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2022 - War in Ukraine: ophthalmology in a state of emergency

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Something no one believed would happen today: a war of aggression in the mid Europe. On February 24, 2022, we all learned better. Since then, Russia has been waging a brutal war against Ukraine and its people. Instead of submitting, Ukraine is fighting with all its might. Not only militarily, but also medically and scientifically. What does this mean for the current situation of ophthalmology in Ukraine?

With a different script its own language, the culture of the prevailing Orthodox Church, Ukraine seems to be very far away for us – please keep in mind: it is only about 1700km between Frankfurt (Germany) and Kyiv (Ukraine), from Berlin (Germany) it is not even 1300km. With its approx. 3080 ophthalmologists, Ukraine offers a good coverage of 69 ophthalmologists per million inhabitants (compared to Germany (81), Austria (92) and Switzerland (91) (Source: <https://icoph.org/advocacy/%20data-on-ophthalmologists->

[worldwide/](#), as of 2012). The medical standard and the equipment are comparable to the European standard, as is the scientific quality of the training courses and congresses. It is noteworthy that Ukraine is far ahead of many European countries in terms of technology, internet supply/use and online training, well before COVID.

The war in Ukraine – and ophthalmology

Russia's war against Ukraine began in 2014 with the annexation of the Crimean peninsula. It's impossible to forget the morning of February 24, 2022, when the whole country was rocked simultaneously by sirens, massive explosions, the roar of airplanes and the whistles of rockets. Since then, Ukraine has been attacked by a hostile army, bringing death, annihilation and destruction of the principles of humanity and civilization.

Within three months, Ukraine was pounded by 2275 rockets, more than 3000 airstrikes aimed mainly at destroying civilian infrastructure. As of June 1, 2022, 4,169 civilian deaths were reported on Ukraine, including 268 children. In addition, 4982 people are said to have been injured. The names of the cities of Bucha, Irpin, Mariupol are now known to the whole world. Over 6.9 million refugees fled their homes in Ukraine and moved to other countries.

The war had a major impact on healthcare and ophthalmology: the first days of the invasion were highly chaotic. Many doctors had to flee to other regions, some clinics and pharmacies were closed, their warehouses destroyed. More than 600 hospitals and ambulances were damaged, 100 of them were completely destroyed. Many of these institutions also operated ophthalmology departments. Many Ukrainians lost the opportunity to obtain medical care. Patients with glaucoma, AMD, diabetic retinopathy remained without treatment. In addition, Ukrainian ophthalmology currently has to face war-wounded patients (References: <https://www.who.int/publications/i/item/WHO-EURO-2022-5152-44915-65074>, <https://www.statista.com/topics/9087/russia-ukraine-war-2022/>, https://kyivcity.gov.ua/news/kiv_vazhlive_na_16_chervnya_Kyiv_Important_info_as_of_June_16/, <https://www.kmu.gov.ua/news/ukrayinski-zakladi-ohoroni-zdorovya-perebuwayut-u-postijnij-nebezpeci-igor-kuzin>).

Ophthalmological training and education – in spite of pandemic and war

A beacon of Ukrainian ophthalmology is Prof. Oksana Vitovska, who, with her great commitment and enormous energy, has advanced scientific training at the highest level for

many years. As early as 2014, she organized volunteer projects, arranged screenings and care (also in the eastern part of Ukraine), and educational projects for doctors from the regions around Sieverodonetsk, Kramatorsk, Lugansk and Donetsk.

Not only nationally but especially internationally, attention must be paid to ophthalmology and the ophthalmologists in Ukraine. Here, too, Prof. Vitovska is an ambassador for Ukrainian ophthalmology and also presents herself and her country at international (online) congresses, such as the recent Indian online meeting "Pan Ophthalmologica" (https://www.facebook.com/watch/live/?ref=watch_permalink&v=1109400469981377, at 2h 36min) and DOC in Nuremberg, Germany.

Long before the COVID pandemic, she established two series of congresses ("Ophthalmic Hub" and "Ophthalmic Light") associated with the "Ukrainian Alliance of Ophthalmologists", founded by her. In her latest project, the "Ophthalmic iSchool", she currently offers up-to-date and short-term training for young ophthalmologists.

Oksana Vitovska had already invested heavily in virtual training and it paid off during the COVID pandemic. This commitment and her technological set-up enabled her to maintain reliable and up-to-date scientific training, even in the current wartime, with its highly unsettled conditions.

- **"Ukrainian Alliance of Ophthalmologists"**

As early as 2016, Prof. Oksana Vitovska founded the "Ukrainian Alliance of Ophthalmologists", a non-profit association of ophthalmologists devoted to medical and ophthalmological training and education. The association regularly organizes congresses and training events with the aim of integrating all professional groups in ophthalmology. The "Alliance" sees its central task as founding an association for everyone interested in ophthalmology, including ophthalmologists as well as nursing staff, technicians, optometrists and opticians.

