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Speech-Language & Audiology Canada
Orthophonie et Audiologie Canada

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Curriculum Standards for Audiology and Speech-Language Pathology

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Welcome

Welcome to the draft Curriculum Standards for Audiology and Speech-Language Pathology. This document is a revision of the 2004 version of Assessing and Certifying Clinical Competency: Foundations of Clinical Practice for Audiologists and Speech-Language Pathologists. This draft was approved by the Canadian Council of University Programs (CCUP) in Audiology and Speech-Language Pathology in May 2021.

The aims of the revision were to:

1. Integrate the 2018 National Audiology and Speech-Language Pathology Competency profiles with the Foundations.
2. Identify common standards across disorder areas, to reduce redundancy; and find a balance between consistency in format across standards (e.g., nature/assessment/ intervention) and the need for disorder- or population-specific standards.

The revisions followed methods used to develop Competency-Based Medicine (CBM) in Canada. Volunteers worked on individual Units of the Foundations document where they had expertise, and the full group reviewed all documents.

We wish to acknowledge the many individuals who volunteered their time and effort to this project.

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Terminology

The term "communication" is comprised of speech, language, voice, gestural communication, and hearing.

The term "client" is used to denote clients, patients, students, individuals who are hard of hearing or having communication challenges, and other recipients of Audiology or Speech-Language Pathology services. We recognize that different terms are used in different areas of practice and that individual curriculum standards may need to be modified accordingly.

We have used the terms "assessment" and "evaluation" interchangeably. We recognize that these terms have different meanings to different professionals, and that curriculum standards may likewise need to be modified accordingly.

We use the terms "atypical" and "abnormal" per the conventions of working-group members in individual disorder areas. The primary distinction was between healthcare settings, especially in adult populations, where "abnormal" is more common; and school or other pediatric settings, where developmental disorders predominate and "atypical" is more common.

In the Standards, we used the terms "speech-language pathologist" and "audiologist" that were used in the Competencies. We could have used "speech-language pathology student" or "audiology student" to denote that these were achieved during an academic program, but took the perspective that upon graduation students must meet those standards for entry to practice.

Based on feedback from working group members, we changed "oral" to "spoken" where appropriate in both audiology and speech-language pathology standards.

In regard to education for children who are Deaf or hard of hearing, opinions differed on whether the appropriate contrast for "manual" should be "oral" vs. "aural". As usage appears to depend on context, we listed both (i.e., "aural/oral").

Based on feedback from working group members and expert reviewers, we retained the term "diagnosis" as a standard, although regulations currently do not permit SLPs to diagnose all disorders in all provinces and territories in Canada.

Mapping SLP Curriculum Standards To National Competency Profiles

The SLP Curriculum Standards have been mapped to the National Competency Profile for SLP. As a result of that processing, we modified the Standards structure and content as follows:

- Foundations sections X.1 in the disorder areas (basic knowledge) are now listed in UNIT TWO: KNOWLEDGE EXPERT.
- Clinical standards that crossed all disorder areas are now listed in UNIT THREE: CLINICAL EXPERT – CROSS-CUTTING ASSESSMENT AND INTERVENTION STANDARDS. These cross-cutting standards must be demonstrated in a sample of areas and do not have to be demonstrated in all areas.
- Additional clinical standards specific to each disorder area are listed in UNIT FOUR: CLINICAL EXPERT – DISORDER-SPECIFIC ASSESSMENT AND INTERVENTION STANDARDS.
- Standards not previously included in the Foundations document but included in the National Competency Profile and addressed in academic programs are now listed as UNITS 5-10.

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Curriculum Standards for Audiology

Unit One: Basic Requirements (Audiology And Speech-Language Pathology)

Section 1.1 Anatomy and Physiology

The audiologist and speech-language pathologist demonstrate basic knowledge of the gross anatomy and physiology of the following systems:

i. Respiratory system (respiratory tract, chest wall, diaphragm, and abdominal wall).

ii. Articulatory, phonatory, resonatory and swallowing systems (e.g., larynx, pharynx, mouth, and nose).

iii. Auditory and vestibular systems (external, middle and inner ear, auditory and vestibular pathways, and auditory cortex).

Section 1.2 Neuroanatomy and Neurophysiology

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The structure and function of the nervous system.

ii. Development and maturation of the nervous system throughout the lifespan.

iii. Neurological substrates of speech, language, cognition (e.g., attention, memory, speed of processing), hearing, and balance throughout the lifespan.

iv. Hemispheric asymmetry and specialization, including plasticity throughout the lifespan.

v. Methods of investigating the nervous system.

Section 1.3 Genetics and Human Development

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Normal human genetics and embryological development, and their relationship to congenital and later-onset disorders that affect communication, swallowing, and balance.

ii. Infant, child, and adolescent development.

iii. Adult development and the aging process.

Section 1.4 Counselling and Applied Psychology

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Biopsychosocial frameworks such as the World Health Organization International Classification of Functioning, Disability, and Health; as they relate to communication, swallowing, and balance.

ii. The role of communication in interpersonal relations.

iii. The psychosocial effects of communication disorders on the client and significant others, including stigma.

iv. The psychosocial effects of health conditions that may include a communication disorder (e.g., stroke, cancer), including the implications of acute versus chronic illness, stable versus progressive conditions, and congenital versus acquired conditions.

v. Coping mechanisms used by clients/families.

vi. Interviewing and counselling methods for clients, their caregivers, and their significant others, in the context of family-centered care.

vii. Cultural and linguistic factors that may affect clinical relationships, assessment, and treatment outcomes; including but not limited to race, ethnicity, and gender.

viii. Health psychology approaches to behavior change and enablement.

Section 1.5 Psycholinguistics and Linguistics

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Normal and abnormal communication behaviour throughout the lifespan in the following areas in both auditory and visual modalities (e.g., sign language): phonetics and phonology, morphology and syntax, semantics, pragmatics, nonverbal communication, and sociolinguistics.

ii. The nature and theories of bilingual and second language development.

iii. The nature and theories of reading and writing and their acquisition and changes over the lifespan.

iv. Methods of observation and analysis useful in the description of communicative behaviour in the following areas: phonetics and phonology, morphology and syntax, semantics, pragmatics, nonverbal communication, and sociolinguistics.

Section 1.6 Speech Perception and Acoustics

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The nature and theories of perceptual processes and their development with a special emphasis on speech perception and perception of non-linguistic stimuli related to communication (e.g., nonverbal affect cues, music, and environmental sounds).

ii. The physics of sound.

iii. Psychophysical methods.

iv. Psychoacoustics.

Section 1.7 Instrumentation

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Instrumentation relevant to clinical practice and its operation (e.g., amplification and assistive devices, audiometers, audio and video recorders, voice and speech synthesizers and analyzers, hearing aid analyzers, real-ear measurement systems).

ii. Virtual delivery of services.

iii. Digital health-related platforms (e.g., online communication platforms, eHealth platforms) used in clinical practice.

iv. Database management and information privacy and security technology.

Section 1.8 Pharmacology and Other Medical Interventions

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The effects of medical intervention on auditory function and communication, balance, and swallowing (e.g., medication, radiation, surgery, implanted devices).

Section 1.9 Research Methodology

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The scientific method.

ii. Quantitative and qualitative research methods.

iii. Basic statistical concepts and theories.

iv. Commonly used research designs.

v. How to critically evaluate research using principles of evidence-based practice.

vi. Systematic evaluation of the reliability and validity of assessment procedures, and of treatment efficacy.

