



Blefari TTO®

TTO® THERMAL



Ophthalmic Products

BlefariTT® Eye Contour Shampoo

Preservative - SLS
FREE



Primary hygiene product with antiparasitic (Demodex mites), antibacterial, antifungal and antiviral effect due to organic (certified) Tea Tree Oil, Sea Buckthorn Oil and geothermal water rich in sulfur. Chamomile oil and geothermal water soothe and relieve eye contour area.

Sulfur in geothermal water and Terpinen 4 ol in Tea tree oil provide potent antiparasitic effect. Hyaluronic Acid has moisturising and anti-aging effect. Panthenol and E vitamin nourish eye surrounding skin. Suitable for eye pH(7,2).

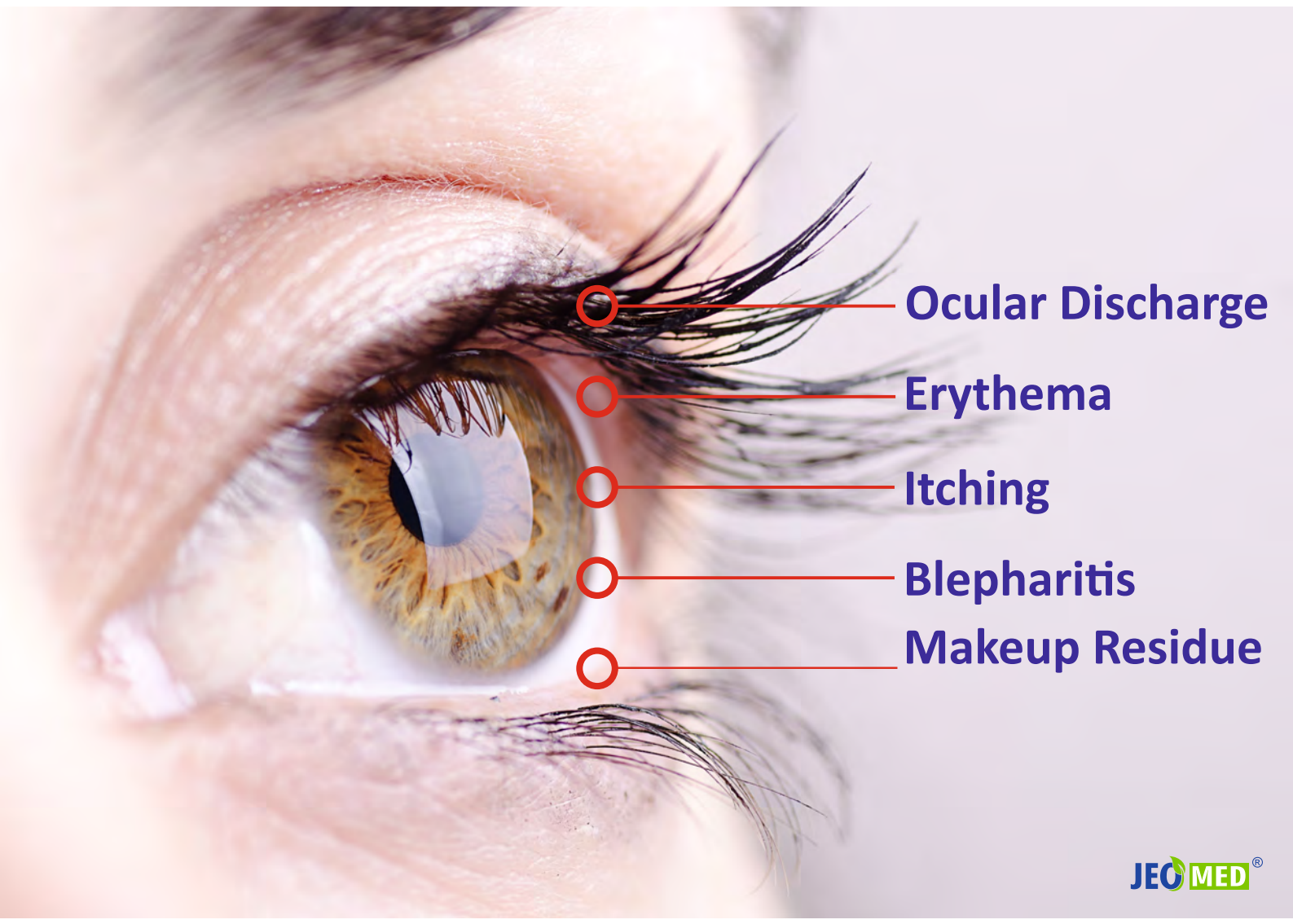
BlefariTT® Eye Contour Shampoo

BlefariTT Eye Contour Shampoo with Barrier Effect provides potent hygiene on ocular surface without extra foaming, maintains the barrier function. It is prescribed by ophthalmologists/dermatologists for:

- a) Chronic conditions: Chronic Blepharitis and other chronic eye conditions
- b) All eye infections and irritations
 - bacterial infections and Demodex infestations,
 - allergy
 - contact lense discomfort
 - dry eye
 - computer vision syndrome & eye strain
 - eye irritants
 - conjunctivitis
 - meibomian gland dysfunction
 - dry eye-burning-fatigue etc caused by Demodex mites, P. acnes and staphylococcus

It is important to make sure that components of cleansing product does not react with ingredients of topical or/and systemic treatment product: BlefariTT Eyelid and Eyelashes Shampoo is compatible with combined therapy.





