IDRA X

Sets a new standard
in dry eye assessment

SBM Sistemi
Care and Research

Italian Xcellence

You position the patient, the device does the rest

No operator required

Vocal guide

100% AUTOMATIC
NO MANUAL INTERVENTION

February 2026 - ver. 1

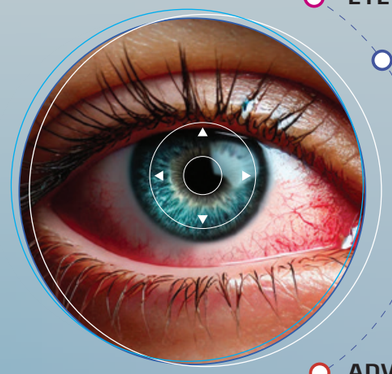
IDRA X

Evaluation with a single acquisition.

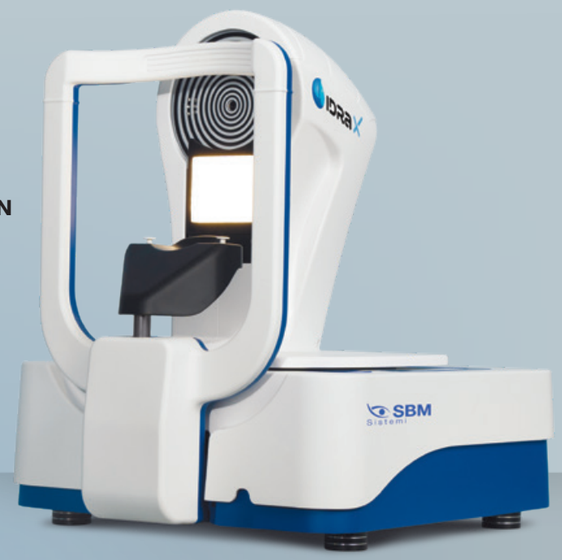
IDRA X automatically detects the eye and performs a comprehensive series of assessments of the ocular surface and dry eye.

2 min

Product innovations



- EYE TRACKING TECHNOLOGY
- AUTO FOCUS
- VOCAL GUIDE
- TRANSILLUMINATION EXAM
- INTEGRATED BASE AND CHINREST
- ADVANCED SOFTWARE PLATFORM



Together, they enable real-time acquisition, analysis, and automated evaluation of the ocular surface.

Exams

- **Interferometry**
- Tear Meniscus Height
- NIBUT
- Meibography
- **Transillumination MG**
- 3D meibography
- Blink detection
- Lifestyle Questionnaire
- Fluorescein examination
- DEQ5, OSDI, OSDI6, CDEQ, CLDEQ8, SPEED
- Pupillometry test
- Bulbar redness
- Protocol
- Connection with an App for the patient
- Reports

WHITE LIGHT

INTERFEROMETER

BLUE LIGHT

NEAR INFRARED LIGHT (NEAR IR)

Technical specifications

Image resolution	**8 Megapixel**
Acquisition mode	**Single shot, multi shot, video**
Focus	**Manual / automatic focus**
ISO Management	**Variable**
Image color	**Colors - Infrared (IR)**
Lighting source	**Infrared LEDs - White LEDs - Blue LEDs**
Working distance	**60 mm - 90 mm from the center of the placid**
Output 1	**USB 3.0**
Electromagnetic compatibility (EMC)	**IEC 60601-1-2 (2015)**
Supply voltage	**100 - 240 V**
Operating voltage of the device	**24 V - 5 V - 3,3 V**
Dimensions	**48 cm (L) x 47 cm (A) x 40 cm (P)**
Weight	**12 Kg**

Advanced automation for tear film analysis

The IDRA X technology suite is accessible with minimal user interaction, offering advanced performance with maximum ease of use.

Once the procedure is started, **IDRA X automatically detects and focuses the patient's eye,** following guided protocols that ensure optimal data acquisition.

This configuration allows, when appropriate, delegation to non-specialized staff, reducing at a **minimum the risk of operator error.**

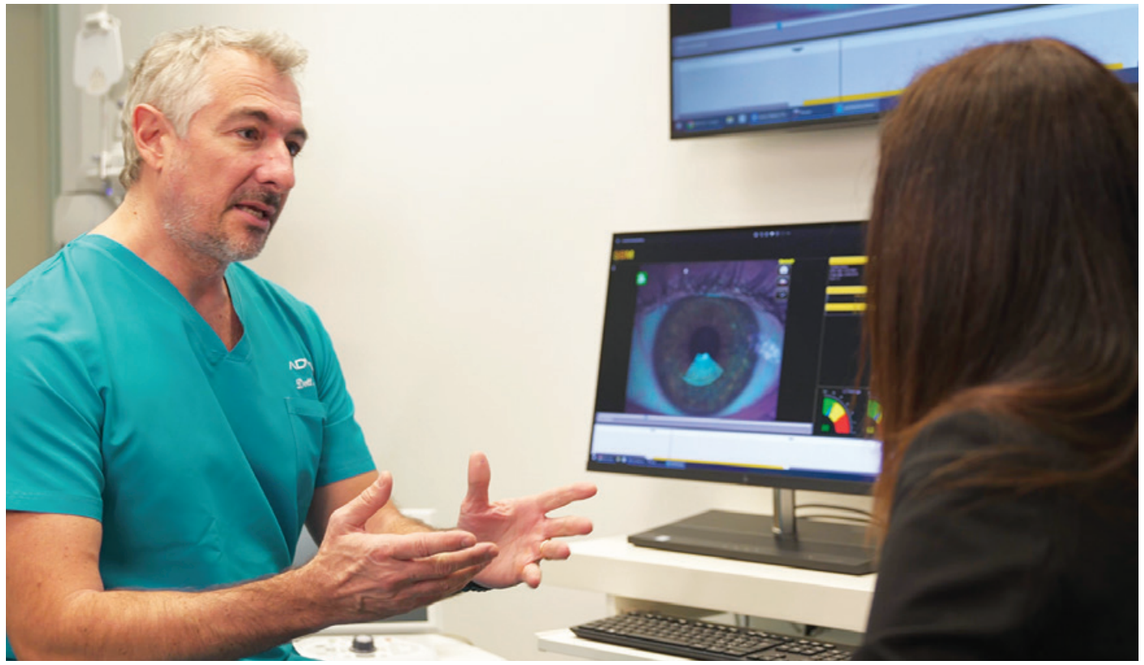
IDRA X is the ultimate expression of innovation in ocular surface analysis.

