designate andexanet alfa as "non-formulary: do not stock" system-wide, along with reasoning which included the lack of availability of anti-Xa specific lab testing to confirm use of a DOAC prior to administration. Our committee discussed the available alternative, PCC at 50 units/kg, for DOAC-associated major bleeding as discussed at the February P&T meeting. The recommendation was to continue utilizing PCC in light of the system decision and data supporting PCC use for this indication.	Information	Complete
	4. N-acetylcysteine capsule Formulary Removal – Rachel presented a literature review of recently published randomized controlled studies that concluded n-acetylcysteine does not prevent contrast-induced nephropathy. CHI System P&T will also be removing this agent from formulary. Given this data, paired with low local utilization of the agent, the committee supported formulary removal of n-acetylcysteine capsules for contrast-induced nephropathy. This does not impact acetylcysteine for treatment of acetaminophen toxicity.	Approved	Complete
	5. Panhematin Restriction Criteria – Due to the high cost of Panhematin (hemin), an agent for the treatment of acute intermittent porphyria attacks, restriction criteria was proposed in order to ensure appropriate and cost-effective utilization. The committee approved the following criteria: **a.** Treatment of mild, moderate, or severe attacks of AIP in patients with established AIP i. Repeat urinary PBG test is recommended for confirmation of an acute AIP	Approved	Complete

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	attack **b.** Treatment of suspected AIP with appropriate diagnostic lab tests collected at presentation of attack: i. Elevated urinary PBG concentration ii. Elevated total urinary porphyrin level **c.** Treatment with Panhematin (hemin) should not be delayed while awaiting laboratory results		
Medication Use Evaluation	1. **Alternatives to Opioids (ALTO) –** Rachel reviewed our ALTO emergency department (ED) data and our Tennessee Hospital Association reportable data through December 2018. Given the sustained success of decreased opioid prescribing in the ED, the committee followed with a lengthy discussion about expanding the use of this protocol for inpatients admitted to the hospital. Regarding the two medications that would require the most RN education, lidocaine and ketamine infusions, it was recommended to consider a slow implementation with one at a time. It was also recommended to limit the initial implementation to only a portion of nursing units. Rachel will schedule a meeting with a small group of hospitalists to discuss and outline steps for implementation.	Follow-up discussion/progress update at next meeting.	Pending
Medication Safety	1. **ADR Summary (September 2018-December 2018) –** Rachel briefly reviewed the adverse drug reaction summary and no new trends were observed. Eighteen percent of ADRs were related to opioids and the percentage is anticipated to decrease with the implementation of Epic which will bring the elimination of range orders for doses. Two category 3 ADRs will be reported to the FDA MedWatch program. 2. **ISMP 2018-2019 Best Practice - Injectable promethazine –** The ISMP Best Practice 13 "Eliminate injectable promethazine from the hospital" was reviewed with the committee. The committee discussed the difficulty in removing injectable promethazine entirely from formulary. Promethazine is currently second or last line treatment for nausea/vomiting on existing order sets and the dose is limited to 12.5 mg maximum per dose. Suggestions were made to consider further dose limitations (e.g. 6.25 mg maximum dose), but any changes would be made post Epic implementation. It was the committee recommendation to contact nursing educators and IV team leadership to discuss the potential for underreporting of tissue injury due to promethazine at our institution, as this is not a known issue currently.	Information Follow-up discussion at a future meeting.	Complete Pending
Protocols & Orders	1. **IV Lidocaine (continuous infusion for pain) –** Rachel presented the updated Epic system ordering panel for lidocaine infusion for post-operative pain control, including contraindications, baseline monitoring/labs, nursing assessment/monitoring, and medication ordering options which reflected changes discussed during the last P&T meeting. The committee requested further clarification from cardiology on the "heart block" and "heart failure" contraindications, in addition to ongoing cardiac monitoring during the infusion. It was proposed to limit initial utilization to a subset of spinal patients in the ICUs, however Dr. Schatzman will speak with orthopedics to determine if 3	Approved	Complete

