

Table 2. Treatment Algorithm for MGD

Stage	Clinical Description	Treatment
1	No symptoms of ocular discomfort, itching, or photophobia <i>Clinical signs</i> of MGD based on gland expression Minimally altered secretions: grade ≥ 2 –4 Expressibility: 1 No ocular surface staining	<i>Inform</i> patient about MGD, the potential impact of diet, and the effect of work/home environments on tear evaporation, and the possible drying effect of certain systemic medications <i>Consider</i> eyelid hygiene including warming/expressions as described below (\pm)
2	Minimal to mild symptoms of ocular discomfort, itching, or photophobia Minimal to mild MGD <i>clinical signs</i> Scattered lid margin features Mildly altered secretions: grade ≥ 4 –8 Expressibility: 1 None to limited ocular surface staining : DEWS grade 0–7; Oxford grade 0–3	<i>Advise</i> patient on improving ambient humidity; optimizing workstations and increasing dietary omega-3 fatty acid intake (\pm) <i>Institute</i> eyelid hygiene with eyelid warming (a minimum of four minutes, once or twice daily) followed by moderate to firm massage and expression of MG secretions (+) <i>All the above, plus</i> (\pm) Artificial lubricants (for frequent use, non-preserved preferred) Topical azithromycin Topical emollient lubricant or liposomal spray Consider oral tetracycline derivatives
3	Moderate symptoms of ocular discomfort, itching, or photophobia with limitations of activities <i>Moderate MGD clinical signs</i> \uparrow lid margin features: plugging, vascularity Moderately altered secretions: grade ≥ 8 to <13 Expressibility: 2 Mild to moderate conjunctival and peripheral corneal staining , often inferior: DEWS grade 8–23; Oxford grade 4–10	<i>All the above, plus</i> Oral tetracycline derivatives (+) Lubricant ointment at bedtime (\pm) Anti-inflammatory therapy for dry eye as indicated (\pm)
4	Marked symptoms of ocular discomfort, itching or photophobia with definite limitation of activities <i>Severe MGD clinical signs</i> \uparrow lid margin features: dropout, displacement Severely altered secretions: grade ≥ 13 Expressibility: 3 Increased conjunctival and corneal staining , including central staining: DEWS grade 24–33; Oxford grade 11–15 \uparrow signs of inflammation: \geq moderate conjunctival hyperemia, phlyctenules	<i>All the above, plus</i> Anti-inflammatory therapy for dry eye (+)
“Plus” disease	Specific conditions occurring at any stage and requiring treatment. May be causal of, or secondary to, MGD or may occur incidentally 1. Exacerbated inflammatory ocular surface disease 2. Mucosal keratinization 3. Phlyctenular keratitis 4. Trichiasis (e.g. in cicatricial conjunctivitis, ocular cicatricial pemphigoid) 5. Chalazion 6. Anterior blepharitis 7. Demodex-related anterior blepharitis, with cylindrical dandruff	1. Pulsed soft steroid as indicated 2. Bandage contact lens/scleral contact lens 3. Steroid therapy 4. Epilation, cryotherapy 5. Intralesional steroid or excision 6. Topical antibiotic or antibiotic/steroid 7. Tea tree oil scrubs

Meibum quality is assessed in each of eight glands of the central third of the lower lid on a scale of 0 to 3 for each gland: 0, clear; 1, cloudy; 2, cloudy with debris (granular); and 3, thick, like toothpaste (total score range, 0–24). *Expressibility* is assessed on a scale of 0 to 3 in five glands in the lower or upper lid, according to the number of glands expressible: 0, all glands; 1, three to four glands; 2, one to two glands; and 3, no glands. *Staining scores* are obtained by summing the scores of the exposed cornea and conjunctiva. Oxford staining score range, 1–15; DEWS staining score range, 0–33.