Ventura County SELPA
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CAP

Central Auditory Processing

A Team Approach to

Assessment and Intervention

Compiled by:

The Task Force on CAP

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Section I

Introduction and Overview

Introduction

This document is a revision of guidelines first developed in 2000 by the Task Force on Central Auditory Processing Disorders facilitated by the Ventura County Special Education Local Plan Area (SELPA).

Clarification of Terms

Throughout this document Central Auditory Processing will be referred to as CAP and Central Auditory Processing Disorder as CAPD, reflecting current usage by consensus reports and professional associations.

Abbreviations

AAA = American Academy of Audiology
ASHA = American Speech Language Hearing Association
CAP = Central Auditory Processing
CSHA = California Speech Language Hearing Association
IEP = Individualized Education Program
IPT = Intervention Progress Team
MTSS = Multi-Tiered System of Support
PLC = Professional Learning Community
RtI² = Response to Instruction and Intervention
SELPA = Special Education Local Plan Area
VCOE = Ventura County Office of Education

Purpose of the Guidelines

This document is intended to assist local professionals with the identification and referral process and provide some general guidelines for interventions. With the availability of clinical practice documents, which are updated periodically, clinicians have resources readily available as guides to the diagnosis and treatment of CAPD along with references to current research.

What is CAP?

A broad definition of central auditory processing CAP is the efficiency and effectiveness by which the central nervous system (CNS) utilizes auditory information (ASHA, 2005). Central Auditory Processing Disorder (CAP) is a deficit in the neural processing of auditory stimuli that is not the result of higher order language, cognition, or related factors (ASHA, 2005).

CAP includes the auditory mechanisms that underlie abilities and skills in the areas listed below:

Ability / Skill		Clarification
• Auditory discrimination	➢	ability to differentiate similar acoustic stimuli
• Auditory temporal processing and patterning	➢	ability to analyze acoustic events over time (temporal ordering/sequencing and temporal resolution)
• Dichotic listening	➢	ability to separate and integrate disparate auditory stimuli
• Low-redundancy speech perception	➢	ability to perceive degraded speech and speech-in-noise

Section II

CAP Symptoms

Symptoms Associated with CAP

The symptoms outlined below do not represent a complete list of all possible signs of CAP. They are intended to provide a general overview of some of the key signs that may alert parents and professionals to the possibility that auditory processing deficits *may be a factor* in a student's learning difficulties.

PROBLEMS WITH AUDITORY **DISCRIMINATION**

- ☐ trouble understanding verbal directions
- ☐ difficulty with sound discrimination
- ☐ substitutes similar sounding words
- ☐ reading and spelling difficulties

PROBLEMS WITH **DICHOTIC LISTENING**

- ☐ problems localizing the source of a signal
- ☐ difficulty listening on the telephone
- ☐ confused by oral directions
- ☐ often asks for repetition

PROBLEMS WITH **TEMPORAL PROCESSING ORDERING/SEQUENCING**

- ☐ difficulty following a series of steps
- ☐ confused by oral directions
- ☐ difficulty recalling a sequence or oral directions
- ☐ difficulty with the prosodic features of speech
- ☐ difficulty with rhythm, poor musical ability
- ☐ says "huh" or "what" frequently

PROBLEMS WITH **LOW REDUNDANCY SPEECH**

- ☐ difficulty hearing/understanding in background noise
- ☐ difficulty understanding speech that is not clear
- ☐ difficulty understanding persons who speak with an accent
- ☐ possible receptive language difficulties

PROBLEMS WITH **TEMPORAL PROCESSING/RESOLUTION**

- ☐ delayed response to verbal requests
- ☐ difficulty discriminating subtle verbal cues
- ☐ difficulty following rapid speech
- ☐ difficulty hearing subtle pattern changes

********** ***A Note of Caution Regarding Symptom Checklists*** **********

The reader is cautioned to avoid the mistake of inferring that a student has CAP on the basis of a symptom list. Symptom checklists should only be used to lead the assessment team toward a more complete assessment.

Common Symptoms and Possible Causes

The following chart is offered as a way of illustrating how complex it is to sort out CAP from other conditions based on symptom checklists alone. The following symptoms were taken from the *Fisher Auditory Problems Checklist* and a variety of other sources.

	Hearing Deficits	Delayed Language Processing	Learning Disabilities (e.g. memory)	Weak Listening Skills	ADD AD-HD	Emotional or Behavioral Disorders	English as a Second Language	CAP
Says "huh" or "what" frequently	✓	✓	✓	✓	✓	✓	✓	✓
Inconsistent responses to auditory input	✓	✓	✓	✓	✓	✓	✓	✓
Poor auditory attention; tends to daydream	✓	✓	✓	✓	✓	✓	✓	✓
Difficulty following oral instructions; often asks for repetition; slow or delayed response	✓	✓	✓	✓	✓	✓	✓	✓
Difficulty listening with background noise; easily distracted	✓	✓		✓	✓		✓	✓
Withdraws in noisy environments	✓	✓				✓		✓
Difficulty with phonics; sound discrimination; sound-symbol association	✓		✓			✓	✓	✓
Weak auditory memory; forgets what is said				✓	✓			✓
Difficulty recalling a sequence of oral directions	✓	✓	✓	✓	✓		✓	✓
Poor receptive/expressive language skills	✓	✓					✓	✓
Weak phonology; articulation problem	✓	✓						✓
Reading and/or spelling deficits	✓	✓	✓		✓	✓		✓
Uses loud voice	✓							✓

Section III

Special Education Referral

Pre-Referral Interventions (Response to Instruction and Intervention - RtI^2) - Before any student is referred for assessment for Special Education services, early intervention should be attempted. If a student is suspected of having auditory processing difficulties that are interfering with school performance, a process of data based analysis and review should begin.

Tier One: The first step is for the teacher to address the specific areas of concern through universal strategies in the context of the general education core curriculum. Auditory processing difficulties may affect performance in the area of reading, language, math, social/emotional or behavior. Data should be collected about the child's performance in that area before and after universal strategies have been implemented.

See the website http://www.vcoe.org/RtI2-MTSS for a variety of strategies that can be implemented in Tier One, by area. If there are still concerns about the child's performance, the teacher may refer the student to the school Student Study Team for assistance. Student Study Teams may be called Intervention Progress Team, Grade Level Team or Problem Solving Team, but should meet on a regular basis to review data about student performance and make recommendations about interventions. See the website for Referral Form (RtI^2 Form A) for a tool to bring information to the Student Study Team.

Tier Two: The Student Study Team may recommend further strategies for the teacher to try in the area of concern. Or, the team may decide to develop more intensive interventions for the student. See website for Intervention Form (RtI^2 Form B) on which the team will plan interventions to address the area of concern. Interventions may be provided to the student in a special group with the teacher or another teacher, paraeducator, or specialist. See the website for examples of more intensive interventions, as well as research-based curricula for Reading Language Arts, Math and Social/Emotional.

After the specified period of time, the person who provided the interventions will report on progress to the Student Study Team, using the Results of Intervention Form (RtI2 Form C). If the team is satisfied with the student's progress, a plan may be made for a return to interventions in Tier One, or more interventions in Tier Two (Intervention Planning Form B). However, if the team feels that progress has not been adequate and the student needs more intensive services, the student may be referred to Tier Three.

Tier Three: Tier Three services are provided in a more intensive manner than Tier Two. For example, interventions in Tier Two may be provided twice a week, in a small group, for half an hour each time. Tier Three interventions may be provided daily, in a very small group, for 45 minutes at a time. Interventions are specified on the Intervention Plan Form B, and results reported back to the Team on Results of Intervention Form C. See website for examples of interventions for Tier Three.

With the use of a data driven problem solving team model using research based interventions, the majority of students should be able to progress satisfactorily in core curriculum without any further services. It is best practice that school site teams attempt the use of general education resources through such a model before considering a student to be a student with a disability as defined by Special Education law. The Ventura County SELPA Local Plan

Section 3 describes the use of a Response to Intervention model before referral for assessment to Special Education.

Referral Criteria

Referral to Special Education:

It is the policy of the Ventura County SELPA that students who are being considered for assessment for CAP must already be identified as having a Special Education eligible disability. That is, a student must be Special Education eligible before undertaking assessment for CAP. Therefore, a student for whom CAP is suspected must first be referred for assessment for Special Education eligibility. The referral should indicate the area of suspected disability, and a multidisciplinary team assessment will be conducted in all areas of suspected disability. Following are the definitions of the Special Education eligibilities under which a student with CAP *may* qualify:

Specific Learning Disability:

30 Education Code 56337 (a)

A specific learning disability, as defined in Section 1401(30) of Title 20 of the United States Code, means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or perform mathematical calculations. The term "specific learning disability" includes conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. That term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

California Code of Regulations (CCR) Title 5 3030 (j)

A pupil has a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an impaired ability to listen, think, speak, read, write, spell, or do mathematical calculations, and has a severe discrepancy between intellectual ability and achievement in one or more of the academic areas specified in Section 56337(a) of the Education Code. For the purpose of Section **3030**(j):

(1) Basic psychological processes include attention, visual processing, auditory processing, sensory-motor skills, cognitive abilities including association, conceptualization and expression.

