

LACRYDIAG™

COMPLETE DIAGNOSIS
OF **DRY EYE**



INTERFEROMETRY

N.I.B.U.T.

TEAR
MENISCUS

MEIBOGRAPHY



Ocular surface analyser

LACRYDIAG™

Dry eye is a particularly **common** disease that affects the **health and well-being** of millions of people worldwide.

The **LacryDiag ocular surface analyser** complies with the **dry eye diagnosis recommendations** established in the **TFOS-DEWS II** report. It offers **quick, complete diagnosis of the three tear film layers**, produces **images of the meibomian glands** and **measures the percentage of loss of the meibomian glands**.

DIAGNOSING THE CAUSE OF DRY EYE MAKES IT EASIER TO SELECT THE APPROPRIATE TREATMENT.

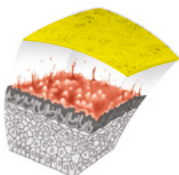
■ 4 NON-CONTACT EXAMS IN 4 MINUTES



1. N.I.B.U.T. (Non Invasive Break Up Time):

- **Evaluation of tear film stability** on the cornea.
- **Automatic measurement** of tear film break-up time (sec.) using the device software.
- **Display** of the **tear film break up time graph and map**.

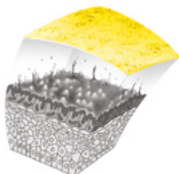
> MUCIN
> LIPID



2. Interferometry:

- **Qualitative and quantitative analysis** of the **lipid layer**.
- **Quick** determination of lipid layer **quality**.
- Evaluation of lipid layer **thickness** based on a grading scale.

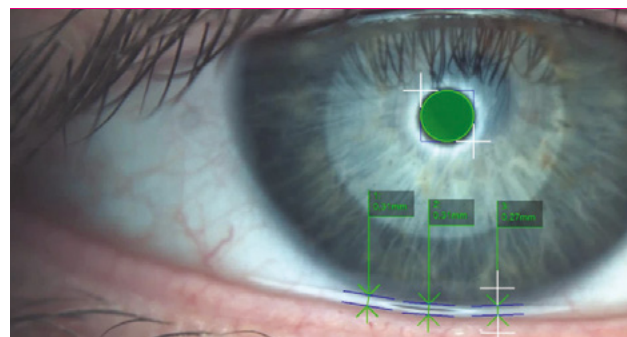
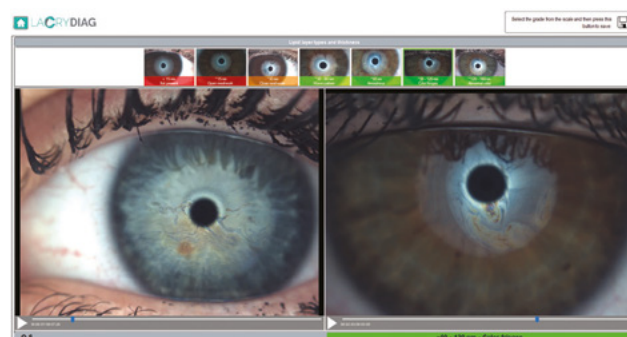
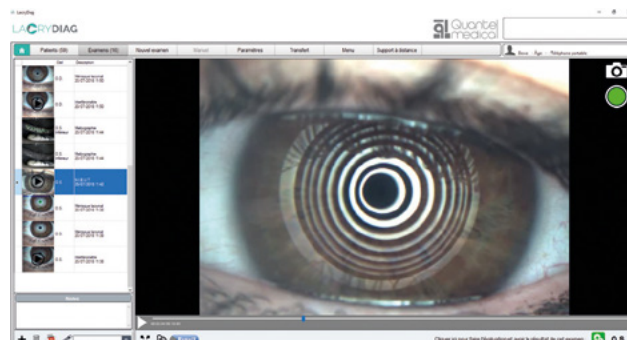
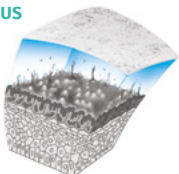
> LIPID



3. Tear meniscus:

- **Quantitative analysis** of the **aqueous layer**.
- Measurement of tear meniscus height (mm).

> AQUEOUS



Ocular surface analyser



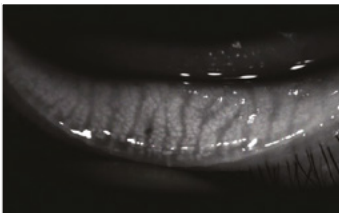
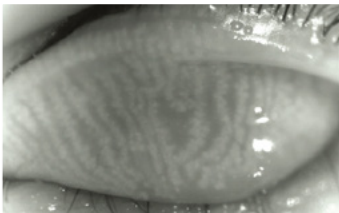
4. Meibography:

Infrared meibography is the method used to clearly visualise meibomian gland condition and dysfunction. It provides a clear image of the ducts.

