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Semaglutide vs tirzepatide

India's drug regulator could soon approve the weight-loss drug tirzepatide.

- Semaglutide and tirzepatide are **small proteins** that increase levels of hormones like **GLP-1**, helping to control weight via the brain and digestive tract.

Glucagon-like peptide 1 (GLP-1) is a hormone most commonly known for stimulating insulin release following meal consumption.

- **Manufacturer-** Eli Lilly, American pharmaceutical company.
- The United States Food and Drug Administration (FDA) has approved **Wegovy (semaglutide) and Zepbound (tirzepatide)** for chronic weight management in adults.
- **Prescription-** These drugs can be prescribed to adults who are obese (BMI over 30) or overweight (BMI between 27 and 30) with at least one weight-related health condition, such as high blood pressure, high cholesterol, or type 2 diabetes.

Feature	Semaglutide	Tirzepatide
Drug Class	Glucagon-like-peptide 1 (GLP-1) receptor agonist	Dual GIP and GLP-1 receptor agonist
Brand Names	Ozempic, Rybelsus, Wegovy	Mounjaro
Indications	Type 2 diabetes, chronic weight management	Type 2 diabetes, potentially for weight loss
Mechanism of Action	Mimics GLP-1 to increase insulin secretion, decrease glucagon release, and slow gastric emptying	Activates both GIP and GLP-1 receptors to enhance insulin secretion, inhibit glucagon release, and slow gastric emptying
Efficacy in HbA1c Reduction	Reduces HbA1c by approximately 1.0-1.5%	Reduces HbA1c by approximately 1.5-2.0%
Weight Loss	Significant weight loss observed (up to 15% body weight in trials for Wegovy)	Significant weight loss, potentially greater than Semaglutide (up to 22.5% in trials)
Side Effects	Nausea, vomiting, diarrhea, constipation, potential risk of thyroid C-cell tumors	Similar to Semaglutide: nausea, vomiting, diarrhea, potential risk of thyroid C-cell tumors, injection site reactions

Cardiovascular Benefits	Shown to reduce major cardiovascular events in patients with type 2 diabetes and cardiovascular disease	Shown to reduce major cardiovascular events in patients with type 2 diabetes (ongoing studies to further validate)
Approval Status	FDA approved for type 2 diabetes and chronic weight management	FDA approved for type 2 diabetes (weight management indications under investigation)

- **Global scenario-** The development of various weight loss drugs has been a game changer for obesity treatment in recent years, especially in the ***US and Europe***.
- Semaglutide vs tirzepatide drugs are ***yet to be*** commercially available in India.

References

1. [Indian Express | Drug tirzepatide](#)
2. [Healthline | Tirzepatide vs. Semaglutide](#)

Information Ratio

SEBI's recent consultative paper recommends that asset management companies (AMCs) disclose their funds' information ratio (IR) to highlight risk-adjusted returns.

- The Information Ratio (IR) is a quantitative measure used to evaluate the ***performance of an investment portfolio*** or financial asset compared to a benchmark index, factoring in the volatility of the returns.
- The benchmark typically represents the market, an industry, or a specific sector.
- A higher information ratio indicates that the fund manager has ***consistently outperformed the benchmark*** and similar fund managers over a given period.
- IR figures are usually annualized for easy understanding.
- **Calculation**
 - Information Ratio = $(\text{Portfolio Return} - \text{Benchmark Return}) / \text{Tracking Error}$
- The Portfolio Return refers to the portfolio's overall return.
 - **Benchmark Return** - The value of the benchmark index that was chosen.
 - **Tracking Error**- The standard deviation of the difference in portfolio returns from benchmark returns.
- **Applications for Information Ratio**
 - **Performance Evaluation-** Investors utilize internal rate of return (IR) to assess ***portfolio manager performance***. It aids in analyzing whether the management is generating enough extra returns for the level of risk taken.
 - **Portfolio Comparison-** IR enables the comparison of many portfolios against the same benchmark, resulting in a standardized measure of ***risk-adjusted performance***.
 - **Investment Decision-Making-** Investors utilize IR to make informed decisions about allocating funds to different portfolios or managers based on risk-adjusted returns.

