

Subject: Request for comments from W.L.K. Treble
Date: Wednesday, 26 January 2011 12:33:00 PM

Question 1. There is public benefit if optometrists are aware of therapeutic needs. However it needs to be of a practical ability. In my own case I am aware but always refer to the GP or Specialist best able to treat and cure.

Question 2. There should be a reasonable expectation that optometrists are able to diagnose and refer to where best treatment is available. Therapeutic courses should be designed to make optometrists aware of the problem and to know where best treated. Personally have always been aware of the responsibility to diagnose, refer and monitor.

Question 3. Therapeutic qualifications for new optometrists should be a requirement for practice in Australia. However, it should not be overlooked the vast experience already obtained by many practitioners, whereby they diagnose and work with GPs and other specialists. In my own case have had to refer for such as thyroid, brain tumours, results of instrument births, allergic reactions, lighting problems etc.

Question 4. If a registered optometrist is not already aware of therapeutic problems than retraining should be done. It is the quality of and not the time spent in training.

Question 5. Yes, overseas trained optometrists should be able to prove such competency. If not then should undergo some form of training.

Question 6. Those in charge of management and training, even if in non-clinical roles, should be at least aware of the therapeutic qualifications. Without such knowledge they would be limited in how much they could help.

Question 7. The only real impediment to the proposal is if it becomes too theoretical. It should not be just a matter of passing an examination but based upon individual willingness to keep abreast of what is changing so rapidly.

Attached is a copy of a summary of my own experiences.

What follows is based upon Diploma Studies whilst working for an Optometrical practice, 1946-49. There were things learned from research, outside what taught, using the Mitchell Library in Sydney. There was input from the three Diploma qualified optometrist and from the optometrist allowed to practice without a diploma because of his vast experience before there was a diploma. It was his philosophy that inspired research. "Theory is no good unless works in practice". Thus became wary of theory until it proved self at all times. "Listen to a patient's complaint – no matter how much you improve anything else you will be regarded as failing unless solves the problem. To look outside spectacles as always being the solution". In other words, we were not there to just sell spectacles. These were days of no examination fees.

In 1946, when fitting spectacles where a pair of bifocals were given same time as a separate pair of readers, the patient had to hold paper at different distances. Asking the four optometrists was told it was just a peculiarity of bifocals. Having the contract to do the work for the Army, Navy, Air Force, Repatriation and Social Services there were many cases observed. Spending lunch hours with those grinding the lenses, only mechanical operation was for cylinders, asked for permission to see if could solve problem. What was being accepted was that the bifocal addition was the difference between the back vertex power of the distance part and front vertex of the bifocal segment. It simply meant choosing the blanks so that the difference was between both back vertex powers. When we could do it was given permission to

have Australian Optical, supplier of the blanks, and doing over sixty percent of the grind work, to follow suit. Then able to bring Arthur Cocks into line. Our workshop could only handle about twenty percent of the work being done. This resulted my being put in charge of the grind shop.

In 1948 was also put in charge of the fitting shop (all work being hand done) when the foreman said I could do work better than him (he taught me).

Ophthalmology used to say optometrists could not do a proper examination as could not dilate the pupils. It was a sound condemnation for comparing the eye to the camera (rather than the other way around) you learn how small apertures can compensate for out of focus. Thus in bright light, pupil contracted, the full extent of refractive error was not revealed. The solution was simply to work in a darkened room whereby pupils dilated, as would in similar surroundings, and show greatest error. Even after did the course to use drugs in 1972, easier on patient and just as reliable to continue working in a darkened room.

In 1946 we were taught about taking blood pressure and the effects of high readings. Outside research indicated muscle fatigue linked to very low blood pressure. When started own private practice started measuring blood pressures. If too high sent off to the GP rather than wait for signs using the ophthalmoscope. With low blood pressure, and lower than normal accommodative than for age, would refer to GP. When pressure raised, accommodation improved, spectacles not needed. There were references to side effects of medications. Always make a list of what medication taken. Now do not have to purchase and keep updated the medical journals, can go to the computer to see the side effects. So many times the answer has been a referral to the GP with a list of side effects, a change of medication and problem solved. Lighting was studied as to effect on eyes. Have been to patient's homes or places of work to solve the problems. Have found eye problems related to irritations such as privet bush, eye make up. Ask patient date of birth – not age. Sometimes next time ask age you find they have not grown older, even some say grown younger. There are eye changes expected at different ages.

