The AARON Book

Of

Patient Information

And

Communication of Vital

Information

Remember

If the patient's needs are met.

If colleagues feel valued and fulfilled.

Then…….

Business Success will Follow.

(It is not the other way around)

Contents

‘Extending the role of Community Based Eye Care’

‘To supply every patient with the most appropriate management for their ocular and general health needs’

LOYALTY COMES FROM TRUST

TRUST COMES FROM UNDERSTANDING

UNDERSTANDING COMES FROM EDUCATION

and…….

EDUCATION TAKES TIME AND PATIENCE

OUT OF COURTESY!

If a patient leaves the practice without understanding what we have done or without trusting our advice…….
WE HAVE FAILED!

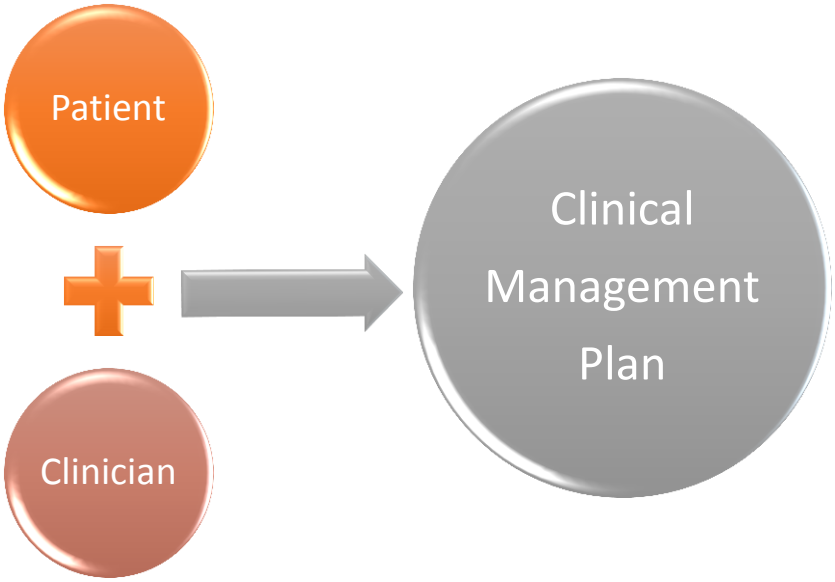
Patients are

NOT

PRICE FIXATED

They are

VALUE CONSCIOUS



A prescription is simply a bunch of numbers

It tells you nothing about what the patient needs, what they value, what they do or what they worry about.

DO NOT PIGEON HOLE PATIENTS

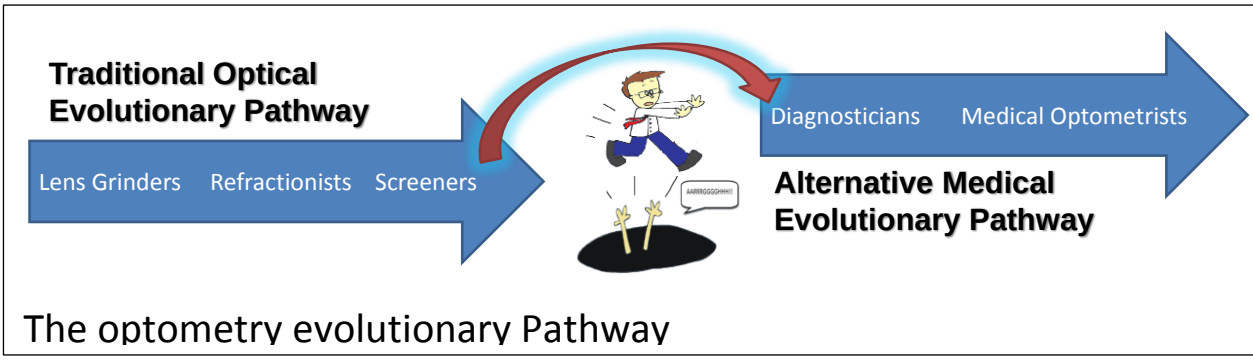
We have no right to assume

1. **What a patient can or cannot afford.**
2. **What a patient may or may not feel is important or valuable.**

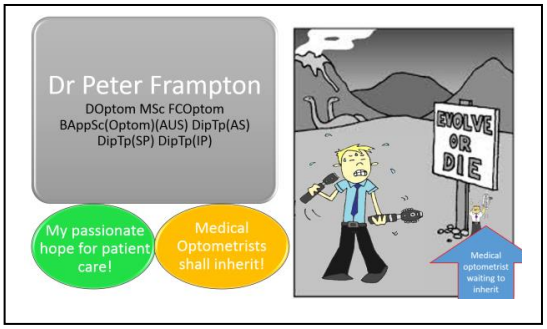
Our role is to use our expert knowledge to advise and guide

WHY MEDICAL OPTOMETRY?

Aaron's decision to emphasise Medical Optometry



The optometric profession is struggling to bridge an evolutionary gap. Our historical skill base was a purely optical one. While correcting simple refractive errors this technical expertise is inadequate to fulfil the evolving clinical demands of community ocular care. Opticians screen for abnormalities and refer to a clinician to diagnose and treat the problem. Apart from very minor, non-sight threatening conditions, this remains the norm for the vast majority of the profession.



Having remained 'accepted' practice for generations ensures it is rarely questioned by most opticians. Despite this it is no longer an acceptable standard of care in the 21st Century. Our **Home Truths** powerpoint on our Website expands these important clinical considerations (Click on the image to view this short powerpoint).

THE BROADER NHS REMIT

The NHS remit is to strive to treat all patients promptly, appropriately and conveniently. With community based eye care in England this is rarely the case.

GPs are ill equipped to deal with ocular emergencies. Conversely, opticians, while suitably equipped to examine presentations have neither the diagnostic capabilities nor medical knowledge to treat any but non-sight threatening entities. These patient pathways potentially result in misdiagnosis, under treatment or unnecessary referral to secondary

care when many conditions are treatable at source by a qualified primary care clinician. Both options incur costs for primary care.

THE OPTOMETRIC RESPONSE TO NHS STRESS

In 2009 'Independent Prescribing (Medical) Optometrists' became a reality. Dr Peter Frampton is proud to have been one of the first 30 optometrists to achieve 'Medical' status. This constitutes the most fundamental change to the way optometry can be practiced. Unfortunately many opticians, especially in the community setting, are unwilling to upskill.

MECS (Minor Eye Condition Service)

Consequently the professional bodies endorse MECS. This is open to all optometrists who pass a rudimentary online modular course.

The course work reflects, in effect, a skill base all registered optometrists should possess as standard. Further, as the name implies, MECS accredited optometrists can only deal with minor, non-sight threatening, conditions. More significant problems must be referred. MECS falls woefully short of what Optometrists can achieve if motivated to upskill. Over an 18 year period Aarons and other vanguard optometrists have proved this.

AARONS and a Medical Optometry lead Service

Medical Optometrists treat immediately with licensed drugs specific for the condition.

Totally committed to the medical ethics of optometric practice, it is now Aaron policy to specifically employ Medical Optometrists. The company insists, and funds, non-IP colleagues to actively pursue the qualification. Aarons is the only optometrist in Northumberland with full time cover of Medical (IP) Optometrists ensuring a seamless service for our patients.

Medical services by optometrists are not, as yet, funded by the NHS so charges do apply. We do not believe it is in the patient's best interest not to supply a service simply because it is not publically funded. Our role is to do the best we can and allow people choice. Our hope is patients will value this commitment.

Our optometry team consists of:

1. Dr Peter Frampton DOptom MSc FCOptom BAppSc(Optom)(AUS) DipTp(AS) DipTp(SP) DipTp(IP).
    a. Masters Degree in Ocular Therapeutics with Distinction. Additional Supply and Supplementary Prescribing qualified. One of the first 30 optometrists in Britain to achieve Independent Prescribing (Medical) qualifications. In 2017 he completed his Doctorate investigating aspects of glaucoma management.
2. Debbie Liu Tam BSc MCOptom DipTp(IP).
    a. Debbie achieved Independent Prescribing in 2015 and also finished her 'Medical Retina' certificate in 2017.
3. Andrew Watson BSc MCOptom FBDO CL DipTp(IP).
    a. Medical Optometrist and Specialist Therapeutic Contact Lens practitioner. Andrew finalised his Medical Optometry qualification at Caledonia University in 2018.
4. Caoimhe McGovern BSc MCOptom
    a. Actively pursuing Independent (Medical) Prescribing via Caledonia University. This was being self-funded by Caoimhe herself prior to joining Aarons in October 2018.
5. Joseph Ong MOptom MCOptom
    a. Worked at Aarons in 2015 as a Masters of Optometry student. After the internship worked as Research Optometrist at Eurolens Research Ltd. Returning to Aarons to pursue clinical experience.
6. Masters of Optometry Registrars
    a. Aarons is extremely proud to be one of only 3 community practices in Britain chosen by Manchester University to mentor their Masters of Optometry students. Only four, high achieving undergraduate students, are selected to proceed directly to a Masters Degree.
    b. These students are the highest achievers, intuitive, eager to learn with excellent team and communication skills.

INSIGHT

It is not our fault, or the patients, the NHS funded level of examination does not include cutting edge technologies or 'Medical Optometry' qualifications. An NHS check, set at 'Entry Level' optometry, cannot incorporate a fee structure reflecting the advanced qualifications and skills of 'Medical Optometrists'. To address this, Aarons introduced some years ago…..

INSIGHT. Please Read.

insight

Where all the pieces fit together...

We believe Insight to be a more appropriate way to deliver eye care services in the 21st century, reflecting the rapidly evolving technology and clinical skills available. Requiring significant financial investment, in both training and technology, these enhanced services are not offered by every optometrist and are not available via a standard NHS eye exam. Further, the NHS has set strict schedules, entitling most to an NHS funded sight test only every two years. This makes monitoring eye conditions problematic. **Regardless of the current lack of official NHS funding patients should be allowed choice. Our goal, regardless of funding difficulties, is to be able to supply a total service.** Some may not value this commitment, in which case Insight would not be for them. However, simply offering the minimal legal service is a disservice to the many who value comprehensive health care with highest level technology augmenting the educational commitment of all professional staff.

Insight is an elite package entitling you to 'Enhanced Eye Exams', as opposed to Sight Tests, as standard. **We have totally committed to the medical ethics of optometric practice.**

We are the only practice in Northumberland with full time cover of 'Medical Optometrists': licenced to treat with prescription drugs as well as being qualified to interpret advanced clinical scans. Coupled with instant access to the practice and emergency out-of-hours contact number we hope patients will value our professional service above all else.

Insight members are also entitled to huge discounts (up to 40%) on ALL purchases.
The entire practice range is permanently discounted.

Page 2. Why we would always recommend purchasing the full clinical service.

Aarons has totally committed to the ethics of Medical Optometry. This clinical strategy is not to fulfil a business goal; achieving the highest educational qualifications, combined with technological innovation, is self-evidently the correct course of action for patient care within the community.

Our stated patient goal is to:- **'Supply every patient with the most appropriate management for their ocular and general health needs'**. This can only be realised by stepping beyond the NHS, 'Entry Level' skill base of NHS funded opticians.

Insight: Where all the pieces fit together.

So what do people who become 'Insight' members value?

Clinical Benefits

1. Access to Medical (Independent Prescribing) Optometrists

We have decided to only employ 'Medical (Independent Prescribing) Optometrists'. Medical Optometrists, still quite rare in Britain, can prescribe drugs for the eye without referral to a hospital. Further advanced training is necessary to interpret the clinical scanning techniques now available. A technician may capture an image, but a clinician is essential for the correct interpretation.

Linked with our 'Instant Access' policy, we believe this is the service patient's should value. When monitoring treatments we also have an out-of-hours emergency number to ensure your peace of mind.

2. Instant Access to Care for emergencies

Unlimited access to professionals as required. You are buying access to the clinic. Our policy dictates a 'Medical Optometrist' is always on the premises during opening hours. If you attend as an emergency you WILL be seen. Non emergencies will be prioritised.

3. Routine professional care

Unlimited eye care appointments as clinically required. We allocate 40minutes for this professional service. Time is valuable and necessary for a comprehensive service; this commitment to our patients should not be underestimated.

4. Access to state of the art technology at no charge

Heavy investment in state-of-the-art technology aids early diagnosis, regular monitoring of conditions not necessitating treatment and prompt referral if necessary.

5. For contact lens wearers: Fitting and refitting of lenses as required

A thorough aftercare check and advisory process should not only ensure ocular health, but also that the lenses fulfil your lifestyle needs. We need to keep up with you. We cannot guarantee to customise a service without understanding your needs.

Financial Benefits

'Insight' membership: Up to 40% discounts on ALL our products from the practice offering arguably the largest selection in Northumberland.

Patients of course also want value for money and choice.

Our practice offers perhaps the most extensive range of frames in Northumberland and with savings of up to 40% 'Insight' members do not need to hunt for deals. The entire practice range is permanently discounted.

So what can 'Insighters' expect:

As already described: access at no additional cost, to the latest clinical services, both technical and educational.
Up to 40% discount on spectacle frames and lenses as well as sports wear with unlimited purchases.
Prompt access to the team member of your choice for advice and product servicing.
Accidental damage cover on purchases.
Replacement contact lenses FOC

So people who value 'Insight' do so for the enhanced clinical care or the massive savings. Usually both!

It would be simpler to not offer advanced services, but we have no right to assume patients put so little value on their eye health. Training to become 'Medical Optometrists', extremely hard won, has certainly revolutionised our diagnostic and treatment capabilities. Our role is to ensure patients are given the fullest choice to ensure their 'Clinical Management Plan' is the most thorough. Offering people only the cheapest product could, and should, be construed as devaluing the patient. It is like saying *'You can only afford second best so that is all I am going to offer you'.*

CHILDREN AND YOUNG ADULTS

No Prescription Required

1. Explain Hyperopia and Emmetropisation
    a. Why this is Normal
2. Explain reason for review schedule
    a. If problems: return earlier
    b. If little or no hyperopia and family history myopia: explain
    c. Level of hyperopia should or should not require correction in future
    d. No Rx required but regular review for health important

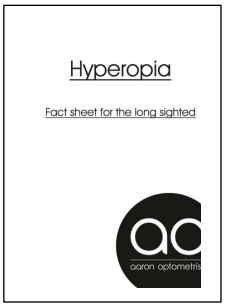
Myopia

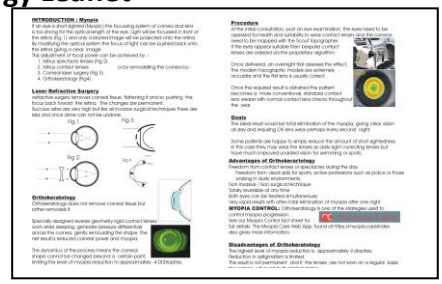

Younger People and Lifestyle Needs.
Contact Lenses and Recreational Spectacles: What sort of things should be considered?
Lifestyle Needs
Consideration of Needs.
Contact Lenses
Recreational Spectacles
Contact Lenses
I have heard optometrists say contact lenses are too expensive and hygiene can be a problem!.
What type of Contact Lens?
Recreational Spectacles
'Rec Specs'

1. Explain mechanism of growth and potential progression
    a. Review schedule and why
2. **Young People and Lifestyle Leaflet** for options
    a. **OUT OF COURTESY!**
3. **Children's Vision and Repair Vouchers**
    a. Repair vouchers must be re-discussed at every check.
4. **Myopia Control Fact Sheet** (if signs are applicable)
    a. This is mandatory, whether you agree or not.
    Patients have the right to decide.
    If this is not mentioned and later evidence shows a huge effect there could be grounds for litigation
    b. Options
        i. Multifocal CL Centre Distance
            1. Biofinity MF
        ii. Coopervision MiSight Dailies
        iii. Orthokeratology
            1. We have done this for many years, from its very inception.
                a. It must now be re-booted as a viable option for Myopia Control. See **Orthokeratology Leaflet**

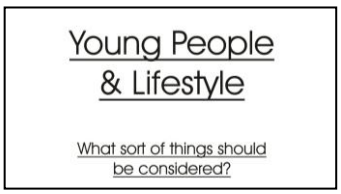

FACT SHEET
Myopia (Short Sightedness) Control:
We now need to take it seriously
Trying to control progression of short sightedness has been an ongoing endeavour for many years. Because there are so many factors affecting the development of short sight, genetic as well as environmental, the research has often been difficult to interpret. However there is now clear evidence we can retard myopia progression.

Hyperopia


Hyperopia
Fact sheet for the long sighted
aaron optometrists



1. Explain Hyperopia
    a. Why we usually underpower
    b. How dependency can vary
    c. Patient feedback vital
        i. Continuing prescribing will depend on their feedback and tolerance of the prescription.
2. **Young People and Lifestyle Leaflet** for options
    a. Out of Courtesy


Young People & Lifestyle
What sort of things should be considered?

3. **Children's Vision and Repair Vouchers**

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 (amblyopia) are yet more mysteries we must explain when appropriate. When and how should your glasses be worn and why. Why can some spectacles be worn all the time and others not? It can 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. If you have a worry or query though please ask. Your child's sight is too important to accept anything without explanation.

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 stages 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 all 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 the voucher. All frames are of modern designs, regularly changed to keep up with trends 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 the 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.

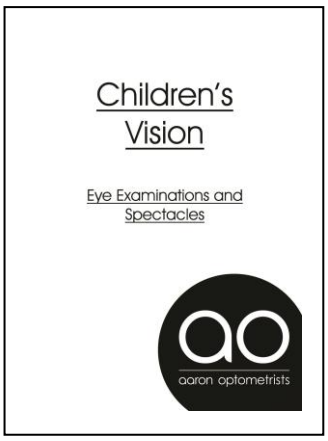
Spectacle Repair Vouchers

A new voucher for spectacles is only available with an Eye Exam. Between scheduled checks however, if a child's glasses are broken 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' refractions, '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.

