Professor J Margaret Woodhouse of Cardiff University states categorically in her lecture ‘Assessment of Refractive Error and Prescribing for Children’ (WOPEC 2018) that unless proficient in retinoscopy optometrists should NOT test children.

Professor Woodhouse, in the same lecture, further stresses Auto-refractors have no place in the assessment of children.

This represents a significant rebuttal of the increasing practice, particularly in larger companies, of relying on Auto-refractors to quickly assess a patient’s refractive status.
Retinoscopy is used to determine refractive error in children or in individuals whose behaviour limits the ability to be cooperative with a subjective refraction. Retinoscopy is also a check for the subjective refraction. Further, it is a vital diagnostic tool for certain corneal conditions.

However, while this is a really important skill it has little WOW factor with patients. Auto-refractors on the other hand look impressive but in reality are simply employed to speed up the test rate so more patients can be seen and more revenue generated. Auto-Refractors certainly do not fulfil the clinical requirements of a thorough examination, particularly for children.

Retinoscopy is a vital Diagnostic instrument, not just a refractive aid. Not only are Auto-refractors less accurate than retinoscopy they cannot identify Keratoconus and other corneal ectasias, nor do they identify accommodative spasm, accommodative lag or latent hyperopia (hidden long sightedness).

Why should a patient value our skills if we don’t explain? Just another light while large companies have a big impressive machine! As a profession we must never just Do Retinoscopy! We need to Educate, Educate, Educate ensuring patients value our clinical skills not simply ‘bling’.

Retinoscopy is included in the time line of our The Aaron Challenge Fact Sheet as well our ‘Home Truths’ powerpoint. Click on the images below to go to our Aaron Fact Sheet or Powerpoint.

Many companies want to speed up testing. It is not unusual for optometrists to be expected to do 20 minute ‘Sight Tests’ as opposed to our 40 minute ‘Eye Exams’. Auto-refractors look impressive while actually achieving less than a retinoscope.

We have found several instances of increasing astigmatism repeatedly prescribed elsewhere when the child needed referral for Riboflavin Crosslinking for developing Keratoconus (click on the image below to go to our Keratoconus Leaflet).
Auto-refractors also over minus (because the patient is focusing at a near target their true distance prescription is misread by the machine). If the ‘Refracting Optician’ doesn’t do other checks as simple as recording unaided vision then mistakes will happen.

This is a True Example:

We had a new patient who, when we checked unaided vision before commencing the refraction saw 6/6 (20/20) on the chart. This immediately indicates an insignificant spectacle prescription! We were happy to give her the encouraging news she was legal for driving without spectacles. At this point the patient explained to us her previous, high speed, optician had told her she had to wear spectacles and was absolutely illegal to drive without!

When we checked, her spectacles were

R -1.00 DS
L -1.00 DS

If this power was correct for her, she would certainly need to wear correction for driving BUT unaided vision would be much poorer, in the region of 6/19 rather than 6/6!

How could this have happened? Obviously the optician did not check unaided vision, Auto-refracted, did not do Retinoscopy or blur back to check accuracy and then sold spectacles – how do these groups get away with this service!

We must:

EDUCATE EDUCATE EDUCATE ..........remember..........................

We must explain as we go so the patient can value our skills.
‘With this light I am calculating your child’s prescription without them having any say in it’. ‘This test also assesses for a rare condition called Keratoconus. This is treatable but it must be looked for. We routinely assess all young people’.

If we are suspicious we can also use a topographer which maps in 3D the corneal shape.

Scout 3D Corneal Topographer.
Aarons is the only practice in Northumberland with this technology.

Also see our Keratoconus Leaflet (click on Scout image to access the Keratoconus Leaflet)

Keratoconus is also mentioned in our Children’s Leaflet (click on image to access).

Eye Examinations and Spectacles for Children and Young Adults

The Eye Examination via any optometrist
All children, under 16 and everyone under 19, and still in full time education, are entitled to sight tests funded by the government. There is no limit to the number of sight tests each child can have per year, as long as there is a clinical need for each examination.

TIME: Technical Sight Tests vs Clinical Eye Exams
A clinically thorough Eye Exam must include TIME to explain. Parents should be fully informed of all our procedures and why they are carried out. Time must be spent to clarify any concerns you have about your child’s sight.

What is Long sightedness (hyperopia)? Do You understand myopia (short sight), its progression and how it can now be controlled? Astigmatism and lazy eyes (ambyopia) are yet more mysteries we must explain when appropriate. When and how should the glasses be worn and why? Why can some spectacles be difficult to get used to and others don’t seem to make a lot of visual difference? We can not expect parents or young people to be compliant with a procedure if not explained.

Advanced tests, routine at Aarons
Keratoconus (KC) is a little recognised eye condition causing the cornea to distort. Importantly there is now treatment to STOP KC progressing. Results are best when the problem is detected at the earliest stage, ideally before the patient is aware. Detection is only possible with Retinoscopes and Corneal Topographers, expensive technology not part on an NHS eye exam. At Aarons we have made Corneal Topography available as a screening process for all young people. Usually costing £25.00 is now offered FREE. No other optometrists in the area offer this screening service.

The Aaron Policy on Children’s Spectacles
If a child requires spectacles the government supplies a voucher toward the cost. We believe ALL children should be able to go to school with a modern, trendy frame they will not be embarrassed to wear. It is vital children are happy with their frames and will wear them. For this reason we have a large range of plastic and metal frames supplied FREE with this voucher. All frames are of modern design, regularly changed to keep up with trends, so important to young people.

The importance of allowing choice.
Out of courtesy it is important not to presume what people value. Therefore, we also have a huge range of designer frames, including Rayban which are very popular. The NHS voucher is still valid for these spectacles but the cost of the frame is not covered by the voucher and small extra costs apply.
So, for those of you who want the ultimate in designer names for your children we have them.

Spectacle Repair Vouchers
A new voucher for spectacles is only available with an Eye Exam. Between scheduled checks however, if a child’s glasses are broken or lost repair vouchers can be issued. These can cover a repair or a totally new pair if the spectacles are lost or buckled beyond repair. These repair vouchers can be issued as often as required.

We will not reduce clinical care for sales
The availability of ‘Repair Vouchers’ makes the gimmick of 2 pairs unnecessary. We will not compromise clinical care for technical reductions. ‘Retinoscopy’, vital for accurate prescribing and preliminary diagnosis of keratoconus, is time consuming. The art is being lost; many practices no longer do this essential technique, presumably to enhance refraction speed. Further, with the advent of Cross-Linking, waiting for treatable problems such as keratoconus to manifest as vision reduction is no longer acceptable. We would rather give your child enhanced clinical care, inherently the most valuable service.

It is important to stress we do these things to ensure patients value our commitment and clinical expertise rather than sales deals. If we do not educate patients to value us rather than deals then we must not be surprised if people follow the gimmicks rather than clinical skills.

Loyalty only comes with trust and understanding. We must consider ourselves educators.