

**Hegde's
PocketGuide to
Assessment in
Speech-Language
Pathology**

Fourth Edition

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Speech-Language
Pathology**

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Main Entries

<i>Preface to the Fourth Edition</i>	<i>vii</i>
<i>How the PocketGuide Is Organized</i>	<i>ix</i>
<i>How to Use This PocketGuide</i>	<i>xi</i>
<i>About the Author</i>	<i>xiii</i>
<i>Acknowledgments</i>	<i>xv</i>
AIDS Dementia Complex	6
Alternative (Non-Biased) Assessment Approaches	15
Alzheimer's Disease	23
Aphasia	35
Aphasia: Specific Types	58
Apraxia	65
Apraxia of Speech in Adults	66
Augmentative and Alternative Communication (AAC)	80
Autism Spectrum Disorder	94
Cerebral Palsy	110
Childhood Apraxia of Speech	118
Cleft Palate	127
Dementia, Progressive	144
Dementia, Reversible	159
Dysarthrias in Adults	169
Dysarthria: Specific Types	181
Dysphagia	187
Ethnocultural Considerations in Assessment	204
Fluency Disorders	212
Hearing Loss	250
Language Disorders in Children	280
Language Disorders in Infants and Toddlers	305

Language Disorders in Older Students and Adolescents	316
Laryngectomy	328
Psychiatric Problems Associated with Communication Disorders	382
Right Hemisphere Disorders	396
Speech Sound Disorders	423
Speech Sound Disorders in African American Children	436
Speech Sound Disorders in Bilingual Children	443
Standard/Common Assessment Procedures	451
Syndromes Associated with Communication Disorders	466
Traumatic Brain Injury	514
Voice Disorders	540

Preface to the Fourth Edition

The fourth edition of this *PocketGuide to Assessment in Speech-Language Pathology* has been updated and expanded to offer detailed and comprehensive coverage of assessment of all disorders of communication. Information in all entries has been updated to reflect the current practice and updated procedures. Newer standardized tests have been included whenever available. Entries have been edited for more succinct presentation of practical information.

The publication of the fourth edition of this pocketguide is marked by the simultaneous publication of the second edition of *Hegde's PocketGuide to Communication Disorders* and the fourth edition of *Hegde's PocketGuide to Treatment in Speech-Language Pathology*. All three pocketguides have been updated and streamlined to reflect the current knowledge base and professional practice in speech-language pathology. As a set, the three pocketguides offer comprehensive information on the characteristics of communication disorders, their epidemiology, etiology, and brief overview of major theories; assessment approaches and procedures; and treatment approaches and techniques. The three guides serve a dual function: First, they are detailed enough for student clinicians as well as the more established practicing clinicians. Second, the guides are succinct enough to provide an overview of the entire range of knowledge in speech-language pathology.

This current fourth edition of this *PocketGuide to Assessment in Speech-Language Pathology* combines the most desirable features of a specialized dictionary of terms, clinical resource books, and textbooks on assessment. It is meant to be a quick reference book like a dictionary because the entries are alphabetized, but it offers more than a dictionary because it specifies assessment procedures in a “do this” format. The *PocketGuide* is like a resource book in that it concentrates on

practical procedures to be used in diagnosing disorders, but it offers more than a resource book by clearly specifying the steps involved in assessing clients with communicative disorders. The *PocketGuide* is like standard textbooks that describe assessment procedures, but it organizes the information in a manner conducive to more ready use and easier access.

How the PocketGuide Is Organized

All main entries for assessment of communication disorders are printed in bold and magenta color. Each cross-referenced entry is underlined. Each main disorder of communication is entered in its alphabetical order. Subcategories or types of a given disorder are described under the main entry (e.g., Broca's Aphasia under Aphasia: Specific Types, Ataxic Dysarthria under Dysarthria: Specific Types, or Neurogenic Stuttering under Fluency Disorders).

