HOUSTON Methodist LEADING MEDICINE

HOUSTON METHODIST
PHARMACY & THERAPEUTICS NEWS
October 2024

FORMULARY UPDATES

The following medications and classes were reviewed

Tarlatamab-dlle (Imdelltra®) ADDED to Formulary

Category: bispecific delta-like ligand 3 (DLL3)-directed CD3 T-cell engager

FDA-label: treatment of adult patients with extensive stage small cell lung cancer (ES-SCLC) with disease progression on or after platinum-based chemotherapy.

Formulary Restrictions: Restricted to FDA-labeled indications with prescribing restricted to Hematology/oncology physicians. Patients must have prior financial approval. Care setting for administration includes inpatient oncology unit for cycle 1, day 1 and day 8 doses, followed by outpatient

Rationale: High unmet need for patients with advanced disease and limited treatment options

Brivaracetam (Briviact®) ADDED to Formulary

Category: Antiseizure, miscellaneous

FDA-label: treatment of partial-onset seizures in patients 1 month of age and older

Formulary Restrictions: Unresponsive to current therapy, unable to tolerate levetiracetam, or continuation of home regimen

Rationale: to support patients unresponsive to current therapy or unable to tolerate levetiracetam due to adverse effects; tablets may be crushed only if for feeding tube administration

Vaccines

- RXMEDTI 162 **Therapeutic Interchange for Tetanus, Diphtheria and Pertussis (Tdap) Vaccines**
  - Preferred product—Boostrix®
- RXMEDTI 166 **Meningococcal Vaccines (MenACWY & MenB)**
  - Preferred products—Menveo® and Bexsero®
  - Therapeutic interchange updated to include Penbraya® and replace Menactra® with MenQuadfi®
- **Hexavalent [diphtheria, tetanus, pertussis, poliomyelitis, hepatitis B, Haemophilus influenzae type b (Hib)] (Vaxelis®)**
  - NOT added to formulary

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.

Epic Updates

Proton pump inhibitor suspension: HM has completed transition to pantoprazole

Donanemab (Kisunla®): live

Policy Updates

RXCLIN 131 Pharmacy Consult for Prasugrel

Triennial review changes include the addition of mandatory soft stop questions at the point of ordering to assure safe prescribing. This allowed the retirement of the pharmacy consult. Additional safeguards for appropriate use will be managed through Vigilanz alert monitoring.

RXCLIN 103 Pharmacy Consult for Bariatric Surgery Patients

Triennial review of the policy outlining the pharmacist's responsibilities including reviewing of medication profile for administration, appropriate medication formulation and providing patient counseling for patients after bariatric surgery. Approved changes in conjunction with bariatric committees include removing the pharmacy consult for readmits, and adding:

- Option for an outpatient prescription for enoxaparin 60 mg sq daily (if greater than or equal to 140 kg)
- Language to address transplant medication management
- Updated language for diuretics and hypoglycemic medication recommendations
- Counseling for NSAID use and pregnancy
- Added conversion tables for extended-/controlled-release products

FORMULARY UPDATES

Laura Blackburn, PharmD

Therapeutic Interchange: Meperidine

- Situation: The meperidine interchange was developed to facilitate use of less hazardous alternatives for pain
- Background: Meperidine is not recommended for treatment of acute pain due to potential neurotoxicity and availability of safe alternatives. HM-approved, non-analgesia uses of meperidine include post-operative shivering, therapeutic hypothermia, drug-induced rigors, pre-term labor, short term sedation
- Assessment: The majority of meperidine administrations (90%) were for post-op shivering and drug-induced rigors. Meperidine is included in Adult Anesthesia Post-Op order set, Adult Hypothermia Post Cardiac Arrest order set, and medication plans/panels known to induce rigors. The American Society of Anesthesiologists advises against the use of meperidine for procedural sedation. Meperidine use is not recommended during pregnancy due to adverse effects in neonates, and Houston Methodist's Labor Admission Epic order sets include agents for pain.
- Recommendation/action plan
    - Meperidine's status in epic was revised to formulary, restricted to the following indications. For safety reasons, access to orders is only allowable through the respective order sets/panels/plans.
        - Post-operative shivering
        - Therapeutic hypothermia
        - Drug-induced rigors

SYSTEM CHEMOTHERAPY STEWARDSHIP COMMITTEE

Adam Smith, PharmD

Oncology Treatment Plans Review Process Updates

The Oncology Treatment Plan Committee continues to review treatment plans for updates, synchronizations, or inactivation. In September, 15 plans were updated, 5 new plans were created, and 80 plans were deactivated. Many of the deactivated plans related to clinical trials that are no longer active.

