

FUNCTIONAL VISION UPDATE

NAME: Lyra
DOB: 5/11/2006; 34 months
PARENTS: XXXXX and XXXXX
SERVICE COORDINATOR: XXXXX
DATE OF EVALUATION: 3/11/2009
EVALUATORS: XXXXX and XXXXX

BACKGROUND INFORMATION

Lyra was diagnosed with oculocutaneous albinism shortly after birth. Oculocutaneous albinism involves the lack of pigment or melanin in the eyes, skin, and hair. Melanin is required for typical development of the fovea on the retina (part of retina responsible for detailed central vision). The lack of pigment results in poor central vision. Lyra is being followed by Wyandotte County Infant Toddler Services and receives occupational therapy twice a month and speech therapy once a month. She also receives special instruction from a teacher through the Children's Center for the Visually Impaired (CCVI). Lyra is also followed by her ophthalmologist, Dr. Trudy Grin of Overland Park, KS. Her most current eye report dated 2/4/09, lists her diagnosis to be ocular albinism, nystagmus and astigmatism. She wears glasses for farsightedness and her astigmatism. This Functional Vision Evaluation has been requested to help provide more information on Lyra's visual abilities as she transitions services from Part C to Part B in the education system.

FUNCTIONAL VISION

Lyra's mother accompanied her to the evaluation conducted at CCVI. Lyra wore her glasses for the session. Overhead lighting was turned down and turned off for segments of the session. This update represents visual function at this point in Lyra's life.

SENSORY BEHAVIORS

Hearing: Hearing is reportedly fine and Lyra is able to localize to sounds in the 4 corners and is able to identify familiar sounds in her environment such as the telephone ringing, knocking on a door or a door closing.

Tactile Defensiveness were not observed or reported.

Self-stimulatory behaviors were not observed or reported.

Light sensitivity Lyra is very light sensitive. She does much better with dim lighting. Overhead lighting and bright natural light from windows cause her to squint.

It is essential that Lyra wear sunscreen, hat, and sunglasses when outside.

Attention: Lyra's attention to task was short. She required many breaks and redirection to complete age appropriate tasks that were presented to her.

OBSERVATIONS OF THE EYES

The globes and pupils of the eyes appeared to be equal and normal in size. The irises have a soft pinkish grey hue. Light reflected somewhat equally on the pupils and obvious strabismus (eyes not aligned) was not noted. A sensory nystagmus was present but had quieted considerably since the first evaluation (7/25/06). At the present time, Lyra does not demonstrate a null point. She occasionally puts her chin down and looks up, but it is not clear at this time whether she is looking over her glasses or if she is experimenting with better positioning. The best position in which to obtain a response is by presenting materials centrally.

OCULAR REFLEXES

The threat blink reflex to touching the nose and the threat blink response to a stimulus coming toward the face at eye level were easily elicited. The pupils constricted bilaterally to the light of the light box.

VISUAL ACUITIES

Lyra wore her glasses throughout this functional vision evaluation. Dr. Grin reports distance acuity of 20/200 in both eyes after correction from her visit on 2/4/2009. Lyra's near vision was tested using the LEA Pediatric Near Vision Acuity Test System. This near acuity was 20/400.

VISUAL ABILITIES

In order to get a better idea of Lyra's visual impairment, she was asked to locate a number of small objects at various points in space. These tasks can be categorized as near, intermediate, and distance visual abilities. Results were:

Near: Lyra viewed 3" pictures from approximately 6" away and ¼ " ball from 12" -14" away and a cheerio from 16"-18" away. When the slant board was used, Lyra was able to view 3" pictures from approximately 10" – 12" away.

Intermediate: Mom reported that she believes that Lyra recognizes her from about 5' away when they are at home or by herself. In a cluttered or crowded environment, she recognizes mom from approximately 2' – 3' away.

Distance: Lyra was able to follow a 2" rolling ball with low contrast from approximately 10' – 13' away.

COLOR PERCEPTION

Lyra is able to match colors and label many of them. Lyra's performance on these tasks indicated she does not likely have trouble distinguishing colors.

VISUAL FIELDS

Peripheral fields were assessed using the Confrontation Method. Visual attention was established at midline while a second toy came from behind Lyra. Lyra noticed the second toy at approximately 45 degrees from the right and left from midline. A normal field of vision is typically 90-100 degrees on each side. She noticed the object in her upper field was at mid forehead. These evaluators question that this functional field restriction could be due to Lyra having difficulty with joint attention. Dr. Grin reports that there is no field loss. Lyra did notice objects in all four quadrants of her visual field. Her most effective visual field appears to be central.