Ocular Discharge

Erythema

Itching

Blepharitis

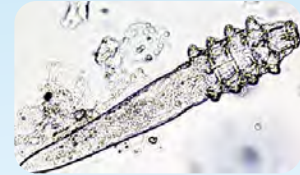
Makeup Residue

JEO MED[®] follows the
worldwide innovations,
clinical trials and
developments in **Ophthalmology**

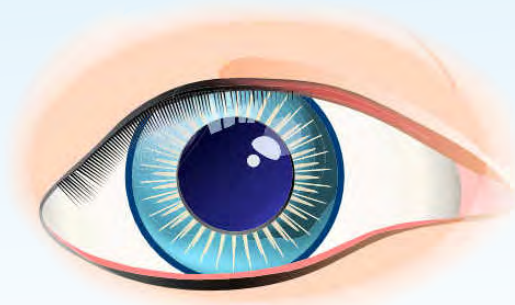


JEO MED[®] developed
World's largest patented
ophthalmic product line

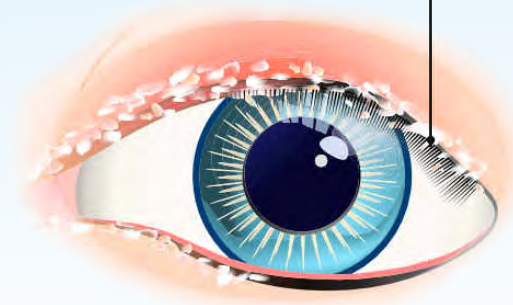
BLEPHARITIS



Crusting at the
base of the lid



Healthy Eye



Inflamed Eye

Role of demodex mite has been clinically proven in the aetiology of blepharitis. Demodex density has been seen in 81,25 % of patients with Chronic Blepharitis.

BlefariTT[®]
Eye Contour Gel



DAY



NIGHT

FULL PROTECTION

Management and treatment of chronic blepharitis and ocular demodicosis

Nonsteroidal anti-inflammatory, antibacterial, antiparasitic, antiviral and antifungal treatment

Blefaritto Eye Contour Gel with Barrier Effect is an infection relief product, prescribed for resistant ocular surface disorders and when steroidal (cortisone) treatment is necessary. Creams and gels with cortisone are used against the resistant ocular disorders, yet their side effects are undesirable and are not preferred by Ophthalmologist. **Blefaritto Eye Contour Gel with Barrier Effect** contains Sea Buckthorn oil, which is a natural nonsteroidal agent that has steroidal effect.