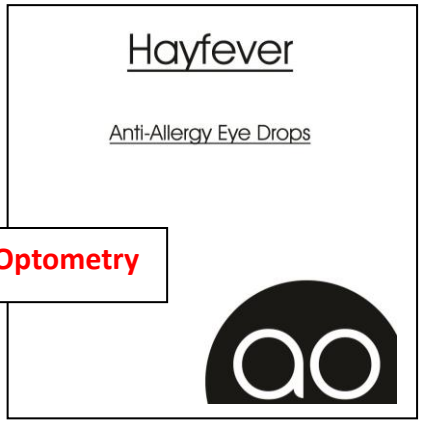
Further, with the advent of Cross-Linking, waiting for treatable problems such as keratoconus to manifest as vision reduction is no longer acceptable. We would rather give your child enhanced clinical care, inherently the most valuable service.



   a. This explains our polices
      i. Time to explain – No parent should leave without understanding what we have done and why
      ii. Advanced techniques (Retinoscopy and Topography) are done FREE for the earliest detection of rare but treatable Keratoconus. No multiples do this and this MUST be valued by the parents. Would they rather get two pairs on the voucher or have advanced examination techniques
      iii. Our Policy on Spectacles. Our challenge is to ensure our policy is valued, and is to be proud of. To ensure we offer people full choice we do not constrain them to 'FREE'. We are perfectly happy to supply frames on the voucher without extra charge. However we do not constrain our patients to this. Fashion conscious young adults may want Ray Ban (for example) and it is not up to us to decide what people value or want. Our role is to give them the fullest choice.
      iv. Repair Vouchers
         1. ABSOLUTELY ESSENTIAL
            a. Need never do without
            b. Essential for children with high presriptions or amblyopia
               i. It is ethically wrong not to ensure these children know how to get more spectacles
            c. Will not ask for more if they do not know repair vouchers exist

All Children

1. Colour Vision at least once and explain why
   a. Careers expecting normal colour vision
2. Hayfever/Allergies?
   a. If so ask if eyes are every itchy SAC/PAC (No point simply asking!)
      If so **Allergy Leaflet**



Olopatadine and Medical Optometry

CHILDRENS SCREENING SERVICE

There is a funded scheme to screen for amblyopia at schools. If a child of 4 to 5 presents it is important to ask if their appointment was prompted by the screening service.

Parents are supposed to bring a form but they may not have remembered.

CLINICALGUIDELINES FOR CHILDREN'S SERVICE: Cycloplegic Refraction

Children failing school vision screening will be referred to a community Optometrist unless:

- Unable to perform crowded LogMAR test
- Visual acuity <0.5 LogMAR in one or both eyes
- Manifest strabismus
- Other pathology

Initial visit to community optometrist (includes GOS sight test)

All of the following will be performed at the child's first visit to the community Optometrist;

Procedure:

- Measure unaided Vision with crowded LogMAR test with patch on either eye
- Cover Test and Stereopsis
- Cycloplegic refraction 25 minutes after instillation of G. Cyclopentolate 1%
- Fundal examination – either BIO 20D or 90D or direct ophthalmoscopy
- Prescribe glasses if appropriate
- "Add outcome" to optomanager and "sign off"
- Arrange 6 week appointment if outcome is to review

Outcome:

- If vision is >/= 0.2 in both eyes discharge to GOS.
- If Visual acuity is >/= 0.2 in both eyes, and glasses are prescribed, review at 6 weeks. (Clinical judgement will be used to decide if it is appropriate to discharge the child from the pathway at this point and clinical justification will be required and collected in OptoManager module)
- If Visual acuity is between 0.225 and 0.475, prescribe glasses if appropriate, and review at 6 weeks.
- If vision is between 0.225 and 0.475 with no significant refractive error, review at 6 weeks
- If visual acuity is <0.5 in either eye, a manifest (non accommodative) strabismus or other pathology is present, refer to secondary care (prescribe glasses where required)

6 week review (no GOS sight test)

Procedure:

- Check compliance with glasses and fit
- Measure visual acuity with glasses with crowded LogMAR test
- "Add Outcome" to optomanager and "sign off"
- Arrange 18 week appointment if outcome is to review

Outcome:

- If visual acuity is >/= 0.2 in both eyes, discharge from pathway and arrange GOS 6 month review. Generate discharge outcome reports
- If visual acuity < 0.2 in either eye, review in a further 12 weeks. Arrange 18 week review appointment. No outcome report required
- If visual acuity is <0.5 in either eye, manifest strabismus (non accommodative) or other pathology, refer to secondary care. Generate referral outcome reports

18 week review (includes GOS sight test code 5.3): reminder has been sent

Procedure:

- Check compliance with glasses and fit
- GOS sight test
- Measure VA with glasses with crowded LogMAR test
- "Add outcome" to optomanager and "sign off"
- Offer parent/carer copy of report

Outcome:

- If VA is >/=0.2 in both eyes discharge to GOS.
- If VA's are not equal, the child can be discharged where the VA is >/= 0.20 in the better eye with **less** than 1 line difference in acuity between the eyes.
- If VA does not meet this standard, refer to secondary care

NOTES

Outcome Reports

- All outcome reports will be automatically populated when the details of the child's visits are entered on the Optomanager module
- Reports will automatically be sent to the screening orthoptists at RVI, SEI and S/T by Optomanager via a secure NHS.net link at episode sign off. You can print and keep a copy for your records if you wish
- GP reports will be automatically faxed to GPs in Newcastle and North East, Gateshead, South Tyneside and Sunderland CCGs by Optomanager at sign off.
- **All GP reports for Newcastle West, North Tyneside and Northumberland CCGs** must be printed and posted to GP surgeries (Same as IOPRR service)
- GP reports are generated on discharge and referral only
- **South Tyneside referrals** must be printed and referred to South Tyneside Hospital
- **Durham reports and referrals** will be emailed automatically to GP via the Optomanager platform if the outcome is refer or discharge.
- Give a satisfaction survey when outcome is discharge or referral and enter on Optomanager

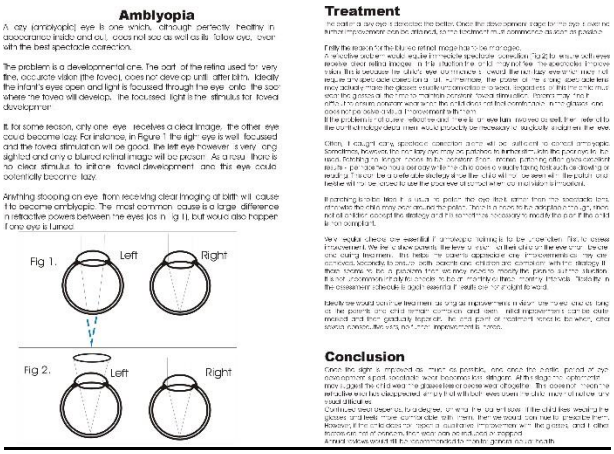
Recommended Time Frames

- All outcome reports should be entered within 1 week of seeing child in practice.
- All referral reports should be entered within 2 days of the appointment. The Orthoptist team will then automatically arrange for an appointment with secondary care
- GP copy reports to be triggered/posted, same recommended time frame as above. No action is required by the GP and the report is for their information only.

FTA

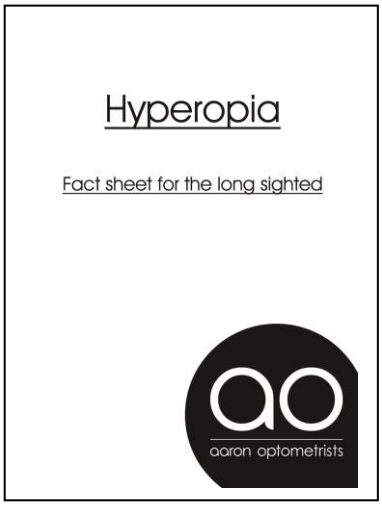
Refer to the FTA policy and flow chart for instructions on procedure. Please note that an FTA should only be recorded on Optomanager after the FTA procedure has been followed and the child has not attended despite attempts to rebook. Once FTA is recorded, an FTA report is generated and sent to SEI/RVI and GP (print and post as above in some CCGs). The child is then considered to have left the service pathway, is closed on the optomanager system and cannot be re entered

AMBLYOPIA – Adults and Children



Children

1. Go through **Amblyopia Leaflet.** (Click on image above to go to the leaflet)
    a. Developmental explanation **(in Amblyopia Leaflet)** – how the fovea develops after birth with correct visual stimulation
        i. Elastic period of development and why, despite never being told this by anyone. This is why we work really hard up to a certain point, but once the development period is over we then assess Spectacle wear on an individual need.
            1. What is the prescription in the dominant eye?
            2. Does the patient feel visually more comfortable wearing the spectacles?
    b. Usually requires and explanation of
        i. **Hyperopia (Leaflet)** (Click on the image to read)
        ii. Relationship between Accommodation and Convergence
            1. Explains, in Accommodative Squint, why eyes are straight with correction
                a. Also why, in these cases surgery is not necessary
        iii. Does not have to be associated with an eye turn
2. Explain it can run in families so others should be checked
3. To ensure compliance parents MUST understand their child may not appreciate any visual enhancement (in Fact may hate it)
    a. Steps
        i. 1) Full Prescription
        ii. 2) Patching
        iii. 3) Possible referral



REMEMBER: Compliance with treatment will only come with understanding:

LOYALTY (and in this case compliance) COMES FROM TRUST

TRUST COMES FROM UNDERSTANDING

UNDERSTANDING COMES FROM EDUCATION

and…….

EDUCATION TAKES TIME AND PATIENCE

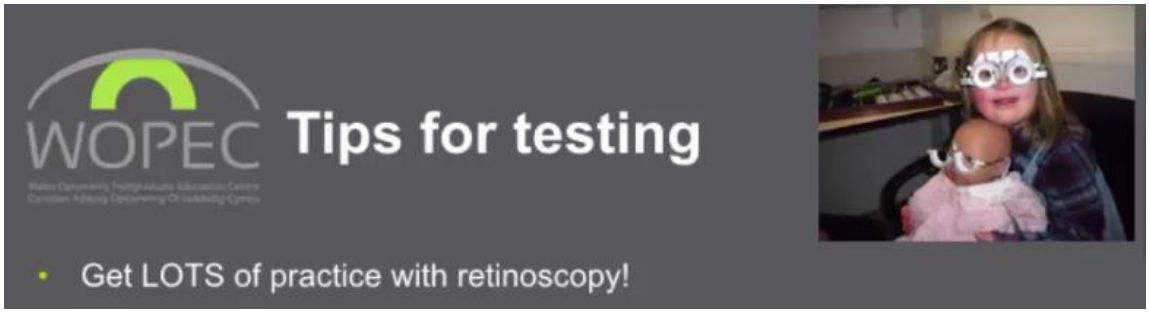
Adults

1. Do not assume adults understand their Amblyopia.
    a. May be the first time anyone as actually (Out of Courtesy) explained it to them
2. Importance of Eye Protection
3. Still assess (at least sometimes) the poor eye prescription
    a. We must have an idea of what we could expect if we needed to
        i. Explain this to the patient (we may be one of very few practices taking the time to do this as it slows the test time and would not be prescribed anyway).
    b. We have been able to reassure and prescribe successfully for the Amblyopic eye post a 'Good Eye' accident several times.
    c. Most recently (2018). Lady has vitreous haemorrhage in the LE (good eye) but had always had a balance lens in RE. This left her effectively blind.
        i. When she contacted us she was understandably very depressed and worried. We were able to reassure we could give acceptable vision as we had the information at hand from previous refractions.
            1. Full Rx for RE +7.50/-5.50x55 (6/12)
            2. Made full Rx for RE with EDUCATION
                a. May take some adaption
                b. Spectacle Guarantee Leaflet
                c. Reassured and demonstrated

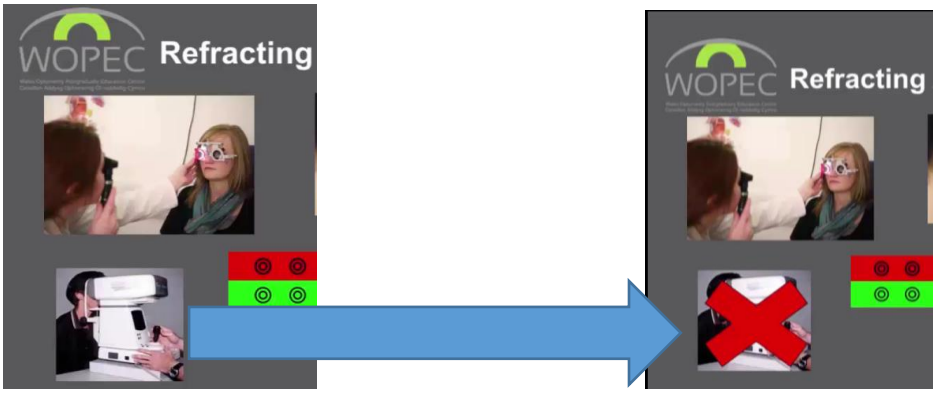
RETINOSCOPY, KERATOCONUS, CHILDREN AND COMMUNICATION

The Clinical Skill of Retinoscopy

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.

Auto-Refractors may impress but skill at Retinoscopy is vital and mandatory at Aarons.

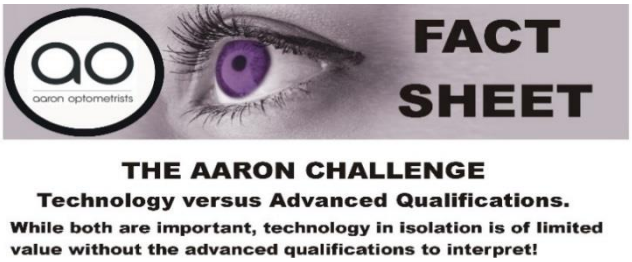
Auto-Refractors: Unskilled Technician's role. Of limited clinical value but does add 'Bling'.

Retinoscopy: An essential Clinical Skill. Not simply 'another light'!

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).

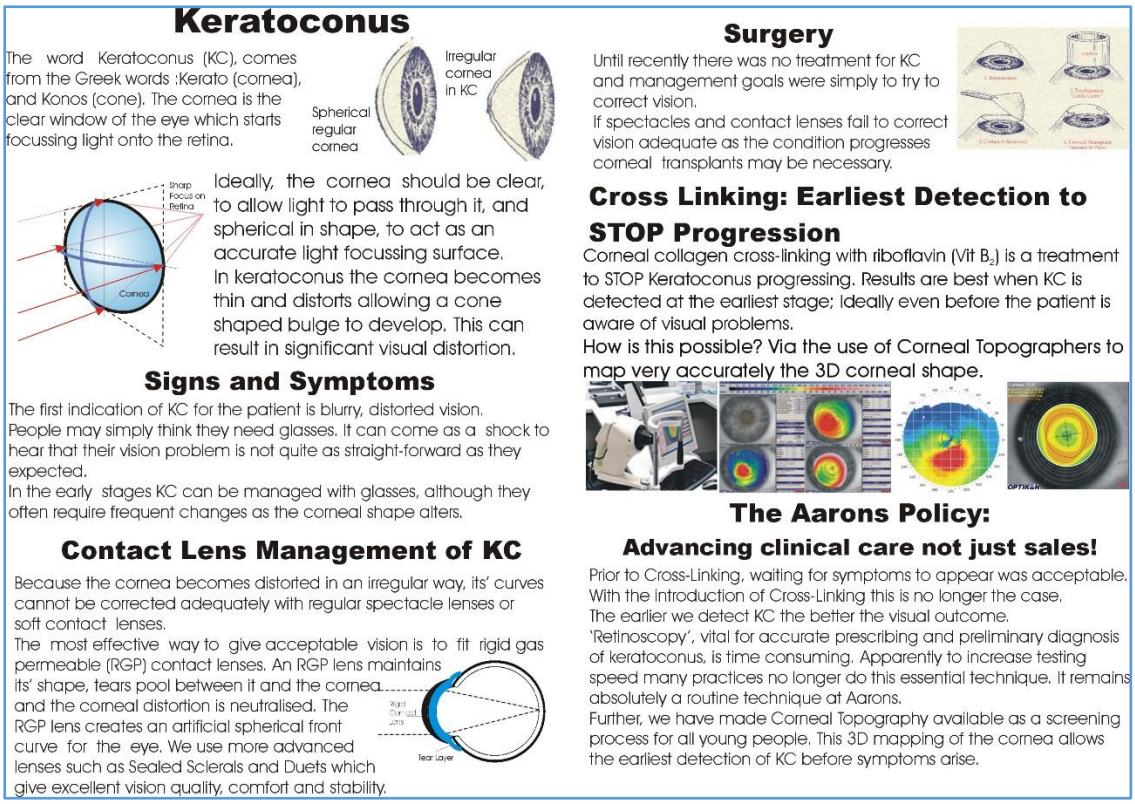
Why should a patient value our skills if we don't explain? Just another light while large companies have a big impressive machine! **As a profession we must never just Do Retinoscopy! We need to Educate, Educate, Educate ensuring patients value our clinical skills not simply 'bling'.**

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 focussing 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.

LOYALTY COMES FROM TRUST
TRUST COMES FROM UNDERSTANDING
UNDERSTANDING COMES FROM EDUCATION
and…….
EDUCATION TAKES TIME AND PATIENCE

‘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.

Click on image of the Scout Topographer to access 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 (amblyopia) 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. If you have a worry or query though please ask. Your child’s sight is too important to accept anything without explanation.

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 suppled FREE with the voucher. All frames are of modern designs, 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

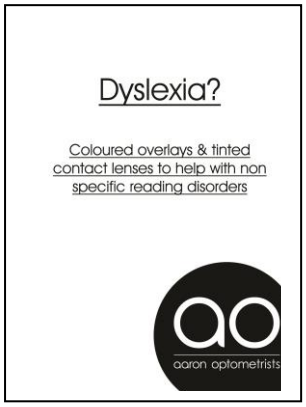
The availability of ‘Repair Vouchers’ makes the gimmick of 2 pairs unnecessary. We will not compromise clinical care for technical refractions. ‘Retinoscopy’, vital for accurate prescribing and preliminary diagnosis of keratoconus, is time consuming. The art is being lost; many practices no longer do 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.

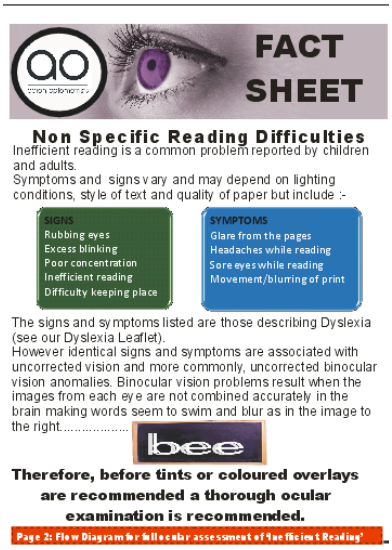
It is important to stress we do these things to ensure patients value our commitment and clinical expertise rather than sales deals. If we do not educate patients to value us rather than deals then we must not be surprised if people follow the gimmicks rather than clinical skills.

