



Sliding Scale Study

Sliding scale insulins (SSI) have been in everyone's bad books for several years now. The main knock against them is that they "chase" blood sugars after they have become elevated, rather than preventing elevations in the first place. SSI creates extra work for the nurse and discomfort for the residents as they are poked multiple times during the day. Risk of insulin dosing error is also increased. In spite of the concerns regarding volatile sugars with SSI, no prospective study had ever been conducted in LTC to properly evaluate it.

We now have a study that gives some answers. It was published in *The Journal of the American Medical Directors Association* earlier this year. Sixty-four type II diabetics from 14 different nursing homes were accepted (out of an initial pool of 110) and SSI treatment was compared to the current basal-bolus (BB) standard of care.

All residents were on an SSI regimen initially. One portion of that group was assigned to

receive BB treatment, while the other remained on SSI. Doses were titrated over a three-week period and the groups were compared.

The primary objective was to determine whether fasting blood glucose would be improved in the BB group, and it was. There was no significant difference in measures such as hyper and hypoglycemic episodes, other adverse events and/or hospitalizations. Basal insulin (Lantus®), plus a rapid acting bolus dose of insulin at mealtimes resulted in superior fasting glucose levels. If the study had been extended, it may have shown benefits in A1c and other measures, but the improvement in fasting glucose levels was impressive.

Anticholinergic Damage

It is widely recognized that anticholinergic drugs can have a major negative impact on cognition in the elderly. This is one of the reasons medications such as Cogentin®, Benadryl®, Ditropan® and Elavil® are rarely used in seniors nowadays. When these drugs are discontinued, cognition often improves markedly, but it appears that some irreversible damage remains.

A brain imaging study published in *JAMA Neurology* this month illustrated this point. Comparisons were

made between 402 cognitively normal adults, 52 of whom were taking at least one drug with significant anticholinergic (AC+) activity. Not only did the AC+ group perform poorly on memory and executive function tests, but there were clear signs of damage. Significant brain atrophy and reductions in brain volume were seen in images from the AC+ group.

Exposure to AC drugs should be limited in seniors as much as possible. This is one of the areas of focus in the quarterly reviews performed by our consultant pharmacists.

ODB Changes

The Ontario government will be changing the copayment thresholds for the Drug Benefit Program on August 1st. These changes will reduce payments for some seniors in retirement homes and the community.

The copayment program was introduced by Bob Rae's government in the early 1990s. Single seniors with incomes below \$16,018 were placed in the \$2 category. The threshold for couples was \$24,175. Greater income corresponded to a \$6.11 copayment. After 25 years of inflation, a change of the thresholds was warranted. The low-income levels have been increased to \$19,300 and \$32,300 respectively. These fairer levels will move 170,000 seniors into the \$2 category.