IV Iron Therapy Plan Review

The following intravenous iron therapy plans were reviewed for updates to monitoring and order duration: ferric gluconate (Ferrlecit®), ferumoxytol (Feraheme®), iron sucrose (Venofer®), and ferric carboxymaltose (Injectafer®)

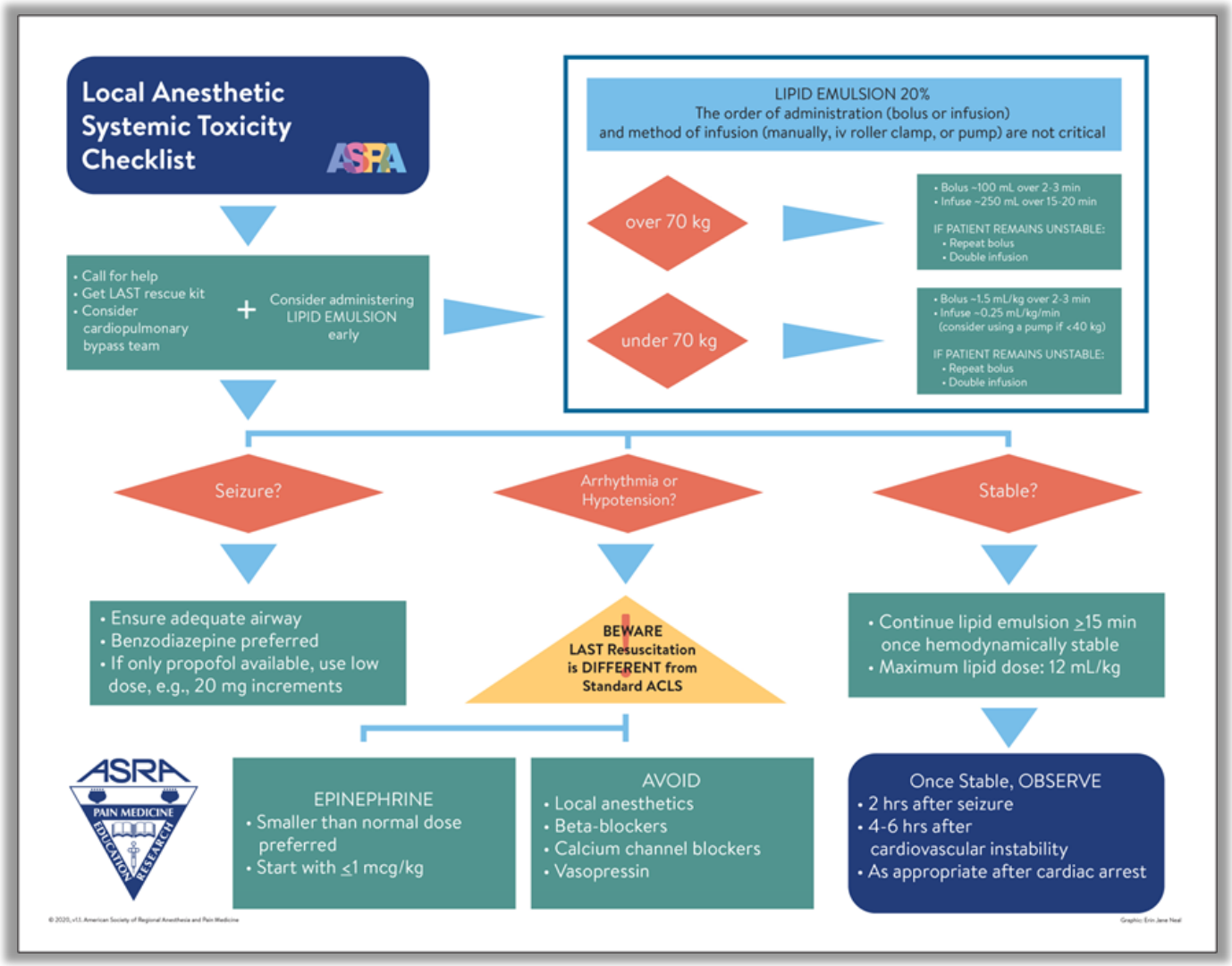
- Monitoring durations were updated to reflect that for new patients, patients requiring pre-medication, or patients with previous reactions to IV iron, nurses will monitor for 30 minutes following infusion completion for shortness of breath, wheezing, hypotension, tachycardia, or hives. This interval was previously 60 minutes. Additionally, the duration set for keeping the nursing monitoring active was updated to direct nurses to monitor patients with each administration, "Until Discontinued". This instruction was previously listed as a defined number of administrations and was found to drop off the orders leaving patients without ordered monitoring if administrations exceeded initial instruction thus exposing safety gap.

MEDICATION SAFETY UPDATES

Local anesthetic systemic toxicity (LAST)

Local anesthetics are commonly used with rare adverse effects. However, there is a potential for local anesthetic systemic toxicity also know as, "LAST". To facilitate effective, timely, evidence-based management of this possible adverse effect, the following steps were approved:

- Revise the Epic order set, "lidocaine for pain management", to include a lipid rescue therapy section that matches the 2020 guidelines by the American Society of Regional Anesthesia and Pain Management
- Build a new order set for LAST management accessible to providers
- Update Epic to extend the lookback period identifying drug interactions up to 96 hours between liposomal bupivacaine and other local anesthetic. This look-back period accounts for the depot effect observed with the use of liposomal bupivacaine product use.



