PRESS RELEASE ABSTRACTS (EMBARGOED 0001H UK time FRIDAY 30 MAY)

T4:RS2.3

Efficacy and safety of liraglutide 3.0 mg for weight management in overweight and obese adults: The SCALE™ Obesity and Prediabetes, a randomised, double-blind and placebo-controlled trial

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Introduction: The 56-week efficacy and safety of liraglutide 3.0 mg, as adjunct to diet and exercise, was investigated in overweight and obese individuals without T2DM.

Methods: Adults (BMI ≥27 kg/m2 with comorbidities or ≥30 kg/m2) were randomised 2:1 to once-daily subcutaneous liraglutide or placebo plus diet (500 kcal/day deficit) and exercise. Randomisation was stratified by prediabetes status (ADA 2010) and BMI. *Clinicaltrials.gov* ID: NCT01272219.

Results: 3731 individuals were randomised (age 45.1 ± 12.1 years, body weight 106.2 ± 21.4 kg, BMI 38.3 ± 6.4 kg/m2, 61.2% with prediabetes). Liraglutide was superior to placebo on all weight loss (WL) related parameters (Table) and improved glycaemia, blood pressure and lipids (not shown). WL was independent of pre-treatment prediabetes status and BMI. The most common adverse events (AEs) with liraglutide were early onset nausea and diarrhoea. Most events were mild/moderate and transient. Gallbladder disorders and pancreatitis were more common with liraglutide (2.7 and 0.3 events/100 patient years of exposure [PYE], respectively) than with placebo (1.1 and 0.1 events/100 PYE). AE withdrawal was <10% in both groups. The safety profile was generally consistent with that of previous clinical trials with liraglutide for T2DM.

Conclusion: Liraglutide 3.0 mg, as adjunct to diet and exercise, was efficacious and generally well tolerated.

Table – Change baseline to 56-weeks, full-analysis-set, last-observation-carried-forward

	Liraglutide **LS-mean**	Placebo **LS-mean**	Estimated treatment-difference/Odds ratio **[95% CI]**
1. WL (%)*	–8.0	–2.6	–5.4 [-5.8;-5.0] p

			< 0.0001**
2. 5% respon-ders (%)*	63.5	26.6	4.8 [4.1;5.6] p < 0.0001***
3. 10% respon-ders (%)*	32.8	10.1	4.3 [3.5;5.3] p < 0.0001***
Waist circum-ference (cm)	–8.2	–4.0	–4.2 [-4.7;-3.7] p < 0.0001**
BMI (kg/m2)	–3.0	–1.0	–2.0 [-2.2;-1.9] p < 0.0001**

*Co-primary-endpoints tested in hierarchical order, **ANCOVA, ***Logistic-regression

T2:PO.035

Are supermarket 'Low Fat Foods' in the UK better than their 'regular fat' counterparts in terms of sugar and overall calorie content?

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Introduction: Some foods on sale in UK supermarkets have direct "low fat" alternatives made by the same brands. This study set out to establish whether these low fat versions were nutritionally better, mainly in terms of sugar and overall calories.

Methods: Of the 10 most popular UK supermarkets, 4 provided on-line shopping facilities with nutritional information sufficient to complete the intended study; Sainsbury's, Asda, Waitrose and Tesco. At the end of November 2013, their websites were analysed. Fat, sugar and calorie content for any low fat food that had a directly comparable regular fat product made by the same brand were recorded.

Results: Of 62 products found in the 4 supermarkets, 56 low fat products had fewer calories, and on average overall the low fat products had 31% less calories.
However, 10% of low fat food still had more calories than the regular fat version.
37 of the 62 products (60%) had less sugar than the regular fat alternatives. One low fat product had more fat than its regular fat alternative!

Conclusion: Low fat foods do appear on average to help reduce calorie intake and therefore may be encouraged as part of a weight loss strategy. However, appropriate food choices may still require reading nutritional information on the food labels as 10% of low fat foods still have more calories, and 40% have more sugar.

T4:PO.064

Bread consumption and incidence of overweight/obesity: A longitudinal study of the SUN cohort

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Introduction: Little is known about the relationship between bread intake and obesity. Our objective was to evaluate prospectively the relationship between white and whole grain bread, and weight change in a Mediterranean cohort.
Methods: We followed-up 9 267 Spanish university graduates for a mean period of 5 years from the SUN cohort. Dietary habits at baseline were assessed using a validated semi-quantitative 136-item food-frequency questionnaire. Average yearly weight change was evaluated according to categories of bread consumption. We also assessed the association between bread consumption and the incidence of overweigh/obesity using multivariate models to adjust for potential confounders.
Results: White bread and whole-grain bread were not associated with higher weight gain. By contrast, white bread consumption was directly associated with a higher risk of becoming overweight/obese (adjusted OR (≥ 2 portions /day) versus (≤ 1 portion /week): 1.40; 95% CI: 1.08–1.81; p for trend: 0.008). However, no statistically significant association was observed between whole-grain bread, and overweight/obesity.
Conclusion: Consumption of white bread (≥ 2 portions /day) showed a significant direct association with the risk of becoming overweight/obese.

