

## COMPARISON BETWEEN DEM 100 AND IDRA DEVICES IN CLINICAL PRACTICE

The evaluation of the tear film and the ocular surface is critical to get a correct classification and definition of dry eye and consequently to its effective solution.

For this reason, to achieve an accurate diagnosis, I believe it is appropriate to use technologically advanced devices in addition to our experience gained after years of work. It can make the diagnosis more precise, faster, and comparable over time, especially to evaluate the results obtained after a specific therapy.

Personally, with my staff, I have been dealing with dry eyes and ocular surface problems for several years, as well as performing refractive and cataract surgery, both operations closely related to tear film alterations, using devices such as IDRA (by SBM Sistemi) for the evaluation of the ocular surface.

Since 2020 we have introduced into the ocular surface evaluation routine of our Advalia clinic in Milan, a new slit lamps accessory DEM100-DSL200 (by SBM Sistemi) which allows the execution of the same tests as the IDRA device.

We then evaluated over one hundred patients with both instruments, comparing the values for:

Dry Eye group	DEM100	IDRA
Lipid layer thickness (nm)	65 ± 5	71 ± 6
NIBUT (s)	7.2 ± 2.4	6.9 ± 2.5
Eyeblink quality (%)	90 ± 3	88 ± 4
Tear meniscus height (mm)	0.20 ± 2.4	0.22 ± 2.8
Meibography (%)	33 ± 5	41 ± 4

finding that DEM 100 provided the same results range as IDRA device, with the same degree of reliability, precision and reproducibility.

In the daily clinical routine, we use both devices for screening and diagnosis of dry eye, further reducing the evaluation time of our patients but maintaining the same precision and quality of results.

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