As an advanced technological solution, **IDRA X offers detailed understanding of the patient's condition,** including type, severity and classification of dry eye, supporting the choice of targeted and effective treatment.

Key benefits of IDRA X for the innovation of your workflow:

Ease of use	**Save time and reduce staff workload** thanks to a system that automatically manages focus and acquisition. The system detects and focuses the eye of the patient in total autonomy, eliminating the need for manual adjustments by the operator.
High precision	**The automatic function improves the precision, reliability, and repeatability** of ocular surface and dry eye measurements, ensuring fast and accurate results. This makes the IDRA X an essential tool for clinics and ophthalmology practices.
Advanced standardization	**The reduced need for manual intervention** allows for a greater standardization of procedures, reduces dependence from the operator's experience and promotes greater uniformity of results between different exams and sessions.

The future of eye wellness.
Safe, fast, and profitable.



Stay ahead of the market.
Be the first to offer a service that makes a difference.

SBM technology provides a proven operational model built on practical materials, content, and tools that are ready to use both in-clinic and online.

Online awareness

We provide professional images, content, and videos that can be used on the clinic's digital channels as well as on our shared assets, supporting communication efforts and attracting patients who are already informed and motivated.

In-clinic awareness

We offer dedicated materials for the waiting room: videos for monitors and TVs, informational resources, and printed supports (desk folders), designed to prepare patients and reinforce the value of the examination before the visit.

Continuity and long-term relationship

The DryEyeFollowUp software, provided free of charge, enables ongoing connection between patient and professional, supporting follow-ups, reminders, and a continuous, structured care pathway.

The result is an integrated approach that reduces medical time, improves patient understanding, and creates measurable clinical and economic value for the facility.

In-office services

1 Online awareness

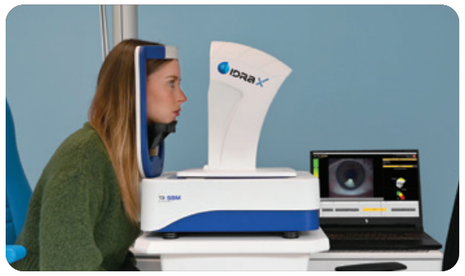
- Education about conditions
- Patient preparation before the visit
- No doctor time required

The patient arrives already motivated

2 In-office awareness

- Dedicated and clear materials
- Messaging aligned with the patient journey
- Reinforcing the value of the diagnosis

The patient understands why the examination is important



3 Assessment

2 minutes - Fully automatic

- Fast, objective, and standardized examination
- No operator dependency
- Easily delegated to staff

4 Relief

- Relief aligned with the diagnosis
- Clear pathway that can be easily explained to the patient
- Clinical value + economic value

5 Retention and loyalty

Reminders via the "Dry Eye Follow-Up" app and personalized recommendations for a continuous care pathway.

A complete pathway for eye health

From the ocular surface to contact lenses, every treatment **is personalized to the patient's needs.**

The ocular surface market has become central in modern clinical practice.

It is no longer limited to dry eye alone, but represents a cross-disciplinary pathway involving numerous clinical and therapeutic areas.

Today, it is **a key factor in ensuring quality, safety, and continuity** across many clinical activities.

Surgery & Follow-up

Objective monitoring of the ocular surface before and after refractive and cataract surgery

Chronic therapies

- Glaucoma
- Eye drops
- Ocular surface

Contact lenses

- Selection
- Suitability
- Comfort
- Continuity of use

Treatments and integration

- Dry Eye
- Supportive therapies

Eyelid therapy

- Collagen injections
- Blepharoplasty

Activa

Improve your eye wellness

Activa is an ocular wellness device designed to provide effective and immediate relief from dry eye discomfort. This widespread condition is, in most cases, linked to dysfunction of the Meibomian glands, which are essential for maintaining the stability of the tear film.

The Activa system uses **thermo-pulse technology that combines controlled heat at 42°C with micro-vibrations at 40 Hz**. In a single **15-minute session**, the treatment helps reactivate the Meibomian glands, improving the lipid component of tears and reducing symptoms such as burning, dryness, redness, and blurred vision. The treatment is non-invasive, painless, and relaxing, and can be performed independently by the patient without the need for continuous supervision.

The protocol includes four initial sessions in the first month, followed by periodic maintenance sessions to preserve the benefits over time. **Clinical studies have shown significant improvement in tear film parameters and long-lasting reduction of dry eye symptoms, with no side effects.**

Easy to use, requiring no consumables, and compliant with European directives for wellness devices, Activa is suitable for optical practices, pharmacies, and visual wellness centers. In addition to enhancing the patient experience, it also represents a sustainable and profitable service, with low operating costs and a rapid return on investment.

