Healthcare professionals' perceptions of obesity and agonists of the glucagon, GLP-1, and GIP receptors

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Objective

- To explore US HCP experience in obesity treatment and perceptions of GLP-1R, GCGR, and glucose-dependent insulinotropic polypeptide receptor (GIPR) agonists and dual agonists

Methods

- This was a cross-sectional, online survey of US HCPs treating people with obesity conducted between February 28, 2023 and March 14, 2023 to assess prescribing behavior and understanding of current and emerging hormone treatments for obesity (GLP-1R, GCGR, GIPR agonists)
- Eligible participants were HCPs who had been practicing for ≥1 year and were current prescribers of AOMs to patients with body mass index (BMI) ≥30 kg/m^2 or BMI ≥27 kg/m^2 with weight-related complications (primary care physicians [PCPs, n=251], endocrinologists [ENDOs, n=263], advanced practice providers [APPs, n=271])

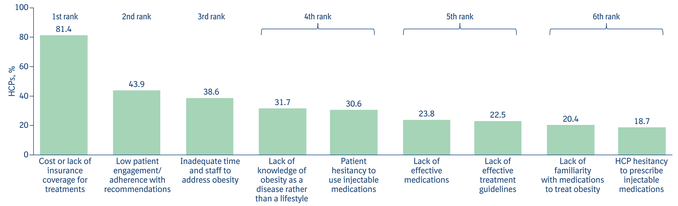
Results

HCPs reported 55.3% of their patients had obesity (BMI ≥30 kg/m^2 or ≥27 kg/m^2 with weight-related complications) and recommended AOMs to 48.9% of those patients overall; significantly more ENDOs (57.2%, p<0.0005) than PCPs (43.0%) or APPs (46.4%)

% of patients	All HCPs (N=785)	ENDOs (n=263)	PCPs (n=251)	APPs (n=271)
Patients with obesity and/or T2D, %				
Patients with obesity	55.3	57.6	49.5	58.5
Patients with T2D	40.5	51.5	29.1	40.2
Patients with obesity and T2D	42.6	50.0	34.2	43.2
Patients recommended treatment with AOMs				
Patients with obesity	48.9	57.2	43.0	46.4
Patients with obesity and T2D	62.0	69.7	55.8	60.4
Medications prescribed for obesity, % HCPs				
Semaglutide (Wegovy)	86.4	97.0	89.2	73.4
Liraglutide (Saxenda)	74.9	93.9	70.9	60.1
Phentermine (Adipex, Lomaira)	67.9	70.7	71.3	62.0
Phentermine/topiramate ER (Qsymia)	65.6	76.0	62.5	58.3
Naltrexone ER/bupropion ER (Contrave)	60.5	64.6	63.7	53.5
Orlistat (Xenical, Alli)	46.5	49.8	55.8	34.7
All of the above	21.0	29.7	21.1	12.5
None of the above	1.7	0.4	0.8	3.7

Values ranked based on statistical significance: first rank is blue, second is **red**, third is **brown**; significance tested at the 95% confidence level. ER, extended release; T2D, type 2 diabetes

Greatest reported barriers to treatment were medication cost/lack of insurance (mean: 4.2 on Likert scale ranging from 1 [no barrier] to 5 [extreme barrier]), low patient engagement/adherence with recommendations (mean: 3.3), and inadequate time/staff (mean: 3.1)



Respondents were asked the following question: *In your opinion, how much of a barrier do you find the following items to be toward treating obesity?* Response options were *not at all a barrier; a slight barrier; a moderate barrier; a substantial barrier; an extreme barrier.* Data are the percentage of respondents selecting either substantial or extreme barrier. Ranking is determined by statistically significant differences (p<0.05)

This survey of US healthcare professionals (HCPs) treating people with obesity found they prescribe anti-obesity medications (AOMs) to less than 50% of their patients. Of the second-generation AOMs, HCPs were most familiar with glucagon-like peptide-1 receptor (GLP-1R) agonists, but anticipate further benefits from investigational compounds, including glucagon receptor (GCGR)/GLP-1R dual agonists

What was known

- AOMs have historically had limited efficacy, but recently approved compounds acting as GLP-1R agonists are substantially more effective
- Furthermore, dual agonists of the GLP-1R and GCGR or GIPR are in clinical development, with the hope that they will elicit greater weight loss and possibly weight-independent reduction of obesity-related complications

