

KK#:	12-19-03
NAME:	AL-YASIN, HAYA
DOB:	06-09-03

INPATIENT – BRAIN INJURY
INITIAL/DISCHARGE EVALUATION
NEUROPSYCHOLOGY

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Date of Admission: 7/7/2008**Dates of Observation:** 7/7/08, 7/8/08 & 7/9/08**Reason for Referral:**

Haya Al-Yasin is a 5 year-old girl with a history of resection of a pilocytic astrocytoma of the right cerebellar hemisphere in 9/05, shunted hydrocephalus, and recent-onset seizures. She also has a history of history of significant developmental delays. She was admitted to Kennedy Krieger Institute's Brain Injury Unit on 7/7/08. As part of a series of multidisciplinary evaluations, a neuropsychological evaluation was completed.

Relevant History:

Haya resides with her parents (Mohammed and Maha) and two sisters (ages 9 and 6 years) in Kuwait. The family speaks primarily English in the home, and to Haya.

According to medical record review, Haya was responsive and aware of her environment prior to one year of age. She reportedly vocalized spontaneously and consistently responded to others. She began to walk at 14 months, but walked with arms flexed at her elbows and palms facing forward. Additionally, Haya reportedly frequently fell as her unsteady gait became progressively worse. Over the next year, she experienced deterioration of all neurological functions, including loss of pre-language skills previously developed.

Due to the change in neurological status and development skills, in 9/05, when Haya was 27 months of age, she was admitted an inpatient unit at the University of Freiburg in Germany for a series of medical tests. An MRI on 9/8/05 revealed a large cystic tumor of the right cerebellar hemisphere with severe compression and displacement of the brainstem and hydrocephalus. The tumor was completely removed on 9/9/05, and subsequent histological tests indicated a Grade I astrocytoma.

Immediately after the surgery, Haya's father reported that she recovered well. However, she initially had some complications associated with the tumor resection. Specifically, a CT scan on 9/13/05 and 9/19/05 showed bilateral subdural effusions. On 9/23/05, Haya reportedly slept for an abnormal amount of time, and subsequent CT scan showed persistence of the effusion on the right and an enlargement with compression of sulci on the left. The CT also revealed congestion of the lateral ventricle and 3rd ventricle with additional subdural hygroma of the right hemisphere and midline shift to the left. Right frontal and left occipital parenchymal lesions were also noted. Haya underwent a lumbar puncture, which indicated increased intra-cranial pressure (ICP), necessitating emergent removal of cerebrospinal fluid (CSF). ICP subsequently decreased and Haya reportedly improved neurologically. By 9/24/08, left hemisphere sulci were reportedly visible again, and the width of CSF spaces was unchanged. Haya remained hospitalized until 10/4/05, and reportedly made significant improvements in medical status. According to the medical record, she was alert, feeding normally, and exhibited a normal sleep-wake cycle. Haya exhibited some residual neurological signs, however, including an inconsistent squint and right-sided hemiplegia and ataxia. At the time of discharge, she was referred for intensive inpatient rehabilitation.

In 1/06, when Haya was 31 months of age, a ventroperitoneal (VP) shunt was inserted due to ongoing hydrocephalus. Since that time, hydrocephalus has thought to have been controlled and Haya has not required any shunt revisions. A post-operative follow-up CT scan on 4/23/06 indicated no evidence of tumor recurrence, but also indicated no change in the size of Haya's ventricles, despite the shunt in the

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right frontal horn. A follow-up MRI on 8/1/06 again indicated distinctly dilated ventricles but did not indicate increased ICP. In 2/07, an MRI of the brain revealed no significant changes in post-operative characteristics, in the ventricular system, or in the white matter. There was no abnormal enhancement, or recurrent or new lesions.

Haya has been closely followed by various professionals to monitor her neurocognitive development. In 2/06, at the age of 32 months, Haya participated in a speech evaluation in Kuwait. According to the report, she did not show interest in the examiner, did not respond to her name, and demonstrated perseveration on toys. She reportedly spent significant amounts of time holding toys, shaking them, and ignoring attempts to obtain her attention. Haya subsequently participated in speech therapy three times per week (24 sessions total) in order to address attention, receptive/expressive language, and oral motor skills.

