**NEUROPSYCHOLOGICAL CONSULTATION AND CASE MANAGEMENT**

**CASE MANAGEMENT/COST EFFECTIVENESS ANALYSIS FOR RECOMMENDED NEUROPSYCHOLOGICAL SERVICES**

Outcome is measured in different ways:

a. Medical services reduction.
b. Traumatic brain injury long-term needs.
c. Dementia-functional capacity, home or placement services.
d. Vocational/ Academic change after injury.
e. Disability analysis.
f. Neuropsychological independent living skills.
g. Outcomes also reflect quality of life variables.
h. Outcome can include larger psychosocial variables.

The question is whether to accept or reject neuropsychological services in the analysis of a case.

The following medical diagnostic conditions and endeavors provide an opportunity to demonstrate the value of neuropsychological case analysis while informing consumers and third party payers getting the most for today’s limited healthcare dollars.

**NEUROPSYCHOLOGICAL CONSULTATION AND CASE MANAGEMENT:**

1. The neuropsychological examination (NPE) answers three interrelated questions:
   - Is there objective evidence of impaired higher cerebral (or integrated) brain functions?
   - Do the pattern and level of the NPE findings suggest a diffuse, lateralized, or regionalized cerebral dysfunctions?
   - Are the pattern and level of disturbed functions compatible with a known and suspected brain disorder in a given patient?

2. The VALUE of the NPE:
   - Reduces cost and liabilities by describing impairment of higher cerebral functioning
   - Improves quality of life by describing impairment in higher cerebral functioning
   - Determines the effectiveness of treatment and directs treatment procedures by assessing disturbances in higher cerebral functioning
   - Provides continuum of care
   - Improves physician education and decision making

**NEUROPSYCHOLOGICAL CASE ANALYSIS WITH RECOMMENDING AN NPE CAN RESULT IN THE FOLLOWING:**

1. Documentation of cognitive impairment
2. Delineation of specific areas of cognitive deficits, differential diagnosis, estimation of functional statuses and intervention planning
3. Description of overall constellation of neuropsychological profile
4. Documentation of the need for non-pharmacological interventions
5. Determination of functional status to guide management decisions regarding limitations
6. Intervention programs
7. Individual medical adjustment counseling

NEUROPSYCHOLOGICAL CASE ANALYSIS FOR TRAUMATIC BRAIN INJURY/POSTCONCUSSION SYNDROME:

1. Documentation of cognitive, behavioral and emotional status
2. Feedback to family members and to improve patient awareness
3. Assess effectiveness of drug trials
4. History taking to determine if period of posttraumatic amnesia existed
5. Performance and symptom validity analysis
6. Analysis of interactions between cognitive, physical and emotional disturbance and concluding whether or not a mild traumatic brain injury has occurred
7. Determination of ability to function independently
8. Decision making capacity
9. Time limits of return to work, school, and social settings

NEUROPSYCHOLOGICAL CASE ANALYSIS IN SPORTS NEUROPSYCHOLOGY:

1. Early identification of concussion sequelae
2. More informed return to play decision thereby minimizing loss of playtime
3. Reduce risk of chronic neurocognitive dysfunction
4. Increase physician confidence and return to play decision
5. Tangible data to present to players, coaches and families regarding the extent of injury
6. Uniquely trained to educate the players, family, friend, and teams about the nature and effects of concussions and cumulative effect
7. Respond to players’ apprehension, depression, anxiety and other psychological symptoms
8. Respond to the concerns and fears of players’ families

NEUROPSYCHOLOGICAL CASE ANALYSIS FOR CEREBROVASCULAR ACCIDENTS/PATIENTS WHO HAVE UNDERGONE SURGICAL REPAIR OF ANTERIOR COMMUNICATING ARTERY ANEURYSMS:

1. Input to the medical team regarding optional pre-surgical consultation
2. Monitor course of acute recovery
3. Analysis of acute discharge planning
4. Management of comorbid conditions and medical complication residuals
5. Training of maximum independence
6. Assist directing psychosocial coping by the patient and family
7. Prevention of secondary disability
8. Analysis of enhancing quality of life in view of residual disability
9. Prevention of recurrent stroke and other vascular conditions
10. Confabulation behavioral treatment plan
11. Awareness training plan
12. Cognitive rehabilitation
NEUROPSYCHOLOGICAL CASE ANALYSIS FOR BRAIN TUMORS:

2. Tumor versus treatment effects.
3. Psychiatric versus neuropsychological conditions
4. Treatment decisions
5. Prediction of survival and prognosis
6. Aggressiveness of neurosurgery with neuropsychological residuals
7. Change or continuation of current brain tumor therapy

NEUROPSYCHOLOGICAL CASE ANALYSIS FOR PATIENTS WITH EPILEPSY/NON-EPILEPTIC PSYCHOGENIC SEIZURE (NEPS) POPULATION:

1. Determine overall level of neuropsychological and emotional functioning
2. Assist the carrier in directing the patient with epilepsy with appropriate treatment adjusting to the demands of everyday life
3. Assist in the estimation of cognitive effects of antiepileptic drugs
4. Confirm lateralization of the epileptic focus
5. Provide objective evidence for changes from baseline as a consequence of seizures or of a particular treatment
6. Access to psychological treatment for issues possibly underlying NEPS, less time and expense spent for neurological treatment
7. Recommend potential rehabilitation
8. Improve quality of life

NEUROPSYCHOLOGICAL CASE ANALYSIS FOR VARIANTS OF DEMENTIA:

1. Neuropsychological diagnosis in medical situations in which neurocognitive impairment is suspected. What type of dementia exists?
2. Physician seeking an estimate of the patient’s functional status and competency assessment
3. Physicians, medical, and insurance community seeking assistance for patient management including cognitive intervention, medical adjustment counseling of behavioral management

NEUROPSYCHOLOGICAL CASE ANALYSIS FOR PHYSICIANS WHOSE COMPETENCY TO PRACTICE MEDICINE IS QUESTIONED:

1. Detection of subtle cognitive impairments in highly functioning professionals that is not detected by other evaluation methods
2. Examination of behavioral manifestations of neurological disease (early dementia, Parkinson’s disease), systemic illness (e.g., chronic obstructive pulmonary disease or substance abuse/dependence for the purpose of determining safety to practice medicine)
3. Monitoring of emotional behavioral functioning in the presence of expected recovery from illness or injury in terms of neurocognitive integrity and help determine whether or when return to practice is safe and appropriate
4. Monitoring of progression of cognitive impairment of physicians with chronic illnesses determine whether and when physician becomes unsafe to practice medicine
5. Differentiating depression from dementia in older physicians
NEUROPSYCHOLOGICAL CASE ANALYSIS AND ECONOMIC BENEFITS:

The patients may rely on neurologist, psychiatrist, and general physicians for cognitive assessment and treatment procedures that might not be necessary when the patient should access these services through a neuropsychologist.

**Improved Health:** The patients in better mental status are frequently observed physiologically to have a better physical status. Cost of care may fall as the patients, achieving improved cognitive status and mental health from therapies prescribed following an NPE, also see improvement in physical status that in turn requires fewer medical services.

**Treatment Productivity:** Referring physicians are better informed about the status of their patients through NPEs. This may be more efficient in achieving the patient’s health goals with fewer resources.

**Adherence:** Physicians armed with better understanding of the patients’ conditions may be able to better intervene in compliance with medical advice.