



Free to view - the PSL Classic

Bill Harvey is impressed by the ease of use and the quality of the image of a new handheld slit lamp. He tries it out on a range of patients and even manages a Volk lens view

There are a number of occasions in practice where a handheld slit lamp is essential. Domiciliary assessments are on the increase, and rightly so when one considers the great numbers of housebound patients unable to access adequate eye care. Historically, a good and accurate assessment of the anterior eye and adnexa has been part of the home visit that has been difficult to achieve. This is very frustrating as a slit lamp is exactly what is needed to carry out a whole range of procedures on the sorts of patients likely to be housebound.

Domiciliary demands

Viewing the retina through cataract is best done with an indirect ophthalmoscopy. If a patient has an established cataract which you decide not to refer, then it is important to monitor any changes in anterior chamber depth over time that may indicate the sort of intumescence leading to an angle closure. Many elderly and infirm have dry eye as well as lid and skin concerns. All of these scenarios are best managed via a slit lamp examination.

Little and large

The difficulties of assessing the very young on a slit lamp are clearly shown



Figure 1 Desk-mounted units can sometimes be a challenge

in Figure 1. Desk-mounted units are a challenge for the physically small but are equally difficult for those patients of a more portly demeanour. Prior to the introduction of the camera-based screening of diabetics, I used to undertake dilated Volk assessments. There were many occasions where the slit lamp could not be swivelled around into position such that the patient of ample upper body proportion could put their head on the rest, ready for assessment. In a few cases the test had to be curtailed. Explaining the situation was embarrassing on at least one occasion I recall. A handheld slit lamp would have been a boon.

Busy practice

The possibility of having a portable slit lamp that could be used in the waiting room, pre-screening area or in between consulting rooms in a large busy community practice would be, in my view, a benefit and enable you to cope with emergencies, mobility challenges and make second assessments in a fully booked clinic schedule possible.

The Keeler PSL Classic

Keeler has just launched a new handheld slit lamp which is already being adopted in some paediatric clinics. I took one out on the road to put it through its paces. The unit itself is lightweight, at just 900g, and comes in a robust carry case (Figure 2). It has a base unit charger which allows the battery to operate for 50 minutes of continual use. I was able to use the unit for a full day with intermittent slit lamp use and the charge lasted for the duration.

The eyepieces are fully focusable and the PD adjustable just as with any slit-lamp device. There is a choice of 10X and 16X magnification. The eyepieces may be focused easily as through each there is a small triangular marker. Once this is in focus in each eyepiece, the instrument is ready to use.



Figure 2 The PSL Classic is lightweight, at just 900g, and comes in a robust carry case



Figure 3 LED fixation lights



Figure 4 Figures on the trigger - the thumb operates the rheostat



Figure 5 Steadying the view



Figure 6 The instrument can be used inverted



Figure 7 An arm across the patient can be used as a rest

A small trigger on the unit is pressed to activate the lamp. If this is pressed twice, two LED fixation lights appear (Figure 3). I found this useful when examining smaller children. There is a small wheel controlling the rheostat which is easily operated by the thumb while the fingers hold the operating trigger (Figure 4).

The light unit holds two wheels. The upper controls the slit width (no knobs on this instrument) and allows widths of 0.15mm, 0.5mm, 0.8mm and 1.6mm. There is a small 1mm by 1mm square which is perfect for the assessment of the anterior chamber for cells and flare. There is also a full aperture 12mm diameter circle of light for more general viewing.

The second wheel has the filters and the usual cobalt blue, red free, 0.8 neutral density and clear filters are all present and correct.

In action

Use of the instrument, particularly familiarisation with the controls, was simplicity itself. I like the ease of focusing the eyepieces, the pre-set slit settings, and the quality of the image gained through the optics once everything is in the right position. The



Figure 8 The patient's arm can also help steady the unit

trick with any portable instrument is to keep it steady and only then is a useful view achieved. I assessed a number of younger children and found that a steady enough view was achieved merely by placing the other hand on the patient's head and then moving the instrument to steady against that arm (Figure 5). The manufacturer recommends that for the very young (and for animals!) it is useful to use the unit inverted, as I attempted in Figure 6. This was easy but I was happier with my initial steadying tactic.

There are two further options

I might recommend, particularly for prolonged viewing of a patient. Firstly, if the practitioner reaches across the patient, it is possible to use this arm as a rest for the slit lamp held in the other (Figure 7). This was very useful for longer assessments. The patient must always be warned, however, as this is a very 'tactile' procedure.

Even more invasive of the personal space is the stance I found best for Volk lens viewing. It is perfectly possible to see both the disc and the macula with a Volk using a handheld slit lamp of this quality, even in an undilated patient. The problem, as always, is steadying everything. I found that by getting the patient to put his hand on my shoulder I could adjust positions to use his arm as the steadying surface, allowing a good solid prolonged view (Figure 8). This may not be for all patients!

This is a very useful instrument with high quality optics that I would recommend both for domiciliary and paediatric use, and for busy clinic use.

● Thanks to Keeler for loan of the PSL Classic. For more details phone 01236 721214 or go to www.keeler.co.uk