To avoid repetition under each main entry, common assessment techniques (e.g., case history, interview, hearing screening, orofacial examination) are described as one main entry (Standard/Common Assessment Procedures). However, certain aspects of these common/standard procedures that are unique to a given disorder are described under the main entry for that disorder.

How to Use This PocketGuide

The guide may be used very much like a dictionary. There are two basic ways in which a clinician can find information of interest. First, a clinician who wants to read about assessment of a particular disorder will find it by its main alphabetical entry. The table of contents quickly directs the clinician to the main entries in the book; most of these are names of various disorders. Under each main entry, the clinician may be referred to certain concepts, assessment techniques, or assessment tools that are cross-referenced. All cross-referenced entries are underlined. Thus, throughout the guide, an underlined term means that the reader can find more about it in its own main alphabetical entry.

Second, the clinician also may look up certain assessment methods by name. Two such entries, Speech and Language Sample and Standard/Common Assessment Procedures, have been noted. Other such entries that are not disorders but assessment targets, concepts, or techniques include Augmentative and Alternative Communication (AAC), Phonological Patterns, Grammatical Morphemes of Language, Computerized Axial Tomography, Maximum Phonation Duration, and so forth.

A Caveat

Serious attempts have been made to include most assessment techniques described in the literature. However, the author is aware that not all techniques have been included. The author did not set for himself the impossible goal of including all assessment techniques. The practical goal was to describe assessment techniques that are most commonly used in diagnosing the frequently encountered disorders.

About the Author

M.N. Hegde, PhD, is Professor Emeritus of Speech-Language Pathology in the Department of Communicative Disorders at California State University, Fresno. A highly regarded author in speech-language pathology, his books include leading texts in academic courses and valuable resources for clinicians. His books have been used in worldwide in speech-language pathology programs.

He holds a master's degree in experimental psychology from the University of Mysore, India, a post master's diploma in Medical (Clinical) Psychology from Bangalore University, India, and a doctoral degree in Speech-Language Pathology from Southern Illinois University at Carbondale.

Dr. Hegde is a specialist in fluency disorders, language disorders, research methods, and treatment procedures in communicative Disorders. He has made numerous presentations to national and international audiences on various basic and applied topics in communicative disorders and experimental and applied behavior analysis. He also has served on the editorial boards of scientific and professional journals and continues to serve as an editorial consultant to *Journal of Fluency Disorders* and the *American Journal of Speech-Language Pathology*.

Dr. Hegde is a recipient of various honors including the Outstanding Professor Award from California State University-Fresno, CSU-Fresno Provost's Recognition for Outstanding Scholarship and Publication, Distinguished Alumnus Award from the Southern Illinois University Department of Communication Sciences and Disorders, and Outstanding Professional Achievement Award from District 5 of California Speech-Language-Hearing Association. Dr. Hegde is a Fellow of the American Speech-Language-Hearing Association.

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A

Abductor Spasmodic Dysphonia (ASD). To assess this type of voice disorder of neurological origin, see Spasmodic Dysphonia; see Adductor Spasmodic Dysphonia; see also Voice Disorders for general procedures of assessment of vocal parameters.

Adaptation Effect. An aspect of stuttering assessment, adaptation effect is a measure of stuttering under repeated oral reading of a brief printed passage; there is a typical decrease in the frequency of stuttering from first through the fifth reading; may be a part of the assessment of stuttering because of its diagnostic significance; to assess adaptation:

- Ask the person who stutters to read aloud a printed passage (such as *My Grandfather* or the *Rainbow*) up to five times
- Count the number of dysfluencies on each oral reading and calculate the percent dysfluency rate
- Note the loci (specific words or locations between words) on which dysfluencies occurred
- Note the specific words and sounds and words on which dysfluencies were more consistent (dysfluencies on the same loci on three or more readings) and those on which dysfluencies occurred only on any two readings
- Words or sounds on which dysfluencies occurred more consistently across the five readings suggest more severe stutters than those that adapted (disappeared) on the third and subsequent readings; more severe stutters, so identified, may persist longer in treatment and probably need special attention to reduce them
- Adaptation effect is more typically found in stuttering of early onset and it may be less remarkable in case of neurogenic stuttering

Adductor Spasmodic Dysphonia. See Spasmodic Dysphonia to assess this variety of voice disorder; see Abductor Spasmodic Dysphonia, another variety; see also Voice Disorders for general procedures of assessment of vocal parameters.

