

# Upgrading, uptaking and avoiding drop-out

Dr Ian Moss reviews the factors to consider when upgrading contact lens wearers to silicone hydrogel lenses

IN OTHER LIFESTYLE AREAS we are constantly being given the opportunity to try new services or new products. For example, the iPod has dramatically changed the way music is purchased, exchanged and listened to in the past few years. We may soon also be watching TV using our mobile phones.

Airline seats are a classic example of how travel has improved and developed, reflecting our desire to be more comfortable, have better service and reach our destination more relaxed (Figure 1). It could also be argued that improvements in seat design have reduced the health risks of air travel for some people.

For the benefit of using these new products and services, consumers are prepared to pay more, within reason, to feel comfortable or have a product that suits their lifestyle. With airline seats, the cost of upgrading to a better service may still be prohibitive other than for the select few. But new developments in contact lenses and silicone hydrogel (SiH) materials do not command such dramatic differences in retail cost. Why should upgrades not be offered to all our patients and not just the chosen few?

This article will explore the opportunities to upgrade all categories of patient into new lens technology and benefit from this exciting phase in contact lens development.

## MARKET TRENDS

The trend towards increased prescribing of SiH lens types in the UK has been well documented over recent years.<sup>1</sup>

The manufacturers of the 'first generation' silicone hydrogels (Figure 2) can be congratulated for the drive towards enhanced ocular health and oxygen performance. Extended wear (EW) was predicted to be the modality of the future, described as, 'An opportunity for semi-permanent vision correction; an option



FIGURE 1. Upgrading comfort and technology in the airline industry is common place



instead of refractive surgery'.

However, the availability of these first-generation lenses has not substantially increased the proportion of people wearing contact lenses in the UK, which – at below 10 per cent<sup>2</sup> – remains low compared to other countries. Until 2004, any increased prescribing rate for SiH fits was being driven mainly by upgrading existing contact lens wearers.

Over the past two years, the fitting of these lens types on an EW modality has grown steadily but is now being outpaced by daily wear (DW).<sup>1</sup> In fact, EW prescribing may even be reaching a plateau.<sup>3</sup> What must be true, however, is that patients wearing SiH lenses have the advantage of improved corneal physiology and other benefits compared to their previous lenses,<sup>4-7</sup> although there are other reported disadvantages (Table 1).<sup>8-11</sup>

## EARLY STRATEGIES

Six years on from the introduction of SiH lenses, fitting strategies have changed. Historically, using first-generation materials marketed for EW, there was an opportunity to upgrade existing daily wearers to a more oxygen-permeable material but also to offer increased conven-

ience. However, the limited growth of this modality has been attributed to the practitioner's fear of fitting EW.<sup>11</sup> For new wearers, EW was often not recommended as 'first choice' since a period of trouble-free daily wear was essential first.

A variety of other fitting scenarios were adopted in practice for existing wearers; sometimes SiH lenses were seen as 'problem solving' lenses and were offered to patients who had tried everything else. For a proportion of these problem wearers, satisfaction increased but some were still not satisfied due to comfort issues.<sup>12</sup> For some practitioners, SiH lenses were seen not as a mainstream product but more as a premium offering at a premium price. Others rapidly switched large numbers of wearers to these lens types and a daily wear modality, on the basis of oxygen benefits. Commonly however, unless hypoxic signs were evident, SiHs were not discussed as readily if DW was still the modality preferred by the practitioner and patient.

It is clear that for existing soft lens wearers, there was no clear strategy for using SiH lenses and they were still not considered to be 'first choice' or mainstream products. Also, the increased rigidity/stiffness of these materials, and the potential impact on comfort, may

TABLE 1. Features of first generation silicone hydrogel lenses

Advantages	Disadvantages
Oxygen performance EW option Whiter eyes Reduced myopic shift	Comfort issues – rigidity/stiffness Concerns about complication rates with EW Perceived premium lens/price? Perceived 'problem solving' only lens?

not help resolve the issue of contact lens drop-outs and may even contribute to the problem.

