

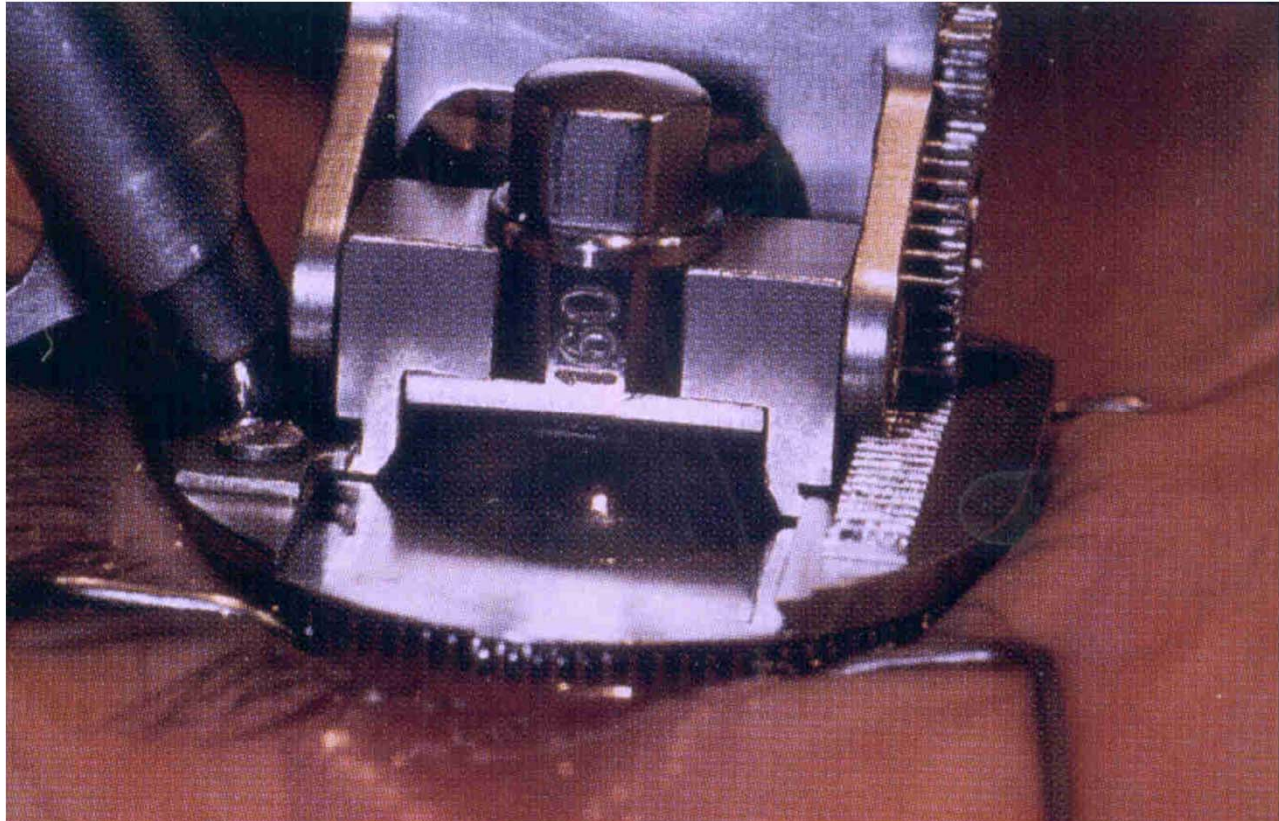
Initial clinical experience with the FS200 Femto and EX500 excimer lasers (Alcon) for LASIK ASCRS March 2011