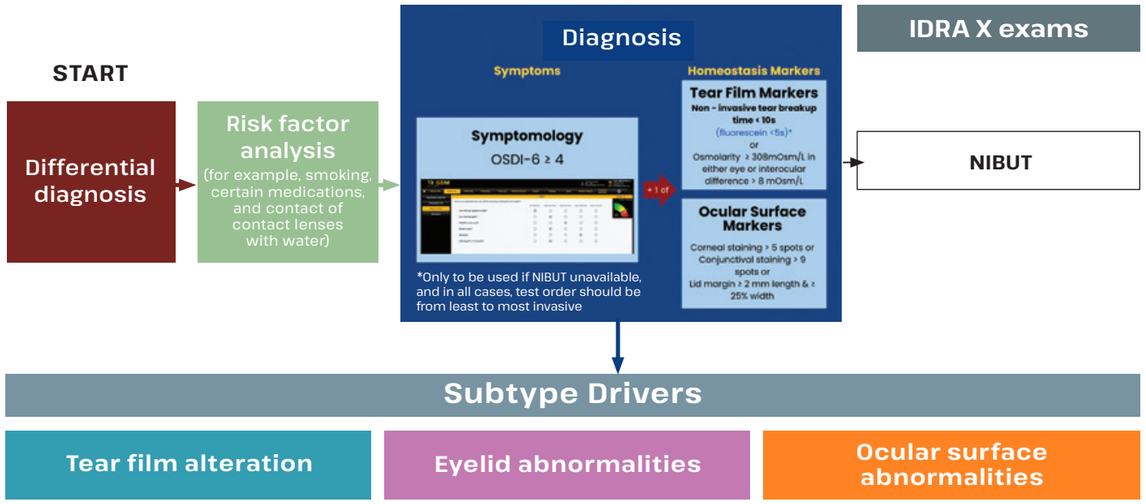
Thermo-pulse technology

Ocular surface analysis - Dry Eye Suite

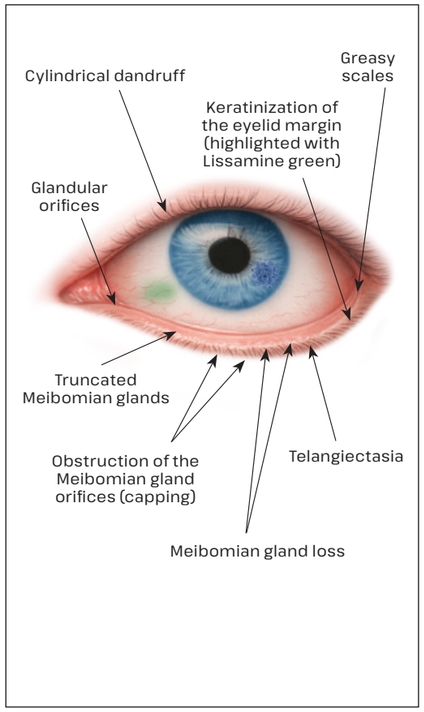
The fastest and most complete Dry Eye suite

The Tear Film and Ocular Surface Society study defined how to analyze the ocular surface to diagnose Dry Eye Disease.

IDRA X enables a comprehensive analysis fully aligned with these guidelines, in a completely automatic and objective manner, delivering results without operator intervention—making the examination extremely fast and easy to delegate.

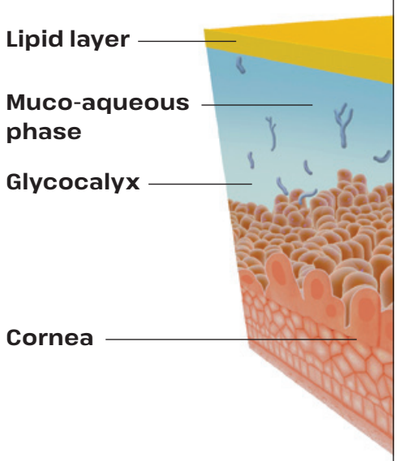


Eyelid anomalies



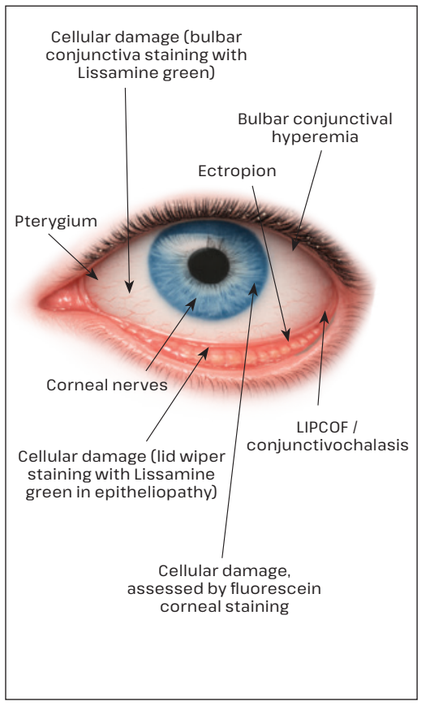
Test of etiologic drivers	IDRA X exams
Blinking/eyelid closure	
Incomplete blinking	Quality of automatic blinking
Anterior blepharitis	
Eyelid biomicroscopy - greasy appearance (seborrheic) or scaly/desquamative appearance (staphylococcal)	Blepharitis
Eyelash base - Demodex cylindrical dandruff	Demodex
Meibomian glands dysfunction	
Glandular orifices protruding, absent, or displaced	
Meibomian gland secretory capacity	
Meibography - truncated or dilated glands, glandular reduction/ absence (drop-out)	3D Meibography
Telangiectasia	
Keratinization of the eyelid margin	

Tear film alterations



Tear film	IDRA X exams
Lipid	
Thickness of the lipid layer of the tear film / interferometry	Interferometry
Secretory capacity of the Meibomian glands	
Meibum quality	
Aqueous	
Tear meniscus thickness	Automatic tear meniscus height
Meniscometry / Schirmer test / Phenol red thread test	
Mucin / Glycocalyx	
Lissamine green staining / Rose Bengal staining	Lissamine green
Conjunctival impression cytology	

Ocular surface abnormalities



Tests for etiologic factors	IDRA X exams
Anatomical misalignment	
Biomicroscopy, e.g., pterygium, LIPCOF/conjunctivochalasis, ectropion/entropion, lagophthalmos	Generic exam
Neural dysfunction	
Corneal sensitivity	
In vivo confocal microscopy	
Cellular damage / alteration	
Cornea (fluorescein)	
Bulbar conjunctiva (Lissamine green)	Lissamine green staining
Lid wiper epitheliopathy (Lissamine green)	Lissamine green staining
Inflammation / stress	
Bulbar conjunctival hyperemia	Bulbar redness
Inflammatory markers	

Meibography: condition of the Meibomian glands

The IDRA X reveals the health status of the Meibomian glands like never before.

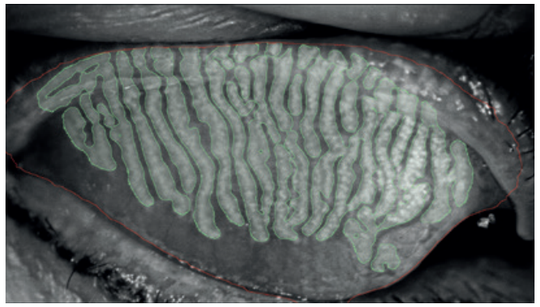
It captures sharp, high-resolution images using advanced infrared technology, allowing unprecedented visualization and assessment of the glandular architecture.

