



New vision for presbyopia

Ask eye care practitioners which new lens is top of their wish list and invariably the answer includes a silicone hydrogel (SiH) daily disposable multifocal. This should come as no surprise in view of the fact that daily disposable modality along with SiH material represent the biggest growth areas in contact lenses today¹ and given the ageing UK population² the interest in keeping our presbyopic contact lens wearers in lenses for longer is an ever-increasing aspiration of both practitioner and wearer. However, when patients reach their mid-40s while the number of spectacle wearers increases sharply the contact lens drop-out rate also increases dramatically. In fact the presbyopic age group shows the highest patient dropout from contact lenses of any age.³

Innovation has been the key to driving contact lens growth in the UK (Figure 1) and, with the significant improvement in lens design and material, multifocal fitting is growing. However, until now, despite its popularity the daily disposable modality has been relatively under-represented in terms of multifocal, with the hydrogel Focus Dailies Progressive being the only daily disposable multifocal on the market.

In April Sauflon launched clariti 1day multifocal, the world's first SiH daily disposable multifocal; closing the gap between consumer/practitioner desire and product choice. Along with the clariti 1day sphere and 1day toric, clariti 1day multifocal makes this the world's first complete SiH daily disposable family.

The benefits of SiH are well documented with health and comfort being among the most important and the current fitting trends indicate that SiH is now accepted as the industry gold standard in contact lens materials. The benefits of the daily disposable modality are also well accepted with current fitting trends showing 45 per cent of new fits are now in a daily disposable modality,² with all the advantages of increased convenience, hygiene and comfort (Figure 2).

Clariti 1day multifocal

The development and unique properties of the clariti material have been discussed elsewhere in detail in relation

As Sauflon launches a one-day silicone hydrogel lens for presbyopia, **Sue Cockayne** describes the design and properties of the clariti 1day multifocal, the world's first SiH daily disposable lens for presbyopia

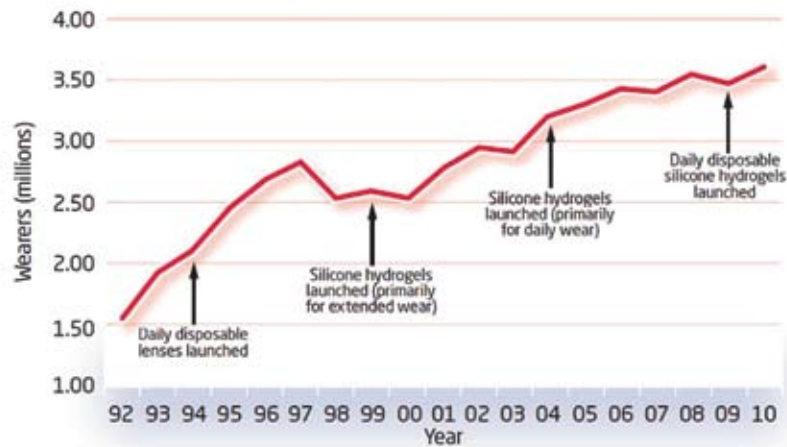


Figure 1 Number of contact lens wearers in the UK, and key market innovations

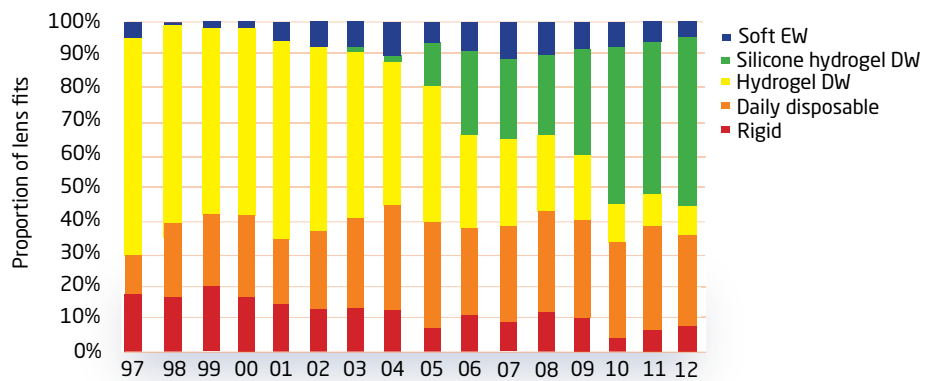


Figure 2 Overall fits by material (1997-2012) Eurolens Research, University of Manchester