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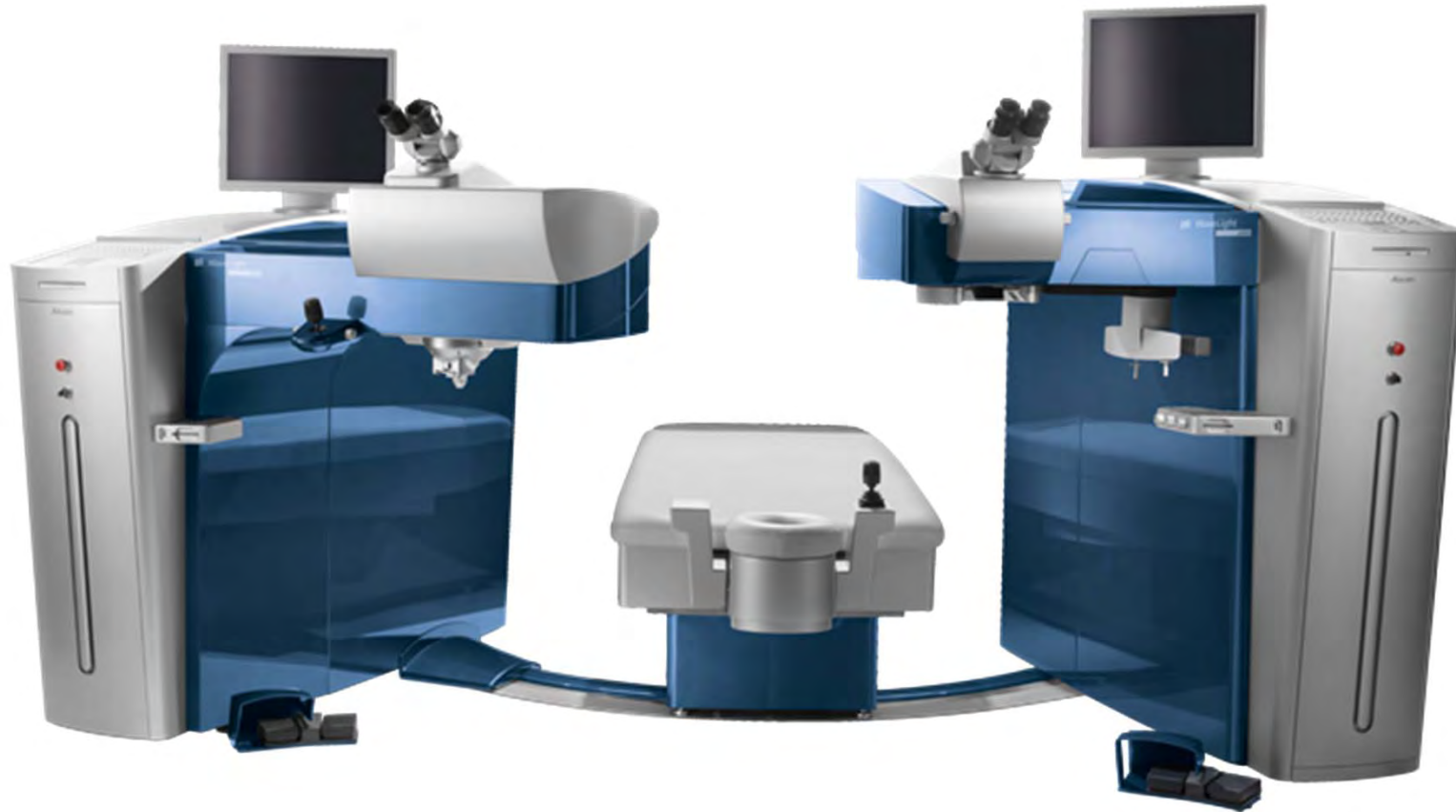
Financial Interest: Travel Reimbursement from
Alcon, Wavelight, Bausch and Lomb