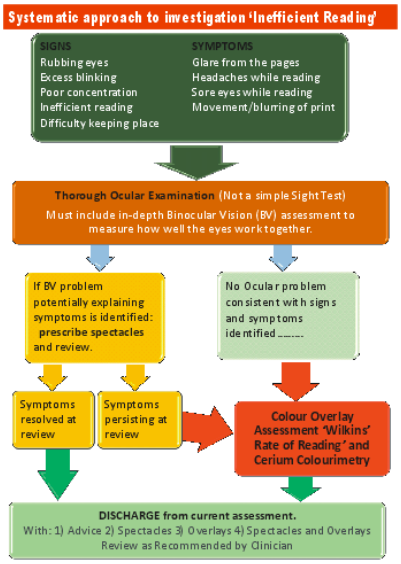
Loyalty only comes with trust and understanding.

We must consider ourselves educators.

NON-SPECIFIC READING DIFFICULTIES AND DYSLEXIA







We cannot diagnose Dyslexia.

Our **Dyslexia? Leaflet** and **Non-Specific Reading Difficulties Fact Sheet** list signs and symptoms of both. (Click on appropriate image above to read more).

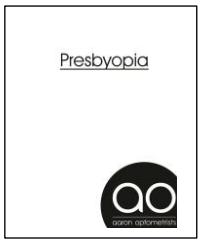
When faced with these signs and symptoms Teachers tend to immediately presume Dyslexia and prescribe tints, which very often relieve the symptoms. However the signs and symptoms are identical with undiagnosed binocular vision problems and less commonly uncorrected hyperopia.

So a full Eye Exam with emphasis on

1. Listening to and watching the way a patient describes symptoms
    a. Accommodative Spasm?
    b. Accommodative Lag?
2. Very accurate assessment of Binocular Vision for subtle problems
    a. Give time for signs to manifest if suspicious
        i. Mallett may not dissociate immediately
3. Accurate Retinoscopy and often Dynamic Retinoscopy to assess
    a. Undiagnosed Hyperopia
    b. Accommodative Lag (Dynamic Retinoscopy)

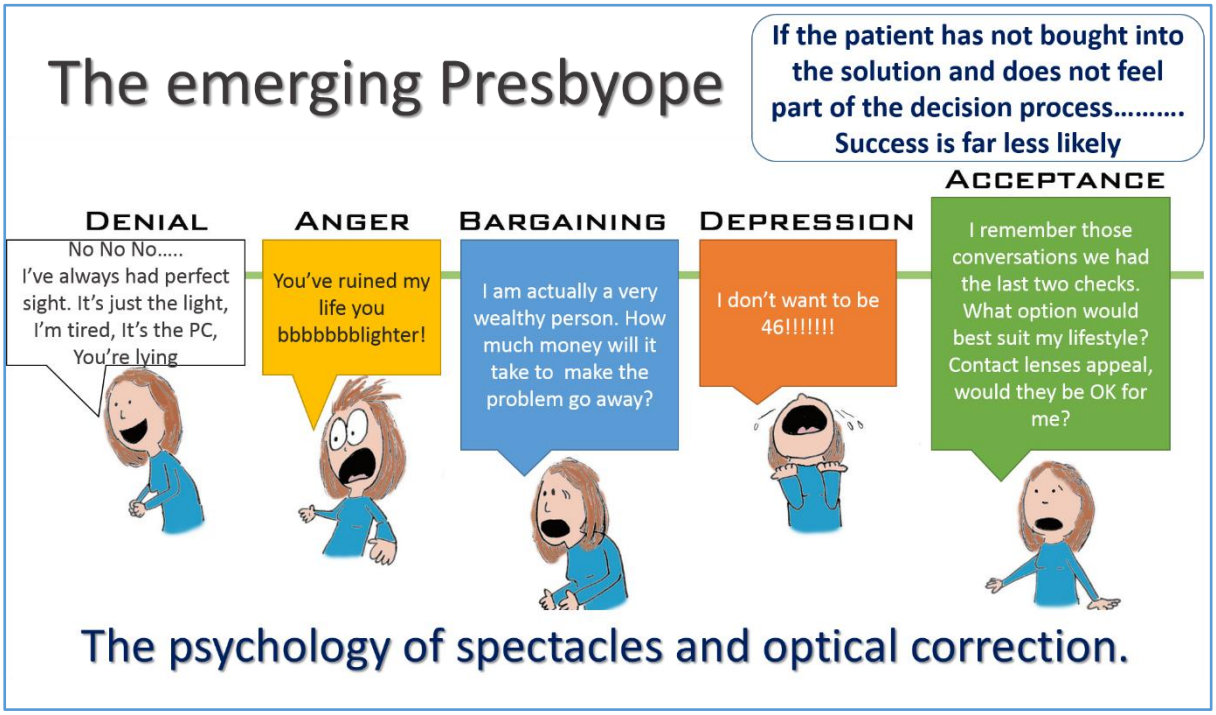
See Flow diagram on **Non-Specific Reading Difficulties Fact Sheet** for assessment process. Bordering on Behavioural Optometry the subjective results can be remarkable.

BUT include patient in process. Be honest. If they do not subjectively feel the difference, then beware and tell them so. Explain feedback is vital and continued prescribing reflects their personal responses.



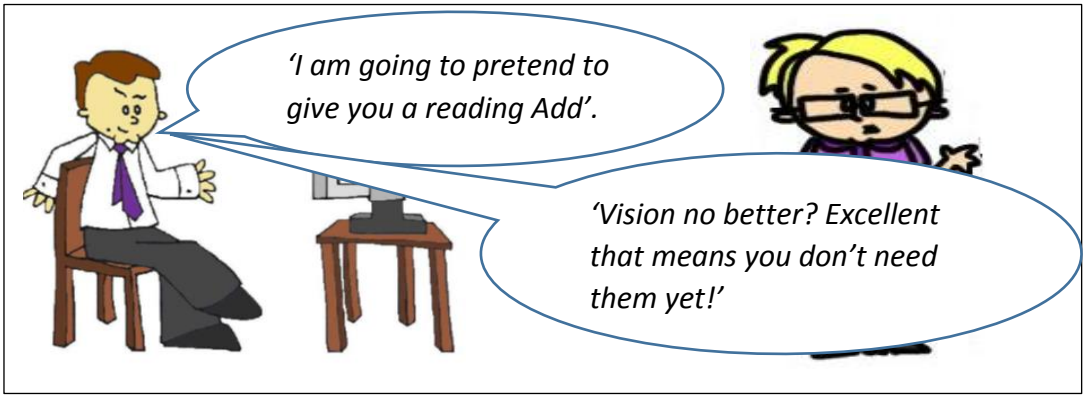
PRESBYOPIA – Needing Reading Glasses

Emerging Presbyopes **(click on the image to go to the Presbyopia Leaflet)** may be clinically quite straight forward. Psychologically however these patients potentially need a lot of support, especially if they have never traditionally needed spectacle correction. Time is essential to allow the patient to come to terms with the problem, and in fact they may go through a denial process. Originally prepared for a 'Student Optometry Conference', our **Patient Speak, Optometry Speak: When Vocabularies Collide** powerpoint on the website elaborates on this theme (Click on the image below to go to the powerpoint).

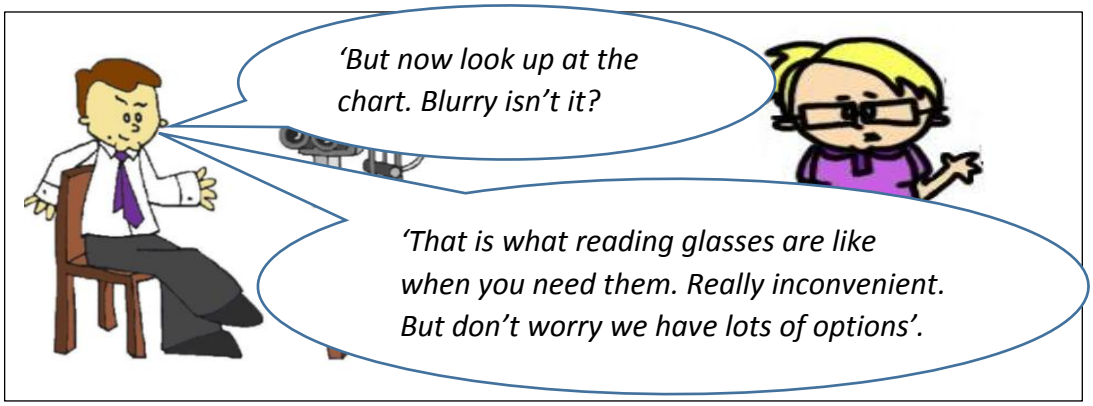


It is best practice to take a bit of time in a thorough 'Eye Exam' to pre-empt the problem. Start mentioning when the patient is pre-presbyopic!

1. Explain at this stage about presbyopia.

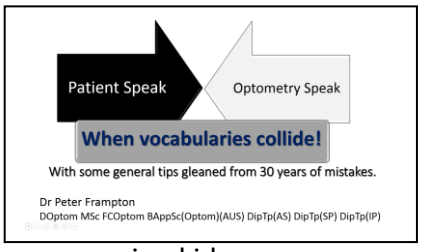


2. Explain, even though you are not suggesting they need readers yet, what it will be like.

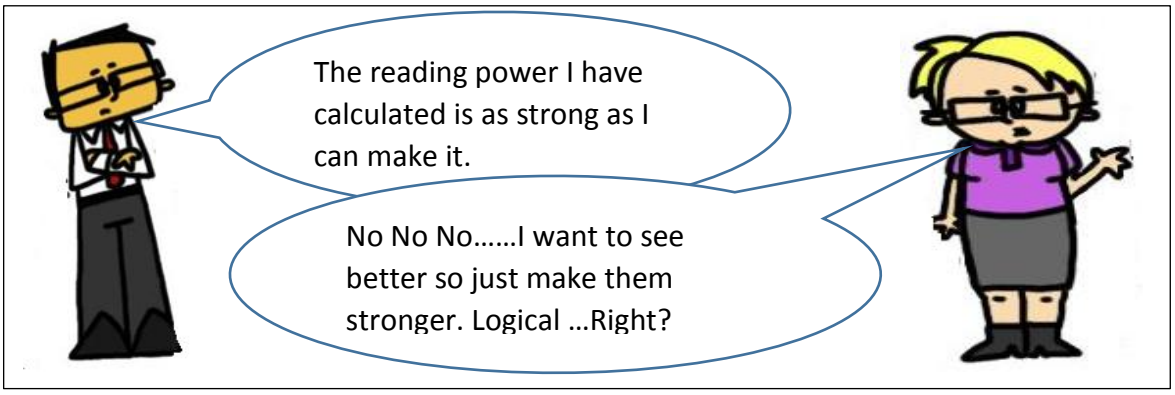


3. Explain there are lots of solutions when it is necessary
    a. If I was asked what is the most inconvenient thing I could give it would be reading glasses.
    b. Our goal is to improve convenience not make life worse.

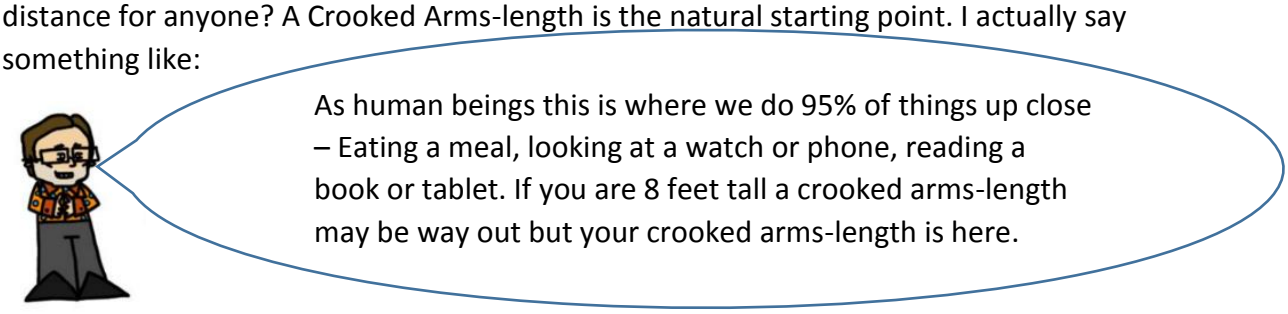
Click on the image for: **Patient Speak, Optometry Speak: When Vocabularies Collide**



Theoretical 'Reading Add Calculations' may be easy for the Optometrist but are meaningless to the patient. A reading Power is presented to the patient which does not relate in any way to the patient's lifestyle needs. Without being part of the calculation, why would the patient accept the solution you present. The patient may, in fact, have strong pre-conceived ideas:



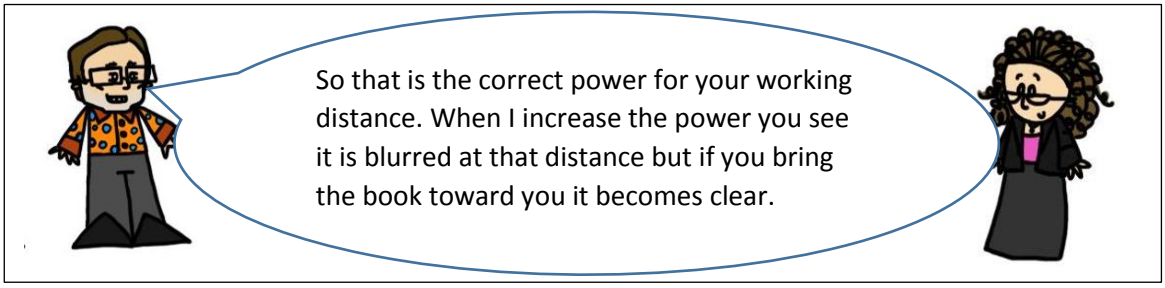
Engage with the patient and make it personal. What would be a natural default working distance for anyone? A Crooked Arms-length is the natural starting point. I actually say something like:



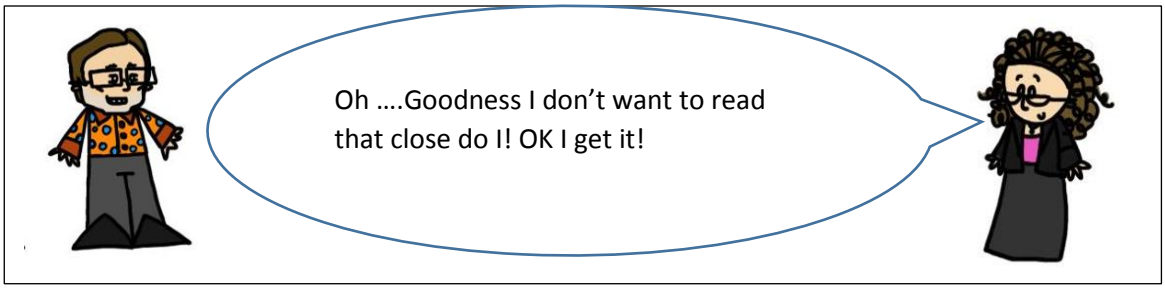
(Note we are introducing the idea these are not just for reading they are for everything up close).

Then link to the Patient's **personal history.** Why take precious time to investigate the patient's lifestyle and hobbies if you do not use the information to help the patient? <u>If a personalised assessment of lifestyle is ignored why find out at all?</u>

1. DEMONSTRATE: Near Add/Distance Blur – to demonstrate again what readers will do for distance vision. Introduce alternative strategies **Reading Glasses Leaflet.**
2. DEMONSTRATE: Increase Add Working Distance loss

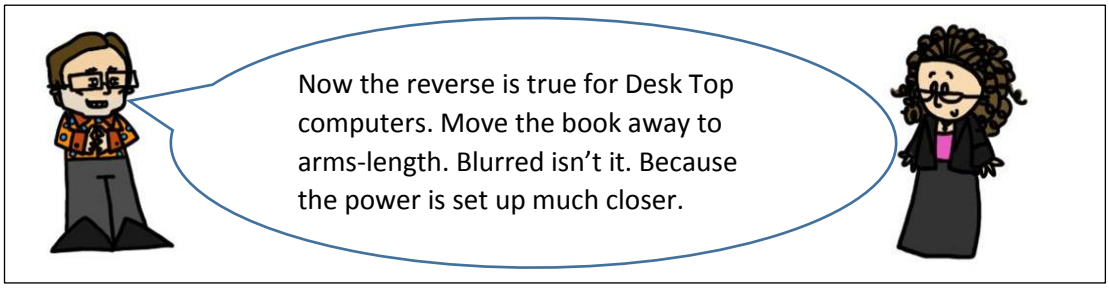


   a. The penny drops as to why you cannot simply make them stronger

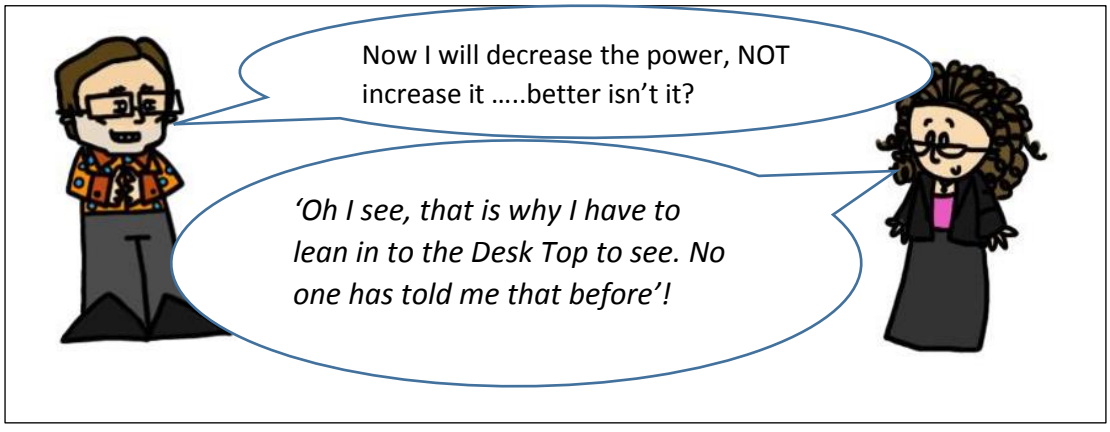


3. DEMONSTRATE: Decrease Add and increase working distance

a.



b.