Agnosia. Assessment of agnosia, which is a difficulty in recognizing the meaning of various sensory stimuli in the absence of sensory deficits, is a part of an evaluation of clients with central nervous system dysfunction; includes many varieties that need to be assessed:

- **Auditory agnosia:** To assess:
 - Have the client's peripheral hearing tested; the hearing should be within the normal limits
 - Check awareness of auditory stimuli, including speech; the person should be aware of sound
 - Check visual recognition of objects; there should be no problem
 - Ask the person to match objects or animal pictures with the sounds they make; the performance is expected to be poor
- **Auditory verbal agnosia (pure word deafness):** To assess:
 - Check if the client can hear spoken words; the client should hear them and be aware of them
 - Ask the client to point to objects or pictures you name; expect errors
 - Check comprehension of words during conversation by asking questions; expect wrong responses
 - Ask the client to name (recognize) printed or written words; there should be no problem
 - Ask the client to name nonverbal sounds; expect no problems
 - Check spontaneous speech, reading, and writing; expect no significant problems
- **Tactile agnosia:** To assess:
 - Have the person touch and name objects when blindfolded; expect difficulty in correct tactile recognition of objects
 - Remove the blindfold and ask to name objects; expect improved performance
 - Present the characteristic sounds associated with the objects; expect improved performance
- **Prosopagnosia:** To assess:
 - Present pictures of family members and ask the person to name them; expect errors

- Ask the person to name individuals around while they remain silent; expect mistakes or no responses
- Ask the client to recognize the speakers who say something; expect mostly correct recognition
- Verify right hemisphere damage through medical records, including neurological and neuroimaging examination results
- Visual agnosia: To assess:
 - Present objects or pictures visually and ask the individual to name them; expect a high error rate
 - Ask the individual to touch and feel objects and then name each; expect much improved performance
 - Present sounds associated with the objects and ask the person to name them; expect improved performance
 - Verify bilateral occipital lesions, posterior parietal lobe lesions, or other visual cortex–related damage through medical records
- See the companion volumes (1) *Hegde’s PocketGuide to Communication Disorders* and (2) *Hegde’s PocketGuide to Treatment in Speech-Language Pathology*

Agrammatism. Assessment of deficient grammar (agrammatism), characterized by telegraphic speech, short phrases, limited sentence structures and varieties, is essential in clients with nonfluent aphasia and dementia; to assess:

- Record a conversational speech sample and have the client describe pictures and pictured story scenes
- Analyze missing grammatical morphemes, typical phrase or sentence lengths, and the number of different sentence types used
- Administer selected standardized tests described under Aphasia
- See Aphasia for more detailed assessment information

Agraphia. Assessment of writing problems in clients with neurological impairments or diseases is essential to develop a comprehensive treatment program; agraphia means writing problems that are due to recent cerebral pathology; to be distinguished from writing problems children may

exhibit because of poor instruction or learning disabilities; includes a few varieties; to assess them:

- Assess associated disorders, including Aphasia, Cerebral Palsy, Dementia, and other neurological disorders that may be present
- Verify left, right, or bilateral hemispheric lesions through medical records, neurological examinations, and results of radiographic or scanning procedures
- Apraxic agraphia: To assess these writing problems associated with apraxia:
 - Obtain samples of spontaneous writing, copying, and dictation; analyze for errors in letter formation, spelling errors, repetition of words and phrases, and such other writing problems—all diagnostic of apraxia
 - Check whether the writing includes only capital letters, a positive sign of apraxic agraphia
- Motor agraphia: To assess writing problems due to impaired neuromotor control:
 - Obtain spontaneous, dictated, and copied writing samples
 - Look for writing extremely small letters (micrographia) or letters that get progressively smaller
 - Take note of extreme difficulty writing or disorganized writing due to tremors, tics, chorea, and dystonia
 - Observe obvious neuromuscular problems in the hand and verify them in medical records
- Pure agraphia: To assess writing problems with no other language dysfunctions:
 - Obtain spontaneous, dictated, and copied writing samples
 - Look for extreme difficulty writing anything at all
 - Check whether copying or automatic writing is nearly normal but spontaneous writing is full of errors—the two diagnostic features
 - Check medical records for evidence of lesions in the premotor cortex and in the superior parietal lobe
 - Generally, relate morphologic and syntactic errors and neologistic writing to predominantly left hemisphere lesions; compare writing problems with expressive

language problems for similarities (except for individuals with pure agraphia)

- Generally, relate such *spatial* writing errors as lack of margins, erratic spacing between words and sentences, and left neglect to right hemisphere lesions
- See the companion volumes (1) *Hegde's PocketGuide to Communication Disorders* and (2) *Hegde's PocketGuide to Treatment in Speech-Language Pathology*

AIDS Dementia Complex (Human Immunodeficiency Encephalopathy). Assessment of progressive physical and intellectual deterioration associated with acquired immune deficiency syndrome is essential to distinguish it from other forms of dementia; AIDS dementia complex resembles subcortical dementia in the beginning and cortical dementia in the advanced stages. See Dementia; also, see the companion volume, *Hegde's PocketGuide to Communication Disorders*, for etiological factors and symptomatology of AIDS Dementia Complex.

Assessment Objectives/General Guidelines

- To assess language, cognitive skills, memory, and emotional reactions (e.g., apathy, depression)
- To diagnose dementia associated with AIDS
- To develop a plan for communication treatment or rehabilitation
- To make periodic assessment to evaluate changes in the symptom complex

Case History/Interview Focus

- See Case History and Interview under Standard/Common Assessment Procedures
- Concentrate on history of AIDS and general symptoms that support its diagnosis
- Examine medical evidence that supports the diagnosis of AIDS
- Get information on the individual's health, especially on various opportunistic diseases that AIDS promotes
- Get information that helps establish the premorbid skills, intellectual levels, hobbies, and general behavior patterns

- Pay special attention to changes in skills, behavior, and intellectual level that the family members may have noticed

Ethnocultural Considerations

- See Ethnocultural Considerations in Assessment
- Assess the family's resources and the needed support system, as the treatment and rehabilitation of AIDS and dementia associated with it are expensive and drawn out
- Seek such additional services as counseling and medical management if warranted
- Counsel the family; work closely with the caregivers

Assessment

- Take note of the neurological symptoms associated with AIDS dementia (e.g., gait disturbances, tremors, seizures, facial nerve paralysis)
- Use procedures described under Dementia and Alzheimer's Disease to assess:
 - state of awareness, which may range from fully aware to mostly sleeping; use the *Mini-Mental State Examination*
 - mood and affect, which may vary from apathy to clinical depression; obtain a psychiatric report if one is available
 - speech and language skills: assess both production and comprehension through a conversational speech sample and general picture description
 - cognition, memory, and related intellectual skills; use client-specific procedures to assess these and general behavioral deterioration; note mutism often present in the final stages
- Be aware that in some individuals, dementia may be the only presenting symptom of undiagnosed AIDS

Standardized Tests

- Administer one or more tests that sample communication deficits as well as intellectual (cognitive) decline in persons with dementia, including the *Arizona Battery for Communication Disorders of Dementia*, the

Repeatable Battery for the Assessment of Neuropsychological Status Update, Functional Assessment of Daily Living, Activities of Daily Living Questionnaire, and other selected tests listed under Dementia, Progressive

Related/Medical Assessment Data

- Medical diagnosis of HIV infection and AIDS is essential to diagnose AIDS dementia complex
- Neurological evidence of encephalopathy is supportive