Unit Two: Knowledge Expert - Prevention and Evaluation

Section 2.1 Prevention

The audiologist demonstrates knowledge of:

i. Concepts related to prevention of hearing, balance, and other auditory disorders (e.g., epidemiological considerations, general types or preventive strategies [primary/secondary/tertiary prevention], method(s) of implementation, and measures of program effectiveness and efficiency).

ii. Strategies for prevention of hearing and balance disorders in all age groups, including:

   a) Designing and implementing screening/identification programs for hearing and vestibular problems throughout the lifespan.

   b) Public education (e.g., risk factors and early signs of communication disorders, referral information, types of services).

   c) Professional education (e.g., to healthcare groups and educational personnel, regarding identification and intervention strategies as well as referral patterns).

   d) Client/family/caregiver/institutional education to facilitate understanding of communication and vestibular disorders alternatives for intervention, and specific educational programs for parents/caregivers of children/adults at risk for communication disorders.

Section 2.2 Evaluation

The audiologist demonstrates the ability to:

i. Evaluate auditory or vestibular health conditions and their consequences, including:

   a) Obtaining an accurate case history through an interview or other procedure which should include an account of the individual's past development, current status, reason for referral and identification of activity limitations and participation restrictions in partnership with the person, family, or representatives of the population to establish needs. The case history includes but is not limited to:

      a) Name and other biographical data.

      b) Statement of the problem.

      c) Family history.

      d) Developmental history with particular reference to speech, language, and auditory development across the lifespan, neurological signs, and results of other tests and/or health evaluation or treatment.

      e) The presence of known precipitative factors for hearing and vestibular loss (e.g., medical and otologic history of infection, allergies, head trauma, ototoxic drugs, family history, occupational and recreational noise exposure, health conditions associated with increased risk of hearing loss, comorbidities to be considered in planning case management).

      f) Educational and occupational history.

      g) Audiologic rehabilitation history.

      h) Client family and social environment.

      i) Client, family, and caregiver perceptions of the problem (disability, general attitude, and motivation in the testing situation).

      j) Client's physical environment (e.g., lighting, acoustics).

      k) Information from other professionals who may be part of the multidisciplinary team.

   b) Administering measures to determine if a hearing or vestibular loss or deficit is present, to determine the degree and type of hearing or vestibular loss or deficit, and to assist the determination of the site of lesion along the auditory and/or vestibular pathway, including:

      a) Informal observation of the client's communication function.

      b) Selecting appropriate physiological and behavioural evaluation procedures, recognizing the contribution and limitations of each procedure.

      c) Applying principles and practices of testing, and using knowledge of audiologic procedures (e.g., pure-tone and speech audiometry, immittance measurements, auditory evoked potentials, otoacoustic emissions, handicap assessment) to assess the following:

         a) Status of external ear, including need for cerumen management

         b) Middle ear function

         c) Cochlear function

d) Retrocochlear function

e) Central auditory function

f) Vestibular function

d) Judging the validity and reliability of results, including understanding of sources of variance/test error.

e) Using instrumentation in the evaluation procedure, calibration, maintenance of equipment, and application of appropriate standards.

ii. Evaluate contextual, environmental and personal factors, including:

a) Environmental factors that can affect communication function and/or ability to use other sensory modalities (e.g., noise, reverberation, and distance).

b) Using acoustical measurements to assess rooms and other communication environments.

Section 2.3 Interpretation of Data

The audiologist demonstrates the ability to:

i. Interpret data obtained to formulate a statement summarizing assessment results and clinical findings, based on referral information, case history, informal and formal evaluation procedures, and comparative analysis of any previous audiometric and/or vestibular data.

ii. Draw conclusions and make recommendations based on the information obtained from the evaluation, for example:

a) Refer for other medical and/or allied health consultations and/or to other agencies.

b) Refer for further evaluation regarding amplification, formal vestibular testing, or other (re)habilitative options.

c) Assess ability to use other sensory modalities (i.e., visual, tactile, and kinaesthetic) in the communicative process.

iii. Counsel a patient and/or caregiver on the results of the evaluation and indications for further evaluation and regarding possible intervention options.

Section 2.4 Reporting

The audiologist demonstrates the ability to:

i. Produce an organized, informative, concise evaluation report with appropriate format and writing style according to regulatory standards and standards required by the employing agency, as applicable; including but not limited to:

a) Information obtained from the case history.

b) Observations of client behavior, including ability to perform standard or non-standard testing procedures and cooperation with testing procedures.

c) Procedures used and non-standard adaptations to procedures as appropriate.

d) Statement of testing reliability.

e) Results of evaluation and a summary statement of findings.

f) Statement of the effects of the condition(s) on the client's communication and vestibular function.

g) Formulation of a prognostic statement, when applicable.

h) Formulation of recommendations for referral, intervention and/or follow-up.

Unit Three: Clinical Expert - Client Management

Section 3.1 Referral

The audiologist demonstrates knowledge of:

i. "Red flag" signs or symptoms that indicate the need to refer to other health professionals, and ethical considerations associated with referral (e.g., privacy, confidentiality).

ii. Importance of screening to determine if referral is indicated for comorbid health conditions associated with hearing health (e.g., vision, balance/falls, cognitive decline).

Section 3.2 Counselling

The audiologist demonstrates the ability to:

i. Listen actively to the client and other stakeholders (e.g., family and substitute decision makers).

ii. Identify the aspirations, needs, and goals of the client and other stakeholders.

iii. Communicate evaluation information with sensibility and its implications to the client and other stakeholders, referral sources and other health professionals if appropriate.

iv. Understand the effects of hearing loss in daily life and of emotional reactions to hearing loss.

v. Understand the effects of hearing loss on significant others.

vi. Support the expression of emotions and react to them according to the context.

vii. Develop, evaluate and update intervention plans

a) To improve the client's quality of life and optimize their participation in everyday activities and roles

b) Using collaborative decision-making with the client and their communication partners,

c) Taking into account appropriate (re)habilitative options (use of technology, environmental modifications and/or behavior changes) given the results of the evaluation and their aspirations, needs and goals.

Section 3.3 Intervention

The audiologist demonstrates knowledge of:

i. Technology, including acoustic, electroacoustic, and electronic characteristics and measurements of hearing technologies including:

a) Types, effectiveness, and appropriate application of various technologies.

b) Components, circuits, controls, power sources, microphone types, and signal processing options.

c) Terminology and standards for specifying characteristics of amplification devices.

d) Systematic examination of hearing instruments (including electroacoustic analysis, listening check, and physical examination).

e) Use of instrumentation for electroacoustic and electronic measurements, real ear measurement systems, and mannequin systems.

f) Acoustic and electroacoustic modifications.

g) Nature of the acoustical properties of ear-like couplers and ear simulators, in relation to real-ear responses.

h) Wireless options and interfaces between hearing instruments and other communication technologies (e.g., phone, internet).

ii. Current principles and methods of selection and fitting of hearing instruments, including:

a) Assessment of need for and motivation to use technologies (e.g., use of case history, hearing evaluation data, observations of communication function, and self-report measures).

b) Selection procedures for the physical and electroacoustic characteristics and use of different common methods to prescribe hearing aid properties (e.g., gain).

c) Consideration of the effects of probe tube placement and foam tip insertion on Real Ear to Coupler Differences (RECD) measurements.

d) Fitting and modification procedures.

e) Counselling and orientation (e.g., hearing instrument care and maintenance).

f) Verification strategies, including real-ear measurements and sound field evaluation.

g) Validation of hearing aid fitting (outcome measures, self-assessment questionnaires).

h) Assessment of personal factors affecting hearing aid use (e.g., depression, quality of life).

iii. Earmolds/ear impressions, including:

a) Cerumen management.

b) Ability to take a proper earmold impression.

c) Types, materials, and tubing.

d) Modifications and acoustics.

iv. Consider contextual, environmental and personal factors in intervention, including:

a) Effects of physical environmental factors on communication functions.

b) Use of technologies to optimize room acoustics to increase hearing accessibility.

c) Modifications to environmental factors (e.g., lighting) to increase the client's ability to use other sensory modalities (i.e., visual, tactile, and kinesthetic) to support communication.

d) Problem-solving to identify potential improvements to listening environments.

e) How social environmental factors can affect communication function, including but not limited to supports and barriers related to communication partners and other stakeholders, and cultural and societal factors such as beliefs about disability and access to services and equipment.

f) How personal factors can influence rehabilitation choices and outcomes and how to integrate this knowledge when planning rehabilitation.