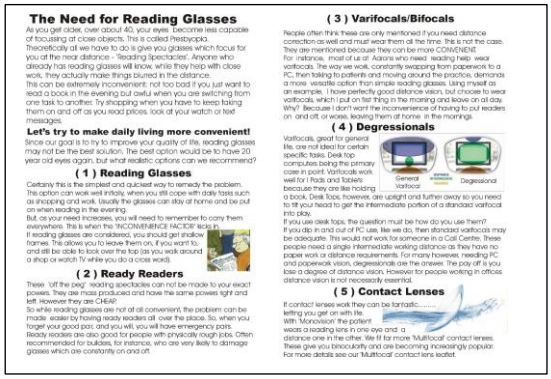
4. Reading corrections of any description are general purpose things. They may do 95% of close tasks – BUT specific tasks may fall outside the zone. The patient's life identifies possible needs:
    a. Too small? (Spot Tasks) **BBB Leaflet** (Click on the image to Go to the '**Big Bright Bold' Leaflet**)
    Consider niche products to help once the patient appreciates this is not a reflection of poor sight but rather the task.

        i. Coloured labels on packets
        ii. Crossword numbers
        iii. Knitting patterns
            1. What niche products may help?

            a. Magnifiers are not just for the visually impaired. Think of a Watch Mender needing a magnifier.
            b. Stronger glasses with shorter Working Distance, if patient accepts the limitations, for Cross Stitch or model making.
            c. Spot Lights – Light should be considered an optical appliance

    b. Near tasks further away. Explain the options. The patient may not need them yet but out of courtesy it is only right the patient is made aware to make an informed decision.
        i. Desk Tops
            1. Degressionals
            2. Single Vision Computer spectacles
        ii. Bridge – Degressionals may work
        iii. Painting – How do they paint?
            1. Pencil Sketching – standard Varifocal
            2. From a Picture – Single vision readers may do
            3. From a distant scene in oils - Long Degressional with hint of Distance?
            4. Water colours with ink – quite detailed
    c. Inside people/Office workers – Nothing is that far away. Is distance vision necessary? An optometrist's working life is a small box – we don't need distance vision. Long Degressionals used as 'Inside Varifocals' – especially for people who have virtually no distance prescription.

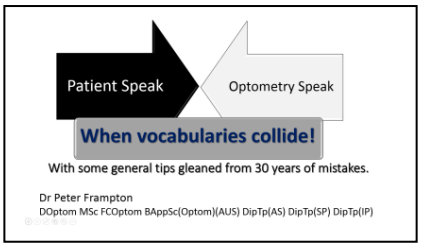
Reading Glasses Leaflet (click on the image) must be discussed.
'Out of Courtesy' patients should be given all their options including Ready Readers (Builders) and Contact Lenses. When Contact Lenses appeal you are offering a solution to a lifestyle inconvenience not simply an optical appliance.
Cost is not the issue. Lifestyle convenience is!



NON-IMPROVABLE ACUITY & MANAGING EXPECTATIONS

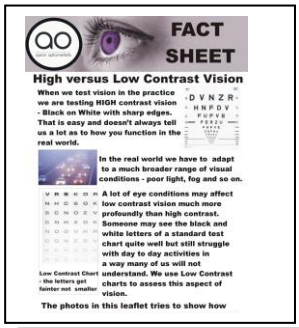
There are many reasons a patient may be hoping for improved (Stronger) spectacles when in reality this cannot be achieved. The number of other practices persisting in prescribing when a significant improvement is not possible for the patient is frightening. Forget targets; there are times when honesty and not prescribing is correct.

Please click on the image to view our patient testimonial on our Web Site about communication.



Patients do not speak in optometric terms, they speak in levels of frustration (Click on the **Patient Speak, Optometry Speak** image to go to our powerpoint expanding this topic).

1. *'I am always looking for light'*
2. *'I always want to clean my glasses'*
3. *'I keep moving the varifocals to try to find the spot.*

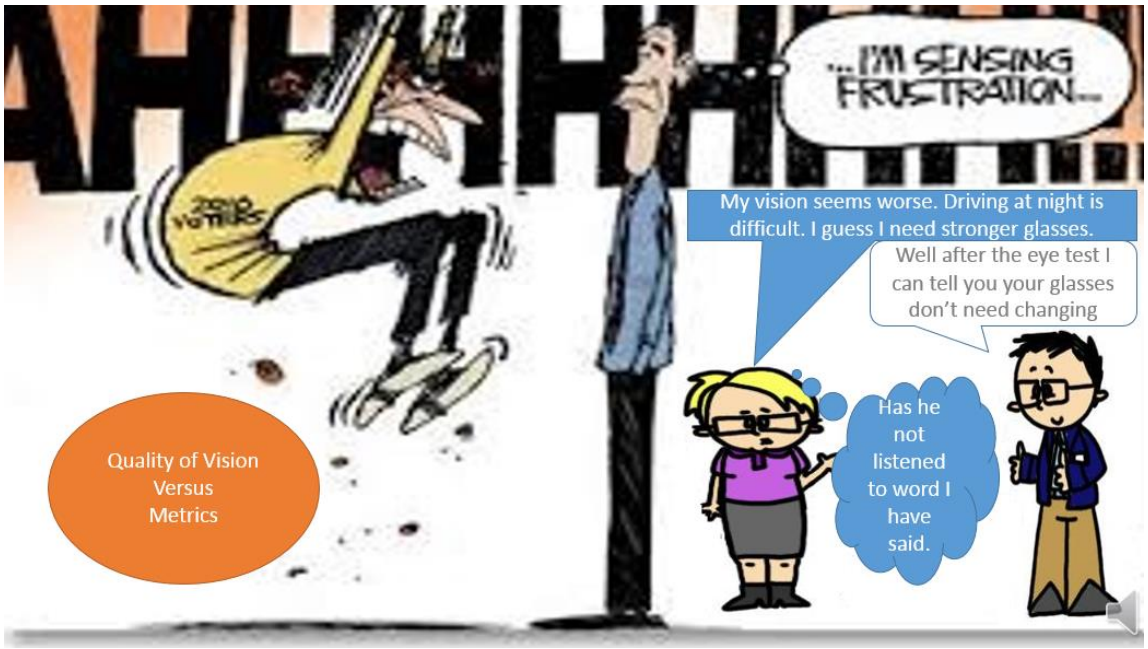


These comments scream Cataract, but of course the patient will not know this! They will simply think something is wrong with their glasses.

We have numerous leaflets expanding on the idea of 'Quality of Vision' rather than 'Quantifiable Vision' on a High Contrast chart.
Primarily: **Cataract, Big Bright Bold** and **Contrast Fact Sheet**

(Click on the images to go to appropriate leaflets, Fact sheets or power point).

A serious communication clash can occur with all reduced acuity scenarios.



The patient has told the optometrist their vision has changed (Fact). The Optometrist does a full eye exam, without engaging with the Patient, and at the end of a stressful and time consuming exercise tells the Patient there is no change (meaning the spectacle power hasn't changed!). *This happens elsewhere a lot.*
The patient, and their loyalty to your practice, necessitates an explanation.
Their spectacle power may not have changed but the optometrist is in no doubt their vision with those spectacles has. We must empathise and show understanding for what is a very frustrating situation. Even when high contrast acuity is good the patient deserves an explanation – 'We are testing high contrast vision (that is pure black on pure white with sharp edges), EASY. Someone may perform well here, in optimised conditions, but the real world is simply not that easy – foggy, dark, low contrast'. Patients will then accept what you are telling them because you obviously understand their plight and they will probably confirm what you said is exactly what they feel. The patient feels values valued and not ignored.

What must we do to try to help?

1. We need to physically demonstrate the effect a good light has. This is the biggest WOW a patient may get. If this is simply explained, rather than actually demonstrated, the impact will be lost. Patients will come back with their new readers saying they worked better in the practice. You cannot optimise everything in a standardised clinic room (High contrast acuity chart and great light) and then expect the person to have the same fluency in their own homes!
2. Physically demonstrate the effect of increasing the Add (+1.00 flipper does it). The Patient may feel it is intuitively correct to simply increase the power.
    a. Demonstrating the effect on working distance helps the patient understand the problem. Just telling them may be logical to you but they will not have an optical background.
3. Differentiate Fluent Reading from Spot Reading **BBB Leaflet**
    a. Spot vs Fluency – Hand Magnifier may be an option. Not meant to read a book – meant to simply spot read a cooking instruction.
    b. Still consider in terms of **BBB.** A simple magnifier will do Big, an illuminated one does Big and Bright.
4. Discuss other technologies – TABLETS – **BBB Leaflet**
5. Discuss real life anecdotes from the Patient's initial life history: crosswords, reading cooking instructions - what strategies will best achieve success – may not be optical! (Downloading a book onto an I Pad may be the patient's best option to achieve Big, Bright and Bold).
6. Discuss how they may perform well on a high contrast chart but struggle in the real world – **Contrast Fact Sheet.**

EMERGING LOW VISION

In community practice we deal with a very poorly catered for group – The emerging low vision patient. It may be temporary because of developing cataract, it may be progressive as in Atrophic AMD. Whether referring of managing, these patients need a lot of help.

It may come as quite a shock to be told new spectacles will not be of help! *'What, just make them stronger'.* They will go through the depression process (to some extent) **Depression and Vision Loss Fact Sheet** (Click on the image to go to this Fact Sheet)**.** They may have quite good VA (6/12) and fall under the radar of full-on Low Vision services. Yet they may perform quite badly compared to others with much worse VA! This reflects the low grade depression process and these people need our advice and support.

Vision Loss: The Grief Cycle and Depression

Depression and Vision Loss Fact Sheet. Whether depression is obvious or not, the concept underpins everything you should be thinking in these scenarios. Even mentioning cataracts can trigger low grade depression. It should never be suggested: '*there is nothing else to do'*. Small achievable steps is how to approach all these situation – especially if there is non-treatable condition such as atrophic AMD.

The patient can take control and is empowered. The cataract may not be ready to do but strategies are put in place to work the problem. NEVER assume, because they are old they cannot us a tablet. If they show reluctance there is usually a family member there and you will see the penny drop with them and they become the 'tech support'. They download books, all the patient needs to know is how to turn it on and blow up the text.

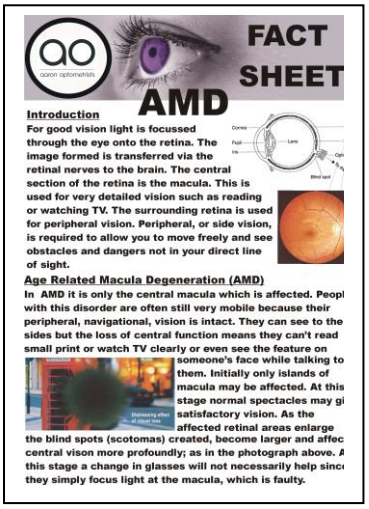
SMALL STEPS – if anyone says (and they do in other places) there is nothing I can do (by that they mean I cannot flog you another pair of spectacles) you are bedding in the trigger for the depression.

We must:

1. Explain with leaflets and family support, with the patient's permission, why the vision, while still quite good (positive spin essential) is not quite as good as it used to be.
    a. New glasses may not be the answer and we need to shift the emphasis away from an optical appliance and across to environment **(BBB Leaflet).**

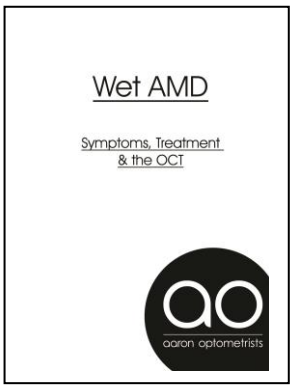
2. Add/Working Distance demonstration to show this strategy is probably no longer the best - +4.00 Adds and Large print books are no longer essential

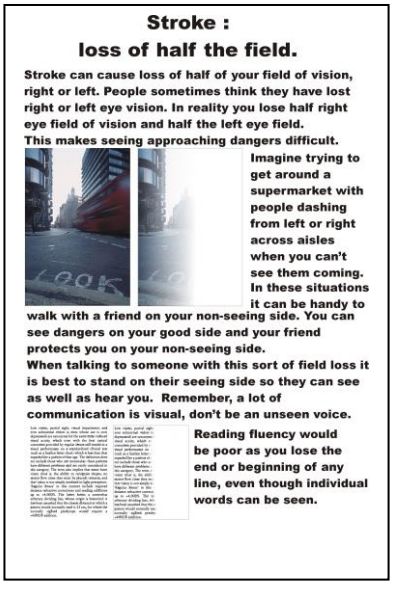
a. Light, BBB,
    i. Tablet (for general fluent reading)
        1. Combining magnification strategies. We get some with standard Add +2.50 to +3.00 perhaps, and get the rest by increasing font size on Tablet
        2. All 3Bs are taken care of, BIG (we increase the font), BRIGHT (it is illuminated) and BOLD (it is pure data so pure black on pure white)
        3. Tablets feel normal so there is no stigma attached
    ii. Spot Tasks (for specifics reflecting Patient needs) must also be addressed.
        1. Explain limits and Reserves **(BBB Leaflet).** They may actually be reluctant to read N5 because it feels uncomfortable. It must be pointed out we do not expect them to read at their limit.
            a. Use an anecdote **(BBB Leaflet):** it is like lifting something very heavy, you may be able to lift it but you could not sustain it. If you lift something half the weight you can hold it for much longer. Same with reading.
            b. Another anecdote for Spot Tasks is a Watch Mender. These people had to use a magnifier because what they did was beyond the scope of normal vision. Having a magnifier for spot tasks is no different. '*I don't want you to read a novel with a magnifier, I want you to be able to read a label and know you turn the oven to 180'*! Still think BBB – Illuminate Mag gives BIG and BRIGHT.


FACT SHEET
AMD
Introduction
For good vision light is focussed through the eye onto the retina. The image formed is transferred via the retinal nerves to the brain. The central section of the retina is the macula. This is used for very detailed vision such as reading or watching TV. The surrounding retina is used for peripheral vision. Peripheral, or side vision, is required to allow you to move freely and see obstacles and dangers not in your direct line of sight.
Age Related Macula Degeneration (AMD)
In AMD it is only the central macula which is affected. Peopl with this disorder are often still very mobile because their peripheral, navigational, vision is intact. They can see to the sides but the loss of central function means they can't read small print or watch TV clearly or even see the feature on someone's face while talking to them. Initially only islands of macula may be affected. At this stage normal spectacles may gi satisfactory vision. As the affected retinal areas enlarge the blind spots (scotomas) created, become larger and affec central vison more profoundly; as in the photograph above. A this stage a change in glasses will not necessarily help sinc they simply focus light at the macula, which is faulty.

3. Leaflets and Fact Sheets available to help Patient and family understanding and take ownership:

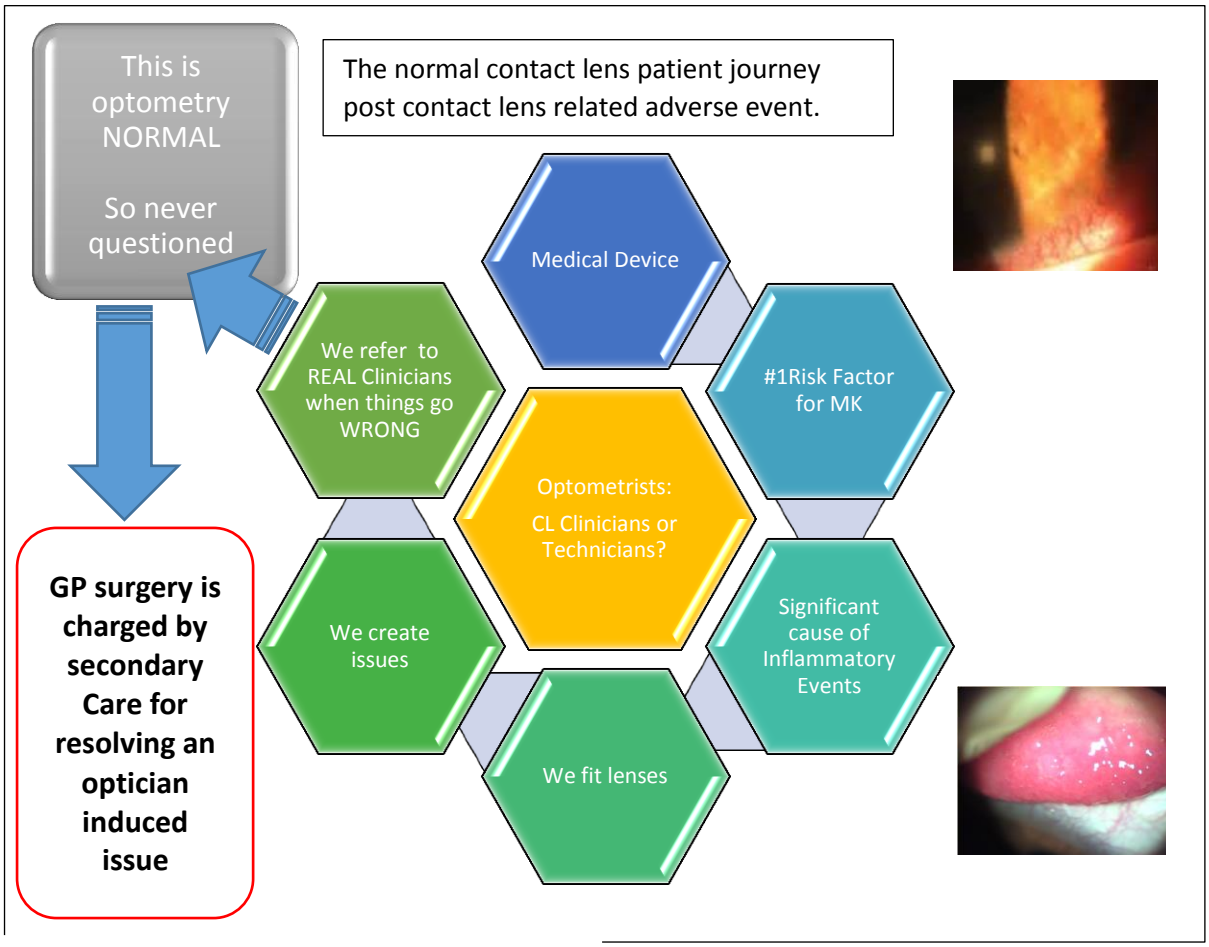
1. **AMD Fact Sheet** (with proximal magnification for TV)
2. **AMD Nutrition FACT SHEET**
3. **Wet/Dry AMD** signs of change, Home Amsler Grids and IMMEDIATE access to Tomography (in the community) if necessary
4. **AMD Scotoma Fact Sheet** for mobility
5. **Stroke/Hemianopia Fact sheet** for mobility
6. **Glaucoma Scotoma Fact Sheet** for mobility
7. **Contrast Fact Sheet** for mobility
8. **BBB Leaflet**
9. **Cataract Leaflet**


Wet AMD
Symptoms, Treatment & the OCT
aaron optometrists

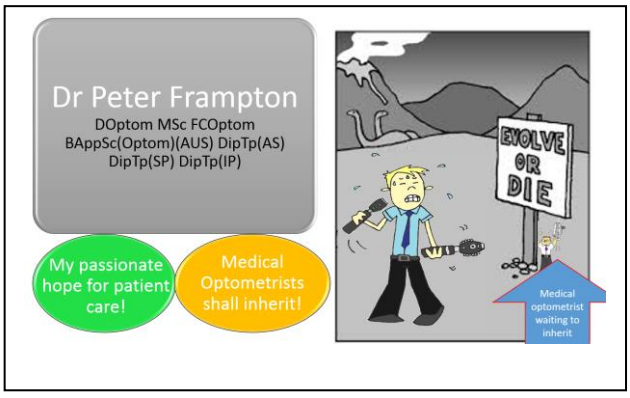

Stroke :
loss of half the field.
Stroke can cause loss of half of your field of vision, right or left. People sometimes think they have lost right or left eye vision. In reality you lose half right eye field of vision and half the left eye field. This makes seeing approaching dangers difficult.
Imagine trying to get around a supermarket with people dashing from left or right across aisles when you can't see them coming. In these situations it can be handy to walk with a friend on your non-seeing side. You can see dangers on your good side and your friend protects you on your non-seeing side.
When talking to someone with this sort of field loss it is best to stand on their seeing side so they can see as well as hear you. Remember, a lot of communication is visual, don't be an unseen voice.
Reading fluency would be poor as you lose the end or beginning of any line, even though individual words can be seen.