Standard/Common Assessment Procedures

- Complete the Standard/Common Assessment Procedures

Diagnostic Criteria

- A combination of symptoms of Dementia; medical and laboratory evidence of AIDS infection and encephalopathy; and supportive evidence from assessment of communication, cognition, and behavioral deterioration are all essential to diagnose this type of dementia

Differential Diagnosis

- Relatively early onset of cognitive and behavioral decline (as early as late 20s; unlike dementia associated with degenerative neurological diseases) along with evidence of HIV infection, AIDS, and encephalopathy help distinguish it from other forms of dementia
- Prominent neurological symptoms associated with AIDS-induced encephalopathy, along with the presence of opportunistic infectious diseases help distinguish it from various forms of aphasia; mutism in the final stages also may be of some significance

Prognosis

- Guarded; although medical treatment of AIDS has improved significantly; however, encephalopathy and dementia, once begun, will be irreversible

Recommendations

- Treatment for the client in the early stages of dementia; clinical management of the behavioral and cognitive problems is the main goal

- Working with the family in all stages, and especially in the final stages, is the most critical clinical management concern
- See the two companion volumes (1) *Hegde's Pocket-Guide to Communication Disorders* and (2) *Hegde's PocketGuide to Treatment in Speech-Language Pathology*, along with the cited sources

Hegde, M. N. (2018). *Aphasia and other neurogenic language disorders* (4th ed.). San Diego, CA: Plural.

Hegde, M. N., & Freed, D. (2017). *Assessment of communication disorders in adults: Resources and protocols* (2nd ed.). San Diego, CA: Plural.

Alexia. Assessment of reading problems due to recent brain injury or disease is a part of a comprehensive evaluation of adults who have aphasia, dementia, and other neurological disorders; to be distinguished from dyslexia, which is commonly diagnosed in children with learning disabilities but with no obvious neurological impairments; includes *Alexia with Agraphia*, *Alexia Without Agraphia*, *Deep Dyslexia*, and *Frontal Dyslexia*; for additional assessment procedures, see [Aphasia](#). See the companion volume, *Hegde's PocketGuide to Communication Disorders*, for etiological factors and symptomatology.

Alexia with Agraphia. Coexistence of reading and writing problems often found in individuals with aphasia; also called parietal-temporal alexia; see [Agraphia](#) for associated writing problems; due to lesions in the dominant parietal and temporal lobes.

Assessment

- Review the history to establish a recent episode of strokes, tumors, trauma, including gunshot wounds
- Examine the medical records to document lesions in the angular gyrus and the dominant parietal and temporal lobes and for diagnosis of Wernicke's aphasia or Broca's aphasia (see [Aphasia: Specific Types](#))

- Record the client's oral language sample; analyze the oral language problems as you would a sample from an individual with Aphasia
- Record one or more oral reading samples; select reading materials that are appropriate for the individual's education, interest, and ethnocultural background
- Obtain current writing samples (spontaneous, dictated, and copied) as well as available premorbid pieces of writing
- Administer such tests of reading skills as the *Reading Comprehension Battery for Aphasia* or the *Gates-MacGinitie Reading Tests*; see Aphasia for additional tests
- Administer selected Aphasia tests that include writing subtests
- Analyze the reading and writing difficulties in light of the oral language problems
- Note that the reading comprehension deficits will be prominent in Wernicke's aphasia and oral reading difficulties will be prominent in Broca's aphasia
- Compare the reading and writing problems; generally, writing and reading problems will be similar in an individual
- Compare the client's premorbid writing skills with the current skills; analyze the kinds of errors that are not shared by the two samples to assess deterioration due to recent cerebral pathology

Differential Diagnosis

- Rule out visual problems and left visual neglect, as alexia with agraphia is not due to such problems
- Rule out reading and writing problems due to poor premorbid literacy skills or persistent childhood dyslexia, as these are not the same as adult alexia with agraphia
- Rule out peripheral motor problems (such as paralyzed preferred hand or weakness in the hand) that may make it difficult to write