

Supplementary information

Table S1. Search strategy

Search strategy used for obtaining social media posts	(‘Dry Eye’ OR ‘Dry Eye Syndrome’ OR ‘KeratoConjunctivitis Sicca’ OR Keratitis OR ‘Meibomian Gland Disease’ OR ‘Meibomian Gland dysfunction’ OR ‘Posterior Blepharitis’ OR ‘Dysfunctional Tear Syndrome’ OR MGD OR Dryeye) AND (Irritation OR Grittiness OR Redness OR Burning OR Pain OR ‘Stinging Sensation’ OR ‘Blurry vision’ OR Blinking OR ‘Watery Discharge’ OR Mild OR Moderate OR Severe OR Aqueous OR Schirmer OR ‘Tear film break up time’ OR Corneal OR ‘Conjunctival Staining’ OR ‘Tear Osmolarity’ OR Tests OR Diagnosis OR Diagnosed OR Diagnosing OR ‘Self Diagnosis’ OR Ophthalmologist OR Optometrist OR Opticians OR ‘Primary Care’ OR ‘Secondary Care’ OR Specialist OR Doctor OR ‘General Practitioner’ OR Physician OR Pharmacist OR ‘Self-Care’ OR Self Care OR Glasses OR Productivity OR ‘Work Loss’ OR Driving OR ‘Computer Usage’ OR ‘Daily Activity’ OR Absence OR ‘Patient Journey’ OR Experience OR ‘Patient concerns’ OR ‘Contact Lens’ OR Reading OR Prescription OR Rx OR OTC OR Treatments OR Compliance OR Effective OR
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	Beneficial OR Adherence OR Switching OR 'Unmet needs' OR Ikervis OR Restasis OR Steroids OR Cyclosporine OR Diquas OR Mucosta OR Xiidra OR Hylo OR Refresh OR Systane OR Punctal plugs OR Block tear duct OR 'Anti-inflammatory' OR 'Anti-biotics' OR 'Artificial tear' OR 'Preservative Free' OR Secretagogues OR 'Eye Drops' OR Surgery OR Concerns OR 'Self-medication' OR Therapy OR 'Follow-up' OR Perception OR Relief OR Refill OR Reimbursement OR Insurance OR Payment OR Cost OR Paid OR Product OR Billing OR 'Financial Burden' OR Access OR Formulary OR Tier OR 'Co-Payment')
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Table S2. Demographic and clinical characteristics as represented by patient records

Characteristic	Percentage of patients (n/N)
Gender	
Female	68 (89/130)
Male	32 (41/130)
Age group (years)	
<20	6 (4/67)
21-30	39 (26/67)
31-40	12 (8/67)
41-50	22 (15/67)
51-60	9 (6/67)
61-70	7 (5/67)
>71	4 (3/67)
Audience segmentation	
Patients	99 (1191/1192)
Caregivers	1 (15/1192)
Disease type	
Dry eye	80 (1020/1266)
Dry eye/syndrome/dry eye disease	8 (96/1266)
Melbomian gland dysfunction	6 (80/1266)
Blepharitis	5 (58/1266)

Keratoconjunctivitis sicca	1 (12/1266)
Causes of dry eye	
Medical condition	40 (167/409)
Surgery	24 (98/409)
Medication side effect	15 (61/409)
Contact lenses	10 (41)
Electronic devices	7 (29/409)
Others	4 (16/409)
Primary disease in dry eye	
Eye diseases	34 (64/187)
Autoimmune disease	13 (24/187)
Thyroid disorder	7 (13/187)
Diabetes	6 (11/187)
Central nervous system disorder	5 (9/187)
Trigeminal neuralgia	3 (6/187)
Cardiovascular disorder	2 (4/187)
Anxiety disorder	2 (4/187)
Others	28 (52/187)

Table S3. List of domain names of websites from which posts were extracted

Domain name
www.acne.org
www.amazon.com
www.benzobuddies.org
www.clevermanka.net
www.community.babycenter.com
www.community.breastcancer.org
www.community.diabetes.org
www.cpaptalk.com
www.drperlmutter.com
www.dryeyezone.com
www.early-retirement.org
www.forum.diabetes.org.uk
www.forums.redflagdeals.com
www.golfwrx.com
www.healthboards.com
www.healthcaremagic.com
www.healthunlocked.com
www.hip2save.com
www.iknowallthewords.com
www.justanswer.com
www.medhelp.org
www.optiboard.com
www.patient.co.uk
www.ratemds.com
www.rodan-and- fields.pissedconsumer.com

www.samsclub.com

www.twitter.com