CONTACT LENS PRACTICE IN THE 21ST CENTURY?

Currently, all opticians are allowed to prescribe and fit contact lenses but only a minority of 'Medical Optometrists' have the qualifications and experience to treat the potentially sight threatening complications. Yet contact lenses are designated a 'medical device' and as such should necessitate a standard of medical expertise on the part of the practitioner. The extremely rudimentary medical knowledge of the majority of contact lens practitioners constitutes a serious societal health risk. Further, when referring patients with contact lens related complications, the patient's GP surgery is charged by Secondary Care. This is an unnecessary financial burden on Primary Care. Indeed it can be argued the cost of contact lens complications, as a privately purchased commodity, should not be borne by primary or secondary care.



This is a counter-intuitive model not reflective of real medical expectations. Please click on the image to view our 'Home Truths' powerpoint on the Website for further information. Any Contact Lens patients who value eye health should value a 'Medical Optometry' driven service. Aarons has embraced 'Medical Optometry' and introduced **'Clarity'**. (see next section)

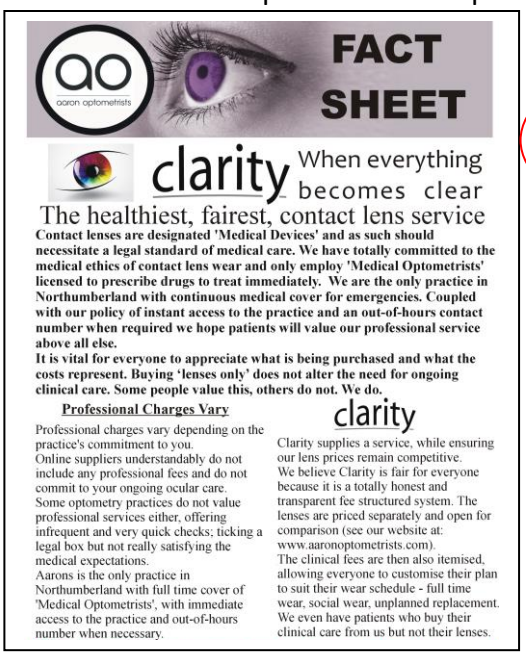


CONTACT LENSES AND CLARITY

First view our patient testimonial on the Web Site (Click on the image to access). Pauline explains the importance of **Clarity (Fact Sheet).** What she did not say on the actual recording was she had forgotten she could have immediate access and wondered what to do when she had a red painful eye. It was a friend who reminded her to visit us immediately!

LESSON: Never assume because a patient has been told about Clarity the full implications are appreciated or remembered.

To avoid these hazards it is mandatory to re-enforce important information every time a Contact Lens patient is in the practice, EVEN if it is for an Eye Examination rather than Contact Lens check. **Clarity Fact Sheet:** To ensure all patients value the clinical service and introduces the concept of 'Medical Optometrists'.



FACT SHEET

clarity When everything becomes clear

The healthiest, fairest, contact lens service

Contact lenses are designated 'Medical Devices' and as such should necessitate a legal standard of medical care. We have totally committed to the medical ethics of contact lens wear and only employ 'Medical Optometrists' licensed to prescribe drugs to treat immediately. We are the only practice in Northumberland with continuous medical cover for emergencies. Coupled with our policy of instant access to the practice and an out-of-hours contact number when required we hope patients will value our professional service above all else.

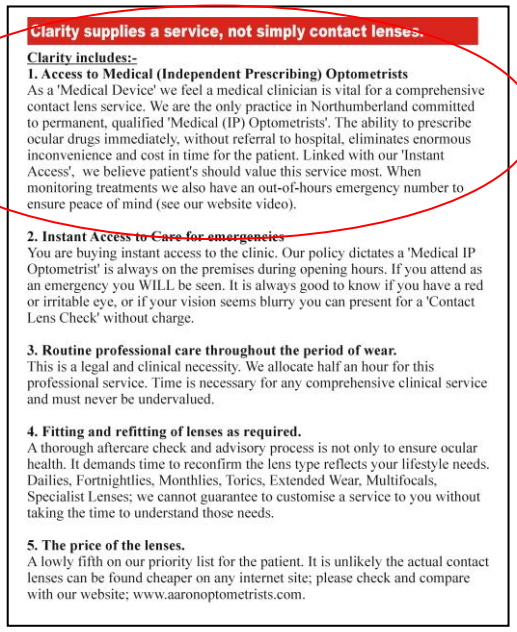
It is vital for everyone to appreciate what is being purchased and what the costs represent. Buying 'lenses only' does not alter the need for ongoing clinical care. Some people value this, others do not. We do.

Professional Charges Vary

Professional charges vary depending on the practice's commitment to you.
Online suppliers understandably do not include any professional fees and do not commit to your ongoing ocular care.
Some optometry practices do not value professional services either, offering infrequent and very quick checks; ticking a legal box but not really satisfying the medical expectations.
Aarons is the only practice in Northumberland with full time cover of 'Medical Optometrists', with immediate access to the practice and out-of-hours number when necessary.

clarity

Clarity supplies a service, while ensuring our lens prices remain competitive.
We believe Clarity is fair for everyone because it is a totally honest and transparent fee structured system. The lenses are priced separately and open for comparison (see our website at: www.aaronoptometrists.com).
The clinical fees are then also itemised, allowing everyone to customise their plan to suit their wear schedule - full time wear, social wear, unplanned replacement.
We even have patients who buy their clinical care from us but not their lenses.



Clarity supplies a service, not simply contact lenses.

Clarity includes:-

1. Access to Medical (Independent Prescribing) Optometrists
As a 'Medical Device' we feel a medical clinician is vital for a comprehensive contact lens service. We are the only practice in Northumberland committed to permanent, qualified 'Medical (IP) Optometrists'. The ability to prescribe ocular drugs immediately, without referral to hospital, eliminates enormous inconvenience and cost in time for the patient. Linked with our 'Instant Access', we believe patient's should value this service most. When monitoring treatments we also have an out-of-hours emergency number to ensure peace of mind (see our website video).

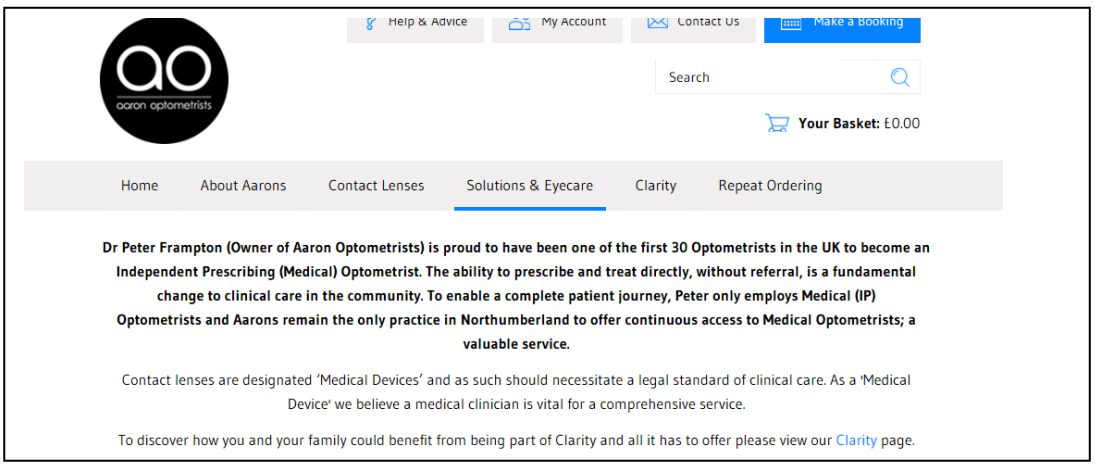
2. Instant Access to Care for emergencies
You are buying instant access to the clinic. Our policy dictates a 'Medical IP Optometrist' is always on the premises during opening hours. If you attend as an emergency you WILL be seen. It is always good to know if you have a red or irritable eye, or if your vision seems blurry you can present for a 'Contact Lens Check' without charge.

3. Routine professional care throughout the period of wear.
This is a legal and clinical necessity. We allocate half an hour for this professional service. Time is necessary for any comprehensive clinical service and must never be undervalued.

4. Fitting and refitting of lenses as required.
A thorough aftercare check and advisory process is not only to ensure ocular health. It demands time to reconfirm the lens type reflects your lifestyle needs. Dailies, Fortnightlies, Monthlies, Torics, Extended Wear, Multifocals, Specialist Lenses; we cannot guarantee to customise a service to you without taking the time to understand those needs.

5. The price of the lenses.
A lowly fifth on our priority list for the patient. It is unlikely the actual contact lenses can be found cheaper on any internet site; please check and compare with our website; www.aaronoptometrists.com.

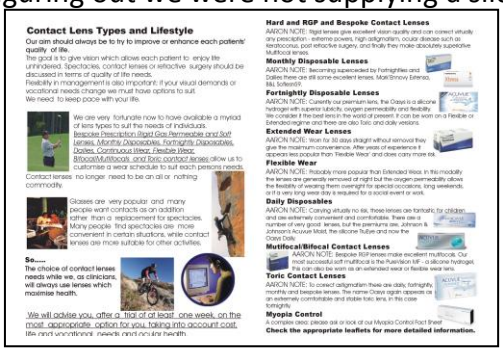
1. Our policy of employing medical optometrists
2. We are the only optometrist in the area to be able to treat directly without sending the Patient to hospital – This is what patients are buying and we must ensure this is Valued.
3. Could link to Powerpoint on Web Site on **Home Truths Evolution**
4. **Website:**



Costs/Fees/Access to Care/IP/Discounts:

Do they fully appreciate the instant access; our policy is when open there must be a clinician on the premises.
Further are they aware they get **discount on Specs!**

Service Assessment: We must not wait until a patient complains or stops their DD before figuring out we were not supplying a slick service

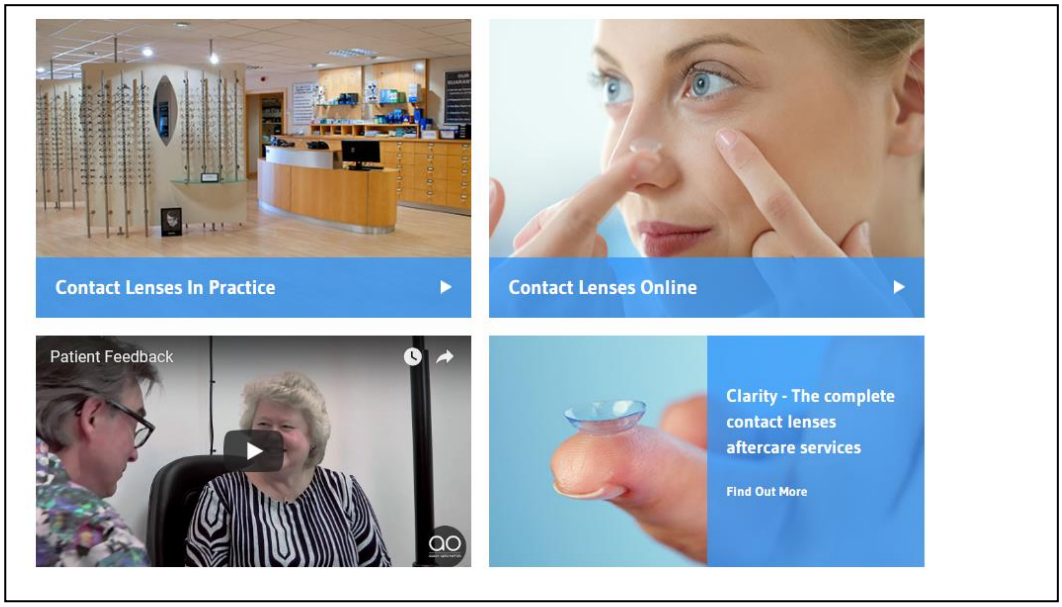


1. Do the lenses arrive on time if on stream line?
    a. If not on Stream line you they want to go on it? Are they happy collecting?
2. Does the lens wear modality still match the Patient lifestyle **Lifestyle Leaflet?**
3. *'Let's recheck the lens prices (so let's look at the **website**) to ensure there is no need to shop for better prices'.*
4. **Web site**: Most of us convenience shop. That is one of the roles of the website. Especially patients who self-trigger their lens purchases (Social daily wearers) need to be shown (not just told about) our website and how to order – when the time suits them not us. Could be Friday night at 10pm! Many patients still do not know this service is available.

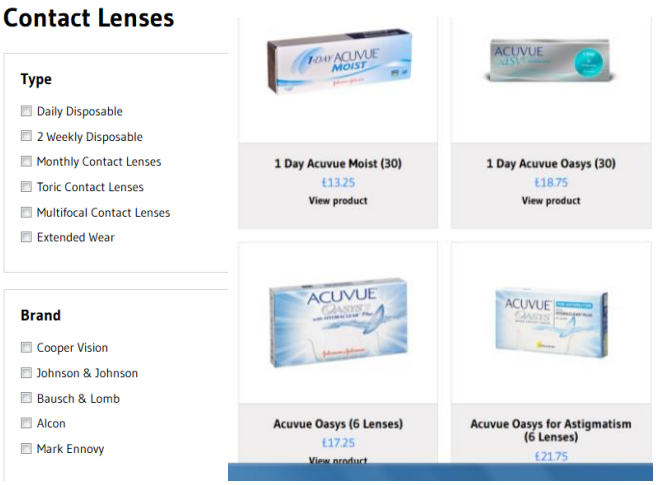
ST Schedule: Another area we can fall foul of poor communication. We must stress the need for scheduled ocular exams. REASON: This constitutes the baseline on vision and health. A Patient may complain of poorer vision and the Contact Lens Optician may strive to improve the Contact Lens and fail, when the underlying problem is a minor binocular vision problem or early cataract.

Contact Lens Commodity Costs. Patients will shop around, even when staying on **Clarity –** we have had instances of Patients taking prescription. Why? After all, we are cheaper. Why? Because we have not stressed this fact at every opportunity. So……

Web Site. We must use this as a resource. I used to hand out Web Cards but this is not as successful. We want to bring up the website with Patient and compare. Demonstrating this will have profound impact. Simply telling them will not work. *'Let's look at some other Web Sites to compare'*



Convenience Shopping – The Web site: To Repeat.



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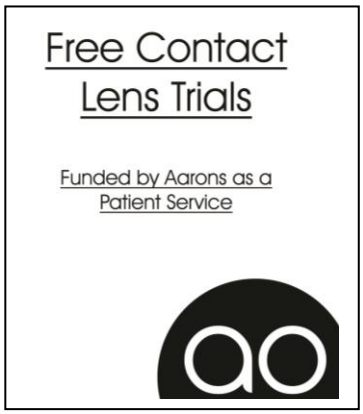
Trials are FREE (with some clauses to protect US) – Please read the **Contact Lens Trial Leaflet** (Click on the image).



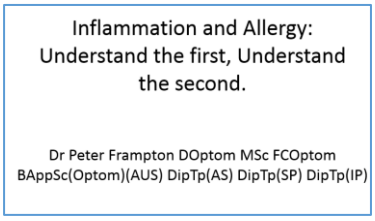
Many people could be successful with contact lenses but may worry about trying them. We do not want fear of failure, or perceived cost to hinder trying options. We strive to eliminate any obstacles.

BUT……..

Potential Outcomes: 1) If, for any reason, the patient does not proceed there will be No Charges. Cost of the trial is absorbed by Aarons as a courtesy.
2) If the patient wishes to proceed and signs onto Clarity, again No charges for the trial apply.
3) If the patient wishes to take the prescription to purchase the product elsewhere a charge of £60 will be levied on handover of the prescription. In this case we must recommend, and demonstrate, our website, for best prices.

ALLERGY

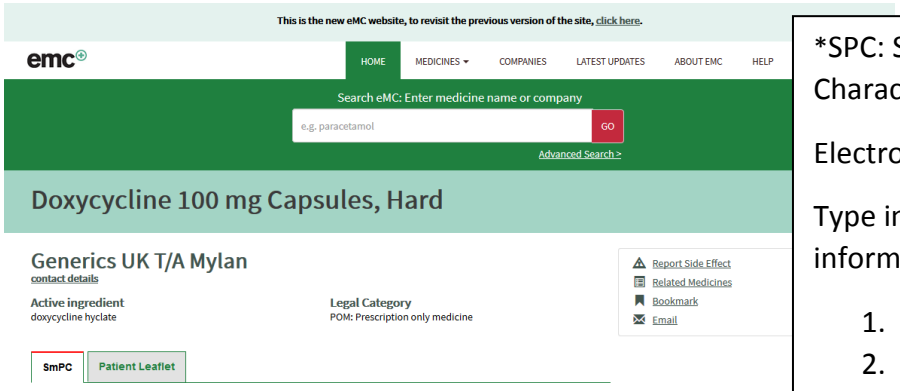
Research suggests as many as **30 percent** of adults and **40 percent** of children are affected by allergy and hay fever.



See the **Inflammation and Allergy** powerpoint on the website to give an overview. Click on the image to access

A routine question for all optometrists, not just Medical Optometrists, should be

a. *'Do you have an allergies'?*
    i. If as a Medical Optometrist this is potentially significant to treatment strategies it is also important to verify whether it is:
        1. True Allergy
            a. *'What happened when you were given amoxicillin'?*
                i. *'I came out in a Rash'* Allergy
        2. Drug ADR
            a. *'What happened when you used Doxycycline'?*
                i. *'My skin became light sensitive'*
                    1. Documented ADR for Doxycyline
                        a. SPC* Photosensitivity reaction, rash including maculopapular and erythematous rashes
                        b. Designated by SPC at 'Common' ≥ 1/100 to < 1/10



*SPC: Summary of Product Characteristics.

