Practice patterns in the management of patients with obesity: results of a national survey of five US physician groups

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Background

- Obesity is typically characterized by having excess body fat or by a specific body mass index (BMI) cut-off (ie, ≥ 30 kg/m^2); however, obesity is a complex, multi-factorial, chronic disease with a complicated etiology that involves genetics, psychology, behavior and environment.
- Obesity is associated with significant health risks and co-morbidities (eg, diabetes, hypertension, dyslipidemia, heart disease, depression, cancer, osteoarthritis).
- While a BMI-centric approach has served as basis for management, AACE guidelines suggest a complications-centric approach with lifestyle modification as the cornerstone and pharmacologic therapy or surgery representing intensified treatment options that may be necessary in some patients who do not achieve weight loss goals.
- Even so, many barriers to obesity management exist: stigma/bias, clinician and patient expectations of weight loss (eg, 2-10% weight loss not consistently viewed as beneficial), adherence/attrition, safety concerns of pharmacotherapy/surgery and access to treatments.
- Taken together, all of these factors contribute to variability in treatment approaches to obesity and underutilization of available treatment options.

Primary Aim

The primary aim of this survey was to investigate practice patterns of US physicians who manage obesity and identify unmet educational needs.

Figure 1. Survey methodology

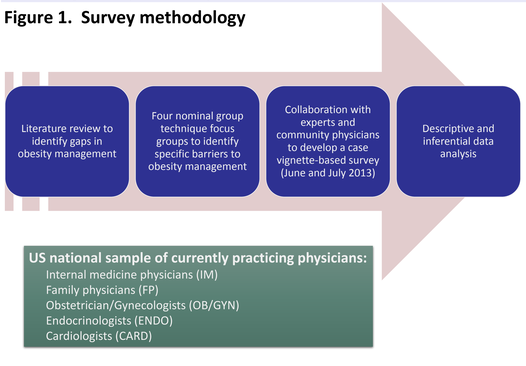


Figure 2. Study domains

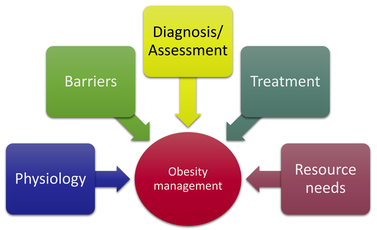


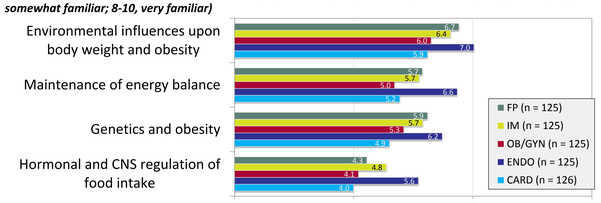
Table 1. Physician respondent demographics

	FP (n = 125)	IM (n = 125)	OB/GYN (n = 125)	ENDO (n = 125)	CARD (n = 126)
Sex, % male	68.8	68.0	62.4	91.3	79.2
Years since medical school graduation, mean (SD)	25 (11)	23 (10)	28 (11)	25 (11)	27 (9)
Patients seen per week, mean (SD)	106 (44)	98 (32)	101 (40)	99 (42)	91 (34)
Patients seen per week who are obese, mean (SD)	46 (8)	40 (5)	39 (7)	56 (8)	41 (6)
Practice location, %					
Urban	43.2	28.0	33.6	38.4	43.7
Suburban	52.8	51.2	56.8	56.0	50.8
Rural	4.0	20.8	9.6	5.6	5.6
Practice type, %					
Solo practice	20.8	23.2	35.2	22.4	7.1
Group practice	66.4	61.6	52.8	60.0	73.8
Medical school	4.0	4.0	2.4	8.0	11.1
HMO	0.0	0.8	2.4	0.8	3.2
Non-government hospital	4.0	5.6	4.8	4.0	3.2
Government	4.8	4.8	2.4	4.8	1.6

Results

Figure 3. Physicians are somewhat familiar with the etiology of obesity (Physiology)

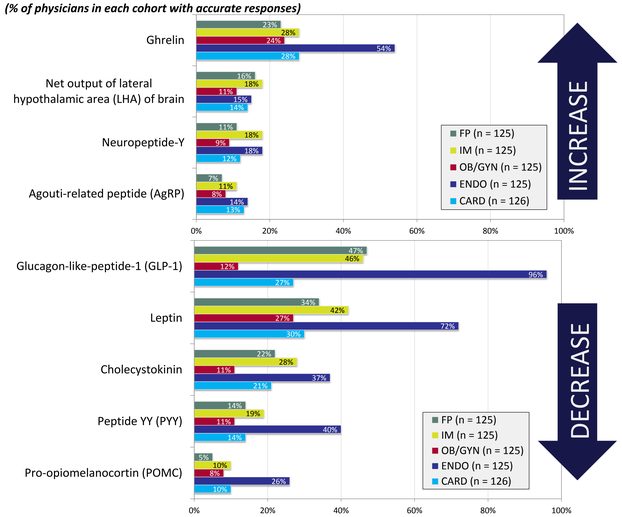
Q: Please rate your familiarity with the following topic areas: (10-point scale, means: 1-3, not familiar; 4-7, somewhat familiar; 8-10, very familiar)



Most physicians rated themselves as "somewhat familiar" with topics in obesity; however no physician cohort rated themselves as "very familiar" (**Figure 3**). ENDOs rated themselves more familiar than any other cohort .

