The study listed may include approved and non-approved uses, formulations or treatment regimens. The results reported in any single study may not reflect the overall results obtained on studies of a product. Before prescribing any product mentioned in this Register, healthcare professionals should consult prescribing information for the product approved in their country.

GSK Medicine: Orlistat
Study Number: W3600586
Title: The effects of weight reduction with orlistat vs. Placebo on changes in body composition.
Rationale: Weight loss is associated with changes in body composition. The purpose of this study was to determine if a 24 week weight loss program with orlistat 60 mg (milligram) plus a reduced calorie, low-fat diet can produce greater changes in body composition compared to placebo plus a reduced calorie, low-fat diet.
Phase: IV
Study Period: 17th September 2008 – 22nd July 2009
Study Design: This was a double-blind, randomized, placebo-controlled, multi-center study of 24-weeks.
Centres: Multicenter study: United States and Sweden
Indication: Weight Loss
Treatment: Test Drug: Orlistat 60mg; Control: Placebo
Objectives: To determine whether a 24 week weight loss program with test drug will produce a greater reduction from baseline in abdominal visceral adipose tissue (VAT) mass compared to control in overweight (defined as Body Mass Index (BMI)= 25.0-29.9 kilogram per meter square (kg/m^2) and Class I obese (defined as BMI=30.0 to 34.9 kg/m^2) subjects with a waist circumference greater than 35 inches (female) and greater than 40 inches (male).
Primary Outcome/Efficacy Variable: Change in Abdominal VAT mass (kg) from baseline to week 24
Secondary Outcome/Efficacy Variable(s): From baseline to week 24: Body weight, total fat mass, liver fat (Hounsfield Units(HU)), liver fat (Intrahepatic Lipids (IHL)), waist circumference, percent (%) body fat, physical activity ((kilocalorie (KCL)) and quality of life, selectivity index From baseline to week 12: VAT mass (kg)
Statistical Methods: The intent-to-treat (ITT) population included all randomized subjects who took at least one dose of study medication and had at least one post-baseline efficacy assessment, specifically a post-baseline computed tomography (CT) scan for the primary efficacy variable. The safety population included all randomized subjects who received at least one dose of study medication. The primary efficacy variable, the abdominal VAT mass using CT scan, was analyzed by the analysis of covariance, (ANCOVA) for change from baseline to week 24. The baseline value was included in the model as a covariate, and treatment group and center were added as main effects. Least squares means (LS means) were provided and associated p-values were generated. The secondary efficacy variables body weight, waist circumference, total fat mass as measured by EchoMRI-AH (henceforth EchoMRI), % body fat as measured by bioelectrical impedance analysis (BIA), and liver fat as measured by CT, were also investigated with ANCOVA for change from baseline to week 24, similar to the VAT analysis. The VAT mass using CT scan for change from baseline to week 12 was analyzed by ANCOVA. The total calories expended per week for change from baseline to week 24 from the Paffenbarger questionnaire was analyzed by ANCOVA. For the impact of weight quality of life (IWQoL) questionnaire, a raw score was calculated and normalized, and summarized descriptively by treatment group for each of the five scales and total score, at baseline and week 24. ANCOVA was used to analyze the change from baseline to week 24 for the IWQoL scales and total score. The Selectivity Index was calculated for the test group at week 24. The overall adverse event (AE) rate, incidence of treatment-emergent AEs and selected gastrointestinal (GI) AE rates were summarized by treatment group.
Study Population: The study population was both male and female subjects aged 18-60 years with a BMI of 25.0-34.9 kg/m^2. Subjects also had to have a waist circumference greater than 35 inches for female subjects and greater than 40 inches for male subjects. Subjects were generally in good health and followed normal dietary habits. All subjects were instructed to follow a reduced calorie, low fat diet and encouraged to exercise throughout the study duration.