Blefaritto Eye Contour Gel with Barrier Effect is an antibacterial, antifungal and antiviral product based on organic (certified) Tea Tree Oil and Geothermal water, developed for antibacterial, antiparasitic, antiviral antifungal treatment in case of chronic blepharitis, MRSA, MGD, ocular demodicosis, dry eye-burning-fatigue etc caused by Demodex mite, P.acnes and staphylococcus, eyelid eczema etc.



Management and treatment of chronic blepharitis and ocular demodicosis

Blefaritto Eye Contour Gel with Barrier Effect creates mechanical barrier and eliminates Demodex mites, which are known to be effective in the aetiology of Blepharitis. It reduces the intensity of Demodex mites (overnight use) and supports the treatment of Blepharitis by creating a barrier in cases of itching, redness and eye discharge.

It is important to make sure that components of topical treatment product does not react with ingredients of systemic treatment agents: **Blefaritto Eye Contour Gel with Barrier Effect** is compatible with combined therapy.



Blefari Eye Contour Spray



Blefaritto Eye Contour Spray with Barrier Effect

Preservative - SLS
FREE



Geothermal water and chamomile oil soothe and relieve eyelids and eye contour area. Sea Buckthorn's anti-inflammatory property reduces burning and fatigue in dry eyes. Tea Tree oil, fortified with hyaluronic acid, softens and moisturises eyelid skin. Tea Tree oil's strong antimicrobial property relieves eyelid irritation.

Highly recommended to manage:

- Contact lense discomfort
- Dry eye syndrome
- Computer vision syndrome & eye strain
- Tired eyes

Blefariitto Eye Contour Swab

Blefariitto Swab is a primary ocular hygiene product that provides potent mechanical cleansing of eyelid, eye lash and eye contour.

A unique formulation of **Blefariitto Swab** helps manage the symptoms associated with Demodex, Blepharitis, Chalazion, Meibomian Gland Dysfunction (MGD), Dry Eye, Rosacea.

Preservative - SLS
FREE





BlefariTTO Eye Contour Swab

Sulfur in geothermal water and Terpinen 4 ol in Tea tree oil provide potent antiparasitic effect. Geothermal water soothe and relieve eye contour area. Hyaluronic Acid and Camomile moisturises and soothe the eyelids. Panthenol and E vitamin nourish eye surrounding skin.

Suitable for eye pH (7,2).

Indications:

- Demodex infestation
- Before & after cataract surgery
- Chronic conditions
- All eye infections and irritations

Sterile wipes packed in 24 individually sealed sachets.



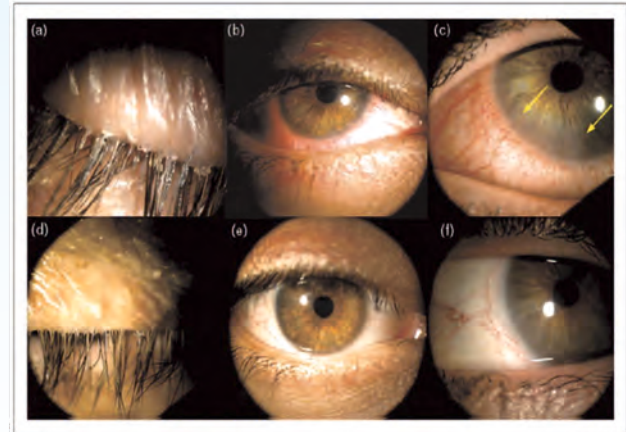


Our Ophthalmic Products
under **cosmetic status:**



*Treatment of blepharitis with
BlefariTTO Eye Shampoo*

Before **After**



DEWS II:
Redefining
Dry Eye

A DEFINITIVE DECADE FOR DRY EYE

REVIEW OF OPTOMETRY AUGUST 15, 2017 3

By J. Daniel Nelson, MD, TFOS DEWS II Chair

Having chaired the Tear Film and Ocular Surface Society (TFOS) Dry Eye Workshop (DEWS) II steering committee over the last 2.5 years, I witnessed firsthand the magnitude of the task we chose to undertake: to modernize the eye care community's concepts and clinical practices surrounding this widespread yet poorly understood condition. The Workshop, comprised of 150 experts spanning 23 countries, reviewed thousands of published