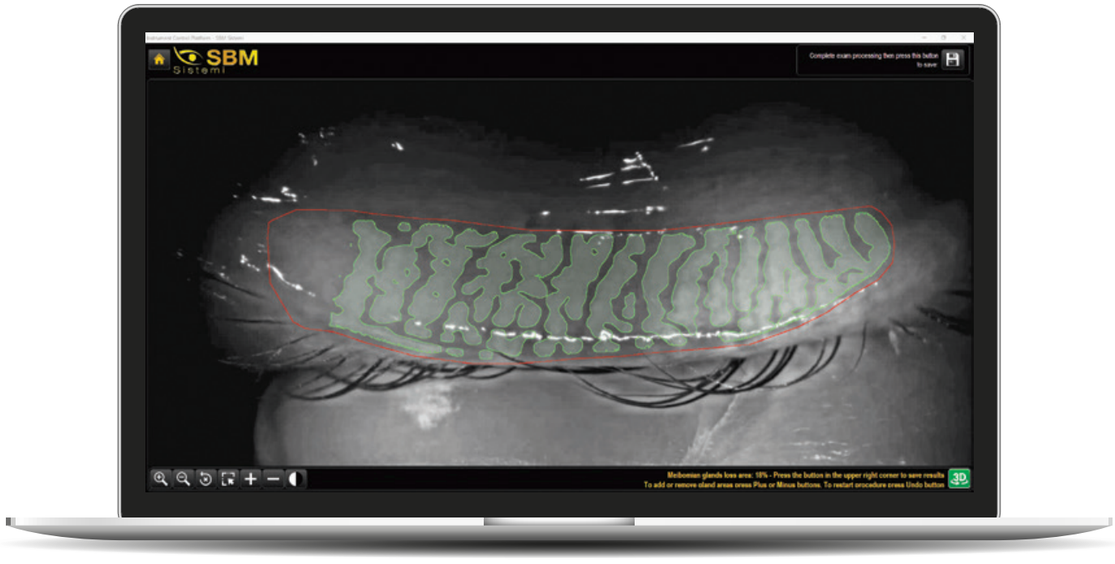
Infrared image

The Meibomian glands are responsible for producing the lipid component of the tear film, and their dysfunction is closely linked to the development of evaporative dry eye. Assessing both their structural and functional state is therefore essential to understanding the origin of the disorder.

Meibography allows visualization of the glandular architecture, providing insight into the actual residual secretory capacity and helping to define the potential for functional recovery.

The IDRA X provides a detailed view that is easily interpretable, even by the patient.

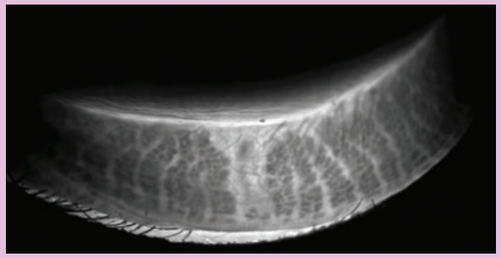




Eyelid transillumination

What makes the IDRA X different?

Its **infrared transillumination function,** designed to reveal critical details often missed, allows visualization of gland dysfunction, oil build-up, and vascular changes.

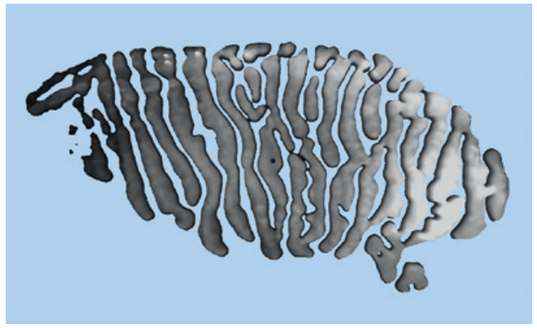


3D Meibography

The revolutionary introduction of 3D imaging of the Meibomian glands offers two major advantages.

First, it allows **confirmation of the presence of abnormal glands** compared to a healthy subject through a three-dimensional view.

Second, it provides **a clear image that can be shared with patients,** helping them understand the possible cause of their discomfort.



The IDRA X meibography system provides solid evidence to support therapy decisions, helping the patient understand why the chosen solution is necessary.

Interferometry

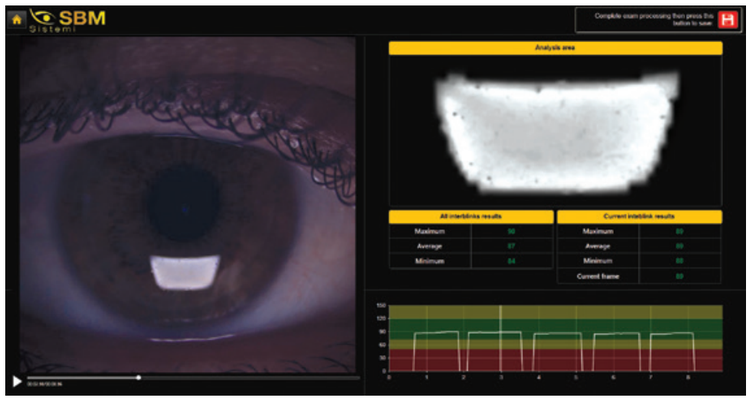
Evaporative mechanisms dominate dry eye

According to TFOS DEWS III, tear film instability and lipid layer dysfunction represent central mechanisms of Dry Eye Disease, since evaporative dry eye is the most prevalent form worldwide. This means that assessment of the tear film lipid layer is no longer optional, but **essential.**

Automated interferometry provides a direct and objective assessment of the lipid layer, allowing the clinician to identify the true etiological driver underlying symptoms.

Since most **dry eye treatments target evaporation and meibomian gland dysfunction,** therapeutic decisions made without analysis of the lipid layer are inherently incomplete.

Automated interferometry elevates this examination to a new standard. Thanks to **automatic focusing, acquisition, and analysis,** the test becomes reproducible, operator-independent, and suitable for follow-up, fully aligned with the modern, evidence-based approach promoted by TFOS DEWS III.



Why automated interferometry is essential

- **Objective assessment** of the lipid layer
- **Identification of evaporative dry eye and MGD-related instability**
- **Standardized and repeatable results,** independent of the operator
- **Supports etiology-driven therapeutic decision-making**
- **Ideal for monitoring treatment efficacy over time**

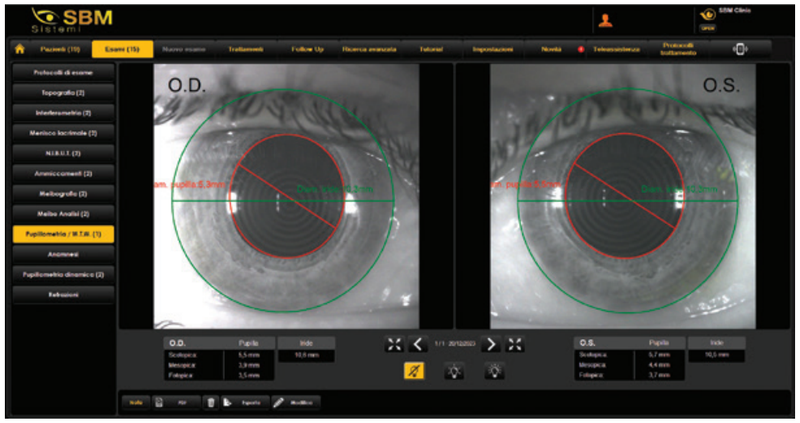
This transforms interferometry from a simple qualitative observation into a truly objective tool.

