HOUSTON Methodist LEADING MEDICINE

HOUSTON METHODIST
PHARMACY & THERAPEUTICS NEWS
May 2023

FORMULARY UPDATES

Laura M. Blackburn, PharmD

The following medication was **ADDED** to Formulary:

Medication	Pharmacologic Class and Indication	Formulary Action and Considerations

Levonorgestrel intrauterine device (Mirena®)	• Progestin contraceptive
	• Label: contraception
	• Off-label
	  * Non acute abnormal uterine bleeding
	  * Dysmenorrhea
	  * Endometrial hyperplasia
	  * Estrogen-therapy associated endometrial hyperplasia
		• Restricted to OB/Gyn and gynecology oncology

System Therapeutic Interchange: Lidocaine topical patches

- Numerous patients have found difficulty accessing the prescription strength (5%) patch upon transitions from hospital to home and available studies support use of the over-the-counter (4%) strength
- An interchange was approved to facilitate transitions of care, manage drug shortages, and provide cost-effective care
- Lidocaine 5% patches will be automatically interchanged with lidocaine 4% patches
- Patients may continue their home medication if established on a lidocaine patch

ANTICOAGULATION USE SAFETY

Michael Sirimaturos, PharmD

DOAC Pharmacy Consult Updated

Corey Dinunno, PharmD

The various policies related to pharmacy consult for DOAC anticoagulation review and management services were reviewed and consolidated into one policy. The policy can be found by clicking here.

Tandem Heart (i.e. LA to aorta assist device) Heparin Protocol Updated

Hala Halawi, PharmD

Advancements in the design and function of these devices negate the need to infuse heparin through the device. As such, our epic order set will be updated to remove the intra-device infusate order and our pharmacy-managed anticoagulation protocol and progress note templates for these devices have been updated.

The *Pharmacy & Therapeutics News* is dedicated to providing the most current information regarding medication-use policy and formulary issues. Each issue details recently approved actions from the system P&T committee as well as relevant patient safety, pharmacotherapy and drug distribution updates. Entity representatives to the system P&T committee structure can be found here.

Medication Policy Reminder

Medications Brought From Home

- HM discourages use of medications from a patient's own supply. However, in rare circumstances to avoid interruption in therapy, there are allowances. It may be necessary to use the patients' own medication supplies if one of the following situations exist:
  * The medication is not on formulary
  * The medication is supplied via a registry requiring patient enrollment and careful monitoring of doses taken
- Patients should not self-administer a home-supplied medication
- The patient's nurse must administer the medication to the patient and document the administration on the MAR against the active medication order
- Prior to a nurse administering a patient medication from home, the medication must be appropriately identified an relabeled by pharmacy
- Nurses must scan the label applied by pharmacy prior to administration of the patient's own medication
- Documentation against the Epic order allows appropriate safeguards for dose, frequency, and interaction checking to be provided

ANTIMICROBIAL STEWARDSHIP

Shivani Patel, PharmD

New Aminoglycoside Breakpoints

Natalie Finch, PharmD, BCPS, BCIDP

	Pseudomonas aeruginosa		Enterobacterales		Dosing
	Previous breakpoint	Updated breakpoint	Previous breakpoint	Updated breakpoint	
Amikacin	S ≤ 16	S ≤ 16 (urine) No interpretation (other sources)	S ≤ 16	S ≤ 4	15mg/kg Q24h
Gentamicin	S ≤ 4	No interpretation	S ≤ 4	S ≤ 2	7mg/kg Q24h
Tobramycin	S ≤ 4	S ≤ 1	S ≤ 4	S ≤ 2	7mg/kg Q24h

Aminoglycosides antimicrobial agents are used to treat gram-negative bacteria due to their concentration-dependent and synergistic activity. The former aminoglycoside breakpoints were established before the 1980's and were not based on contemporary patient outcomes data. Updated CLSI guidelines published in 2023 account for PK/PD data, microbiology and resistance data, and clinical outcomes by MIC. As a result the breakpoints have been lowered to achieve net bacterial stasis or 1-2 log CFU reduction with standard dose regimens. The table shows the previous and current breakpoints for aminoglycosides against common isolates for Pseudomonas and Enterobacterales.

Clinical Impact:

- Gentamicin should no longer be used for the treatment of any Pseudomonal infections
- Amikacin should no longer be used for the treatment of Pseudomonal infections outside of the urinary tract
- Extended interval dosing regimens for aminoglycosides should be used to achieve appropriate PK/PD targets
- Aminoglycosides should not be used as monotherapy outside of urinary tract infections

Long-Acting Lipoglycopeptides Inpatient Use Pathway

Nicole Alilaen, PharmD

Gram-positive bacterial pathogens cause significant morbidity and mortality in hospitalized patients. Two semisynthetic lipoglycopeptides, dalbavancin (non-formulary) and oritavancin (**formulary**), have broad activity against Gram-positive bacteria. These drugs exhibit high potency and have much longer half-lives, allowing for reduced dosing frequencies (e.g. weekly) or even as single-dose therapy. There is interest in using these agents to facilitating hospital discharge and decreasing the need for long-term intravascular catheters in infections requiring prolonged antimicrobial therapy such as infective endocarditis, osteomyelitis, and prosthetic joint infections.

