HOUSTON Methodist LEADING MEDICINE

HOUSTON METHODIST
PHARMACY & THERAPEUTICS NEWS
July/August 2024

FORMULARY UPDATES

Laura M. Blackburn, PharmD

ADAMTS13 recombinant (Adzynma®) ADDED to Formulary

Category: Enzyme
FDA-label: Prophylactic or on-demand enzyme replacement therapy (ERT) in adult and pediatric patients with congenital thrombotic thrombocytopenic purpura (cTTP)
Formulary Restrictions: Approved for use in prophylactic management of congenital thrombotic thrombocytopenic purpura when prescribed by Hematology physicians. Restricted to patients in the outpatient setting with prior financial approval.

Sodium-glucose cotransporter 2 (SGLT2) inhibitors Therapeutic Interchange Update

A triennial review of the SGLT2 inhibitor therapeutic interchange resulted in the retention of dapagliflozin (and authorized generics) as the preferred formulary SGLT2 inhibitor. Heart failure and chronic kidney disease indication-specific dose conversions were added to the conversion table.

Proton Pump Inhibitors (PPI) Therapeutic Interchange Update

Given changes in market availability of liquid products, an update to the preferred PPI suspension formulation was needed. HM's preferred PPI for suspension will be pantoprazole/sodium bicarbonate thus unifying our PPI product line to pantoprazole across routes of administration (IV, PO, and suspension). Epic will be updated at each HM site as existing omeprazole suspension is depleted. Link here for the TI policy.

Traztuzumab Biosimilars Therapeutic Interchange Update

A triennial review of the available trastuzumab biosimilar products and financial assessment resulted in the therapeutic interchange policy revision. The preferred product will change *from* Trazimera® *to* Ogivri®. As Epic is updated and product is attained, new treatment plans will be entered using the preferred product.

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 Monitoring Policy Updates

Owing to a shift in monitoring certain target medications and conditions from a pharmacist consult-based strategy to an electronic rules-based, continuous surveillance model, the following pharmacy consults were retired.

- Pharmacy Consult for Dronedarone therapy assessment
- Pharmacy Consult for Pregnancy and Lactation medication reviews

Medication Safety Enhancements

Dual Pharmacist Verification for Pediatrics
To assure safety of pediatric patients, HM will standardize a pediatric dual medication pharmacy verification across HM system. Dual verification will be required for patients 2-12 years old with the exception of acetaminophen and ibuprofen suspensions.

Acetaminophen and ibuprofen suspension Epic orders will be updated with dose buttons in pediatric contexts and adjustment of drug warning thresholds to align with typical HM use for acute fever and pain management.

Continues on page 2

MEDICATION SAFETY ENHANCEMENTS

Nifedipine Product Look-alike Mitigation

To further reduce the risk of confusing nifedipine *immediate* release (IR) from *sustained* release (SR) product selection and dispensing errors, HM activated a Pyxis clinical decision support alert requiring confirmation of IR vs. SR and appropriate indications for use mirroring previously implemented Epic updates. The Pyxis alert will read, "IMMEDIATE RELEASE (IR) nifedipine may be associated with significant blood pressure drops and is reserved for use with hypertensive urgency, tocolysis, and Raynaud's phenomenon. Ensure IR is the correct formulation." Responses available are: YES, immediate release nifedipine required - or - NO, sustained release nifedipine required (cancel removal). This alert is one more safety layer to avoid a potentially harmful calcium channel blocker adverse event.