to the clariti daily disposable sphere and toric⁴ and this paper reviews the properties, design and clinical performance of this newly launched clariti 1day multifocal. Incorporating the patented AquaGen technology, clariti balances a Dk/t of 86 delivering up to 97 per cent corneal oxygenation, with a low modulus of 0.5 mpa (being among the softest of SiH materials) and a high water content of 56 per cent for enhanced biocompatibility. All clariti lenses have UVA and UVB filters, giving added protection against ultra violet rays. The characteristic properties of this low modulus add high water content lens, allow for easier upgrade

for the hydrogel wearer, an important consideration when introducing wearers to new lenses.

The ageing eye presents several challenges to contact lens wear in terms of comfort, vision and physiology. The right balance of health, comfort and biocompatibility becomes especially important.

Endothelial changes with age mean corneas may become less able to tolerate oxygen deprivation therefore a high Dk/t material becomes increasingly important to maintain wearing times. Tear films tend to degrade with age and eyes become drier. Research suggests that SiH material gives



Contact Lens Monthly

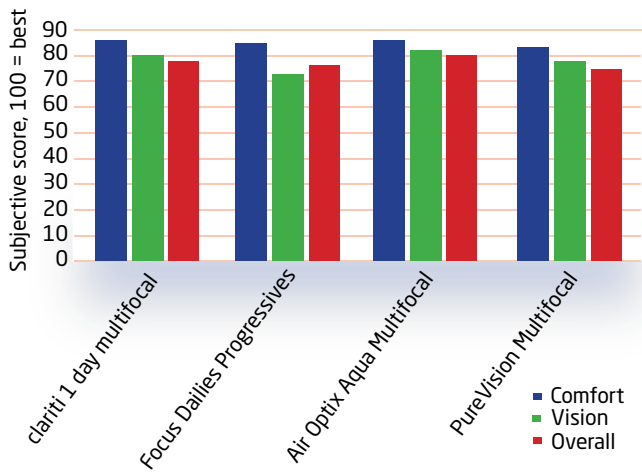


Figure 3 Subjective comfort and vision scores at dispensing

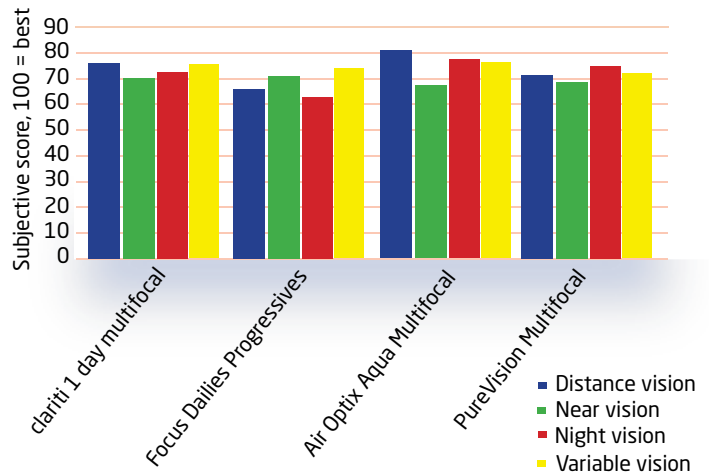


Figure 4 Visual performance for distance, near and night conditions at follow-up

improved comfort and helps prevent early drop out due to reduced wearing times.⁵ SiH is an ideal choice, along with the daily disposable modality for minimising some of these challenges faced by the maturing contact lens wearer. Clariti 1day multifocal with its optimal balance of properties delivers a long-awaited lens for presbyopes, widening the choice available to the practitioner and helping to reduce the significant drop-out from lens wear as mid life approaches. This is of particular importance to those wearers already benefiting from a SiH daily disposable who on reaching presbyopia will in the past have been forced to make a choice between material or modality if they wanted to remain independent of near vision spectacles.

