HOUSTON Methodist LEADING MEDICINE

HOUSTON METHODIST
PHARMACY & THERAPEUTICS NEWS
September 2022

FORMULARY UPDATES

Laura M. Blackburn, PharmD

The following medications were added to the Houston Methodist formulary.

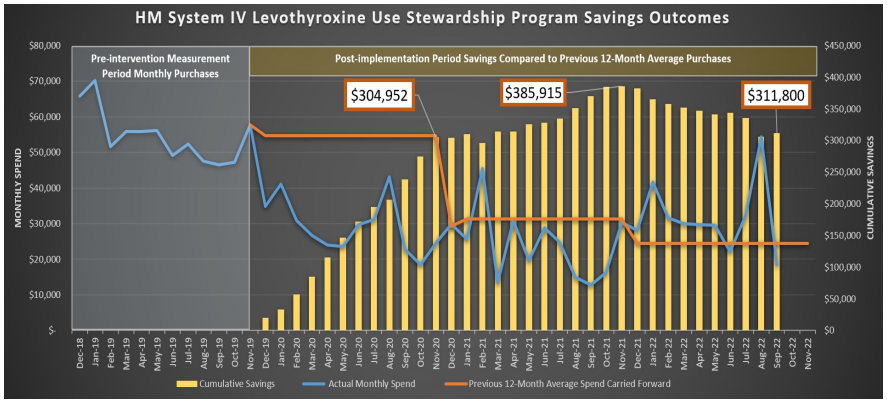
Medication	Pharmacologic Class and Indication	Comments and Considerations
Verquvo® (vericiguat)	Soluble guanylate cyclase (sGC) stimulator approved as adjunctive therapy for heart failure with reduced ejection fraction.	• Restricted to FDA Indication label through series of guidance order questions • Provider must affirm negative pregnancy test if applicable
Firmagon® (degarelix)	Gonadotropin-releasing hormone receptor antagonist (GnRH) receptor antagonist approved for the treatment of advanced prostate cancer	• Restricted to outpatient setting only and ordered by oncologists • Financial approval required
Vyvgart® (efgartigimod alpha-fcab)	Human IgG1 antibody fragment approved for the treatment of generalized myasthenia gravis in adult patients who are anti-acetylcholine receptor (AChR)	• Restricted to outpatient setting only and neurology providers • Financial approval required

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

PHARMACOECONOMICS UPDATES:

Michael Sirimaturos, PharmD & Andrew Mulder, PharmD

In 2019, HM began stewarding IV levothyroxine to prioritize use only when oral therapy or delayed initiation of IV therapy was unacceptable. Positive results and sustained economic value for patients were noted (Figure below). IV levothyroxine therapy remains ~220 times the cost of oral tablets.



Have a medication-related, cost-saving idea? **Submit your idea here**

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

Tatjana Ramos, PharmD & Laura Blackburn, PharmD

- The Therapeutic Interchange of Hydrocodone with acetaminophen combinations policy was evaluated as part of a triennial review. No substantive changes were made and the formulary items remain hydrocodone/acetaminophen 5 mg / 325 mg, 7.5 mg / 325 mg, and 10 mg / 325 mg
- The Dose Rounding of Factor Products and Concentration Variable Vial Products policy was evaluated as part of a triennial review and resulted in no substantive changes. The policy outlines procedures for the dose-rounding of factor products and concentration variable vial (CVV) products since CVV products contain non-standard potencies of medications that change between vials and between production lots. The policy and procedure minimize charge errors in billing, promote optimal cost-effective patient care and avoid the waste of high-cost medications. To decrease product waste, improve workflow and ensure timely therapy, pharmacists round doses to the nearest available vial size, when the change is less than or equal to 10% of the total ordered dose.
- The Expedited Formulary Review for FDA-approved Medications Administered by a Healthcare Professional in the Outpatient Setting policy was evaluated as part of a triennial review and resulted in no substantive changes. The policy outlines Houston Methodists' Formulary approval pathway for adding an FDA approved medication to formulary through an expedited process allowed when use of those medications is restricted to the outpatient setting with prior financial approval. The expedited pathway exists to provide unparalleled care to our patients and support HM providers in providing timely, safe access to cutting edge therapies.

MEDSAFETY MATTERS!

Amaris Fuentes, PharmD

ISMP Medication Safety Newsletter Links: *Acute Care* & *NurseERR*

Prescription Drug Monitoring Program (PDMP) Reviews

The August 2022 ISMP newsletter highlights the value of information provided through PDMP programs regarding opioid prescriptions. In the case described, an elderly patient presented to an emergency department with altered mental status. Upon PDMP review, it was noted that the patient may have been duplicating opioid therapy when a transition between agents was intended due to insurance coverage issues.

Link here for training overviews for the Texas PDMP as well as policies from the Texas State Board of Pharmacy for use of the tool. PDMP access is provided at HM through the Epic Storyboard as well as the Illumicare SmartRibbon and is accessible to all that have registered with the Texas program. Per the Texas State Board of Pharmacy, pharmacists and prescribers are required to check the patient's PDMP history before dispensing or prescribing opioids, benzodiazepines, barbiturates, or carisoprodol for use in the outpatient setting. Pharmacists and prescribers are encouraged to check the PDMP to help eliminate duplicate and overprescribing of controlled substances, as well as to obtain critical controlled substance history information.

MEDICATION ORDERING SAFETY ENHACEMENTS

Amaris Fuentes, PharmD

ICU Electrolyte Replacement Protocol

A continuous quality improvement review of Houston Methodist's ICU electrolyte replacement protocols demonstrated high compliance and efficacy with the current protocol. Electrolyte replacements were completed timely and very rarely resulted in supratherapeutic levels supporting continued safety. Opportunities to optimize calcium replacement were identified and the following changes were approved:

- Adjust highest calcium replacement range from 1.05-1.15 mmol/L of ionized calcium to 1.05-1.10mmoL/L
- Increase calcium gluconate dose for replacement from 3g to 6g
- Increase calcium chloride doses for replacement from 1g, 2g, & 3g to 2g, 3g, & 4g,respectively at each dosing level

Rapid Sequence Intubation Order Set Approved

An Epic Rapid Sequence Intubation (RSI) order set was approved to support ordering of pre-medications, sedatives, and paralytics along with chest X-rays and arterial blood gas after intubation. The order set can be used for planned intubations or to support ordering of therapies after intubation is completed thus improving documentation of medications overridden from automated dispensing cabinets & RSI kits.

Sodium Bicarbonate IV Push & IVPB Orders

Sodium bicarbonate carries a risk of extravasation as a vesicant. As such, IV push administration is reserved for emergency situations and IV piggyback will be used for non-emergent scenarios. An Epic order panel will provide clinical decision support for selection of IV push versus IV piggyback orders given the clinical scenario.

Hyperkalemia & Use of ACE-I, ARB, or Spironolactone/Eplerenone Use

Current Best Practice Advisories (BPAs) that alert to use of ACE-I, ARBs, or spironolactone/eplerenone use will be optimized to ensure more appropriate, actionable alerting upon ordering, pharmacist verification, and administration.

NEWSLETTER STAFF
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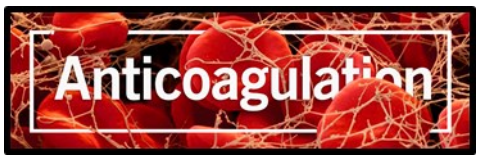
Managing Editor: Laura M. Blackburn, PharmD
System P&T Committee Roster is available to view here.

ANTICOAGULATION USE SAFETY



Patti Romeril, PharmD

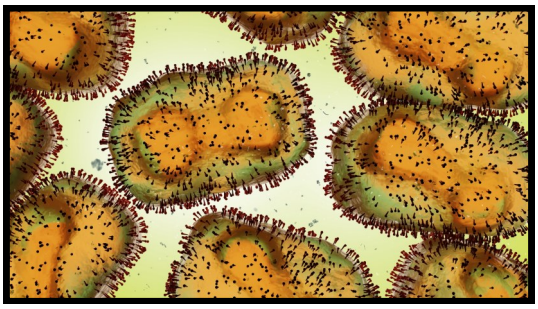
Perioperative Anticoagulation Guidance Document

An anticoagulation guidance document for perioperative patient anticoagulation management was approved after a thorough literature review and expert assessment by Houston Methodist providers who routinely manage anticoagulation. The guidance document provides evidence-based recommendation for providers when balancing a patient's thrombotic and bleeding risks. The detailed guidance for pre-operative anticoagulation choices are available **here**.

Anticoagulant Reversal for Emergent Surgery/Procedure Order Set

Anticoagulant reversal agent ordering in Epic was deemed error-prone having options to select several standalone orders or chose from multiple order sets. To streamline the process and minimize errors, a "Reversal of Anticoagulation Prior to Emergent Procedure/surgery" Epic order set was approved. A summary of the changes and visual aids demonstrating the ordering process are available **here**.

ANTIMICROBIAL STEWARDSHIP



Shivani Patel, PharmD

Updated Monkeypox Guidance from the CDC

Houston Methodist has treated 9 patients with tecovirimat since the medication became available via the CDC EA-IND access program, representing a small fraction of the total number of patients evaluated across Houston Methodist. In animal studies, tecovirimat decreased mortality from infections with orthopoxviruses when given early. Human clinical trial data has only evaluated safety and not efficacy. Link here for the CDC guidance on which patients should be evaluated for monkeypox therapy.

