

The impact of age on response to injectable Semaglutide: Insights from the Association of British Clinical Diabetologists' audit programme

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Introduction

The ABCD Semaglutide (Ozempic) audit launched in 2019 to capture real-world outcomes in the UK. Pooled analysis from the SUSTAIN trials have demonstrated similar HbA1c and weight reducing efficacy in older populations compared younger(1). The use of these drugs in the elderly is under explored and there may be concerns about weight loss in older individuals and the impact this may have on frailty.

The aim of this analysis is to assess the impact of age on weight and HbA1c response to injectable semaglutide.

Methods

Routinely collected clinical data was entered by participating centres into a secure online tool. Individuals were included if baseline and follow-up data for HbA1c and/or weight were available. Age groups at commencement were defined as <40years, 40-64.9 years and ≥65years.

Changes between baseline and follow-up were assessed using multivariate regression analysis to correct for potential confounders, with Bonferroni corrections for multiple comparisons. Analysis performed in Stata 16.

Results

In total 1,623 individuals (49.9% female) were included with baseline mean ±SD age 58.9 ±11.0 years, HbA1c 9.4 ±1.7% and 107.1 ±23.5kg.

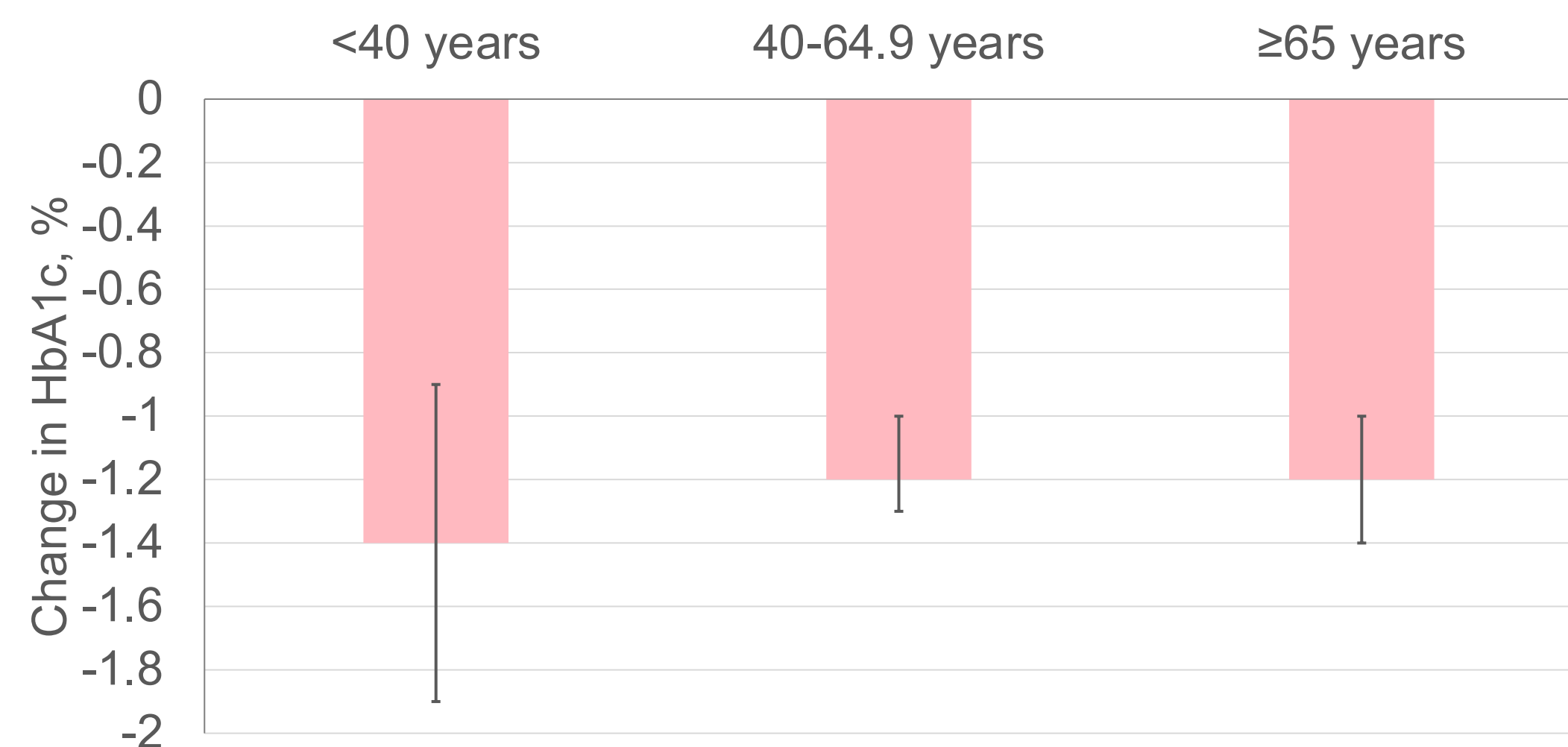
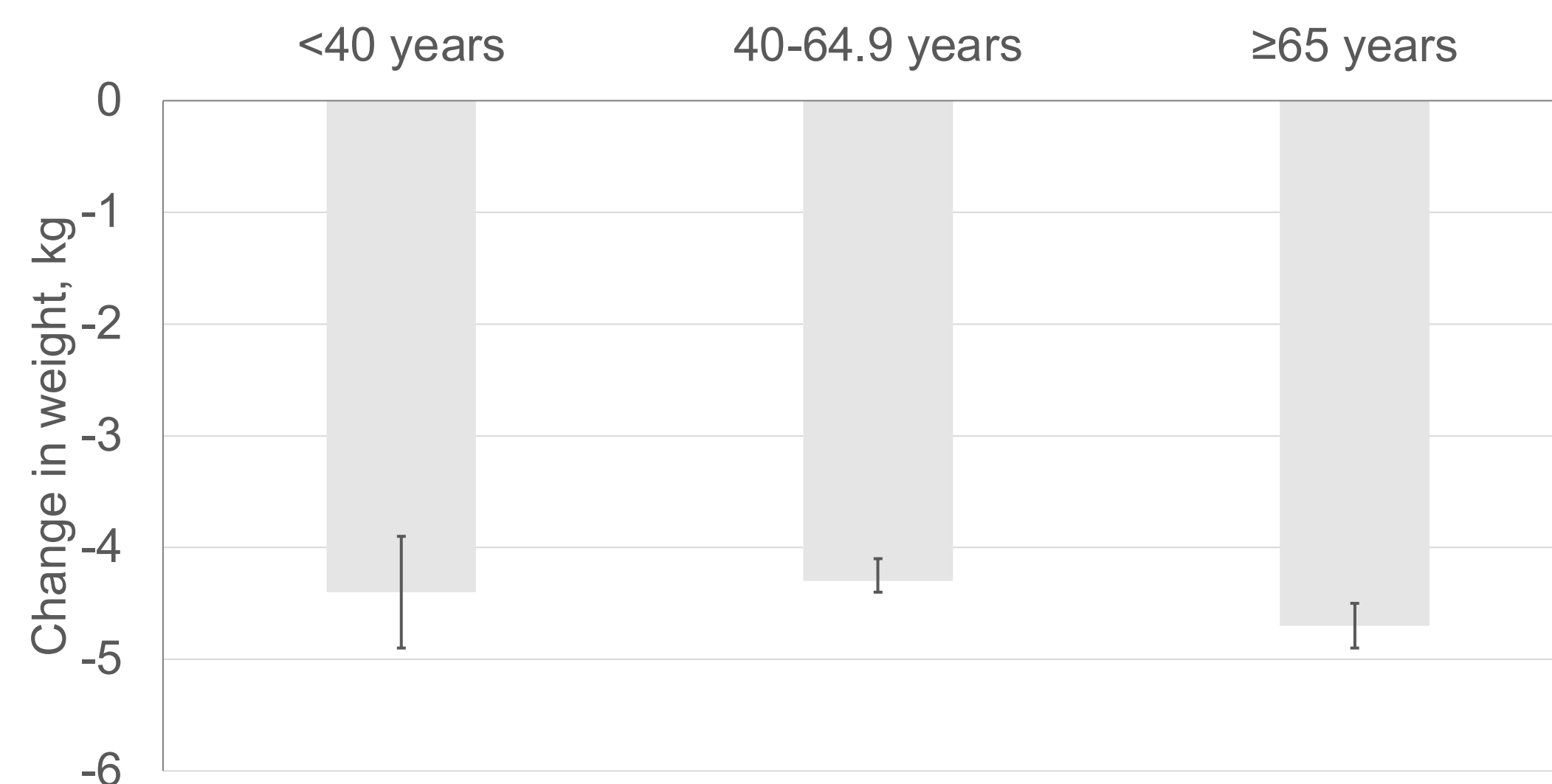