What's new – Conclusions

- This survey of US-based HCPs who actively treat obesity found that gaps exist in management of people with obesity, as less than 50% of patients are prescribed AOMs. HCPs reported barriers to treatment that impact patients receiving appropriate therapy, indicating a need to improve access to AOMs
- The HCPs surveyed were more familiar with GLP-1R agonists than GCGR agonists or GIPR agonists. However, they expect that novel AOMs such as GCGR/GLP-1R dual agonists may offer further clinical benefits, which could help to address treatment barriers and access
- Cost or lack of insurance coverage predominated as the major barrier to treatment of patients with AOMs
- The data suggest that greater access through lower costs and/or insurance coverage and the education of HCPs regarding pharmacotherapy of GIPR and GCGR agonists will be needed to realize the full clinical benefits of GLP-1R/GIPR/GCGR dual and triple agonists

GCGR, glucagon receptor
GIPR, glucose-dependent insulinotropic polypeptide receptor
GLP-1R, glucagon-like peptide-1 receptor

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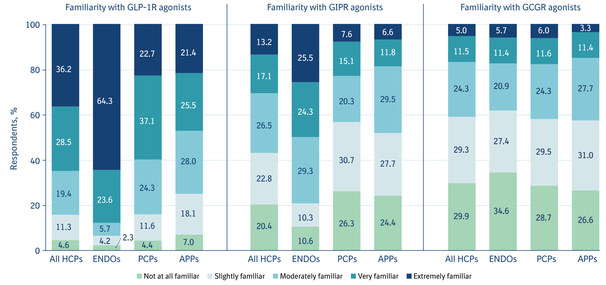
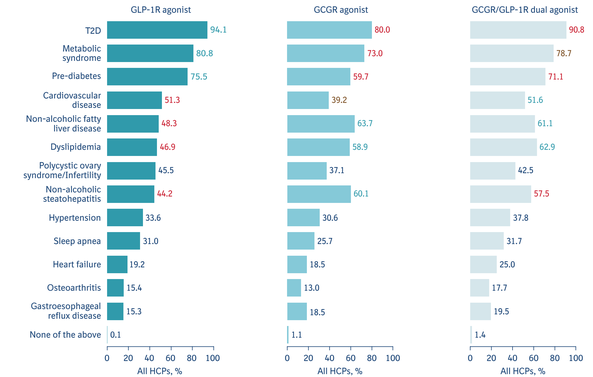
Most HCPs (64.7%) were "very familiar" or "extremely familiar" with GLP-1R agonists, but only 30.3% with GIPR agonists and 16.5% with GCGR agonists



Most HCPs expected GCGR/GLP-1R dual agonists to benefit many obesity-related conditions, e.g. T2D (90.8% of HCPs), metabolic syndrome (78.7%), non-alcoholic fatty acid disease (61.1%), and non-alcoholic steatohepatitis (57.5%)



Respondents were asked the following: *GLP-1R agonists have been shown to increase insulin secretion, decrease gastric emptying, and suppress appetite by acting on feeding centers in the brain. GCGR agonists have been shown to produce an enhanced effect on body weight reduction through effects on both the liver and adipose tissue. Targeting the liver can result in increased fatty acid oxidation, glycogenolysis, and gluconeogenesis; while targeting adipose tissue can increase lipolysis. Collectively, this can lead to a potential overall increased energy expenditure. Based on the above definition, what patient group(s) with obesity do you think would benefit* ***most*** *from a GLP-1R agonist? What patient group(s) with obesity do you think would benefit* ***most*** *from a GCGR agonist? What benefits, in terms of* ***better control****, would you expect from the* ***combination of the two receptor agonists*** *compared with the effects of either one alone (for this question, please assume that the medication is considered safe and tolerable in Phase III studies)? Please select all that apply.* Values ranked based on statistical significance: first rank is blue, second is **red**, third is **brown**; significance tested at the 95% confidence level.

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Disclosures

W. Timothy Garvey has served as a consultant on advisory boards for Ainylam Pharmaceuticals, Boehringer Ingelheim, Eli Lilly, Fractyl Health, Inogen, Merck, Novo Nordisk, and Pfizer, and as a site principal investigator for multi-centered clinical trials sponsored by his university and funded by Eli Lilly, Epitomee, Neurovalens, Novo Nordisk, and Pfizer. Cathy D. Mahle is an employee of Boehringer Ingelheim, which is developing a GCGR/GLP-1R dual agonist. Robert F. Kushner serves on scientific advisory boards for Novo Nordisk and WW and serves as a consultant for Altimmune, Boehringer Ingelheim, Eli Lily, and Pfizer.

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