The follow-up evaluation in 5/06, when Haya was 35 months old, revealed that Haya had made progress in responding to sounds, attending to faces, maintaining eye contact, and responding with smiles/coos. At the time, she was also able to recognize her name, understand “no,” and react to familiar words. Oral motor skills had reportedly improved, and she inconsistently could make sounds to indicate discomfort, vocalize spontaneously, imitate vocalizations, and shake her head “no.” Overall, the examiner concluded that Haya’s language skills fell approximately at the 6-12 month level of development and that she had a global developmental delay. Because of gains in function, however, the examiner recommended that speech therapy be discontinued, temporarily.

A follow-up medical evaluation in 8/06, when Haya was 3 years, 2 months, revealed that Haya was following simple commands, but had not yet developed active speech. She was making eye contact, grasping objects, rolling/crawling on her stomach, and able to independently drink and eat. However, despite improvements in overall function, the examiner noted severe deficits in meaningful speech, ataxia, inability to walk, and extremely poor coordination of hand functioning.

In 11/06, when Haya was 41 months of age, she underwent another speech evaluation with the same provider in Kuwait. According to that report, she had completed a total of 55 speech/language therapy sessions since 9/06. At the time of evaluation, Haya had reportedly made significant gains in receptive/expressive language and attention skills. She was more interactive and spontaneously babbled as well as attempted to imitate lip movements. The possibility of an audiological problem was ruled out.

Overall, Haya was relatively stable from a medical and developmental perspective until 1/08. On 1/12/08 when Haya was 4 years, 7 months, she experienced two tonic-clonic seizures. The first lasted 30 minutes in duration, while the second lasted approximately 5 minutes. Haya was initially treated with intravenous phenytoin, and subsequently with Tegretol. On 1/20/08, Haya participate in an EEG, and therefore did not receive her morning dose of Tegretol. She experienced a third seizure during the EEG. At the time of seizures, Haya was not walking or running, but was able to sit unsupported with good head control. A repeat MRI revealed that ventricles continued to be dilated and were irregularly shaped. There were no other abnormal findings or evidence of an acute event. Epileptic events were thought to be related to residual brain damage secondary to the critically increased ICP before the operation of Haya’s tumor.

Haya is currently enrolled in a school for special needs, which she has attended since the fall of 2007. According to school records, Haya’s educators are currently encouraging her to make choices, initiate

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play, relate to peers/adults, listen/understand speech, and engage in building/painting activities. Haya initially attended a full-day session (7:00am-2:00pm), but was hospitalized for a consecutive month in 1/08 after experiencing her first seizure, and did not return to school until 3/08. At that time, she began requiring a nap during the late morning, and was typically picked up from school during the early afternoon (between 12:00pm-1:00pm) for the duration of the school year. Haya receives physical therapy in her home three days per week, and will resume speech therapy upon the family's return to Kuwait at the end of the summer.

Haya was admitted to KKI on 7/7/08 for multidisciplinary evaluations and recommendations for long-term planning. At the time of admission, Haya was prescribed Tegretol, Diazepam, and Timonil. Her parents are interested in determining what kinds of interventions and programming would be most appropriate for Haya in supporting her development. Her mother reported that immediately before admission, Haya was developing new skills. Reportedly, she was able to sing and count along with her mother, understood verbal directions, and was partially toilet-trained. Her mother reported that Haya has always experienced sleep difficulties, but that these difficulties have increased since the onset of her seizures. Haya typically goes to sleep at approximately 10:00 p.m., but almost always awakens by 3:00 am and may or may not return to sleep for the rest of the morning. Additionally, her mother reported behavioral changes which coincided with the onset of seizures. Specifically, she noted a significant decrease in Haya's overall mood, an increase in crying and fussiness, and overall difficulties in soothing her.

Procedures Administered:

Clinical observations; Mullen Scales of Early Learning (MSEL); Parent Interview; Record Review

Behavioral Observations:

General Presentation: For the current evaluation, Haya was observed over two one hour sessions. The first took place in the neuropsychology office, and the second in her room. Haya's mother was present for the duration of both sessions, and her father for the latter portion of the second. A planned session was cancelled and rescheduled after the session began, as Haya had experienced a seizure earlier that morning, and had been given a sedating medication. She was clearly fatigued and her participation could not be elicited.

Arousal/Attention: Haya was awake and alert throughout the entire session. Visual attention was poor and it was difficult to engage Haya in test stimuli. Verbal cues and prompts were not successful in attracting attention and overall attention was significantly limited. The few items to which she initially attended did not sustain her attention after several seconds. After several attempts, her attention could be drawn to an object and she visually fixated for brief periods (e.g., Barney doll), but the attention was fleeting. Haya also fixated on faces for several seconds. Her eyes moved frequently, although it was not clear whether Haya was visually exploring the environment. She did not readily attend to or show interest in most novel stimuli presented to her. Haya was not observed to divide her attention between two tasks. Joint attention was only elicited by multiple efforts to direct her to a preferred item close by, and attempts were successful very few times.

Responding: Inconsistent generalized and localized responding to tactile, auditory, and visual stimuli stimulation was observed. Haya's responding was extremely variable. While she often appeared to attend

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to examiner-presented stimuli, she reacted in variable ways and did not fully attend to the examiner except while the examiner sang a preferred song.

Oral/Vocal/Language Behavior: Haya was observed to vocalize throughout the first session. No clear verbalizations were noted, but she was noted to make several oral sounds (i.e., ba, ma, pa). She produced both vowel sounds and consonant-vowel combination sounds, but did not appear to use these to communicate. During the second session, however, most vocalizations were made in the context of irritability, as Haya cried and yelled intermittently.

Receptively, Haya did not follow simple commands or clearly respond to her name or other words. There was no evidence that she reliably understood verbal commands.

Motor skills: Haya remained in her stroller for the majority of the first session, except when removed by her mother. She was noted to stand with significant support, and was able to sit independently on the floor for several minutes. During the second session, Haya alternated between laying and sitting on her bed. She was able to independently transition from sitting to laying on her own. Haya demonstrated spontaneous movement of upper and lower extremities. Although she was able to hold toys when placed into her hands by the examiner, she frequently dropped items within several seconds. Throughout both sessions, Haya spent significant amounts of time fixating on her left hand while repetitively flapping it near her eyes.

Play: Haya did not engage in any meaningful, age-appropriate, or cooperative play behaviors. She did not display adequate understanding of turn-taking; rather, she appeared to watch the examiner during her “turn.” When a toy was placed within her reach, Haya inconsistently reached for the object, and was not noted to examine or use objects functionally. On one occasion when an item was dropped out of her line of vision, however, Haya appeared to search for the item.

Affect, Attachment, and Social Behavior: Haya’s affect was generally bright during the first session; several social smiles were noted in response to her mother’s singing and counting. During the second session, however, affect was extremely variable. Haya cried intermittently throughout the evaluation, but was calmed temporarily when the examiner sang a preferred song. In addition, she was soothed and calmed by her mother during intermittent crying spells. Social smiles or other indicators of engagement were not noted during the second session. Throughout both sessions, Haya was noted to make very brief and fleeting eye contact.

Test Results:

Results from formal tests are reported in comparison to other children Haya’s age as a range of functioning (i.e., mildly impaired, average, high average) and as standardized scores. Due to her variability in attention and overall responsiveness, the results may underestimate some of Haya’s “true” abilities. Additionally, because of a seizure which occurred on the morning of a planned evaluation session and because Haya was given a sedating medication the day prior to the testing session, these results must be interpreted with additional caution.

Cognitive Development: In order to assess Haya’s overall cognitive functioning, she was administered the MSEL, a comprehensive measure of cognitive functioning for infants and preschool children. The

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MSEL includes four cognitive scales: Visual Reception, Fine Motor, Receptive Language, and Expressive Language.

Haya's performance on the MSEL resulted in an Early Learning Composite standard score of <49 (1st percentile rank for her age and within the Very Low range of functioning). The following table depicts Haya's MSEL performance (T-scores: Mean = 50, Standard Deviation = 10; Standard Scores: Mean = 100, Standard Deviation = 15):

Mullen Scales of Early Learning		
Scale	T-Score	Age Equivalent
Visual Reception	<20	7 months
Fine Motor	<20	8 months
Receptive Language	<20	5 months
Expressive Language	<20	12 months
	T-score	Percentile
Early Learning Composite	<80	1st

On the Visual Reception scale, Haya localized fixation on a moving stimuli (near and far), alternated her vision from one object to another, and looked for a dropped item. She was not observed to reach for an object when presented to her, to look for a toy hidden under a washcloth, turn a cup right-side up, or make object association. She showed interest in a book as a hinge and attended to several pictures when a story was read to her.

With regard to the Fine Motor scale, Haya accepted and grasped blocks when presented to her, used a refined grasp, used two hands together, and turned pages in a book (one at a time). She was not noted to use a pincer grasp, to transfer objects from one hand to another, or imitate crayon lines as presented by the examiner.

Haya's performance on the Receptive Language scale revealed that she responded to voice and face by vocalizing, coordinated looking and listening, and attended to words and movements. She did not, however, appear to recognize any words or her name, demonstrate understanding of inhibitory words, or appear to understand words and gesture commands.

On the Expressive Language scale, Haya made several vocalizations, laughed, babbled voluntarily, and produced at least three consonant sounds. She also appeared to use inflection while jabbering and combined jargon with gestures (i.e., increased babbling while pushing away a presented toy).

Adaptive Functioning: On the Vineland-II (Mean = 100, Standard Deviation = 15), Haya's mother served as the informant. In many areas, Haya's adaptive skills were rated as impaired relative to other children her age. Her overall Adaptive Behavior Composite is significantly below average (SS = 45).

On the Receptive Language scale of the Communication domain, Haya was reported to partially understand the meaning of the word "no" and "yes." She also sometimes listens to a story for at least five minutes. Reportedly, Haya sometimes follows instructions with one action and one object (i.e., "Bring me the book"), but is not yet following two-step commands. Her mother reported that she understands basic

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questions (i.e., “Do you want to go outside to play”), and typically indicates her wants/desires. Expressive language skills include pointing to a preference, making sounds and gestures to indicate wants/needs, saying “mama/dada,” and sometimes using gestures to indicate choice. She is not yet naming objects, using names for other family members, attempting to answer questions with words. Formal written communication skills have not yet emerged.

With regard to the Daily Living Skills domain, Haya eats solid foods, drinks from a straw, and sometimes drinks from a cup, although she may spill. Haya is not yet toilet trained. Haya is not yet toilet trained, although she is developing some skills in that area. During the day, she is placed on the toilet at regular intervals. She will sometimes urinate or have a bowel movement in the toilet. Despite a toileting schedule, she regularly urinates in her diaper during the day and night. She is less likely to have a bowel movement in her diaper and if she does, she often lets her mother know when she has a soiled diaper. Haya does not yet assist with dressing or pulling clothes on/off, but often takes off her socks. She does not yet help with simple household chores or clean up her personal possessions. She reportedly does not yet have understanding of functional household items (i.e., telephone, TV), but attempts to push buttons on remote controls or laptop computers.

In terms of socialization, Haya displays a preference for certain people and object, shows affection to familiar people, and imitates facial expression. Though she reportedly plays alone when in the presence of other children, she sometimes shows interest in other children her age. She reportedly plays well with her two sisters, although she occasionally pushes them away when they attempt to engage her. Haya uses actions to show happiness (i.e., hugs), and sometimes shows a desire to please others. She does not demonstrate friendship-seeking behavior or imitate more complex actions as performed by others.

With regard to gross motor skills, Haya reportedly crawls on her hands and knees across the floor and up stairs, and sometimes pulls herself to a standing position (with support, such as a table). While holding onto something, she takes at least two steps and stands alone for at least five minutes. Haya rolls and throws a ball while sitting, and sometimes climbs on and off low objects. She does not walk or run independently, climb on/off an adult sized chair, or walk up stairs.

Fine motor skills include picking up small objects, moving objects from one hand to the other, picking up objects with thumb/fingers, and squeezing objects. Haya also sometimes puts objects into or removes items from containers. She usually turns pages of a book or magazine one at a time, unwraps small objects, and sometimes stacks small objects (i.e., blocks). Haya reportedly does not open doors, use a twisting hand-wrist motion, or hold a pencil in the proper positions.

Haya’s mother denied any significant behavioral concerns, but reported overall decreased mood and increased fussiness since the onset of Haya’s seizures. Scores on the Vineland-II scales are reported in the following table:

Vineland-II Scale	SS or Age Equivalent (years:months)
Communication	44
Receptive	1:0
Expressive	0:10
Written	1:10

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Daily Living Skills	41
Personal	1:1
Domestic	0:10
Community	<0:1
Socialization	51
Interpersonal Relationships	1:1
Play and Leisure Time	0:8
Coping Skills	<0:1
Motor Skills	54
Gross	1:1
Fine	1:8
Adaptive Behavior Composite	45

Impression:

Functions/Impairments: Haya Al-Yasin is a 5 year-old girl from Kuwait with a history of resection of a pilocytic astrocytoma of the right cerebellar hemisphere in 9/05, shunted hydrocephalus, and recent-onset seizures. She also has a history of significant developmental delays. Haya was admitted to KKI for comprehensive multidisciplinary evaluations.

During this assessment, evaluation of cognitive skills revealed significantly below average functioning, which fell between the 5 and 12 month range. Direct assessment of cognitive skills and behavior was limited as the evaluation was scheduled immediately after Haya had a seizure and received sedating medication. While direct assessment was limited, Haya's mother reported significant concerns with her daily skills. Overall, her responses on the Vineland indicated that Haya is typically demonstrated skills at the 8 to 20 month level. Additionally, throughout sessions, Haya was noted to fixate on her left hand while repetitively flapping it near her eyes. Eye contact was consistently minimal and fleeting.

Overall, Haya's current performance is consistent with reports of her long-standing developmental delays since the resection of her tumor. Her presentation and pattern of neurobehavioral deficits suggest multiple areas of inefficiency in the development of higher cortical function. With her current neuropsychological profile, Haya will likely remain off track developmentally in relation to her peers. With the provision of intensive daily behavioral, attentional, and communication interventions, however, Haya will likely continue to make some gains in skills, and may learn to communicate or perform basic life activities.

Activities: Due to the above-mentioned neuropsychological impairments, Haya is unable to engage in age-appropriate activities (e.g., mobility, play). However, she can passively participate in preferred activities, such as games, toys, and music that she enjoys.

Participation: Due to Haya's impairments and activity limitations, she would greatly benefit from significant modifications to her environments to help promote development in motor, communication, visual, cognitive, and social skills. Careful planning will be necessary to ensure an appropriate home program and ongoing school placements for Haya to address neuropsychological impairments and limitations.

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Recommendations:

Given that direct assessment of Haya was limited, an outpatient follow up visit was scheduled to try to obtain a more accurate picture of Haya's skills on standardized testing. Following that evaluation more precise recommendations will be provided if necessary. Based on the current evaluation results, the following recommendations are warranted.

Educational

- This report should be shared with Haya's current educational team. She will require special education services on a long-term basis, including a small class size with a low student-to-teacher ratio, highly structured functional communication training, and continued physical, speech, and occupational therapies.
- We have reviewed Haya's educational prior reports and strongly endorse her current educational program, as she will benefit most from a small, highly structured school program. We also endorse goals provided by occupational and speech therapies, including attempts to increase Haya's attention and joint attention, develop eye contact, increase postural control and trunk stability, enhance bilateral coordination, respond to her name, and develop imitation skills. Goals for physical education are also endorsed. In addition, we recommend the following:
 - Haya's educational program should include a structured daily program of sensory stimulation, and teachers should have training in working with children with significant motor and cognitive limitations.
 - Intensive and consistent Applied Behavioral Analysis (ABA) will likely be most helpful in developing functional communication and in engaging Haya in educational activities in order to increase skills. A professional with specific ABA training should be consulted.
 - For more information about possible ABA resources in their home area, contact Dr. Ed Denning or Mr. Hakim Kair at the Shafallah School in Qatar.
<http://www.shafallah.org.qa/>
 - Provide colorful objects of different shapes, sizes, and textures that she can play with. Show her children's books and family photographs.
 - Make sure other people who provide care and supervision for Haya have a solid understanding of her level of functioning and understand the importance of a consistent, loving, comforting relationship with her.
 - Increase understanding of words by demonstrating/showing meaning as it is said.
 - Develop word associations by giving word labels to everyday objects and activities.
 - Encourage and positively reinforce (e.g., clapping) attempts to communicate.
 - Speak slowly and give time to respond - up to 30 seconds after presenting stimulation.
 - Speak to Haya in simple but lively language. Repeat new information frequently.
 - Tell Haya what you're going to do before you start doing it.

Activities to Promote Development

- Strategies to promote development should be used and integrated across settings (i.e., therapies, home, school). Haya's parents and therapists can encourage her development with the following strategies:
 - Try to establish a regular nap-time each day and encourage Haya to sleep through the night.
 - Provide consistent, warm, physical contact (i.e., hugs, skin-to-skin contact) in order to provide a solid sense of security and well-being.