Dried fruit (prune) consumption does not undermine active weight management or produce adverse gastrointestinal effects.

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Introduction
Consumption of dried fruit has been advised against during weight loss despite evidence it enhances satiety. This study examined whether (i) incorporating prunes into a weight loss intervention undermined weight control; (ii) low fibre consumers could tolerate the inclusion of prunes in their diet for a 12-week period, and (iii) prunes induced chronic beneficial changes in appetite.

Methods
100 overweight and obese low-fibre consumers (74F, 26M; age 43(SEM1.3) y; BMI 29.8 (SEM0.3) kg/m2) completed a randomised between-subjects study with two groups (intervention and active control) to assess the effects of prunes (140g/day F, 171g/day M) on weight and appetite in comparison to control (advice on healthy snacks) over a 12-week period of active weight loss.

Results
The study showed that taking prunes as part of a healthy life-style intervention produced significant changes in body weight (1.99kg/2.4%; p<0.000) and waist circumference

(2.5cm/2.3%; p<0.000) from baseline. These were slightly greater than in the active control but did not reach statistical significance. Weight loss between the groups diverged during the last 4 weeks with a trend for greater weight loss in the prune group (p=0.07). Moreover, despite the high daily doses, prunes were well tolerated. These are the first data to demonstrate both effects. Enduring effects on appetite were also observed with AUC analysis demonstrating increased fullness in the prune group after week 8 (p=0.05).

Conclusion
This study clearly demonstrates no negative consequences of including prunes into weight control diets with some indication of benefit to long-term success. This may relate to chronic appetite effects.

T5:OS2.3

Effect of Pistachio Intake on Insulin Resistance and metabolic risk markers – the EPIRDEM Study

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Introduction: Tree nut consumption is likely to beneficially impact health outcomes such as type-2 diabetes or cardiovascular disease. However, limited clinical evidence suggests beneficial effects of pistachios on glucose metabolism at long-term. Our objective was to evaluate the effect of chronic consumption of pistachios on glucose metabolism and insulin resistance in pre-diabetic subjects.

Methods: 49 pre-diabetic subjects participated in a 4-month randomized, crossover clinical trial with 2 weeks of wash-out period. Subjects were randomly assigned to a control diet (CD) or a pistachios diet (PD) (57g daily). Diets were isocaloric and do not differ in the amount of saturated fatty acids and cholesterol content. At baseline and monthly, anthropometry, blood pressure, dietary habits, and physical activity were assessed. Blood samples were collected at baseline and at the beginning and the end of each intervention period for haemostatic, inflammatory, oxidative and related metabolic risk markers measurements.

Results: No significant changes in BMI were observed between intervention groups. Fasting glucose, insulin and HOMA-IR (mean (95% CI); –0.73 (–1.14, –0.32) and 1.05 (0.54, 1.55), PD versus CD, p < 0.001) decreased significantly after the PD compared to the CD. Compared to the participants in the CD, those in the PD showed a non-significant decrease in glycosylated haemoglobin (p = 0.139), and a higher non-significant reduction in serum-LDL cholesterol levels. Other metabolic risk markers such as fibrinogen, GLP-1, oxidized LDL and Platelet Factor-4 significantly decreased after pistachio diet compared to control diet (p < 0.05).

Conclusion: Chronic consumption of pistachios decreases insulin resistance thus leading a potential protective role on type 2 diabetes development.

T2:OS2.4

Mandatory menu energy labelling and socio-economic disparities in overweight and obesity

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Introduction: In high income countries, those with a lower socioeconomic position (SEP) have a higher prevalence of obesity and consume fast food more frequently than those with a higher SEP. Mandatory menu labelling is a policy intended to enable healthy choices and reduce obesity. The impact of this policy on socioeconomic disparities in obesity is unclear. We aimed to summarise evidence of differential effectiveness of menu labelling by SEP, based on an intervention logic pathway.

Methods: Databases and reference lists were searched in October 2012, using terms for menu labelling, food outlet, and SEP. The differential effect of menu labelling by SEP was summarised across key stages of the intervention logic pathway.

Results: Eight studies that reported the effect of menu labelling by SEP were identified. Only one of the five studies that reported an overall reduction in calories or foods purchased found reported a differential effect by SEP, with a greater reduction in those with a higher SEP. One study found lower label use for lower SEP groups. Additionally, six studies of low income populations were identified. Two of these studies reported difficulties in understanding and use of labels, one reported improved calorie estimation of meals, two reported no change in calories purchased, and one reported slightly healthier choices.

Conclusion: Based on the limited evidence, it seems unlikely that mandatory menu energy labelling will reduce socioeconomic disparities in overweight and obesity. Whether it will increase these inequalities is unclear and further evidence on different contexts and regions is needed.