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SADMANS

At first glance, you may think the ensuing article relates to the treatment of depressed elderly males. It is in fact an acronym we use to determine what drugs should be held when a diabetic resident is ill and potentially dehydrated. I was reminded of the acronym when I attended a presentation given by one of our facility physicians recently.

A bout of nausea/vomiting and diarrhea related to a GI bug should start us thinking of SADMANS. In general, the acronym covers drugs that lower BP, increase fluid loss through the urine or accumulate in the body when kidney function is diminished.

S stands for sulfonylureas. These oral hypoglycemics can sharply lower blood sugar. The two principal drugs in this class are gliclazide (Diamicron®) and the once popular glyburide. Kidneys trying to retain fluid will retain these drugs as well. Blood sugar can bottom out, so these drugs should almost always be held.

A is for ACE inhibitors. There are many examples here, but the most common are Coversyl® (perindopril), and ramipril. These drugs dilate blood vessels to lower BP. Residents who are dehydrated have reduced blood volumes and are likely hypotensive. Continuing to give these drugs will amplify this effect.

D is for diuretics. Diuretics + dehydration = disaster. If you give these meds you risk complete kidney shutdown.

M is for metformin. This drug is eliminated exclusively by the kidneys. With decreased urine production in dehydration, levels escalate. Hypoglycemia or severe metabolic outcomes, including potentially fatal lactic acidosis are possible.

A is also for angiotensin receptor blockers (ARBs), with candesartan, irbesartan, and valsartan being the most prominent of these. These have a similar action to the ACE inhibitors listed above.

N is for non-steroidal anti-inflammatory drugs (NSAIDs). These drugs (Celebrex®, ibuprofen, naproxen, etc.) are rarely used in seniors today, due to cardiovascular toxicity. Since these drugs reduce renal blood flow, potential harm to the kidneys and elsewhere are increased during periods of dehydration.

S is for SGLT2 inhibitors. Common examples are Invokana® and Jardiance®. This newer class of diabetes drugs "instructs" the kidneys to push glucose and water out into the urine. These are great drugs in diabetics with good kidney function. If renal function is poor, they don't work well, can worsen dehydration and may even cause ketoacidosis.

Volume depleted diabetics should still receive their long-acting insulins (e.g. Lantus®, Levemir®). Sugars should be checked frequently, as they may go up or down with illness. Supplemental orders for rapid insulin should be available to deal with high readings, although routine rapid acting insulin doses may have to be reduced or held. If you are uncertain whether a drug should or should not be given, call the prescriber or GeriatRx pharmacist for clarification.

Thyroid Hormone Orders

ISMP has a recommendation for prescribers writing new orders (March 8th *Safety Bulletin*) for thyroid hormone (Eltroxin® or Synthroid®). They ask that tablet strength be indicated in micrograms (mcg) rather than milligrams (mg). This would eliminate decimals and leading zeros, which can be a source of error. For example, Synthroid® 0.075 mg is best written as 75 mcg. Safe Rx writing practices can make orders clearer to nursing and pharmacy staff and reduce potential for error!

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