The GeriJournal

Volume 10, Number 6
June 2015
A publication of GeriatRx Pharmacy

New Diabetic Drug Class

Well, not brand new (they've been around for a couple of years), but…SGLT2 (sodium-glucose cotransporter-2 inhibitors) offer an exciting approach to the treatment of Type II diabetes. They help the kidneys to get rid of much of the glucose that they normally reabsorb (via SGLT2). A typical diabetic will lose 100 grams of extra glucose each day when taking one of these medications! Though not covered by ODB, we are seeing prescribing via pharma issued coverage cards and 3rd party insurers.

The first drug of this class was canagliflozin (Invokana®). A few related drugs have since emerged. Adverse effects, particularly in the elderly, are a concern. Glucose retained by the kidneys also pulls water with it, increasing urine output. The BP lowering effect (much like a diuretic) can be beneficial, but hypotension and dehydration are also possible. Renal function must be good (GFR > 60ml/min. ideally; > 30ml/min at a minimum) for these drugs to be used.

Increased glucose in the urinary system can cause other problems, such as UTIs and vaginal fungal infections. Serum potassium can become elevated and a recent advisory about ketoacidosis is a concern, since this is rarely seen in Type II diabetes.

Palliative Rx

I had the pleasure of attending an exceptional presentation on palliative care medications recently. Dr. Irene Ying, who works out of U of T and is a palliative care consultant at Sunnybrook Hospital, gave a comprehensive, clear and fast paced talk, filled with key prescribing principles.

I have often written and spoken of the failings of Tylenol with codeine as an analgesic. It must be converted to morphine to act. Some convert it too quickly and others, slowly or not at all. This alone should disqualify it as a useful narcotic. Dr. Ying also reminded us that each tablet contains 30mg of caffeine. A couple of tablets rival the caffeine content of a small cup of coffee and can lead to a sleepless night with extra trips to the washroom.

Nausea associated with opiate use (and chemotherapy) can be a major quality of life issue. While dimenhydrinate (Gravol®) is often prescribed, its only real value is in the treatment of motion sickness. Narcotics cause nausea primarily by stimulating dopamine receptors in the brain (chemotactic trigger zone - CTZ) and the GI tract. The best pure dopamine blocking drug is haloperidol. Though much maligned as an antipsychotic, it works well to prevent narcotic induced nausea. A reasonable starting dose is 0.5mg q4h prn.

If nausea is not resolved, Motilium® or Maxeran® (also active in the CTZ) can be added to block GI dopamine receptors. If the resident is unable to sleep, Nozinan® can be substituted for Haldol®, as it is more sedating. Olanzapine can also be an option, as it blocks multiple receptors which initiate nausea and vomiting.

Dr. Ying also gave some good pointers on initiating narcotic treatment in frail residents. Start with oral morphine 2.5mg for moderate pain or 5mg for severe pain. Hydromorphone can also be used at 1/5 the morphine dose. Parenteral dosage forms should be initiated at 40 – 50% of the oral dose. When converting from established oral to injectable therapy, the dose may have to be reduced by as much as 90% if impaired GI absorption (severe CHF, liver failure, etc.) is suspected.

Prepared by Randy Goodman
Certified Geriatric Pharmacist