HOUSTON Methodist LEADING MEDICINE

HOUSTON METHODIST
PHARMACY & THERAPEUTICS NEWS
November 2023

FORMULARY UPDATES

Laura M. Blackburn, PharmD

The following medications were ADDED to formulary

Medication	Formulary Updates
inebilizumab-cdon (Uplizna®)	• CD19-directed cytolytic antibody FDA labed for neuromyelitis optica spectrum disorder (NMOSD) in adult patients who are anti-aquaporin-4 (AQP4) antibody positive • Restricted to FDA-approved indications • Restricted to Neurology and Rheumotology providers only • Restricted to outpatient setting with prior financial approval
talquetamab-tgvs (Talvey™)	• Bispecific GPRC5D-directed CD3 T-cell engager, FDA labeled for adult patients with relapsed or refractory multiple myeloma who have received at least four prior lines of therapy, including a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 monoclonal antibody • Restricted to Hematology and Oncology providers certified through the REMS program • Restricted to patients enrolled in the REMS program • Restricted to outpatient setting with prior financial approval after completion of step-up doses
Tofersen (Qalsody™)	• Antisense oligonucleotide, FDA labeled via accelerated approval for amyotrophic lateral sclerosis (ALS) in adults who have a mutation in the superoxide dismutase 1 (SOD1) gene • Restricted to the FDA-approved indications • Restricted to Neurology providers only • Restricted to outpatient setting with prior financial approval • Follow-up will be planned in 2027 upon the conclusion of study

To request a medication for formulary review, **click here**

Drug Information Resources Updates

As shared in previous news, HM transitioned away from the Micromedex DI services platform except for the Redbook and Neofax/Peds modules.

The links below take you to updated Lexicomp guides and self-training modules to gain more proficiency with Lexicomp.

Lexicomp User Academy
Lexicomp Success Center
Lexicomp Neonatal Content Overview
Lexicomp Technical Support

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 Safety Enhancements

Potassium Chloride IV Infusion Administration Instructions Updated

Some patients require the infusion rate for peripheral potassium chloride to be adjusted based on tolerability. Therefore, administration instructions were modified to allow the practice of extending the infusion time to account for patient tolerance.

Calcitonin / Calcitriol Mix-up Risk

Calcit***onin*** (used for *hyper*calcemia) and calcit***riol*** (used for *hypo*calcemia) have been implicated in actual and near miss safety events. To mitigate future risk, several changes are being implemented.

- The order entry screen for these agents will present the patient's calcium levels for view while ordering.
- There will be added drug-lab contraindication warnings added to epic.
- The order items will have mixed case lettering (Tallman) as calciTONin and calcitRIOL to further distinguish the products.

MEDSAFETY MATTERS!