PHARMACOECONOMICS

Laura Blackburn, PharmD

Alteplase to Tenecteplase: Thrombolytic of Choice for Acute Ischemic Stroke

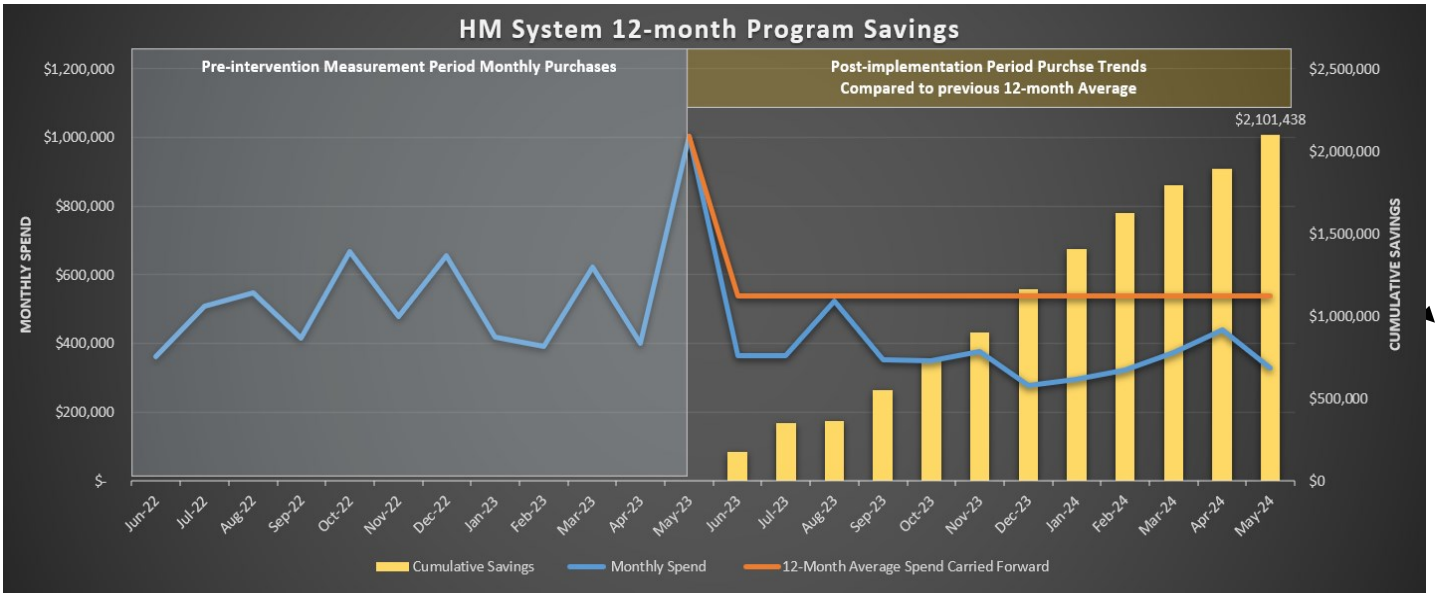
In May 2023, Houston Methodist converted from alteplase to tenecteplase as the thrombolytic of choice for the management of acute ischemic stroke. The switch was initiated based on an evaluation of published safety and efficacy in addition to cost evaluation.

As a continuous quality improvement assessment, HM pharmacy compared the efficacy and safety of the two agents throughout the system. The 12-month evaluation demonstrated similar to better efficacy and safety outcomes with tenecteplase compared to alteplase which was consistent with other studies.

The cost savings realized is over $2 million when compared to the year prior to implementation (figure below).

The conversion had expected to further reduce the door to treatment time as the tenecteplase product required less manipulation and preparation prior to administration. To date a significant improvement in this measure has not be realized and continues to be reviewed.

The program will be reviewed in three years per standard cycle of review or sooner should changes be needed based on product or practice changes.



SYSTEM CHEMOTHERAPY STEWARDSHIP COMMITTEE

Adam Smith, PharmD

Antineoplastic Therapy Plans Dose Adjustments Based on Patient Weight Changes

To facilitate safety and efficiency in care, and to provide consistency with dosing changes of antineoplastics in situations where the patient's weight has changed between visits, the P&T committee approved a policy update providing pharmacists guidance on automatic dose adjustments. If a patient's weight *loss* is greater than 10% is noted, a pharmacist shall check the trend from previous visits and verify that the weight change is a true loss with the nurse. Once verified, the treatment plan weight shall be adjusted per policy. If weight *gain* is greater than 10% is noted, a pharmacist shall check the trend from previous visits and verify that the weight change is a true weight gain (e.g. no fluid retention, ascites, e.g.) with the nurse. Once verified, the prescriber will be contacted to determine if the treatment plan weight should be adjusted. Link here for the policy and click on the attachment for the details.

Oral Chemotherapy Policies Reviewed

Houston methodist policies related to safe prescribing and handling of oral chemotherapy agents (System_PCPS194 & System_PCPS194.1 Oral Antineoplastic) were assess for triennial review. The policy review process addressed Quality Oncology Practice Initiative (QOPI) standards for policy and practice standard alignment.