Oritavancin may be used to facilitate discharge in patients with confirmed S. aureus infections requiring prolonged outpatient antibiotic therapy (>2 weeks). A single oritavancin dose can be considered for patients meeting the following criteria:

Inclusion criteria:

- ID consult
- Uninsured (Candidates for inpatient administration before discharge) or Insured (Facilitate outpatient administration)
- No barriers to discharge other than intravenous antimicrobial therapy
- No oral options or suspected non-compliance to oral therapy
- Confirmed Staphylococcus aureus infection requiring longer-term therapy (>2 weeks)

Exclusion criteria:

- History of hypersensitivity reaction to lipoglycopeptide antibiotics (vancomycin, televancin, dalbavancin, oritavancin)
- Patients with acute bacterial skin or skin structure infections such as superficial/simple cellulitis/erysipelas or simple abscess (requiring surgical drainage for cure)
- Infection thought to be caused by gram-negative bacteria
- Pregnancy

Pathway to access medication:

- ID provider enters pharmacy consult order: "Pharmacy Consult for Oritavancin"
- Pharmacy team evaluates inclusion and exclusion criteria
- Work with case management to facilitate/administer medication

Update to RX P&T 109: Antimicrobial Dose Rounding Policy

Evan Steere, PharmD

The HM dose rounding policy standardizes dosing and has been shown to reduce errors and improve preparation and dispensing efficiency. As new antimicrobial agents have come to market, the policy has been expanded to provide dose rounding recommendations for additional medications. Link to the policy here for the detailed dose rounding table.

MEDSAFETY MATTERS!

Amaris Fuentes, PharmD

ISMP Medication Safety Newsletter Links: Acute Care & NurseERR & Community/ Ambulatory

Medication Errors Resulting from Inaccurate Patient Medication Lists

ISMP highlighted top medication errors and hazards reflected in ECRI's Top 10 Patient Safety Concerns for 2023. Three medication safety items are noted and will be the focus of MedSafety Matters! in the coming months. The focus of this month's review are medication errors resulting from inaccurate patient medication lists.

Inaccurate patient medication lists are implicated in incorrect medications & doses, inappropriate timing, and inaccurate duplication or omission of therapy. National data find that poor communication of medical information at transition points is responsible for as many as 50% of all medication errors and up to 20% of adverse drug events in hospitals.

Recommendations are provided for admission, transfer, and discharge points to address these potential errors.

- Admission: verify, clarify, and reconcile medications using the best possible medication history/gold standard medication history including OTC agents, vitamins, and supplements using various sources of information to confirm accuracy. Specifically ask about patches and implanted pumps. The last dose taken information is key for long-acting medicines and classes of medicines such as anticoagulants. Click here for the HM policy and procedure followed by pharmacy staff as a resource - take note to open the attachments for additional, detailed guidance documents.
- Transfer in level of care: review previous medication orders alongside new and discontinued orders and the plan of care and resolve any discrepancies
- Discharge: designate a provider to reconcile the patient's list of admission medications against the discharge orders along with the most recent medication administration record (MAR). Any differences must be resolved before discharge. Provide the patient with an updated medication list and communicate which medications they are to continue taking, those they should stop taking, and any new medications for them to start taking. Educate patients on each medication's indication, how they should take it, and common side effects.

MEDICATION SAFETY & POLICY

Amaris Fuentes, PharmD

Hepatitis B Screening in Cancer Patients

A CQI was completed to evaluate compliance of the available hepatitis B panel utilization for antineoplastic agents to determine utilization of appropriate prophylaxis orders for patients at risk of hepatitis B reactivation. Hepatitis B panel components were ordered in accordance with NCCN & ASCO recommendations 27.8% of the time and in accordance with AASLD recommendations 54.5% of the time.

Two percent of patients required hepatitis B prophylaxis and were appropriately prescribed the medications. A hepatitis B panel & prophylaxis policy aligning with current guidelines will be developed and added to the first cycle therapy plans containing rituximab.

Adult Hypoglycemia Management: Special Considerations in Intrapartum Glucose Management

Opportunity identified to revise existing Hypoglycemia Protocol to include considerations for pregnant patients not on antihyperglycemic agents. Policy updates will include an update to the definition of hypoglycemia: glucose measured by serum laboratory or point of care of less than 70 mg/dL or less than 60 mg/dL in pregnant patients that are not on any pharmacological therapy for glucose management. Hypoglycemia Management for Adult Patients will be implemented in the following situations: when fingerstick glucose measurement is less than 70 mg/dL or less than 60 mg/dL in pregnant patients that are not on pharmacological therapy for glucose management.

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System P&T Committee Roster is available to view here.