VISUAL SKILLS

Fixation or holding a gaze steady on a focal point was within normal limits for objects, etc. that Lyra was interested in. An overall shortened attention span impacted the development of quality of all the visual skills.

Tracking was characterized by horizontal and vertical following with the head and eyes. The eyes did not track alone and the following was not always smooth.

Shifting gaze between 2 small toys could be elicited. At times Lyra used a head movement with her eyes.

Scanning to find details was noted and she is able to locate pictures in a book, however the scanning did not appear to be organized in near vision. Scanning to find objects within her environment has evolved. Lyra does not appear to scan her environment particularly in the lower field while walking, which can cause her trip over surface changes and obstacles in her path.

Convergence (the eyes move inward as a visual object is moved closer at eye level) could easily be elicited.

Divergence (the eyes move outward as a visual object is moved away at eye level) was easily elicited.

VISUAL MOTOR

The ability to coordinate visual input with movement is critical for many tasks students are asked to perform in school. Therefore, she was asked to do several visual motor activities. At the fine motor level, Lyra is able to imitate horizontal and vertical strokes and a circle from approximately 8" – 10" seated at a table. With the slant board, she was able to imitate from approximately 10" -12". While seated at a table, she can place ¼" pegs in a peg board and string ¼ " beads from approximately 10" away. She completed a 6 piece puzzle from approximately 8", and with slant board from approximately 12" – 14" away. She tires easily with these tasks and tends to bring objects within approximately 4"-5" when she is really interested and/or engaged. In general over/under reaching was observed. This indicates that Lyra may not be sure of the location of visual targets in space and may have a problem with depth perception in near space.

On gross motor tasks, Lyra was able to run, kick a ball, jump off the ground, jump forward, walk on her tiptoes, walk backwards, and walk sideways. She is learning how to catch a ball. Lyra is able ascend and descend stairs, however, if they are unfamiliar she may over step them. She may also miss surface changes at times in unfamiliar environments. In general some over/under

reaching was observed. This indicates the Lyra may not be sure of the locations of visual targets in distance space and may have problems with depth perception.

ORIENTATION & MOBILITY

Please refer to Lyra's Orientation and Mobility Reevaluation dated 03/11/09.

CONCLUSION

In summary Lyra's vision is characterized by the following:

Decreased visual acuities

Decreased visual fields

Poor depth perception

Visual fatigue

Light sensitivity

Overall reduced attention span

RECOMMENDATIONS

Based on an analysis of the records available, interviews with Lyra's mother, and the assessment reported here the following recommendations are made:

PROGRAMMING RECOMMENDATIONS

It is recommended that Lyra receive direct instruction from a Teacher of the Visually Impaired, focusing on skills of visual efficiency, compensatory skills, concept development, low vision devices, and instruction that utilizes a multi-sensory approach and emphasizes issues on depth perception while interacting in her environment.

It is recommended that the Teacher of the Visually Impaired provide consultation to Lyra's classroom teachers and therapists.

It is recommended that Lyra receive a Learning Media Assessment to determine appropriate learning media and delivery method.

Lyra should receive direct instruction from a Certified Orientation and Mobility Instructor as she transitions to a new and unfamiliar environment for preschool.

Lyra's preschool environment should be one that will be able to fully accommodate for her visual needs. Close work causes fatigue, and visual tasks should be varied to provide rest for the eyes. Lighting in the classrooms needs to be monitored.

FUNCTIONAL RECOMMENDATIONS

Provide preferential seating near the teacher in large group settings.

Provide good, indirect lighting with no glare in the classroom.

The teacher should not stand in front of the window or light source when teaching or speaking to Lyra.

Present materials with high contrast background.

Use matte surface to reduce glare. Avoid shiny white pages.

Include verbal descriptions of visual activities within the learning environment.

Allow for visual rest periods when doing close work.

Allow time to become familiar with new environments.

Hat, sunglasses, and sunscreen must be worn outside at all times.

XXXXX, M.S. ECSE, TVI, COMS XXXXX, M.S. ECSE

Teacher of the Visually Impaired

CCVI Special Instructor

CCVI

CCVI