LASIK: 20+ years



WaveLight® Refractive Suite



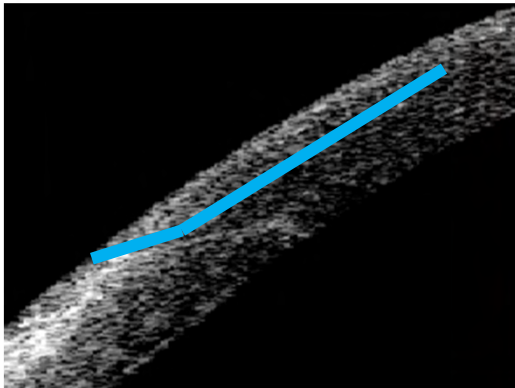
WaveLight® FS200
Femtosecond Laser

WaveLight® EX500
Excimer Laser

The WaveLight® Refractive Suite comprises:

- FS200 200kHz femto laser & EX500 500Hz excimer laser
- WaveLight® clinical results with myopic and hyperopic LASIK
- Improved speed and precision
- Networking of diagnostics/both lasers!

Healed FS200 flap border reflecting the 70 degree side cut angle:
2 visible healing lines representing the anterior and the deeper-at the lamellar cut level-



Headrest ergonomics!



WaveLight® EX500 Excimer Laser

Not yet approved in the US

Summary

- 500 Hz laser head treats 1.0 diopter in 1.4 seconds
- 1050 Hz Eye Tracker has a latency of 2 milliseconds
- Patient-Specific applications:
 - Wavefront-Optimized, Wavefront-Guided, Topography-Guided, Custom Q, PTK
- Network connectivity allows seamless data transfer through the full WaveLight® Refractive System
- Advanced ergonomic design with enhanced feature set facilitates patient flow and physician experience



WaveLight® EX500 Excimer Laser

Not yet approved in the US

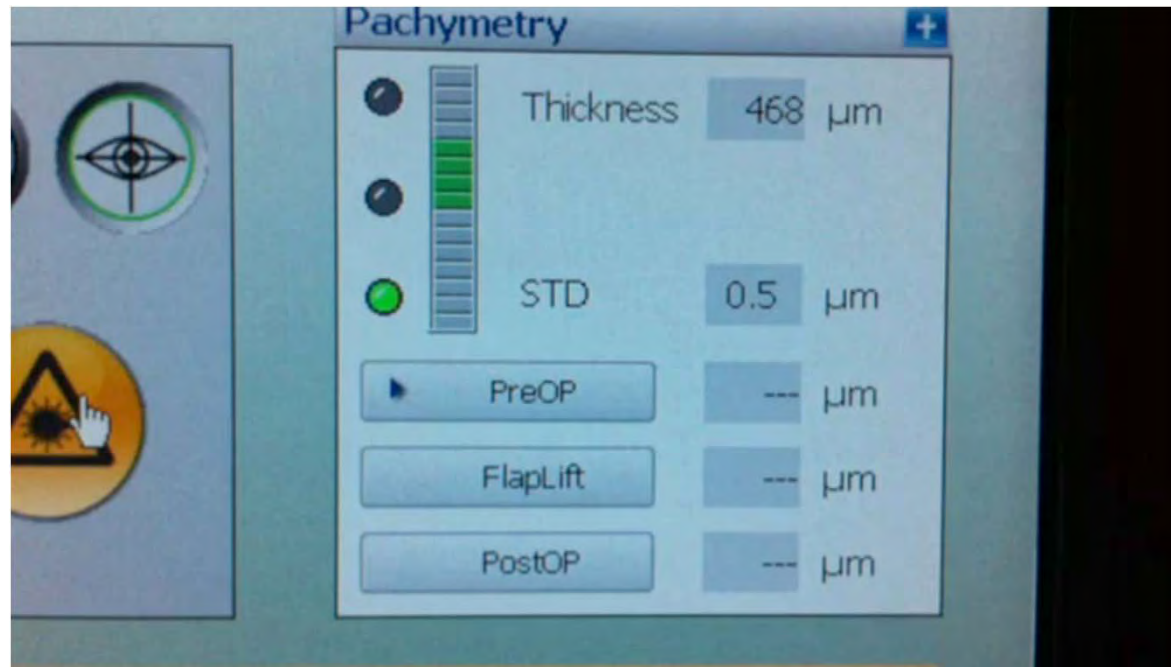
- 1050 Hz-type eye tracker,. Synchronized at 500 Hz, has a latency of 2 milliseconds
- Patient-Specific applications:
 - Wavefront Optimized®, Wavefront-Guided
 - Topo-Guided, Custom-Q, PTK
- Network connectivity allows seamless data transfer through the full WaveLight® Refractive System

