Are Statins the Way to Go for Older Adults with no Cardiac History?

By Ruth Kava — November 22, 2016

By now, everyone concerned about cholesterol and heart disease knows about statins — the family of drugs that can effectively lower blood cholesterol levels, especially the levels of so-called bad cholesterol, the LDLs. And by lowering cholesterol, and perhaps by also decreasing inflammation, statins have been shown to reduce the risk of heart attacks and strokes in people with previous heart attacks — which is called secondary prevention. The question has arisen, should people with no previous history of atherosclerotic heart disease (in which cholesterol deposits in the arteries form plaques) also be given one of these drugs for primary prevention? In particular, should our expanding population of elderly people — those 75 years old and up — be treated, or is this just an example of over-medicalization? This issue of primary prevention is addressed in a thoughtful essay in JAMA by Dr. Jerry H. Gurwitz from the University of Massachusetts Medical School in Worcester and colleagues.

These authors express the concern that, unlike secondary prevention, the use of statins for primary prevention in the older population does not have a strong evidentiary basis. They point out that data on the benefits and risks of statin therapy in this older age group are limited; they briefly review the studies that do exist. Subgroup analyses from 3 trials did provide some relevant evidence. In one study of men and women between the ages of 70 to 82 (the PROSPER trial), statin therapy "had no statistically significant effect on the primary composite outcome (coronary death, nonfatal myocardial infarction, and fatal or nonfatal stroke."

Another analysis (the JUPITER trial) found that for individuals over 70 statin therapy was effective for several endpoints, but the rates of all-cause mortality didn't differ for people taking statins compared to those taking a placebo. Again, in the HOPE-3 trial, statins were effective in
preventing nonfatal heart attacks or strokes and death from cardiovascular causes.

They also point out that a recently begun Australian trial (the STAREE trial) will assess the efficacy of statins to provide primary prevention in adults aged 70 and over. This trial will compare the utility of a statin to that of placebo in preventing major adverse cardiovascular events as well as a composite endpoint of all-cause death, dementia, or disability development.

While statins are relatively benign drugs, there are some risks associated with their use. For example, myalgias (muscle pains) are major reasons for therapy discontinuation, and the authors point out, "interactions with many commonly used drugs may increase these risks in older patients." This might well be a stumbling block for more widespread statin use, since many older people already take more than one prescription medications.

In summary, the authors are concerned that "increasing numbers of individuals older than 75 years will likely be treated with statins for primary prevention in the absence of adequate information on benefits and risks." Because there are apparently no strong data sets to advise physicians and patients about what path to follow, at the very least, prescription of a statin to an older individual without a history of cardiovascular events merits thorough discussion between patient and doctor.