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Repurposing GLP-1 for Alcohol Use Disorder

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The expiry of semaglutideâ??s Indian patent has substantially reduced the cost of GLP-1 drugs. Growing clinical evidence indicates that the molecule may also reduce alcohol consumption, although the efficacy has not yet been evaluated in India.

The patent protecting semaglutide, a GLP-1 drug, in India expired on 20th March 2026, making India one of the first major markets to allow generic competition. Several domestic manufacturers, including Sun Pharma, Dr Reddy's Laboratories, Zydus Lifesciences, Natco Pharma, Torrent Pharmaceuticals, and Alkem Laboratories, introduced formulations. Monthly therapy costs declined from Rs 10,850-16,400 for originator brands to as little as RS 1290.

Semaglutide is approved in India for type 2 diabetes and chronic weight management. Its lower cost coincides with emerging clinical evidence supporting its investigation for alcohol use disorder (AUD), raising an important question for Indian public health and the pharmaceutical industry.

From Metabolic Therapy to Addiction Medicine

GLP-1 drugs mimic natural incretin hormones that regulate insulin secretion, gastric emptying and satiety. GLP-1 receptors are also expressed in brain regions associated with reward. Preclinical studies show that these drugs can attenuate the reinforcing effects of alcohol and other addictive substances, suggesting a potential role beyond metabolic conditions.

Observational data support this hypothesis. One analysis reported that GLP-1 drug use was associated with 74% lower odds of AUD compared with non-users.

The first randomised, placebo-controlled trial of semaglutide in AUD, published in JAMA Psychiatry in 2025, enrolled 48 adults. Over nine weeks, semaglutide reduced cravings and alcohol consumption on drinking days. In a laboratory session, participants consumed approximately 50% less alcohol than those receiving placebo.

A larger trial, published in the Lancet in May 2026, studied 108 adults with moderate-to-severe AUD and obesity. Over 26 weeks, weekly semaglutide significantly reduced heavy drinking. No comparable trial has yet been announced in India.

The Burden of AUD in India

The National Survey Magnitude of Substance Use in India identified alcohol as the country's most commonly used psychoactive substance. Access to care remains severely limited: only one in 38 individuals with alcohol dependence had received treatment, and only one in 180 had received inpatient care.

Established AUD pharmacotherapies, namely naltrexone, acamprosate and disulfiram, have modest effect sizes and are not widely used. An affordable treatment could therefore address a substantial unmet need, particularly for individuals facing financial and healthcare access barriers.

Why Generic Availability Matters

Price has historically been the principal barrier to GLP-1 therapy in India. Semaglutide is not included on the National List of Essential Medicines, and patients have largely borne its cost out of pocket.

Affordability would be central to any role in AUD. Treatment is typically prolonged, making low recurring costs essential for population-wide adoption. India's established capacity to manufacture complex generics at scale could support supply if clinical evidence proves favourable. However, affordability must be accompanied by appropriate prescribing, monitoring and evidence-based treatment guidelines.

Clinical and Scientific Limitations

Reduced cost does not establish a therapeutic role. The published trials were modest in size, and the Lancet trial included only patients with obesity. None was conducted in a South Asian population, and the durability of effects after treatment stops remains unknown.

Safety considerations also apply. Gastrointestinal adverse effects such as nausea are common, while weight loss may be undesirable in patients with AUD who are already underweight. Regulatory oversight will be important to ensure consistent quality in complex peptide generics.

India's low-cost generic supply, emerging clinical evidence and large untreated patient population present an opportunity. Should well-designed Indian trials confirm existing findings, India may become the first country to adopt a low-cost GLP-1 drug as routine pharmacotherapy for alcohol dependence. Until then, lower prices should be viewed as an opportunity to generate evidence, not as justification for off-label use.

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