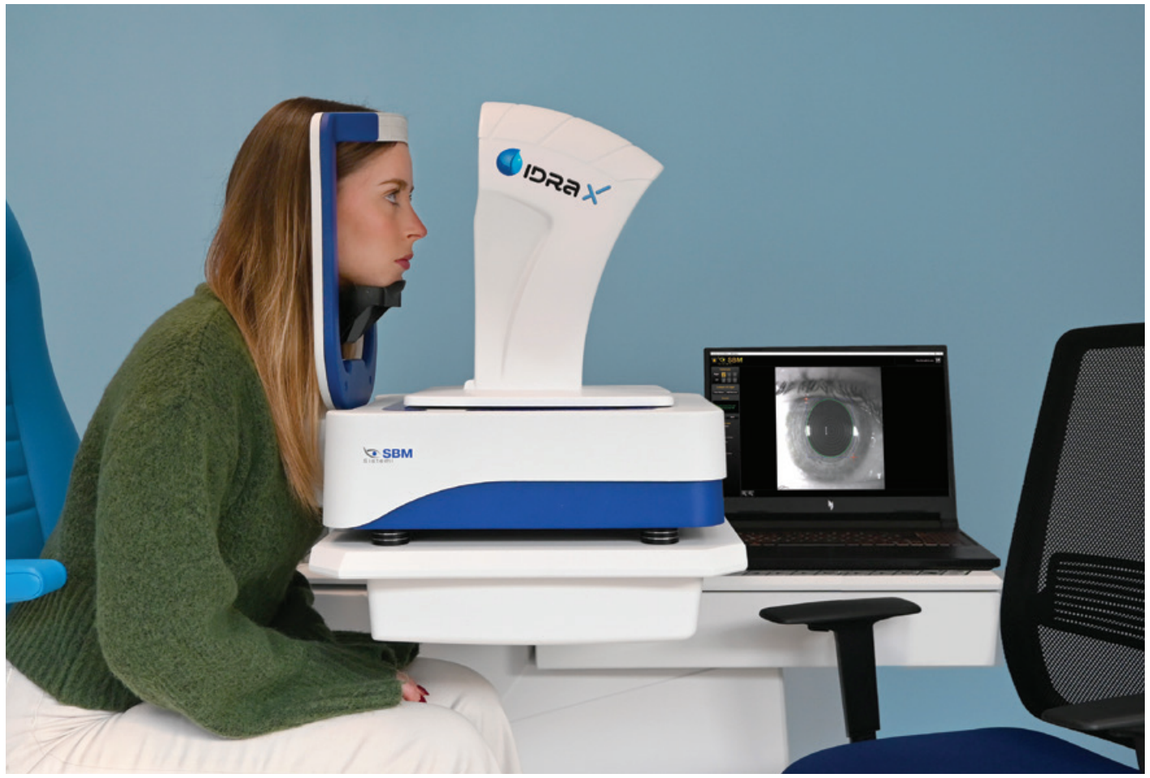
Pupillometry

With the IDRA X, it is possible to quickly and accurately measure all the data needed for multifocal, bifocal, and toric contact lenses.

The pupillometry examination captures images or videos in both the white light and infrared spectrum, allowing measurement of pupil size and decentration under various lighting conditions (scotopic, mesopic, photopic vision).

This is a simple and fast method for measuring patients' pupil size in different lighting conditions. This feature not only supports the fitting of multifocal lenses but is also useful for measuring the optical zone prior to refractive or cataract surgery.



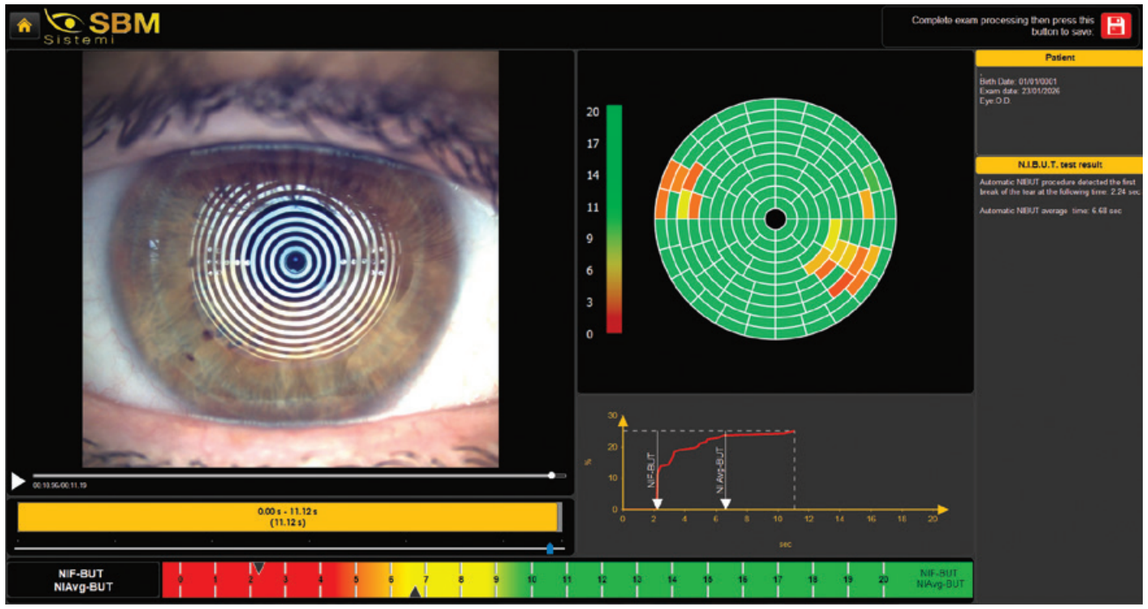


NIBUT: tear film stability

Tear film stability is a key indicator of ocular surface health. An unstable tear film breaks up quickly after blinking, exposing the corneal epithelium and contributing to the onset of symptoms.

NIBUT (Non-Invasive Break-Up Time) allows assessment of how long the tear film remains intact, avoiding invasive tests.

The IDRA X performs NIBUT automatically, analyzing tear film behavior across the entire corneal surface and providing clear, easily comparable parameters over time.

