

**The Long & Short of Myopia Management
Webinar Q&A responses by Josie Barlow, Menicon**

- 1. I recently had a child collecting glasses, when speaking to the mother it seemed that she hadn't listened to the recommendation from the optom as I explained the child should be wearing them all the time. The mum said she hadn't been told this and that she was under the impression they were only to be worn for the board at school (clearly stated FTW on the record card and MiSight mentioned too). As a relatively newly qualified DO it was the first time I've experienced this he said she said situation for a child. Any suggestions on how you would handle this?**

I understand how this must have felt, was the Optometrist that carried out the exam available to confirm? Also, I am not sure if this was a first time wearer and mum just did not take everything in at the time.

Was that information reiterated at the time of dispense? That would be another way of checking that the information has been received and understood.

- 2. Are there any links to the surgical options?**

There are many clinical papers out there, I do not have access to all of them, but some are free, here are the ones that you should be able to access for more information:

<https://www.hindawi.com/journals/bmri/2019/5185780/>
<https://pubmed.ncbi.nlm.nih.gov/9527318/>

- 3. Are we trying to get the NHS to help parents with the cost? They would save on later care**

Myopia is seen as a public health issue and has been for some time, I think that there is the possibility for this in the future but these things tend to take time as we have seen previously.

- 4. As a DO, even if the Optom hasn't mentioned myopia management, should we bring up the subject or is that overstepping?**

We have a duty of care to our patients to make sure that they are informed. Of course it would be preferable to have everyone in the practice saying the same thing, so the message is consistent. The College of Optometrists has advised all of its members that they should be having this conversation just like ABDO has done with its members.

- 5. Atropine and pals or bifs together?**

Combination treatments such as this are still being trialled and there is only one completed study looking at combination therapies, although this looked promising. Studies are underway and these may well advocate combination treatments

- 6. Can Boost Lenses be used to assist managing Myopia in a similar way to a PPL?**

The reason for using PPL lenses is to ensure binocular vision (BV) issues are being corrected, as they will offer a much reduced affect on myopia control. The add power on the Boost lenses may not be effective.

- 7. Can I get hold of the posters you showed?**

Please see the resources sheet in the Professional Toolbox on the ABDO Website.

8. Can SV plus lenses be used for prolonged near work if PALs or bifocals are rejected by the child or parent?

There is no clinical evidence that this has been tried or that it would work

9. Can we have a link to the Brian Holden myopic progression calculator?

Please see the resources sheet in the Professional Toolbox on the ABDO Website.

10. Can we order Atropine as an optom or do we need to do extra study to be credited for it?

Atropine in the correct compounded quantity is not available in the UK or licensed for myopia management. It may be necessary to hold the additional qualification of IP but you would need to check.

11. Can you demonstrate myopia with a trial lens for the parents?

Yes, and this is often done when the parent is an emmetrope

12. Can you recommend any studies to read on progression of myopia studies?

There are too many to list I would start with the IMI papers

<https://arvojournals.org/solr/searchresults.aspx?q=imi%20&restypeid=1>

13. Can you use both Ortho K and bifs or pals together

BIF and PALs are used predominantly for BV issues and if the child is unable to wear contact lenses. Ortho K is used for refractive correction and myopia management.

14. Could any PAL or multifocal CL be used?

Please see 13 above on using PALs. With regards to multifocal contact lenses, the best results have been seen with centre distance (CD) lenses with an Add of at least +2.00/+2.50

15. Do you know how long studies have been going on the myopia control spectacle lenses that are available overseas?

Essilor released the first year results of a 3-year study on their spectacle lens in October 2020

Hoya carried out a 2-year trial, and an advert for this lens being available in the UK soon is in the November issue of Vision Now magazine

I have no data on the Zeiss lens

16. Does yoga eye exercise help

There is no clinical data to support this

17. Great presentation. Still hear ECP's who think there is 'not a lot of evidence' and there is little point as little 'improvement' in the myopia. Is it just a case of continuing to bang the drum and hope that they eventually see the light?

I have to agree and yes, we need to keep going with our education of the general public and each other