the presence of symptoms also with and without signs. Asymptomatic individuals without signs obviously do not have dry eye, while asymptomatic patients with signs may be at risk of developing symptoms following ocular procedures (e.g., refractive surgery) or other therapeutic interventions (e.g., systemic medications). Individuals with symptoms and signs are further separated into those with dry eye and those with other ocular surface diseases (e.g., allergy, ocular cicatri-

An explosion of research followed the 2007 TFOS DEWS report. Ten years later, DEWS II puts it into perspective.

TFOS DEWS II argues that management of dry eye should be aimed at restoring tear film homeostasis. Although the Management and Therapy report presents staged management and treatment recommendations, the heterogeneity of DED requires that clinicians manage and treat patients based on individual profiles, characteristics and responses.

The Iatrogenic report emphasizes that the clinician, as well as the patient, should



-11

J.P. Craig et al. / *The Ocular Surface* xxx (2017) 1

Table 4

Recommendations for the staged management and treatment of DED.^{a,b,c}

Step 2:

If above options are inadequate consider:

- Non-preserved ocular lubricants to minimize preservative-induced toxicity
- **Tea tree oil treatment for Demodex (if present)**
- Tear conservation
 - Punctal occlusion
 - Moisture chamber spectacles/goggles
- **Overnight treatments (such as ointment or moisture chamber devices)**
- In-office, physical heating and expression of the meibomian glands (including device-assisted therapies, such as LipiFlow)
- In-office intense pulsed light therapy for MGD



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A Clinical Scoring System for Diagnosis of Ocular Demodicosis

Authors' Contribution:

Study Design A
Data Collection B
Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
Literature Search F
Funds Collection G

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1 Department
Bursa, Turk
2 Departme
Turkey

Turkish physicians entered
world medical literature

of Medicine,
icine, Bursa,

Corresponding Author:

Source of support:

A part of this study was presented as a Poster at the ARVO 2017 Meeting in Baltimore, MD, USA. This work was supported by the Departmental sources.



Treatments of ocular demodicosis

In the patients diagnosed with *Demodex* infestation, treatment was started with 4% TTO eyelid gel (BlefariTTO Gel, Jeomed, Turkey) and 10% TTO eyelash shampoo (BlefariTTO Shampoo, Jeomed, Turkey), as these were the commercially available

EXTENDED REPORT

In vitro and in vivo killing of ocular *Demodex* by tea tree

Y-Y Gao, M A Di Pascuale, W Li, A Baradaran-Rafii, A Elizondo, C-L Kuo, V K Raju, S C G Tseng

Br J Ophthalmol 2005;89:1468-1473. doi: 10.1136/bjo.2005.072

See end of article for authors' affiliations

Correspondence to: Scheffer C G Tseng, MD, PhD, Ocular Surface Center, 7000 SW 97 Avenue, Suite 213, Miami, FL 33173, USA; stseng@ocularsurface.com

Accepted for publication 6 June 2005

The organism *Demodex folliculorum* is found in the eyelash follicle and *Demodex brevis* burrows deep in sebaceous and meibomian glands.¹ Although their pathogenic role remains unsettled, efforts have been made to eradicate

ocular *Demodex* in patients with blepharitis. *Demodex* counts were reduced by 50% with baby shampoo, and 4% pilocarpine. However, 15 minutes in 100% alcohol, 100% TTO, 100% benzoyl peroxide, and 100% lid scrub with 5% benzoyl peroxide had a more pronounced effect was dose dependent. Lid scrub with 5% benzoyl peroxide to move out to the skin. The *Demodex* count was zero in seven of nine patients receiving TTO and daily lid scrub with baby shampoo.