Electronic Medicines Compendium

Type in the drug to view all information:

1. Therapeutic Indication
2. Dosage
3. Drug interactions
4. ADRs

b. *'No you have Hay fever'?*
    i. If so ask if eyes are ever itchy - SAC/PAC
        1. There is no point simply asking if no one reacts to the question!
        2. I sometimes also ask are the symptoms enough to make you want to do something about it?

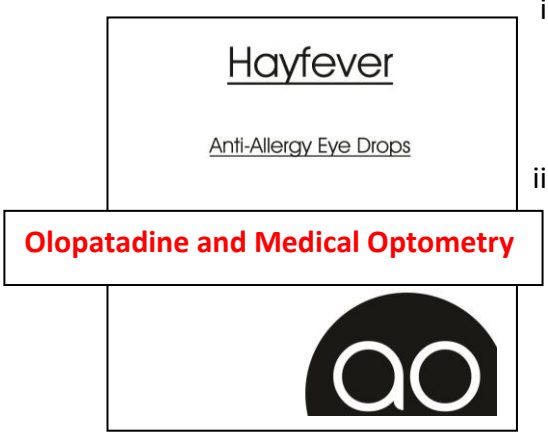
a. Whether the answer is YES or NO, Out of Courtesy go through the **Allergy Leaflet**

b. *'At least you have the information. If you get no symptoms great. But if you have a flair up next spring remember you do not have to put up with it'.*

c. This also opens another opportunity to indicate we are Medical Optometrists

i. Explain mechanism and why Mast Cell Stabilisers are no good for immediate relief.
   1. Also meant to be qid (4X per day) so inconvenient

ii. Primary Drug prescribed – Olopatadine
   1. Prescription only
   2. Mixed Mast Cell Stabiliser and Anti-histamine
      a. Great for both SAC and PAC
   3. Twice a day Dosage
      a. Excellent for CL wearers
         i. Before lens insertion and post lens removal



Itchy Eyes

Allergic Conjunctivitis

Allergic reactions on the conjunctiva of the eyes can make the eyes red and uncomfortable. The hallmark of allergic conjunctivitis is ITCH.

There are different types of allergic conjunctivitis : Seasonal Allergic Conjunctivitis (SAC) is a heightened sensitivity to pollens and occurs during the summer months. Perennial Allergic Conjunctivitis (PAC) is an identical reaction but the triggers, such as dust, are present all year round. More serious allergies, associated with asthma and eczema, also occur and are much more problematic (see facing page). Chronic irritation due to eye stitches, artificial eyes and old fashioned hard contact lenses can also induce inflammatory responses identical to allergic reactions and are treated identically. Sometimes these can also cause mechanical or toxic damage in which case the primary symptom would be grittiness rather than itch.

Histamine

Histamine, a chemical promoting inflammation, is released by mast cells as a response to an irritation or injury. Mast cells are situated throughout the body but the conjunctiva of the eyes is extremely rich in them.
A side effect of histamine can be to make the eyes itch.
Management of allergies can be to simply block histamine already released, or try to stop mast cells releasing the chemical at all.
As 'Medical' Optometrists we can treat with 'prescription only medicines' for more severe conditions.

Eye Whiteners/Antihistamines

Prolonged irritation make the eyes look red and inflamed as well as feel irritable or itchy, typically experienced after too much swimming, sunbathing or computer use. Decongestants (eye whiteners) and pure anti-histamines can be beneficial in these circumstances. However these are meant for occasional use only. Symptoms of more serious problems such as foreign bodies, abrasion or dry eye, can be masked by these cosmetic treatments. Also, overuse can result in rebound redness (the eyes become redder than previously), so the drops are not for prolonged use and must never be instilled more than 3 times per day.
Otrivine Antistin is an over the counter decongestant/anti-histamine. These drops give prompt relief of the symptoms so are good for occasional use.
As Medical Optometrists we tend to prefer other medications. Otrivine Antistin carries slightly higher risk when used by people with high blood pressure, history of stroke, heart disorders or hyperthyroidism.
Other measures, when the symptoms are mild, including simple cold compresses and astringent eye baths (Vizulize), can help make the eyes more comfortable during peak episodes of discomfort.

Mast Cell Stabilisers

Rather than simply blocking the action of histamine, mast cell stabilisers actually prevent mast cells from degranulating in the first place and so are far more effective in controlling long term chronic inflammation due to hay fever and allergies. These medications do not give immediate relief however, since they do not block the action of histamine already in the system. Ideally, medication should start prior to the onset of symptoms and be used throughout the susceptible period, summer months for SAC, but all year round for PAC.
The mainstay of treatment for many years has been Sodium Cromoglycate as used in Opticrom. Newer products, Alomide, containing Lodoxamide and Rapitil are also available.

Mast Cell Stabiliser /Antihistamine Combinations (Prescription Drugs)

Newer, combination drops are now available and give both prompt symptomatic relief and long term control of allergic conjunctivitis. Optilast (Azelastine), Zaditen (Ketotifen) and Opatanol (Olopatadine) are all combination medications.

The drug of choice for us is Opatanol. Unfortunately this is a prescription only drug so cannot be bought over the counter. However, as INDEPENDENT PRESCRIBING Optometrists, we can prescribe this medication and always have it available in our Dispensary. Unfortunately there is still no NHS funding stream for Medical Optometrists so we are forced to charge the standard private prescription fee but we can also prescribe via your GP.

Medical Optometrists and Prescription Drugs

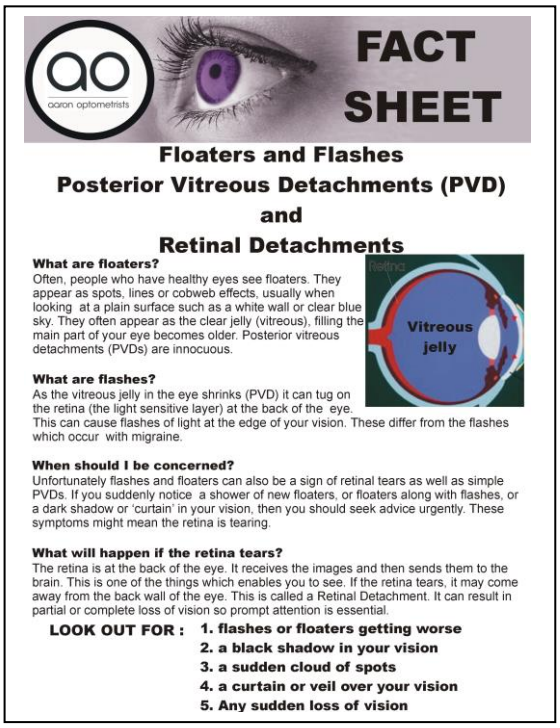
For very severe inflammatory responses, or if very prompt treatment is necessary, mild steroids as well as other prescription only drugs can be prescribed. This is only possible because we are Medical Optometrists with the advanced training to treat, rather than simply refer, more significant allergic and inflammatory responses. Again the drugs, while never on display, can be supplied immediately from our dispensary or we can prescribe via your GP if necessary.

As Medical Optometrists we will also prescribe other licensed drugs for severe acute and chronic allergy such as FML (Soft Steroid), Predforte for more serious allergy and Acetylcysteine (Ilube) as a mucolytic.

PVD/RETINAL DETACHMENT

My role is to keep my patients safe BUT it is also to keep all my colleagues safe.

Anyone reporting Flashes and Floaters must be given a **Flashes and Floaters Fact Sheet** and certain processes and recommendations will keep both the clinician and patient safe.



FACT SHEET

aaron optometrists

Floaters and Flashes
Posterior Vitreous Detachments (PVD)
and
Retinal Detachments

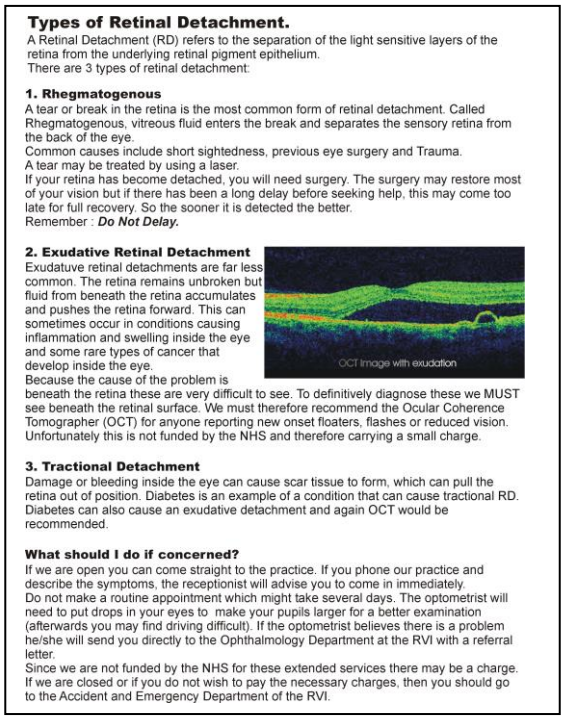
What are floaters?
Often, people who have healthy eyes see floaters. They appear as spots, lines or cobweb effects, usually when looking at a plain surface such as a white wall or clear blue sky. They often appear as the clear jelly (vitreous), filling the main part of your eye becomes older. Posterior vitreous detachments (PVDs) are innocuous.

What are flashes?
As the vitreous jelly in the eye shrinks (PVD) it can tug on the retina (the light sensitive layer) at the back of the eye. This can cause flashes of light at the edge of your vision. These differ from the flashes which occur with migraine.

When should I be concerned?
Unfortunately flashes and floaters can also be a sign of retinal tears as well as simple PVDs. If you suddenly notice a shower of new floaters, or floaters along with flashes, or a dark shadow or 'curtain' in your vision, then you should seek advice urgently. These symptoms might mean the retina is tearing.

What will happen if the retina tears?
The retina is at the back of the eye. It receives the images and then sends them to the brain. This is one of the things which enables you to see. If the retina tears, it may come away from the back wall of the eye. This is called a Retinal Detachment. It can result in partial or complete loss of vision so prompt attention is essential.

LOOK OUT FOR :
1. **flashes or floaters getting worse**
2. **a black shadow in your vision**
3. **a sudden cloud of spots**
4. **a curtain or veil over your vision**
5. **Any sudden loss of vision**



Types of Retinal Detachment.
A Retinal Detachment (RD) refers to the separation of the light sensitive layers of the retina from the underlying retinal pigment epithelium.
There are 3 types of retinal detachment:

1. Rhegmatogenous
A tear or break in the retina is the most common form of retinal detachment. Called Rhegmatogenous, vitreous fluid enters the break and separates the sensory retina from the back of the eye.
Common causes include short sightedness, previous eye surgery and Trauma.
A tear may be treated by using a laser.
If your retina has become detached, you will need surgery. The surgery may restore most of your vision but if there has been a long delay before seeking help, this may come too late for full recovery. So the sooner it is detected the better.
Remember : ***Do Not Delay.***

2. Exudative Retinal Detachment
Exudatuve retinal detachments are far less common. The retina remains unbroken but fluid from beneath the retina accumulates and pushes the retina forward. This can sometimes occur in conditions causing inflammation and swelling inside the eye and some rare types of cancer that develop inside the eye.

Because the cause of the problem is beneath the retina these are very difficult to see. To definitively diagnose these we MUST see beneath the retinal surface. We must therefore recommend the Ocular Coherence Tomographer (OCT) for anyone reporting new onset floaters, flashes or reduced vision. Unfortunately this is not funded by the NHS and therefore carrying a small charge.

3. Tractional Detachment
Damage or bleeding inside the eye can cause scar tissue to form, which can pull the retina out of position. Diabetes is an example of a condition that can cause tractional RD. Diabetes can also cause an exudative detachment and again OCT would be recommended.

What should I do if concerned?
If we are open you can come straight to the practice. If you phone our practice and describe the symptoms, the receptionist will advise you to come in immediately.
Do not make a routine appointment which might take several days. The optometrist will need to put drops in your eyes to make your pupils larger for a better examination (afterwards you may find driving difficult). If the optometrist believes there is a problem he/she will send you directly to the Ophthalmology Department at the RVI with a referral letter.
Since we are not funded by the NHS for these extended services there may be a charge. If we are closed or if you do not wish to pay the necessary charges, then you should go to the Accident and Emergency Department of the RVI.

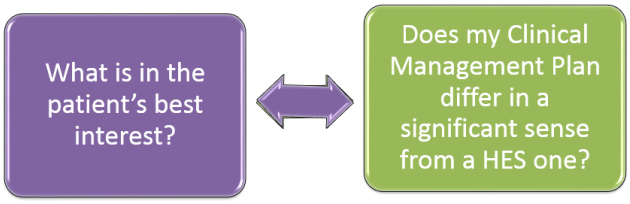
<u>General Introduction from RD/Syneresis Case Record (in Student Packs or Lunch Room)</u>

Anecdotally, flashes and floaters are a very common primary complaint in community optometry; yet the incidence of rhegmatogenous retinal detachment in the general population is only 1 in 10,000 with a lifetime risk of only 3% at age 85 (Kang and Luff 2008).

Of 240 patients reporting acute onset of both flashes and floaters, Hikichi and Trempe (1994) found 89% to have PVD but only 27 also had associated retinal breaks. The poor prognostic power of floaters/flashes in isolation was exemplified by Tanner et al (2000). Only 0.8% of patients reporting acute onset floaters and flashes were found to have retinal detachments, while 1.7% of asymptomatic patients HAD retinal detachments. Referral of asymptomatic patients would seem to improve sensitivity!

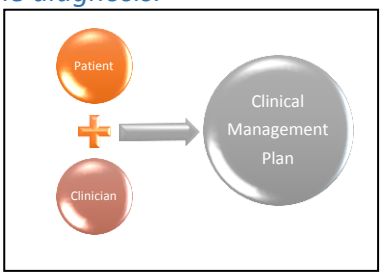
Referral based on floaters and flashes in isolation is not ideal. Further, Tanner et al (2000), Ray-Chaudhuri (2005) and Dayan et al (1996) indicate in secondary care patients are often triaged by optometrists, doctors or less experienced ophthalmologists.

LESSON: It need not be assumed referral to secondary care gives a more comprehensive investigation than we can supply. We should consider 'What is in the Patient's Best Interest'. If what we do in practice is the same as at the hospital – then we might as well do it. It is not in the Patient's best interest to drive 30 miles each way and sit for 4 hours!



Our ideal goal is to refer on an 'Intent to Treat' basis.

The sensitivity of detection tests is improved by increasing the prior incidence of the disease entity within the sample population and by utilising multiple test strategies (Aspinall and Hill 1983). Clinically, this approach necessitates an understanding of conditions that predispose patients to retinal pathology and composite test strategies to refine diagnosis.



Routine

The patient must be involved in the decision process for their personalised Clinical Management Plan. No one will dispute outcome if they were part of the decision.

Dilation:

Generally dilation must be done. You must ensure you cover all your bases and record ALL logic. This keeps you safe.

No 'Red Flags'

If the Px says there has been no change for a year. No new signs are present: explain this does not ring alarm bells. Despite this we would rather dilate to fully assess. If the patient declines, record it was discussed and offered and also record you went through the PVD Fact Sheet so the Patient can return if changes are noted

'Red Flags'

Don't really give the Patient any options. We MUST dilate to assess this problem. *'If you don't feel like driving home immediately do a bit of shopping or have a coffee before you go home'.* No one ever refuses if presented properly.

Risks:

1. Myopia
    a. Moderate to severe myopia, >6D (Ang et al 2005, Coffee et al 2007) is a greater risk; the retina is thinner and there is greater vitreoretinal traction due to the increased axial length (Gariano and Kim 2004).
2. Reduced Vision
3. Trauma
4. If they can identify monocularity, logically this should be more risky as it is unlikely both retinae would fall off at the same time

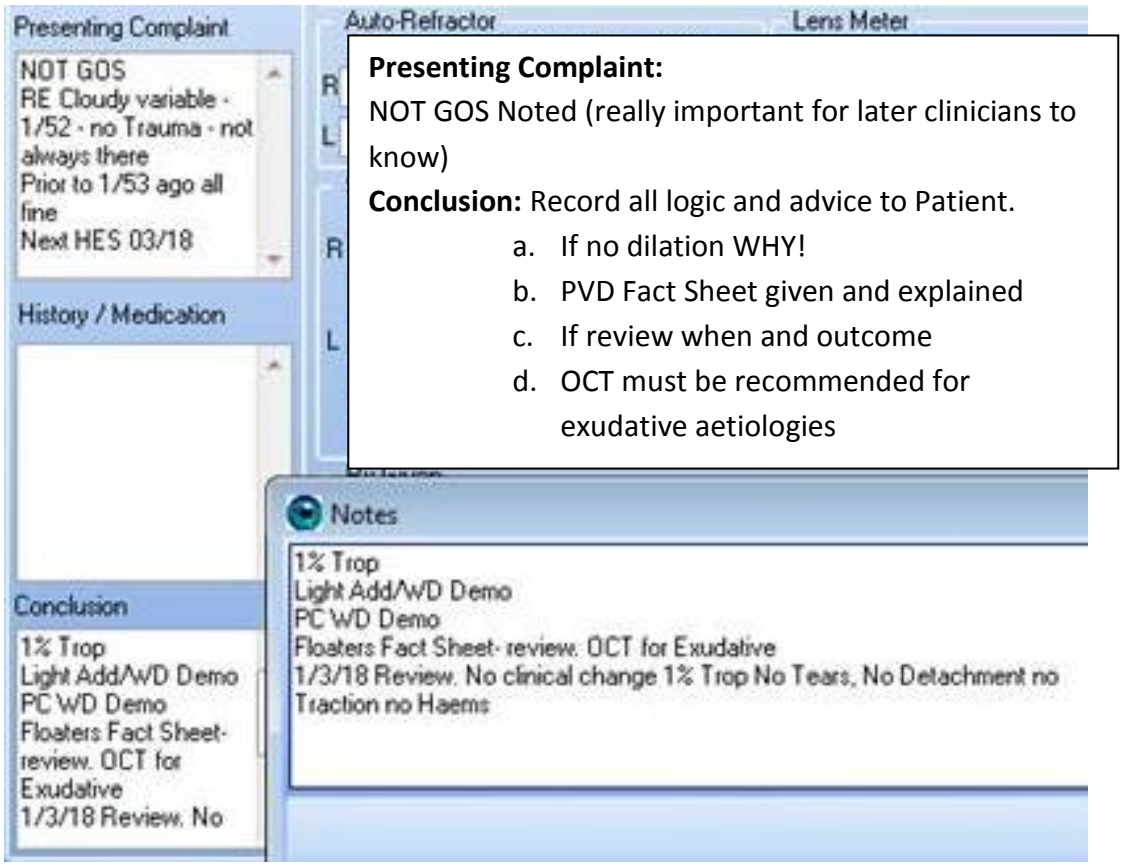
Symptoms:

1. Acute onset floaters and haze
    a. Schweitzer et al (2011a, 2011b) also suggest only PVDs demonstrating more than 10 floaters, curtain or cloud, vitreous haemorrhages or retinal haemorrhages require referral.
    b. How long have you had the floaters?
2. Has there been a change is status?
3. Recent cataract surgery

Signs:

1. Clear observation of pigment in the anterior vitreous
    a. Tanner et al (2000) report observed vitreous pigment, in isolation, was 95% sensitive and 100% specific for retinal breaks and Kang and Luff (2008) suggest a 90% likelihood of a retinal tear if Shaffer's sign is positive.
2. Clinically lower IOP in the affected eye made a retinal detachment assumed, regardless of not being directly observed.

