

Celia Lu, PharmD, BCACP; Sharon Zuniga, RN, CDE; Nancy LaVine, MD

BACKGROUND

- Uncontrolled diabetes can lead to complications, and is the seventh leading cause of death in US¹
- Obesity is associated with chronic diseases and presents challenges to diabetes control²
- Certain medications used to treat diabetes and other comorbidities can increase weight³

SPECIFIC AIM

- To examine whether there is an association between obesity and weight-gain inducing medications in adults diagnosed with type 2 diabetes

HYPOTHESIS

- There is a positive association between obesity and the use of medications that induce weight gain in adults with type 2 diabetes

METHODS

- Practice Setting: Primary care clinic with clinical pharmacy services in medication management
- Inclusion criteria: Adult patients at least 18 years of age who have type 2 diabetes and have been seen at the clinic within the past year
- De-identified data collected from existing diabetes registry linked to EMR
- Medications that are known to cause weight gain as per the 2015 Endocrine Society Guideline on Pharmacological Management of Obesity identified³

PRELIMINARY RESULTS

Patient Characteristics	Obese Patients with DM II (n=25)
Age	58.6 ±10.7
Sex	
Male	7 (28%)
Female	18 (72%)
Race	
White	14 (56%)
Black	4 (16%)
Hispanic	3 (12%)
Other	4 (16%)
BMI (kg/m ²)	36.4 ±5.05
HbA1c (%)	7.3 ±1.5
On Meds that ↑ weight	
Yes	17 (68%)
No	8 (32%)

Medical Conditions	Patients on Weight-Inducing Medication (n=17)
Diabetes	
Insulin	5 (29%)
Sulfonylurea	5 (29%)
Thiazolidinedione	1 (0.06%)
Hypertension	
Beta-blocker	8 (47%)
Neuropathy	
Gapapentin or pregabalin	4 (23%)
Anxiety/Depression	
Paroxetine or mirtazapine	1 (0.06%)

DISCUSSION

- Majority of obese patients with type 2 diabetes are on medications that cause weight gain
- Approximately 41% of patients on weight-inducing medications are on at least 2 of these medications
- Insulin, sulfonylureas, beta blockers, and gabapentin are most the commonly prescribed weight-inducing medications
- Recommended weight-neutral or weight-losing medications such as metformin, DDP-4 inhibitors, and GLP-1 agonists are under-prescribed
- Data collection of 300 patients each for obese (BMI ≥ 30 kg/m²) and non-obese (< 30 kg/m²) groups ongoing to determine if association exists between medications and obesity
- Association to be determined via chi square test
- Evaluating current prescribing practices may help identify ways to optimize treatment to minimize medication-induced weight gain and/or promote weight loss that can lead to improvement in HbA1c

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