*Latency time is approximate



WaveLight® EX500 Excimer Laser

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On-line optical pachymetry in-action
after the flap lifting and the EX500
treatment

The excimer spot pattern

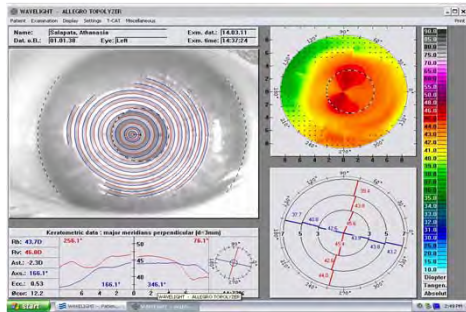


Topography-guided on the EX500

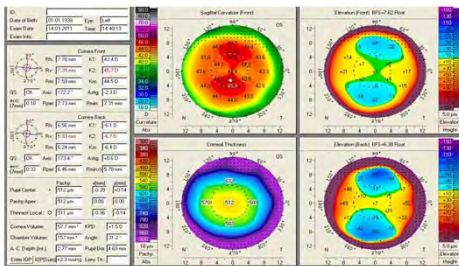
3 available diagnostics:

Not available yet in the US

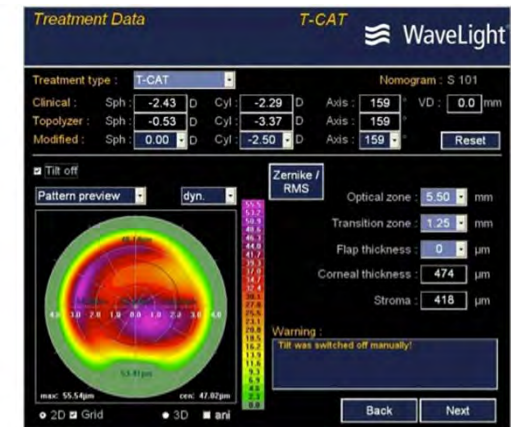
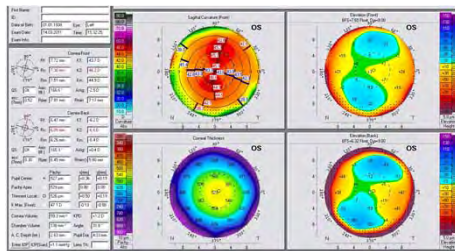
Topolyzer:Placido disc topography



Oculyzer (Pentacam)



Oculyzer II (Pentacam HD)