Figure 4. Physicians have limited knowledge of hormone signaling systems associated with appetite regulation (Physiology)

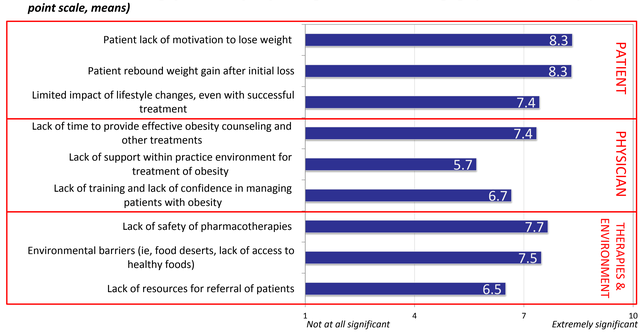
Q: Please classify the following molecules and/or brain regions into whether they increase or decrease appetite. (% of physicians in each cohort with accurate responses)



With the exception of ENDOs understanding of the effect of glucagon-like-peptide-1 (GLP-1), leptin, and ghrelin on appetite, fewer than half of all physician cohorts correctly classified biological factors/brain regions according to their role on appetite regulation (**Figure 4**).

Figure 5. Multiple barriers exist for ENDOs that limit obesity management (Barriers)

Q: Please indicate how significant each of the following barriers is when managing a patient with obesity. (10-point scale, means)

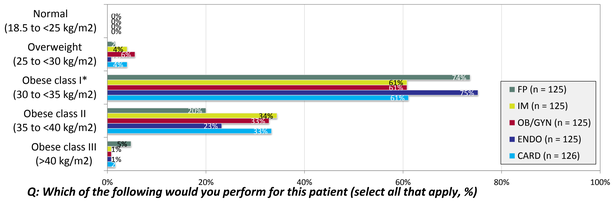


ENDOs attributed patient lack of motivation to lose weight, patient rebound weight gain after initial loss, and lack of safety of pharmacotherapies as the most significant barriers to managing obesity (**Figure 5**).

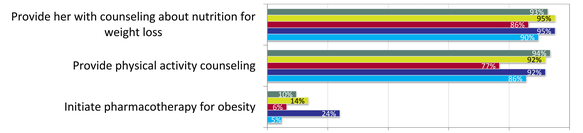
Figure 6. Classification/initial obesity management (Diagnosis/Assessment)

Case #1: A 53-year-old woman with medical history significant for well controlled hypertension and obesity. Her relevant vital signs include: height = 64" (163 cm), weight = 200 lbs (91kg), BMI = 34.2 kg/m^2, blood pressure = 118/80.

Q: How would you categorize this patient? (%, asterisk [*] indicates correct definition)

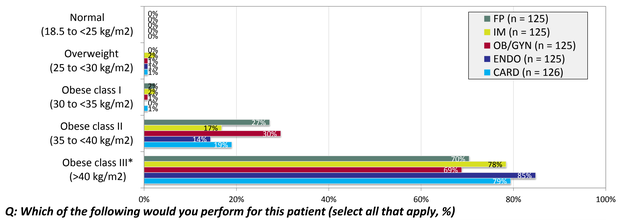


Q: Which of the following would you perform for this patient (select all that apply, %)

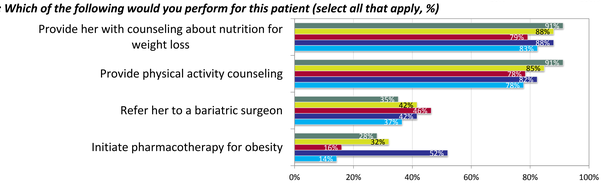


Case #2: A 45-year-old woman presents with type 2 diabetes, hypertension, and hyperlipidemia and a longstanding history of obesity, irregular menses, and mild persistent asthma. The patient has a family history of obesity, diabetes, and cardiovascular disease. Her height is 67" (170 cm), weight is 280 lbs (127 kg), and BMI is 44 kg/m^2.

Q: How would you categorize this patient? (%, asterisk [*] indicates correct definition.)



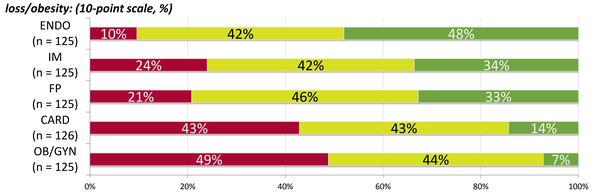
Q: Which of the following would you perform for this patient (select all that apply, %)



- ENDOs were most likely to properly characterize a patient as obese class I (BMI = 30-35 kg/m^2) and obese class III (BMI >40 kg/m2) based on medical history (**Figure 6; case 1 and 2 respectively**). Of note, FPs were almost as likely as ENDOs to appropriately classify a patient as obese class I (**Figure 6; case 1**).
- In a patient with class I obesity, >85% of all physicians selected counseling about nutrition for weight loss and physical activity as the initial management option with fewer than 25% selecting pharmacotherapy (**Figure 6; case 1**). In contrast, FPs, IMs, and ENDOs were significantly more likely to initiate pharmacotherapy in a patient with class III obesity vs a patient with class I obesity ($P < .05$; **Figure 6; case 1 and 2, respectively**).

