

3.5 mm AND pain score ≥ 40 at BL led to greater differentiation in WOMAC total and pain scores for sprifermin 100 μg q6mo vs PBO than having either BL characteristic alone. At Year 3 (18 mos after last injection), the exploratory dose-effect trend test had a nominal p-value of <0.05 (Fig 1; Table 1).

Conclusion: Despite substantial structural and symptomatic progression in the "at risk" subgroup, structural improvement with sprifermin was maintained, and WOMAC score improvements vs PBO increased over time and were significant at Year 3. This supports further investigation of sprifermin as a potential disease-modifying osteoarthritis drug in a targeted population where structural improvement may translate into symptomatic benefit vs PBO within a reasonable timeframe.

Table 1. Observed and adjusted mean difference [95% CI] in WOMAC pain scores for sprifermin vs PBO in the "at risk" subgroup

	Sprifermin 100 μg q6mo (N=33) vs PBO (N=34)		
	Obs mean diff [95% CI]	Adj mean diff [95% CI]	Trend test* (nominal p value)
Y1	-5.81 [-15.96, 4.35]	-3.65 [-15.73, 8.43]	>0.05
Y2	-10.45 [-22.76, 1.85]	-5.82 [-18.87, 7.23]	>0.05
Y3	-14.51 [-26.16, -2.85]	-8.75 [-22.42, 4.92]	<0.05

*Across 4 sprifermin groups and PBO

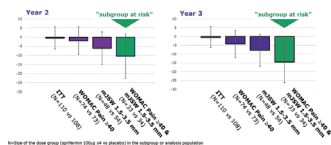


Figure 1. Observed mean differences [95% CI] in WOMAC pain scores for sprifermin 100 μg q6mo vs PBO across different risk subgroups at 2 and 3 years

Disclosure of Interests: Hans Gühring Employee of: Employee of Merck KGaA, Darmstadt, Germany, Jeffrey Kraines Employee of: Employee of EMD Serono (a business of Merck KGaA, Darmstadt, Germany), Flavie Moreau Employee of: Employee of EMD Serono (a business of Merck KGaA, Darmstadt, Germany), Benjamin Daelken Employee of: Employee of Merck KGaA, Darmstadt, Germany, Christoph Ladell Employee of: Employee of Merck KGaA, Darmstadt, Germany, Wolfgang Wirth Shareholder of: Shareholder of Chondrometrics GmbH, Ainring, Germany, Employee of: Employee of Chondrometrics GmbH, Ainring, Germany, Philip G Conaghan Consultant for: Flexion Therapeutics, AbbVie, Medivir, Merck Serono, Novartis, GlaxoSmithKline, Felix Eckstein Shareholder of: Shareholder of Chondrometrics GmbH, Consultant for: Consulting fees from Merck KGaA, Samumed LLC, Abbvie, Bioclinica, TissueGene, Servier, and Roche, Employee of: Employee of Chondrometrics GmbH, Marc Hochberg Shareholder of: BriOri Biotech, Theralogix LLC., Consultant for: Bristol Myers Squibb, Eli Lilly, EMD Serono, Novartis Pharma AG, Pfizer Inc., Samumed LLC, Symbic Bio Inc., Theralogix LLC, TissueGene Inc., TLC Biopharmaceuticals, Inc., Zynerba, Galapagos, IQVIA, Hoffman LaRoche.

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OP0011

EFFECT OF LIRAGLUTIDE ON BODY WEIGHT AND PAIN IN THE TREATMENT OF OVERWEIGHT AND KNEE OSTEOARTHRITIS: A RANDOMISED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY

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Background: Weight loss is recommended as treatment of concomitant knee osteoarthritis (OA) and overweight. The GLP-1 receptor agonist liraglutide has

been shown effective in maintaining or even further reducing weight loss, but the compound has not been tested in a population of patients with overweight and knee OA.

Objectives: The objective of this trial was to investigate if liraglutide in a 3 mg/day dosage was effective in maintaining weight loss and symptomatic effects 52 weeks after an initial 8-week dietary-based weight loss intervention dosing in patients with overweight and knee OA.

Methods: Patients with overweight or obesity and knee OA participated in a randomised, double blind, placebo-controlled, parallel group, single-centre trial. Patients were provided an initial 8-week run-in diet intervention (week -8 to 0) including a low-calorie diet from Cambridge Weight Plan and dietetic counselling. At week 0 patients who had lost at least 5% of their initial body weight were randomised to liraglutide 3 mg/day or placebo for 52 weeks. The co-primary outcomes were changes in body weight and the KOOS pain subscale from week 0 to 52. Trial registration: NCT02905864. Analyses were based on the intention-to-treat population.