Design

Clariti 1day multifocal is a simultaneous centre near design. It has a fully progressive intermediate power zone allowing clear, uninterrupted vision through near, intermediate and far distances. As with all multifocal lenses, good centration and a stable fit is very important and the aspheric back surface periphery ensures good fit and stabilisation. With low and high add powers and a comprehensive power range, clariti 1 day multifocal will suit a wide range of presbyopes. Clariti 1day multifocal is supported by a simple four-step fitting guide designed for minimal chair time and an enhanced patient and practitioner fitting experience.

Clinical trials and performance

To assess the performance of the clariti 1day multifocal lens a study was conducted by an independent clinical research group⁶ comparing the performance of Sauflon's new SiH,

daily disposable multifocal contact lens, to three established multifocal contact lenses: Focus Dailies Progressives and AirOptix Aqua Multifocal (both CIBA Vision), and PureVision Multifocal (Bausch+Lomb). In this study the latter two lenses were worn as per their recommended monthly disposable modality.

As the performance of the clariti SiH material is already well established,⁴ for the purposes of this paper we present a summary of comfort and vision scores for this new addition to the clariti 1day family. Figure 3 shows a summary of overall comfort and vision at dispensing while Figure 4 shows visual performance for distance, near and night conditions at follow-up. Figure 3 shows that the comfort of clariti 1day multifocal exceeded that of the three other test products. This is a clear indication that clariti 1day multifocal will be an easy upgrade for the presbyope who may be wearing either a hydrogel or SiH material. Figure 4 shows the visual performance of clariti 1day multifocal which again compares well with the three other products in the trial, outperforming PureVision

and Focus Dailies Progressive on all visual conditions shown apart from the near vision of Focus Dailies Progressive which not surprisingly favours near vision over distance due to its design with a high centre near addition. Clariti 1day multifocal also compares favourably in all areas against Air Optix Aqua Multifocal, which is a well-established reusable SiH multifocal.

These clinical results give a clear indication that clariti 1day multifocal will be an extremely valuable addition to the multifocal lens portfolio and stands up against the current multifocal market leaders in terms of comfort, health and vision. With the additional convenience and compliance benefits of the daily disposable modality, Sauflon is confident that clariti 1day multifocal will address many of the current barriers practitioners face to multifocal contact lens fitting. Clariti 1day multifocal provides new opportunities for eye care professionals to keep existing patients in contact lenses for longer, while attracting the non-contact lens wearing emerging presbyope with the convenience and flexibility of daily disposable multifocal contact lenses. ●

PRODUCT SPECIFICATIONS

Material	Filcon II 3
Water content	56%
Base curve	8.60mm
Diameter	14.1mm
Power range	+5.00 to -6.00 (0.25DS steps)
Additions	Low: up to +2.25D High: +2.25D to +3.00D*
Centre thickness (@ -3.00DS)	0.07mm
Dk/t (@ -3.00DS)	86
Modulus	0.5MPa
	*refer to manufacturer fitting guide

References

- 1 Eurolens Research, University of Manchester.
- 2 UK National Statistics Authority.
- 3 Mintel Optical Goods and Eye Care report 2006.
- 4 Griffiths H. A new silicone hydrogel daily disposable lens. *Optician*, 2009; 238 (6227)16-19.
- 5 C Riley et al. *Eye Contact Lens*, 2006; 32;6: 281-286.
- 6 Data on file.

● Sue Cockayne is global professional services manager for Sauflon