

## FORMULARY UPDATES

Laura M. Blackburn, PharmD

The following medications were evaluated for Houston Methodist Formulary and the following actions taken:

Medication	Pharmacologic Class and Indication	Formulary Action and Considerations
<a href="#">Opdualag™ (nivolumab/relatlimab-rmbw)</a>	<ul style="list-style-type: none"> <li>Combination anti-LAG-3 and PD-1 inhibitor</li> <li>Patients ≥ 12 years with unresectable or metastatic melanoma</li> </ul>	<ul style="list-style-type: none"> <li><b>Added</b> to formulary</li> <li>Restricted                             <ul style="list-style-type: none"> <li>Physicians: Hematology/oncology</li> <li>* Tecvayli REMS program: physicians need to be certified</li> </ul> </li> <li>Indication: FDA labeling</li> <li>Outpatient only with prior financial approval</li> </ul>
<a href="#">Tecvayli™ (teclistamab-cqyv)</a>	<ul style="list-style-type: none"> <li>Bispecific BCMA-directed CD3 T-cell engager</li> <li>Adults with relapsed or refractory multiple myeloma who have received at least four prior lines of therapy</li> </ul>	<ul style="list-style-type: none"> <li><b>Removed</b> from formulary for new start patients                             <ul style="list-style-type: none"> <li>GSK withdrew the Biologic License Application based on the results of the DREAMM-3 trial</li> <li>Existing patients will be managed through the compassionate use process</li> </ul> </li> </ul>
<a href="#">Blenrep® (belantamab mafodotin-blmf)</a>	<ul style="list-style-type: none"> <li>BCMA-directed antibody and microtubule inhibitor conjugate</li> <li>Adult patients with relapsed or refractory multiple myeloma who have received at least 4 prior therapies</li> </ul>	<ul style="list-style-type: none"> <li><b>Removed</b> from formulary for new start patients                             <ul style="list-style-type: none"> <li>GSK withdrew the Biologic License Application based on the results of the DREAMM-3 trial</li> <li>Existing patients will be managed through the compassionate use process</li> </ul> </li> </ul>

### Triennial Policy Review

- [System RXP&T 103 Atgam Dose Rounding](#): No changes. Pharmacists will continue to have authority to automatically round doses down to the nearest vial size if the new dose is within 10% of the original dose.

To request a medication for formulary review, [click 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

### Therapeutic Interchange Reviews

- [Angiotensin Receptor Blocker Combination products](#)
  - Changes:** Interchange from combination products to individual components for all
- [IV Iron Preparations](#)
  - Outpatient payer formulary changes prompted a review of iron sucrose
  - Venofer® (iron sucrose) **added** to *outpatient* formulary with prior financial approval
- [Granulocyte Colony Stimulating Factors \(G-CSF\)](#)
  - Changes:** interchange both long-acting and short-acting agents to biosimilars Fulphila® and Zarxio®, respectively
  - Long-acting agents are restricted to outpatient administration only
- [Alpha<sub>1</sub> Blockers](#) — No changes
  - Formulary products: doxazosin, prazosin, tamsulosin
  - Non-formulary products: terazosin, alfuzosin, silodosin
- [Omega-3 Fatty Acids](#) — No changes
  - Formulary product: omega-3 acid ethyl esters
  - Non-formulary products: Vascepa® and Lovasa®



## MEDSAFETY MATTERS!

Amaris Fuentes, PharmD

ISMP Medication Safety Newsletter Links: [Acute Care](#) & [NurseERR](#)



### Administering Medications Via Enteral Feeding Tubes

A recent [ISMP newsletter](#) reviewed safe practices when administering medications via enteral feeding tubes. Errors continue to be reported to ISMP from various health-systems despite long-term use of enteral feeding tubes in clinical practice. Issues arise from lack of readily accessible information, gaps in training, unknown feeding tube status, inappropriate routes or tube size, and improper preparation and administration. The ISMP safety recommendations focus on a number of actions including use of EHR to guide practice, validate route and tube size, and seeking expertise prior to medication administration.

As a note, the Do Not Crush List previously available on the ISMP website has been removed. References to the previous ISMP link in [Formweb](#) have been updated to redirect to LexiComp® “Oral Medications That Should Not be Crushed or Altered”.