Figure 7. Comfort in prescribing medication for obesity (Treatment)

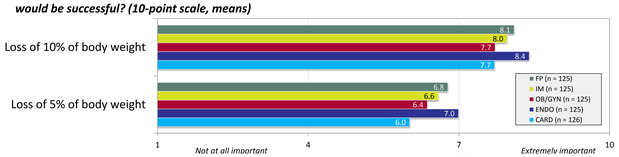
Q: Select the option that best describes your level of comfort in prescribing any approved medication for weight loss/obesity: (10-point scale, %)



ENDOs reported the greatest level of comfort in prescribing approved medication for obesity and OB/GYNs the least (**Figure 7**). Overall, the percentage of physicians who reported being "very comfortable" ranged from 7% to 48%.

Figure 8. Percentage weight loss identified as successful for obesity medications (Treatment)

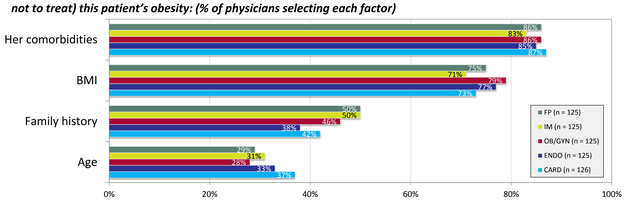
Q: How important is each of the following potential outcomes for you in determining if obesity medication would be successful? (10-point scale, means)



Each physician cohort considered 10% loss of body weight more important than 5% weight loss in defining treatment success (**Figure 8**).

Figure 9. Factors influencing obese class III management (Treatment)

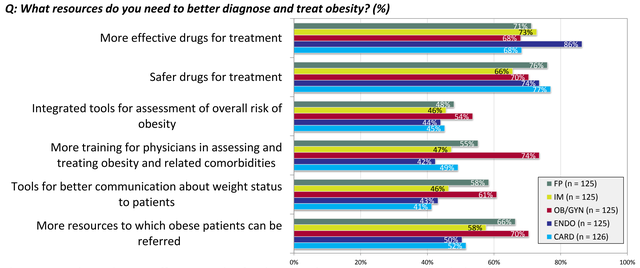
RE: Case 2. Q: Describe the extent to which each of the following factors influences your decision to treat (or not to treat) this patient's obesity: (% of physicians selecting each factor)



Although the majority of survey respondents stated comorbidities and BMI are primary drivers in deciding to treat a patient with class III obesity **(Figure 9),** with the exception of ENDOs, fewer than half would initiate treatment beyond lifestyle modification (**Figure 6, case 2**).

Figure 10. Identified unmet needs to improve obesity management (Resource Needs)

Q: What resources do you need to better diagnose and treat obesity? (%)



Physicians indicated more effective and safer drugs as the top 2 resources needed to better manage patients with obesity; however, many physicians indicated a need for more training and communication tools **(Figure 10).**

Discussion/Conclusions

- Survey data suggest ENDOs have a greater understanding of obesity etiology and physiology than do other physician specialties.
- As illustrated by clinical case responses of surveyed physicians:
  - ENDOs are most likely to appropriately classify a patient with obesity according to the recommended BMI cut-off.
  - Consistent with current AACE guidelines, survey respondents recognized the importance of a complications-centric approach, as many physicians identified co-morbidities and BMI as key factors in their decision to treat obesity.
  - With the exception of ENDOs, a minority of physicians would intensify treatment with pharmacologic or surgical approaches in patients who may meet criteria for these treatment options.
- Some physicians may under-appreciate the improvements in cardiometabolic and biomechanical complications that are associated with modest weight loss.
- Future education should be tailored and address the following topics related to obesity:
  - Etiology and pathophysiology including the hormonal and CNS regulation of food intake and energy expenditure.
  - Development of individualized management plans including behavior modification strategies and intensification of therapies with pharmacologic and surgical treatments when appropriate.
  - Incorporation of systems that are supportive of office-based obesity care including:
    - ❑ A reduction in management barriers (such as improving the physical environment and procedures to be obese-sensitive).
    - ❑ Training and tools to not only promote effective communication with patients but also enhance treatment adherence beyond the initial weight loss period (eg, technology and web-based applications for behavior modification, integration with local or community resources and coordination of care with other providers).

Disclosure/Contact

This study was funded by Takeda Pharmaceuticals, USA. JE, CD, and TP are employees of Takeda. GS, HN, and SH have no disclosures. For additional information about this presentation, please contact Greg Salinas, PhD at greg.salinas@ceoutcomes.com or 205-259-1079.

PRESENTED DURING THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS (MAY 14-18, 2014) IN LAS VEGAS, NV