More than 4238 people currently follow the activities of the "Alliance" on Facebook (<https://www.facebook.com/kiiev.opthalmological.society>), the society's YouTube channel currently has more than 4000 subscribers (<https://www.youtube.com/channel/UCKgI48EJHQ0U6VLIUWr6bvA>). More information about the Alliance can be found here: <http://ophthalmolog.kiev.ua/>.



Figure. 1: Logo of the “Ukrainian Alliance of Ophthalmologists”

○ **Ophthalmic Hub**

In 2018, Oksana Vitovska established the annual congress, "Ophthalmic Hub", considered the largest Ukrainian ophthalmologists' conference and which takes place regularly in Spring. The first congress which took place in Kyiv, was highly successful and included over 750 participants and over 80 international speakers. With this congress, Vitovska set scientific standards comparable to international standards. In the following year, the "Ophthalmic Hub" already had over 1200 participants with about 100 international speakers taking part in stimulating programs. Due to COVID, the “Ophthalmic Hub” took place online in 2020 and as hybrid event in 2021.

At the beginning of 2022, plans for the scientific program of this year's congress, scheduled for April 1, 2022, were in full swing (<http://ophthalmic-hub.com/>).

On February 24, 2022, everything was rendered obsolete.



Figure 2: Logo of the congress “Ophthalmic Hub”

- **Ophthalmic Light**

The “Ophthalmic Light” training series is designed as a quarterly regional event, attended by an average of 200 – 400 doctors (<https://www.ophthalmic-light.com/>).

- **Ophthalmic iSchool**

The "Ophthalmic iSchool" was started in March 2020 in order to continue to make available scientific training and education. Here, clinical cases are presented and discussed in detail by young ophthalmologists in webinars.

This online series was particularly popular during COVID times, and especially now in the current war situation. A webinar on ophthalmology in wartime took place recently.

These “Ophthalmic iSchool” webinars have been viewed by from 3000 to more than 9000 people. The webinars can be accessed internationally via the YouTube channel of the "Alliance": <https://www.youtube.com/channel/UCKgI48EJHQ0U6VLIUWr6bvA>.

International Cooperation

An essential aspect which describes the high quality of the science is the international character of the cooperation with ophthalmological societies: the "Ophthalmic Hub" is supported by ESCRS, ASRS, AAO and ICO with workshops and symposia.



Figure 3: International speaker at ESCRS-Symposiums in 2019, fltr: Prof. David Spalton (UK), Dr. Volodomyr Melnyk (Ukraine), Chairwoman Prof. Oksana Vitovska (Ukraine), Dr. Vladimir Pfeifer (Slovenia), Dr. Miguel Teus (Spain), Dr. Christina Grupcheva (Bulgaria), Dr. Paul Rosen (UK).

Prof. Vitovska maintains close ties with German universities: in 2004 she spent time as a scholarship holder at the University Eye Clinic Heidelberg with Prof. Gerd Auffarth, who became her long-standing mentor and with whom she still has a close friendship and scientific cooperation. The Institute for Experimental Ophthalmology at Saarland University is also working with Oksana Vitovska in scientific projects.

Particularly important for Vitovska, in the current war situation, is the support from international ophthalmologists and ophthalmological societies, who have extensive experience in the special treatment of war-related eye injuries and blindness. Support is also urgently needed in the rehabilitation of these patients, since structures and facilities within Ukraine have been completely destroyed by the war.

Telemedicine

Using the technologies already available in Ukraine, the international ophthalmological community is now asked to offer Ukrainian colleagues and patients the best possible support within the framework of telemedicine. This is particularly true for patients in parts of the country that are currently cut off from conventional infrastructure due to the war and who have no access to direct medical care.

Ophthalmology and the world can learn from Ukraine:

More or less unnoticed, an excellent ophthalmological training at the highest level has developed in Ukraine in recent years. Defying COVID and the war, Prof. Vitovska organizes regular and up-to-date training.

From Frankfurt (Germany) you can reach Kyiv by plane in about 2 hours. Whenever it will take place again, participation in the next "Ophthalmic HUB" is definitely worth it! Not only take part in an excellent ophthalmic training event, but also to know a city and a country with its cosmopolitan people, deserving of our friendship and support - each of us can support Ukraine in our own way!

Prof. Oksana Vitovska

Professor of Ophthalmology at the National Medical University O.O. Bogomolec in Kyiv (Ukraine), from 2014 to 2019 chief physician of the university eye clinic there. Head of the "Ukrainian Alliance of Ophthalmologists".

She is strongly committed to modern, intensive further training for young



ophthalmologists, currently through webinars. Her scientific focus is on glaucoma, uveitis and biometrics of the eye. In addition, she provides assistance in the care of war-related eye injuries.

My personal note:



Oksana Vitovska and I have been close friends for almost 20 years. Her great scientific commitment and her passion for advancing ophthalmology in Ukraine have always inspired me. For many years I have traveled to Kyiv, sometimes several times a year, to support her in her activities. She is a role model for me, both professionally and personally. I look forward to all her

projects.

(Sibylle Scholtz)