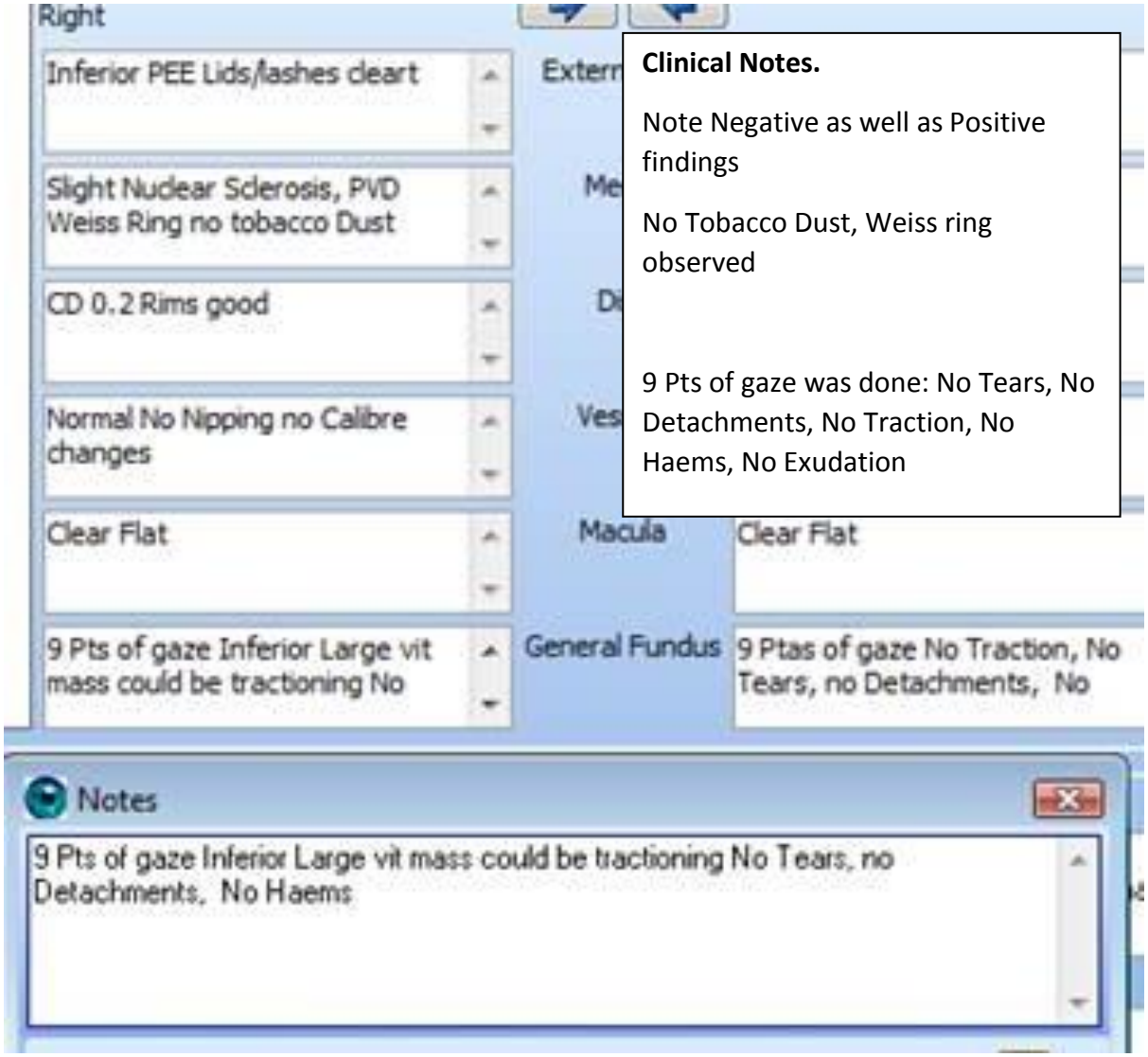
Focus Records



Presenting Complaint:
NOT GOS Noted (really important for later clinicians to know)

Conclusion: Record all logic and advice to Patient.

a. If no dilation WHY!
b. PVD Fact Sheet given and explained
c. If review when and outcome
d. OCT must be recommended for exudative aetiologies


Right
Inferior PEE Lids/lashes cleart
Slight Nuclear Sclerosis, PVD
Weiss Ring no tobacco Dust
CD 0.2 Rims good
Normal No Nipping no Calibre changes
Clear Flat
9 Pts of gaze Inferior Large vit mass could be tractioning No
Clinical Notes.
Note Negative as well as Positive findings
No Tobacco Dust, Weiss ring observed
9 Pts of gaze was done: No Tears, No Detachments, No Traction, No Haems, No Exudation
Macula
Clear Flat
General Fundus
9 Ptas of gaze No Traction, No Tears, no Detachments, No
Notes
9 Pts of gaze Inferior Large vit mass could be tractioning No Tears, no Detachments, No Haems

GLAUCOMA

Out of courtesy patients must be given all the facts. It is not our fault, or the patients, the NHS funded level of examination does not include cutting edge technologies. More importantly an NHS level check is set at 'Entry Level' optometry and cannot incorporate a fee structure reflecting advanced qualifications, representing massive investment in Time and Educational Fees, of Independent Prescribing (Medical) Optometrists. Aarons has totally committed to the ethics of Medical Optometry. This clinical strategy was never to fulfil a purely business goal, but rather because it has always seemed self-evident that achieving the highest educational qualifications, combined with technological innovation, is the correct course of action for patient care within the community.

Our stated patient goal is to:- **'Supply every patient with the most appropriate management for their ocular and general health needs'**

To ensure we offer people full choice we must never constrain them to 'cheap'. Our policy is an absolutely positive thing to be proud of, not embarrassed about.

We could simply take the decision not to offer advance services, but we have no right to assume patients put so little value on their eye health. Training to become 'Medical Optometrists', extremely hard won, has certainly revolutionised our diagnostic and treatment capabilities. Our role is to ensure patients are given the fullest choice to ensure their 'Clinical Management Plan' is the most thorough. Offering people only the cheapest service could, and should, be construed as devaluing the patient. It is like saying *'You can only afford second best so that is all I am going to offer you'.*

Intraocular Pressure (IOP)

The fluid inside the eye exerts a pressure. If this pressure is too high it will start to damage the retinal nerve fibres carrying the visual images to the brain. However, as a stand alone test, measuring intraocular pressure is of little value since some people have higher than normal pressure but *do not* develop glaucoma, while others have intraocular pressure within the range considered normal and *still* develop the disease.
So while it is important to measure intraocular pressure, it is how the result relates to other tests which is important.

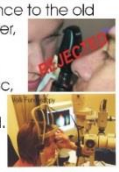
Corneal Thickness and IOP (Pachymetry)

It is now recognised thicker corneas induce a higher IOP reading. NICE recommend adjusting IOP measures for corneal thickness. While not commonly done in community practice, at Aarons we routinely measure corneal thickness (Pachymetry) to adjust IOP readings, ensuring patients are not referred inappropriately.

Optic Nerve Assessment

Arguably the most important 'traditional' technique for diagnosing glaucoma is examination of the optic nerve at the back of the eye. We always use the volk Lens at a slit lamp in preference to the old fashioned ophthalmoscope as the volk gives a clearer, 3D view, even through cataracts.

In glaucoma the retinal nerve fibres, making up the pink neural rim of the disc, are destroyed. The neural rim becomes gradually thinner as glaucoma takes hold.



Fields of Vision

The third 'traditional' test for glaucoma is the field test. If nerves in the optic disc are destroyed by glaucoma the part of your peripheral vision these nerves serve will be lost.

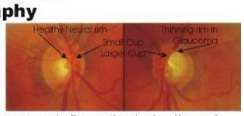
SO.... Loss of peripheral vision comes secondarily to nerve fibre loss. Unfortunately, fields are notoriously unreliable as the patient tires and responds incorrectly. Consequently by the time a field loss is definite, quite a lot of nerves have been lost. While we can strive to stop glaucoma becoming worse we can never recover the vision lost.

Advanced Technology and Training

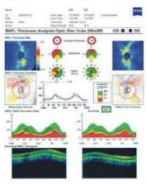
Advanced technologies, not necessarily funded by the NHS, and improved skill levels of some optometrists improve the detection, monitoring and treatment of glaucoma.

Optic Nerve Photography

While we have provided disc photography for over 20 years it remains a very good way of diagnosing and monitoring progression. The ability to compare photos over time allows much finer discrimination of subtle optic nerve changes.



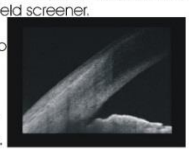
Retinal Nerve Laser Mapping



We now have a Laser Tomographer which scans the retina around the optic nerve, where the glaucoma damage starts. This painless and quick technique gives a thickness map of the Retinal Nerves. This technology gives information not available with 'traditional' NHS techniques. The techniques actually evaluates the site of damage before the patient experiences visual loss on a field screener.

Drainage Angles

Other advanced laser techniques also assesses corneal thickness as well as monitoring, non-invasively, the fluid drainage angle allowing us to assess far more accurately a specific sort of glaucoma :Angle Closure Glaucoma.



Medical, Independent Prescribing Optometrists

It is now an official policy at Aarons to only employ Medical, Independent Prescribing, Optometrists. With advanced training and accreditation these optometrists are better able to detect subtle changes and secondary glaucomas such as Pigmentary Glaucoma and Pseudo-exfoliation. We also treat some patients directly without the need for referral.

AARON COMMITMENT TO ADVANCED TECHNOLOGY AND QUALIFICATIONS

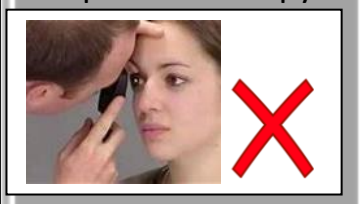
NHS Level

(Opticians)

Intra-Ocular Pressure

Disc Examination

Undilated Ophthalmoscopy



Fields

Suprathreshold 'Quick Scan' Screen

Beyond NHS

(But no extra charges at Aarons)

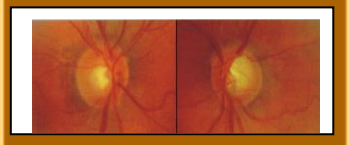
Intra-Ocular Pressure

GAT, Tonopen

Disc Examination

Pupil dilated 3D Volk Examination as standard

Disc Photographs



Fields

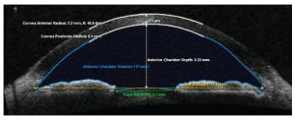
Full Threshold Fields

Advanced Techniques

(with charges and NOT actually offered by opticians)

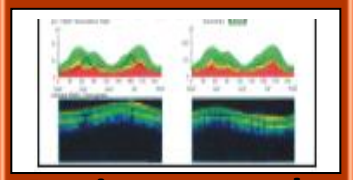
Pachymetry

Corneal Thickness



Laser Disc Map

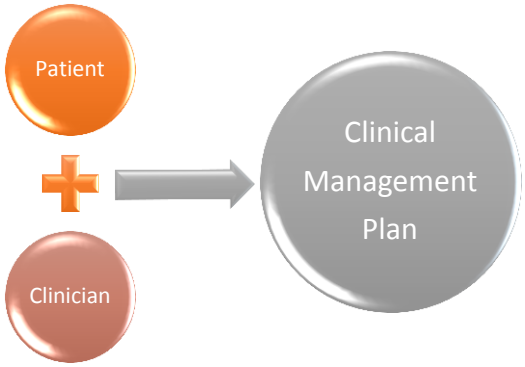
Nerve Fibre Layer



Drainage Angle Tomography

HEADACHES

The majority of patients, when asked, will report headaches. If, however, headache is the primary presenting complaint more significance must be placed on the problem. Regardless, remember, my role is to ensure Patient safety BUT also my Colleague's Safety. To ensure both please incorporate the patient in the decision processes for a 'Clinical Management Plan'

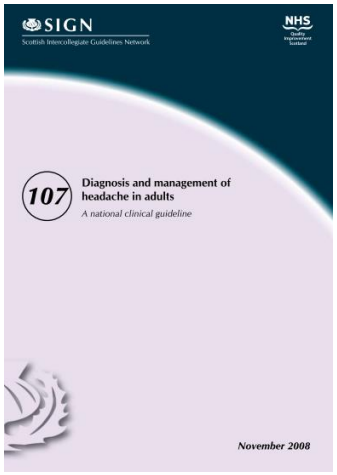


If, after a discussion, both the clinician and patient agree the CMP makes sense and reflects the assessment of signs and symptoms then success is guaranteed.

BUT Headache Fact Sheet regardless to ensure if new evidence come to light then CMP may change!

As a Primary Presenting Complaint consider:

1. Time Scale
    a. *'How long have you had the headaches'?*
    b. *'Has there been a change in pattern'?*
        i. If no change reassurance may be all that is required (BUT incorporate patient in process – do they agree?)
2. Headache Pattern
    a. *'When do they occur'?*
    b. *'Any triggers identified'?*
3. Duration
    a. *'How long does an episode last'?*
4. Debilitating versus Non-Debilitating
5. Location
    a. Frontal, Temporal, Parietal, Occipital
6. General Health
    a. Secondary Headaches, logically, should be associated with systemic signs/symptoms
7. Full medication litany
    a. Absolutely essential
8. What medications have been tried
    a. Which ones helped
    b. Which ones did not help
9. Any 'Red Flags'?



Diagnosis and Management of Headaches in Adults:

A national clinical guideline

Scottish intercollegiate Guidelines Network
SIGN

KEY NOTES

1. Patients with a pattern of **Recurrent, Severe, disabling** headaches associated with **Nausea and photophobia/phonophobia** and who have a normal neurological exam should be considered to have **MIGRAINE**

2. **Oral Triptans** for acute treatment of all severities of **Migraine** if previous attacks were NOT controlled by Analgesics
    a. NEVER use Opioids for Migraine

3. If aura is
    a. Purely negative
    b. Very rapid in onset
    c. Very short
        i. Consider **TIA**

4. Patients with Headaches and **Red flag** should be referred

5. Patients with **FIRST Thunderclap** must be referred

6. Intracranial Hypotension should be considered in anyone whose headaches worsen on assuming an upright position (or become worse during the day

7. Conversely intracranial Hypertension should be considered in anyone whose headaches worsen when lying down or bending over

8. Consider **Giant Cell Arteritis** in anyone over 50 with **New** or **Changed** headaches

9. Diagnosis of **Tension Type Headache** in patients with normal neurological exam with **Bilateral, Non-disabling** headache

10. Secondary Mimics of **Trigeminal Autonomic Cephalalgia** so must be referred

11. When patient presents with **Frequent, Brief, Unilateral** headache with **Autosomal** features **Trigeminal Autonomic Cephalalgia** should be considered

12. When a patient presents with chronic Daily Headache that is **purely Unilateral, Hemicrania Continuum** should be considered.

13. **Hemicrania Continuum** – secondary mimics so refer

14. Anyone presenting with **NEW Daily persistent** Headache – Refer. Secondary causes could be
    a. Subarachnoid Haemorrhage
    b. Giant Cell Arteritis
    c. Raised intracranial Pressure
    d. Reduced Cerebro-Spinal Pressure
    e. Post Trauma

15. Patients with Headaches AND Red Flag – refer

16. Patients with **First** headache or **Change** in headache must have
    a. Clinical Exam
    b. Blood pressure
    c. Neurological exam which includes
        i. Fundoscopy
        ii. Cranial Nerve assessments
            1. Pupils
            2. Fields
            3. Ocular movements
            4. Facial Power and Sensation
            5. Bulbar function – Soft Palate, Tongue movement
        iii. Assessment of all 4 limbs
            1. Tone, Power, Reflexes, Coordination
        iv. Plantar Responses
        v. Assessment of gait including Heel/Toe walking

PRIMARY HEADACHES

MIGRAINE

Unilateral
Pulsating
Moderate to Severe
Builds up over minutes to hours
Lasts up to 72 hours
Disabling
Aggravated by physical activity

Nausea
Photophobia/Phonophobia

Treatment of Acute Presentations

1. NSAIDS (avoid Aspirin and Ibuprofen in Asthma)
    a. Aspirin
    b. Paracetamol
    c. Ibuprofen
2. Oral Triptans
    a. **Oral Triptans** for acute treatment of all severities of **Migraine** if previous attacks were NOT controlled by Analgesics
    b. NEVER use Opioids for Migraine
3. Oral or Rectal Emetics

Prophylaxis

1. B blockers	Asthma Diabetes Bradycardia Peripheral Vascular Disease Depression	Anxiety
2. Tricyclic Anti-dep	Angle Closure Glaucoma	Depression TTH Sleep Disturb
3. Topiramate	Angle closure glaucoma Pregnancy Renal Stones	Obesity
4. Valproate	Obesity Pregnancy Liver Disease	Depression

TENSION TYPE HEADACHES

Bilateral
Non-disabling
Tight or Pressing
Not aggravated by physical activity

Acute Treatment: Paracetamol, Aspirin

Prophylaxis: Amitripoline

TRIGEMINAL AUTONOMIC CEPHALALGIA

Unilateral in Trigeminal Distribution
Severe
Ipsilateral cranial autosomal features

Short Duration – 15minutes to 3 hours
Starts and ceases abruptly
There may be background headache between attacks

Secondary mimics need to be eliminated so must refer

TACS are rare and characterised by attacks of severe UNILATERAL pain in the trigeminal distribution.
They are associated with Prominent Ipsilateral cranial autonomic features.

