Consultation Report

The evaluation took 2.5 hours to complete. Here is a list of the testing procedures that were performed on this evaluation.
  a. general history (functional problems)
  b. ocular history
  c. visual fields
  d. visual acuity (distance and near)
  e. refraction
  f. ocular motility (eye movements)
  g. binocular vision testing (distance and near)
  h. accommodative evaluation
  i. sensory-motor testing
  j. visual-balance evaluation (static)
  k. visually guided movement evaluation
  l. spatial localization
  m. midline evaluation
  n. pupil testing

Prior to the evaluation the patient’s records from -------- were reviewed. The visual perceptual testing battery was performed at the -------------. An occupational therapy report for neuro vision intervention was also included as part of this evaluation. Reports from ---------------- neurologist were reviewed.
Today’s consultation included the following:

- Consultation Evaluation (99244-25) 80 minutes
- Sensory Motor Testing (92060) 30 minutes
- Visual field (92083) 20 minutes
- Refraction (92015) 10 minutes
- Medical Conference (99366) with --------, OTR/L 30 minutes
- Consultation Report 6 pages (99080)

**History:**
AU, age 58, slipped and fell sustaining a tbi while working. This occurred on March 16, 2011. He worked as a cook at the Four Seasons. The CT showed a subarachnoid hemorrhage and subdural hematoma. While hospitalized he fell out of bed and sustained another head injury. Repeat CT showed a nondisplaced right frontal skull fracture. No seizures were reported. He is having problems with sleeping. Since the injury he has had problems with walking. He is at risk for falls. __________ does have some tremor in the upper right extremity. There is impairment of self awareness.

**Past Medical History:**
Polio.

**Current Medications:**
Dilantin, Nexium, Sodium Bicarbonate, Vitamin D, Zocor, Oxycodone

**Ocular History:**
No history of any eye disorders. Dr.---------- reported jerkiness in pursuit eye movements, problems with saccadic eye movements, impaired convergence and difficulty looking up.

**Ocular Examination:** (unaided)

<table>
<thead>
<tr>
<th>Distance Visual Acuity</th>
<th>Near Acuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right eye: 20/30</td>
<td>20/400</td>
</tr>
<tr>
<td>Left eye: 20/30-</td>
<td>20/400</td>
</tr>
</tbody>
</table>

**Ocular Motility:**
Pursuits: jerky eye movements (not able to follow the target and answer questions)
Saccades: full saccades, but excessive blinking noted on gross testing
Versions: equal and yoked

**Contrast Sensitivity Test:**
Right eye: full contrast curve throughout all 5 spatial frequencies
Left eye: full contrast curve throughout all 5 spatial frequencies
Note: contrast curve is lower for the left eye than the right eye.
**Visual Perceptual Testing:**
Thayer was evaluated with the Gardner, Test of Vision Perception Skills (TVPS-3). This standardized test involves only the use of vision and cognition and evaluates how the visual centers of the brain interpret and process visual information. It does not involve printing or drawing, or the use of the hands or motor skills. This allows us to identify visual processing difficulties. This battery was done at CNS.

**Test of Visual Perceptual Skills**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentile Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Discrimination</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Visual Memory</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Visual Spatial Relationships</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Visual Form Constancy</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Visual Sequential Memory</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Visual Figure Ground</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Visual Closure</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

The Test of Visual Perceptual Skills is a battery of tests involving sets of visual information presented to the patient. The test requires the individual to interpret, remember and assess the forms for relevant details and choose the appropriate form according to the task presented.

Visual discrimination involves finding a matching figure from a group of figures. Visual memory involves remembering a form and selecting the matching form from a group of figures. Visual spatial relationship involves the ability to find a form that is oriented in a different direction. Visual form constancy involves finding a matching hidden picture which might be slightly different in size, orientation, and boldness. Visual sequential memory is the patient’s ability to remember a series of figures in the correct sequence. This skill is involved in spelling ability. Visual figure-ground is the ability to perceive a form visually and to find this form hidden in a background. Visual closure is the ability to find a matching form that is incomplete.

All of the skills in the TVPS are necessary in the process of learning. Difficulties in any of these areas will make it difficult to remember what the individual has just learned and apply it to a different situation. Without these skills, visual information is not able to stay in the mind to be used in other subjects or life situations. Weakness in these skills will also make it difficult for the individual to maintain attention on visual information.