(2) Intellectual ability includes both acquired learning and learning potential and shall be determined by a systematic assessment of intellectual functioning.

(3) The level of achievement includes the pupil's level of competence in materials and subject matter explicitly taught in school and shall be measured by standardized achievement tests.

(4) The decision as to whether or not a severe discrepancy exists shall be made by the individualized education program team, including assessment personnel in accordance with Section 56341(d), which takes into account all relevant material which is available on

the pupil. No single score or product of scores, test or procedure shall be used as the sole criterion for the decisions of the individualized education program team as to the pupil's eligibility for special education. In determining the existence of a severe discrepancy, the individualized education program team shall use the following procedures:

(A) When standardized tests are considered to be valid for a specific pupil, a severe discrepancy is demonstrated by: first, converting into common standard scores, using a mean of 100 and standard deviation of 15, the achievement test score and the ability test score to be compared; second, computing the difference between these common standard scores; and third, comparing this computed difference to the standard criterion which is the product of 1.5 multiplied by the standard deviation of the distribution of computed differences of students taking these achievement and ability tests. A computed difference which equals or exceeds this standard criterion, adjusted by one standard error of measurement, the adjustment not to exceed 4 common standard score points, indicates a severe discrepancy when such discrepancy is corroborated by other assessment data which may include other tests, scales, instruments, observations and work samples, as appropriate.

(B) When standardized tests are considered to be invalid for a specific pupil, the discrepancy shall be measured by alternative means as specified on the assessment plan.

(C) If the standardized tests do not reveal a severe discrepancy as defined in subparagraphs (A) or (B) above, the individualized education program team may find that a severe discrepancy does exist, provided that the team documents in a written report that the severe discrepancy between ability and achievement exists as a result of a disorder in one or more basic psychological processes. The report shall include a statement of the area, the degree, and the basis and method used in determining the discrepancy. The report shall contain information considered by the team which shall include, but not be limited to:

1. Data obtained from standardized assessment instruments;
2. Information provided by the parent;
3. Information provided by the pupil's present teacher;
4. Evidence of the pupil's performance in the regular and/or special education classroom obtained from observations, work samples, and group test scores;
5. Consideration of the pupil's age, particularly for young children; and
6. Any additional relevant information.

(5) The discrepancy shall not be primarily the result of limited school experience or poor school attendance.

34 Code of Federal Regulations (CFR)

§ 300.307

(a) *General.* A State must adopt, consistent with § 300.309, criteria for determining whether a child has a specific learning disability as defined in § 300.8(c)(10). In addition, the criteria adopted by the State—(1) Must not require the use of a severe discrepancy between intellectual ability and achievement for determining whether a child has a specific learning disability, as defined in § 300.8(c)(10); (2) Must permit the use of a process based on the

child's response to scientific, research-based intervention; and (3) May permit the use of other alternative research-based procedures for determining whether a child has a specific learning disability, as defined in § 300.8(c)(10). (b) *Consistency with State criteria.* A public agency must use the State criteria adopted pursuant to paragraph (a) of this section in determining whether a child has a specific learning disability. (Authority: 20 U.S.C. 1221e–3; 1401(30); 1414(b)(6))

Speech or Language Impairment

California Code of Regulations (CCR) Title 5 3030 (c)

A pupil has a language or speech disorder as defined in Section 56333 of the Education Code, and it is determined that the pupil's disorder meets one or more of the following criteria:

(1) Articulation disorder.
- (A) The pupil displays reduced intelligibility or an inability to use the speech mechanism which significantly interferes with communication and attracts adverse attention. Significant interference in communication occurs when the pupil's production of single or multiple speech sounds on a developmental scale of articulation competency is below that expected for his or her chronological age or developmental level, and which adversely affects educational performance.
- (B) A pupil does not meet the criteria for an articulation disorder if the sole assessed disability is an abnormal swallowing pattern.