Have always asked parents what is wrong with young children. Have never let parent in with child doing examination. Important to get the child's own report. When unable to name letters on the chart, drew a picture of shape of largest letter in air and asked if correct. Ask them to repeat it. Then make a deliberate mistake and when they say wrong ask them to do it correctly. Then ask them to draw the letters as going down to the smallest letters. When able to do to 6/6 or even 6/5 it is not a sight problem but a learning problem. The small pictures are often mistaken for they have never seen them before. When no problem found with refraction, coordination, muscle balance, colour or gross field, bring in parents and have them ask child to draw the letters parents point to. Parents then convinced a learning not a sight problem. Specialising in orthoptics (when graduated was allowed time off over two years to work in the Orthoptic Clinic run by the Institute in Bond Street) was able help with what are termed "lazy" and "poor coordination". Young girls with sudden reading problem and no refractive error would be asked if puberty started. Usually answer was just happened. Explained the effect of blood loss reducing oxygen to muscles and how effected accommodation. Then brought in mother and explained to her in front of the patient. Told that if could persevere without spectacles nature would help body to adjust over about six months. Those insisting on spectacles would take considerably longer to readjust. Always asked that they reported as to progress. Older women with menopause would sometimes have similar problem but at that age spectacles would be needed.

In the early 1960's word recognition was taught in place of phonetics. Teachers since have not learned phonetics. Phonetics is where the printed word is recognised as a sound. Children learn from birth to recognise what is seen by the sound given. For example they know sound "cat" refers to the animal. The cat does not go around with the letters "C" "A" "T" printed on it. Thus word recognition is like learning another language. Have found that when faced with such problems, my daughter a primary schoolteacher, freely gave her time for three or four hours working with mother and child to teach basics of phonetics. Improvement is fast and there have been cases where child put down a class has been put back up again. Have never had to resort to plano, low addition multifocals as a solution.

Colour vision is recorded. When tobacco was chewed or no filtration used, colour vision could deteriorate. The Amsler chart can show early signs of macular problems. The Titmus Fly can reveal loss of binocular vision. Intraocular pressure should be measured and if too high, and or if indications from observation of the disc noticed, referral made to an ophthalmologist. Optometrists may monitor and advise but the treatment is a medical and possible surgical matter. Gross fields should be checked. Modern equipment can pick up very early signs of impending problems.

A record of uncorrected acuity is made, and of the old Rx worn and acuity achieved. The ophthalmoscope is used to examine the lens and interior eye for defects. The pupillary distances for near and far are measured.

The refraction can be done by different methods. The method used is as follows.

Pupils dilated. In darkened room or by medication. Use the retinoscope or automatic refractor to get idea of refraction but use results to fog. Then doing one eye at a time, ignore the minus astigmatism correction and use the reading for the spherical correction as the basis to fog the eye. Using the chart with radiating lines it is simply a matter of reducing the spherical fog until either all lines appear same or some look blacker than others. These blacker lines indicate the axis of the cylindrical correction for the suggested astigmatism. Then add minus cylinders, using axis found, until all lines appear about the same. To check use the red green letter to see if about same. If not adjust the spherical correction. Switch to letter chart so that patient concentrates upon the 6/12 line. Use cross cyls lined up with the axis and flip to see if any improvement one way. Fine tune by adjusting axis so that when flips the letters seem the same no matter which way flipped. Then line the power of the cross cyls with the axis and flip to see if extra plus or minus improves. Have found best to err on minimum rather than maximum correction. Then go back to red green chart and adjust if necessary. Then back to letter chart to see if any extra plus or minus can improve the visual acuity. Repeat for second eye, then allow patient to see with both eyes.

Ask to look at smallest wording on the reading chart at 40 cm. Add plus until blurs (with presbyopes there will to be noted point where it has to clear first). Then reduce power until blurs. When the letters need a plus addition to clear and a similar or 0.25 less to blur then the addition for the reading is + 0.75 sphere added to that reading at 40 cm. Note that if need to add more than +2.75 the distance Rx may be under corrected. If have to reduce more than expected for age consider muscular weakness and possible causes.

Looking through a refractor is limiting the field of view. By placing Rx in a trial frame and fitting where spectacles will be worn may find some slight adjustment may still be necessary.

