



DRUG SAFETY UPDATE (DSU)

Semaglutide (Wegovy, Ozempic and Rybelsus): risk of Non-arteritic Anterior Ischemic Optic Neuropathy (NAION)

Specialisms: *Ophthalmology, Emergency medicine, Endocrinology, diabetology and metabolism, General practice, Pharmacy, Nutrition and dietetics*

Summary

Non-arteritic anterior ischemic optic neuropathy (NAION), a condition that can cause sudden deterioration in vision, usually in one eye at a time, has been very rarely reported in association with semaglutide in the treatment of type 2 diabetes, weight management and cardiovascular risk reduction. Patients reporting a sudden loss of vision (including partial loss) while on semaglutide treatment should be urgently referred for ophthalmological examination.

Advice for Healthcare Professionals:

- semaglutide is a glucagon-like peptide-1 (GLP-1) receptor agonist used to treat type 2 diabetes mellitus and for weight management and cardiovascular risk reduction
- semaglutide treatment may be very rarely associated with NAION, a condition which can cause vision loss, typically in one eye
- NAION typically causes sudden, painless vision loss in one eye that is often described as a blurring or cloudiness of vision.
- privately prescribed semaglutide may not appear on the patient's medical history so if a patient presents with these symptoms, enquire about semaglutide use
- patients reporting a sudden loss of vision (including partial loss) should be urgently referred for specialist examination by an ophthalmologist
- discontinue semaglutide treatment if NAION is confirmed
- advise new patients, or existing patients during medication reviews, to urgently attend eye casualty or A&E if they experience a sudden loss of vision or rapidly worsening eyesight
- report suspected adverse drug reactions associated with semaglutide, including NAION, on a [Yellow Card](#)

Advice for Healthcare Professionals to Provide to Patients:

- semaglutide treatment has, in extremely rare cases, been linked to a serious eye condition called NAION, which can affect your vision
- NAION usually affects one eye at a time
- if you notice a change in your eyesight, such as sudden blindness or your eyesight gets worse very quickly in one or both of your eyes during treatment with semaglutide, urgently attend eye casualty (if available in your area) or A&E
- you may be referred for an eye examination by an ophthalmologist

Background

Non-arteritic anterior ischemic optic neuropathy (NAION) is a condition affecting the optic nerve head (ONH). It typically causes sudden, painless vision loss, usually in one eye that is often described as a blurring or cloudiness of vision.

NAION occurs due to reduced blood flow to the front portion of the optic nerve. It is termed 'non-arteritic' because this reduction in circulation occurs without inflammation of the blood vessels, distinguishing it from arteritic causes. Patients with type 2 diabetes are at increased risk of NAION as a result of their condition. Other risk factors for developing NAION include smoking, hypertension and hypercholesterolemia.

Estimates of the background incidence of NAION vary widely, with the incidence in patients with Type 2 diabetes varying from 11.4 per 100,000 person-years¹ to 82 per 100,000² person-years and the incidence in the general population ranging from 7.73³ to 11.35 per 100,000 person-years⁴ among individuals aged 40 years and older; 10.2 per 100,000 person-years^{3,5} among individuals aged 50 years and older; and 14.79⁶ per 100,000 person-years among individuals aged 60 years and older.

¹ Grauslund J, Taha AA, Molander LD, Kawasaki R, Möller S, Højlund K, et al. Once-weekly semaglutide doubles the five-year risk of nonarteritic anterior ischemic optic neuropathy in a Danish cohort of 424,152 persons with type 2 diabetes. *International Journal of Retina and Vitreous*. 2024;10(1):97.

² Lee MS, Grossman D, Arnold AC, Sloan FA. Incidence of nonarteritic anterior ischemic optic neuropathy: increased risk among diabetic patients. *Ophthalmology*. 2011;118(5):959-63.

³ Foster RC BM, Crum OM, Lesser ER, Hodge DO, Chen JJ. Reexamining the Incidence of Nonarteritic Anterior Ischemic Optic Neuropathy: A Rochester Epidemiology Project Study. *J Neuroophthalmol*. 2024;44(3):337-41.