- **Qualitative analysis** of the meibomian glands in the upper and lower eyelids.
- **Automatic detection of meibomian glands** and **automatic calculation of the percentage of loss** by the device software.

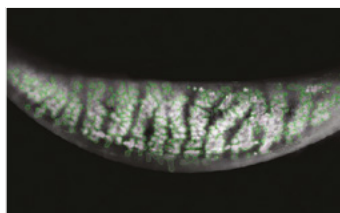
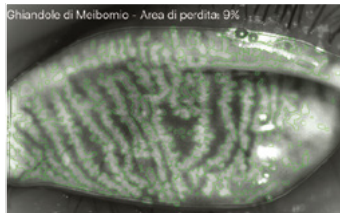
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PICTURE



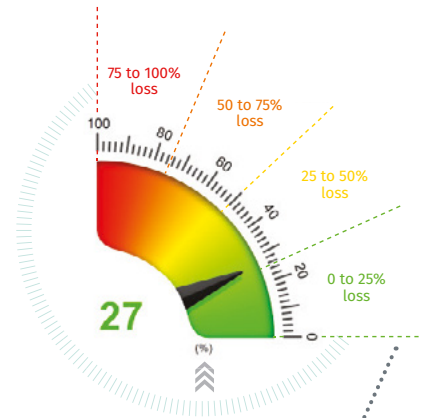
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AUTOMATIC QUANTIFICATION



3

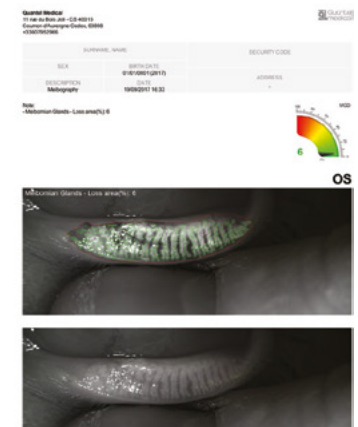
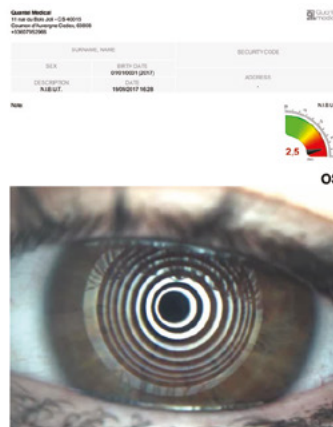
CLASSIFICATION



Classification into 4 levels of the meibomian glands dysfunction

EXAM REPORT

- Easy-to-read exam report thanks to the color dial.
- Report is illustrated with patient images.
- Report can be edited out in one click.

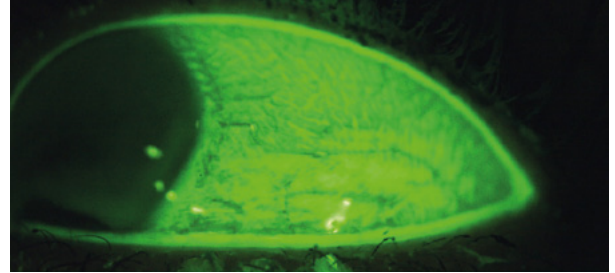


■ ADDITIONAL EXAMINATIONS

LacryDiag offers additional functions, thanks to its blue, white and infrared LEDs.

EYE STAINING

- Blue LEDs and yellow filter are suitable for **fluorescein tests**.
- Assessment of **corneal damages, keratitis, the conjunctiva and the free margin of the eyelids**.



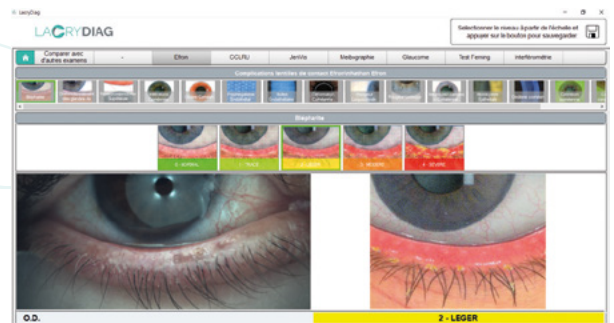
DEMODEX

- **Demodex can be viewed on the lashes**, thanks to the white LEDs and high-resolution camera (yellow rings around the lashes).
- Photos can be used to **assess Demodex infections** and **help patients understand the problem**.