This is only a starting point. The Rx is put in the trial frame so patient can manually move the reading chart to a position would like to hold where reading, working, or on computer. The patient can then see if needs different near pairs for things does. Helps if can sit patient before computer to see if could cope with multifocal or better with a special single vision.

Before this step, whilst still using refractor muscle balance tests should be made. At 40 cm base up and base down break recovery should be made to find any imbalance. Again this may need to be verified in the trial frame. Break recovery for base in and base out should always be done. If too dominant, one way, then a prismatic adjustment to relieve may be necessary. Where abnormally low, where almost none existent have recommended a medical check and found 8 times out of 10 to be associated with a thyroid problem.

Then use slit lamp to explore lens, cornea, limbus and eye lids. Keep to last as bright light would close pupil and delay refraction if done first. Measure the IOP. A tonometer's puff of air, requiring no medication is patient friendly. Even if no evidence found of disc damage or screen abnormality but high pressure reading still refer to an ophthalmologist. They are the

surgeons who have the final responsibility as to when to treat. I still tell patients to pop in for a quick look (no charge) if any doubts. It may be a couple of years before treating. There have been times when so urgent that have had surgeon see same day and operate that day or night.

Have found handy to use pin hole from trial case to help patients understand why they see better in bright light than in dark. Can help explain why prescription sunglasses improve vision when only plano sunglasses purchased not as good as expected.

It is our responsibility to insure the spectacles are made as ordered, fit comfortably and patient taught how to use. When adjusted to correct position tilt slightly each way so patient can be aware of effect so that if experiences can come back for adjustment. Ensure that the bifocal or multifocal is in position to give comfortable vision. Teach how to wear multifocals. To look down through and learn to compare feet to step. If taught to bend forward and lower head imbalance can occur and accident happen. Spend the time to have carefully practice on a set of steps. Never had a patient complain of fall related to steps. (Have met people afraid to wear multifocals on steps after being told to bend head down).

Finally gave up going to University for lectures in 2000 when asking why so many repeats and told because others had not my experience. And when in the late 90s a visiting professor told best method of doing a refraction I remarked to others whilst leaving a waste of time as it was something always did. Next surrounded by over thirty who said never heard of it. Since then have continually attended special lectures by different Ophthalmologists and the Vision Eye Institute. Last one December 2010. Done for information that may help patients, not to gain any academic points. Some things have stood out after so many years, such as photographing eye movement to record what takes place for fast and slower readers. The students passing through for their year experience in my practice. Those that accompanied me to experience working in Nursing Homes.

Enough. Optometry has been enjoyed for help able to give, not for money earned.

In 1945 senior surgeons gave me only two weeks to live, no operation or medication could save me. A junior surgeon said would like to try if could get place in hospital. Was arranged but cost hearing in right ear and interference with memory of name and faces as had to go into brain. Unable to go to school from early May - still sat for final examinations. Found had first place to do Medicine but still learning to talk, walk and coordinate hands thought would not be able to cope. Able to transfer to Dentistry but realised same problems, when a fellow student asked did I know of Optometry. Did not. Found class already full and started but my exam pass was good enough to be squeezed in.

In student days, books hard to acquire and teamed with fellow student, David Balon who was qualifying to return to Tasmania to revive his late father's practice. We spent all day Sundays in the Mitchell Library in Sydney. The lass whom I am still happily married spent the day chasing books so that we could go way beyond what being taught in lectures. We learnt about the effects of small pupils when doing refractions, effects of blood pressure, possible effects of medications, lighting, to research beyond what we needed to pass an examination.

I was born in 1928, and at home have a complete examination room, but no retinal camera. Now just looking after a few old friends and some who have not been able to get satisfaction elsewhere. Age and physical ability no longer allows going to nursing homes. If I can not be allowed to still work, which entails referring on to someone with longer life expectancy than myself when long term treatment is needed, then time for me to quit altogether.

I cannot claim to have an unblemished record for there was just the one time had to remake a pair of spectacles I ordered. Patient, in her late 80s said not examined for twenty years and now having problem reading headlines of newspaper. Able to give her 6/6 vision. Back in couple of days saying no good. They made all her friends look so old. Her friends did not have wrinkles, pimples and black heads. Remade with some fogging and she reported back they were wonderful as friends no longer looked so old and she was seeing so much better

than with old spectacles.