We thus surveyed ocular *Demodex* in patients with blepharitis. *Demodex* counts were reduced by 50% with baby shampoo, and 4% pilocarpine. However, 15 minutes in 100% alcohol, 100% TTO, 100% benzoyl peroxide, and 100% lid scrub with 5% benzoyl peroxide had a more pronounced effect was dose dependent. Lid scrub with 5% benzoyl peroxide to move out to the skin. The *Demodex* count was zero in seven of nine patients receiving TTO and daily lid scrub with baby shampoo.

Aims: To compare the in vitro killing effect of tea tree oil (TTO) on ocular *Demodex* species.

Methods: Survival time of *Demodex* was measured in vitro.

Results: *Demodex folliculorum* survived for 15 minutes in 100% alcohol, 100% TTO, 100% benzoyl peroxide, and 100% lid scrub with 5% benzoyl peroxide.

Conclusions: *Demodex* is resistant to a wide range of disinfectants.

Keywords: *Demodex*, tea tree oil, blepharitis, eyelid scrub.

Abbreviations: TTO, tea tree oil; *D. folliculorum*, *Demodex folliculorum*; *D. brevis*, *Demodex brevis*.

Introduction

The organism *Demodex folliculorum* is found in the eyelash follicle and *Demodex brevis* burrows deep in sebaceous and meibomian glands.¹ Although their pathogenic role remains unsettled, efforts have been made to eradicate ocular *Demodex* in patients with blepharitis. *Demodex* counts were reduced by 50% with baby shampoo, and 4% pilocarpine. However, 15 minutes in 100% alcohol, 100% TTO, 100% benzoyl peroxide, and 100% lid scrub with 5% benzoyl peroxide had a more pronounced effect was dose dependent. Lid scrub with 5% benzoyl peroxide to move out to the skin. The *Demodex* count was zero in seven of nine patients receiving TTO and daily lid scrub with baby shampoo.

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Correspondence: Scheffer C G Tseng, MD, PhD, Ocular Surface Center, 7000 SW 97 Avenue, Suite 213, Miami, FL 33173, USA; stseng@ocularsurface.com

Accepted for publication 6 June 2005

tsvt

Article

Terpinen-4-ol is the Most Active Ingredient of Tea Tree Oil to Kill *Demodex* Mites

Sean Tighe¹, Ying-Ying Gao^{1,2}, and Scheffer C. G. Tseng¹

¹ TissueTech, Inc. and Ocular Surface Center, Miami, FL

² Department of Ophthalmology, the Second Affiliated Hospital, Fujian Medical University, Quanzhou, Fujian, China

Correspondence: Scheffer C. G. Tseng, MD, PhD, Ocular Surface Center, 7000 SW 97th Avenue, Suite 213, Miami, FL 33173, USA. e-mail: stseng@ocularsurface.com

July 2005

Purpose: To determine the active ingredient in tea tree oil (TTO) responsible for its reported killing effect on *Demodex* mites, the most common ectoparasite found in the human skin extending to the eye.

Methods: Using a reported in vitro killing assay to measure the survival time of adult *Demodex folliculorum* up to 150 minutes, we have screened serial concentrations of 13 of the 15 known ingredients of TTO (ISO4730:2004) that were soluble in mineral oil and examined their synergistic relationships in killing mites. The most potent ingredient was terpinen-4-ol. Besides terpinen-4-ol, other ingredients that were tested for their efficacy in killing *Demodex* in vivo.

