



## Maximizing the sight of young children to achieve their academic potential

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### Description

Provide orthoptist support testing vision for children from 2.5 yrs upwards. Once a child is diagnosed with a problem requiring patch treatment, the orthoptic assistant provides follow up care.

As an Orthoptic Assistant, I support vision testing for children from 2.5 years upwards within the Orthoptic Departments across the 3 hospitals in the Hampshire Hospitals trust. If a child is diagnosed with a binocular vision condition requiring occlusion therapy, I can start them on this course of treatment and provide follow-up care, with guidance and supervision from the Orthoptists. I have also completed a training course to allow me to carry out specific tests with children and young people who have problems with reading, tracking and visual processing difficulties.

The child that this case study is focused on is 5 years old, and has been under the care of our department since the age of 1. They are seen approximately 3 times every year by the Orthoptics department and once a year by the Ophthalmology team

### Context

Children from all walks of background with different abilities and varying social, economic and environmental factors.

- The aim of amblyopia therapy, is to allow the affected eye to achieve it's maximum potential. (Reference 1)
- From this child's first visit with us when they were 1 year old, it was suspected that they would have a binocular vision problem, however at that young age, it is difficult to prove with certainty, due to lack of compliance with testing. It was during subsequent visits, as the child got older and testing got more reliable, that glasses were prescribed when the child was aged 2. However, compliance with glasses wear was not good and attendance to appointments was very sporadic for the next 12 month period. During an appointment with the Orthoptist when the child was age 3, Mum informed the Orthoptist that a stressful family situation had had a negative impact on the child's behavior and compliance with their glasses. Mum also told the

clinician that the child had been given the diagnosis of ASD. During an Orthoptist appointment when the child was age 4, a “formal” visual acuity was gained for the first time. This means that a reliable, monocular visual acuity test has been carried out, and it demonstrated that the vision in the child’s left eye was significantly reduced, compared to the right eye. It was at this visit that atropine occlusion was started. At the follow-up visit 6 weeks later, the visual acuity in the left eye unfortunately had not improved as would be hoped, but it was revealed that compliance with the atropine treatment had not been good. Instructions for the treatment were reinforced and a follow-up appointment booked for 6 weeks time. Unfortunately after this, the patient was not brought to a number of appointments and they were then not seen for 10 months.

## Method

- When the patient next attended their appointment, atropine treatment had not been carried out as they had run out of drops, and unfortunately the vision in their left eye had deteriorated further. It was at this appointment that I met the patient. Our Orthoptist had instructed to start the patient on patching therapy for 6 hours every day, rather than atropine occlusion, due to the level of their vision now and poor compliance with atropine drops previously.
- I explained to the patient and Mum how to apply the patch, which eye to put the patch over, that the patch and their glasses need to be worn at the same time, I ensured that the patient understood why we were asking them to patch, in words and language that they understood (they were now 5 years old by this stage). I explained to Mum the importance of this patching therapy being carried out consistently everyday, for the 6 hours specified and explained about the visual system development. I supplied Mum and the patient with 2 boxes of Ortopad sticky patches and a motivational poster to stick the used patches on each day, once the patching has been completed. I arranged an appointment for them to come back and see me in 8 weeks time

## Outcomes

- At this follow-up appointment, there was an excellent improvement in the left visual acuity. The patient came rushing in to see me, they were so proud of what they had achieved and couldn’t wait to show me their completed poster full of used patches. Mum said she had seen a great improvement in the child’s reading at home and that school said their concentration levels in class had gone up. The patient still needs to continue patching therapy; there is still a way to go, but it shows the importance of compliance for treatment and how successful it will be. Mum also said that the child was so excited to come in and see me, and show me the poster, and she felt that that really made a difference for her child, so it’s about being aware of what motivational tools could work for different children.
- Relating to cost-effectiveness, when I see a patient for an appointment as a Band 4 clinician, I am ultimately saving the Trust money, because otherwise the patient would be booked in with a Band 6/7/8 Orthoptist/Clinician.

## Key learning points

- I think for me, my key learning from this particular patient is not to unconsciously judge the parents/family/child based on their past behaviours. Looking at this case and their poor attendance to appointments, poor compliance with glasses wear and poor compliance with atropine therapy, I would not have expected such brilliant results we are seeing now with glasses wear and patching therapy.
- Atropine therapy did not work well for this patient/family and patching therapy has. For some patients/families it is the other way round. So it is important to have a discussion with each family to determine which method would work best for them and their child.

## References

The British & Irish Orthoptic Society (2016). An Overview of Amblyopia Practice. Available online at: [BIOS-Guidelines-for-Amblyopia\\_June2016.pdf \(orthoptics.org.uk\)](https://www.orthoptics.org.uk/BIOS-Guidelines-for-Amblyopia_June2016.pdf)