The audiologist demonstrates the ability to:

i. Provide intervention using technology, including:

a) Selecting and fitting appropriate technology.

b) Monitoring the performance of hearing aids and other assistive technologies.

c) Counseling and orientation regarding the use of hearing aids and assistive devices in order to optimize functioning.

ii. Develop and implement environmental modifications, including:

a) Raising awareness of and strategies for optimizing environmental supports.

b) Referral or consultation with other professionals (e.g., acoustical engineers, architects, vocational counsellors, psychologists, OTs) regarding how to modify environmental factors to optimize communication function.

c) Ensuring all clinics are in accordance with Federal and applicable provincial accessibility laws.

iii. Working with the person with hearing loss and their communication partner to use techniques to promote positive communication behaviours, including:

a) Administering and interpreting self-assessment questionnaires and open-ended interviews.

b) Considering and applying information from other hearing health professionals, share information with them, and collaborate with team members in the circle of care.

c) Recognizing the special management needs of those with multiple comorbid health conditions.

d) Working as an effective team member towards the development of optimal communication, academic, vocational, and interpersonal social skills in the client with hearing loss in specific participation contexts.

e) Identifying and assisting in the training of communication skills, coping strategies, assertiveness, and problem-solving strategies for the person with hearing loss, either in individual or group sessions.

f) Consulting with, facilitating and/or referring persons with hearing loss and their significant others to community resources such as self-help groups.

g) Planning and conducting auditory, visual, and auditory-visual speech communication training either in individual or group sessions.

h) Assisting in the management of tinnitus and problems related to sound tolerance (e.g., misophonia, hyperacusis), in either individual or group sessions.

i) Promoting awareness of societal, cultural, and attitudinal barriers toward people living with hearing loss.

Unit Four: Knowledge & Clinical Expert - Neonatal and Infant Populations

Section 4.1 Early Hearing Detection and Intervention

The audiologist demonstrates knowledge of:

i. The benefits of early detection and intervention.

ii. Neonatal indicators and risk factor for hearing and vestibular loss.

iii. Universal newborn hearing screening protocols and practices, including the role of the audiologist in this process.

iv. Risk factors requiring ongoing surveillance after the newborn period.

Section 4.2 Evaluation

The audiologist demonstrates the ability to:

i. Assess auditory function in infants using physiological, electrophysiological, and behavioural procedures.

ii. Adapt assessment procedures according to developmental milestones and coexisting conditions.

iii. Apply clinical judgment, knowledge, and experience to plan for future care.

iv. Understand electrophysiological testing results and the relation of test results to the client's clinical presentation and testing environment (e.g., nap/sedated test, environmental noise level).

v. Screen for motor milestones and vestibular loss.

Section 4.3 Counselling

The audiologist demonstrates the ability to:

i. Communicate assessment results and clinical findings, their implications, and resulting habilitative recommendations to caregivers and referral sources.

ii. Explain the effects of hearing loss and/or vestibular dysfunction in daily life.

iii. Support emotional reactions to hearing loss and/or vestibular dysfunction.

iv. Support parents/caregivers in connecting with appropriate community supports (e.g., hard-of-hearing support groups).

v. Explain the effects of vestibular dysfunction in everyday life.

vi. Support clients in emotional reactions to vestibular dysfunction.

Section 4.4 (Re)habilitation

The audiologist demonstrates the ability to:

i. Refer to the appropriate habilitation teams.

ii. Refer to family- and child-centred intervention programs.

iii. Develop and implement an effective and efficient comprehensive communication skills development program.

iv. Plan and apply auditory and visual training procedures to improve communication abilities.

v. Monitor and report progress and outcomes to appropriate personnel or organizations, as required.

vi. Select, assess, fit, and monitor hearing devices with special considerations related to this population.

Unit Five: Knowledge & Clinical Expert - Preschool and School-Aged Populations

Section 5.1 Prevention and Health Promotion

The audiologist demonstrates knowledge of:

i. Principles and applications of hearing screening programs and the role of the audiologist in this process.

ii. Guidelines for referral procedures.

iii. Educational programs concerning hearing loss prevention and hearing conservation.

Section 5.2 Evaluation

The audiologist demonstrates ability to:

i. Select and apply an age-appropriate audiometric test battery (e.g., play audiometry, auditory evoked potentials, otoacoustic emissions, auditory processing tests).

ii. Select and apply an age-appropriate vestibular screening battery (e.g., single leg stance, DVA, head thrust).

Section 5.3 Counselling

The audiologist demonstrates the ability to:

i. Communicate appropriate information about hearing and vestibular loss and its implications to the child (age-appropriate), peers, parents, teachers, and other professionals.

ii. Explain the effects of hearing and vestibular loss in daily life.

iii. Support emotional reactions to hearing disabilities.

iv. Describe communication/educational options (e.g., auditory/spoken, ASL).

v. Communicate the effects of hearing and vestibular loss on academic progress, including social skills and reading development.

Section 5.4 (Re)habilitation

The audiologist demonstrates the ability to:

i. Work as an effective interprofessional team member toward the development of optimal communicative, academic, and psychosocial skills in the child with hearing impairment, which may include:

   a) Obtaining information regarding the child's educational or learning status in preschool and school settings.

b) Recommending amplification, special devices such as cochlear implants and assistive listening devices.

c) Effectively maintaining and troubleshooting amplification and assistive listening devices.

d) Explaining the use and care of hearing aids, implanted hearing devices and assistive listening devices to the child and those involved in the child's education care.

e) Recommending classroom acoustics modifications and seating plans appropriate for students with hearing accessibility difficulties.

f) Recommending and/or teaching remediation strategies for auditory processing problems.

g) Recommending and/or teaching communication strategies for the child with a hearing impairment, fellow students, teachers, and family members.

h) Recommending and/or teaching other auditory (re)habilitation skills (e.g., speechreading).

i) Recommending effective teaching strategies for children with hearing loss or auditory processing difficulties (e.g., consulting on the student's Individualized Educational Plan).

j) Identifying other conditions that can affect hearing performance (speech and language, fine motor, gross motor, visual) and making appropriate referrals for evaluation.

k) Providing information about community support services and associations for individuals with hearing loss or auditory processing problems or vestibular loss.

ii. Conduct functional listening assessments of the child in their educational setting and make recommendations to improve hearing accessibility.

