

Improving Patient Experiences via Reliable Pre-Surgical Biomarker Risk Assessments in Patients Undergoing Eye Surgery

The prevalence of ophthalmic disease is extremely high in those 50 years of age or older, with almost 82% having some degree of ophthalmic disease. Ophthalmic diseases, including glaucoma, cataracts, macular degeneration and diabetic retinopathy are extremely debilitating and as such often require surgical intervention.

At City Hospital No 2, the largest ophthalmic treatment center in Saint Petersburg, Russia presurgical health checks using biomarker for patients with planned eye surgery is a routine part of patient care. This testing was done in the outpatient setting (policlinic), where often the quantity and/or quality of insights were not always reliable due to missing lab results, the need for retesting and/or the need for further investigations due to decompensating disease. The need for additional testing created inefficiencies within the health system, including the need to delay surgeries. This in turn negatively impacts hospital resources, patient length of stay (LOS), health system reimbursement, and patient satisfaction. Importantly, many of the impacted patients were elderly making travel a true burden, thus, every delay and/or need for additional visits created additional difficulties for them.

To mitigate the need for additional testing, reduce delayed procedures and improve overall experience, an integrated clinical care team involving ophthalmology, department of quality control, laboratory medicine and information technology sought to establish a new process to optimize presurgical biomarker check-ups. This involved a standardized list of biomarkers for comprehensive screening assessments in the outpatient department of the hospital, rather than through polyclinic, thus ensuring standardization and high-quality testing with all biomarker results consolidated and led through the core laboratory.

This new process resulted in a 22.8% reduction in the percentage of patients with incomplete pre-surgical health check-ups (from 28% to 5.2%), reduced the average length of stay from 3.5 to 3.3 days due in part to the



increased identification and treatment of comorbidities before eye surgery. Impressively, this helped improve the ranking for the St. Petersburg City Hospital No 2 from 10th place (2015) to 5th place (2019) for service quality across all hospitals in St. Petersburg, Russia.

For their patient-centric care and important outcomes this integrated clinical care team received the 2020 UNIVANTS of Healthcare Excellence Award Recognition of Achievement. Congratulations to Timur Akhmedov, *Head of Laboratories Department*, Alexey Lebedev, *Head of Medical Equipment Department*, Vadim Nikolaenko, *Deputy Chief Physician by Ophtalmology*, Alexandr Pushkin, *Head of Laboratory, Quality Control System*.

KEY TAKEAWAYS

1. Quality and reliability of laboratory testing is a key enabler of patient-centric care.
2. An integrated clinical care approach is an important step in ensuring process changes are implemented with success.
3. Consolidation and standardization of pre-surgical screening assessments can substantially improve patient outcomes, patient experiences and enhance resource utilization.