

CONTACT LENSES

*Wygladacz K., Hook D.***Refreshing the contact lens surface**

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Biotrue multipurpose solution (MPS) includes hyaluronic acid (HA) as a natural wetting agent. In an in vitro study, the morphology and distribution of HA sorbed from both Biotrue and pure HA solution of equal concentration (0.1%) on SiHy contact lens surfaces was examined. Atomic force microscopy imaging was used to illustrate the topography of SiHy contact lens materials. The distribution, as well as fine details of the HA network, were resolved by staining HA with Gram's safranin, then imaging with confocal laser-scanning microscopy and differential interference-contrast microscopy. In this approach, SiHy materials from different generations was chosen for the study: Balafilcon A with plasma treatment of surface, Senofilcon A and Samfilcon A as SiHy materials fabricated with an internal wetting agent (polivinilpirrolodone – PVP). Studies demonstrated that HA sorbed from Biotrue MPS on different types of silicone hydrogel (SiHy) contact lens materials.

Keywords: contact lenses, hyaluronic acid, multifunctional solution, silicone-hydrogel

*Moody K., Hickson-Curran Sh., Wooley B., Ruston D.***Innovating for multifocal fitting success**

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Authors describe the technical features and clinical performance of the new 1-Day Acuvue Moist Multifocal designed to meet these specific patient needs. The technical features of the lens will be examined with respect to vision and comfort. Ocular health, fitting success and procedure and clinical performance are also described.

Keywords: addition, contact lenses, multifocal lenses, presbyopia

SPECTACLES AND OPHTHALMIC LENSES

*Grishchenko V. N., Grishchenko V. A.***The new technique of marking of spectacle frames**

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There is the technique marking the center of the pupil based on measuring the size of the eye gap was patented by the authors. The advantage over the "traditional" technique is the exclusion of the trapezoidal component and depending on the asymmetry of patient's interpupillary distances and the optometrist.

Keywords: measurement of the eye gap, patent, trapezoidal component

3D printed ophthalmic lenses? Already on the market!

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3D printing, which allows to manufacture the object according to its computer model with high accuracy, is gradually moving from fiction to the list of traditional production methods. We have written about 3D printed frames and now 3D printed lenses have appeared.

Keywords: 3D printing, Luxexcel, ophthalmic lenses

RESEARCH

*Antropova G. A., Okonenko T. I.***Marketing researches of the market of soft contact lenses in the Novgorod region**

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Soft contact lenses are defined as medical devices and their possible hazards are systematized. Marketing researches of the market of soft contact lenses in the Novgorod region were conducted, the assortment policy of the main participants of the optical market was studied: salons of optics, pharmacies, online stores. It is shown that the market of soft contact lenses (SCLs) in the Novgorod region reflects the general trends of the Russian market. It is dominated by US firms products Alcon, Bausch + Lomb, CooperVision, and Johnson & Johnson Vision Care. In online stores and pharmacies, SCLs of those brands are selling, with which ophthalmologists and optometrists of salons of optics in this region do not work, which leads to an increased risk of complications of contact correction of vision.

Keywords: market of soft contact lenses, salons of optics, pharmacies, selling

ECONOMY AND OPTOMETRY

*Samoilenko I. S.***Some peculiarities of accomplishment of corporate social responsibility (CRS) of the players in the optical market**

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The article examines the problem accomplishment of corporate social responsibility programs of the players in the optical market. The most frequently accomplished types of programs are considered as well as the peculiarities of their implementation depending on the optical market profile. The topic is timely since the idea of the Corporate Social Responsibility plays an important part for the players of the optical market. Thus the goal of the optical market is to get rid of the health problems, rendering of assistance to those, who have vision problems and improving their quality of life.

Keywords: charity, communicative support for social programs, corporate social responsibility, optical market, social responsibility programs, volunteer services, welfare funds

NEW O. D.

*Strong S.***How do we perceive a moving world?**

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This article provides an overview of motion processing and how factors may have an impact on performing certain tasks safely, such as driving.

Keywords: magnocellular pathway, parvocellular pathway, perception, retina, rods, visual cortex

EDUCATION

*Nugumanova A. M., Khamitova G. Kh.***Stages of development of the pedagogical process at the department of ophthalmology of the Kazan State Medical University (devoted to the 210th anniversary of the teaching of eye diseases)**

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The aim of the article is a retrospective analysis of various methods of teaching ophthalmology at Kazan University during two centuries.

Keywords: distance education, education, students, teaching, teaching methods