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Epinephrine Options

Anaphylactic reactions are rare in LTC, but we must always be prepared. Over the past few years we have been plagued by availability problems with EpiPen® devices. EpiPens® are available currently, but the shortage issue has influenced ODB, and they have approved coverage of another autoinjector device, Allerject®.

Kaleo, the manufacturer of Allerject® (see photo above), has launched a promotional campaign in conjunction with this new coverage. They have provided literature and training devices to many professional sites. The most impressive feature of Allerject® is a built-in voice/speaker system that walks the user through the preparation and injection process. Although EpiPen® is quite user-friendly, a nurse unfamiliar with the device may hesitate briefly before injecting, which could have negative consequences.

Allerject® and EpiPen® cost just under $100 each. Prior to December 2017, *Special Authorization Allergen* forms were required for coverage, but now a valid prescription is all that is necessary. Don't forget about the other epinephrine option, the GeriatRx *Adrenalin Kit*. It is also easy to use, comes with full emergency instructions, plus two doses of Benadryl®, if required.

Amlodipine Warning

The product monograph for Norvasc® was updated with new contraindications last month. Amlodipine is not to be used in individuals with left ventricular outflow obstruction (e.g. high grade aortic stenosis) or hemodynamically unstable heart failure after acute MI.

Importantly, it is also **contraindicated in patients with severe heart failure** (NYHA class III and IV). A long-term placebo controlled study showed pulmonary edema was more common in the amlodipine treated group vs. the placebo group. Since amlodipine is such a common LTC drug (taken by 19% of our residents!), it is critically important that alternatives are investigated in these cases.

Weekly Methotrexate

Methotrexate is a high-risk medication. It is cytotoxic and must be handled carefully. Incontinence poses an additional challenge, as methotrexate concentrates in the urine for roughly 24 hours after administration. Dosage regimens vary considerably, depending on indication.

In our senior population, methotrexate's primary use is in treating rheumatoid arthritis. Two treatment regimens are used: weekly administration or three consecutive divided doses given Q12H.

The Q12H regimen gained popularity as a way of reducing GI upset. Unfortunately, it has also led to fatal administration errors in the community. Misinterpretation is also possible in institutional settings. ISMP reported these tragic outcomes to the FDA, and the product monograph has been modified. Weekly dosing is now the only acceptable frequency. If GI tolerance is an issue, methotrexate should be administered i.m. Absorption is superior and GI upset is reduced relative to oral dosing.

Anemia Guideline Change

Minimum ferritin levels have been revised by the *American Gastroenterological Assn.* A compilation of 55 studies showed that a ferritin level of less than 45 mcg/L, rather than the current level of 15mcg/L, identifies far more Fe deficient patients (85% vs 59%), without misdiagnosing non-anemic patients (specificity 92%). Other parameters, such as total iron binding capacity (TIBC), serum iron and mean corpuscular volume (MCV) are also significant diagnostic markers. Many of our residents with borderline ferritin levels will need to be reevaluated.

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