

TEAMeD

Thyroid Eye Disease Amsterdam
Declaration Implementation Group UK

Mild Thyroid Eye Disease– TEAMeD information sheet for Healthcare Professionals

Definition of Mild TED:

- A recent study has shown that mild thyroid eye disease (TED; also known as Graves' orbitopathy or Graves' ophthalmopathy) is common, affecting 14% of people with Graves' disease
- Mild TED is defined as TED that only has a minor impact on daily life and quality of life
- It may be active (defined as having a Clinical Activity Score of 3 or more) or inactive
- It can be challenging to determine if mild TED is active or not, and therefore TED of recent onset should be assumed to be active until it is clear that the patient has mild stable, or resolving, disease

Box 1: Clinical Activity Score (CAS) (Mourits et al, 1989)

CAS is the sum of all items present. A CAS $\geq 3/7$ indicates active GO.

1. Spontaneous retrobulbar ache
2. Pain on attempted up or lateral gaze
3. Redness of the eyelids
4. Redness of the conjunctiva
5. Swelling of the eyelids
6. Inflammation of the caruncle and/or plica
7. Conjunctival oedema

Symptoms and signs:

- Common features of mild active TED include surface symptoms (grittiness and "dry feeling", photophobia, excessive watering, or persistent redness of the eyes) which are relieved by eye drops or eye ointments, and also swelling of the periocular soft tissues or conjunctiva
- Frequent symptoms and signs in mild active or inactive TED include minor eyelid retraction and change in appearance of the eyes, for example protrusion of one or both eyes (noted on examination, reported by patient or shown from previous photos)

Warning signs:

- Patients who report double vision (diplopia) during normal tasks and those who have significant protrusion of one or both eyeballs (proptosis) are starting to progress towards moderate and severe TED. These patients require closer monitoring and referral for ophthalmic consultation is advisable

Management of Mild TED:

- A 'wait-and-see' approach is appropriate for most individuals with mild TED, as mild TED is generally self-limiting
- **SMOKING CESSATION**
 - All patients with Graves' disease who are smokers should be given smoking cessation advice and smoking cessation support, as smoking is associated with much worse TED
 - Smoking also reduces the effectiveness of treatments for TED and reduces the chance of long-term cure of hyperthyroidism after a course of anti-thyroid drugs

- **TOPICAL MEASURES**
 - Lubricating eye drops and lubricating eye ointments (for night-time) are helpful for symptom relief in mild TED and are particularly recommended for patients with TED who have surface symptoms and corneal exposure
 - Where upper lid retraction is present, the patient should also be advised to perform deliberate regular eyelid closure, to help stabilise the tear-film and reduce ocular discomfort
- **SELENIUM FOR MILD ACTIVE TED**
 - Selenium supplements (elemental selenium 100µg daily) for 6 months can improve signs and symptoms of mild active TED, and quality of life. These can be bought over-the-counter in the UK

Referral Criteria:

- Patients with mild TED should be offered simple interventions (as above) and reviewed in 2 to 4 months to ensure that they are stable or improving
- Patients with mild TED may rarely progress to moderate-to-severe or sight-threatening disease. All patients with TED should be informed of this risk and asked to report worsening of their symptoms, double vision and reduced visual acuity (e.g. difficulty reading small text). Should their symptoms worsen or their eye signs progress, they should be referred to a joint multidisciplinary thyroid eye disease clinic for specialist review
- In patients with mild TED who are found to be stable at 2 to 4 month follow-up, periodic follow-up (e.g. every 4 to 6 months) in endocrinology, ophthalmology or primary care, is warranted. Patients should be encouraged to promptly report a change in, or worsening of, their symptoms
- In a very small number of patients with mild TED, their quality of life may be so profoundly affected that treatments usually reserved for moderate-to-severe TED (e.g. systemic steroid therapy, orbital radiotherapy rehabilitative surgery) may be considered. These strategies should only be considered in the setting of a joint multidisciplinary thyroid eye disease clinic, as the risks and benefits of treatment must be carefully balanced

Further reading:

- Mourits MP et al. Clinical criteria for the assessment of disease activity in Graves' ophthalmopathy: a novel approach. *Br J Ophthalmol.* 1989; 73:639-44.
- Bartalena L et al. The 2016 European Thyroid Association/European Group on Graves' Orbitopathy Guidelines for the Management of Graves' Orbitopathy. *Eur Thyroid J.* 2016;5:9-2
- Perros P et al. Management of patients with Graves' orbitopathy: initial assessment, management outside specialised centres and referral pathways. *Clin Med (Lond).* 2015; 15:173-8.
- Karra E et al. Clinical assessment of patients with thyroid eye disease. *Br J Hosp Med (Lond).* 2016;77:C2-5
- Karra E et al. Management of patients with thyroid eye disease. *Br J Hosp Med (Lond).* 2016;77:C6-9