Aphasia & Related Disorders Study Packet
Assessment, Prognosis, Recovery & Treatment
### Assessments for Aphasia and Related Disorders

<table>
<thead>
<tr>
<th>Assessment Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porch Index of Communicative Ability (PICA)</td>
<td>Tests verbal, gestural and graphic responses to common objects. Useful for predicting a patient’s course of recovery.</td>
</tr>
<tr>
<td>Boston Diagnostic Aphasia Examination (BDAE)</td>
<td>Used for determining site of lesion (test scores correspond to certain aphasia types)</td>
</tr>
<tr>
<td>Western Aphasia Battery (WAB)</td>
<td>Used when predicting patient’s course of recovery.</td>
</tr>
<tr>
<td>Aphasia Language Performance Scales (ALPS)</td>
<td>Good for assessing low-level patients. Emphasizes informal conversation to evaluate listening, talking reading &amp; writing (10-item scales)</td>
</tr>
<tr>
<td>Token Test/Revised Token Test (RTT)</td>
<td>Assesses auditory comprehension &amp; ability to follow commands of various complexities. Good for patients with left hemispheric damage.</td>
</tr>
<tr>
<td>Boston Naming Test</td>
<td>Assesses confrontation naming and word retrieval performance. Useful for evaluating patients with anomia.</td>
</tr>
<tr>
<td>Communicative Abilities in Daily Living (CADL-2)</td>
<td>Assesses functional communication of adults with neurogenic communication disorders.</td>
</tr>
<tr>
<td>Functional Communication Profile (FCP)</td>
<td>Measures developmental and acquired delays among children and adults. Takes inventory of communicative abilities through direct observation, teacher/caregiver reports and 1:1 testing.</td>
</tr>
<tr>
<td>Pragmatic Protocol</td>
<td>Completed after observing patient in a spontaneous unstructured conversation. SLP rates the communicative acts as appropriate or inappropriate</td>
</tr>
<tr>
<td>ASHA Functional Assessment of Communication Skills (ASHA-FACS)</td>
<td>Designed for adults with aphasia from left hemisphere CVA and adults with TBI. Measures functional communication abilities. Looks at: social communication; communication of basic needs; reading, writing, and number concepts; and daily planning.</td>
</tr>
<tr>
<td>Test Name</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Glasgow Coma Scale (GCS)</strong></td>
<td>Used as initial test for TBI patients. Evaluates eye opening, motor and verbal responses. May help predict recovery outcomes but can overestimate injury severity.</td>
</tr>
<tr>
<td><strong>Comprehensive Level of Consciousness (CLOC)</strong></td>
<td>Rating scale for patients with TBI during initial injury period. Can detect more subtle changes in patient than GCS.</td>
</tr>
<tr>
<td><strong>Rancho Los Amigos Scale of Cognitive Levels (RLAS)</strong></td>
<td>Used to assess cognitive &amp; behavior levels of patients with TBI. Helps make predictions for recovery.</td>
</tr>
<tr>
<td><strong>Galveston Orientation and Amnesia Test</strong></td>
<td>Assess patients who are regaining consciousness after being in a comatose state.</td>
</tr>
<tr>
<td><strong>The Blessed Dementia Scale</strong></td>
<td>Measures changes in performance across daily activities and habits. Rates impairment as mild to severe.</td>
</tr>
<tr>
<td><strong>The Arizona Battery Communicative Disorders of Dementia (ABCD)</strong></td>
<td>Assess dementia of the Alzheimer’s type. Examines mental status, linguistic expression, comprehension &amp; visual-spatial construction.</td>
</tr>
<tr>
<td><strong>The Global Deterioration Scale</strong></td>
<td>Synthesizes information from various sources regarding level of functioning. Ranges from &quot;no cognitive decline&quot; to &quot;very severe decline&quot;.</td>
</tr>
<tr>
<td><strong>The Right Hemisphere Language Battery (RHLB)</strong></td>
<td>Standardized test used to evaluate patients with RHD. Looks at patient’s comprehension of language (i.e. ability to make inferences, interpret idioms and appreciate humor).</td>
</tr>
<tr>
<td><strong>The Mini Inventory of Right Brain Injury</strong></td>
<td>27-item tool used to screen patients with RHD.</td>
</tr>
<tr>
<td><strong>The Rehabilitation Institute of Chicago Evaluation of Communication Problems in Right Hemisphere Dysfunction (RICE-2)</strong></td>
<td>Non-standardized. Assesses general behavior patterns, visual scanning, tracking, writing, pragmatics and metaphorical language.</td>
</tr>
<tr>
<td><strong>The Prosody Voice Screening Profile</strong></td>
<td>Used to assess rate, rhythm, duration, stress, loudness and pitch.</td>
</tr>
</tbody>
</table>
Steps in an Aphasia Assessment