Topo-guided partial PRK-keratoconus

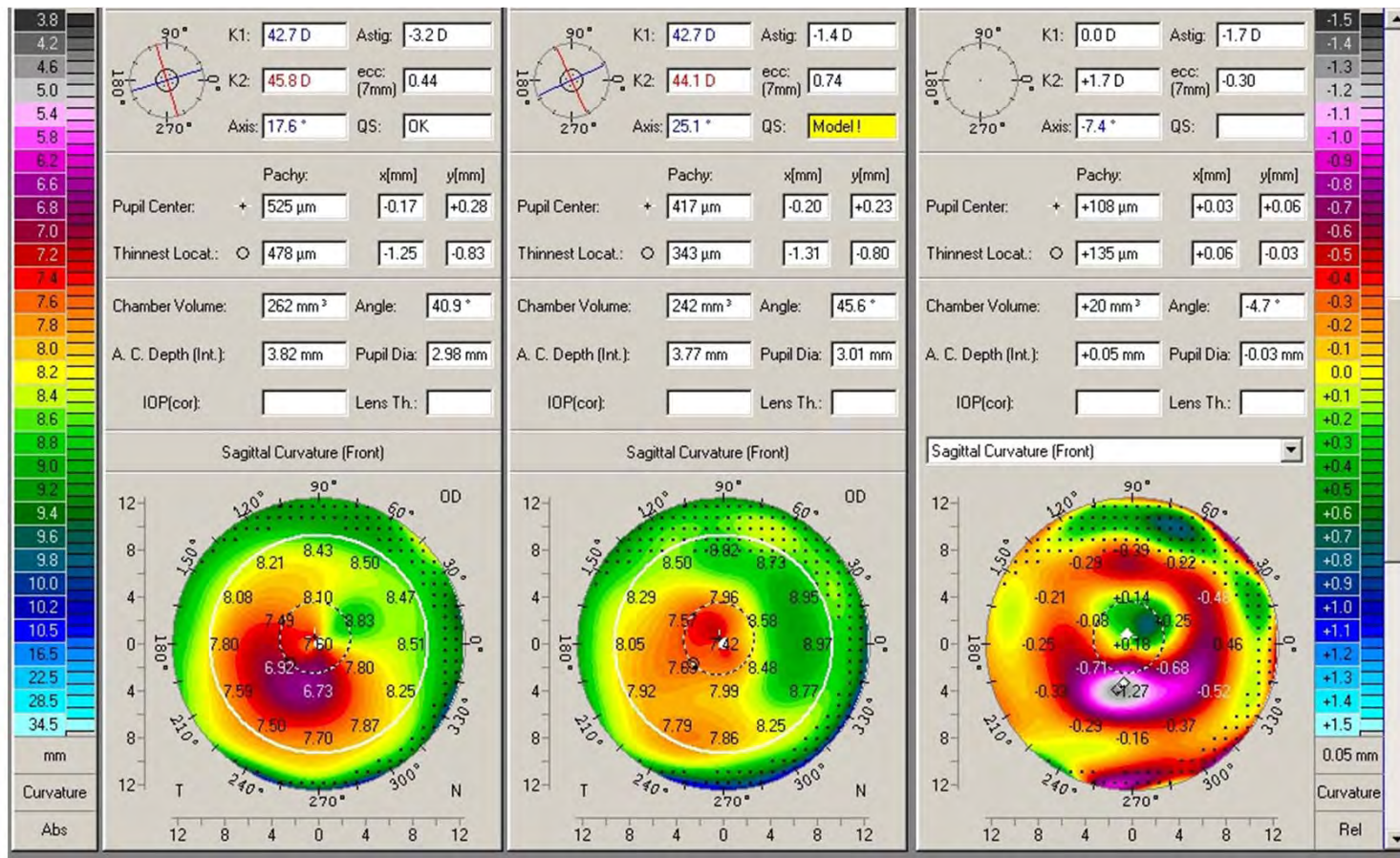
Kanellopoulos MD

Post-LASIK ectasia in a pilot +1.50 -2.50@135: 20/40

Athens Protocol: PTK + topoPRK(+1 -1.75@ 140) + CXL

At 3 years UCVA to 20/15!

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Our current protocol

- All LASIK femto: FS200
- Myopes: 8mm diameter, 120um flap thickness
- Myopes: 70% standard prolate-optimized treatment (F-CAT) with the EX500, 500Hz, Q-value adjustment
 - RMSH>0.4 then Wavefront-guided
 - High cylinder>2D: then topo-guided
- Hyperopes: 100% topo-guided with q-value adjustment
- FS flap 140um, 9.5mm “Decentered”
- Enhancements: 100% custom

Thank you!