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Rasilez

Aliskirin (Rasilez®) was added to the ODB Formulary recently. This antihypertensive belongs to a new drug class, called *Direct Renin Inhibitors (DRI).* Its unique mechanism of action is interesting and may make it a very useful medication.

Renin is an enzyme produced by the kidneys in response to low blood pressure or low sodium levels. It is released into the bloodstream and ultimately leads to the production of angiotensin II (AT2). AT2 is a "bad guy" in hypertension, because it constricts vascular smooth muscle leading to narrowed vessels and increased pressure. It also stimulates the release of aldosterone, a hormone which directs the kidneys to retain sodium and fluid, causing further increases in BP.

ACE inhibitors (Altace®, Coversyl®, etc.) and ARBs (Cozaar®, Avapro®, etc.) are commonly prescribed to reduce the production and activity of AT2. While they are effective agents, Rasilez® may offer further benefit because it prevents renin from triggering the pathway that leads to AT2 production. Rasilez® is eliminated passively in the bile, so neither hepatic nor renal impairment impact dosing, unless they are severe. There are also few significant drug interactions, which is very desirable in our patient population.

The starting dose for Rasilez® is 150 mg daily. The dose can be increased to a maximum of 300 mg daily, after one to two weeks of treatment. Rasilez® can be used alone or in combination with ACE inhibitors, ARBs, calcium channel blockers (Norvasc®, Adalat®) or diuretics. It has been used for several years in Europe and is well tolerated. Potassium levels should be monitored, especially when combining Rasilez® with an ACE inhibitor or ARB in diabetic residents.

Easy on the Calcium?

Osteoporosis is a major problem for both women and men in the nursing home setting. While calcium supplementation is an integral part of osteoporosis therapy, recent studies and reviews have raised warning flags about the way it is being used.

The first concerns were raised back in 2008. The *British Medical Journal (BMJ)* published studies showing a trend towards increased stroke and myocardial infarction (MI) in those taking calcium supplements in a dose of 500 mg per day or greater. A recent *BMJ* analysis of fifteen major osteoporosis trials lends support to this earlier finding. Increased age also appears to correlate with increased risk.

One proposed mechanism for this effect is an increase in calcification of coronary heart vessels with supplementation. While the results are still not definitive, some specialists are recommending that dietary calcium intake be increased and supplement doses reduced. They feel a maximum dose of 500 mg daily, or 250 mg once or twice daily might be safest. Some cynics do not accept the results, however, and propose that the MIs are actually episodes of heartburn rather than cardiovascular events. We'll likely be hearing more about this in the months ahead.

Lactulose vs PEG

If lactulose isn't getting the job done, consider polyethylene glycol instead. Head to head comparisons have shown that BM frequency is increased with PEG, and stool consistency is improved as well (it's also much less sticky in the bottom drawer of your med cart). The starting dosage is *Peg-Lyte* powder is 15 Gm (1 heaping tablespoonful) daily with 250 mL of water. The dose may be increased to two tablespoonfuls, if necessary.

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