Amaris Fuentes, PharmD

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

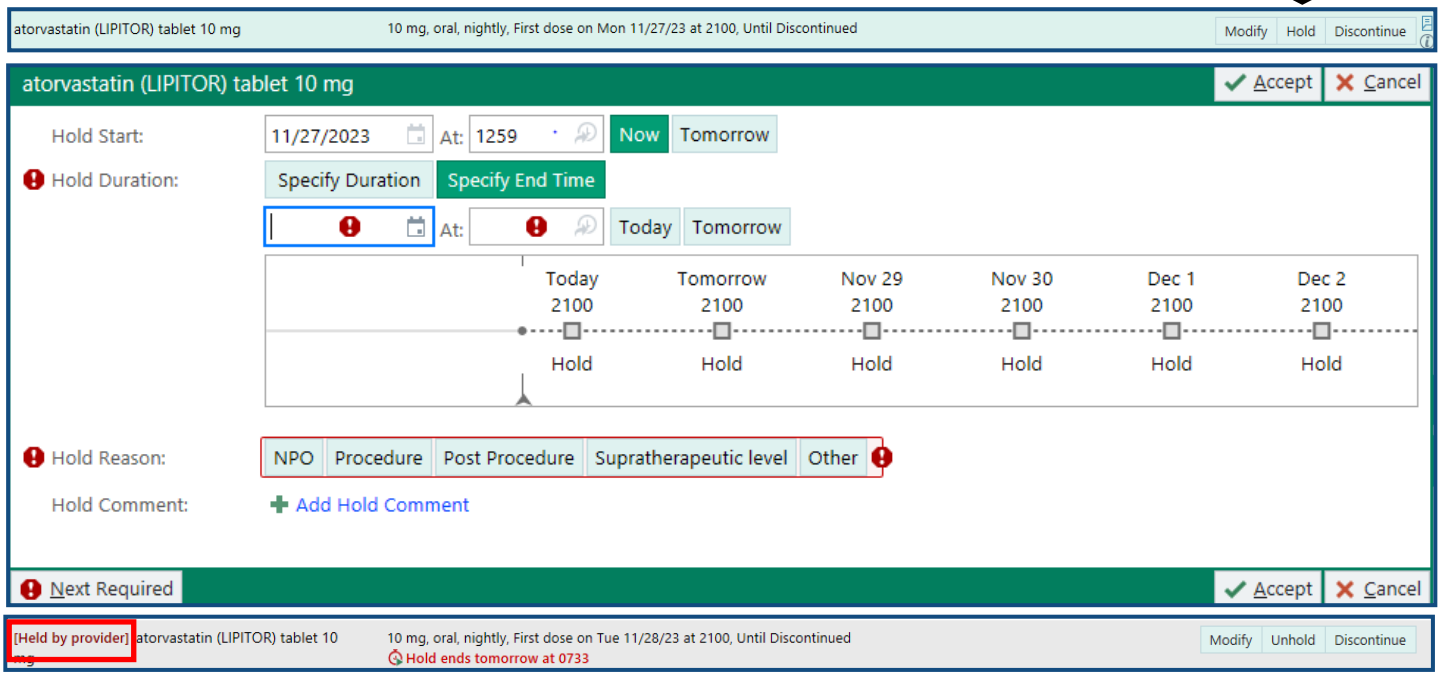
Safe Temporary Medication Order Holding

Temporarily holding or stopping medication orders is often necessary for procedures, laboratory and clinical assessments, and adjustment to oral intake, among others. A recent ISMP newsletter highlighted safety concerns implicated with the use of hold orders or hold parameters and the potential for harm with failing to hold, failing to restart, or failing to discontinue a medication.

Safe practice recommendations include appropriate use of EHR holding functions including use of clinical decision support such as drug warnings upon holding or resuming medications, defining when hold parameters are required and communicating them clearly in the EHR, ensuring adequate visibility of the hold order that prevents medication dispensing and/or administration, outlining the conditions for placing a medication on hold, and instituting procedures for medication reconciliation during transitions of care.

At HM, a recent Epic upgrade introduced the ability to manually hold medications with the following conditions:

1. No restrictions are currently in place for which medications may be held with an associated provider order.
2. The reason for holding the medication is required to clearly communication the rationale to other clinicians.
3. Medications may be held for a MAXIMUM of 72 hours and can be placed on hold up to 24 hours in advance of the desired hold time. If the hold duration is unknown or expected the exceed 72 hours, the medication should be **discontinued and re-entered** whenever deemed necessary.
4. Medication hold reviews are provided 8 hours before a scheduled hold or un-hold with periodic review of ongoing holds on a daily basis.
5. Pharmacy verification is completed when a medication is un-held.



Link here for a full tip sheet on Epic hold features

MEDICATION POLICY

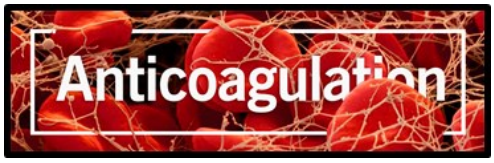
Assigned Medication Administration Times Policy Updated

On evaluation of time critical medications, an update to add exceptions to time critical medication administration for potassium chloride, calcium chloride, calcium gluconate IVPB ordered more frequently that every 4 hours in sequential, specific number of doses using standard concentration electrolytes.

High Alert/High Risk Medications & Look Alike Sound Alike Medication Policies Updated

Look-alike, sound-alike risks identified with therapies provided in PCA syringes. Scan of on removal from automated dispensing cabinets for fentanyl, hydromorphone, midazolam, morphine PCA syringes will be activate to mitigate this risk with relevant policy updates High Alert/High Risk Medications & Look Alike Sound Alike Medications.