Key policy and procedure updates:

- Staff administering the agents should be knowledgeable about precautions and toxicities of the medications prior to administration. The *Rhazdrugs* hazardous drug handling drug information platform is available to all HM stafff .
- Ordering oral antineoplastic therapy (including targeted therapy, conventional cytotoxic therapy and endocrine therapy, for malignant indications) is restricted to hematology/oncology providers as denoted in the policy attachment
- For continuation of home oral antineoplastics in the *in*patient setting, pharmacists will verify that the attending physician has consulted hematologist/oncologist physician for review and approval of continuation of antineoplastic therapy during the patient's admission and at the time of discharge. The dual verification process should include a hematology/oncology pharmacy clinical specialist and a staff pharmacist on site.
- The oral antineoplastic must be stored in the same manner in which it was originally dispensed to the patient.
- A hematology/oncology pharmacy clinical pharmacist, registered nurse, nurse practitioner, or hematology/oncology physician are responsible for providing education for new therapy starts.

Rituximab Administration Methods

Rituximab is a monoclonal antibody that targets the CD20 antigen expressed on the surface of pre-B and mature B-lymphocytes. Upon binding to CD20, rituximab mediates B-cell lysis. HM incorporates various rituximab administration techniques to ensure patient safety but also patient satisfaction with reduced infusion times (e.g. rapid IV infusions) or alternative product selection (e.g. subcutaneous product formulations). Policy RXCLIN 145 was updated with contemporary guidance for selecting the appropriate product and choosing the appropriate administration method and associated monitoring.

For non-oncologic indications, rituximab intravenous may be administered rapidly over 120 minutes with 25% of dose given over 30 minutes, then 75% over 90 minutes. For oncology indications, the rapid intravenous administration remains over 90 minutes with 20% of dose over 30 minutes, then 80% over 60 minutes. Pharmacists will routinely assess if the patient may be a candidate for subcutaneous administration which can further reduce administration time to as little as five minutes.

PAIN MANAGEMENT

Prescription Drug Monitoring Program (PDMP) Review Notification

An Epic BPA was developed for the outpatient prescribing module that alerts providers to review a patient's PDMP when naltrexone is ordered. The BPA was added as a safety measure for situations where naltrexone may be used for non-Opioid Use Disorder situations. In such situations, inadvertent opioid antagonism can lead to unanticipated opioid withdrawal.

Opioid Morphine Milligram Equivalencies (MME) Updated

To align with the CDCs updated 2022 opioid conversions, the MME table used in epic and reflected in the HM Pain Management Guide were updated. Key differences are provided in the tables below.

Drug Name (Oral Route)	Previous Conversion Factor	Updated Conversion Factor
Morphine PO (reference)	1.0	1.0
Hydromorphone PO	4.0	5.0
Tramadol PO	0.1	0.2

Drug Name (IV Route)	Previous Conversion Factor	Updated Conversion Factor
Morphine IV (reference)	3	3
Hydromorphone IV	20	10
Fentanyl IV	0.3	0.15

The HM System 2023 Pain Management Guide is available Link here. 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. The guide will be reviewed in 2025 for additional updates.

Outpatient Opioid Prescribing with Associated Diagnosis

To improve the safety of opioid prescribing for outpatients, prescription orders for opioids in epic will include a field for the prescriber to associate a diagnosis/ICD-10 code with the outpatient prescription upon signing.

Ketamine for Sedation Safety Enhancements

Ketamine is now used for a variety of indications. To improve safety of ketamine for sedation, nursing instructions clarify the parameters for provider notification as bradycardia (HR < 50 bpm) and hypotension (SBP < 100 mmHg).

All active continuous sedation and analgesia medications will be added to the ordering screen in addition to the current pain medications.

Recent vital signs (HR and BP) will be presented on the ordering screen to minimize initiation in patients higher risk of safety events.

Education surrounding the concentration differences when used for sedation vs. pain indications will be provided to pharmacy and nursing staff in addition to enhanced Alaris pump alerting that requires user to verify the concentration prior to programming.

An Epic BPA will alert users if the patient has had ketamine for pain administered in the past 12 hours and is being switched to ketamine for sedation – or vice versa.

Ketorolac Use - Order Verification Enhancement

To balance the need for efficiency with appropriate order verification and safe use, one-time ketorolac orders for acute pain in female patients will not require HCG testing be on file prior to verification as is currently stated in policy. Pharmacists may obtain a confirmation that there is no active pregnancy from a patient, provider, or existing medical record documentation. System_PCPS 126 High Alert High Risk will be updated accordingly.