- 18. Can you ask Josie her opinion on whether we have a duty of care to cease prescribing SV options to all myopes, offering multifocal options (atropine aside) to all and SV only as an emergency back-up option?**
I am not sure if we should use a blanket approach to all myopes, but who knows what may happen in the future
- 19. How can myopic degeneration be controlled if picked up at an early stage? How do you determine the progression of myopic degeneration and how can you determine if a patient needs to be seen sooner judging by this?**
See Q61
- 20. How can you assess the success of treatment if you are reducing progression rather than reducing refractive error? Is this just going to be based on reducing axial length according to abnormal/normal growth?**
There is a correlation between refractive error and axial length (AL) increase, both should be looked at. If we can reduce the increase in myopic refraction we should also be able to reduce AL.
- 21. How do we justify the ifs, maybes and possible myopia progression when talking to patients/parents about starting myopia management**
This is a good question and it is difficult to talk about what could happen in the future however, the clinical data is there that Myopia is on the increase, that it is occurring earlier and that we are seeing the consequences of not intervening. I would offer links to parents so that they can go away and do their own research and then come back with any questions.
- 22. How do we locate Myopia Management clinics near ourselves?**
Not sure on this one.
- 23. How do you decide which is the most appropriate treatment for the patient?**
This is based on the individual needs of the child and whether you are addressing BV issues, also whether the child/parent is willing to try contact lenses or would prefer another option. The key is to be able to offer a range of treatments as they may also be the need to swap treatments, if the one currently being used is not working
- 24. How do the multifocal contact lenses and bifocals /pals help with myopic control?**
See Q13 on Bif and Pals and their use. Regarding MF contact lenses, the most effective are centre-distance designs as they create myopic defocus in the peripheral cornea, which negates the hyperopic defocus created by myopic correction, which we believe to be a stimulus for increasing axial elongation
- 25. I have been told with Zeiss lenses that it's not available in the UK. Is this correct?**
Currently none of the spectacle lens corrections are available in the UK (14/11/20), please see Q15
- 26. I once had a px who said if their child stopped wearing her specs would it slow the increase. Would it?**
No and undercorrection would increase myopia progression
- 27. If a child is already myopic (mine is 10 years old and -1.50), does more time outside slow the progression? Or does time outdoors only help with reducing the onset?**

Outside time has been shown to be preventative and there is no current data that once myopic it will slow progression

28. If myopia management only used for a shorter term will it have any impact? i.e. more impact than not doing at all.

Data shows us that progression slows over time and studies have shown that the same is said for myopia management. The younger we can intervene the better. However, any reduction in progression is a benefit.

29. In my practice I can think of a few children aged 13 and under that are myopic but with -2.75 or above cyls. - What are the best options for toric myopes?

At present there are no dedicated myopia corrections that will correct astigmatism, Ortho K will correct -2.50 with-the-rule (WTR) and there is always the option of overspecs

30. In the long past it was thought that lack of O₂ was a cause for corneal steeping and therefore of myopic creep is this now debunked?

I have seen no data to support that this is still a viable argument

31. Is gender relevant to risk of myopia progression?

I have not seen any data that reports one gender is more prone than another to myopia or progressing myopia

32. Is progressing myopia only associated with the eye getting longer?

There is a link between progressing myopia and axial elongation, both should be monitored

33. Is there a specific/average age at which myopia will stop progressing please?

Data shows that around 50% of myopes will continue to progress at 15 and 25% continue past 18

34. Is there a suitable age for a child to be fitted with contact lenses?

This is a difficult question to answer, children as young as six have been fitted with contact lenses. The age will depend on the child and the practitioners' confidence in fitting children.

35. Is there an upper age limit for starting myopia control? I know someone in their mid 20's whose myopia is still progressing at approximately 0.50ds per year, would myopia treatment help in this case?

Technically no there is no upper limit if you see progression then by all means consider treatment

36. Is there any merit in attempting myopia control later in life? I, myself, was not myopic until my 20s (I was emmetropic until then). Over the last 5 years, my myopia is progressing (I'm now 33). Is there any evidence to suggest it might be worth trying myopia management at my late stage in life?

See Q35

37. It is suggested that reducing the onset of myopia by one dioptre is reducing risks by 40%. Does that suggest the risks are reduced by 80% if a 2 dioptre prevention is made? Where can I find the data to back this up to help explain the risks?

This data comes from Mark Bullimore, where he advocates a 1 dipotre decrease in progression reduces the risk of myopic macular degeneration (MMD) by 40% and visual

impairment (VI) by 20%. I have not seen anything to suggest that there is a compound affect. Link to paper:

<https://onlinelibrary.wiley.com/doi/epdf/10.1111/opo.12686>

38. I've a 17-year-old -9.00 coming in for first fit of CL's. Is it worth mentioning myopia management or will they be too old to start trying to control it?

If they are still progressing then I would look at management, 25% of myopes continue to progress past the age of 18

39. Less than 2 hrs a day close work? How does that work for school?

This is in addition to school work

40. Once a child is wearing specs for myopia, is it still beneficial for that child to have 90 minutes outside to slow down myopia progression? How much difference does the 'outside time' make?

See Q27

41. Sadly, the cost of treatment has been out of reach for some parents. Looking at the global health & socio economic implications in future years, is there any hope of NHS provision of treatment specifically for this?

See Q3

42. Should a note be made on px records that MM conversations have taken place?

Absolutely

43. Should we not discourage young myopia taking their specs off for close work

This may suggest BV issues and they should be addressed

44. So is it true then that actually wearing specs or CLs for myopia, it does actually make the myopia worse?

When dealing with pathological myopia where we see an increase in AL, then standard correction can trigger an increase in AL and myopia. Treatment that gives full refractive correction as well as myopia control should be used. Undercorrection only speeds up the myopic progression so should not be considered

45. Thank you so much for this webinar, really helpful. I would like to ask, how would an add be determined for bifocals and pals, and are dispensing opticians able to determine this if the prescriber is not happy/comfortable to add this to their rx since we don't have availability to special design lenses meant for myopia management?