(2) Abnormal Voice. A pupil has an abnormal voice which is characterized by persistent, defective voice quality, pitch, or loudness.

(3) Fluency Disorders. A pupil has a fluency disorder when the flow of verbal expression including rate and rhythm adversely affects communication between the pupil and listener.

(4) Language Disorder. The pupil has an expressive or receptive language disorder when he or she meets one of the following criteria:
- (A) The pupil scores at least 1.5 standard deviations below the mean, or below the 7th percentile, for his or her chronological age or developmental level on two or more standardized tests in one or more of the following areas of language development: morphology, syntax, semantics, or pragmatics. When standardized tests are considered to be invalid for the specific pupil, the expected language performance level shall be determined by alternative means as specified on the assessment plan, or;
- (B) The pupil scores at least 1.5 standard deviations below the mean or the score is below the 7th percentile for his or her chronological age or developmental level on one or more standardized tests in one of the areas listed in subsection (A) and displays inappropriate or inadequate usage of expressive or receptive language as measured by a representative spontaneous or elicited language sample of a minimum of fifty utterances. The language sample must be recorded or transcribed and analyzed, and the results included in the assessment report. If the pupil is unable to produce this sample, the language, speech, and hearing specialist shall document why a fifty utterance sample was not obtainable and the contexts in which attempts were made to elicit the sample. When standardized tests are considered to be invalid for the specific pupil, the expected language performance

level shall be determined by alternative means as specified in the assessment plan.

Other Health Impairment

California Code of Regulations (CCR) Title 5 3030 (f)

A pupil has limited strength, vitality or alertness, due to chronic or acute health problems, including but not limited to a heart condition, cancer, leukemia, rheumatic fever, chronic kidney disease, cystic fibrosis, severe asthma, epilepsy, lead poisoning, diabetes, tuberculosis and other communicable infectious diseases, and hematological disorders such as sickle cell anemia and hemophilia which adversely affects a pupil's educational performance. In accordance with Section 56026(e) of the Education Code, such physical disabilities shall not be temporary in nature as defined by Section 3001(v).

Section IV

Referral for CAP Assessment

Indicators may reveal the possibility of a CAP in the process of the initial assessment of a student for Special Education. Indicators of possible CAP may also become evident after other special education services have been provided and student progress is poor, or in a subsequent assessment.

Multidisciplinary Team

The importance of the multidisciplinary team in the assessment of auditory processing problems cannot be overstated. In an educational setting, the multidisciplinary team may include the school psychologist, speech language pathologist, teacher(s), school nurse, and other specialists who as a team generate the referral for the audiological assessment of CAP. Parents as well as physicians and other specialists who work with the child outside of the school setting are also important collaborators in this team effort.

Referral Criteria

Consider whether the student meets the following criteria before generating a referral to VCOE Hearing Conservation/Audiology Services for assessment of CAP.:

- RtI^2/MTSS intervention process has not been successful. Multidisciplinary Assessment has been completed revealing the potential for a CAP.
- Normal peripheral hearing acuity, as well as normal ear health are required for CAP testing.
- A minimum age of 7 years is required due to neuro-maturation as well as task difficulty and performance variability below this age on tests of central auditory function.
- Cognitive ability in the average range.
- Students with articulation disorders should not be referred if severity precludes understanding. The auditory processing test battery requires verbal responses from the student that are able to be clearly understood by the audiologist.
- Auditory processing problems should be observable in all languages spoken by the student. Command of the testing language for CAP is necessary. While some tests in the auditory processing battery are less dependent on language, care must be taken in diagnosing CAP in second language learners.
- Clinicians are reminded to refrain from diagnosing CAP in students with Autism Spectrum Disorders. Children with autism often demonstrate impairments in communication are hyper- or hypoactive to certain sounds. In cases with significantly milder presenting symptoms, testing may be possible if test responses are consistent and reliable and not confounded with cognitive or behavioral issues (California Speech Language Hearing Association (CSHA, 2007).

- Students who take medication for attention, anxiety or other disorders that may confound test results should be tested while they are on their routine schedule of medication.

Assessment Components

The following are critical components to be included in assessment prior to making a referral to the audiologist for CAP assessment.