ANTICOAGULATION USE SAFETY



Michael Sirimaturos, PharmD

Unfractionated Heparin (UFH) Protocol Consolidation Planning

Over 11,000 pharmacy heparin protocol consults are ordered annually at Houston Methodist, and for good reason. Pharmacist-managed, protocol-driven UFH management produces superior patient outcomes by optimizing the time to and time within therapeutic range and reduces not only blood sampling requirements promoting laboratory stewardship, but also, adverse events. Pharmacy-managed UFH anticoagulation services have expanded to accommodate unique subsets of patients and now well over 95% of therapeutic heparin is managed by pharmacist consultation services. To accommodate unique patient indications, the number of dosing protocols expanded to now 9 different heparin protocols and among them there are a variety of starting doses, titration scales, and target goal ranges.

Over the past year a comprehensive comparison and review of the design of all heparin protocols was conducted with the aim of further improving the standardization and safety by reducing unnecessary duplication and variation. In short, to simplify the protocols where unnecessary variation existed. After review by the System Anticoagulation Safety Committee the below changes are in process for implementation:

- Condense Mechanical Circulatory Support (MCS) protocols into a single consult which will continue to be managed based on their unique MCS indication
- Standardizing PTT goal selection options
- Updating available indications appropriate for each protocol type
- Standardizing heparin titration scales across protocols
- Modernizing the standard PTT goal range for low-dose and standard-dose heparin protocols to minimize unintended supratherapeutic levels

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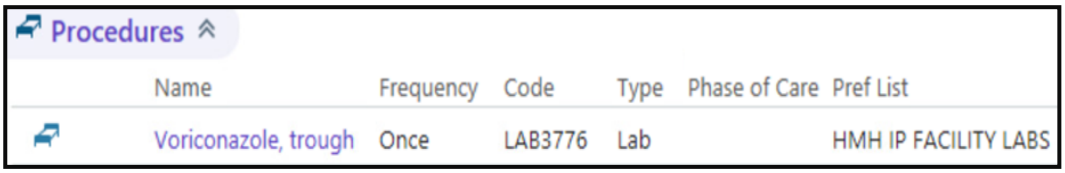
ANTIMICROBIAL STEWARDSHIP

Shivani Patel, PharmD

Voriconazole Therapeutic Drug Monitoring: Now Available In-House for Rapid Turn-around Time

Voriconazole therapeutic drug monitoring (TDM) is recommended by the IDSA and the Mycoses Study Group for both treatment and prophylaxis for invasive fungal diseases. Recent.ly, the HM core chemistry lab brought voriconazole level analysis in-house, resulting in ~2-hour turn-around time. This allows precision dosing of voriconazole to avoid toxicity and improve outcomes. Excessive voriconazole levels are associated with increase hallucinations in patients which are reversible with dose reduction or discontinuation.



Serum voriconazole level monitoring is based on the indication and dosing employed as shown in the table.

Treatment (weight based with loading dose)	Prophylaxis (weight based or flat dosing)
Levels recommended on day 3 of therapy	Levels recommended on day 7 of prophylaxis initiation
Subsequent levels are recommended 5 days after dose adjustment	Subsequent levels are recommended 5 days after dose adjustment

Guidance for dosing adjustments based on the resulting levels are provided in the table for reference.

Voriconazole Trough Level	Dose Adjustment
0.0 – 0.6	Increase dose by 100mg
0.7 – 0.9	Increase dose by 50mg
1.0 – 5.0	NO CHANGE
5.1 – 5.6	Decrease by 50mg
5.7 – 7.9	Hold dose Recheck daily trough and restart at 100mg less when trough <2.5
>7.9	Hold dose Recheck daily trough and restart at 50% dose reduction when trough is <2.5

Consult with your antimicrobial stewardship pharmacist for support with voriconazole drug monitoring interpretation and dosing.

Sanford Guide Access Available to all HM Employees

The Sanford Guide content and available free of charge to all employees. Access the resource:

On mobile app: Register at https://register.sanfordguide.com/ from any computer *on our network*

On the web: Visit https://webedition.sanfordguide.com/ from any computer *on the network*

A tutorial may be found at https://www.youtube.com/watch?v=xy4bvgZhotQ

For technical assistance, contact Sanford Guide directly: 540.987.9480 (M-F, 9-5 Eastern)

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