### CURRENT APPROACH

Improvements in SiH materials have led to the introduction of second-generation products: Acuvue Advance, Acuvue Oasys and Acuvue Advance for Astigmatism (Johnson and Johnson), O<sub>2</sub> Optix (CIBA Vision) (Figure 3) and a selection of others to follow, such as Biofinity (CooperVision) and O<sub>2</sub> Optix Toric (CIBA Vision), all primarily for DW wear, some allowing 'flexi-wear' or EW.

Trends in prescribing for 2006 are likely to demonstrate a further increase in the use of SiH products. Whether these new products will increase the total number of contact lens wearers in the UK remains to be seen, but the improved comfort and better ocular health provided by the latest materials is a hugely positive step to offer to patients requiring vision correction. Given the recent introduction of so-called moisture-rich daily disposable lenses, there has never been a better time to offer contact lenses that are comfortable more of the time. This is surely an opportunity not to be missed for your practice.

There must be a clear change in your strategic thinking towards contact lens fitting and acceptance that these second-generation SiH lenses have to become

your 'first choice' fit compared to hydrogel lenses when worn on a daily wear basis. This is further helped by the expanding range of parameters and fitting options and will undoubtedly bring about the demise of hydrogel materials as we know them for the reusable sector.

I would suggest that in 2006-2007 the majority of re-usable lens wearers should have been given the opportunity to try a



FIGURE 2. First-generation silicone hydrogels

SiH product, assuming prescription and parameter ranges are available. Indeed the recent announcements that SofLens 66 (Bausch & Lomb) and Surevue (Johnson & Johnson) are to be discontinued suggest the start of an ongoing trend.

The use of conventional hydrogel materials for daily disposable wear will still remain strong until the introduction of daily disposable silicone hydrogel lenses.

### TARGET GROUPS

With the present options of products it is important to look again at your contact lens fitting strategies – which is in the best interests of your patient base and, ultimately, your business. Broadly speaking the ability to offer new products is aimed at three key groups:

- ◆ New wearers
- ◆ Existing wearers (refits)
- ◆ Lapsed wearers.

### New wearers

The penetration of contact lenses in the UK has grown in recent years but, as we have seen, remains relatively low compared to other countries. Why is this? Are contact lenses still perceived to be uncomfortable? Do they dry out? Are they considered not to be healthy for the eyes? Are they not proactively recommended?

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With these alternative products, these questions can be answered easily and more positively than ever before.

Time has to be spent re-educating your patient via your personal professional recommendation and well trained staff. The ultimate challenge to you as practitioner is to give the patient the opportunity to trial contact lenses and experience the benefits. The added advantage with a new wearer is they have no preconceptions about comfort so these new SiH lenses should be even easier to adapt to.

The eye examination has been shown to be paramount in educating patients about contact lenses and new technology; this is still the key driver for contact lens trial and is still the best way of generating new wearers.

From a marketing perspective, further use of your patient database is essential.<sup>13</sup> The database gives the ability to discuss personally, send a contact lens focused newsletter or a personalised letter to individuals who have a suitable prescription, discussing the benefits of contact lens wear and the improved technology. The health benefits of these new lenses also mean that younger patients can be fitted at an earlier age than before. The fact that these lenses are generally more comfortable and easier to adapt to means less chair time and potentially less follow-up than with previous generations of lenses.

There is no doubt that, where a prescription is suitable, SiH lenses should be fitted as first choice for new wearers.

### Existing wearers

Any existing wearer has three potentials:

- ◆ To be happy
- ◆ To go elsewhere
- ◆ To become a lapsed wearer.

Happy wearers have healthy eyes and a comfortable wearing experience but also talk about their positive experiences of vision correction and of you personally. Careful questioning and history and symptoms are paramount in determining whether the patient is completely satisfied with their lenses. For example, asking about end of day comfort and vision will perhaps give more information than the question, 'Is everything OK?' From the clinical perspective, signs of hypoxic change, limbal redness or myopic shift will identify the need to offer an 'upgrade'.

