For all their hard work to preserve and restore eyesight, ophthalmologists often reach the limits of what they can accomplish with standard treatment. As a result, countless patients with disorders like glaucoma, macular degeneration, and diabetic retinopathy must cope with permanent low vision—and few insights on how to improve their quality of life.

“Traditionally, physicians have been poorly trained in how to manage low vision in patients who have already been treated with medicine or surgery,” says Paul A. Sidoti, MD, Chair, Ophthalmology, New York Eye and Ear Infirmary of Mount Sinai (NYEE). “Since a large percentage of our patients come to us with complex eye problems, it’s important for our ophthalmologists to know what in-house resources are available, and when to plug low-vision patients into outside services like Lighthouse Guild and VISIONS.”

The centerpiece of that initiative at NYEE is the Low Vision Clinic. In February 2021, Leannza Tang, OD, became its first full-time director with the help of a grant from the Lavelle Fund for the Blind. She has been working tirelessly since, not only to offer assistance to visually impaired patients, but also to spread the word about the program to ophthalmologists, optometrists, and family practice physicians throughout the Mount Sinai Health System. “Low-vision rehabilitation is unfortunately a very underutilized service,” emphasizes Dr. Tang, “and much of that is due to the lack of awareness by both professionals and patients. Our goal is to help patients use their remaining vision to become as independent as possible in their everyday lives.”

NYEE ophthalmology residents are vital players in that campaign. Low-vision training is now embedded into their curriculum through lectures and practical experience with clinic patients. Specifically, trainees are introduced to the various low-vision devices available to patients, such as magnifiers, non-optical aids, and assistive technology. The success of this effort is reflected in the increase in referrals by residents to the Low Vision Clinic. By ramping up her communications efforts, Dr. Tang continues to increase low-vision referrals from other ophthalmic specialists at Mount Sinai and eye care providers in the tristate area. She has already expanded her service, splitting time between NYEE’s uptown faculty practice on 102nd Street and its downtown eye clinic and faculty practice on 14th Street. The latter site has also opened an optical shop that offers many low-vision aids to the public.

Low vision is generally characterized as 20/70 or worse acuity in the better-seeing eye, not correctible with standard glasses, contact lenses, medicines, or further surgery. “I like to explain to my patients that I’m more focused on their visual rehabilitation and how they’re functioning day to day,” explains Dr. Tang, who completed her low-vision rehabilitation residency at the State University of New York College of Optometry before joining NYEE. “I want to know if they’re having difficulty reading small print in newspapers and books or seeing things like street signs and bus numbers. Some glaucoma patients, because of their constricted peripheral vision, might have trouble walking around without tripping or have difficulty navigating stairs and curbs.”

Individuals are offered a range of traditional as well as exciting new technology-driven devices and applications. The former includes optical devices like handheld and stand magnifiers, which can enlarge print material. Nonoptical devices may include proper lighting through flexible-arm task lamps, reading stands (which bring written materials closer to the eye), absorptive sunglasses (which filter out bothersome glare), and reading or writing guides (to help individuals keep their place while reading or signing their name, for example).

Dr. Tang is also prepared to recommend the latest generation of smartphone apps being rolled out commercially for visually impaired people. For example, “text-to-speech” applications and screen readers can read text such as emails, web pages, and books aloud. Other smartphone apps can identify colors and currency, describe people and objects, and much more.

Beyond visual aids, the Low Vision Clinic is prepared to refer patients to experienced organizations in the city for mobility and functional training. “In cases where it doesn’t make sense for us to recreate what already exists, we connect them with organizations like Lighthouse Guild and VISIONS,” explains Dr. Sidoti. “We in effect broker these arrangements so that our patients are assured of getting specialized services best tailored to their needs.”

Helping Low-Vision Patients Lead Independent Lives

Dr. Tang demonstrating a monocular telescope device to a low-vision patient for distance viewing

“Our goal is to help patients use their remaining vision to become as independent as possible in their everyday lives.”

—Leannza Tang, OD

Dr. Tang demonstrating a monocular telescope device to a low-vision patient for distance viewing