New options with contact lenses

Gordon Wong OD, La Jolla, California, said he tells his patients that no matter what the package says, their eyes are the determining factor in how long they can keep the lenses in. If someone is experiencing dryness, redness or irritation, they need to take the lenses out.

Mr Wong noted that the main disadvantages of the new lenses are the higher cost, and the fact that they may not feel as comfortable initially as standard soft contact lenses.

Ms Sclafani said that single-use lenses have become a bit more popular in recent years, especially since the outbreaks of Fusarium and Acanthamoeba keratitis. Although it’s never been proven that single-use lenses can reduce the risk of infection, it seems logical to assume that they might.

Extended and continuous wear

There are currently two silicone hydrogel lenses available for 30-day continuous wear: Ciba’s Focus Night & Day and PureVision from Bausch & Lomb. Other models are available for seven-day extended wear, such as Ciba’s O 2 O ptix and Vistakon’s Acuvue O asys. Mr Wong said that all of the lenses are very good, and that each has its advantages. For example, the Focus Night & Day lens offers the highest oxygen transmissibility (DK/t), the PureVision lens is available in toric and multifocal models, and the O asys lens contains an internal wetting agent to help retain moisture in the lens. All of these lenses are available in a variety of powers.

“Ten years ago, we used to do corneal transplants in about 25 per cent of the patients with keratoconus; now it’s down to 15 per cent. We can keep these patients from requiring surgery, sometimes forever”

Louise Sclafani OD

In addition, Ciba makes a custom version of its O 2 O ptix lens, so that people with high myopia, high hyperopia, astigmatism, small corneas and flat corneas can wear silicone hydrogel lenses. An important use of custom silicone hydrogel lenses is in infants with aphakic eyes after surgery for congenital cataracts.

“We don’t put implants in a baby’s eyes, and our lens options before were very limited and very expensive,” Ms Sclafani said.

Now, with the custom hydrogel lenses, doctors have a practical and reasonably priced option for babies.

The ability to keep the lenses in for seven to 30 days is especially beneficial in infants because removing and inserting tiny lenses into a baby’s eyes is so difficult. Ms Sclafani said that she really appreciates the ease of handling and the ability to cause less trauma to the eyes. She also explained that continuous-wear lenses are uniquely suited for a baby’s eyes because babies sleep so much and never have dry eyes.

Torsics and multifocals

Ms Sclafani said that the availability of toric and multifocal silicone hydrogels is an important advance because it allows people with astigmatism get the benefits of more oxygen to the cornea. The availability of multifocal lenses means that people who have switched to silicone hydrogels don’t need to abandon them if they develop presbyopia and don’t want to wear reading glasses.

Ms Sclafani said that she still uses rigid gas permeable (RGP) lenses in about a third of her contact lens patients. These are good lenses to use in patients with keratoconus, those who have had corneal transplants, those with irregular astigmatism following refractive surgery or trauma, and those with corneal bulges or scars.

“Ten years ago, we used to do corneal transplants in about 25 per cent of the patients
with keratoconus; now it’s down to 15 per cent,” she said. “We can keep these patients from requiring surgery, sometimes forever,” she said.

Although RGPs have a reputation for being uncomfortable, Ms Sclafani said they’re just as comfortable as soft contact lenses when fit properly. She said that older RGPs were fit smaller than the cornea, but the newer models are larger and more comfortable.

Mr Wong said that about 15 to 20 per cent of his patients are using RGPs, usually if they have significant astigmatism or corneal irregularities.

“These are good lenses to use when soft lenses don’t meet a patient’s needs,” he said.

**Bandage contact lenses**

Silicone hydrogel lenses can be used as a bandage lens to protect the cornea. Any patient who has an epithelial defect or disease can benefit from a bandage contact lens, said Dr Donskikh. Candidates include people who have just had photorefractive surgery, those with a corneal abrasion or laceration, and those with exposure keratopathy from being unable to completely close the eyes. Treatment can last from several days to more than a month.

People who want to avoid the use of reading glasses can choose between multifocal lenses, monovision, and modified monovision. Ms Sclafani said she uses most multifocal patients in lenses with a concentric ring or aspheric design, which can be either soft or rigid. She is less likely to use translating bifocals, which have a distance zone at the top and a near zone at the bottom and are available only as rigid lenses.

“Translating lenses give sharper vision, but they’re a little thicker and not very comfortable,” said Mr Wong.

Although Ms Sclafani rarely uses contact lenses for true monovision, she often uses a modified monovision approach. The traditional approach is to correct the dominant eye for distance, and to put a multifocal lens in the non-dominant eye for intermediate and near vision. Mr Wong said that another approach is to put bifocals in both eyes, with one corrected more for distance and one corrected more for reading.

Ms Sclafani noted that hybrid lenses, which are rigid in the middle and soft on the outside, are also gaining some popularity. These lenses combine the comfort of a soft lens with the vision correction of a hard lens. Ms Sclafani has had some success with these lenses but does not fit them routinely.

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CONTACT lenses still have an important role in the continuum of vision care, which includes helping fine-tune results after cataract and refractive surgery and improving vision in those not considered candidates for other approaches. Eye care professionals have an increasing number of innovative contact lens options, including multifocal and toric designs, and new silicone hydrogel materials.

One of the most exciting advances is silicone hydrogel lenses, which have become increasingly popular since their introduction in the late 1990s. Because these lenses allow far more oxygen to reach the cornea than traditional hydrogels, they tend to produce less discomfort, irritation, dryness and redness. Some models can be worn continuously for up to 30 days.

“Doctors are really leaning towards fitting them routinely,” said Louise Sclafani OD, who is chair of the cornea and contact lens section of the American Optometric Association. She said that although early models could be uncomfortable, most patients find the newest models to be just as comfortable as traditional soft contact lenses. She estimated that she fits more than half of her new patients with silicone hydrogels.

Just because some silicone hydrogel lenses are approved for continuous wear, however, doesn’t mean that this is the best way to wear them. Gordon Wong OD, La Jolla, California, said he tells his patients to try to take their lenses out every day, even if the lenses are approved for continuous wear.

On the other hand, wearing silicone hydrogels means that napping or falling asleep in contact lenses is no longer a problem.

“People feel so guilty when they tell you they fell asleep with their contact lenses on, but if they’re silicone hydrogels, I tell them it is okay,” said Ms Sclafani.

She said that most people like to take their contact lenses out at night in order to give their eyes a break from the lens. Potential problems with extended-wear lenses include allergic reactions and infection.

People can develop a false sense of security with the extended-wear lenses, said Mr Wong. He said he always tells his patients that no matter what the package says, their eyes are the determining factor in how long they can keep the lenses in. If someone is experiencing dryness, redness or irritation, they need to take the lenses out.

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