Referral Background:

- Source of referral
- Reason for referral
- Previous evaluations and treatments
- Functional performance deficits
- Observations

Medical History:

- Prenatal and birth history
- Family / genetic history
- Developmental milestones
- Health status
- Ear health and hearing
- Current medications and treatments

Developmental History:

- Auditory
- Visual
- Motor
- Sensory
- Social
- Behavioral
- Speech and Language
- Linguistic and cultural background
- Evaluation and treatment results

Educational History:

- Academic strengths and weaknesses, especially with reading and spelling, music and rhyming skills
- Behavioral characteristics including attending, response time, type and quality of response, following directions, and listening with noisy background.

Speech and Language Assessment: A complete assessment with consideration of other presenting issues which may impact test scores. The following list highlights specific areas and is intended for use as a guideline for test selection:

- **Auditory Perception and Discrimination**
- **Auditory Association/Receptive Vocabulary**
- **Auditory Memory**
- **Phonemic Awareness**
- **Auditory Closure**
- **Auditory Cohesion / Comprehension of Sentence & Paragraph-Length Material**
- **Expressive Vocabulary**
- **Word Retrieval**
- **Auditory / Speech Perception Under Degraded Listening Conditions**
- **Psychological:**
  - Attention
  - Behavior
  - Cognitive abilities (verbal and nonverbal)
  - Processing disorders
- **Observations**
  - Observations (informal / formal) from parents, teachers, or other professionals in a variety of settings

Assessment Results Which May Indicate the Need for Further Assessment by an Audiologist for CAP

If assessment results indicate a substantial deficit specific to auditory processing and less intensive special education services have not been effective, a referral to the Audiologist may be made.

Referral to Audiologist

Once it is agreed that the referral for CAP assessment will be made and before the parent has signed the Assessment Plan, the district should submit a signed Referral/Authorization for Hearing Services to the Hearing Conservation email: hearing@vcoe.org/fax:805-389-4297.

A reservation form with the date and time offered will be emailed to the district referral source who will give the form to the parent/guardian at the time the assessment plan is signed. This reservation form will need to be completed by the parent/guardian indicating whether they will keep the appointment or phone Hearing Conservation to reschedule. The district referral source will then need to fax or email the completed reservation form to Hearing Conservation.

Appointment information will be sent to the parent as soon as the confirmation of the appointment and Referral Form are received. This information will include a reminder, map and directions and intake forms to complete and bring to the appointment. If the appointment has been offered and is rejected by the parent or rescheduled following acceptance of the appointment, there is no guarantee that the appointment can be completed within the timeline.

The area of concern on the Assessment Plan should be noted at the top of the page and examples may be reading comprehension, decoding, listening skills, compliance with adult requests, etc. The area that is checked on the Plan might be communication, academics, or social/emotional depending on the area of student performance being impacted at school. The “discipline” box should note “Audiologist” and “Central Auditory Processing” can be noted. The Assessment Plan should note pre-referral interventions and the dates provided, up to two years.

Once the Assessment Plan has been signed, it should be faxed or emailed to Hearing Conservation along with recent assessment report completed by the IEP team.

The assessment will be conducted within 60 calendar days with the exception of school holidays or breaks in the *student’s* school calendar of over five days. An IEP meeting must be held no later than the 60th day and an Assessment Report developed and shared with the IEP team.