ORIGINAL ARTICLE

Ophthalmology

<http://dx.doi.org/10.3346/jkms.2012.27.12.1574> • J Korean Med Sci 2012; 27: 1574-1579

Ocular Surface Discomfort and *Demodex*: Effect of Tea Tree Oil Eyelid Scrub in *Demodex* Blepharitis

Hyun Koo, Tae Hyung Kim, Kyoung Woo Kim, Sung Wook Wee, Yeoun Sook Chun, and Jae Chan Kim

Department of Ophthalmology, Chung-Ang University College of Medicine, Seoul, Korea

The purpose of this study was to evaluate the effect of tea tree oil eyelid scrub on ocular *Demodex* infestation and blepharitis.

DOI: 10.1167/tvst.2.7.2

Original Article

Blepharitis: Always Remember *Demodex*

Vijul Bhandari, Jagadish K. Reddy

Effect of *Demodex* species on the eyelashes of patients with meibomian gland dysfunction (MGD).

JKMS

between ocular discomfort and *Demodex* infestation. Patients with ocular discomfort were randomized to receive tea tree oil (TTO) eyelid scrub (20 patients) or without TTO (Control group, 20 patients). The mean *Demodex* count was significantly lower in the TTO group (84% of patients with ocular discomfort) compared with the control group (44%). The mean *Demodex* count was significantly lower in the TTO group (34.5 ± 10.7 to 11.6 to 2.3) compared with the control group (34.5 ± 10.7 to 11.6 to 2.3). The mean ocular discomfort score was significantly lower in the TTO group (11.6 to 2.3) compared with the control group (11.6 to 2.3).



Ocular Surface Discomfort and Demodex: Effect of Tea Tree Oil Eyelid Scrub in Demodex Blepharitis

Hyun Koo, Tae Hyung Kim,
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The authors indicate no
interest. The study protocol
was approved by the
Review Board of the O
Korea and has complied
with the Declaration of Helsinki
regarding human
participants.

NIH-PA Author Manuscript

NIH-PA A

The purpose of this study was to evaluate the relation between ocular discomfort and ocular Demodex infestation, and therapeutic effects of tea tree oil (TTO) in Demodex blepharitis patients. Three hundred and thirty-five patients with ocular surface Demodex infestation and subjective symptoms with ocular surface discomfort were randomly divided into two groups: with or without TTO. The mean ocular surface discomfort index (OSDI) score. Among them, Demodex-infested patients with ocular surface discomfort were found in 84% of patients with ocular surface discomfort. The mean OSDI score was significantly lower in the scrubbing with TTO (TTO group, 106 patients) or without TTO (control group, 129 patients) compared with age ($P = 0.001$).

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/261478333>
Treatment of Ocular Itching Associated With Ocular Demodicosis by 5% Tea Tree Oil Ointment

Article in Cornea · September 2011
DOI: 10.1097/ICO.0b013e31820ce56c · Source: PubMed



NIH Public Access Author Manuscript

Curr Opin Allergy Clin Immunol. Author manuscript; available in PMC from October 1, 2010.

Published in final edited form as:

Curr Opin Allergy Clin Immunol. 2010 October ; 10(5): 505-510. doi:10.1097/ACI.0b013e32833df9f4.

Pathogenic role of Demodex mites in blepharitis

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^bEye Hospital, Wenzhou Medical College, Wenzhou, Zhejiang, China

Abstract

Purpose of review—To summarize the key literature and our research experience regarding *Demodex* infestation as a potential cause of ocular inflammatory diseases with a special emphasis on *Demodex* blepharitis.

Recent findings—Two distinct *Demodex* species have been confirmed as a cause of blepharitis: *Demodex folliculorum* can cause anterior blepharitis associated with disorders of eyelashes, and *D. brevis* can cause posterior blepharitis with meibomian gland dysfunction and keratoconjunctivitis. Tea tree oil treatments with either 50% lid scrubs or 5% lid massages are effective in eradicating mites and reducing ocular surface inflammation.



JEO MED[®] *at national and international congresses*



Our Certificates

Jeomed products are produced under GMP, CE, ISO-9001:2008 and ISO 13485:2003 requirements.





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