Unit Six: Knowledge & Clinical Expert - Populations with Profound Hearing Impairment

Section 6.1 Evaluation

The audiologist demonstrates the ability to:

i. Adapt the audiometric test battery for persons with profound hearing impairments (e.g., awareness of vibrotactile levels of response in air and bone conduction testing, accurate interpretation of physiological test results).

ii. Use current tools to identify profound hearing loss in early infancy (e.g., otoacoustic emissions, auditory evoked potentials).

iii. Assess candidacy for hearing aids and special devices such as cochlear implants, assistive listening devices, and vibrotactile devices.

iv. Conduct a needs assessment to assist in the development of an intervention plan to meet the hearing accessibility goals of the client.

Section 6.2 Counselling

The audiologist demonstrates the ability to:

i. Communicate knowledge of the psychosocial effects of hearing loss.

ii. Explain the effects of hearing loss in daily life.

iii. Support emotional reactions to hearing handicap.

iv. In intervention, take into account the social stigma and misconceptions about hearing loss.

v. Address expectations of the client and/or significant others that may affect involvement in and benefit from (re)habilitation.

vi. Modify counselling strategies depending on the client's prior life experience with hearing loss (e.g., newly diagnosed hearing loss, change in the degree of loss, familiarity with the Deaf community).

vii. Provide information about community support services and associations for individuals with profound hearing loss (e.g., educational, financial, mental health, recreational, vocational).

Section 6.3 (Re)habilitation

The audiologist demonstrates the ability to:

i. Describe (re)habilitative options and philosophies underlying communication methods, including auditory-verbal, spoken, speechreading, and signed/manual communication (e.g., American Sign Language, Langue des signes québécoise); and how to access such methods in the community.

ii. Take into account cultural differences in the Deaf community with respect to "difference" versus "disability," mode of communication, and use of hearing aids, implantable devices (e.g., cochlear implants) and other assistive listening devices.

iii. Plan and conduct training in auditory, visual, auditory/visual, and tactile communication as well as problem-solving strategies, based on hearing profile, communication preferences, and individual capabilities.

iv. Monitor performance of hearing aids, implantable and other assistive listening devices via formal and informal evaluation procedures.

v. Evaluate and recommend assistive devices for various communication functions (e.g., interpreting, real- time captioning, alerting devices such as fire alarm).

vi. Address the special needs of individuals with multiple challenges.

vii. Address the needs of significant others, including need for information and psychosocial support, and recognize their coping strategies.

viii. Identify the need to refer to other professionals and services (e.g., psychologists, social workers, vocational counselors, speech-language pathologists, cochlear implant team, literacy programs [ASL and Spoken English], consumer groups).

Unit Seven: Knowledge & Clinical Expert - The Aging Adult Population

Section 7.1 Identification

The audiologist demonstrates knowledge of:

i. Age-related declines in auditory, vestibular, and communication function.

ii. Health conditions associated with increased risk of hearing and vestibular loss.

iii. The principles and applications of public health education and hearing and vestibular screening for older adults in community, institutional and eHealth contexts.

iv. Barriers and facilitators of help-seeking (e.g., negative views of aging, stigma).

v. The principles and applications of screening for relevant comorbidities.

vi. Guidelines for referral when further assessment is indicated.

vii. Guidelines for follow-up based on screening for hearing and vestibular problems.

Section 7.2 Evaluation

The audiologist demonstrates the ability to:

i. Apply valid, reliable and age-appropriate standardized and non-standardized procedures to evaluate auditory and vestibular function, including:

   a) Modifications to instructions and procedures adapted for relevant comorbidities, such as declines in memory, attention, vision, dexterity, and mobility.

   b) Interpretation of cautiousness in response criteria.

   c) Other factors that may affect testing (e.g., fatigue, pain).

ii. Use observational and self-report measures appropriate to the individual and their communication partners to assess hearing- and balance-related communication function in activities of daily living, following the World Health Organization Core Sets for Hearing Loss and Core Sets for Vertigo, an international tool for the assessment and documentation of functioning and health.

iii. Include other health disciplines and members of the health care team, and family members, as appropriate, in the assessment process.

Section 7.3 Counselling

The audiologist demonstrates the ability to:

i. Apply a person-/family-centered approach involving the client, family, and caregivers who provide assistance in activities of daily living in the home or in community or institutional settings.

ii. Understand the effects of hearing loss in daily life and of psychosocial and emotional reactions to hearing difficulties in the broad context of health and aging.

iii. Communicate evaluation information, its implications and (re)habilitative recommendations to the individual and their communication partners, referral sources, and inter-professional team members in the circle of care.

Section 7.4 (Re)habilitation

The audiologist will demonstrate the ability to:

i. Plan, implement and evaluate components of a comprehensive audiologic rehabilitation program (use of technologies, environmental modifications and/or behavior changes) that addresses functional communication needs in everyday life and improves the quality of life of older individuals and their communication partners.

ii. Communicate information and collaborate as appropriate to the roles and responsibilities of inter-professional team members in the rehabilitation circle of care for older individuals.

iii. Select technologies based on:

a) Benefits and limitations of amplification options (e.g., hearing aids, cochlear implants), features, and accessories (e.g., wireless connectivity, Apps).

b) Benefits and limitations of personal and institutional assistive devices for individuals with hearing and vestibular loss and their communication partners (e.g., telephone and television devices, FM and infra-red systems, handheld amplification devices, signaling devices).

iv. Modify environments to optimize:

a) Acoustics for speech perception (e.g., reduce noise).

b) Lighting for speechreading and contextual awareness.

c) Selection of seating arrangements (e.g., enable eye contact, reduce distance).

d) Scheduling time and place of activities to reduce distractions, stress.

e) Advocating for hearing accessibility in the context of age-friendly community initiatives (e.g., accommodation for hearing disability in programs for older adults at community centres).

v. Use behaviour modifications strategies that:

a) Promote self-care and enablement in individual and group audiologic rehabilitation.

b) Increase self-efficacy and reduce stigma to motivate social engagement and reduce risk of social withdrawal and isolation.

c) Address the effects of older adults' hearing loss on their significant others, including third party disability and caregiver burden.

d) Enhance communication skills for older adults and their communication partners through education and training focused on inter-personal interaction and conversation, including skills for family or caregivers who provide assistance in activities of daily living in the home, community or institutional settings.

e) Maintain and improve communication function of the person with hearing loss using training options including auditory, cognitive and multi-modal approaches delivered individually or in groups, in person or virtually.

f) Promote healthy aging and reduce risks associated with hearing and vestibular loss.

Unit Eight: Knowledge & Clinical Expert - Occupational Hearing Loss

Section 8.1 Conservation, Prevention, and Identification

The audiologist demonstrates knowledge of:

i. Current noise measurement instrumentation (sound level meter, integrating sound level meter, dosimeter) and procedures (A-Weighting and C-Weighting network).

ii. Methods for interpreting noise measurement data (Equivalent Continuous Average Sound Pressure Level, duration limit) and noise exposure surveys.

iii. Principles and application of legal and scientific risk criteria for occupational noise and other risk factors for hearing loss.

iv. Principles and application of hearing monitoring procedures and appropriate referral criteria, including training and supervising support personnel.

v. Components of noise control and hearing conservation programs (noise hazard assessment, noise control measures, hearing protection devices, worker education and training, audiometric testing [screening and annual hearing test] record and reporting).

vi. Procedures for the assessment of hearing conservation program effectiveness (e.g., use of interviews, focus groups, questionnaires).

Section 8.2 Noise Control

The audiologist demonstrates knowledge of:

i. Principles of noise control (e.g., engineered, administrative).

ii. Current technology related to types of hearing protection (earmuffs and custom ear plugs) and interpretation of attenuation characteristics.

iii. Current selection criteria for hearing protection devices, for an individual, occupation, workplace, or industry.

iv. Fit, use, care, and maintenance of hearing protection devices.