Any suspicion of dissatisfaction from you or the patient will give you the opportunity to offer new products and technological advances. This should then be followed by the offer to 'try, see and feel', having explained the clinical benefits. The patient then feels part of the process and is better informed.

My current philosophy is to discuss these new lens materials with everybody



FIGURE 3. Examples of second-generation silicone hydrogels

where the parameters allow, and to offer the opportunity to trial. Even if the parameters are not currently available, indicate that at some point in the future there may be an opportunity to upgrade. This gives the patient knowledge and the feeling that they are not isolated or forgotten because their prescription is 'too strong' or 'special'.

The key messages to convey are increased comfort at the end of the day, better oxygen to the eye and better long-term eye health. As with any lens, silicone hydrogels do not suit all eyes but the opportunity to try them still exists.

Failure to keep the patient informed or removing the ability to 'try and see' may result in the patient going elsewhere or dropping out. Not only is this bad for your reputation but it is also bad for your business.

As a practitioner, the key benefit you have is you. A regular visit to 'you' the practitioner is a huge strength compared to any mail order or internet company supplying contact lenses. A patient purchasing professional care and goods from you, benefits from your advice and service instead of contact lenses being treated as a commodity. It also discourages the attitude that 'all contact lenses are the same'.

Any patient currently wearing low Dk hydrogel lenses for EW must be strongly advised to switch to a SiH lens.

Once the decision to refit a patient has been taken there are a number of clinical and practical issues to be considered.

### Changes in fitting relationship

When refitting with SiH lenses, your clinical routine should include the following:

- ◆ Slit-lamp examination to assess the lens-cornea relationship with fluorescein
- ◆ Careful topography or keratometry
- ◆ Careful refraction, particularly for high prescriptions.

SiH lenses do not all fit in the same way. Fitting variations are as a result of the design of the lens but also its modulus of elasticity. Incorrect fitting will affect the comfort of the lens.<sup>14</sup> Observation of lens fit, including use of the push-up test, is therefore important. Over a number of months, some patients experience an alteration in prescription as a result of increased oxygen supply to the cornea and increased stiffness across the diameter of the lens compared to conventional hydrogels.

Changes in contact lens power are often good news for a myope – since the prescription sometimes reduces (ie less minus) but in a hyperope, the prescription may increase. For someone who is a borderline presbyope this can have potential implications on their visual situation and lifestyle.

### Changes in lens handling

Patients need to be informed that their new lenses may handle in a different way to their current hydrogel lenses. Communicating this to the patient beforehand overcomes further queries and extra chair time later. Handling differences are certainly apparent for Acuvue Advance for Astigmatism which may have a tendency to fold in the packaging. This 'taco' like effect does, however, help to decide whether the lens is inside out and importantly does not seem to be an issue when the lens is placed on the eye.

### Lens hygiene and solutions

Since all current SiH lenses are reusable, it is important that the materials are deposit resistant; deposition would require frequent lens removal for cleaning, affecting comfort, vision and

patient satisfaction.

To date, the degree of in-eye biocompatibility achieved with the array of new SiH materials has received relatively little attention. Initial studies demonstrate that protein deposition on some of these materials is less than that seen with conventional materials but that lipid deposition can be a problem for certain patients.<sup>15</sup>

The interaction of SiH material and the lens care solution is also largely unknown. This relationship has a potential impact on patient comfort, patient retention and ultimately the success of your practice. Modern care regimens are typically marketed as 'no-rub', where lenses are merely removed from the eye and placed in the solution overnight, thus optimising convenience for the patient. Unfortunately, these solutions were initially developed for conventional hydrogel rather than SiH materials, which have different effects on the tear film. Any increased lipid deposition will decrease the wettability of the lens surface and may result in dryness symptoms and visual dissatisfaction, particularly at the end of the day.

In patients who are primarily using their lenses on an overnight basis, periodic removal and rubbing and rinsing of the lens will often improve lens comfort and overall acceptance of the lenses.

