

EYECARE

**Paediatric Dispensing**  
**Kids with complex needs**

C-106865

# Aims & Objectives

- Apply current knowledge into problem solving situations
- Analyse case records to be able to provide the best outcome for our patients
- Identify key areas of need and select appropriate solutions
- Consider if there is any additional learning we need to undertake to aid in our clinical decision making and plan for future excellence

# Paediatric dispensing

Paediatric dispensing can be a challenging part of being an eyecare professional, but it can also be very rewarding.

We often see children in our practices who either have challenging clinic needs or additional needs that require us to adapt and apply a different approach to their care.

**This workshop is going to focus on 3 different case records where the paediatric patient has complex needs**

# Patient 1



- Andrew
- 8 years old
- Autism

Andrew is becoming increasingly frustrated at home and at school, his recent change in behaviour has been noted by his parents and his teachers.

This is Andrews first eye examination



1. What could be the cause of his change in behaviour?
2. How would you approach the whole patient journey for this patient? What considerations or adaptations would you consider?
3. How would you adapt the test process? What changes, if any, would you make to your routine?
4. How would you approach the dispense process?

# The initial appointment

- Consider arranging an initial appointment to familiarise the person on the autism spectrum with the consulting room and equipment so that they know what to expect during the eye exam.
- Alternatively, provide accessible information about what will be involved.
- Knowing when something will happen is important to a person on the autism spectrum, as it can help them feel more secure and less anxious. Try and ensure all appointments begin and end when planned.
- If relevant, speak to the parent or carer before the appointment to learn what that patient may like/dislike or respond well to, for instance counting, shapes, lights, TV characters, and so on. You could use these to help them feel more relaxed during their appointment.

# Communication

- Avoid using wordy, complex instructions which an autistic person may find difficult to follow.
- Ensure that instructions are; Clear, concise and unambiguous.
- Use the Syntax 'First X then Y'. Many speech therapists aim to develop this mode of thinking in line with communication: "First I speak, then you speak" – A patient on the autism spectrum may be familiar with 'First sitting, then looking' or 'First eye one, then eye two'.
- Use an egg timer or countdown clock to indicate how long they will be in the room or having their measurements taken.
- Use 'Again' to indicate you want to repeat what you just did.

# Communication

- Use the parent or carer if they are present as a model: “First mum puts on glasses, then Andrew puts on glasses”.
- Use turn taking: If ‘we’ all do it, then at some point it will be ‘my turn’ to look / read / put on the glasses etc.
- Give the patient extra time to process and respond to statements and questions. Be patient, repetitive, and calm.

# Echolalia

## A term to describe the repeating of a phrase or sound

- A person may repeat back to you the last part of the phrase they heard
- Be aware and ask questions in different ways  
Rather than asking “do you like this one or this one?”  
Maybe ask “the Green?... Or the black?...”
- Leave space between your questions, to give time to answer
- Listen to see if the person is repeating, or answering





# The examination

- What can be achieved in the eye examination will depend on many factors and it may be the case that on the first visit, very little clinically can be achieved beyond the patient becoming familiar with the room. This is as important as a measure of acuity though, given that we might be seeing the patient for years to come.
- One measure of vision might be 'visually curious'. If you show the patient a toy, do they explore its features? Do they look at its eyes? Or do they dismiss it as they have difficulty seeing the features?
- Patients and carers will understand that the full examination may not be performed in just one visit. The Optom may even need to make a referral to Hospital Eye Services (HES) via the patient's GP if they cannot perform a full eye examination, or there is a clinical need that they cannot meet as a practitioner.

# Key points – Case 1

- Use direct and simple language
- See the patient at a quiet time of day
- Allow extra time for the consultation or do parts of the examination / dispense over several visits
- Explain in advance what will happen during each procedure

**Above all else, be patient and understanding**

# Patient 2



- Poppy
- 6 years old
- Down syndrome

This is Poppy's first eye examination after being seen at the HES 2 years ago



1. What kind of visual problems and refractive errors are prevalent amongst children with Down Syndrome?
2. How would you measure acuity for distance? And how would this compare to their near acuity?
3. How often should the patient attend a regular eye exam?
4. What kind of facial characteristics need to be considered and how will these affect the dispense?
5. What kind of optical appliance would be recommended?

# Prevalent clinical findings with Downs syndrome

- Congenital cataracts
- Nystagmus
- Strabismus
  
- Refractive errors are more common than amongst other children
- Accommodation is significantly reduced
  
- Tear duct abnormalities – leading to frequent tearing and discharge

# Measuring acuities

- Acuity can be measured by letter charts, letter matching, picture/symbol naming or matching, or by Preferential Looking tests (e.g. Cardiff Acuity Test), depending on the child's age and ability.
- Since children with Down's syndrome are at relatively high risk of ocular defects (such as cataracts, nystagmus), some will have reduced acuity and may even be registered as Sight Impaired. However, research findings show that all children with Down's syndrome have below-normal acuity, even in the absence of ocular abnormalities and with refractive errors fully corrected.
- Since accommodation is inaccurate in many children with Down's syndrome, resulting in blurred near vision, near acuity may be poorer than distance acuity and should always be tested.

# Eye exam recall (Down's syndrome)

AGE	RECALL
< 2 years	3-6 monthly intervals
2 - 5 years	6 monthly intervals
5 years and older	Yearly intervals (if refractive error has stabilised)

# Consideration of facial characteristics



- A flattened face, especially the bridge of the nose
- Lower crest height
- Almond shaped eyes that slant upwards at the temples
- Wide head width in comparison to PDs
- Small ears

# Optical appliance recommendations

## Suitable frame choices that consider facial features

- Curl sides / sports band to keep frames in place
- Lower crest height or pad on arms to allow for more adjustment
- Lenses that sit above the eyeline. Children spend a lot of time looking up
- Flatter pantoscopic angle
- Silicone material – dependent on age
- Specialist frame suppliers (e.g Erins World)





# Patient 3



- Malaika
- 2 years old
- First eye exam

Her refraction is found to be:

RE: +3.50 / -0.25 x 180 VA 6/6

LE: +0.25 / -0.25 x 180 VA 6/6



1. Do you think the Optometrist would prescribe the full Rx at the first visit?
2. What kind of problems could occur from not correcting the refractive error?
3. What kind of dispensing issues could arise from this Rx? And what solutions could there be to overcome them?

# Prescribing the Full prescription?

- Some Optometrists would dispense the full prescription to give the opportunity to try it out.
- If the child was non-tolerant to the whole Rx they may reduce it accordingly.
- The adapted prescription, or the need for patient, adaptation needs to be communicated to both the parent and the child.
- Some Optometrists would prefer to refer direct into HES services for them to assess the Rx and prescribe. If not dispensed and waiting for hospital appointments then the child could start to develop amblyopia as they are within the critical period and there may be a lengthy wait for a hospital appointment.

# Any dispensing issues?

- If the spectacles were not dispensed or the child refused to wear the spectacles for full time wear, they could develop amblyopia.
- Difference in prescription between R&L lenses could lead to uneven lens thickness, difference in image magnification - Isokonia,
- We could dispense different lens indices for the right and left lenses to reduce the difference in retinal image sizes.
- Calculating the MSU for the chosen spectacle frame, keeping the PD as close to the frame box centre to reduce decentration and the need for larger blank sizes (thicker lenses).
- MAR – pros and cons must be discussed with the patient and the parents

# REFERENCES

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