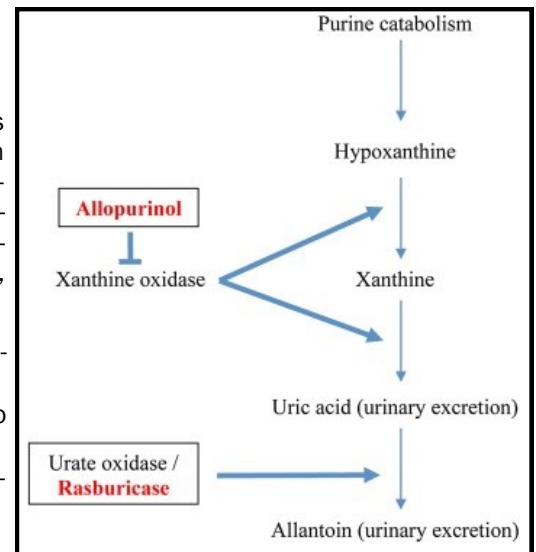
## MEDICATION SAFETY & POLICY

Amaris Fuentes, PharmD

### Uric Acid Level Monitoring with Concurrent Rasburicase Use

Rasburicase, an enzyme catalyst that promotes uric acid degradation, retains activity at room temperature and continues degradation of uric acid within blood samples, resulting in artificially low plasma uric acid assay readings. Special sample handling procedures must be followed to avoid ex-vivo uric acid degradation. Use of pre-chilled tubes with heparin, ice water baths, pre-cooled centrifuges, and assay completion within 4 hours of collection are needed. As such, the following will be implemented:

- Development of policy & procedures that outlines appropriate sample handling
- Create a separate uric acid level order for patients on rasburicase and to include in a rasburicase order panel
- Unify entity-level policies as a single system-level policy for handling samples and monitoring rasburicase therapy.



### Pediatric Resuscitation & Crash Cart Updates

Based on medication error event review, the following will be implemented:

- Educational efforts for RNs & Pharmacists participating in neonatal/pediatric codes emphasizing closed-loop communication and use of connector devices for medication dose withdrawal
- Include IV syringes (1mL, 3mL & 5mL) and syringe connectors in the same medication tray as epinephrine injections
- Standardize Broselow Cart contents across HM sites

## PAIN MANAGEMENT RESOURCE GUIDE AVAILABLE

The HM System Pain Guide has been updated for 2022 and is available for providers. [Link here](#) or scan the code to the right for access. The guide has resources for PCA dosing, opioid analgesic equivalencies, opioid reversal for discharge / outpatient prescribing and information on use of non-opioid therapies for pain management.



## ANTICOAGULATION USE SAFETY



Patti Romeril, PharmD

### Fixed Dosing Kcentra® for Warfarin Reversal Order in Epic

From a clinical perspective, using fixed-dosing Kcentra® as opposed to weight based dosing aligns with literature recommendations and decreases the potential risk of unnecessary thrombotic events. Operationally, fixed-dosing reduced the time to administration contributing to improved outcomes. With these considerations, the following changes are active on the VKA reversal order set.

- Remove weight-based dosing Kcentra® from VKA reversal order set
- Add recommended fixed dosing of Kcentra®
- Add a repeat PT/INR lab order to be obtain 1 hour after Kcentra® administration within the VKA reversal section

An example of the new order item is provided below.

▼ Medications and Additional Laboratory

▼ Bleeding associated with use of

- apixaban (ELIQUIS), rivaroxaban (XARELTO), edoxaban (SAVAYSA)
- dabigatran (PRADAXA)
- heparin
- low molecular weight heparin: enoxaparin (LOVENOX) or dalteparin (FRAGMIN)
- warfarin (COUMADIN)

STAT Prothrombin complex concentrate (KCentra)

**Avoid use in disseminated intravascular coagulopathy (DIC). May contain heparin, avoid use in heparin induced thrombocytopenia (HIT). Closely monitor for thromboembolic events during and after administration. Use has not been evaluated in patients who have experienced a thromboembolic event, MI, CVA, TIA, unstable angina, or severe peripheral vascular disease within the prior 3 months.**

- Major life-threatening bleeding/Emergency Procedures  
1,500 Units, intravenous, Administer over 20 Minutes, once
- Intracranial Hemorrhage OR Weight > 100 kg OR INR > 7.5  
2,000 Units, intravenous, Administer over 20 Minutes, once

Prothrombin time with INR  
Once, today at 0905, For 1 occurrence  
Draw lab one hour after reversal

phytonadione (vitamin K1) (AQUA-MEPHYTON) 10 mg in sodium chloride 0.9% 50 mL IVPB  
10 mg, intravenous, at 100 mL/hr, Administer over 30 Minutes, once, today at 0745, 1 dose  
Anaphylactic reactions have been described with Vitamin K. Use with caution  
Indication: Other  
Please specify: Warfarin reversal for bleeding

### Warfarin Transition BPA Alerts in Epic

To address inappropriate anticoagulation transitions in the presence of therapeutic or *supra*therapeutic INRs, two Best Practice Advisories will be deployed on January 31st. You will receive alerts when ordering anticoagulation when the patient's INR > 2.5 or INR > 3 based on therapy selection. Options to review laboratory values and remove orders are available directly from the alert.

Patient Safety (1)

This patient has a history of warfarin and last INR value is listed below.

⚠️ Initiation of rivaroxaban is **not recommended until INR is less than 3**. Consider delaying initiation of subsequent anticoagulants.

Last INR, collected/resulted: DD/MM/YYYY = Result value

⚠️ Acknowledge Reason \_\_\_\_\_

### Anticoagulation Prescribing Resources:

Houston Methodist specific resources for anticoagulation management can be found on our Drug Information Center website. Click on the options below to be re-directed to the resource.

[Anticoagulation Patient Education](#)

[Anticoagulation Transition Guide](#)

[Perioperative Anticoagulation Guide](#)

[Anticoagulation Reversal Order Set](#)

## ANTICOAGULATION USE SAFETY



Patti Romeril, PharmD

### Intravenous Unfractionated Heparin versus Alternative Anticoagulation

As discussed in our [Feb 2022 news](#), IV unfractionated heparin (UFH) is often overutilized in consideration of other anticoagulation treatments. While having the advantage of being titrated off quickly, IV UFH requires frequent lab draws for monitoring and regular dose changes to maintain adequate anticoagulation levels. An internal assessment identified 68% of patients receiving UFH were eligible to receive alternative anticoagulation. The primary use for IV UFH was ACS and 57.7% of these patients were candidates for enoxaparin therapy. Anti-Xa level monitoring of enoxaparin may be utilized if necessary. Changes to Epic orders related to UFH are now active.

- ACS and DVT/PE order sets now state that, "Patient may be eligible for enoxaparin if time to procedure is > 24 hours and renal function is stable". If selecting enoxaparin, providers have an option to select a pharmacy consult to manage therapeutic enoxaparin.
- ACS order sets will position enoxaparin orders above the IV UFH heparin orders (see example below)
- The UFH consult maintenance note by pharmacists will include a section that states: "Does this patient meet criteria for alternative anticoagulation?". The pharmacist may choose to reach out to the prescribing provider if appropriate to alter the treatment choice.



## ANTIMICROBIAL STEWARDSHIP

Shivani Patel, PharmD

### CMS Requirements for Antimicrobial Stewardship Programs Updated

The Centers for Medicare & Medicaid Services (CMS) published [new standards](#) for infection prevention and antimicrobial stewardship in 2022. Revised requirements include elements shown to the right.

- Infection prevention and control program organization and policies
- Antibiotic stewardship program organization and policies
- Defined leadership responsibilities
- Unified and integrated infection prevention and control and antibiotic stewardship programs for multi-hospital systems

Houston Methodist assessed our compliance with the updated standards. Each entity completed a gap analysis of program features and assessed goal attainment. Our antimicrobial stewardship programs (ASP) across the system were notable for the following:

- An active antimicrobial stewardship program is in place at each entity
- Infectious disease physicians and pharmacist leaders are in place at each campus
- Hospital policies and procedures are in place to define the roles and responsibilities of the ASP
- Coordination of stewardship activities exist between quality, infection control, nursing, and medicine
- ASP committees at each entity have active, multidisciplinary membership
- ASP leads identify and resolve quality and patient care issues
- Each entity leads at least 1 medication use evaluation annually resulting in numerous system-wide quality improvement opportunities
- Each entity reports antimicrobial consumption data to NHSN for national and internal benchmarking

### Narrowing Antibiotic Stewardship Gaps

Two areas identified in the self-assessment needing attention are (1) incorporation of tools promoting evidence-base antibiotic prescribing and (2) use of prospective audits and provider feedback to improve the appropriateness of antibiotic use. In 2023, ASP programs will share prospective audit data and recommendations to selected providers coupled along with competency-based training as needed regarding antimicrobial stewardship and utilization. If you or your practice group would like to be part of the initial group of physicians receiving data, reach out to your entity ASP lead.

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