Section 8.3 Assessment and Management

The audiologist demonstrates knowledge of:

i. Procedures for establishing a written hearing conservation program that addresses all relevant components.

ii. Audiologic profile of Noise-Induced Hearing Loss (NIHL).

iii. Temporary and permanent noise-induced threshold shifts and their underlying mechanisms.

iv. Auditory fatigue and pathophysiology of NIHL.

v. Histopathological changes in the cochlea associated with noise exposure.

vi. Associations between NIHL, tinnitus, and vestibular dysfunction.

vii. Differentiating between NIHL and presbycusis.

viii. Pharmacological treatments to reduce noise-induced trauma/acoustic trauma.

ix. Procedures for record-keeping and management of audiometric data, including procedures for maintaining confidentiality of information.

x. Symptom management options

   a) Amplification, NIHL candidacy for amplification, factors affecting successful amplification for individuals with NIHL.

   b) Tinnitus retraining therapy programs.

   c) Tinnitus maskers/sound therapy.

Section 8.4 Education

The audiologist will demonstrate the ability to:

i. Provide appropriate consultation for developing workplace noise policies and/or education programs to worker, administration, and community groups.

ii. Educate workers about occupational noise exposure limits and acceptable risks, recommended exposure limit / threshold limit values established by regulatory bodies (e.g., Canadian Centre for Occupational Health and Safety, National Institute for Occupational Safety and Health).

iii. Educate the public on signs and symptoms of noise exposure and how/where help can be accessed.

iv. Provide information about hearing loss due to recreational exposure to loud sounds.

Section 8.5 Legislation and Guidelines

The audiologist will demonstrate knowledge of:

i. Existing federal and provincial legislation regarding noise regulations, health, safety, and compensation relating to noise exposure and NIHL (e.g., Workplace Safety and Insurance Board, Workers Compensation Board).

ii. Existing municipal bylaws related to noise standards.

iii. Guidelines and recommendations pertaining to noise exposure by professional organizations (e.g., World Health Organization).

Curriculum Standards for Speech-Language Pathology

Unit One: Basic Requirements (Audiology and Speech-Language Pathology)

Section 1.1 Anatomy and Physiology

The audiologist and speech-language pathologist demonstrate basic knowledge of the gross anatomy and physiology of the following systems:

i. Respiratory system (respiratory tract, chest wall, diaphragm, and abdominal wall).

ii. Articulatory, phonatory, resonatory, and swallowing systems (larynx, pharynx, mouth, and nose).

iii. Auditory and vestibular systems (external, middle and inner ear, auditory and vestibular pathways, and auditory cortex).

Section 1.2 Neuroanatomy and Neurophysiology

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The structure and function of the nervous system.

ii. Development and maturation of the nervous system throughout the lifespan.

iii. Neurological substrates of speech, language, cognition (e.g., attention, memory, speed of processing), hearing, and balance, throughout the lifespan.

iv. Hemispheric asymmetry and specialization, including plasticity throughout the lifespan.

v. Methods of investigating the nervous system.

Section 1.3 Genetics and Human Development

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Normal human genetics and embryological development, and their relationship to congenital and later-onset disorders that affect communication, swallowing, and balance.

ii. Infant, child, and adolescent development.

iii. Adult development and the aging process.

Section 1.4 Counselling and Applied Psychology

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Biopsychosocial frameworks such as the World Health Organization International Classification of Functioning, Disability, and Health; as they relate to communication, swallowing, and balance.

ii. Health psychology approaches to behavior change and enablement.

iii. Cultural and linguistic factors that may affect clinical relationships, assessment, and treatment

outcomes; including but not limited to race, ethnicity, and gender identity.

iv. The psychosocial effects of communication disorders on the client and significant others, including stigma.

v. The psychosocial effects of health conditions that may include a communication disorder (e.g., stroke, cancer), including the implications of acute versus chronic illness, stable versus progressive conditions, and congenital versus acquired conditions.

vi. Coping mechanisms used by clients/families.

vii. The role of communication in interpersonal relations.

viii. Interviewing and counselling methods for clients, their caregivers, and their significant others, in the context of family-centered care.

Section 1.5 Psycholinguistics and Linguistics

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Normal and abnormal communication behaviour throughout the lifespan in both auditory and visual modalities (e.g., sign language) in the following areas: phonetics and phonology, morphology and syntax, semantics, pragmatics, nonverbal communication, and sociolinguistics.

ii. Methods of observation and analysis useful for describing in the description of communicative behaviour in the following areas: phonetics and phonology, morphology and syntax, semantics, pragmatics, nonverbal communication, and sociolinguistics.

iii. The nature and theories of bilingual and second language development.

iv. The nature and theories of reading and writing and their acquisition and changes over the lifespan.

Section 1.6 Speech Perception and Acoustics

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The nature and theories of perceptual processes and their development with an emphasis on speech perception, and perception of non-linguistic aspects of communication (e.g., nonverbal affect cues, music, and environmental sounds).

ii. The physics of sound.

iii. Psychophysical methods.

iv. Psychoacoustics.

Section 1.7 Instrumentation

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. Instrumentation relevant to clinical practice and its operation (e.g., amplification and assistive devices, audiometers, audio and video recorders, voice and speech synthesizers and analyzers, hearing aid analyzers, real-ear measurement systems).

ii. Virtual delivery of services.

iii. Digital health-related platforms (e.g., online communication platforms, eHealth platforms) used

in clinical practice.

iv. Database management and information privacy and security technology.

Section 1.8 Pharmacology and Other Medical Interventions

The audiologist and speech-language pathologist demonstrate basic knowledge of:

i. The effects of medical intervention on auditory function, balance, swallowing, and communication (e.g., medication, radiation, surgery, implanted devices).

Section 1.9 Research Methodology

i. The scientific method.

ii. Quantitative and qualitative research methods.

iii. Basic statistical concepts and theories.

iv. Commonly used research designs.

v. How to critically evaluate research using principles of evidence-based practice.

vi. Systematic evaluation of the reliability and validity of assessment procedures, and of treatment efficacy.

Unit Two: Knowledge Expert

The speech-language pathologist demonstrates knowledge of:

Section 2.1 Developmental Speech Sound Disorders

i. Normal articulation/phonological development and theories of acquisition, including the relationships between normal and disordered development.

ii. Different theoretical frameworks relevant to speech sound disorders, i.e., developmental articulation/phonological and/or motor speech disorders.

iii. The characteristics of speech sound disorders.

iv. Profiles of special groups with speech sound disorders (e.g., children with cleft palate and/or other structural disorders, hearing impairment, developmental delay, or childhood apraxia of speech).

v. The psychosocial and educational impact of speech sound disorders.

vi. Speech development in children learning more than one language in addition to English and/or French and its application to clinical practice.

vii. How the processes and factors associated with the development of normal speech production (e.g., linguistic, motor, perceptual, cognitive, affective, environmental, and cultural) apply to clinical practice.

Section 2.2 Motor Speech Disorders

i. The neurological basis for normal speech production and how damage to the central and peripheral nervous systems affects respiratory, phonatory, resonatory and articulatory subsystems, as well as the impact on speech production.

ii. Different theoretical frameworks for motor speech disorders (e.g., dysarthria, apraxia of speech).

iii. Characteristics of motor speech disorders including the respiratory, phonatory, resonatory, articulatory, and prosodic features.

iv. Etiological factors related to motor speech disorders and the impact on prognosis (e.g., acquired vs. congenital conditions, stable vs. progressive conditions).

v. Numerous neurological or developmental disorders that may accompany motor speech disorder (e.g., amyotrophic lateral sclerosis, Parkinson disease, Down Syndrome) and their impact on assessment, intervention and prognosis.

vi. The effect of motor speech disorders on speech intelligibility, as well as the psychosocial, educational and vocational impact.

