

From: Richard Geisler, Clinical Pharmacy Manager

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Re: Updates on CHS Formulary Changes occurring on June 28th, 2022 for Nurses and Providers

➤ **Cefadroxil (Duricef) replaces cephalexin**

The CHS oral 1st generation cephalosporin will change from cephalexin (Keflex) to cefadroxil (Duricef), for adults. We will still retain cephalexin suspension for pediatric ED patients.

Compared cephalexin, cefadroxil can be used for similar indications, provides similar antimicrobial coverage, and has the benefit of being dosed 1-2 times/day vs. cephalexin's 2-4 times/day regimens.

Antimicrobial spectrum is similar to cephalexin, with cefadroxil providing good activity against *Staphylococcus aureus* (MSSA only), *Streptococcus* species, *E. coli*, *Klebsiella* species, and *Proteus mirabilis*. All cephalosporins lack activity against *Enterococcus* species.

For most indications, the standard dose will be 500mg PO BID. Cefadroxil shares molecule side-chains with amoxicillin, ampicillin, cephalexin, cefprozil, and piperacillin. Cefadroxil use should be avoided in patients with a true allergy to any of these agents. EPIC will be built with an interchange popup when cephalexin is ordered.

➤ **IV route option added to olanzapine in EPIC and updated in IV Guidelines**

The IV route will be added as an option for olanzapine. Similar to haloperidol, olanzapine will be able to be administered IVP for those patients in the ED or critical care setting.

- Efficacy
 - IV olanzapine produces similar rates of adequate sedation within 10 minutes as compared with other alternative agents, such as droperidol.
- Safety
 - Cole et al assessed respiratory depression as a primary end point with IM versus IV olanzapine 1.25 to 5 mg. The overall rate of respiratory depression was slightly greater in the IV olanzapine group (3.7%) versus the IM group (2%)
 - Cardiovascular adverse effects are reported in different trials, and rates of hypotension, bradycardia, and tachycardia were not statistically different among the different groups/arms of the studies. In addition, no significant QTc prolongation was observed.

Administration

- Reconstitute with Sterile Water for Injection only
- Dissolve the contents of the vial using 2.1 mL of Sterile Water for Injection to provide a solution containing approximately 5 mg/mL of olanzapine
- Reconstituted vial should be used within 1 hour
- IV push administered rapidly

Monitor

- Respiratory status & vital signs.

➤ **IV Push Levetiracetam (Keppra)**

Recent literature supports the ability to administer IV levetiracetam as a slow IV push. We currently administer this IV seizure medication in piggyback form, which is given over 10-15 minutes. Going forward, the IV Guidelines will be amended to allow IVP for doses up to 2,000mg. The **500mg/5ml** vials will be stocked in the Pyxis. Doses in this range can be administered undiluted over 2-3 minutes. This will facilitate administration in adult acute seizure patients.

Please note, if an adult patient requires a dose above 2,000mg, then that will remain as an IVPB to be administered over 10 minutes using the Alaris pump. Levetiracetam is associated with good absorption; therefore in a non- acute seizure patient with a functioning GI tract, oral / enteral therapy is appropriate.

➤ **Other new medication additions to the CHS formulary**

- Silodosin (Rapaflo) – Used in the treatment of BPH.
- Bisoprolol (Zebeta) – Beta-blocker option for CHF patients.