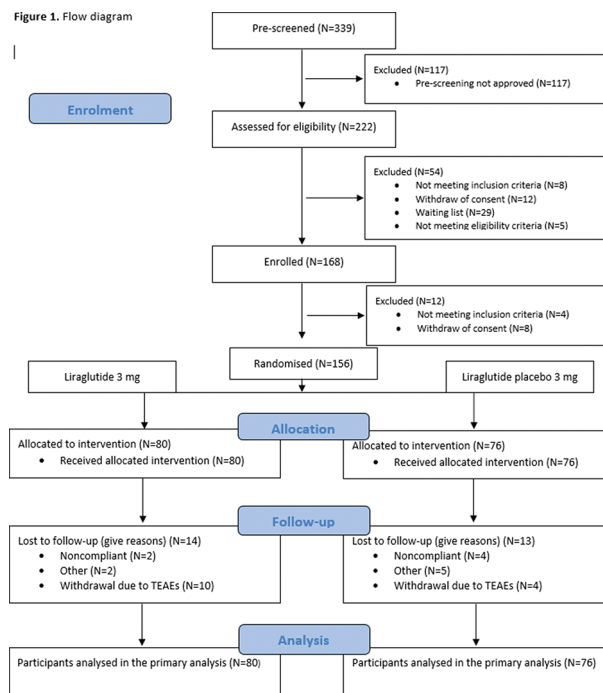
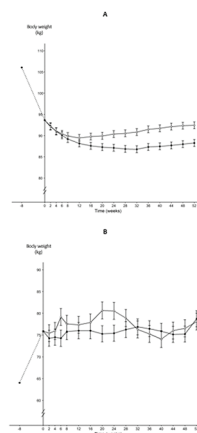


Figure 2. Least square means during the 52-week study period (after achieving at least 5% weight loss initially), according to randomized treatment group: A, body weight, and B, KOOS pain subscale.



The dotted lines covers the initial 8-week run-in diet intervention period from week -8 to 0. From week 0, solid symbols indicate the liraglutide group and open symbols indicate the placebo group. The error bars indicate standard errors. Least square means are displayed and their respective 95% confidence intervals are shown in parentheses.

Results: 168 patients (Kellgren-Lawrence grade 1-3) were enrolled in the initial 8-week diet intervention and 156 patients were randomised (Figure 1). Before randomisation the 156 patients had lost 12.46 kg (SD:3.82) ($\approx 12\%$) and improved in KOOS pain corresponding to 11.86 points (SD:15.13) ($\approx 19\%$). Baseline characteristics were similar in the intervention and control groups. From baseline to 52 weeks there was a statistically and clinically significant difference in the weight loss between the liraglutide and the placebo groups (mean -2.76 and 1.17 kg, respectively; group difference, 3.93 kg; 95%CI -6.85 to -1.02; $p=0.008$), there was no difference between groups in change in KOOS pain (mean changes: 0.35 and

-0.55 points, respectively; group difference, 0.89 points; 95%CI -3.89 to 5.68; $p=0.713$). Week 52 least squares means for body weight and KOOS pain showed similar results (Figure 2). 4 patients in the intervention and 4 patients in the control groups experienced serious adverse events, and no deaths were observed.

Conclusion: In overweight patients with knee OA, an 8-week low-calorie diet intervention significantly reduced body weight and knee pain. Liraglutide treatment added after the initial diet-induced weight loss provided further weight loss over 1 year but did not reduce knee pain any further compared to placebo.

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What's new: Latest news on biological treatment

OP0012

EFFECTIVENESS OF TNFI AFTER A FIRST SWITCH IS LOWER IN PATIENTS WITH EARLY AXIAL SPONDYLOARTHRITIS: A LONGITUDINAL ANALYSIS OF THE DESIR COHORT

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Background: Some contradictory data has been reported on the effectiveness of a second and third line of TNFi in early axial spondyloarthritis (axSpA).

Objectives: To evaluate the effectiveness after a first and second TNFi switch, in real life conditions, over 5 years of follow-up in an early axSpA population.

Methods: Observational prospective French cohort (DESIR) with 5 years of follow-up, including 708 TNFi-naïve early axSpA patients. Study visits were scheduled every 6 months in the first two years of follow up then yearly up to 5 years. Treatment (TNFi or other) was at the discretion of the treating rheumatologist's. The characteristics of patients who received a second and a third TNFi were compared to those who never switched. Effectiveness was defined by the drug survival of the first, second and third TNFi were estimated by the Kaplan-Meier method, and compared using the log-rank test.

