

# Operating at the speed of diagnostics in the upgraded glaucoma workflow

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Peer perspectives in the ophthalmic practice



Seeing beyond

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The cornerstone of the glaucoma diagnostic workflow is the visual field test. New innovations in medical devices have led to decreased testing time, greater accuracy, and enhanced tracking of disease progression. Yet for many doctors, there can be an understandable sense that if something isn't broken, it doesn't need to be fixed—that is, until extenuating circumstances require extraordinary solutions.

Going into the pandemic, the Cole Eye Institute at Cleveland Clinic was doing very well: the clinic was expanding, and there were plans to break ground on a new building. Mid-March, everything changed. While the clinic never closed and continued to see urgent and emergent eyecare cases, the exam load dropped to less than 25%.

Once the lockdown lifted, the primary goal at Cole Eye Institute was to increase the exam load as quickly as possible while maintaining the safety measures that were in place. This required a hybrid workflow that took full advantage of the capabilities of staff and technology in order to operate at a level that was not just equal to, but better than what the clinic had been doing before. As of August 2020, Cole Eye Institute has returned to 87% patient capacity, and we plan to continue using many of the tools we've used to reach this point long into the future.

# Speeding up our workflow with SITA Faster

Our practice only truly began offering telehealth consults in March 2020. Prior to that, because the glaucoma specialty is so diagnostic-focused, telehealth consults were not the standard. When the lockdown began in Ohio, we had to learn and innovate. As a glaucoma specialist, many of my patients are coming in three times a year or more, and going six months without an appointment can be difficult and anxiety-inducing. Our first priority was making sure we had ways to keep in touch with these patients, which involved converting some of our patient visits to fully virtual consults using FaceTime, Google Duo and now Zoom through our EMR.

However, the majority of glaucoma patients require in-person diagnostic testing. While there exists at-home pressure check options, not all of them are affordable for every patient. By April, we had introduced a hybrid workflow, in which our patients came in for the diagnostic testing that could not be done at home, and were performing their own visual acuity tests at home in virtual contact with their doctor. This new hybrid methodology allowed us to identify which patients required in-person care that trumped the risk of exposure.

## **Cole Eye Institute Patient Workflow**

### **At home:**

- Pre-visit charting

### **In-office (one room):**

- Confirmation of patient history and chief complaint
- Temperature check
- Slit lamp exam with IOP check (disposable Goldmann applanation tonometer, Icare or Tono-pen)
- Gonioscopy and pachymetry

### **Where necessary:**

- Visual field testing (HFA3 with SITA Faster) Dilation
- OCT (CIRRUS 6000) & Fundus photography (Visucam NM/FA)

### **At home or in-office:**

- Consultation with doctor
- Scheduling surgery and/or follow-up

## Speeding up our workflow with SITA Faster

By June, we had reached 75% of our pre-pandemic exam load, but we were still feeling the restrictions of social distancing and the limit that placed on the number of patients, techs, and doctors who could be in the clinic at once. When we instituted our one-room-one-patient policy, it became absolutely crucial for our diagnostic tests to be efficient and still provide valuable data. For a glaucoma workup, which requires visual field testing, this can be a challenge—unlike other diagnostics, a full visual field test is measured in minutes, not seconds. To make the final jump, we needed a technological boost.

In July, we upgraded the HFA3 with SITA Faster and dramatically reduced the time it took to get a visual field. With SITA Standard, which is what our practice used prior to July, it would take over five minutes per eye to complete the test. Now, the time is halved, which means chair time is reduced for each patient. Furthermore, the accuracy of SITA Faster is

comparable to SITA Standard. SITA Faster is tracking the same defects and glaucoma progression for our long-term patients and taking less time to do so. In running the 24-2C, the test includes more central test points that correlate with points from the 10-2 that are most susceptible in glaucoma patients. This has been game-changing for both patients and technicians. The visual field test is one of the more intimidating tests for patients, in large part because of the amount of time it takes. Our technicians are also happier because they find that the newer algorithm is more intuitive for the patient requiring less time in coaching the patients through the visual field test. The decreased face to face time between the technician and patient also improves safety during this time of physical distancing.

## Seeing the big picture: Glaucoma Workplace and the new workflow

While Cole Eye Institute had used Glaucoma Workplace prior to March 2020, we were not utilizing the software to its full potential. In May, the ZEISS team helped us complete the setup and integrations with our existing technology. The new setup is immensely time-saving. Whereas before we had to manually open each separate visual field, it's now much easier to browse through them or even pull up the visual field overview.

This is especially important for patient education because the user interface of Glaucoma Workplace is

intelligible to a layperson. I will pull up the visual field and show my patients their glaucoma progression over the past few years. Glaucoma patients often are not aware of progression of visual fields so being able to see the progression in an easy format helps patients to understand the need for compliance with drops and the reasons for interventions. Additionally, the progression analysis of visual field index and mean deviation is a useful visual aid for patients and clinicians in determining when further medical, laser, or surgical interventions are needed.

## One patient, one room

As part of our new workflow, our techs are calling patients the day before their appointment for what we've termed pre-visit charting. In this call, a technician will fill out the HPI, review the patient's medications, past medical and surgical history, and any allergies or other necessary information. Before 2020, gathering that information would be done face-to-face in the office, but now, we do anything that we can, over the phone, to limit the patient's time in the clinic and thus exposure. While the chief complaint and any information to be included in the assessment and planning must be done the day of the visit, we're able to streamline the patient visit by reviewing their information ahead of time. When the patient comes in, they review the information the technician has collected and confirm that nothing has changed since the pre-visit call. This is particularly useful for triage as well, because it gives our technicians and doctors the opportunity to catch any issues that might require rerouting the patient or referring elsewhere before they even come into the office.

That call acts as a reminder for the patient of their upcoming appointment, and because it's more engaging than an email or a brief voicemail, they're more likely to keep their appointment. The technician also walks the patient through what to expect during the visit the following day, including our new office policies, shorter testing periods, and any other necessary reminders.

The current policy is "one patient, one room" as much as possible. With diagnostic testing, we have to bring the patients to the devices; however, outside of that we try to keep them in the same place as much as possible to cut down on exposure, cleaning time, and the amount of time each patient spends in the office. The major factors in our office hygiene are proper ventilation during diagnostic testing, disposable equipment such as Goldmann applanation tonometer tips, and cleaning rooms between each patient.

## Getting back to better: the future glaucoma workflow

Ultimately, the goal of every ophthalmology practice is to deliver the best care possible to our patients. When workflows are functioning, it can be easy to slide into the mentality of “good enough,” particularly if that workflow is contributing to practice growth. It can take an extraordinary event to bring to light the ways in which your operations could improve.

The improvements we made to our workflow in order to continue delivering top-quality care to our patients during and after the pandemic are

not temporary measures. We’ve introduced new efficiencies and processes that have made our workflows faster and simpler for patients, doctors, and staff. The upgrade to SITA Faster and the integration with Glaucoma Workplace have sped up diagnostic tests, improved patient education and increased ease of interpretation of data by the doctor affording more confidence in clinical decision making. Future innovations like portable equipment and teleconsulting will improve patient experience further. We’re not looking to return to normal—we’re going back to better.

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