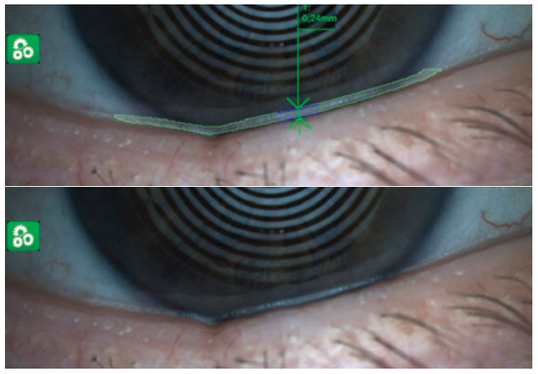


Tear meniscus: aqueous component volume

Tear volume represents an essential element for the protection and nourishment of the ocular surface. The tear meniscus, visible along the eyelid margin, provides direct information on the amount of tear film available.

The evaluation of the tear meniscus allows the identification of dry eye forms characterized by reduced tear availability, contributing to the accurate classification of the disorder and to the selection of the most appropriate treatment.

With the IDRA X, tear meniscus height is automatically measured, ensuring rapid and consistent measurements.

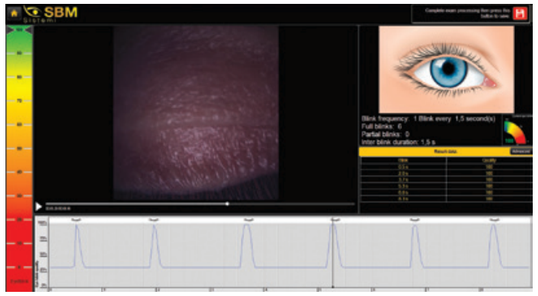


Blink quality: gland stimulation

Blinking plays a fundamental role in the uniform distribution of the tear film and in the emptying of the Meibomian glands. Alterations in blink completeness can compromise tear film stability.

Assessment of blink quality allows the identification of visual or functional behaviors that contribute to the worsening of dry eye, such as incomplete or reduced blinking.

The IDRA X automatically assesses blink dynamics, offering valuable insights into the functional role of the eyelids in the disease.

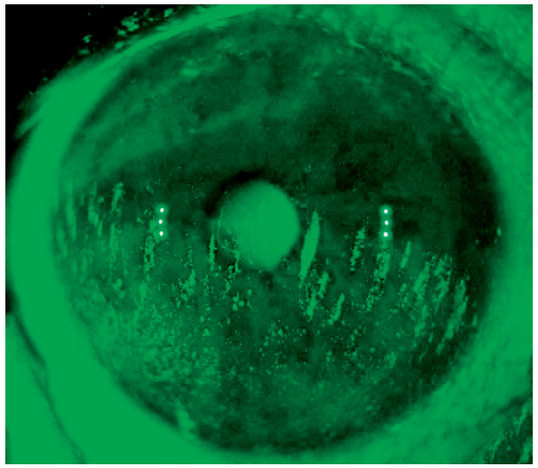


Staining: documenting epithelial damage

Ocular surface staining represents a key step in the assessment of epithelial integrity. Tear film alterations and environmental stress can lead to cellular damage.

Staining highlights areas of distress in the corneal and conjunctival epithelium, providing essential information for distinguishing dry eye from other conditions with similar symptoms and for assessing its severity.

The IDRA X enables the capture and storage of staining images, facilitating comparison over time and monitoring of treatment outcomes.

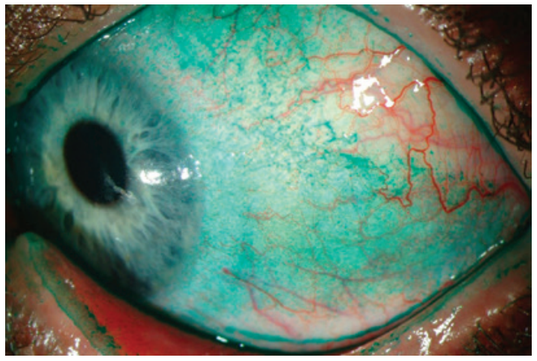


Lissamine green: conjunctival and eyelid staining

In the management of dry eye, assessment of the ocular surface cannot be limited to the cornea alone. The conjunctiva and eyelid margin may show early signs of cellular distress.

Lissamine green staining allows visualization of stressed, damaged, or devitalized cells in the conjunctiva and eyelids, providing a more comprehensive view of the ocular surface status. This examination is particularly useful in chronic and evaporative forms, where conjunctival involvement may precede or exceed corneal involvement.

The IDRA X allows acquisition of images with lissamine green, enabling clear and comparable imaging over time.

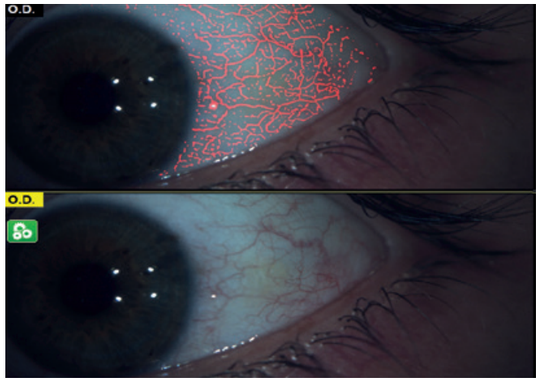


Bulbar redness: ocular surface inflammation

Bulbar redness is an important clinical sign in ocular surface diseases and is often associated with persistent inflammatory processes. Its presence, distribution, and intensity provide useful information on the condition of the conjunctiva and the degree of inflammatory involvement.

The evaluation of redness allows differentiation between transient and chronic conditions and enables monitoring of disease progression over time. This is particularly important in the management of dry eye and associated conditions, where inflammation can sustain or amplify the symptoms reported by the patient.

The IDRA X captures bulbar conjunctiva images in a standardized way, complemented by established classification scales.

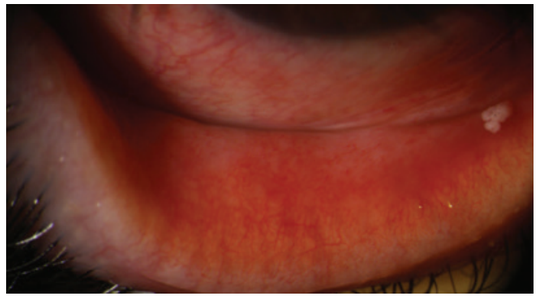


Blepharitis: inflammation of the eyelid margin

Eyelid margin disorders are a common manifestation of tear film disruption and ocular discomfort. The presence of cylindrical dandruff and signs of blepharitis indicates chronic inflammation, which can also interfere with Meibomian gland function.