Results: Of the 708 patients included in the analysis, 258 (36.4%) patients initiated a first TNFi during the 5 years of follow up. Of these, 127/258 (49.2%) switched to a second TNFi, and among them 59/127(46.5%) switched to a third TNFi. Patients who switched to a second or a third TNFi were more frequently older, predominantly females, HLA-B27 negative, with MRI and radiographic sacroiliitis negative, without history of peripheral arthritis, and with higher BASFI and BASDAI scores at baseline of the DESIR cohort (see table). Estimated median drug survival for the first, second and third TNFi was 21.7 months [95%CI 17.6-33.6], 18.8 months [95%CI 15.1-24.4] and 25.0 months [95%CI 11.8-NA] respectively. Drug survival was significantly extended for the first TNFi compared to the

second one ($p=0.04$), but no differences were observed between the 2nd and the 3rd TNFi.

Conclusion: Our study suggests a poorer TNFi effectiveness after a first switch in real-life conditions in early axial spondyloarthritis.

Baseline characteristics	Patients remaining in their first TNFi N=88	Patients switching to a 2 nd TNFi N=127	Patients switching to a 3 rd TNFi N=59
Age (years)	33.6(9.4)	35.3(8.7)	35.4(8.5)
Sex (male)	52(59.1)	40(31.5)	17(28.8)
HLA-B27 positive	57(64.8)	62(48.8)	26(44.1)
MRI sacroiliitis positive	46/85(55.1)	39/125(31.2)	16/57(28.1)
Radiographic sacroiliitis positive	27/85(31.8)	17(13.4)	9(15.3)
History of arthritis	31(35.2)	37/125(29.6)	17/58(29.3)
BASDAI (range 0-10)	4.5(1.8)	5.9(1.5)	6.0(1.4)
BASFI (range 0-10)	3.1(2.1)	4.6(2.1)	4.8(2.1)

Disclosure of Interests: Marion Pons: None declared, Sylvie Chevret: None declared, Karine Briot Consultant for: Karine Briot has received consultancy honoraria and conference fees from UCB, Amgen, Lilly and MSD, Maria-Antonietta D'Agostino: None declared, Christian Roux Grant/research support from: Alexion, Amgen, UCB, maxime dougados Grant/research support from: Eli Lilly and Company, Pfizer, AbbVie, and UCB Pharma, Consultant for: Eli Lilly and Company, Pfizer, AbbVie, and UCB Pharma, Anna Moltó: None declared

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OP0013-PARE AFLAR'S – FRENCH LEAGUE AGAINST RHEUMATISM –POSITION AND PATIENT INFORMATION ACTION ABOUT BIOSIMILAR MEDICINES IN FRANCE

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Background: 20 years after biotherapies were introduced in rheumatic diseases treatment in France, biosimilars are a new medical and economic issue in terms of therapeutic opportunities, and innovative treatment spreading and development. Patients' rights - quality of life, information on treatment and safety - as well as public health cost management, medical and other caregivers' practices are involved.

Objectives: AFLAR wants to play an active role in these fields, as about one million of patients with inflammatory rheumatic diseases, and next other diseases, are concerned.

Methods: AFLAR's patient led board (1), medical and scientific experts and especially expert patients have been working together to:

1. state AFLAR's position about biosimilars
2. define the most adapted association's actions in the field of biosimilars
3. create the most proper tool to inform and empower patients to their rights, especially in the field of treatment efficacy and safety.

Results: A position paper leading to a press release dated Dec. 7th, 2018 prior to national rheumatology medical congress opening has been achieved. An informative tool to be used for shared medical decision when biosimilars are involved, is currently in progress. AFLAR'S position on biosimilars includes 2 statements and 6 advices addressed to patients, caregivers and other stakeholders:

Statements:

1. Biosimilars are a medical and healthcare cost reduction effective solution in rheumatic diseases treatment;
2. Biosimilars have scientifically proved their efficacy and safety in past and ongoing studies; drug safety monitoring is ensured by national and European drug safety agencies.

Advices:

1. Further continuous clinical post-marketing studies should be achieved, and their results easily available to patients.
2. Patient should be properly informed each time a biosimilar is proposed if has not been tested versus original biotherapy in his/her own specific disease
3. Biosimilar drug can be prescribed for cost reduction reason as initial biotherapy treatment, when not contraindicated
4. Blind random switch from originator to biosimilar and among biosimilar products should not be done, based on precautionary principle
5. Patient should be precisely informed of product with biosimilar name (not only international non-proprietary name), and batch number, as this allows