Figure 1. (above) Bar chart showing change in HbA1c across age groups
Figure 2. (below) Bar chart showing change in weight across age groups
Error bars=95% CI. All results significant to p<0.01



Results (Cont)

Over a median follow-up of 0.7years (IQR 0.4-1.0), HbA1c reduced by 1.2% (95%CI 1.1-1.3, P<0.001) and weight reduced by 4.7kg (95%CI 4.1-5.3, P<0.001).

Baseline HbA1c levels were similar across age groups, but baseline weight was significantly lower with increasing age (mean ±SD youngest group 115.5 ±28.6kg vs. 101.8 ±19.5kg in the oldest group, P<0.001).

In those aged <40years HbA1c fell by 1.4% (95% 0.9-1.9) and weight reduced by 4.4kg (1.4-7.4); in age 40-64.9years HbA1c fell by 1.2% (1.0-1.3) and weight by 4.3kg (3.7-5.0) and in age ≥65years HbA1c reduced by 1.2% (1.0-1.4) and weight by 4.7kg (3.8-5.6) (P<0.001 for all). HbA1c and weight changes are shown in **figures 1. (HbA1c) and 2. (weight)** respectively. No significant differences between groups were noted for either change in HbA1c or weight.

Conclusions

Semaglutide is associated with HbA1c reductions across all ages. Weight reductions are also similar despite differences in baseline weight; this may be variably desirable in older individuals where weight maintenance may be preferred to prevent frailty.

References

- Warren, Mark, et al. "Semaglutide as a therapeutic option for elderly patients with type 2 diabetes: pooled analysis of the SUSTAIN 1-5 trials." *Diabetes, Obesity and Metabolism* 20.9 (2018): 2291-2297.