The GeriJournal

Volume 14, Number 6
June 2019
A publication of GeriatRx Pharmacy

End of Life Order Set

We've made a few more updates to our *End of Life Order Set*. They include some modifications of PRN scheduling, some drug changes (e.g. adding metoclopramide [Maxeran®] and removing dimenhydrinate [Gravol®]), adding LU codes, etc. Our website is being updated with the current form. Please ensure you use this version. We sometimes receive an outdated version that does not list atropine drops. You may recall that the drops were discontinued by their manufacturer at one point. Production resumed after multiple complaints from palliative care physicians, as it is a convenient, effective product for terminal respiratory secretions.

Naloxone for Opioid Overdose

We have created a new Policy and Procedure (4.29) – *Naloxone for Opioid Overdose*, to assist those facilities that wish to add naloxone to their stat boxes. As you may be aware, naloxone comes in two formats; injectable, for i.m. use and a nasal spray which can be administered easily by lay people (or nurses!). Naloxone has become quite prominent in many communities, as we deal with opioid abuse. It can also be of value in our facilities, where opioid compromised renal and hepatic function or unintentional administration can lead to overdose.

The P&P outlines when and how the medication is used. Assessment, administration technique, and resident positioning are highlighted. Please have a team discussion to decide whether you want to add this medication to your stat box, and if so, which dosage form you wish to use…perhaps at your next PAC meeting. Your consultant pharmacist can provide in-servicing, and YouTube has some good, short videos which are also quite helpful. Search "YouTube Naloxone Waterloo" for a "made in Ontario" production.

Serum Calcium Levels

Calcium is the most plentiful mineral in the body and has many critical functions. We all recognize its importance as a major component of bones and teeth, but without sufficient calcium, muscle contraction, blood clotting and nerve conduction are impaired. These and many other processes can be impacted by altered calcium levels, so it is important that we interpret calcium blood/serum levels correctly.

Typically, about 40% of calcium in the bloodstream is bound to protein (mostly albumin) and a bit more than 10% is tied up in other complexes. The remaining free, ionized calcium is the only form available for physiologic activity. While total calcium (normal 2.18 – 2.58 mmol/L) is of interest, prescribers may ask labs to report the more meaningful ionized calcium levels (normal 1.05 – 1.30 mmol/L).

Frail seniors often have low serum albumin levels. Since so much calcium is bound to albumin, less albumin equates to less total calcium. Low albumin (less than 35 g/L), will yield an artificially low total calcium. A "corrected calcium" level adjusts this low total calcium level upwards, so hypocalcemia (confusion, hallucinations, muscle cramps, tingling, confusion, coma, etc.) will be avoided.

When assessing Prolia® treatment, either the corrected or ionized calcium level should be used. If pre or post Prolia® administration levels are comfortably in the normal range, a prescriber may choose to indicate less frequent calcium level testing. Risk of hypocalcemia would be low in such individuals.

Prepared by Randy Goodman
Board Certified Geriatric Pharmacist