

Anti-obesity Pharmacotherapy: Past and Present

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Learning Objectives

Learning Objective(s) addressed in this presentation:

- Appreciate the history of anti-obesity pharmacotherapy
- Understand the current criteria for anti-obesity pharmacotherapy use
- Recognize patients who are potential candidates for anti-obesity pharmacotherapy
- Learn the FDA approved anti-obesity pharmacotherapy options

Anti-Obesity Pharmacotherapy: A History

Soranus of Ephesus → Greek physician in 2nd century AD

- Laxatives, purgatives, heat, massage, exercise

1920's and 1930's

- Thyroid hormone

1940's and 1950's

- Methamphetamine → 1947 FDA approved. Schedule II (Desoxyn)
- Phentermine → FDA approved 1959. The MOST COMMON prescription anti-obesity medication
- Diethylpropion → 1959 for short term use
- "Rainbow pills" → combo of digitalis, laxatives, thyroid hormone, diuretics, amphetamines

Anti-Obesity Pharmacotherapy: A History

1990's

- Fenfluramine-> FDA approved 1973 to 1997.
non selective 5HT receptor agonist (serotonin)
- Dexfenfluramine (Redux)→ 1973-1997
- Fen-Phen→ reports of cardiac valvulopathy,
pulm HTN. Fenfluramine pulled from market.

Anti-Obesity Pharmacotherapy: A History

- Sibutramine (Meridia) → monoamine and serotonin reuptake inhibitor. Post marketing trials w/ increased cardiovascular disease risk, withdrawn 2010
- Rimonabant (Acomplia) → cannabinoid CB1 receptor antagonist. Never approved in US- discontinued in Europe 2008 due to depression/anxiety/ suicidality
- Orlistat (Xenical & Alli) → FDA approved 1998. Pancreatic lipase inhibitor, blocks fat absorption

Anti-Obesity Pharmacotherapy: A History

2010:

- Locaserin and phentermine/topamax REJECTED

2011:

- Bupropion/naltrexone REJECTED

2012:

- Locaserin and phentermine/topamax APPROVED

2013:

- Bupropion/ naltrexone APPROVED

2014:

- Liraglutide APPROVED

Anti-Obesity Pharmacotherapy: Today

FDA approved anti-obesity pharmacotherapy:

Phentermine (Adipex)

Phendimetrazine (Bontril)

Diethylpropion

Orlistat (Xenical)

Locaserin (Belviq)

Extended release topiramate/ phentermine
(Qsymia)

Extended release bupropion/naltrexone (Contrave)

Liraglutide 3mg (Saxenda)

Phentermine 8 mg (Lomaira)

Anti-Obesity Pharmacotherapy: Today

What is NOT FDA approved



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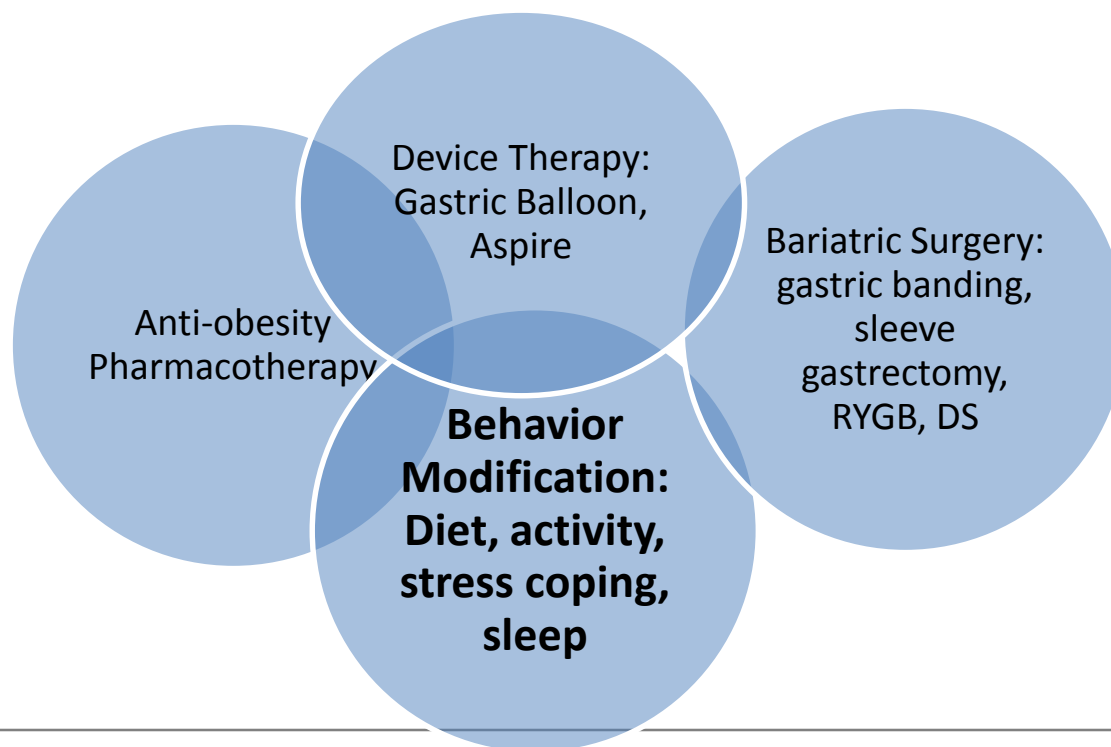
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Anti-Obesity Pharmacotherapy: Use Criteria

Behavioral modification remains ***cornerstone*** of obesity treatment. Anti-obesity pharmacotherapy and bariatric surgery used as ***adjuncts*** if appropriate.



Anti-Obesity Pharmacotherapy: Use Criteria

Weight Centric Guidelines:

1. BMI >27 kg/m² with obesity related comorbidities
2. BMI = or >30 kg/m² regardless of health
3. ***If weight loss $<5\%$ after 3 months, dose should be escalated or medication changed.***
4. Other considerations
 - Unsuccessful previous weight loss attempts with only behavior modification
 - Use for long term weight loss maintenance
 - FDA approved

References

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