**Line Bisection Test:**
All lines were bisected correctly
Visual Midline Shift Test: (standing)

The visual midline shift test was assessed using the Padula method. A right visual midline shift was present. No anterior or posterior shift was present.

Visual Balance:

Using the Rhomberg Stance with eyes open AU was able to track slow moving target for 30 seconds. Minimal upper body sway was present along with low grade vertigo. The symptoms went away 20 seconds after the movement of the target stopped.

Stereo acuity:

Stereo acuity was at 50 seconds with 250 seconds Randot

Spatial Localization: (Binocular –test performed at near)
Patient showed poor localization hitting the target 65% of the time. Tendency is to undershoot the target.

Refraction

Best Corrected Visual Acuity
Right eye: +2.00 - .50 x 68 20/20+
Left eye: +2.25 – 1.00 x 80 20/20+

Near point add:
Right eye: +2.50 20/20
Left eye: +2.50 20/20

Binocular Testing:
At 16 inches AU had difficulty maintaining fusion during near point testing. The target double with little demand on the visual system. Once it was doubled it was very difficult to recover fusion.
Goldmann Visual Field Testing: (1 mm target)
Right eye: temporal 35 degrees, superior 10 degrees, nasal 25 degrees, inferior 35 degrees
Left eye: temporal 40 degrees, superior 5 degrees, nasal 30 degrees, inferior 25 degrees

Pupils:
Pupils are round and respond to direct and consensual stimulation. No afferent papillary defect present.

Contrast Sensitivity:
The contrast sensitivity functions for both eyes were below the normal curve for all spatial frequencies.

Biomicroscopy:
Right eye: cornea is clear, anterior chamber is deep and quiet. Scurf present on upper lid margin.

Left eye: cornea has a pterygium (1.5 mm into nasal cornea), anterior chamber is deep and quiet. Corneal staining is present. Scurf present upper lid margin.

Fundus Examination (dilated fundus exam):
Right eye: Vitreous is clear. Posterior pole is clear. Optic nerve head shows distinct disc margins and shows a normal appearance without pallor. There is a c/d ratio of .2. Macula is clear with a foveal reflex and retinal blood vessels appear normal. Peripheral fundus was attached all around.

Left eye: Vitreous is clear. Posterior pole is clear. Optic nerve head shows distinct disc margins and shows a normal appearance without pallor. The c/d ratio is .25. Macula is clear with a foveal reflex present. Peripheral fundus was attached all around.

Intraocular Pressures: Goldmann @11:20 am
Right eye: 13 mm Hg
Left eye: 13 mm Hg

Color Vision Test – Ishihara Plates
Right eye: no misses
Left eye: no misses

Red Cap Test:
Red saturation was equal with the two eyes.

Impression/ Diagnosis:

1. Visual field constriction
2. Convergence insufficiency

ICD-9-CM
368.45
378.83
3. Deficiency of pursuit eye movements 379.58
4. Dizziness 780.4
5. Pterygium 372.40
6. Myopia 367.1
7. Presbyopia 367.4
8. Reduced contrast sensitivity

Visual perceptual testing indicated problems with visual memory, form constancy, sequential memory, figure ground and visual closure.

Discussion:
The initial consultation indicated that AU does have binocular vision problems associated with a traumatic brain injury. Convergence problems were noted at near point. In addition, the visual field is significantly reduced in size with both eyes. Reduced fields and binocular dysfunction affects visual spatial orientation and balance. Visual perceptual testing indicated problems with visual memory, form constancy, sequential memory, figure ground and visual closure. Visual processing and multitasking are very difficult. These areas need to be addressed in the therapy program. At this point in time, he is not aware of the visual deficits that exist. He was not able to follow a slow moving target, while being asked a few simple questions. He was not aware that he had stopped moving his eyes during the questions.

Further testing needs to be done to include a Visual Evoked Potential (VEP) and additional sensory motor testing with prisms before the final prescription therapeutic lenses can be prescribed.

Plan:
1. Future prescription glasses for use with walking to help with spatial orientation and field expansion. Prisms may be needed to improve balance.

2. Prescription reading glasses, single vision, to help with near point work and computer work.

3. Return for Visual Evoked Potential (VEP), testing prism testing and sensory motor testing

4. Neuro vision rehabilitation therapy will be prescribed in order improve the level of visual functioning. This will be coordinated through our office with respect to the programming of the therapy program with ________. Monthly follow-up appointments are necessary to update the therapy program and monitor progress.

