

# CA-ADAP Medication Review: Agents Used for Weight Loss

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**Being  
overweight  
raises the risk  
for Type 2  
Diabetes (T2DM)**

- 11.6% of Americans (38.4 million people) have **diabetes** (ADA, 2021)
- ~42% of Americans (139 million people) are **obese** (CDC, 2020)
- From 1999 – March 2020, US obesity rates rose 11%
- From 2002 – 2021, US T2DM rates rose 5.3%
- Obesity has remained a major driver of diabetes for the last two decades
- Obesity is linked to 30-53% of new diabetes cases in the US yearly (JAHA, 2021)

**The proportion  
of overweight  
and obese PWH  
has increased  
globally**

- A prospective US Military study found the percentage who were overweight or obese at HIV diagnosis increased from **28%** between 1985 -1990 to **51%** between 1996 -2004
- A multi-cohort analysis of over 14k PWH found the percentage of obese patients at ART initiation increased from **9%** to **18%** between 1998 and 2010
  - Furthermore, **22%** of individuals with normal BMI became overweight and **18%** of overweight individuals became obese within 3 years of starting ART
- Other studies have confirmed high prevalence and incidence of obesity in PWH, paralleling trends in the general population

## Glucagon-like Peptide 1 Receptor Agonists (GLP-1 RAs)

- Mimic the action of GLP-1, stimulating the body to produce more insulin after eating and thus lower blood sugar
- GLP-1 is a regulator of appetite and caloric intake; GLP-1 receptor is present in appetite regulation in the brain
  - *Delay gastric emptying and increase satiety*
- GI side effects are common
- Black box warning: Thyroid C-cell tumors

## Indicated for T2DM

- Dulaglutide (*Trulicity*)
  - once weekly
  - Indicated for CV risk reduction
- Exenatide ER (*Bydureon BCise*)
  - once weekly
- Exenatide (*Byetta*)
  - twice daily
- Liraglutide (*Victoza*)
  - once daily
  - Indicated for CV risk reduction
- Semaglutide (*Ozempic, Rybelsus*)
  - once weekly (*Ozempic*), once daily orally (*Rybelsus*)
  - Indicated for CV risk reduction (*Ozempic*)
- Tirzepatide (*Mounjaro*)
  - once weekly

## Glucagon-like peptide 1 (GLP-1) receptor agonists

## Indicated for Obesity and Chronic Weight Management

- Liraglutide (*Saxenda*)
  - once daily
- Semaglutide (*Wegovy*)
  - once weekly
  - Indicated for CV risk reduction
- Tirzepatide (*Zepbound*)
  - once weekly

# GLP-1 Agonist Comparison

GENERIC	DULAGLUTIDE	EXENATIDE		TIRZEPATIDE	
BRAND	TRULICITY	BYDURION BCise	BYETTA	MOUNJARO	ZEPBOUND
INDICATIONS	<ul style="list-style-type: none"> <li>T2DM</li> <li>Reduce of CV mortality d/t major CV events in T2DM + CVD or CV risk factors</li> </ul>	<ul style="list-style-type: none"> <li>T2DM</li> </ul>	<ul style="list-style-type: none"> <li>T2DM</li> </ul>	<ul style="list-style-type: none"> <li>T2DM</li> </ul>	<ul style="list-style-type: none"> <li>Obesity and chronic weight management</li> </ul>
ON FORMULARY	Y	-	-	-	-
DOSING	Subcutaneously ONCE WEEKLY	Subcutaneously ONCE WEEKLY	Subcutaneously TWICE DAILY	Subcutaneously ONCE WEEKLY	Subcutaneously ONCE WEEKLY
BENEFITS	<ul style="list-style-type: none"> <li>Reduce major CV events in T2DM w/CVD</li> <li>A 2016 review of 6 studies showed 57-88% of treated patients experienced weight loss</li> </ul>	<ul style="list-style-type: none"> <li>Modest weight reductions reported</li> </ul>		<ul style="list-style-type: none"> <li>Improve BS more effectively than other DM treatment</li> <li>Most weight loss (w/semaglutide)</li> <li>A 2022 trial showed 85-95% of treated patients lost at least 5% of body weight</li> <li>Improve lipids, BP, inflammatory markers</li> </ul>	
ADRs	GI, anorexia	GI, antibody formation, restlessness		GI, antibody formation, sinus tachycardia	
WAC PRICE	\$977.42 (pricinginfo.lilly.com)	\$881 (Drugs.com)	\$905 (Drugs.com)	\$1,069 (all strengths; pricinginfo.lilly.com)	\$1059 (all strengths; pricinginfo.lilly.com)