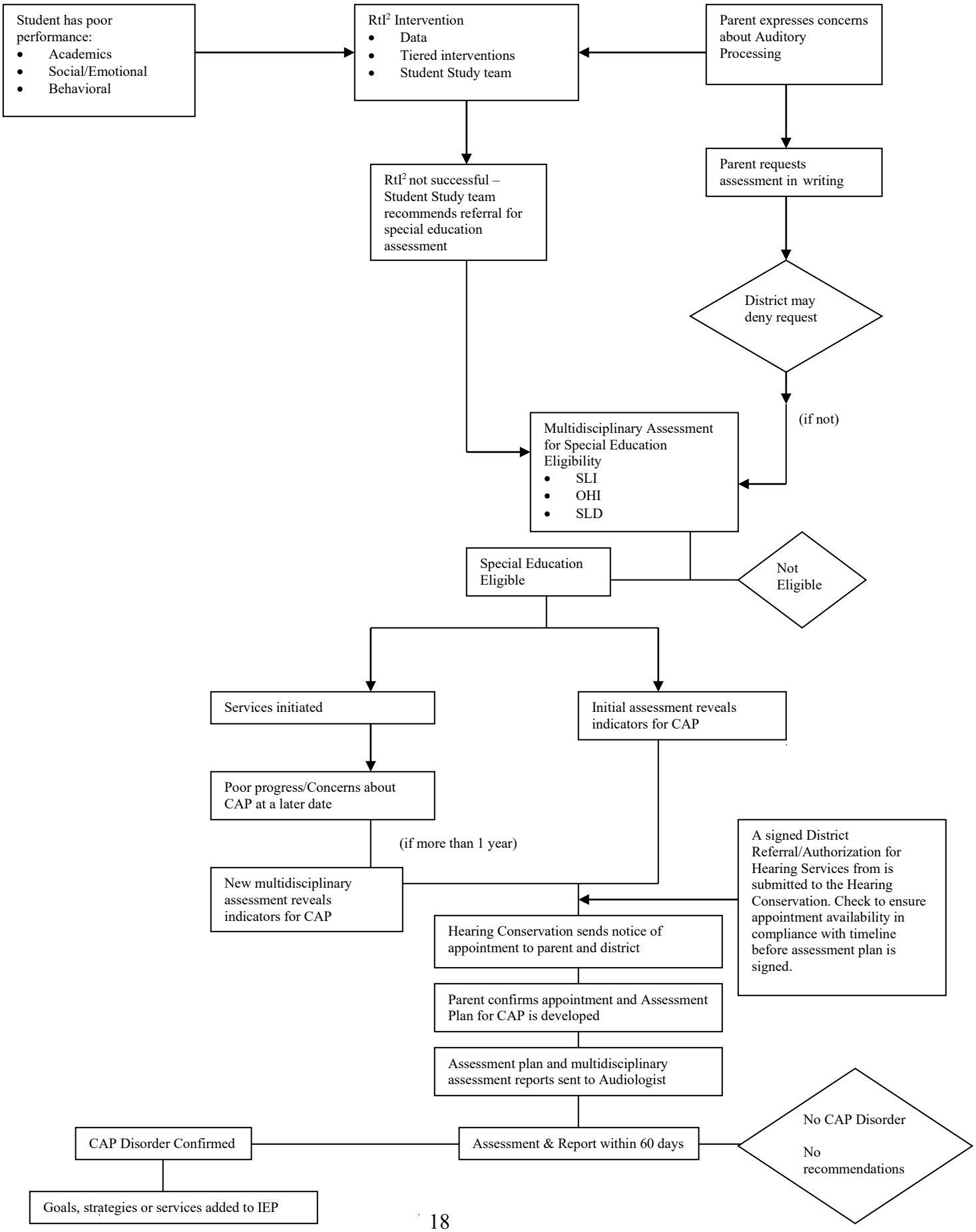
Requests for CAP Assessment for non-Special Education eligible students

If a parent or Advocate request a CAP assessment for a non-Special Education eligible student, the school may choose to decline to initiate assessment if pre-referral interventions have not yet been attempted. The school administrator must give the parent a completed copy of the Notice to Parent of Action form within 15 calendar days of the request and note the reasons the school is declining to initiate the assessment. In this example, the reason might be that the school has many other less intensive interventions to try and there is no reason as yet to suspect a disability. Another reason may be that the child is not showing any substantive delays in any areas of school performance which warrant an assessment.

Requests for Repeat CAP Assessments

If school performance concerns remain and assessment indicators suggest that a student with deficits in auditory processing may benefit from repeating the CAP Assessment, the IEP team should review the Audiologist's report for a suggested timeline, i.e. repeat testing in three years. A signed Assessment Plan will also be required in this situation and the process outlined in this document should be followed with a tentative appointment held before the Assessment Plan is signed by the parent.

CAP
Assessment Flow Chart



Section V

Audiological Assessment for CAP

Basic tests of peripheral auditory function are conducted to ensure normal hearing and ear health prior to the administration of the central auditory test battery. The CAP test battery is individualized for the student based on referring concerns with test components constructed to sample auditory function. Tests may be selected from the following categories of audiologic tests of auditory function (ASHA, 2005; CSHA, 2007):

- Auditory discrimination
    - Assessing the ability to differentiate between similar acoustic stimuli that have different parameters,(e.g., frequency, intensity, duration)

- Auditory temporal processing and patterning
    - Analyzing acoustic events over time (e.g., sequencing, patterns, gap detection)

- Dichotic listening
    - Assessing the ability to separate or integrate different auditory stimuli presented to each ear simultaneously (e.g., Dichotic Digits)

- Monaural low redundancy speech / auditory closure
    - Assessing the ability to recognize degraded speech stimuli presented to one ear at a time, (e.g., Filtered Words Subtest; speech-in-noise)

Diagnostic tests of central auditory function are designed to identify both normal and abnormal performance. As a result they are reported in percent correct scores with normative means and standard deviations used to establish cut-off values.