Section 2.3 Developmental Language Disorders

i. Normal language development and literacy acquisition, and their application to clinical practice, including relationships between typical first language acquisition, typical simultaneous or sequential multilingual language acquisition, and spoken and written developmental language disorders. Developmental language disorders include developmental language disorder (DLD) and dyslexia.

ii. Factors and processes associated with the development of normal language and acquisition of literacy (e.g., motor, perceptual, cognitive, affective, environmental, and cultural).

iii. Different theoretical frameworks relevant to spoken and written language disorders.

iv. Characteristics of oral and written developmental language disorders for different age levels. These include phonologic, morphosyntactic, semantic, and pragmatic abilities in oral language, reading, and writing.

v. Profiles of special populations at risk for developmental language disorders (e.g., autism spectrum disorder, hearing impairment, Down syndrome).

vi. The impact of developmental language disorders on learning and educational achievement.

vii. The impact of developmental language disorders on psychosocial development, and vocational opportunities of the client.

Section 2.4 Acquired Language and Cognitive-Communication Disorders

i. Typical changes in language and cognitive-communication function throughout the lifespan, related factors and processes (e.g., motor, sensory, perceptual, cognitive, affective, cultural) and their application to clinical practice.

ii. The neurology and neurophysiology of acquired language disorders (aphasia) and cognitive-communication disorders associated with acute, chronic, and progressive neurological and other medical disorders.

iii. Factors associated with recovery or dissolution of language and cognitive-communication skills. Theoretical frameworks relevant to acquired language and cognitive-communication disorders.

iv. The clinical and functional characteristics of acquired language and cognitive-communication disorders across the lifespan.

v. The associated perceptual, motor, cognitive, and affective problems and their impact on communication.

vi. The psychosocial, educational, and vocational impact of communication disorders.

Section 2.5 Voice and Its Disorders

i. Anatomy, neuroanatomy, and physiology of the larynx and of normal voice production and laryngeal airway across the lifespan, and application of this knowledge to clinical practice.

ii. Normative data for each dimension of voice production and laryngeal airway across the lifespan (e.g., loudness, pitch, fundamental frequency, resonance, quality) and their application to clinical practice.

iii. Differences between normal and disordered voice production.

iv. Differences between normal and disordered laryngeal airway function (chronic throat clearing, chronic cough, breathing attacks) as they relate to differences between medical etiology and functional etiology (e.g., asthma, reflux, allergies, other medical diagnoses).

v. Factors and processes that may impact voice production (e.g., expression of gender identity, removal of larynx, hearing loss, neuromuscular involvement, musculoskeletal tension, vocal fold pathology, systemic conditions, affective states, environmental factors).

vi. Factors and processes that may impact voice production and laryngeal airway sensitivity (e.g., chronic cough, chronic throat clearing, irritable larynx).

vii. The physiological basis and perceptual and acoustical characteristics of alaryngeal speech and speech produced via esophageal means, tracheoesophageal prostheses, and/or mechanical devices.

viii. The physiological basis and perceptual and acoustical characteristics of speech with individuals who have a tracheostomy.

ix. Characteristic profiles of clients with a diagnosis of organic or nonorganic vocal pathology or laryngeal airway disorders.

x. The psychosocial, educational, and vocational impact of voice or laryngeal airway disorders.

Section 2.6 Resonance Disorders

i. Anatomy and physiology of the velopharyngeal sphincter and resonating cavities (pharynx, oral cavity, nasal cavity) and application of this knowledge to clinical practice.

ii. The perceptual characteristics of normal versus abnormal resonance including hypernasality, hyponasality, cul-de-sac or mixed resonance, in addition to knowledge of the other perceptual characteristics of velopharyngeal dysfunction (e.g., audible/ turbulent nasal air emission, compensatory misarticulation, reduced intraoral pressure, dysphonia).

iii. Etiologies associated with resonance disorders including structural causes (e.g., cleft lip/palate, craniofacial anomalies, adenoidectomy, nasopharyngeal obstruction), neurogenic factors

(e.g., dysarthria, apraxia), and velopharyngeal mislearning (e.g., phoneme-specific).

iv. Articulatory, vocal, phonological, linguistic, and psychosocial factors associated with velopharyngeal dysfunction and other resonance disorders.

v. Communication profiles of subgroups of clients (e.g., CLP, 22q11.2 deletion syndrome) with velopharyngeal dysfunction and other resonance disorders.

vi. The psychosocial, educational, and vocational impact of velopharyngeal dysfunction and other resonance disorders.

vii. The impact of velopharyngeal dysfunction and other resonance disorders on other speech subsystems (e.g., respiratory, laryngeal, articulatory).

Section 2.7 Fluency Disorders

i. Characteristics of typical disfluency, developmental stuttering, acquired stuttering (neurogenic or psychogenic stuttering), and cluttering.

ii. Potential causes and multifactorial nature of developmental stuttering, including sensorimotor, linguistic, psychosocial, genetic, and environmental factors.

iii. Potential causes and predisposing factors of acquired stuttering and cluttering.

iv. The psychosocial, educational, and vocational impact of fluency disorders on clients, and the related impacts on families and significant others.

Section 2.8 Augmentative and Alternative Communication

i. Various low- and high-tech communication devices, symbols, visual and written aids, gestures, strategies, and techniques that are components of an augmentative and alternative communication (AAC) system.

ii. How to identify clients who may benefit from an AAC system.

iii. Typical communication development when implementing AAC.

iv. Social, pragmatic, educational, vocational, and technical impact of AAC methods, and their application for face-to-face and written communication.

v. Methods for evaluating skills and abilities that may impact effective and efficient oral and written communication while using an AAC system (e.g., cognitive, linguistic, sensory, motor, visual, and hearing abilities).

Section 2.9 Dysphagia

i. Normal anatomy, physiology, and neurophysiology, particularly in relation to the upper aerodigestive tract.

ii. Different theoretical frameworks related to feeding and/or swallowing assessment and intervention.

iii. Profiles of specific populations who may present with dysphagia (e.g., developmental disorders, neurogenic disorders, surgical procedures).

iv. Social, emotional, cultural, ethical, vocational, and economic impacts of dysphagia.

v. Voice, resonance, and neurologically based speech disorders, and their relationship to dysphagia.

vi. Neuroanatomy, including cranial nerves, and its interrelationships with oromotor, pharyngeal, laryngeal, and respiratory systems.

vii. Risk factors associated with dysphagia and potential implications for the client.

viii. Principles of exercise physiology.

Section 2.10 Hearing Disorders and Related Speech-Language Disorders

i. Anatomical and physiological characteristics of hearing disorders.

ii. Factors causing or increasing risk of hearing loss, including environmental and genetic factors.

iii. Signs and symptoms of hearing disorders, including associated speech, language, and voice profiles for prelingual and post-lingual onset.

iv. Different theoretical frameworks relevant to the speech and language and communication problems of people with hearing impairments.

v. Incidence and prevalence of hearing impairment in specific populations.

vi. Acoustics of speech and its role in speech perception and communication.

vii. The psychosocial, educational, vocational, cognitive and other health consequences of hearing impairment.

viii. The evidence base regarding benefits of audiologic rehabilitation.

ix. The philosophical underpinnings of sign language (e.g., American Sign Language, Langue des signes québécoise) and other visual communication methods (e.g., Manually Coded English, Signed Exact English).

x. Approaches to habilitation and rehabilitation of speech and language in various sensory modalities for people with hearing impairment (e.g., manual, total, aural/oral, visual, tactile communication), and their advantages and disadvantages.

