BENEFITS AND NEW FEATURES OF MODERN INTERNATIONAL INTERNET DATABASE “IOLCON” FOR UPDATED AND OPTIMIZED IOL-CONSTANTS

Sibylle Scholtz, Timo Eppig, Michael Schwemm, Achim Langenbucher

Institute of Experimental Ophthalmology, Saarland University, Germany

Purpose: By inventing optical biometry about 20 years ago cataract surgery has changed fundamentally. Today, by establishing the most modern up-to-date internationally available database for IOL constants, “IOLCon” meets nowadays standards and requirements of a WEB based database for intraocular lens specifications and constants and provides essential data for successful cataract surgery. Biometer manufacturers are implementing the open XML interface to integrate IOLCon into their devices.

Methods: Close cooperation with Institute of Experimental Ophthalmology, University Homburg/Saar (Germany).

Results: Haigis’ ULIB (User Group for Laser Interference Biometry) was the first database of its time to set a milestone in providing optimized constants for cataract surgery. From today’s perspective, it no longer meets modern requirements. By launching IOLCon in 2017 a modern data base is worldwide available today which is open to all IOL and biometer manufacturers. By its self-explanatory functionality it is providing its users all relevant lens parameters. IOLCon fulfills the requirements of a modern biometry database and established itself as an indispensable tool for cataract surgeons by today.

Conclusions: Since its launch, IOLCon has grown steadily: As of February 2021, IOLCon offers data on approximately 489 IOL models from 29 manufacturers with almost 21,000 clinical data and optimizations for 121 IOL models. Thus, by implementing IOLCon a biometry database is now available, which will also meet the future demands of ongoing developing ophthalmic surgery. Today, IOLCon is a globally available internet-based database which meets all requirements of modern ophthalmic surgery, it can be accessed at https://iolcon.org.