Types of TAC

1. Cluster Headaches (1:1000)
2. Paroxymal Hemicrania PH (1:50000)
3. Short Lasting Unilateral Neuralgiform Headache with Conjunctival Injection and Tearing (SUNCT)
4. Short Lasting Unilateral Neuralgiform Headache with Cranial Autonomic Symptoms (SUNA)

Cluster Headaches

1. Severe
2. Strictly Unilateral
3. Located in combination of trigeminal roots
    a. Orbital
    b. Supraorbital
    c. Temporal Region
4. Ipsilateral autonomic features MUST occur with an attack
5. Starts and ceases abruptly 15 minutes to 3 hours
6. Patient Restless
7. Frequency 1 every second day to 8 per day
8. May be background headache between attacks and migranous symptoms may be present
9. There is often a striking circadian rhythm
    a. Attacks same time each day
    b. Clusters same time each year

Paroxymal Hemicrania, SUNCT and SUNA have similar characteristics to Cluster Headaches but the duration of attacks vary.

WHEN A PATIENT PRESENTS WITH FREQUENT, BRIEF UNILATERAL HEADACHES WITH AUTONOMIC FEATURES A TRIGEMINAL AUTONOMIC CEPHALALGIA HEADACHE SHOULD BE CONSIDERED.
PATIENTS WITH NEW SUSPECT TAC SHOULD BE REFERRED FOR ASSESSMENT.

Acute Treatment: Subcutaneous injection of sumatriptan, Nasal sumatriptan

Prophylaxis: Verapamil

Other Primary and Pseudo Primary Headaches

HEMICRANIA CONTINUUA

Continuous
Purely Unilateral
Waxes and Wanes but NEVER goes
May also have brief stabs

Secondary mimics are common – so refer

Treatment: Indomethacine

NEW DAILY PERSISTENT HEADACHES

Remember this is not a diagnosis but a description. Can be Primary or Secondary.
Must consider Secondary aetiologies
Must allow 3/12 before diagnosis is made (really chronic)

MEDICINE OVERUSE HEADACHE

This is not a primary headache but is often misdiagnosed as such. Must be excluded – particularly in (New) Daily Persistent Headaches.
All medications can produce MOH

Other Primary Headaches

Primary Stabbing Headache

Transient and localised stabs of pain in the head that occur spontaneously in the absence of organic disease,
Head pain occurring in a single stab or a series of stabs, exclusively or predominantly felt in the distribution of the 1st division of the Trigeminal Nerve (orbital, temple, parietal). Stabs last for up to a few seconds with no associated symptoms.

Primary Cough Headache

Headache of sudden onset, lasting for one second to 30 minutes, precipitated by coughing, straining or valsalva manoeuvre in the absence of any intracranial disorder.

Primary Exertion Headache

Pulsating headache precipitated specifically by any form of exercise, lasting from 5 minutes to 48 hours.

Hypnic Headaches

Attacks of dull headache that always awaken the patient from sleep. Only develops during sleep and awakens the patient, occurring more than 15 times per month and remains for 15 minutes after awakening. First occurs in people over 50 years of age.

Primary Thunderclap Headache

High intensity headaches of abrupt onset, mimicking those caused by ruptured cerebral aneurism. Maximum intensity is in less than a minute and lasting from 1 hour to 10 days. The headaches do not recur regularly.

Hemicrania Continua

Persistent, strictly unilateral headaches, without side shifting. Lasting longer than 3 months, these daily and continuous headaches without pain free periods are of moderate intensity but with exasperations of severe pain.
Ipsilateral autonomic features of conjunctival injection, lacrimation, nasal congestion, ptosis or miosis can be present.

New Daily Persistent Headache

Bilateral, pressing, non-pulsating headaches of mild to moderate intensity that are daily and unremitting, but are not aggravated by physical activity.

SECONDARY HEADACHES

Secondary headaches should be considered in patients with NEW onset headaches or headaches that differ from their usual headaches.

RED FLAG Features should be considered.

1. New onset or change in headache in patients over 50
2. Thunderclap : rapid time to peak headache interval; seconds to 5 minutes
3. Focal neurological symptoms – Limb weakness, aura <5 minutes or >1 hour
4. Non-focal neurological symptoms - for instance cognitive disturbances
5. Change in headache frequency, characteristics or associated symptoms
6. Abnormal Neurological examination
7. Headache that changes with posture
8. Headache wakening the patient up (but remember that migraine is the most frequent cause of morning headaches)
9. Headaches precipitated by physical exertion or valsalva manoeuvre (coughing, laughing, straining)
10. Patients with risk factors for cerebral vein thrombosis
11. Jaw claudication or visual disturbance
12. Neck stiffness
13. Fever
14. New onset headaches in patients with HIV
15. New onset headaches in patients with cancer

PATIENTS WHO PRESENT WITH HEADACHE AND RED FLAG FEATURES OF POTENTIAL SECONDARY HEADACHE SHOULD BE REFERRED TO AN APPROPRIATE SPECIALIST FOR ASSESSMENT

PATIENTS PRESENTING WITH HEADACHE FOR THE FIRST TIME OR WITH HEADACHE THAT DIFFERS FROM THEIR USUAL HEADACHES SHOULD HAVE 1) A CLINICAL EXAMINATION, 2) A NEUROLOGICAL EXAMINATION AND 3) BLOOD PRESSURE MEASUREMENT.

A Neurological examination should include :

1. Fundoscopy
2. Cranial Nerve assessment
    a. Pupils
    b. Visual Fields
    c. Eye movements
    d. Facial power
    e. Facial sensitivity
    f. Bulbar function – soft palate, tongue movement
3. Assessment of Tone, Power, Reflexes and Co-ordination in all four limbs
4. Plantar responses
5. Assessment of gait, including heel to toe walking

There should be more detailed assessment if prompted by the history.

Thunderclap Headaches

Thunderclap headaches can be either Primary or Secondary.

Definition : 'High intensity headache of rapid onset, with maximum intensity being reached in less than a minute'.

Most are instantaneous but occasionally maximum intensity may take 5 minutes. Sudden severe headaches may also be induced by sexual activity and exercise.

PATIENTS WITH FIRST PRESENTATION OF THUNDERCLAP HEADACHE SHOULD BE REFERRED IMMEDIATELY.

Medication Overuse Headaches

Overuse of ALL acute headache treatments, including simple and combined analgesics can cause medication overuse headaches.

The most common type of chronic or frequent headache is overuse of analgesia. The scenario is usually someone who suffers from migraine or is generally 'headachy', they go through a bad spell of frequent headaches, perhaps due to stress, resulting in frequent doses of analgesia or triptans . Before long, an overuse syndrome exists. If a patient is taking any paracetamol, NSAID's, triptans, codeine etc) acute treatment for headache on more than 12 to 15 days per month then there is a risk of over use.

The only way to treat this is to stop the analgesia. In the short term this will exacerbate the headaches but before long the headache frequency and intensity will be much reduced.

Advise the patient that if their headaches are ongoing after a complete break from painkillers for 2 weeks to see their doctor.

Cervical Spine Headaches

Unilateral or bilateral and localised the neck and occipital region, although the pain may radiate to regions of the face.
Pain may be precipitated or aggravated by neck movements or neck postures

Raised Intracranial Pressure

The headaches are usually worse lying down and may wake the patient from sleep.
My also be precipitated by valsalva manoeuvre (coughing, laughing, straining), sexual intercourse or physical exertion.

Intracranial tumours rarely produce headaches unless large. The exceptions are Pituitary and Posterior Fossa tumours. It is more common for the patient to present to the GP with seizures, cognitive changes or signs such as homonomous hemianopias or hemiparesis.

Idiopathic Intracranial Hypertension is usually found in overweight women between 15 and 45. As well as headaches suggestive of raised intracranial pressure the patient may also report or show transient visual disturbances, pulsating tinnitus, 6^{th} nerve palsies and papilloedema.

A patient with headache and a combination of 1) fever, 2) neck stiffness or 3) focal signs or symptoms than infection of the CNS should be considered.

Intracranial Hypotension

Patient with reduced CSF pressure will have headaches with a clear postural component.
The headache will worsen in the upright position and be relieved on lying down

Temporal Arteritis

Temporal Arteritis should be considered in any patient over 50 who presents with a new headache or a change in headache patterns.
The headache is usually diffuse rather than localised to the temples. The patient may also feel generally unwell. Scalp tenderness and jaw claudication are common (but not essential).
Any patient with headache AND jaw claudication should be considered to have temporal arteritis until proven otherwise.
Visual disturbances are the next most reliable predictor.
Prominent, beaded temporal arteries are the most predictive sign.

Angle closure Glaucoma

Non-specific headache, eye pain, haloes around lights. The eye is often very red and the vision blurry. The pupil may be mid-dilated.

Headache Fact Sheet Summary:

Part of CMP must include **Headache Fact Sheet**

Page 2 PRIMARY HEADACHE SYNOPSIS

Primary Headaches

A good history is the key to diagnosis. Examination is usually normal in patients with primary headache, such as migraine, tension-type headache, and cluster headache.

MIGRAINE
Recurrent severe disabling headaches.
Associated with nausea and sensitivity to light.
Normal neurological examination.
Characteristically unilateral, pulsating
Builds up over minutes to hours.
Aggravated by routine physical activity.
It is the most common type of severe primary headache.
More than half of women with migraine report an increased frequency and severity of migraine attacks around menstruation.

Diagnosis of Migraine
Recurrent intermittent attacks lasting 4 -72 hours
At least two symptoms of:
1) Throbbing / pulsing
2) Unilateral
3) Moderate to severe
4) worsened by activity (Avoids)
AND either
5) Nausea / Vomiting
6) Photophobia / Phonophobia

TENSION TYPE HEADACHE
Recurrent, non-disabling headache.
Bilateral
Normal neurological examination.
Tension-type headache is less burdensome than migraine to the individual patient but is of higher prevalence.

TRIGEMINAL AUTONOMIC CEPHALAGIA
The most common form is 'Cluster Headache'. SUNCT, SUNA and Paroxymal Hemicrania are similar but the duration of attacks vary. Frequent, brief, unilateral headaches with facial sensations (such as tearing, eye redness, facial sweating) on the same side to the headache. These headaches are rare but excruciatingly severe.

Diagnosis of Cluster HA
Severe unilateral HA lasting lasting 15 - 180 minutes
Attack frequency up to 8/day
With at least one of:
1) Conjunctival redness
2) Nasal congestion
3) Eyelid swelling
4) Facial sweating
5) Eyelid droop
6) Restlessness/agitation

CHRONIC DAILY HEADACHE
This is NOT a diagnosis but implies the headache occurs frequently.

Differential Diagnosis of Chronic Daily Headache (> 15 days per month)

PRIMARY HA		*SECONDARY HA*
Duration >4Hrs	Duration <4hrs	
Chronic Migraine	Chronic Cluster HA	Duration > 4Hrs consider Medication Overuse HA
Chronic Tension HA	Chronic Paroxysmal Hemicrania	Inflammation (Arteritis, Vasculaitis, Sarcoidosis)
Hemicrania Continua (Unilateral)	SUNCT	Post-Traumatic (trauma, surgery, bleeds, meningitis)
New Daily Persistent HA	Hypnic HA	Brain Irritation (Meningitis)
		High or Low Intracranial Pressure

Exclude Medication Overuse Headache in all patients with chronic daily headache, as this is the commonest cause. In patients with new daily persistent headache that is daily from onset, exclude secondary causes (See : Differential Diagnosis Table above).
MEDICATION OVERUSE HEADACHE
This is a secondary headache but is included here because of it's easy misdiagnosed as Primary. For patients in whom this headache is caused by simple analgesics or triptans, advise withdrawal of the overused medication - with appropriate advice and support!

HYPNIC HA - Attacks of dull headache developing during sleep and awaken the patient. First occurs in people over 50 years of age.
PRIMARY STABBING HA - Transient and localised stabs of pain in the head that occur spontaneously in the absence of disease. Head pain occurring in a single stab or a series of stabs. Stabs last for up to a few seconds with no associated symptoms.

Page 3 **SECONDARY HEADACHE RED FLAGS**

S.N.O.O.P.T.

Secondary Headaches

Secondary headaches should be considered in patients with NEW onset headaches or headaches which differ from their usual headaches.

'RED FLAG' features should be considered. The mnemonic **SNOOP T** helps.

S Systemic Symptoms or Secondary Risk Factors

FEVER, WEIGHT LOSS, KNOWN CANCER, HIV, IMMUNOSUPPRESSION, PATIENTS WITH RISK FACTORS FOR CEREBRAL THROMBOSIS, JAW CLAUDICATION, VISUAL DISTURBANCE

N Neurological Symptoms or Abnormal Neurological Signs:

CONFUSION, IMPAIRED ALERTNESS, DROWSINESS, LIMB WEAKNESS, COGNITIVE DISTURBANCES

Optometry Based Signs : Neurological Screen, Fundoscopy, Pupils, Colour Perception, Ocular motility.

O Onset

'FIRST AND WORST HEADACHE', THUNDERCLAP HEADACHE, SUDDEN OR ABRUPT AWAKENING FROM SLEEP (but remember that migraine is the most frequent cause of morning Headaches)

PROGRESSIVELY WORSENING. NEW ONSET HEADACHES IN PATIENTS OVER 50, PATIENTS WITH KNOWN CANCER, PATIENTS WITH HIV.

O Older

NEW ONSET OR PROGRESSIVE IN OVER 50s. (Temporal Arteritis could also be associated with jaw claudication and temporal tenderness)

P Previous Headache History

FIRST HEADACHE OR FUNDAMENTALLY DIFFERENT FROM EXISTING HEADACHES (Significant change in features, frequency, severity, associated symptoms)

T Triggered Headaches

HEADACHE PRECIPITATED BY PHYSICAL EXERTION OR VALSALVA ACTIVITIES (coughing, straining, sneezing) HEADACHE CHANGING WITH POSTURE

The following are warning signs or "red flags" for potential secondary headache:

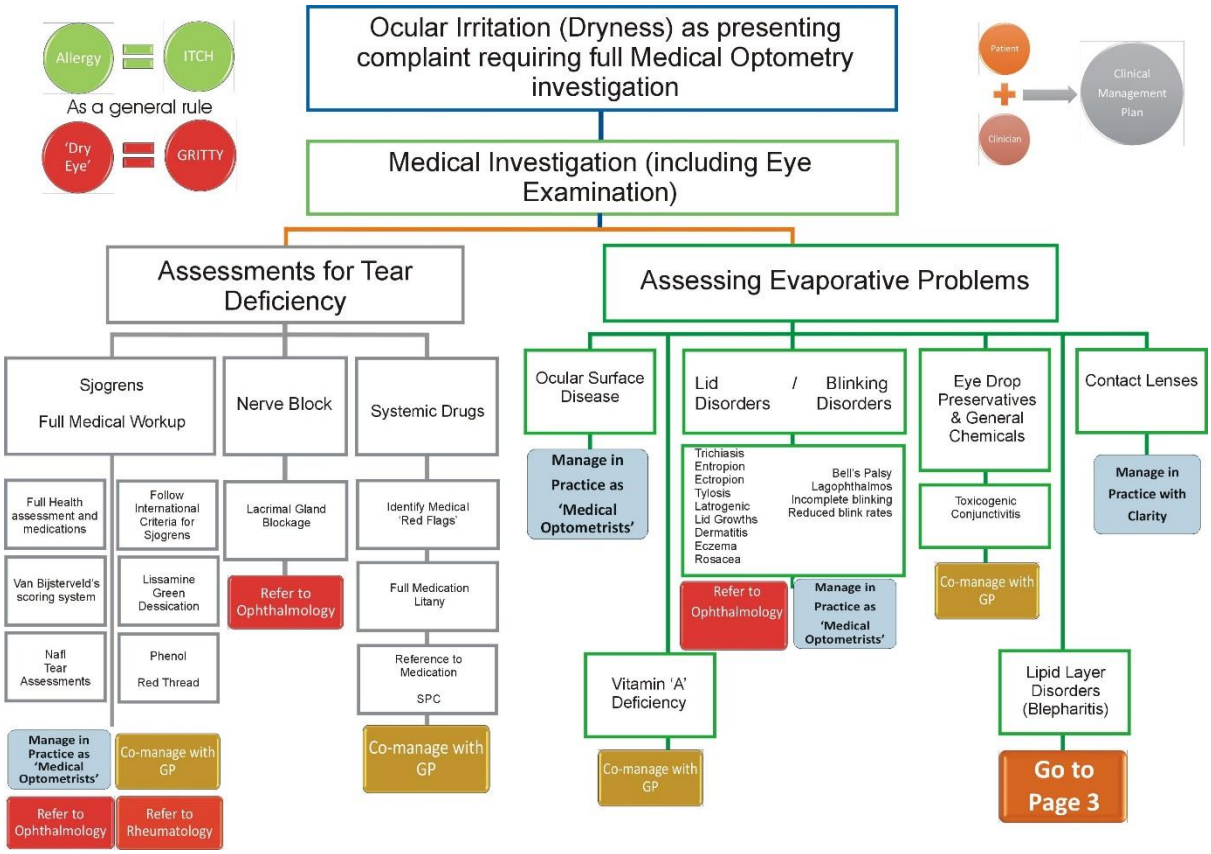
1) New headache in a patient aged over 50 consider Temporal Arteritis
2) First presentation of thunderclap onset. Refer immediately to hospital for exclusion of subarachnoid haemorrhage, intracranial haemorrhage, meningitis, cerebral thrombosis.
3) For patients with headache and features suggestive of infection of the central nervous system (such as fever, rash), refer immediately to hospital.
4) Headache with features suggestive of raised intracranial pressure : changing with posture; valsalva headache (triggered by coughing, sneezing, bending, heavy lifting, straining); Fever; History of HIV or cancer; Focal or non-focal symptoms or signs; papilloedema. Refer urgently.
5) Consider MRI for patients presenting with a trigeminal autonomic cephalalgia.
6) Consider intracranial hypotension in all patients with headache developing or worsening after assuming an upright posture. Refer such patients to a neurologist or headache clinic.

Page 4 **HEADACHE DIARY.**

BLEPHARITIS, DRY EYE

Both terms are often used inappropriately.

Dry Eye is an outcome, NOT a cause or indeed a disease process. Management must reflect the identification of the cause:



As Medical Optometrists we feel it is important to mirror the clinical management recommendations of the Ophthalmology department at the Royal Victoria Infirmary. All lubricants, wipes and tablets prescribed by us are those recommended by Ophthalmology.

Blepharitis we offer:

1. A structured 'Home Based' Lid Hygiene Regime for the patient
2. An 'In Practice' Gland Expression Service
3. An 'In Practice' Blephex service.

For full details see (Click on the images below read fully):