1. Obtain a detailed case history
2. Assess verbal communicative skills
3. Assess functional communicative skills

Assessment of Traumatic Brain Injury: What do you need?

a. Detailed history of premorbid behavior, verbal skills, education, literacy, employment, family relationship, interest, hobbies, social skills, and general health.
b. Interview of at least one family member for premorbid profile of patient
c. Patient’s current medical condition, medications, alertness, responsiveness, and general physical condition.
d. Continuous evaluation of patient because status may change; including communicative status; emphasis should be on functional communication skills
e. Note: Once a TBI patient gains consciousness, they may be inconsistent, disorganized, disoriented to time and place, restless, irritated with short attention span and highly distractible

Assessing Dementia

Areas examined to make a Differential Diagnosis:

1. Case History
2. Clinical Exam
3. Neurologic tests
4. Brain Imaging
5. Laboratory tests
6. Communication Assessment
7. Assessment of intellectual functions

** A definitive diagnosis can only occur after an autopsy**

A complete assessment should consist of the following:

1. State of awareness
2. Mood and affect
3. Speech and language skills
4. Memory skills (learn new material/recall events)
5. Other cognitive functions (math/proverbs/similarities/differences)
6. Thought content (hallucinations/delusions)
Visuospatial skills (copy simple/3-D drawings)

MOST Sensitive areas of assessment (mild dementia)

a. Verbal description (description of common objects)
b. Immediate and delayed story retelling
c. Verbal or word fluency (“Tell me all the words that you can think of that start with T”)

The LEAST sensitive tasks include Pointing to stimuli & automatic speech tasks.
Higher intellectual & language functioning should be carefully analyzed during the assessment process.

Assessing Right Hemispheric Brain Damage

1. Measure linguistic skills
2. Measure non-linguistic skills
3. Measure extralinguistic skills

**Need a combination of informal and formal tests; traditional tests of aphasia may not be sufficient**
**RECOVERY AND PROGNOSIS**

**Aphasia**

- Greatest improvement in communication occurs during 1st 6 months after onset of stroke.

<table>
<thead>
<tr>
<th>Patterns of recovery for Ischemic Stroke</th>
<th>Patterns of recovery for Hemorrhagic Stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater and sooner recovery</td>
<td>Little recovery in the first 4 to 8 weeks</td>
</tr>
<tr>
<td>Noticeable recovery in the first few weeks</td>
<td>More rapid recovery after 4 to 8 weeks</td>
</tr>
<tr>
<td>Max recovery in 3 months</td>
<td>A slowing down of recovery, stabilizing with greater residual deficits</td>
</tr>
</tbody>
</table>

Factors that influence recovery for Aphasia:

1. Biographical
   - Age
   - Gender
   - Right or Left handed
2. Neurological (These play a **VERY** important role in recovery)
   - Etiology
   - Site of lesion
c. Type of lesion