Careful examination of the eyelid margin allows identification of debris, scales, and eyelash abnormalities—factors that contribute to tear film instability and disease progression.

The IDRA X allows clear documentation of the eyelid margin, facilitating the identification of blepharitis and monitoring the effectiveness of targeted treatments.

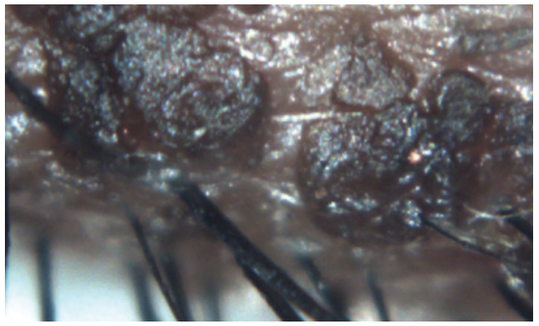


Demodex: a parasite in ocular discomfort

Demodex is a microscopic mite present on human skin that can colonize the eyelid margin. In cases of significant infestation, its presence is associated with inflammation, eyelash abnormalities, and persistent symptoms of ocular irritation.

Assessment of Demodex is particularly important in patients with recurrent blepharitis or in those who respond poorly to conventional treatments.

The IDRA X allows visualization and documentation of clinical signs associated with Demodex, supporting a more comprehensive and targeted diagnosis.

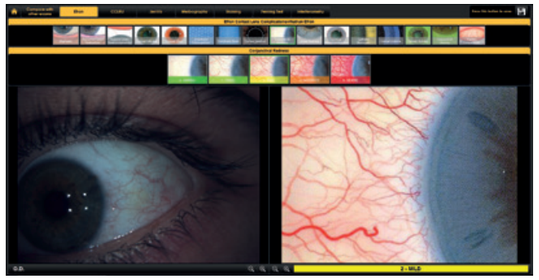


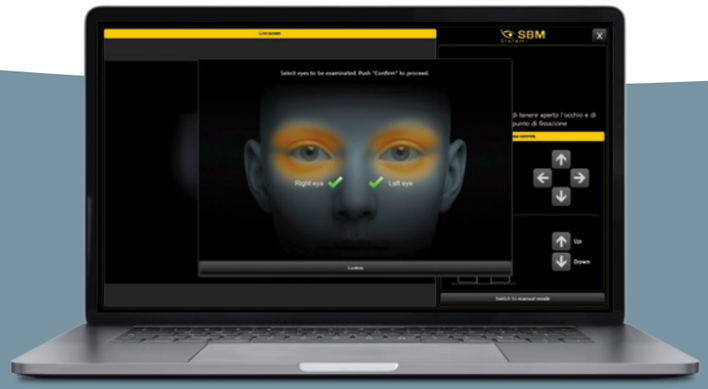
Comparative tables (Efron / CCLRU / Jenvis): classifying signs for clear communication

The presence of conjunctival and limbal redness is a common clinical sign in ocular surface diseases. Proper interpretation of the intensity and distribution of redness is essential for assessing the patient's condition and monitoring its progression over time.

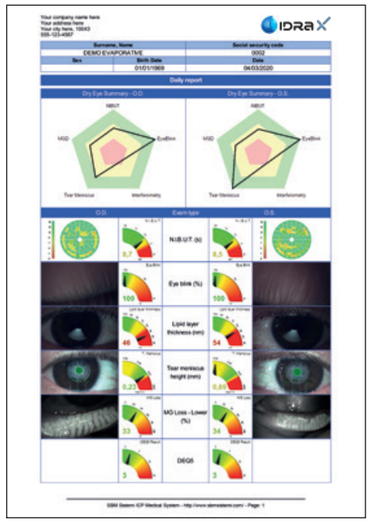
The Efron, CCLRU, and Jenvis grading scales allow comparison of the patient's clinical presentation with standardized references.

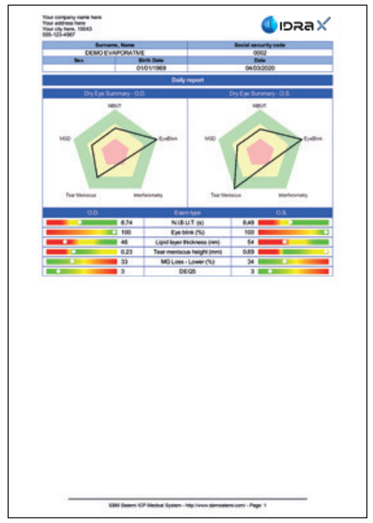
With the IDRA X, images are captured and can be compared with reference tables, integrating the classification into the report.