⁴ Lee J, Park K, Oh SY. Prevalence and incidence of non-arteritic anterior ischaemic optic neuropathy in South Korea: a nationwide population-based study. *British Journal of Ophthalmology* 2018;102:936-941.

⁵ Hattenhauer MG, Leavitt JA, Hodge DO, Grill R, Gray DT. Incidence of nonarteritic anterior ischemic optic neuropathy. *Am J Ophthalmol*. 1997;123(1):103-7.

⁶ Lee YC, Wang, J. H., Huang, T. L., & Tsai, R. K. Increased Risk of Stroke in Patients With Nonarteritic Anterior Ischemic Optic Neuropathy: A Nationwide Retrospective Cohort Study. *American Journal of Ophthalmology*. (170):183-9

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Studies suggest semaglutide treatment may be very rarely associated with NAION; this means it may affect up to 1 in 10,000 people taking semaglutide.

A [European review](#) of evidence from clinical studies, post authorisation reports and the literature suggests that exposure to semaglutide in adults with type 2 diabetes may be associated with an approximately two-fold increase in the relative risk of developing NAION. This corresponds to approximately one additional person affected out of every 10,000 treated per year. The review was considered by the Pharmacovigilance Expert Advisory Group (PEAG) of the [Commission on Human Medicines](#) (CHM), which while noting that there was conflicting evidence in the literature, agreed with the recommendations to update the product information for semaglutide products in the UK to include this possible side effect. Other GLP-1 agonists were not included in this review.

UK reports

In the UK, since semaglutide's first authorisation in 2018 up to 1st August 2025 the Yellow Card scheme has received three spontaneous reports suggestive of NAION with semaglutide. For context, in the past 5 years, it is estimated that roughly 10.2 million packs of semaglutide have been dispensed⁷. The reporting of a case to the MHRA does not mean that it was definitely linked to the medicine, but that the reporter suspected that it may have been.

The MHRA is reviewing any evidence for an association with other GLP-1 agonists.

Updated product information for patients and healthcare professionals

The [Summary of Product Characteristics \(SmPC\) and Patient information Leaflet \(PIL\)](#) for semaglutide products will be updated in the coming months to describe the risk of NAION. They will advise that patients reporting a sudden loss of vision are urgently referred for ophthalmological examination.

About semaglutide

Semaglutide is a glucagon-like peptide-1 receptor agonist (GLP-1RA) sold under brand names Ozempic and Rybelsus, which are indicated for type 2 diabetes (T2D); and Wegovy, which is indicated for weight management and cardiovascular risk reduction as an adjunct to a reduced-calorie diet and increased physical activity in patients with overweight or obesity.

⁷ Data derived from IQVIA Prescription Based Services (PBS) and Hospital Pharmacy Audit (HPA) combined database, Extract from Q4 2020 to Q3 2025, analysed independently by the MHRA, January 2026. Drug = semaglutide, Measure = Units

IQVIA PBS and HPA combined database captures the volume drug dispensed by prescription in UK retail and hospital pharmacies. Majority of online only pharmacies are not included.

Reporting advice

Healthcare professionals, patients, and caregivers are asked to submit reports using the Yellow Card scheme electronically using:

- the [Yellow Card website](#).
- the Yellow Card app; download from the [Apple App Store](#) or [Google Play Store](#)
- some clinical IT systems for healthcare professionals (EMIS, SystmOne, Vision, MiDatabank, and Ulysses)

When reporting suspected adverse drug reactions, please provide as much information as possible, including information about medical history, any concomitant medication, onset timing, and treatment dates.

Additional information

You can [sign up](#) to receive email notifications for Drug Safety Updates.

You can [sign up](#) to receive our monthly roundup of safety communications.

For any enquiries, please contact info@mhra.gov.uk

Stakeholder engagement:

- Royal College of Ophthalmologists
- General Pharmaceutical Council
- Gateshead Health NHS Foundation Trust
- Devolved Administrations
- NHS England

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