	Control	Test Drug
Number of Subjects:		
Planned, N	60	60
Randomised, N	66	65
Completed, n (%)	53 (80.3%)	54 (83.1%)
Total Number Subjects Withdrawn, n (%)	13 (19.7%)	11 (16.9%)
Withdrawn due to Adverse Events, n (%)	0	3 (4.6%)
Withdrawn due to Lost to follow up, n (%)	1 (1.5%)	2 (3.1%)
Withdrawn due to Withdrawal of consent, n (%)	10 (15.2%)	5 (7.7%)
Withdrawn for other reasons, n (%)	2 (3.0%)	1 (1.5%)
Demographics	Control	Test Drug
N (ITT)	61	62
Females: Males	51:10	51:11
Mean Age, years (Standard Deviation (SD))	43.8 (11.7)	42.9 (9.0)
Race, n (%)		
Caucasian, n (%)	51 (83.6%)	43 (69.4%)
Black, n (%)	8 (13.1%)	16 (25.8%)
Hispanic, n (%)	1 (1.6%)	3 (4.8%)
Asian, n (%)	1 (1.6%)	0
Primary Efficacy Results: VAT (kg) from Baseline to Week 24, ITT, last observation carried forward (LOCF) Population		
	Control	Test Drug
Mean Baseline (Standard Error (SE))	4.023	3.807
Difference between treatments (Control-Test drug)	0.263	
95% Confidence Interval (CI)	0.035, 0.491	
p-value	0.0244	
Secondary Outcome Results: Body weight (kg), total fat mass (kg), liver fat (HU), waist circumference (cm), percent body fat (%), physical activity (kcal), quality of life, Selectivity Index from baseline to week 24, VAT mass (kg) from baseline to week 12 ITT Population.		
	Difference between treatments (Control-Test)	95% CI
Body Weight (kg)	1.99	0.25, 3.74
Total Fat Mass (kg)	1.642	0.219, 3.065
Liver Fat (HU)	-0.023	-0.069, 0.023
Waist Circumference (cm)	1.70	-0.24, 3.63
Percent Body Fat (%)	1.47	0.07, 2.87
Physical Activity (kcal)	783.8	-657.3, 2224.9
Quality of Life – Total	1.66	-1.40, 4.72
Visceral Fat at week 12 (kg)	0.172	0.007, 0.337
	Control	Test Drug
Liver Fat (% IHL) Mean Change from baseline (Standard Deviation (SD))	-0.0112 (0.03642)	-0.0008 (0.00609)
Selectivity Index at week 24	-	1.155
Safety Results: One hundred twenty-seven subjects were included in the safety population, consisting of 64 control subjects and 63 test group subjects.		
	Control	Test Drug
Most Frequent Adverse Events – On-Therapy	N (%)	N (%)
Subjects with any AE(s), N (%)	52 (81.3)	57 (90.5)
Nasopharyngitis	22 (34.4)	25 (39.7)
Fatty/Oily Stools	3 (4.7)	22 (34.9)
Soft Stools	8 (12.5)	14 (22.2)
Flatulence	5 (7.8)	12 (19.0)
Liquid Stools	5 (7.8)	7 (11.1)
Increased Defecation	2 (3.1)	6 (9.5)

Influenza	4 (6.3)	5 (7.9)
Flatus with Discharge	0	5 (7.9)
Headache	4 (6.3)	4 (6.3)
Nausea	1 (1.6)	4 (6.3)
Oily Spotting	0	4 (6.3)
Abdominal Pain Upper	6 (9.4)	2 (3.2)
Gastroenteritis	5 (7.8)	2 (3.2)
Pain in Extremity	4 (6.3)	2 (3.2)
Diarrhoea	4 (6.3)	2 (3.2)
Fecal Urgency	4 (6.3)	1 (1.6)
Serious Adverse Events - On-Therapy N (%) [n considered by the investigator to be related to study medication]		
	Control	Test Drug
Subjects with non-fatal SAEs, N (%)	1 (1.6)	2 (3.2)
	N (%) [related]	N (%) [related]
Severe exacerbation/worsening of gallstones	1 (1.6) [0 related]	1 (1.6) [1 possibly related]
Moderate cystic duct leak	0 (0)	1 (1.6) [0 related]
Severe abdominal infection	0 (0)	1 (1.6) [0 related]
Moderate kidney stone exacerbation	0 (0)	1 (1.6) [0 related]
Blurry vision	0 (0)	1 (1.6) [0 related]
Subjects with fatal SAEs, N (%)	0 (0)	0 (0)