Thank you so much

See Q13 on the use of Bif/PAL

46. Typically, with dispensing spectacle lenses would you need to be accredited? Or is training usually given by manufacturers?

This is not yet known as they have not yet been introduced in the UK

47. Using the statistics as a guideline. Surely discussing possible future myopia in a child only causes possible unnecessary concern of a condition that may not transpire for both the child and the parents.

See Q21 it is better to discuss and record the discussion than risk and adverse incident in the future

48. What about RGP CL wear overnight some time?

The wearing of standard GP contact lenses would not be advised at all

49. What are the compliance issues mentioned regarding standard spectacle lens wear

It may be easier for a child to remove their spectacles during the day and all myopia treatments need to be applied for a specific number of hours/days in order to be effective.

50. What are the PRESENT prescribing rules for Atropine for opticians?

Sorry Atropine is not currently available to UK optometrists for Myopia control

51. What causes myopic macular degeneration?

Axial Elongation

52. What do you believe to be the lowest power for Ortho K use?

For Myopia control around -2.00

53. What is the difference between Ortho K and overnight RGPs for myopia control?

Ortho K has been specifically designed for refractive correction overnight, GP contact lenses have not. You need to also make sure that the Ortho K lens being used is CE marked for Myopia Control if not then it is being used off label

54. What is the NHS's take on early recalls?

I would suggest that this would be determined by clinical need, this is something you would need to investigate

55. What options are open to a D.O. without support from an O.O./C.L.O. eg prescribing an add for PALs?

ABDO CPD response:

*It is not possible for a DO or CLO to provide a prescription or amend a prescription. A prescription can only be provided by the optometrist (or pre-reg optometrist under supervision, or registered medical practitioner (RMP).) However, it is possible for the DO and the CLO to dispense or fit a modified version of the prescription to accommodate the patient's lifestyle and need and considering the optical appliance or medical device (contact lens) that is being supplied. Full records of any amendments and justifications must be made. Please see **ABDO Advice and guidelines. Sale and supply of spectacles - Issuing & adjustment of spectacle prescriptions: C4.12.2. Available at: <https://www.abdo.org.uk/regulation-and-policy/advice-and-guidelines/>***

56. What suppliers provide atropine?

See Q50

57. What types of myopia management can a dispensing optician undertake if Rx is dv only and may even be walk-in rx

You need to work in conjunction with your optometrist and ensure you are able to at least discuss the options available even if you are not able to offer them

58. What was the link to the strategy infographic?

Please see the resources sheet in the Professional Toolbox on the ABDO Website.

59. What, clinically, makes MMD different to MD given that MD is on the increase generally?

MMD is a direct result of axial elongation due to high myopia, the below link may be useful

60. What's the best combination treatments for myopia management??

These are being investigated at the moment, commonly elsewhere (outside the UK) contact lenses are being combined with Atropine

61. Where can we get that form on how to manage myopia

Please see the resources sheet in the Professional Toolbox on the ABDO Website.

62. Will there be a course specifically for myopic management in the coming years?

There are already lots of learning resources and these will continue to grow and development but tend to be from Manufacturers, ABDO may be able to offer further insight

Response from ABDO CPD: we will continue to offer education on myopia management as part of our portfolio of CET and CPD available to ABDO members

63. Would a digital enhance lens have the same effect as a PAL in myopic management?

See Q6

64. Would there be a negative impact on recommending myopia controlled contact lenses, such as MiSight, to every single myopic child that comes into the practice?

I am not sure that a blanket approach is suitable, you need to take into account specific refractive needs and the treatment should be based on the individuals

65. If a parent is myopic and a child of 2 or 3 years old spends a long time outside, how much would it reduce the chances of the child becoming myopic?

This child is 3 times more likely to become myopic, the longer they spend outside the better as this can delay the onset of myopia, I have not however seen any data on this particular age range studies have seen anywhere between 5-10% reduction in incidence

66. On the axial length with age it says 0.1mm per year: 0.3mm per 6-9yoa however expectation of normal is 0.7 change? Female Caucasian

This chart is based on the percentiles for a child of specific age and what is considered normal and abnormal growth dependant on the percentile bracket the child is aligned with (just like height, weight etc.) This chart is designed to assist with what is normal for the different percentiles and what is considered and abnormal shift from this i.e. 0.2-0.3 compared with the considered normal growth of 0.1 regardless of percentile.

67. When will Specsavers offer myopia control?

I have no insight on this.

68. What recall should a child have to closely monitor? Can this be ok to recall under a gos1 voucher?

If there is a concern about progression, at 6 months

69. Is there a pre-scripted consent form?

Manufacturers should be able to supply this to you if they are also offering you myopia management products