Needed: De-prescription Randomized Trials in Geriatric Population

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An 87 year old frail wheel chair bound female presented to the clinic with the presenting complaint of "being sick of the medications" and requested a simplification of the medication regimen. Upon review of the medication list, the patient was on 13 medications for her type 2 diabetes, dyslipidemia, coronary artery disease and osteoarthritis. Her last glycosylated hemoglobin (HBA1C) two months ago was 6.3 and her Low Density Lipoprotein (LDL) at the same time was 68. This and related presentations prompted us to search for the evidence of many of the commonly used medications in the geriatric population.

There is very little evidence that improving the glycemic control in patient with HBA1C below 7 is associated with any improvement in the microvascular or macrovascular end points. In fact, there is some evidence based on the ACCORD trial that intensive glucose control may actually increase mortality. Furthermore, the majority of the participants enrolled, even in the most recent diabetes trials, have mean ages that are much younger. For instance, the mean age at the time of recruitment for the EMPA REG trial [1] was 63 and that of the SAVOR trial was 65 [2]. The follow up duration of these trials is generally relatively small (2.1 years for the SAVOR trial and 3.1 years in the EMPA REG trial). Only 7% of the patients of the historical ACS trials, whose findings are frequently applied in clinical practice, were 75 years or older at the time of the study [3]. The long term safety and efficacy (or lack thereof) of many of the medications that are routinely prescribed for the purposes of increasing longevity is unknown [4]. These facts should be considered while prescribing or continuing the medications to the geriatric population.

To facilitate the process or de-prescription at a larger scale would require data from the randomized controlled trials. In the current era where most of the studies are being funded by the industry [5], conducting a de-prescription trial has inherent challenges in terms of obtaining the funds. Also, defining the patient population and the drugs that should be discontinued along with the end points may pose ethical questions.

Fortunately, that patient ran out of her anti-hypertensive medications (lisinopril and amlodipine) a couple of weeks ago and given that her blood pressure was 123/75, we suggested that she should continue to monitor off those medications. We also advised that it was probably safe to monitor the blood glucose levels off metformin for now and reduced her atorvastatin from 80 to 40 mgs'. While we don't necessarily have trial data to support our recommendations to this patient, we hope that clinical trials to inform such decisions will be conducted in the foreseeable future.

REFERENCES

1. Scirica BM, Bhatt DL, Braunwald E, Steg PG, Davidson J, Hirshberg B, et al. Saxagliptin and cardiovascular outcomes in patients with type 2 diabetes mellitus. *N Engl J Med*. 2013; 369 (14):1317–26
2. Zinman B, Wanner C, Lachin JM, Fitchett D, Bluhmki E, Hantel S, et al. Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes. *N Engl J Med*. 2015; 373(22):2117-28
3. Lee PY, Alexander KP, Hammill BG, et al. Representation of elderly persons and women in published randomized trials of acute coronary syndromes. *JAMA.* 2001; 286 (6):708–13
4. Rossello X, Pocock SJ, Julian DG. Long-Term Use of Cardiovascular Drugs: Challenges for Research and for Patient Care. *J Am Coll Cardiol.* 2015; 66(11):1273-85
5. Riaz H, Raza S, Khan MS, Riaz IB, Krasuski R. Impact of Funding Source on Clinical Trial Results Including Cardiovascular Outcome Trials. *Am J Cardiol* [Article in Press]