# GLP-1 Agonist Comparison cont'd

GENERIC	LIRAGLUTIDE		SEMAGLUTIDE		
BRAND	SAXENDA	VICTOZA	OZEMPIC	RYBELSUS	WEGOVY
INDICATION	<ul style="list-style-type: none"> <li>• Obesity and chronic weight management</li> </ul>	<ul style="list-style-type: none"> <li>• T2DM</li> <li>• Reduction of CV mortality, non-fatal MI, non-fatal stroke in <b>T2DM and CVD</b></li> </ul>	<ul style="list-style-type: none"> <li>• T2DM</li> <li>• Reduction of major adverse CV events in <b>T2DM and CVD</b></li> </ul>	<ul style="list-style-type: none"> <li>• T2DM</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of major adverse CV events with <b>CVD and obese/overweight</b></li> <li>• Obesity and chronic weight management</li> </ul>
ON FORMULARY	-	Y	-	-	-
DOSING	Subcutaneously ONCE <b>DAILY</b>	Subcutaneously ONCE <b>DAILY</b>	Subcutaneously ONCE <b>WEEKLY</b>	<b>Orally</b> by mouth ONCE <b>DAILY</b>	Subcutaneously ONCE <b>WEEKLY</b>
BENEFITS	<ul style="list-style-type: none"> <li>• Risk reduction in T2DM w/CVD</li> <li>• A 2021 study showed 62.1% lost at least 5% and 17.2% lost at least 10% of their body weight</li> </ul>		<ul style="list-style-type: none"> <li>• Strong evidence of CV benefit</li> <li>• Most weight loss (along with tirzepatide)</li> </ul>		
ADRs	GI (n/v), palpitations, hypoglycemia, fever		GI, pharyngitis		
WAC PRICE (NovoCare.com)	\$1,349 (5-pen package 5x3mL)	\$543 (2-pen package) \$815 (3-pen package)	\$968 (all strengths)	\$968 (all strengths)	\$1,349 (all strengths)

# Obesity Treatment: GLP-1 Receptor Agonists

Generic	Brand	On CA-ADAP Formulary	# Unique Cardholder PAID Claims JAN-DEC 2023	# Unique Cardholder DENIED Claims JAN-DEC 2023	AZ	CT	FL	NY	TX
Dulaglutide	Trulicity	Y	73.0%	-	Y	N	Y	Y	N
Exenatide	Bydurion BCise	N	-	0.2%	N	Y	N	Y	N
Exenatide	Byetta	N	-	0.2%	N	Y	N	Y	N
Liraglutide	Saxenda	N	-	2.0%	N	N	N	N	N
Liraglutide	Victoza	Y	27.0%	-	Y	Y	Y	Y	N
Semaglutide	Ozempic	N	-	56.1%	N	Y	Y	N	N
Semaglutide	Rybelsus	N	-	13.9%	N	N	Y	N	N
Semaglutide	Wegovy	N	-	17.5%	N	N	N	N	N
Tirzepatide	Mounjaro	N	-	9.9%	N	N	N	N	N
Tirzepatide	Zepbound	N	-	0.2%	N	N	N	N	N



# Formulary Recommendations: GLP-1 RAs for Obesity

Tirzepatide  
(Mounjaro, Zepbound)

Consider addition to the ADAP formulary

Semaglutide  
(Ozempic, Rybelsus, Wegovy)

Consider addition to the ADAP formulary

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# Obesity Treatment: CNS Stimulants

- Act on the brain to suppress appetite (*appetite suppressants*)
- Short-term use (except QSYMIA)

AGENT	GENERIC AVAILABLE	ON CA-ADAP FORMULARY	# UNIQUE CARDHOLDER DENIALS JAN-DEC 2023	NOTES	AZ	CT	FL	NY	TX	WA
<b>Amphetamine (EVEKEO)</b>	Y	N	0	• Indicated for short-term use (8-12 weeks)	N	N	N	N	N	N
<b>Benzphetamine (DIDREX)</b>	Y	N	0	• Indicated for short-term use (a few weeks) • For use as monotherapy only	N	N	N	N	N	N
<b>Diethylpropion</b>	Y	N	0.17% (2)	• Indicated for short-term use (a few weeks)	N	N	N	Y*	N	N
<b>Phendimetrazine (BONTRIL)</b>	Y	N	0	• Indicated for short-term use (a few weeks)	N	N	N	N	N	N
<b>Phentermine (FASTIN)</b>	Y	N	1.99% (23)	• Indicated for short-term use (a few weeks)	N	N	N	N	N	N
<b>Phentermine/Topiramate (QSYMIA)</b>	N	N	0.35% (4)	• Indicated for obesity and <b>chronic</b> weight management	N	N	N	N	N	N

\*coverage for analgesia only

# Obesity Treatment: Other MOAs

- For initial BMI of  $\geq 30$  kg/m<sup>2</sup> or  $\geq 27$  kg/m<sup>2</sup> in the presence of other risk factors

AGENT	GENERIC AVAILABLE	ON CA-ADAP FORMULARY	# UNIQUE CARDHOLDER FILLS OR DENIALS JAN-DEC 2023	NOTES	AZ	CT	FL	NY	TX	WA
Bupropion/Naltrexone (CONTRAVE)	N	N	0.43% (5)	• Antidepressant/Opioid Antagonist	N	N	Y	N	N	N
Orlistat (XENICAL)	N	N	0.17% (2)	• GI Lipase Inhibitor	N	N	Y	N	N	N

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