SECTION VI

Management Recommendations for Central Auditory Processing Disorder

Introduction

Management recommendations for students with central auditory processing deficits are based on presenting symptoms and testing results from a multidisciplinary assessment, including audiologist. Recommendations specific to deficits are included in the report from the Audiologist who administers the CAP assessment and reviews results from the educational team. Management is typically accomplished through three approaches that are used concurrently: direct skills remediation, compensatory strategies, and environmental modifications (ASHA, 2005).

CSHA Guidelines for the Diagnosis and Treatment for Auditory Processing Disorders (2007) stress consideration of the following when selecting interventions for the management of CAP:

- intervention must correlate specifically to the presenting observable behaviors and underlying weaknesses that necessitated the original referral
- intervention must correlate specifically to the individual child's test results
- intervention should be hierarchical in nature, rather than randomly selected "auditory" tasks
- intervention effectiveness should be documented and reassessed at regular intervals

In addition to the Guidelines listed above, clinicians are reminded that Interventions should be evidence-based. Particular attention should be given when considering commercially available treatment programs. The following steps (Bellis 2008) are one example of a review process that can be used before electing to use a treatment program:

1. analyze task demands and exercises to determine whether they target the identified auditory deficits
2. ascertain that the treatment relies on the individual's active participation, motivates the individual, and provides salient reinforcement
3. determine that the treatment purports to effect change through anatomic and/or physiologic mechanisms consistent with the science underlying central auditory processing while posing no risk of harm to the individual

Hearing Assistive Technology (HAT) / FM amplification

Hearing Assistive Technology is designed to provide a technological solution to the effects of distance, noise, and reverberation in the listening environment. The use of this technology must be carefully considered based on listening requirements and other factors involving the individual student.

It cannot be emphasized enough that a diagnosis of CAP does not, in and of itself, mean a recommendation for HAT (Masters, Stecker, & Katz,1998). Not all children with CAP can be expected to benefit from the use of HAT.

The appropriateness of HAT/FM is auditory deficit specific and is to be determined by the VCOE audiologist. The educational team can expect to see a recommendation for the trial use of HAT/FM in the VCOE audiologist's CAP assessment report, if appropriate.

For further information regarding the use of HAT/FM amplification please refer to the Hearing Assistive Technology (HAT/FM Amplification) Guidelines (2009) available at www.vcselpa.org.

Auditory Training

One treatment approach that may appear in certain deficit-specific recommendations from audiologists is auditory training. Generally, the educational team can expect this recommendation from a VCOE audiologist to include specific steps which are appropriate for home use.

Auditory training, which has a neurophysiologic basis and body of research to support inclusion in a treatment plan, should not be confused with alternative sound based treatment programs typically recommended for a variety of disorders by professionals outside of the fields of audiology and speech pathology.

Special Education Services

When, as a result of the audiological assessment, a student is found to have significant auditory processing deficits, the IEP team will recommend accommodations, modifications, or special education related services to address the student's needs. Annual goals would be developed as appropriate to measure student progress.

General Suggestions for Classroom Teachers

Accommodations and/or modifications for children with auditory processing weaknesses should be individualized. However, the following general teaching strategies adapted from the CSHA CAP Task Force Document 2nd Edition 2007 may be useful as a part of the intervention process.

- ☐ Create a quality classroom listening environment. www.nonoise.org/library/classroom
- ☐ Keep noise to a minimum
- ☐ Arrange seating based on individual student needs
- ☐ Face students when talking
- ☐ Speak clearly at a normal rate – increase volume or slow down as needed
- ☐ Pause at natural breaks to give additional processing time
- ☐ Use gestures and facial expressions
- ☐ Give cues for attending; tell the students what they are listening for; repeat or highlight important information
- ☐ Demonstrate examples
- ☐ Pre-teach important or difficult concepts and vocabulary
- ☐ Limit lectures to short periods of time
- ☐ Give directions one at a time
- ☐ Write or illustrate key words and concepts on the board
- ☐ Repeat important concepts, information, or directions
- ☐ Provide lecture notes or a note-taking buddy for older students

Section VII

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