MEDICATION SAFETY UPDATES

Intravenous Insulin for Hyperkalemia Management—Safety Assessment

Hyperkalemia may result in life-threatening cardiac arrhythmias and immediate management goals include stabilizing cardiac membranes and shifting potassium intracellular. HM's hyperkalemia order set facilitates optimal management as it guides safe prescribing including orders for EKG, glucose monitoring, dextrose administration, hypoglycemia management, and intravenous (IV) insulin administration.

A continuous quality and safety review of the intravenous insulin use in the management of hyperkalemia order set was conducted in 168 patients to assess the safety and efficacy of IV insulin use in these patients. The review found that the order set was extensively used in 97% of cases. Overall, 52% of patients receiving IV Insulin had potassium levels less than 6 mEq/L. Use for this modest hyperkalemia level is advised only when there are abnormal EKG findings. Of the patients treated when the potassium level was less than 6mEq/L, 94% of those patients had no or a normal EKG. Use in these conditions may present a patient population who would have limited benefit in consideration of the treatment related risk from IV insulin administration. Furthermore, 21% of patients had IV insulin doses ordered without the availability of a recent point-of-care serum glucose level. These present a few opportunities for safety enhancement.

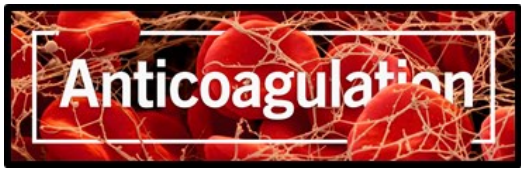
In terms of efficacy, IV insulin use was able to reduce potassium levels across patients treated. The mean reduction in potassium levels in patients on hemodialysis or CrCl ≤20 mL/min was 0.9 mEq/L from 6.1mEq/L before treatment to 5.9 mEq/L after treatment. The reduction in potassium levels in patients with CrCl >20 mL/min was similar at 0.9 mEq/L from 5.9mEq/L to 5mEq/L before and after treatment respectively. Approximately 50% of treated patients had levels greater than 5 mEq/L after initial insulin administration. Co-treatment modalities were use in 77% of patients and included repeated dosing insulin, sodium bicarbonate, potassium binders, loop diuretic, β agonist.

As a result of the findings, the following actions will be implemented:
- Revise the order set to uncheck the repeat EKG and guide ordering for patients with severe/emergent hyperkalemia
- Provide nurse education to reinforce need to attain point-of-care glucose levels prior to IV insulin administration
- Revise the orders to facilitate attainment of the post-insulin administration glucose and potassium level monitoring
- IV insulin be orderable only from the order set
- Standardize and limit dose options to mitigate misinterpretation

Hold Parameters for Scheduled Enteral Potassium

A TAPS report indicated a patient with hyperkalemia had an active order for oral potassium order without hold parameters. As a result of the assessment identifying a lack of standardized or preset hold parameters, editable hold parameters have been added to scheduled enteral potassium orders. The hold parameters would not apply to one-time orders.

ANTICOAGULATION USE SAFETY



Michael Sirimaturos, PharmD

Direct Oral Anticoagulants (DOAC) Order Adjustments

To optimize safety and efficacy of DOAC use within the HM system, all DOACs (apixaban, dabigatran, and rivaroxaban), have been moved to ordering via order sets only. This change included removal of standalone orders from Epic Facility and Preference Lists. The Epic Order sets are built with appropriate doses, duration, and additional guidance for the selected indications. The Medication Safety Committee continues to monitor the reporting of DOAC-related medication errors to assess for process improvements and best practices.

ANTIMICROBIAL STEWARDSHIP

Shivani Patel, PharmD

Treatment Guidance for Perinatal HIV Management: Pregnant Mother and Newborn

Standardized resources are needed to facilitate safe and timely management and medication ordering for mothers positive for HIV and newborns within the HM system. Antibiotic stewardship, neonatology, and obstetric specialists collaborated with the following goals to optimize care for mother and newborns.

1. *Develop a single, comprehensive document that consolidates all maternal and newborn guidelines*
   - Components include
     - ⇒ Maternal lab testing in the event of an unknown or positive HIV Status
     - ⇒ Appropriate intra-partum antiretroviral therapy
     - ⇒ Newborn lab testing in the event of an unknown or positive HIV maternal test
     - ⇒ Appropriate newborn antiretroviral prophylaxis or therapy
2. *Ensure easy access to the guidelines for all users*
   - Guidelines will be located on the new The Hub, live on December 4th
3. *Improve the efficiency and speed of clinical care*
4. *Align all clinical team members and care providers by providing consistent information*