For those using a DW regime, the compatibility of care regimens with the SiH materials has recently come under scrutiny due to the increased incidence of asymptomatic corneal staining.<sup>16-19</sup> Although these clinical signs can be relatively short lived,<sup>18,19</sup> thorough slit-lamp observation with fluorescein is essential, particularly in the early part of the day, even if the patient does not complain of discomfort.

In general, patients switched from conventional hydrogel materials to DW SiH lenses would normally continue with their previous care solutions. If a patient were then to exhibit solution-type sensitivity, both the practitioner and patient might be tempted to blame the lens material, since this is the only factor to have changed.

However, it may not be the lens material that is causing the problem but the relationship between the material and care regimen; if a different solution

were used with the same lens the signs may disappear. Examination of the cornea 1-2 weeks later should ensure that the problem has been overcome with the new combination. Some authors have advocated retaining the 'rub' step to maintain a clean SiH lens.<sup>20</sup>

With the current supply of products, it seems there is a mismatch in compatibility between solution and lens technology. Over the next few years this situation may change and a different range of solutions will be recommended, depending on the contact lens material prescribed. Renu MoistureLoc (B&L) and Opti-Free RepleniSH (Alcon), recently launched in the US, are examples of new generation of lens care products. The efficacy of any given solution may also depend on whether the SiH lens is surface treated or not.<sup>21</sup>

### Lapsed wearers

Factors contributing to the decision to stop wearing hydrogel contact lenses include comfort and end-of-day dryness, visual and general dissatisfaction, or the lenses not meeting expectations.<sup>22,23</sup> The drop-out rate from first-generation SiH lenses due to comfort, mechanical or inflammatory factors remains unclear.

The improvements of the second-generation SiH lens types must surely have a positive effect on reducing drop-out, given the better comfort and less material stiffness.

However, lens care hygiene, solution type and inclusion or omission of the 'rub' stage remain unknown factors in the incidence of drop-out with SiH lenses.

Other factors, such as mechanical and inflammatory issues, which contribute to the reported disadvantages of first-generation SiH lenses, need further investigation. However, one would expect drop-out due to these factors to be no worse and probably better than with conventional DW hydrogels.

Reducing drop-out or preventing it from happening in the first place will grow your contact lens base and increase turnover and profitability. The incidence of drop-outs with any silicone hydrogel lens requires evaluation over a period of time once sufficient numbers of wearers are using the lens type.

### DISCUSSION

With the knowledge that silicone hydrogel lenses can be fitted easily and comfortably, it would be remiss of any practitioner not to adopt a strategy of offering them to existing, new and lapsed wearers.

Ask yourself what contact lens fitting is really all about. It is about our patients: how they see, how they look, and how they feel. Our patients want lenses that perform well and that remain comfortable for as long as they wish to wear them. Comfort hangs in a very precarious balance, as does the motivation to wear contact lenses; when the scales tip towards discomfort, our patients become dissatisfied and frustrated.

These new products should not be seen as more expensive,<sup>24</sup> too premium or for the few. They are for everybody. The benefit of better products is that they are generally more problem-free for the patient, which should mean fewer additional unplanned visits and long-term retention of the patient, resulting in more profit for your practice.

In addition, your patients will be impressed that you have proactively suggested the latest and greatest lens, so they will continue to visit you for professional care and services.

Using a professional fee-based pricing structure will allow you to upgrade products with very little difference in costs to the patient.<sup>25</sup> Start with the premium option as 'first choice'.<sup>26</sup>

As new designs of SiH lenses become available, such as presbyopic and daily options, the emphasis of our fitting strategies may change again. Less energy and time will be spent refitting and managing drop-outs, since a larger proportion of wearers will be satisfied with their contact lenses.

The focus can then be drawn towards attracting new wearers, with a clear strategy of using premium products for all our patients and not just the chosen few.

### References

Available at : [www.opticianonline.net](http://www.opticianonline.net)

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