



# Upgrade for a familiar friend

**Ngairé Franklin** tries out the Mark 3 Perkins tonometer which has several improvements over its predecessors

**C**lement Clarke International has introduced a new version of the Perkins hand-held tonometer and I was recently given the opportunity to use the Mark 3 version for a few weeks. I have always found the Perkins tonometer a very useful piece of kit either as a stand-alone tonometer or as an adjunct to non-contact tonometers. My experience is also that there are a number of patients who find this method of tonometry far less stressful than undergoing either non-contact tonometry or conventional Goldmann tonometry. I will also admit to having a preference for the original Mark 1 version which I think is easier to manipulate than the Mark 2.

I work in a busy practice situated in a large retail shopping centre which has easy access for disabled patients, a result of which is that we see quite a lot of wheelchair bound patients and patients with generally reduced mobility. I and three of my colleagues are accredited for LOCSU Glaucoma level 1 and level 2 so are able to participate in a local monitoring scheme. Obviously Goldmann applanation tonometry is the first choice method when there is either a query about IOP or we are seeing patients included in the monitoring scheme, but our Perkins gets regular use given the numbers of disabled patients we see.

### The Mark 3

The new Perkins comes neatly packaged in its own little lightweight 'briefcase' which has a handle, altogether a very useful improvement on the previous box containers. The tonometer sits very securely in dense protective foam packaging with a charger, the prism calibration support and weights. There is an opening cut into the upper lid packing which can be used to store disposable tonometer heads, anaesthetic and Fluorets. The only downside to the packing was



The new Perkins comes neatly packaged in its own lightweight 'briefcase'

when I attempted to remove the weights. I succeeded in pushing them to the base of the case and finally managed to retrieve them using the spiky tweezers from the dissection kit I used at university.

Having a rechargeable handle is very useful and gives this model serious green credentials. The charged batteries did not need recharging over the entire three-week period of use. I checked measurements on eight patients during this period. The charging unit needs to be disconnected from the tonometer before use, something I discovered by trial and error (I'm not known for reading instruction manuals and, besides, if you've used the previous models then most things are easy enough to work out). A word of warning – if the batteries had completely discharged there would be a short delay while waiting for the batteries to charge. Given the number of times when using the other models that I've been in a situation where someone has had to go out to buy new batteries I cannot really see a downside to the charging unit.

Placing the tonometer prism into

the instrument is easier than in the previous models. There are two buttons on the body of the instrument either side of the cone holder. When these are pressed inwards, the cone holder is stabilised, facilitating insertion of the prism.

### Taking a reading

When taking measurements, there is the option of using the adjustable head rest which is the same as the earlier models. I have never used the head rest so just have it retracted completely back.

The end point measurement of applanation is much easier to assess even using disposable 'Tonoheads'. This is because the light source which is provided by two bright blue LED lights makes the fluorescein rings very easy to visualise.

The body of the tonometer is very comfortable to hold and has a robust quality which has perhaps been lacking in the previous versions. The unobtrusive light grey colour would I think be acceptable to most practitioners and should not look scary to patients. The pressure measurement wheel is as easy to use and looks the same as those used in the previous models.

Calibrating the instrument is basically the same as for the previous models. There is a small plastic holder into which the head of the instrument fits neatly. I have to say it would probably be quite easy to lose this holder so I would suggest it needs to be replaced in the case immediately after use.

The 2g and 5g weights provided fit onto the top of the prism. I personally use the Goldmann prism provided for calibration purposes and as previously noted this process is made easier by the cone holder stabilising buttons. What is not so easy is rotating the measurement wheel when the tonometer is lying in a horizontal position. There is not much space between the wheel and the surface below. Small skinny fingers are a definite advantage to do this.

This small problem aside, I would highly recommend this updated Perkins tonometer to anyone thinking about purchasing a hand-held tonometer. ●

● Optometrist **Ngairé Franklin** practices in the South West