d. Severity

**Factors Influencing Language Recovery**

<table>
<thead>
<tr>
<th>Age</th>
<th>The younger the individual, the better the prognosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Recovery is usually better for females than males</td>
</tr>
<tr>
<td>Handedness</td>
<td>Recovery may be better for individual who are left-handed</td>
</tr>
<tr>
<td>Lesion site/size</td>
<td>There is a negative correlation between the total amount of brain damage and the degree of recovery</td>
</tr>
<tr>
<td>Etiology</td>
<td>Traumatic aphasias have a better prognosis than vascular aphasias. Prognosis in tumor cases is variable, but often poor</td>
</tr>
<tr>
<td>Aphasia Profile</td>
<td>Anomia is the most common residual defect for most aphasias. Comprehension defects have a better prognosis than poor fluency</td>
</tr>
<tr>
<td>Time from onset</td>
<td>Greatest recovery occurs in the first weeks or month (6 mo.) post onset, with lesser improvement in the following months. Individual aspects of language may improve to different degrees</td>
</tr>
<tr>
<td>Treatment</td>
<td>Aphasia therapy can prove effective at any period following onset</td>
</tr>
</tbody>
</table>

**Spontaneous Recovery**: the tendency for a patient to improve whether they enter rehabilitation or not.

### 3 Strategies used to predict prognosis

1. Behavioral Profile Approach: (NOT USED)
   a. Involves testing the client in the 4 major areas of reading, listening, speaking, and writing. Then we make a profile of the client and compare it to patients with a similar profile.

2. Prognostic Variable Approach: Most Common Clinical Approach
   a. Compares a client's biological, medical, and behavioral characteristics with how we think that they may have influenced a change in the client's recovery.
   b. Prognostic indicators
      i. Endogenous Factors: things a patient brings to therapy (e.g., age)
      ii. Exogenous factors

3. Statistical Approach:
   a. Uses a standardized assessment to test the client before therapy and then predict what scores will be afterwards.

Rules of Ribot & Pitres (bilingual language recovery)
Which syndromes of aphasia show the greatest amount of recovery?

**Broca’s and conduction aphasia**

Which syndrome presents the best outcome?

**Anomic aphasia**

Which syndromes shows a slower, variable rate of recovery?

**Wernicke’s aphasia**

Which syndrome shows limited improvement in verbal expression?

**Global aphasia**

Damage to the marginal areas around the language zone produce what kind of recovery?

**More complete and rapid recovery**

The Syndromes of aphasia are indicative of damage to what areas?

**Primary language areas**

Primary zone damage produces what kinds of aphasia?

**Brocas, wernicke’s conduction, anomic and global**

Marginal zone damage produces what kind of aphasia?

**Transcortical**
Treatment

Aphasia
3 therapy guidelines that SLP’s should follow:
1. Make stimuli relevant to patient
2. Uses gestures to enhance verbal expressions
3. Use cues to enhance labeling and verbal output

3 types of aphasia therapy:
1. stimulation
2. workbook
3. acronym

TBI
• When treating patients with TBI, communication treatment is combined with cognitive rehabilitation.
• Direct Behavioral Treatment is known to be effective with patients with TBI?
• Two areas that patients with TBI need help in (SLP’s primary concern)
  1. Communication
  2. Behavioral self-management

Dementia
• Since there is no cure for dementia, Interdisciplinary team will design a program to manage the client, help the family cope with the disease and its effects, and stabilize the client to the best extent possible.

Right Hemispheric Damage
Treatment Targets & Strategies
- Denial and Indifference: clinician should give immediate, systematic, response-contingent feedback on errors the patient makes, videotape treatment sessions in which the patient shows little or no appreciation of errors and give feedback.
- Impaired Attention: can be an independent target or integrated with other targets; can use paper-and-pencil tasks; can treat when working on pragmatic skills
Impulsive Behavior: clinician may give nonverbal signs to wait a few seconds before giving a response.

Pragmatic Impairments: a videotaped baseline measure of conversational skills before treatment is started is recommended.

Impaired Reasoning: clinician may set up examples that require thinking and planning; client may be asked to describe how they may plan a vacation in a logical and systematic manner; clinician may prompt and correct response and sequences.

Impaired Inference: clinician may use pictures that depict situations that require inference; clinician may show a picture of a dog shaking on a beach and ask what the dog was doing (The dog was swimming).

Impaired Recognition of Absurdities: clinician may present a list containing both absurd and logical statements and ask the patient to pick the absurd ones.

Reference:
Adapted from Hedge (1998)