Unit Three: Clinical Expert – Cross-Cutting Assessment and Intervention Standards

The speech-language pathologist demonstrates the ability to:

Section 3.1 Identify Individuals Requiring Speech-Language Pathology Services

i. Collect and review information from relevant sources (e.g., referrals, reports, consultation) to determine an individual's need for a speech-language pathology assessment.

ii. Engage in screening programs (e.g., infant, school-aged, feeding and swallowing) to identify individuals requiring speech-language pathology services.

Section 3.2 Plan, Conduct, and Adjust an Assessment

i. Collect and analyze pertinent information prior to the assessment, including intake information and previous reports.

ii. Use principles of assessment to develop assessment plans (e.g., tools, strategies, resources, environment) that reflect background information about the client (including personal and environmental factors), known or suspected primary and concomitant disorders (e.g., medical, emotional), knowledge of normal and disordered communication or swallowing as well as risk factors for communication or swallowing disorders; modify this plan when appropriate.

iii. Demonstrate knowledge of principles underlying clinical assessment, including standardized and non-standardized procedures and their advantages, disadvantages, limitations, representativeness, and applicability to the individual management plan.

iv. Conduct a clinical interview with the client and other pertinent individuals that is relevant to the diagnosis, presenting complaints, and management of the communication or swallowing disorder.

v. Administer valid, accurate, and reliable assessment measures and/or procedures (quantitative and/or qualitative), as appropriate to the client and circumstances, and accurately listen to, observe, and document all responses and observations.

vi. Assess the impact of the client's personal and environmental factors (e.g., coping style, housing) in the client's environment (home, community, school, work) on communication or swallowing needs and effectiveness.

Section 3.3 Analyze and Interpret Assessment Results

i. Analyze formal, informal, quantitative, and qualitative assessment results, including accurate scoring and interpretation of standardized tests.

ii. Formulate a diagnostic statement about the client's communication or swallowing skills, including the impact on daily activities and educational, vocational, and psychosocial needs; include functional prognosis, as appropriate.

Section 3.4 Develop and Share Recommendations Based on Assessment Results

i. Develop evidence-informed recommendations, including potential referrals to other professionals, based on the assessment findings and available resources.

ii. Discuss the assessment results, recommendations, and implications with the client and other relevant individuals, as permitted by the client.

Section 3.5 Develop and Implement a Realistic, Evidence-Informed, and Measurable Intervention Plan

i. Utilize a biopsychosocial framework (e.g., the World Health Organization International Classification of Functioning, Disability, and Health) to establish and prioritize intervention aims that reflect the client's strengths, needs, values, expectations, and constraints.

ii. Develop specific, measurable, realistic, time-limited targets to reach the aims.

iii. Demonstrate knowledge of different approaches to intervention (including assistive devices/systems), the evidence and theoretical bases behind the approaches, their advantages, disadvantages, limitations.

iv. Select and apply an appropriate intervention approach and service delivery model (e.g., periodic review, consultation, facilitator training, direct 1:1 therapy, direct group therapy, home/school program, interdisciplinary therapy) that is applicable to the client context.

v. Develop and implement appropriate clinical activities and environmental supports for meeting treatment targets and facilitating generalization and maintenance of skills and strategies, including use of appropriate modalities, materials, and technologies, use of feedback and modelling, and provision of education, support, training, and counselling to the client, family and/or significant others.

vi. Develop and implement outcome measures to evaluate progress on an ongoing basis.

vii. Modify or discontinue the intervention (goals, approach, service delivery model) in keeping with outcomes and client feedback.

viii. Refer to other healthcare or educational professionals as required; identify and recommend alternative services when client needs are beyond the professional limitations of the speech-language pathologist.

ix. Provide training, tasks, and feedback to support personnel to meet the clinical objectives, as appropriate to the jurisdiction, clinical activity, and individual competencies.

Section 3.6 **Share knowledge of concepts and strategies for prevention of communication and swallowing disorders across the lifespan (e.g., primary, secondary, and tertiary preventive strategies)**

Section 3.7 **Consider sociodemographic and sociocultural factors in all aspects of assessment and intervention, including but not limited to factors such as race, ethnicity, gender identity, and differential access to services by Indigenous and other underserved populations; and intersections among these factors, communication, and swallowing**

Unit Four: Clinical Expert – Disorder-Specific Assessment and Intervention Standards

The speech-language pathologist demonstrates the ability to:

Section 4.1 **Developmental Speech Sound Disorders**

i. Assess articulation, and/or phonology at the sound, syllable, word, sentence, and discourse levels.

ii. Assess speech intelligibility and factors that influence it.

iii. Apply specific procedures for examination of the speech production mechanism.

iv. Assess auditory/speech perception and phonemic awareness skills.

v. Use procedures to stimulate sound production.

Section 4.2 **Motor Speech Disorders**

i. Assess physiological support for speech production (including respiratory, phonatory, articulatory, and resonatory subsystems), using instrumental and non-instrumental procedures as appropriate.

ii. Assess phonation, resonance, articulation, and prosody using perceptual and acoustic measures.

iii. Assess speech intelligibility and factors that influence it.

iv. Assess client's and/or communication partner's perception of speech (e.g., perceived impact on daily activities and social roles/participation).

v. Apply knowledge of motor learning principles to intervention hierarchies.

Section 4.3 Developmental Language Disorders

i. Develop assessment plans that include the impact of monolingual versus multilingual language development.

ii. Assess spoken and written language, including phonology, morpho-syntax, semantics, and pragmatics.

iii. Develop and implement outcome measures to evaluate progress on ongoing basis (e.g., meeting IEP goals).

Section 4.4 Acquired Language and Cognitive-Communication Disorders

i. Assess phonology, orthography, morpho-syntax, semantics, and pragmatics in different genres (e.g., discourse, conversation, narrative, and expository speech), and cognitive functions related to language (e.g., aspects of memory, attention, executive functions).

Section 4.5 Voice and Its Disorders

i. Assess voice production and laryngeal airway using appropriate perceptual, physiologic, aerodynamic, and acoustic measures.

ii. Evaluate options for laryngeal sound production when appropriate.

iii. Evaluate options and readiness for voice production after tracheostomy.

iv. Develop evidence-informed recommendations, including potential referrals to other professionals (e.g., otolaryngology, gastroenterology, neurology), based on the assessment findings and available resources.

Section 4.6 Resonance Disorders

i. Assess velopharyngeal and resonance function, and impact on speech characteristics, using perceptual, acoustic, and articulatory measures.

ii. Identify the need for aerodynamic and instrumental assessment (e.g., Multiview video fluoroscopy, naso/endoscopy).

iii. Develop evidence-informed recommendations, including potential referrals to other professionals (e.g., speech-language pathologist at cleft palate/craniofacial centre, plastic surgery, genetics, otolaryngology, other rehabilitation professionals).

iv. Describe and summarize indications for surgical, prosthetic, and nonsurgical interventions for resonance disorders.

Section 4.7 Fluency Disorders

i. Assess types and frequency of disfluencies, severity, rate of speech, and secondary characteristics.

ii. Assess attitudes, behavioural and cognitive reactions to the fluency disorder.