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- Learn to read her cues and respond to her when she is happy or upset. Be attentive to when Haya is alert and attentive, upset, or fatigued. Provide stimulating activities when she is alert and content.
- Provide colorful objects of different shapes, sizes, and textures that she can play with. Show her children's books and family photographs. Provide images or books with high-contrast patterns, a bright, varied mobile, or an unbreakable mirror for play.
- Provide Haya with a child-safe mirror so she can look at herself.
- Avoid subjecting Haya to physical or psychological stressors or traumatic experiences (i.e., yelling, startling, excessively loud music or noises).
- Make sure other people who provide care and supervision for Haya have a solid understanding of her level of functioning and understand the importance of a consistent, loving, comforting relationship with her.
- Increase understanding of words by demonstrating/showing meaning as it is said. Develop word associations by giving word labels to everyday objects and activities.
- Encourage and positively reinforce (e.g., clapping) attempts to communicate.
- Talk to Haya frequently throughout the day. Describe the activities that you are doing (i.e., "I am putting your shirt on", "I am putting your shoes on", etc.), and make sounds that she can try to imitate (i.e., na-na, ba-ba, ma-ma). When Haya makes sounds, imitate her and praise his vocalization. Talk or sing during dressing, bathing, feeding, playing, walking or driving, using adult talk.
- Haya would benefit from interactive play activities to promote visual attention, motor skills, responsiveness to stimulation, and cause and effect learning. Encourage play by reading books, singing songs, or playing soft music with her. Use interactive toys or games that light up, make sounds, music, or speak after pressing buttons. Also use toys that she can manipulate (big blocks, play telephone, trucks).
- Verbally and nonverbally praise Haya for responsiveness and appropriate behaviors (i.e., for pressing a button to make a light turn on).
- Imitate any of Haya's appropriate play (i.e., if she presses a button, parent presses a button).
- Describe what Haya is doing (e.g., "You pressed the button").
- Provide close, physical contact to help Haya feel comforted and secure.
- Sing to Haya and give her the opportunity to listen to music. Engage Haya in rhythmic movement such as dancing together with music.
- Haya should be encouraged to play with her sisters. Provide Haya opportunity to observe other children play and provide her opportunity to interact with other children (i.e., children talking to her, playing with interesting toys with her, etc.).
- Read to Haya every day. When reading books to Haya, point to pictures and describe the scenes in the book (i.e., animals, colors, etc.).
- Play interactive games such as peek-a-boo and pattycake with Haya.
- Avoid subjecting her to physical or psychological stressors or traumatic experiences (i.e., yelling, startling, excessively loud music or noises).

Recommended Toys

- Unbreakable mirrors
- Balls of all sizes and variety (make sounds, different textures).
- Musical toys, such as bells, maracas, tambourines, drums

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- See-through rattles that show the pieces that make the sound
- Baby books with board, cloth, or vinyl pages
- Large brightly colored building blocks
- Cars, trucks, and other vehicles toys made of flexible plastic, with no sharp edges or removable parts
- Brightly colored toys
- Toys that light up
- “Cause and effect” toys that make noise or light when parts are pulled, pushed, opened, or moved.

Motor Skills

Continuation of physical and occupational therapies is recommended. Playing games, coloring, or engaging in simple fine motor activities are also encouraged. Encourage two-handed activities such as rolling clay or throwing a large ball, with gentle encouragement to use both hands.

Speech and Language

Haya's functional communication is below age expectations. It is imperative that continued emphasis is placed on functional communication. Whatever communication system is used at school should be carried over into the home for consistency. Speech and language strategies and goals should be integrated across settings and should regularly be relayed to Haya's parents so that they can focus on and reinforce similar behaviors at home. Emphasis should be placed on the ability to express basic wants, needs, and emotions such that Haya is able to participate in some form of symbolic interaction.

Attention Modulation

Significant difficulties with attention were noted. Haya is likely to work most successfully if learning periods are limited to focused sessions, lasting 2 to 5 minutes at a time, with provision of preferred activities in between.

Social and Emotional

- If Haya becomes frustrated or upset during activities, provide reassurance, and redirect Haya back to task, if possible.
- Provide Haya with a reinforcer after performing difficult activities. As she responds consistently to music, this can be used as a reinforcer.
- Further assessment through an ABA functional analysis will be helpful in determining possible reinforcers.

It is important to note that these recommendations are based partially on Haya's functioning during the present evaluation which may be an underestimation of her abilities. Therefore, Haya will return to KKI for an outpatient evaluation on 7/18/08 for additional testing and to further refine these preliminary recommendations.

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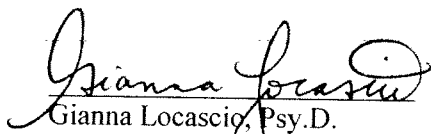
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The results of this evaluation will be shared with Haya's parents, who appear to have a good understanding of Haya's functional status and her current needs.

If questions arise about this report, please feel free to contact Dr. Slomine at 443-923-2725.



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