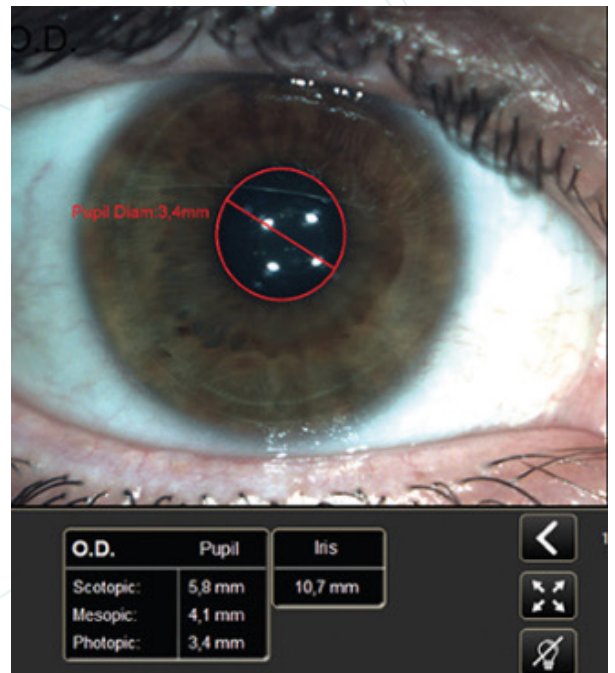
BLEPHARITIS, BULBAR REDNESS

- **High resolution images of the eyelid and ocular surface can be produced** using the white LEDs and high-resolution camera.
- **Blepharitis and bulbar redness severity** can be assessed using the various **grading scales** included in the software.



PUPILLOMETRY AND WHITE-TO-WHITE

- Pupil diameter can be measured with three different light intensities, thanks to the white and infrared LEDs
- LacryDiag simulates natural vision conditions in a reproducible way:
 - Photopic vision (daylight, white LEDs)
 - Mesopic vision (dim light, white LEDs)
 - Scotopic vision (night vision, infrared LEDs).



GRADING SCALES

- Several international grading scales are included in the software: EFRON, CCLRU, JENVIS, MEIBOGRAPHY, FERNING TEST etc.
- Gradings can be used to assess the severity of various diseases and measure treatment results.



THE ADVANTAGES OF LACRYDIAG

4min.

Overall analysis
of **ocular surface**

4 exams in
4 minutes

Non-contact
exams

Immediate
results

Easy
to use

Delegable
exams

Can be **adapted** to suit
all works environments



ADDED VALUE FOR YOUR CLINICAL PRACTICE:

- Expand your clinical offer to your patients.
- Diagnose the cause of dry eye earlier.
- Understand the origin of dry eye to offer a more targeted and effective treatment.
- Assess post-treatment results.
- Optimise post-surgery results (LASIK, glaucoma, cataract).



IMPROVE YOUR PATIENT'S QUALITY OF LIFE:

- Quick, pain-free exams.
- Easily educate your patients from understandable images.
- Offer patients personalised treatment.
- Provide evidence of diagnosis and treatment results.
- Improve patient care.
- Satisfy your patients, with relief from the very first treatment.

LACRYDIAG™



LacryDiag on dedicated examination table



LacryDiag on slit lamp

TECHNICAL SPECIFICATIONS

IMAGE AND VIDEO ACQUISITION

Image resolution	8,000,000 pixels
Image dimensions	2592 x 1944 pixels JPEG
Acquisition mode	Multi-shot photos, video
Focus	Manual and automatic focus
ISO	Variable
Camera/Colors	Colors – Infrared (IR)
Light source	Infrared LED (Meibography, scotopic pupillometry) White LED (Interferometry, N.I.B.U.T., Tear meniscus, photopic/ mesopic pupillometry). Blue LED (B.U.T., fluorescein test)
Filter	Yellow filter for use with fluorescein

GENERAL INFORMATION

Working distance	1.5 cm – 3.5 cm from the eye surface
Ports	USB 2.0 and USB 3.0
Power supply	5 V
Size	167.7 mm (W) x 226 mm (H) x 40 mm (D)
Weight	1.2 kg
Accessories	Pedal, 2 cones, including one with Placido grid to assess N.I.B.U.T., computer(*), software on USB stick with activation code, protective cover, carry case (*); storage rack (*); printer (*), table (*).

SOFTWARE AND DATA MANAGEMENT

- LacryDiag communicates with a PC using specific software that works with Microsoft® Windows® PRO (7,8,10)
- Generate reports in PDF
- Exams: interferometry, tear meniscus, N.I.B.U.T., meibography
- Additional exams: B.U.T., White-to-white, pupillometry, corneal deformation, bulbar redness, Demodex, blepharitis
- International evaluation grids included with the software: Efron, CCLRU, Jennis, interferometry, meibography, Ferning test

(* optional
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www.quantel-medical.com

The LacryDiag ocular surface analyser is a non-invasive, class I diagnostic medical device, designed and manufactured by SBM Sistemi and distributed by Quantel Medical.

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