One-size-fits-all approach can lead to over-treatment in older diabetes patients

Diabetes treatments have saved many lives, but in older patients with multiple medical conditions, aggressively controlling blood sugar with insulin and sulfonylurea drugs, could lead to over-treatment and hypoglycemia (low blood sugar), according to new research by Yale School of Medicine researchers.

By Karen N. Peart 13 Jan 2015

Published in the 12 January 2014 issue of JAMA Internal Medicine, the study found that many older diabetes patients received aggressive treatment for their disease regardless of their health status and blood sugar levels. In patients with diabetes age 65 and older, this could result in hypoglycemia, a serious health threat, which can lead to confusion, coma, and even death.

"We treat diabetes to prevent complications of the disease by lowering blood sugar levels, but the problem with aggressive lowering blood sugars in older people - to a hemoglobin A1c below 7% - is that it is uncertain whether this approach provi a benefit, and it could, in fact, cause greater harm," said lead author Dr. Kasia Lipska, assistant professor of internal medicine at Yale School of Medicine. "Our study suggests that we have a one-size-fits-all approach despite questionable benefits and known risks. We have been potentially over-treating a substantial proportion of the population."

Lipska and her colleagues conducted a cross-sectional study that analyzed the health records of 1,288 patients age 65 ar older with diabetes from the National Health and Nutrition Examination Survey (NHANES). The team analyzed glycemic control levels recorded in NHANES between 2001 and 2010.

Patients were divided into three groups based on their health status: very complex/poor, complex/intermediate, and relative healthy. Blood sugar was considered controlled if it fell below 7%. About 62% of the patients had blood sugar levels less th 7% and this did not differ across health status. Of those patients, 55% were treated with either insulin or sulfonylureas medications.

"We should use an individualized therapy approach when treating older diabetes patients," said Lipska. "Older patients wh are relatively healthy may benefit if they are treated in a similar way to younger diabetes patients, but this approach might not work in older patients who often have other health issues."

Other authors on the study included Dr. Joseph S. Ross, Yinghui Miao, Nilay D. Shah, Dr. Sei J. Lee, and Dr. Michael A. Steinman.

The study was supported in part by the following: The Pepper Center Career Development Award, the National Institute on Aging, the Yale Clinical and Translational Science Award (CTSA) grant from the National Center for Advancing Translatio Sciences (NCATS) at the National Institutes of Health, and the American Federation for Aging Research through the Paul Beeson Career Development Program.

Citation: JAMA Internal Medicine

Source: Yale University