Published literature and additional data from the FDA suggest that there may be a low barrier to virus developing resistance to tecovirimat and **indiscriminate use could promote resistance and render tecovirimat ineffective.**

When considering the use of tecovirimat, clinicians and patients should understand the following:

- Tecovirimat lacks effectiveness data to date in people with monkeypox
- There is a lack of data indicating which patients might benefit the most from tecovirimat
- There is concern for the development of tecovirimat resistance rendering the drug ineffective

Treatment should be considered for use in people who have the following clinical manifestations:

- Severe disease —hemorrhagic disease; large number of lesions with confluence; sepsis; encephalitis; ocular or periorbital infections; or other conditions requiring hospitalization
- Involvement of anatomic areas which might result in serious sequelae that include scarring or strictures
- Treatment should also be considered for use in people who are at high risk for severe disease

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ANTIMICROBIAL STEWARDSHIP

Shivani Patel, PharmD

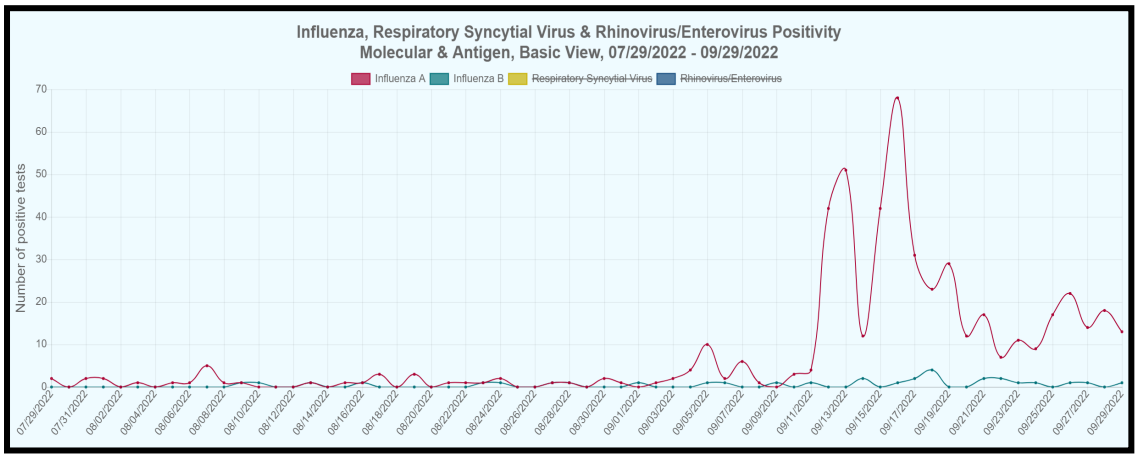
Updated COVID-19 Booster Doses

- The CDC issued recommendations for COVID-19 boosters, after the FDA authorized updated booster formulas. The CDC recommends that everyone who is eligible, stay up-to-date on vaccinations by getting an updated booster dose with Omicron BA.4 and BA.5 spike protein components to the current vaccine composition.
- These new boosters contain an updated bivalent formula that both boosts immunity against the original coronavirus strain and also protects against the Omicron variants that accounts for most of the current cases. Updated boosters are intended to provide optimal protection against the virus and address waning vaccine effectiveness over time.
- Eligible individuals can get either the updated booster, regardless of whether their primary series or most recent dose was with Pfizer, Moderna, Novavax, or the Johnson & Johnson vaccine
- As per the CDC's recommendations, the new bivalent booster replaces the existing monovalent vaccine booster, therefore that vaccine will no longer be authorized for use as booster doses in people age 12 and up. This dose should be administered at least 2 months after their last COVID-19 shot—either since their last booster dose, or since completing their primary series.
- HM providers have been able to order new COVID-19 BIVALENT booster doses as of **Tuesday, September 20, 2022**.
- Houston Methodist will only provide Pfizer products for the primary vaccination series and for booster doses. Physicians and employees can arrange their vaccination appointments via the MARS employee health portal.

2022-2023 Influenza Season

The Houston area has seen an increase in the number of influenza cases circulating in the community. Positive influenza cases have risen over the past 8 weeks and influenza A cases are being seen at each campus in the system.

You can follow the trends at our Houston Methodist Respiratory Pathogen Tracker here.



Providers are encouraged to order influenza vaccination for outpatients, while hospitalized patients are assessed and vaccinated per-policy by nursing staff according to our established standing orders for treatment.

Clinical Pearls

- Per CDC, Flu vaccines and COVID-19 vaccines can be administered during the same visit if the patient is eligible for both vaccines. Patients with known active COVID infection should defer any COVID-19 or flu vaccination, including booster vaccination, at least until recovery from the acute illness (if symptoms were present) and criteria to discontinue isolation have been met.
- Document all required information relating to vaccine administration in EPIC and review your patient's vaccine filter/ report prior to giving any dose to avoid duplicate vaccination.

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