Dry eye reports



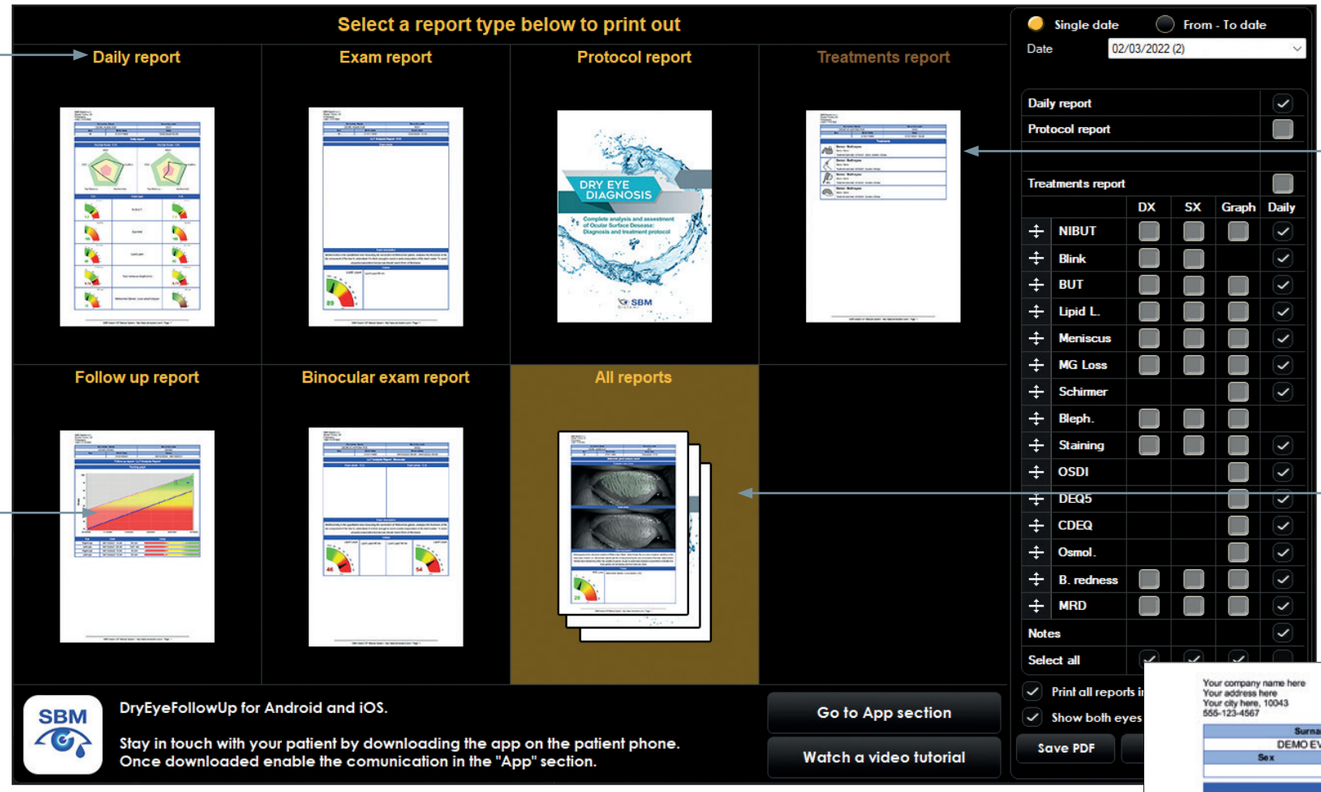


The software is a dedicated platform for dry eye, which not only assists in the diagnosis and classification of ocular surface diseases but also allows medical reports to be printed and saved, providing the patient with comprehensive information.

For customer satisfaction, it is often advisable to provide technical documentation related to the examinations performed. With the various printable reports from the SBM device, you can visually explain and clearly illustrate the pathological condition. Additionally, it is possible to show how the condition has changed over time.

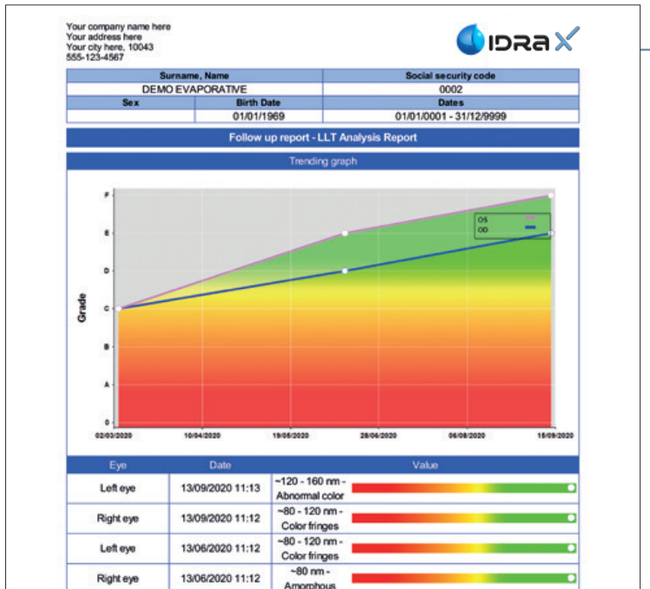
The 'Daily Report' consolidates all results from a patient's examinations performed on a single day.

Various display options are available, with or without examination images.



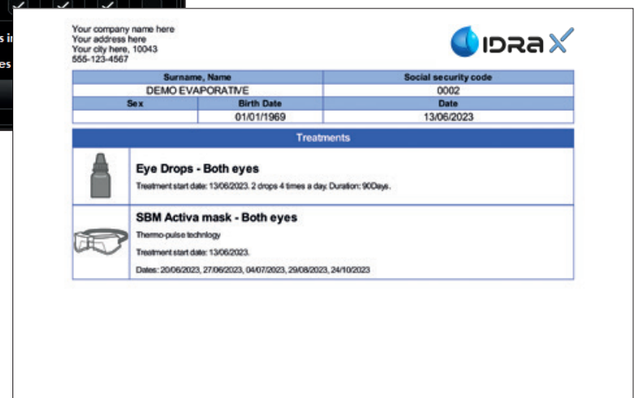
The 'Treatments Report' lists all treatments prescribed to the patient.

The 'Follow-up Report' can show the patient the benefits of therapy, highlighting improvements in symptoms related to dry eye disease.



The 'All Reports' option allows printing a folder containing up to 16 pages.

When the patient bears the costs personally, receiving a detailed, multi-page report represents added value and enhances satisfaction.



Treatment protocol

The software offers multiple versatile solutions carefully designed to support medical professionals and users in the complex task of assigning therapy.

Automatic

Treatment suggestion

The exclusive integrated algorithm, created in collaboration with Dr. Luca Vigo from Studio Medico Carones, offers a personalized therapeutic approach based on the analysis results.

Customized

Automatic treatment assignment

Each user can customize their own protocol (making it possible to delegate the diagnosis to an assistant). Each option provides complete, dedicated, and printable reports.

Manual

Treatment management

Using the **Treatment Managing** tab, the software enables clinicians to compile a database of all treatments available in the practice. Treatment brand and type can be entered into the system and prescribed to patients with just two clicks.

Patient App

Dry Eye Follow-Up is a smartphone app for patients that allows them to receive examination results, prescribed therapy, and comprehensive information about dry eye disease.

Benefits of Dry Eye Follow-Up

- Fast and simple two-way communication between doctor and patient
- Accurate sharing of reports and updates
- Progress monitoring to track symptom evolution
- Support in scheduling regular appointments and interacting with the clinic
- Sending reminders to patients and notifications to doctors
- Faster transmission of information, appointment booking, and treatment setup

IDRA X workflow

1. Personalized symptom questionnaire
2. Automatic acquisition and objective evaluation of clinical parameters
3. Diagnostic and therapeutic suggestions based on integrated protocols
4. Patient education through customizable reports and the dedicated Dry Eye Follow-Up mobile app

Never forget your medications again!

Set reminders on your smartphone for all treatments.

The app will remind you when and how to use each specific recommended medication.

Download it on

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