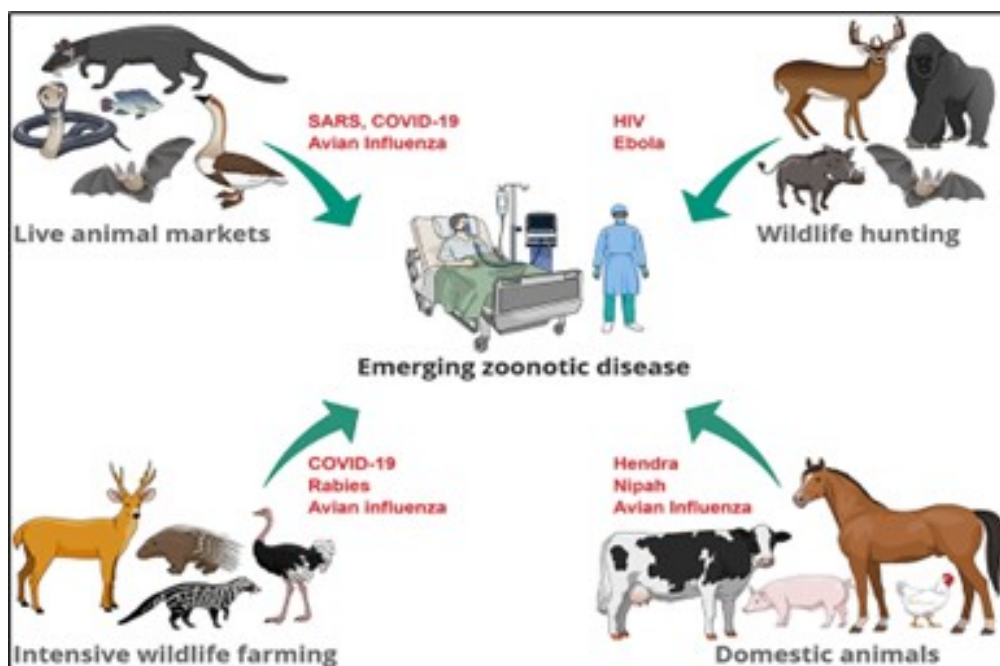
References

1. [The Hindu business line | Information Ratio](#)
2. [Lemonn | Information Ratio](#)

Zoonotic diseases

United Nations Environment Programme (UNEP) has issued a stark warning about emerging zoonotic diseases that may trigger another pandemic by 2030.

- **About-** Zoonotic diseases are infections that are **spread between people and animals.**



- **Different pathogens-** Many different pathogens can cause zoonoses. These include **Bacteria, Parasites (protozoa or parasitic worms), Viruses, Fungi, and Prions.**
- **Types-** There are various types of zoonotic diseases.
- Examples include rabies (from bites of infected animals), Ebola (through contact with infected animals), Lyme disease (from ticks), and COVID-19 (thought to originate from bats).
- **Symptoms-** Some common symptoms include Fever, Tiredness (fatigue), Headache, Body aches, Rash, Diarrhoea, and Vomiting.
- **Prevention-** Prevention involves measures like avoiding contact with wild animals, proper food handling and cooking, using insect repellents, and vaccination of animals.
- **Recommendations-** The UNEP report emphasizes the urgent need for proactive measures to address ecological disruptions and human-wildlife interactions, stressing that safeguarding planetary health is crucial in preventing future zoonotic outbreaks.
- Understanding zoonotic diseases is crucial for public health preparedness and managing outbreaks effectively.

References

1. [Down to Earth | Zoonotic diseases](#)

2. [Cleveland Clinic | Zoonotic Diseases](#)

Emergency Credit Line Guarantee Scheme (ECLGS)

A report recently released shows that the ECLG scheme extended liquidity support of over ₹3.68-lakh crore to 1.19 crore businesses in just a 3-year tenure between May 2020 and March 2023.

- **Aim** - It was aimed to support businesses and individuals affected by the ***COVID-19 pandemic***.
- **Launch** - 2020.
- **Ministry** - It is under the operational domain of the Ministry of Finance, Department of Financial Services (DFS).
- The scheme aims to provide emergency funding to mitigate the economic impact of the pandemic.
- It is a ***part of the Atmanirbhar Bharat Abhiyan***.
- **Objective** - The scheme is designed to ease the financial burden by providing an additional source of funding with minimal interest rates and extended repayment terms.
- **Funding** - The overall ceiling initially announced for ECLGS was Rs 3 lakh crore which was subsequently enhanced to Rs ***4.5 lakh crore***.
- However, ECLGS being a ***demand-driven scheme***, sanctions are made by lending institutions based on assessment of borrower's requirement and their eligibility.
- **Guarantee** - The scheme provides a 100% guarantee on the credit facilities extended by banks and financial institutions.
- **Interest rates** - The government has capped the interest rate under ECLGS scheme at
 - ***9.25% for Banks*** and Financial Institutions and
 - ***14% for Non-Banking Financial Institutions***.
- This scheme also offers a ***one-year moratorium*** on payment of principle component.
- **Implementation** - The scheme is administered through public sector banks, private sector banks, and non-banking financial companies (NBFCs).

Reference

[The Hindu Business line | Credit to ECLGS](#)

National Company Law Tribunal

Recently, the Bengaluru bench of the National Company Law Tribunal (NCLT) admitted BCCI's petition seeking insolvency proceedings against ed-tech giant Byjus.

- It is a ***quasi-judicial authority*** incorporated for dealing with corporate disputes that are of civil nature arising under the ***Companies Act***.
- **Ministry** - Ministry of Corporate Affairs.
- **Background** - It is the outcome of the ***Eradi Committee***.

- The NCLT functions like a regular court, ensuring fair, unbiased case evaluations based on principles of natural justice.
- It issues decisions in the form of orders.
- **Appeals** - Decisions of the tribunal may be appealed to the National Company Law Appellate Tribunal, the decisions of which may further be appealed to the Supreme Court of India on a point of law.
- **Major Functions of NCLT**
 - It has been empowered to take several steps, from canceling the registration of a company to dissolving any company.
 - The Tribunal could even render the liability or charge of members unlimited.
 - It is also empowered to hear grievances of rejection of companies in transferring shares and securities and under section 58- 59 of the Act.
 - It has the power to order an investigation. It could be conducted within India or anywhere in the world.

Reference

[The Indian Express | NCLT](#)

