

Answers to Audience Questions - WSPOS World Wide Webinars WWW 21 – Season 2 – Updates in Ophthalmology



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1. Could you list out some examples of motor skills that you investigate?

AW:

TABLE 1. Standardized Tasks Undertaken in FMS Assessment (Upper Limb Speed and Dexterity Item of BOTMP)³⁶

Sub Item	Description	Record
1. Placing pennies in a box	Places pennies one at a time into an open box.	The number of pennies placed into the box correctly in 15 s.
2. Placing pennies in two boxes with both hands	Simultaneously picks up a penny with each hand and places the pennies into separate boxes. The subject is given a maximum of 50 s to place seven pairs of pennies into the boxes correctly.	The time taken to complete the task. A time of 50 s is recorded if the subject places fewer than seven pairs of pennies into the boxes correctly.
3. Sorting shape cards	Sorts a mixed deck of red and blue cards into two piles, separating them by color.	The number of cards correctly sorted in 15 s.
4. Stringing beads	Strings beads onto a shoelace.	The number of beads placed correctly in 15 s.
5. Displacing pegs	Displaces pegs with 2 mm base diameter on a pegboard, moving each peg to the hole directly above it.	The number of pegs displaced correctly in 15 s.
6. Drawing vertical lines	Draws straight lines between pairs of horizontal lines.	The number of vertical lines drawn correctly in 15 s. Accuracy following specific test guidelines.
7. Making dots in circles	Makes a pencil dot inside each of a series of circles.	The number of circles dotted correctly in 15 s.
8. Making dots	Makes pencil dots on a blank page.	The number of separate dots made in 15 s.

All tasks were done with the preferred hand, except for item 2, which requires both hands. A practice trial preceded each test run.

2. How to split - equal hours / gap between split?

YM : It doesn't really matter. Do it as fits.

RK: 50% split into 2 sessions or whatever is convenient.

3. How much anisometropia do the panels tolerate? I was taught to give full correction in each eye but some have argued on the development of aniseikonia.

YM: In children anisometropia is well tolerated even with large differences.

DG: full correction, only during therapy hours if anisometropia of more than 7D, but most children with high anisometropia are not binocular, so then you can give them permanent correction (children are very adaptive) if no tolerance try out contact lenses.

RK: I agree with what Yair has said above.

4. What's the suggested amblyopia therapy in patients with nystagmus?

YM: I prefer blurring (filters or atropine) over patching due to the effect of the occlusion on the amplitude of the nystagmus.

RH: The same as in those patients without nystagmus

DG: the same as in children without nystagmus or atropine

SL: same as in patients without nystagmus

RK: I would recommend 20% - 30% more patching than I would for a patient without nystagmus.

5. What kind of filters do you use in Nystagmus?

RH: Bangarter

DG: Bangerter foil 0.1

6. Please list out some Detrimental effects of amblyopia and treatment of amblyopia.

AW: This paper summarises detrimental effects of amblyopia on function:

Free article - https://onlinelibrary.wiley.com/doi/full/10.1111/cxo.12663 Webber AL. The functional impact of amblyopia. Clin Exp Optom. 2018 Jul;101(4):443-450. doi: 10.1111/cxo.12663. Epub 2018 Feb 26. PMID: 29484704. There is a slide in the talk that lists papers that report slower reading speed, poorer visual motor integration and timed manual dexterity skill, slower and less accurate reaching and grasping. Impact of treatment is predominantly reduced self-esteem, i.e. psychosocial impact.

7. Please list out some Neurological changes in amblyopia.

AW: While ocular structures appear normal on clinical examination, visual pathway structures are altered, with changes measurable at the lateral geniculate nucleus and visual cortex, primarily V1, and further to the extra-striate cortex.

Wong AM. New concepts concerning the neural mechanisms of amblyopia and their clinical implications. Canadian journal of ophthalmology Journal canadien d'ophtalmologie 2012;47:399-409.

Asper L, Crewther D, Crewther SG. Review Strabismic Amblyopia Part 2: Neural processing. Clin Exp Optom 2000b;83:200-211.

8. What are the exclusion criteria and side effects of dichoptic treatments?

SL: for dichoptic treatment using VR goggles the main exclusion criteria is a strabismus angle > 30PD and children younger than 5/5.5 years of age. In children there are no reported side effects; they can become warm underneath the headset. We did not experience any side effects in children. In adults there is always the risk of diplopia, but doing a thorough orthoptic workup and assessing fixation in fundo these adults at risk can be easily identified.