Section 4.8 Augmentative and Alternative Communication

i. Use principles of assessment to develop assessment plans that take seating and mobility into consideration.

ii. Assess current and previous communication methods and needs, including multimodal communication approaches such as gestural, visual, and written aids, and various communication devices.

iii. Assess language, speech, symbol, and literacy needs.

iv. Collaborate with other team members, ensuring there is an appropriate access method for an AAC system including consideration of eye gaze, direct selection, and scanning.

Section 4.9 Dysphagia

i. Use principles of assessment to develop assessment plans considering risk factors for both dysphagia and its sequelae, including but not limited to medical history, pharmacologic, pulmonary/respiratory, nutritional, cognitive-linguistic, and behavioural factors.

ii. Assess anatomy and physiology of the upper aerodigestive tract, including oral, pharyngeal, laryngeal, and upper esophageal regions as well as respiratory mechanisms, as they relate to safe and efficient oral/nutritional intact.

iii. Use clinical and/or instrumental measures as appropriate.

iv. Within regulatory framework, demonstrate basic competencies in the use and application of instrumental procedures such as videofluoroscopic swallow study (VFSS) / modified barium swallow study (MBSS), fiberoptic endoscopic evaluation of swallowing (FEES).

v. Assess client's and/or communication partner's perception of swallowing issues (e.g., perceived impact on daily activities and social participation).

vi. Demonstrate knowledge of therapeutic and postural maneuvers, manipulation of bolus (texture, temperature, taste, presentation), alternative routes of nutrition/hydration, and exercise physiology driven activities.

Section 4.10 Hearing Disorders and Related Speech-Language Disorders

i. Apply audiometric information to the speech-language assessment, including recognizing the type (sensorineural, conductive, mixed, unilateral) and degree of hearing loss from an audiogram.

ii. Modify speech and language assessment procedures to accommodate varying degrees of hearing loss.

iii. Obtain a case history regarding use of hearing aids, cochlear implants, and/or assistive technologies for hearing.

iv. Demonstrate basic processes and procedures used to assess unaided and aided hearing.

v. Demonstrate basic procedures for testing if a hearing aid is working properly.

vi. Formulate a clinical conclusion incorporating the importance of hearing health for psychosocial, educational, and vocational well-being.

vii. Modify management plans to accommodate varying degrees of hearing loss.

viii. Implement strategies for managing hearing loss and associated speech-language communication difficulties.

ix. Demonstrate the use, care, and maintenance of hearing aids, assistive listening devices, and amplification systems.

x. Determine the need for further investigation and referral of clients with hearing impairments.

Unit Five: Communicator

The speech-language pathologist and audiologist demonstrate the ability to:

Section 5.1 **Communicate Respectfully and Effectively Using Appropriate Modalities (Spoken, Written, Gestural)**

i. Use language appropriate to the client and context, taking into account all aspects of diversity (e.g., age, culture, gender identification, linguistic abilities, education level, cognitive abilities, emotional state).

ii. Employ environmental and communication strategies to minimize barriers to successful communication, including the use of appropriate modes of communication (e.g., spoken, non-verbal, written, sign, electronic) and by using translators/interpreters, as required.

iii. Adapt communication in response to verbal and nonverbal cues from communication partners.

iv. Communicate in a socially appropriate and respectful manner that is comfortable for the client and demonstrates empathy and openness.

v. Participate respectfully in challenging conversations.

Section 5.2 **Complete Documentation Thoroughly and Accurately, in a Timely Manner**

i. Accurately document informed consent, services provided, and outcomes.

ii. Ensure reports clearly integrate results, client input, analysis, recommendations, goals, and outcomes, in a manner understandable to the target audience(s).

iii. Complete and disseminate documentation in a timely manner.

iv. Comply with regulatory and legislative requirements related to documentation.

Unit Six: Collaborator

The speech-language pathologist and audiologist demonstrate the ability to:

Section 6.1 **Establish and Maintain Effective Team Collaborations to Optimize Client Outcomes**

i. Interact effectively and positively with all team members.

ii. Communicate one's professional roles, responsibilities, and scope of practice in collaborative interactions.

iii. Recognize and respect the roles and perspectives of other professionals.

iv. Participate actively and respectfully in shared responsibilities and decision-making.

v. Manage misunderstandings, limitations, and conflicts to enhance collaborative practice.

vi. Facilitate transfer of care within and across professions.

Section 6.2 **Collaborate with the Client During All Stages of Care**

i. Engage and support the client in identifying concerns, priorities, values, beliefs, assumptions, expectations, and desires in order to inform assessment and intervention.

ii. Demonstrate respect for the client's rights, dignity, uniqueness, and equal opportunity.

iii. Recognize and adapt to all aspects of client diversity (e.g., age, culture, gender identification, linguistic abilities, education level, cognitive abilities, emotional state).

iv. Promote and support the client's (or substitute decision maker's) participation in decision-making.

Unit Seven: Advocate

The speech-language pathologist and audiologist demonstrate the ability to:

Section 7.1 **Advocate for necessary services and resources that support an individual client**

Section 7.2 **Provide information and support to promote a client's self-advocacy**

Section 7.3 **Identify the need for, plan, and deliver promotion and education programs and activities related to communication and/or swallowing disorders, and speech-language pathology services**

Unit Eight: Scholarship

The speech-language pathologist and audiologist demonstrate the ability to:

Section 8.1 **Maintain currency of professional knowledge and performance in order to provide optimal care**

i. Identify one's own professional strengths and areas for development.

ii. Determine one's own goals for competency development.

iii. Develop a plan and implement strategies, including selecting appropriate resources (e.g., literature, mentorship, continuing professional education), for continued development in all competency roles.

Unit Nine: Manager

The speech-language pathologist and audiologist demonstrate the ability to:

Section 9.1 **Manage the clinical setting**

i. Balance competing demands to manage time, caseload, resources, and priorities.

ii. Demonstrate an understanding of the structure, funding, and function of audiology and/or speech-language pathology services within the broader health and education system.

iii. Apply appropriate precautions, risk management, and infection control measures, as required.

iv. Ensure equipment, materials, instruments, and devices are regularly calibrated, up to date, and in good working condition, according to the required standards.

Unit Ten: Professional

The speech-language pathologist and audiologist demonstrate the ability to:

Section 10.1 Maintain professional demeanor in all clinical interactions and settings

i. Obtain informed consent, protect client privacy, and maintain confidentiality (e.g., follow consent procedures to share information with other parties).

ii. Demonstrate professionalism in managing conflict.

iii. Maintain personal and professional boundaries in relationships with clients, colleagues, and other professionals.

iv. Recognize and respond appropriately to the inherent power differential in the client-clinician relationship.

v. Demonstrate professionalism in all communications, including those involving electronic platforms.

vi. Demonstrate responsible, reliable behaviour, and accountability for actions and decisions.

Section 10.2 Practice ethically

i. Adhere to professional code of ethics, as defined within one's jurisdiction.

ii. Recognize and use critical judgment to respond to ethical issues encountered in practice.

iii. Recognize and use critical judgment to respond to actual or perceived conflicts of interest.

iv. Demonstrate honesty and integrity and act in the best interests of the client.

v. Identify and mitigate own biases, as they relate to the care of a client.

Section 10.3 Adhere to professional standards and regulatory requirements

i. Demonstrate knowledge of the roles of professional associations and regulatory bodies and the qualifications required for practice.

ii. Stay informed of and comply with professional standards and regulatory and legislative requirements within one's jurisdiction.

iii. Practice within the profession's scope of practice and one's personal capabilities.