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	South should also be included. Rachel will follow up with Drs, Schatzman, Atchley, and Ramjee for clarifications to the panel in order to move forward with the Epic build on schedule. 2. **Alcohol Withdrawal – BZD "light" Protocol Update –** Megan Nesbitt, PGY1 pharmacy resident, presented the results of our data collection from the utilization of this protocol for treatment of mild to moderate alcohol withdrawal syndrome (AWS) or in patients at risk of developing AWS (Feb-May 2019), compared to our traditional alcohol withdrawal protocol (July-Dec 2018). Use of our benzodiazepine (BZD) sparing protocol has demonstrated success compared to the traditional protocol with the following results: lower average daily doses of lorazepam, lower daily CIWA scores, significantly less documentation of lethargy/sedation, and no escalations of care to ICU. The BZD sparing alcohol withdrawal protocol will be built in Epic. 3. **Antibiotic Dosing in Obesity –** Linda Johnson presented proposed dosing regimen changes to the existing pharmacist dose-adjustment protocol for piperacillin/tazobactam and cefepime in patients with obesity, per antimicrobial stewardship committee recommendations. The recommendations are based on recent pharmacokinetic/pharmacodynamics studies which show that our current dosing regimens may be inadequate to rapidly hit pharmacodynamic targets in this patient population. The committee approved the dosing changes as below, which will begin following the implementation of Epic: **a.** Piperacillin/tazobactam 4.5 gm IV x1 loading dose for all patients, followed by a BMI dosing strategy: i. BMI <30: 3.375 gm IV q8 hrs (4 hr infusion) ii. BMI ≥30: 4.5 gm IV q8 hrs (4 hr infusion) **b.** Cefepime 2 gm IV q8 hrs initial dose in critically ill patients with a BMI ≥30 **c.** Piperacillin/tazobactam and cefepime BMI dosing will continue to be dose-adjusted per pharmacist renal dose adjustment protocol.	Approved	Complete
Policy	1. **Look Alike, Sound Alike Medications –** Patrick reviewed the updated list of medications on the look alike/sound alike drug list. 2. **Insulin U-500 Administration –** Pharmacy will now dispense insulin U-500 pens instead of vials per ISMP recommendation. Use of the pen device requires the total dose of insulin to be rounded to the nearest 5 units. The policy was updated to reflect these changes. The committee was supportive of this requirement which allows for the safer pen device use of U-500 insulin. 3. **IV Push – Medication Administration & Monitoring –** Based on ISMP survey results which suggest action is needed to improve safety with adult IV push medications, CHI requires the development of a local, institutional policy for IV push administration. The following procedures were added to the existing medication administration and monitoring policy and was approved by the committee: a. Licensed, independent providers (e.g. physicians, nurse anesthetists, and others) may reconstitute and administer IV push medications, including the modification of	Approved Approved Approved	Complete Complete Complete

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	administration rate minimums where appropriate b. Nurses shall only reconstitute (adding sterile diluent to a lyophilized powder) IV push medications, when one of the following occur: i. There is an emergent need for reconstitution. ii. A kit is provided that includes the diluent, vial and instructions. The instructions will be provided via the eMAR, medication label, and/or Pyxis alert.	Approved	Complete
	4. Range Orders for Medications – Patrick reviewed the proposed revisions to the range orders for medications policy. Dose range orders are not allowed and will not be accepted in electronic provider order entry systems or as handwritten orders. Any dose range orders must be clarified with the ordering provider. The exceptions are titratable drips and insulin orders (sliding scale, etc.) based on objective clinical findings as outlined in the order. The committee approved these policy updates.		
	5. Anticoagulation Management – The Joint Commission National Patient Safety Goal (NPSG) for anticoagulant therapy will include eight new required elements effective July 1, 2019. To ensure compliance with this NPSG with regards to direct oral anticoagulant (DOAC) therapy, our anticoagulation management policy will be updated to include DOACs within approved protocols for the initiation and maintenance of anticoagulation therapy appropriate to the medication used, to the condition being treated, and to the potential for medication interactions; to define required baseline and ongoing laboratory testing for DOACs; and include DOACs within educational requirements. Our existing guidelines for reversal of anticoagulation for bleeding events & perioperative management were also added to the policy. The committee approved the above policy additions.	Approved	Complete
	6. Angiotensin II (Giapreza®) – Patrick reviewed the recommended updates to the existing titration parameters for Giapreza (angiotensin II), which provide specific titration guidance for ICU nursing.	Approved	Complete
	7. Therapeutic Duplication Policy – Policy content was reviewed and approved with no changes.	Approved	Complete

There being no further business, the meeting was adjourned at 8:00 A.M. The next P&T meeting is **August 8th at 7:00 a.m.**

Respectfully submitted,

Patrick Ellis, PharmD Director of Pharmacy
Rachel Kile, Pharm.D Pharmacy Clinical Coordinator

Approved by,

Nathan Schatzman, MD Chairman