Generic Drugs as an alternative to Semaglutide

Prelims: *Current events of national and international importance | Health*

Why in News?

Patent expiry of Semaglutide has enabled launch of multiple generic versions in India with prices reduced by 70–90%.

Obesity

- It is a chronic disease due to ***excess accumulation of body fat*** that affects health, often defined by a Body Mass Index (BMI) of 30 or higher.
- It is driven by genetic, socioeconomic, and lifestyle factors primarily *consuming more calories than are burned*.
- **Health Risks -** It is associated with serious conditions, including cardiovascular disease, **type 2 diabetes**, high blood pressure, high cholesterol, liver disease, sleep apnea, and various cancers.

  Type 2 diabetes is a major health crisis in India, with an estimated 77–101 million adults suffering from the condition, making it the world's "diabetic capital".

Semaglutide

- Semaglutide is a prescription drug used for ***type 2 diabetes and obesity management.***
- **Drug Class -** GLP-1 receptor agonist (Glucagon-Like Peptide-1).
- **Uses-**Type 2 diabetes management and Obesity and long-term weight control.
- **Comparator Drug -** Tirzepatide (dual GIP/GLP-1 agonist).
- **Global Context -** One of the fastest-growing drugs worldwide, relevant for pharma economics.
- **Mechanism of Semaglutide –** Mimic GLP-1 hormone, reduce hunger signals and increase satiety.

- Leads to lower calorie intake and gradual weight loss.

Generic Medicines

- Drugs that are ***bioequivalent to branded (innovator) medicines,*** with the same active ingredient, dosage, safety, and efficacy.
- **Regulated by -** Central Drugs Standard Control Organisation (CDSCO).
- **Patent Rules**
  - Enter market after patent expiry.
  - Governed under **WTO–TRIPS** Agreement.
  - **Patent duration -** 20 years from filing date.
  - India's Patents Act, 1970 (Section 3d) prevents "evergreening" of patents.
- **Jan Aushadhi Scheme -** Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) provides affordable generics through government-run outlets.
- **Some Generic drugs used as alternative for semaglutide -** Semanat Semafull, Semaglyn, Mashema, Alterme, and Noveltreat.
- **Easy-to-inject pen devices** - Semanext, Livarise, and Sembolic.

Reference

Indian Express | Semaglutide

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