Medical Conference with ______________________:
The prescribed Neuro Vision Rehabilitation procedures at ______ are listed
1. Eye stretches: to be done in all directions with eyes open and closed
2. HART Chart at 3 feet
3. Dynavision: (monocular) emphasize alternating using both hands
4. Marsden Ball Column Jumping: add physio-ball
5. Motor Equivalents- work on posture and breathing
6. Visual figure ground activities
7. Geoboard activities

The procedures listed above should be done 5 days per week for 30 minutes at _______ and during home therapy (15 minutes per day).

A request for two pairs of glasses accompanies this report. These are going to be used in therapy and will be an integral part of therapy. He needs the glasses in a timely fashion.

Please contact our office if there are any questions regarding this report. Next visit is scheduled for July 13, 2011 for VEP and sensory motor testing.

Sincerely,

Cc: MD
PT
OT
NORA Report - Second Evaluation

Re:
Claim:

This report covers the appointment on _______________. Present for the appointment was __________ from _______________.

The following procedures were performed today:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Code</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Visit</td>
<td>99214</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Visual Evoked Potential</td>
<td>95930</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Medical Conference with _________________</td>
<td>99366</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

History:
At the time of this evaluation, AU has not started any of the neuro vision therapy that we prescribed for __________ on our last visit (June 22, 2011). Therefore, there was no update from CNS regarding OT. From PT there was a note that the right leg is shorter in length than the left and a heal lift is on order to even out the discrepancy. Also of note is the right sided weakness due to polio.

Visual Evoked Potential (VEP):
The results of the VEP were that under binocular testing there was no increase in amplitude when compared with the each eye individually for the two spatial frequencies tested. This results in an abnormal VEP. The latency (response time) was in the normal range. Base in prism and binasals did help to increase the amplitude. As a result the prisms can be used during therapy.

Yoked Prism Testing for Gait Changes:
Asymmetric yoked prisms were tested. With 5 base in on the right and 3 base out on the left the right foot did not drop and drag as much. There was an increase in arm swing on both sides. In addition, Adrian felt the floor more with both feet. He was more aware of the visual space around him. These were very noticeable changes.

Clinical Impression:

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>ICD-9-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Abnormal Visual Evoked Potential</td>
<td>794.13</td>
</tr>
<tr>
<td>2. Convergence insufficiency</td>
<td>378.83</td>
</tr>
<tr>
<td>3. Deficiency of pursuit eye movements</td>
<td>379.58</td>
</tr>
<tr>
<td>4. Imbalance</td>
<td>781.3</td>
</tr>
<tr>
<td>5. Dry eyes</td>
<td>375.15</td>
</tr>
</tbody>
</table>
6. Myopia 367.1
7. Presbyopia 367.4

Plan:
1. Prescription glasses for use with walking to help with spatial orientation and field expansion. Prisms are needed to improve balance. These will be used in OT and PT.
2. Prescription- reading glasses, single vision, to help with near point work and computer work. These will be used in speech therapy.
3. Neuro vision rehabilitation therapy will be prescribed in order to improve the level of visual functioning. This will be coordinated through our office with respect to the programming of the therapy program with ________. Monthly follow-up appointments are necessary to update the therapy program and monitor progress.
4. Continue to use the Systane Ultra eye drops qid.

Medical Conference with ___________ OTR/L : 30 minutes
The prescribed Neuro Vision Rehabilitation procedures at CNS are listed here:

1. Functional mobility training and balance use asymmetric yoked prisms as follows: right lens 5 prism base in and left lens 3 prism base out (see diagram). To be used in PT and OT on a daily basis.
2. Eye stretches: to be done in all directions with eyes open and closed
3. HART Chart at 3 feet (monocular)
4. Marsden Ball Column Jumping: add physio-ball and use the asymmetric yoked prisms listed in the first procedure. Charts are 4 feet away.
5. Motor Equivalents: use the asymmetric yoked prisms listed in the first procedure.
6. Visual figure ground activities
7. Geoboard activities

The procedures listed above should be done 5 days per week for 30 minutes at CNS and during home therapy.

Next visit will be scheduled for one month to include the following:
   1. progress follow up on neuro vision rehabilitation program
   2. neuro vision rehabilitation therapy
   3. Optokinetic Drum test
   4. Color fields
   5. Developmental Eye Movement test

Sincerely,

Cc: