College of Audiologists and
Speech-Language Pathologists of Ontario
Ordre des Audiologistes et
des Orthophonistes de l'Ontario

PRACTICE STANDARDS AND GUIDELINES FOR DEVELOPMENTAL STUTTERING

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EXECUTIVE SUMMARY

This document outlines the standards of practice for all speech language pathologists (SLP) in Ontario when providing services to individuals who stutter. SLPs must have the knowledge, competencies and resources to carry out screening, assessment, and management of stuttering disorders, which is within the SLP's scope of practice. This includes obtaining valid and informed consent, determining the patient's/client's needs, conducting a risk management evaluation, and implementing and monitoring stuttering management programs in collaboration with patients/clients as outlined in the Components of Service Delivery. Throughout the continuum of care, SLPs must provide the patient/client and/or Substitute Decision Maker (SDM) with information, act as a resource, and give them the opportunity to make informed choices about the intervention. SLPs must also provide services that are respectful and responsive to the cultural and linguistic needs of patients/clients and families. All the required components in stuttering intervention must be documented.

A) PREAMBLE

Practice Standards and Guidelines (PSGs) ensure quality care by SLPs to the people of Ontario. The intent of this PSG is to provide SLPs in Ontario with an overview of the assessment and management process, and to provide some of the knowledge necessary to make responsible decisions regarding stuttering service delivery. This PSG is meant to be used as a decision-making framework. It is not intended to be a tutorial or to provide SLPs with all the information required to practice in the area of stuttering.

This PSG primarily focusses on "must" statements which establish standards of practice that members must always follow. In some cases, "must" statements have been established in legislation and/or CASLPO documents. In other cases, the "must" statements describe standards that are established for the first time in this PSG.

"Should" statements describe best practices. To the greatest extent possible, members should follow these best practice guidelines. The inclusion of a particular recommendation in these standards and guidelines does not necessarily indicate that the practice is supported by high level research evidence (randomized clinical trials), but rather that the guideline is grounded in current best evidence derived from a broad review of the research literature (ranging from single case reports to systematic reviews), expert opinion and from the experience of SLPs providing services to patients/clients.

SLPs should exercise professional judgment, taking into account the environment(s) and the patient's/client's needs when considering deviating from these standards and guidelines. SLPs must document and be prepared to fully explain departures from this PSG.

B) DEFINITION OF SERVICE

Developmental Stuttering is a disorder of speech production in which the natural flow of speech is disrupted by involuntary repetitions of sounds, syllables or words, sound prolongations, blocks and/or pauses. It has its origins in childhood and is not attributable to brain injury or disease.

This PSG focuses on patients/clients of all ages who may require SLP services for developmental stuttering based on their communication, educational, vocational, social, health and emotional needs. Criteria for intervention are the identification of impairment in fluency or potential development of impairment that hinders full activity or participation in communicative interactions.

Stuttering by nature varies over time, across situations and according to linguistic variables. Normal dysfluencies exist in all speakers and in a higher frequency in children. This may make it difficult to distinguish normal dysfluencies from stuttering. However, dysfluencies that are less common and more likely to be classified as stuttering include:

- Excessive repetitions, particularly when the units of repetition are syllables or sounds as opposed to whole words or phrases
- Prolongations of sounds
- Laryngeal, articulatory and/or respiratory blocks

Signs of physical effort or tension might also accompany dysfluencies, and are typically considered accessory or secondary behaviours, which might manifest as eye blinking, increased pitch or loudness, grimacing, etc. In addition, less observable or covert reactions that a patient/client may have to stuttering may become a significant part of the disorder. These also contribute to the communication impairment and may include:

- Avoidance of words and situations
- Fear, anticipation
- Feelings of lack of control

Although this PSG focusses on developmental stuttering, some of the standards and guidelines may apply to other fluency disorders.

INCIDENCE AND PREVALENCE

The prevalence of developmental stuttering is estimated to be 1% with the lifetime incidence of up to 5% (Guitar, 1998). The proportion of boys to girls who stutter is higher and increases with age. That is, in the preschool years, the ratio of boys to girls is 2:1 but this ratio shifts to 4 or 5:1 in older, school-aged children and adults, reflecting differential spontaneous recovery among boys and girls (Drayna, Kilshaw, & Kelly, 1999). Genetics plays an important role in the aetiology of developmental stuttering, as evidenced by research studies of identical and fraternal twins, and studies of family histories of stuttering. In addition, persistence and recovery from developmental stuttering appear to have a genetic basis (Yairi, Ambrose, and Cox, 1997).

The onset of developmental stuttering occurs at any age from the beginning of speech, usually in the early years, to approximately age nine (Bloodstein & Bernstein-Ratner, 2007). In some instances stuttering starts in adolescence or adulthood in which case, the possibility of neurological disease or trauma needs to be considered.

Probability of recovery decreases sharply with age; if the stuttering persists into adolescence, recovery is unlikely (Curlee, 1998). Roughly 3-5% of children stutter (according to the definition provided above), however, anywhere from 50 to 80% will stop stuttering before reaching adolescence. There is evidence that some forms of early treatment may facilitate and enhance recovery in children (Onslow, Packman, and Harrison, 2003; Lincoln & Onslow, 1997; Curlee, 1998).

Approximately 1% of adults experience persistent stuttering (Guitar, 1998). In most cases, these individuals are affected seriously by stuttering to the extent that it negatively affects their social, educational, vocational and/or psychological functioning (Corcoran & Stewart, 1998).

There are other fluency disorders that may arise in childhood or adulthood but should be distinguished from developmental stuttering. These include cluttering, acquired neurological stuttering and acquired psychogenic stuttering. Given that speech dysfluency may be an early or singular sign of neurological disease or trauma, it is important to investigate any adult-onset stuttering by making the appropriate medical referral(s).

PHILOSOPHY OF SERVICE

The philosophy of this guideline is to be consistent with the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) (2001) to support the use of unified terminology across health-related disciplines (Eadie, 2001; Threats, 2002). The multidimensional nature of developmental stuttering, as identified in the WHO model, needs to be recognized in descriptions of the disorder as illustrated below.

Dimension	Definition	Stuttering Examples
Impairment	Problems in body structures and/or body functions such as significant deviation or loss	Disruption or inhibition of verbal expression due to involuntary dysfluencies in the flow of speech or anticipated dysfluencies in the flow of speech
Activity/ Participation	Aspects of functioning from an individual or societal perspective	Impaired ability to start or engage in a conversation, ask questions, introduce or expand on a topic, read aloud, interact with unfamiliar people, participate in group settings such as speaking on the phone and in a classroom
Contextual Environmental Factors	Factors that impact disability ranging from the individual's immediate environment to the general environment	Reduced social acceptance, loss of listener attention, possible diminished potential to access a full range of academic, vocational and social opportunities due to communities' perceptions of stuttering

| Contextual Personal Factors | Individual factors that influence performance in the environment | Tendency to avoid situations or words due to anxiety and/or poor self-esteem |

Services offered by SLPs to individuals with developmental stuttering encompass all components and factors identified in the WHO framework. That is, SLPs work to improve quality of life by reducing stuttering behaviours, lessening limitations to activity and participation and/or addressing the environmental and personal factors of the patient/client. The role of SLPs includes identification, screening, assessment, and management of stuttering.

C) SCOPE OF PRACTICE

The [Audiology and Speech-language Pathology Act, 1991](#) states:

> "The practice of speech-language pathology is the assessment of speech and language functions and the treatment and prevention of speech and language dysfunctions or disorders to develop, maintain, rehabilitate or augment oral motor or communicative functions."

Stuttering is widely accepted as a disorder of speech, thus the screening, assessment, and management of developmental stuttering are well within the speech-language pathology scope of practice. However, because the progress of this disorder may involve significant psychological processes, the SLP must take measures to ensure adequate preparation to manage this facet of intervention through continuing education. In some instances, intervention may include a referral for psychological counselling when the emotional, psychological and/or behavioural components extend beyond the limits expected with a stuttering disorder. As well as providing fluency intervention, members are expected to act as a resource for patients/clients, their families and other service providers who encounter the individual. This may involve education of the public regarding referral indicators, how to access speech-language pathology services, as well as promoting awareness of strategies to assist individuals who stutter in maximizing their fluency and communication skills or acceptance of stuttering.

D) RESOURCE REQUIREMENTS

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Standard **D1**	SLPs must ensure availability of standardized assessment materials and appropriate equipment for stuttering assessment and management.

In order to provide stuttering intervention, SLPs must have access to audio and/or video recording equipment, and a variety of standardized and non-standardized tests and materials. Materials should include procedures for measuring fluency, stuttering severity, attitudes toward stuttering and speech, self-perception, situational fears and avoidance behaviour. A variety of speech samples must be obtained and analysed with respect to stuttering frequency, types of dysfluencies, and secondary behaviours.

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Standard **D2**	SLPs must ensure that all equipment (including clinical tools, assessment and therapy materials) is functional and calibrated as required.

All equipment must be maintained according to manufacturers' specifications and recommendations. SLPs must ensure that all equipment used is disinfected/sanitized in accordance with the Infection Prevention and Control Guidelines for Speech-Language Pathology and calibrated for proper working order, as required in CASLPO's 'Code of Ethics' (2011).

Guide **D.1**	SLPs should ensure that the physical environment is appropriate for screening, assessment and management.

SLPs should ensure that the physical environments are, to the greatest extent possible, appropriate for stuttering screening, assessment and management procedures and that privacy is ensured. Whereas standardized assessments may require quiet one-on-one settings, some real world intervention techniques may require the context to be similar to that usually experienced by the individual. It is acknowledged that environments for intervention will be dictated by workplace limitations, space and time constraints, organizational policies and a number of other factors.

E) COLLABORATION REQUIREMENTS

Standard E.1	SLPs must attempt to communicate effectively and collaboratively with peers/teams/co-workers, including members of other professions who are involved with the patient/client, with appropriate consent.

SLPs must attempt to communicate with persons involved with the patient/client in order to maximize the effectiveness of intervention. However, appropriate consent must be sought when communicating with others involved with the patient/client or his/her SDM, as indicated in CASLPO's _Professional Misconduct Regulation_ and the _Personal Health Information Protection Act_ (PHIPA), 2004. Confidentiality is critical with respect to transfer of information, including oral, written and electronic.

Standard E.2	SLPs must be responsive to the patient/client's cultural background as discussed in CASLPO's Position Statement Service Delivery to Culturally and Linguistically Diverse Populations (2000).

Service provision should allow the patient/client a choice that is fully informed and based on unbiased information. In such cases, patient/client choice and confidentiality must be respected.

SLPs must endeavour to provide services that are respectful and responsive to the patient's/client's cultural and linguistic background and the sociocultural factors that affect communication as discussed in CASLPO's Position Statement Service Delivery to Culturally and Linguistically Diverse Populations (2000).

Standard E.3	SLPs must provide concurrent intervention in accordance with the Position Statement Concurrent Intervention Provided by CASLPO Members (2001).

Two or more CASLPO members may be involved concurrently if it is determined to be in the best interests of the patient/client, as indicated by the Position Statement Concurrent Intervention Provided by CASLPO Members (2001). In these situations the following should occur:

- Ensure that the different approaches are complementary and are in the best interests of the patient/client.

- Coordinate management with other SLPs to work simultaneously on stuttering and co-existing problems such as language, phonological or voice problems.

- Sequence management based on a broad objective of improving communication efficiently. This may mean postponing work on language, voice or articulation until fluency is under control, but sometimes it means postponing work on fluency until progress is made with the other disorder, for example, improved intelligibility.

Guide E.1	SLPs should collaborate, when possible, with communication partners who play a pivotal role in the patient's/client's life.

A client-centered approach is fundamental to effective stuttering service delivery. Collaboration with other significant individuals involved in a patient's/client's life (family, friends and other communication partners), should occur when appropriate and possible. With collaboration, communication partners who play a pivotal role in the patient's/client's environment can help to determine which interactive skills are important and can describe the person's success in using these skills in natural environments. The degree to which collaboration can occur is dependent on the patient's/client's or SDM's consent and may be dependent on the setting.

F) HEALTH AND SAFETY PRECAUTIONS

(!) Standard F.1	SLPs must adhere to standard practices for hand washing and use of gloves as outlined in [Guidelines for Infection Prevention and Control for SLPs]().

During the execution of any stuttering service component, the SLP should make every effort to minimize risk and ensure the safety of the patient/client, caregiver(s) and themselves as the clinician. Infection control measures must be taken to prevent and limit the spread of infection, as outlined in [Guidelines for Infection Prevention and Control for SLPs.]() SLPs must adhere to standard practices for hand washing and use of gloves in order to ensure that precautionary measures for blood and fluid-borne pathogens are taken.

(!) Standard F.2	Any equipment used in stuttering intervention must be disinfected using high-level procedures before reuse, or be discarded. Additional precautions as specified by the practice setting or health care providers take precedence.

Any equipment used in stuttering intervention which comes into contact with the patient/client requires high-level disinfection if that equipment is to be reused. Additional precautions may be necessary where specified by the practice setting or the patient's/client's health care providers, and these would take precedence.

G) COMPONENTS OF SERVICE DELIVERY

1. CONSENT

ⓘ Standard G.1	SLPs must obtain valid and informed consent for all intervention as indicated in the CASLPO Position Statement Consent to Provide Screening and Assessment Services. SLPs must evaluate capacity if the ability to give consent is in doubt. SLPs must also obtain knowledgeable consent for the collection, use and disclosure of information obtained during intervention. SLPs must document all verbal and written consents received regarding intervention.

SLPs must obtain valid and informed consent from the patient/client or SDM, as indicated in the CASLPO Position Statement Consent to Provide Screening and Assessment Services (2007) for all interventions.

To obtain informed consent, as defined in the *Health Care Consent Act, 1996*, it is necessary to provide the following information: the nature of the service, the expected benefits, any probable or serious risks and side effects, alternative courses of action, and the likely consequences of not receiving service for stuttering. SLPs are reminded that the crucial element in obtaining consent is the discussion of the information as described above and not the act of signing a consent form. Informed consent to perform a screening, assessment or treatment can be provided in written or verbal form, which is then documented.

If the patient's/client's/SDM's capacity to provide informed consent is in doubt, the SLP must evaluate the individual's capacity to consent. Capacity evaluation examines the patient's/client's/SDM's ability to understand relevant information and his or her ability to appreciate the reasonably foreseeable consequences of a decision or lack of decision. If the patient/client is found lacking in capacity to consent, the SLP must approach the SDM for informed consent. Further information regarding consent and capacity is found in Obtaining Consent for Services: A Guide for Audiologists and Speech Language Pathologists.

The Personal Health Information and Protection Act (PHIPA), 2004, requires members to obtain knowledgeable consent to the collection, use and disclosure of any information obtained during screening, assessment and or management. This consent can be provided in written or verbal format, which is then documented.

SLPs must document in the patient's/client's record every verbal and/or written consent received regarding screening, assessment and management.

Organizations may have various procedures for obtaining consent for intervention, and for the collection, use and disclosure of information. These may be used if they comply with the Health Care Consent Act, 1996, the Personal Health Information Protection Act, 2004, and CASLPO requirements.

Consent can be withdrawn at any time by the patient/client or by his /her SDM.

2. RISK MANAGEMENT DETERMINATION

SLPs must take steps to minimize any risks associated with the intervention. These risks include but may not be limited to:

2.A   RISKS ASSOCIATED WITH IDENTIFICATION

① Standard **G.2**	SLPs must sample a broad variety of speaking situations before coming to a conclusion regarding the presence or absence of stuttering behaviour.

The risk of identifying a disorder that is not present may result in unnecessary concern for the patient/client and family. Conversely, not identifying stuttering behaviour that is present may result in detrimental social, educational, or vocational consequences associated with untreated developmental stuttering. Given the variable nature of stuttering, the SLP must make reasonable efforts to sample a variety of speaking situations and/or environments prior to determining whether there is a stuttering disorder.

2.B   RISK OF DELAYED OR INAPPROPRIATE INTERVENTION

① Standard **G.3**	SLPs must respond to referrals in a timely manner and consider all factors before selecting and initiating a treatment approach.

Delayed or inappropriate intervention may result in increasing frequency and severity of stuttering behaviours as well as the development of inappropriate compensatory strategies. However, with young children, a balance must be sought between waiting to see if the behaviours spontaneously resolve, and initiating intervention. The SLP should take into consideration the time of onset, types of stuttering and family history.

2.C RISK OF INCREASED ANXIETY

① Standard **G.4**	SLPs must strive to understand the relationship of anxiety and stuttering to inform their interventions.

SLPs must understand the relationship between anxiety, different speaking situations and stuttering. SLPs must take care to minimize anxiety by understanding the patient's/client's stressors. The SLP should also help the patient/client to determine factors that reduce anxiety (Bloodstein & Bernstein-Ratner, 2007; Alm, 2004).

2.D   RISK OF ASSOCIATING FLUENCY SOLELY WITH THE CLINICAL ENVIRONMENT

(!)

Standard
G.5

SLPs must work to decrease the patient's/client's dependence on the clinician and the clinical environment.

SLPs must be aware of the tendency for patients/clients to become over-dependent on the clinician and the clinical environment to achieve and/or maintain fluency. The SLP should focus on the transfer of fluency and expanding treatment environments as much as possible.

3. PROCEDURES: CONTINUUM OF CARE

The following is an overview of developmental stuttering intervention, which includes the following components of care:

- Screening
- Assessment
- Direct treatment (including establishment, transfer/generalization and maintenance)
- Indirect treatment (which may include mediator training, environmental changes, attitudinal change and preventative strategies)
- Education
- Discharge planning

The continuum of care will vary depending on the age/developmental stage of the patient/client. For example, a young child with emerging stuttering may benefit more from indirect treatment and monitoring than an older child or adult. Direct treatment strategies may then be employed if no improvement is evident. That is not to say that indirect approaches are always part of intervention for a young child, but rather that this is more likely than for an older child or adult.

Similarly, the continuum of care for an adult is more likely, but not necessarily, to include attitudinal changes (than in the care for a preschool child). Certain procedures may not be appropriate, especially when cognitive skills or developmental stages do not allow, or when

assessment or treatment outcome measures indicate they are not necessary. If these components of care are not provided, a clinically justifiable rationale must be documented.

Central to the provision of stuttering intervention is a patient/client-centred approach. Involvement of the patient/client, as being the one who stutters, or the parent/guardian in the case of children, is essential. The nature of a stuttering disorder is defined by the WHO ICF (WHO 2001), in part, by limitations in activity and participation and is influenced by environmental factors and the patient's/client's personal characteristics. These factors must be considered in all aspects of service delivery. Stuttering intervention must be customized to the specific needs of the patient/client, ensuring that language, cultural and personal considerations are respected.

CONTINUUM OF CARE: COMPETENCIES

ⓘ Standard G.6	SLPs must ensure that they have the required competencies for stuttering intervention.

SLPs must ensure that they have the required competencies and practice within their area of competence "as determined by their education, training and professional experience" Code of Ethics (2011). SLPs should refer the patient/client to other professionals with regard to issues outside of the speech-language pathology scope of practice. Further details are available in the Scope of Practice section of this PSG.

DIAGRAM TO SHOW POTENTIAL STUTTERING CONTINUUM OF CARE

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                        │     CONSENT     │
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          ┌─────────────┐              ┌─────────────┐
          │  SCREENING  │              │ ASSESSMENT  │
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                 │    (YES)        (NO)       │  (YES)
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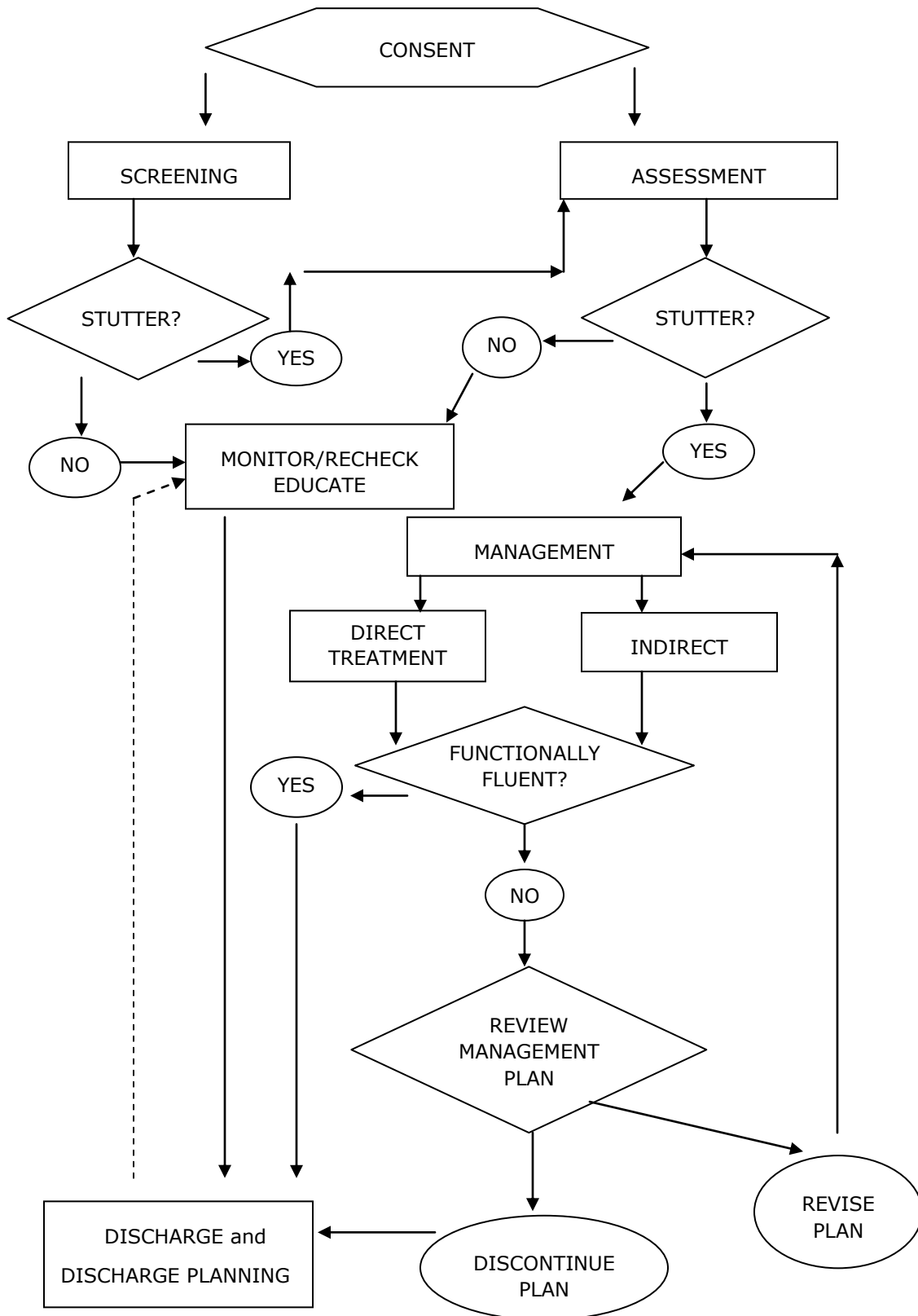
3. PROCEDURES: SCREENING

Screening is defined as the use of pass/refer measures by a SLP in accordance with the member's scope of practice. Screening may also result in recommendations for assessments or services in areas other than speech language pathology.

3.1. SCREENING COMPETENCIES

- Demonstrate knowledge and skills to select or develop appropriate screening measures, administer them, interpret the results in order to identify the presence or absence of signs of emerging or persistent stuttering and recommend further assessment.

- Demonstrate knowledge of roles and responsibilities of other professionals who are involved in early identification of speech and language disorders.

- Demonstrate knowledge and skills required to supervise support personnel (if applicable) as outlined in the Position Statement on Use of Support Personnel by SLPs:

     Ability to train and supervise support personnel involved in screening.

     Know when it is appropriate to utilize support personnel.

(!) Standard **G.7**	SLPs must be aware that screenings may result in false negatives, i.e., passing patients/clients when a stuttering disorder exists.

By the virtue of the variable nature of stuttering, SLPs must be aware that stuttering screenings may have a more inherent risk of resulting in false negatives, i.e., passing patients/clients when a disorder exists (Felsenfeld, 2000; Onslow, 1992).

Support personnel, supervised by SLPs, may perform specific pass/refer screening procedures, in accordance with CASLPO's Position Statement Use of Support Personnel by Speech Language Pathologists.

3. PROCEDURES: ASSESSMENT

3.2. ASSESSMENT COMPETENCIES

- Demonstrate knowledge and skills to differentiate stuttering from other disorders of speech and language:

a) Determine features that may differentiate between normally non-fluent speech and established stuttering.

b) Determine features that may distinguish developmental stuttering from cluttering, neurogenic stuttering, psychogenic stuttering, disorders of language, articulation, and learning with an understanding of the manner in which such disorders may interact.

c) Relate the findings of language, articulation, voice, and hearing tests to the impact on stuttering.

d) Recognize the degree of variability in observable stuttering and ability to investigate further, especially when reported stuttering is not evident.

- Demonstrate knowledge of associated factors affecting stuttering such as language, phonology, articulation, voice, hearing, cognition, behaviour, and communication dynamics.

- Demonstrate accurate selection, administration, and interpretation of assessment procedures in order to identify the presence, nature and functional implications of stuttering.

  a) Recognize the risk factors for persistent stuttering in children e.g., family history, length of time from onset, severity.

  b) Recognize features that assist in differentiating between primary (core) stuttering behaviours and secondary behaviours.

  c) Identify dysfluencies by type (prolongation, repetition, blocks, etc.).

  d) Identify avoidance behaviours, struggle behaviours, and escape behaviours.

  e) Identify additional features of fluency such as prosody, speech rate, effort, and continuity of movement.

- Demonstrate knowledge and skills to communicate the results of an assessment, the characteristics of stuttering disorders, the current theories regarding etiology, and the possible intervention options.

ASSESSMENT OF DEVELOPMENTAL STUTTERING:

The purpose of a stuttering assessment is to collect information regarding observable dysfluent and fluent behaviours, concomitant features and reported speech behaviours not observed in order to determine if a stuttering disorder exists and the nature of the disorder. For general practice standards and guidelines please refer to the PSGs for the Assessment of Children by SLPs and the Assessment of Adults by SLPs.

	SLP stuttering assessments must be based on case history information, standardized and non-standardized assessment protocols that include consideration of stuttering variability. Assessments must include identified areas of concerns and be patient/client and family centered.
Standard G.8	

Background information concerning the origin of the stuttering, and its course of development must be applied to management planning. Information about a patient's/client's social, physical, behavioural, and speech development can be obtained in the following ways:

- Completion of questionnaires or other written materials designed to obtain potentially relevant background information.

- Interviewing the patient/client, the patient/client's family or others about developmental milestones of motor control, social-emotional behaviour, speech and language development, and cognitive development.

Use appropriate standardized and/or non-standardized assessment procedures including, but not restricted to the following:

- Obtaining speech samples that are as representative as possible of the patient's/client's speech in everyday use, including recorded samples obtained by patients/clients/parents/SDMs. All features of the stuttering behaviour, if not directly, then by report (e.g., parent/caregiver reports other forms of stuttering, adult reports of covert stuttering) should be documented.

- Generating, from live and recorded speech samples and observations, quantitative and qualitative descriptions of the patient's/client's fluent and stuttering speech behaviours. Measures that may be used include, but are not limited to:

  Identifying and counting the frequency of primary (core) and secondary stuttering behaviours and distinguishing normal non-fluencies from stuttering.

  Computing percentage of syllables or words stuttered.

  Measuring speech rate (intended syllables per minute with pauses included) and articulatory rate (syllables per minute with pauses excluded).

  Describing qualitative aspects of fluency, such as apparent level of tension, emotional reactivity to speech or stuttering behaviours, coping behaviours, poor eye contact, etc.

  Obtaining self-ratings of severity.

Obtain information about variables that affect the patient's/client's fluency level so that they may be applied to management planning. The following techniques may be used, such as:

- Administering and interpreting standard tests of attitudes toward stuttering, speech, self-efficacy as a speaker, situational fears, and avoidance behaviour.

- Developing and systematically testing hypotheses about variables that might affect fluency levels (e.g., determining if reducing the linguistic level with a patient/child who stutters improves fluency).

- Obtaining information from patients/clients about social circumstances, words, listeners, sentence types and speech sounds that they associate with increased or decreased stuttering.

Obtain information about other variables that might influence clinical outcome such as language, voice, articulation, psycho-emotional function, learning disability, cognitive level, or auditory or visual deficits.

Convey results of the assessment to the patient/client, caregiver and/or family.

(!) **Standard** **G.9**	SLPs must use current and appropriate materials and approaches when conducting an assessment.

SLPs should use current assessment materials and approaches that are appropriate for patient's/client's age, cognition, gender, education, cultural, social and linguistic background, medical and psychological status, physical and sensory abilities, hearing, vocation and that meet the requirements of the specific assessment situation.

Consider patient/client, caregiver and/or family counselling to address the nature of the stuttering disorder and its impact, recommended follow-up plan, and possible outcomes of the intervention. Counselling may take many forms and will be dependent on the situation and environment.

3. PROCEDURES: MANAGEMENT

3.3 MANAGEMENT COMPETENCIES

- Demonstrate knowledge and skills to formulate a program of direct treatment of stuttering:

    a) Know appropriate treatment techniques and procedures and the benefits and risks of each.

    b) Know the features that contribute to perceptually fluent speech.

    c) Be aware of the interaction and potential compromise between a monitored speech pattern and natural sounding speech quality.

    d) Know principles and procedures of conditioning and learning as they apply to modifying speech behaviours.

    e) Know the principles of transfer/generalization and maintenance of fluency.

- Demonstrate knowledge and skills to develop and implement an indirect treatment for stuttering:

    a) Know appropriate indirect treatment approaches and strategies and the benefits and risks of each.

    b) Identify environmental factors that influence the patient's/client's fluency.

    c) Identify internal factors that may influence the patient's/client's fluency.

- Demonstrate knowledge and skills to counsel and develop the skills of family, support personnel, and other communication partners:

    a) Know mediator-training techniques to assist individuals in the patient's/client's environment to facilitate fluency.

    b) Know how and when to incorporate support personnel (when applicable).

    c) Know how to assist others in facilitating the patient's/client's generalization of gains made during intervention.

    d) Know community resources in order to facilitate referral to self-help groups.

- Demonstrate knowledge and skills to evaluate a treatment program:

    a) Assess objectively the efficacy of treatment continuously, including input from the patient/client.

    b) Apply necessary modifications to treatment program to reflect unique needs of patient/client.

MANAGEMENT

> ⓘ
>
> **Standard**
> **G.10**
>
> The SLP must have a rationale for the chosen stuttering intervention program and have criteria to begin and end intervention.

Management is the generic term encompassing all recommendations or techniques applied with the intention of optimizing a patient's/client's fluency. SLPs must develop a stuttering management plan for each patient/client according to assessment results. Three subcategories of management will be discussed: direct, indirect, and education.

There is a broad spectrum of management procedures. The approaches described in this document are not considered an exhaustive list but are based on a representation of those that are the most widely used. They are not meant to exclude other evidence-based techniques that benefit a specific patient/client. The SLP must use a clinical rationale for his or her intervention of choice that encompasses age, stuttering severity, and cognitive abilities including self-awareness. The SLP also needs to establish criteria to begin and end intervention.

The patient/client should be given the opportunity to play an active role in setting individually appropriate management goals in partnership with the SLP.

MANAGEMENT: DIRECT TREATMENT

Direct treatment commonly focuses on increasing fluency by directly altering articulatory, respiratory and/or vocal behaviours and directly changing cognitive behaviours in order to facilitate the use of these new speech behaviours. In the very young child, typically five and under, less emphasis is placed on directly changing the articulatory, respiratory or vocal behaviours and more emphasis is placed on reducing stuttering through contingency management strategies, although some direct attention to these behaviours may occur.

(!) Standard G.11	When providing direct treatment, the SLP must address reduction in stuttering severity, transfer and maintenance as part of a comprehensive management plan.

Direct treatment approaches typically involve the following four elements:

1) PROCEDURES TO REDUCE THE FREQUENCY AND/OR SEVERITY OF STUTTERING BEHAVIOURS

- Contingency Management Strategies: techniques that serve to provide reinforcement that is contingent upon fluent speech.

- Fluency Shaping Strategies: speech behaviours that are taught in a systematic, cumulative manner to change the entire speech pattern in order to replace stuttered speech with more fluent speech patterns.

- Anxiety Reduction Strategies: desensitization techniques, which are applied to moments of stuttering as well as speaking situations in order to decrease anxiety associated with speaking.

- Stuttering Modification Strategies: techniques that encourage the patient/client to modify the moments of stuttering as they occur.

2) PROCEDURES TO MINIMIZE OR REMOVE PROCESSES THAT MAY BE MAINTAINING STUTTERING BEHAVIOURS

- Identify and manage external factors that reinforce stuttering or avoidance behaviours (e.g., stuttering is reinforced when a student is excused from assignments because of stuttering).

- Identify and manage external factors or situations that are associated with increased stuttering (e.g., repeated stuttering associated with the use of the phone).

3) PROCEDURES TO FACILITATE THE TRANSFER OF NEW SPEECH BEHAVIOURS TO DAILY COMMUNICATION SITUATIONS

Following the establishment of new speech skills and/or communication behaviours, the SLP must consider transfer as part of a comprehensive management program. Techniques to facilitate transfer of new speech and/or communication behaviours may include:

- Develop a hierarchy of speaking tasks to apply the new skills in progressively more difficult situations.

- Systematic transfer of skills to specific day-to-day speaking situations.

- Set realistic expectations.

4) PROCEDURES THAT FOSTER MAINTENANCE OF FLUENCY

- Develop self-reliance through strategies that enhance self-evaluation and continued improvement in the use of fluency skills.

- Develop independence through strategies that foster effective monitoring of fluency and resurgent stuttering. Strategies should also include monitoring of increased avoidance, anxiety, etc.

- Provide opportunities for the patient/client to discuss maintenance activities and speaking performance in order to identify additional strategies for maintenance of fluency as needed.

MANAGEMENT: INDIRECT TREATMENT

> (!)
>
> **Standard**
>
> **G.12**
>
> When providing indirect treatment, the SLP must consider the appropriate strategies to limit processes that may be maintaining stuttering behaviours.

The purpose of indirect treatment strategies is to increase fluency by changing environmental factors and attitudes. Individuals who interact with the patient/client can

have a significant effect on the development and maintenance of fluency. These approaches are often included in management:

Strategies to limit processes that may be maintaining stuttering behaviours by:

- Counselling the patient/client and significant others.
- Providing experiences that will alter attitudes or beliefs that have a negative impact on fluency.
- Training communication partners, especially with very young patient/clients, to modify their communication style.

MANAGEMENT: EDUCATION

⚠️ **Standard** **G.13**	SLPs must provide education to the patient/client and/or caregiver regarding the nature of the stuttering disorder and how it relates to the assessment, recommendations and management plan.

Education of the patient/client and/or caregiver regarding the nature of stuttering, the results of assessment and recommendations is an essential component of the management plan. The education provided, such as stuttering variability, the distinction between core and secondary behaviours, the physiological basis of stuttering, and the psychological manifestations of stuttering, must be explained in terms that are easily understood.

⚠️ **Standard** **G.14**	SLPs must provide information on services if the SLP is unable to provide them.

Education of the patient/client and/or caregiver should include recommendations for future management and services, and where these might be offered if the SLP is unable to provide them.

3. PROCEDURES: INITIATING INVOLVEMENT OF OTHERS

⚠️ **Standard**	SLPs must recommend involvement of appropriate professionals and provide information about community resources when indicated.

For some patients/clients, there may be other areas of concern, for example, in the areas of language delay or disorder, voice, psychosocial functioning, motor skills, behaviour, cognition, family issues, hearing etc. The SLP must recommend involvement with other professionals when indicated. Community, including online community resources such as support/consumer groups should also be considered for the patient/client and/or family members to obtain additional information and support.

3. PROCEDURES: DISCHARGE PLANNING

3.4. DISCHARGE PLANNING COMPETENCIES

- Demonstrate the ability to determine the need for, and arrange for, appropriate follow-up at discharge.

- Demonstrate knowledge of additional available services that may be appropriate.

! Standard H.16	The SLP must make recommendations for discharge based on clinical findings and make reasonable efforts to secure appropriate resources for the patient/client.

Discharge planning serves to direct interventions toward an appropriate and timely discharge from stuttering intervention. Ideally, the SLP and the patient/client determine the appropriate time and conditions of discharge from stuttering intervention. Typically, the discharge occurs when the patient/client is functionally fluent; however this is not always achievable with all patients/clients at all points in time. Therefore, discharge planning may also include, but is not restricted to, temporary therapy rest or directing patients/clients to other support resources.

3.5. CONTINUING EDUCATION COMPETENCIES

Demonstrate continued acquisition of knowledge and skills necessary to provide quality assessment and management of developmental stuttering disorders:

a) Know the current literature and research in the area of stuttering intervention.

b) Know the current stuttering screening, assessment and management approaches.

c) Apply knowledge to service provision.

J) DOCUMENTATION

ⓘ Standard J.1	SLPs must document all aspects of stuttering service delivery according to the record regulation set out by CASLPO.

All documentation by SLPs regarding stuttering intervention must conform to any record regulation set out by CASLPO.

ⓘ Standard J.2	Communication and collaboration with other educational, psychosocial or health care professionals in the planning or delivery of stuttering services must be documented.

Communication and collaboration with other educational, psychosocial or health care professionals in the planning or delivery of stuttering services must be documented. This would include any referral made by the member to another health care provider as well as documented consent by the patient/client/SDM to collect, use and disclose information.

ⓘ Standard J.3	SLPs must ensure that records are securely stored.

Records must be stored securely in accordance with any CASLPO's and other relevant legislation, such as the *Personal Health Information Protection Act, 2004*.

K) GLOSSARY AND COMMON TERMINOLOGY

ACQUIRED NEUROLOGICAL STUTTERING:

Acquired neurological stuttering is also referred to as acquired stuttering or neurogenic stuttering and is most often associated with a stroke, traumatic brain injury or neurodegenerative disease. Acquired stuttering has also been documented following drug use, epilepsy, brain tumours, or other neurological events which affect normal brain function. Typically, acquired stuttering occurs in persons who have no previous history of developmental stuttering, although in some cases neurological conditions may result in the re-emergence of childhood stuttering or a significant increase in severity of premorbid developmental stuttering. Acquired neurological stuttering may be transient or persistent. (Theys, Van Wieringen, Sunaert, Thijs and De Nil, 2011; Lundgren, Helm-Estabrooks and Klein, 2010; Ward 2010; DeNil, Jokel and Rochon 2007)

ACQUIRED PSYCHOGENIC STUTTERING:

Acquired psychogenic stuttering is a stuttering-like communication disorder which typically has its onset in adulthood in the absence of any significant neurological findings. It is often associated with emotional stress or some other psychological condition. In some cases, such emotional or psychological stress may co-occur with other existing neurological findings making differential diagnosis from acquired neurological stuttering necessary. Acquired psychogenic stuttering is typically categorized as a conversion reaction (Lundgren, Helm-Estabrooks and Klein, 2010; Ward 2010; Guitar 2006).

AFFIRMATION TRAINING:

Affirmation Training is the process of developing internal positive statements.

ATTITUDINAL CHANGE:

Attitudinal change refers to the modification of the thoughts, feelings, reactions and expectations about stuttering by the person who stutters.

AVOIDANCE:

Avoidance occurs when the person anticipates stuttering and chooses not to speak or not to participate in social interaction (situational avoidance) or changes words or the grammatical structure of an utterance from what was intended (linguistic avoidance).

BLOCKS:

Blocks are involuntary stops in the flow of air, voice or movement of articulators.

CLUTTERING:

Cluttering is a fluency disorder that may exist as a separate disorder or may co-occur with other disorders of communication, including stuttering. It is often characterized by a fast, uncontrolled rate of speech that results in truncated, dysrhythmic and at times unintelligible utterances. In addition, language use of persons who clutter may be characterized by poor

organization and incoherence. Typically, the speaker shows a lack of awareness and concern about the communication difficulty. (Van Zaalen-op't Hof, Wijnen & De Jonckere, P.H. 2009; Guitar 2006; Ward 2006).

CONTINGENCY MANAGEMENT STRATEGIES:

Approaches that target fluency development through the systematic use of positive reinforcement of fluent behaviours (e.g., Gradual Increase in Length and Complexity of Utterance –GILCU, Lidcombe Program).

COUNSELLING:

Counselling comprises activities and behaviours that educate and support patients/clients and their families who experience emotional distress related to a communication disorder. Counselling activities may include systematically reducing stress/anxiety related to specific speaking situations, or helping a patient/client accept their communication diagnosis.

The assessment and treatment of cognitive, emotional or behavioural disturbances by psychotherapeutic means is outside an Audiologist's and SLP's scope of practice.

COVERT STUTTERING:

Stuttering exists; however, due to a variety of avoidance strategies, no obvious dysfluencies are heard.

DEVELOPMENTAL STUTTERING:

Developmental stuttering is stuttering that has its origins in childhood and is not attributable to brain injury or disease.

ENVIRONMENTAL MANIPULATION:

Environmental Manipulation involves modification of the external factors that may influence the amount of stuttering. These factors differ from person to person and between children and adults. For example, in the case of children, parents/significant others may be instructed to develop listening skills, reduce negative comments, foster better conversational turns, etc. In the case of adults, they may be instructed in strategies that allow more time to respond in conversations, reduce external noise/distractions, etc.

ESCAPE BEHAVIOURS:

These are behaviours that result from the speaker attempting to complete a stuttered word such as eye blinks, head nods or interjections of starter words/sounds (e.g., uh).

ESTABLISHMENT:

Establishment describes the initial development of fluency skills within limited environments, such as in the clinic or at home.

FUNCTIONALLY FLUENT:

Being functionally fluent is the ability to communicate effectively with minimal hindrance from stuttering. This typically is a result of a reduction in the amount and degree of overt and covert stuttering as well as attitudinal changes.

IN-BLOCK MODIFICATION/ PULLOUT:

This is a deliberate attempt to modify and control a stuttered word before completing the word.

INCIDENCE:

Incidence is the rate of occurrence of new cases of a particular disease or disorder (stuttering) in a population being studied.

INCIPIENT STUTTERING:

The speech behaviors which frequently occur at the initial stages of stuttering such as easy repetitions of whole words, syllables and sounds, as well as effortless sound prolongations.

INTERVENTION:

Intervention includes screening, assessment, treatment (direct and indirect) management, consultation, education and counselling.

LEARNED ASSOCIATIONS:

These are behaviours that become associated with external and internal stimuli, which then become triggers for the behaviour.

MAINTENANCE:

Maintenance refers to the achievement of a stable pattern of functional fluency over time with decreasing involvement of the clinician.

MANAGEMENT:

Management includes treatment (direct and indirect) monitoring, follow up, counselling, education and discharge planning.

MEDIATOR TRAINING:

Mediator training is the process of instructing significant people in the environment of the person who stutters to implement a variety of fluency-facilitating strategies.

NORMAL NON-FLUENCY:

Speech dysfluencies such as hesitations, repetitions of whole words and phrases and insertion of empty, filler words (e.g. "um") which are attributable to language formulation efforts.

PERCEPTUALLY FLUENT:

Perceptually fluent refers to a speech fluency pattern judged by the average listener to be normal, even though it may contain a number of dysfluencies.

POST-BLOCK MODIFICATION/CANCELLATION:

This is a deliberate pause produced immediately after a stuttered word, followed by a deliberate reproduction of that word.

PRE-BLOCK MODIFICATION/PREPARATORY SET:

This refers to the internal rehearsal prior to an anticipated stuttered word.

PREVALENCE:

The prevalence of stuttering is the percentage of a population that is affected with a particular disease or disorder (stuttering) at a given time.

PRIMARY/CORE STUTTERING:

These are the basic, involuntary stuttering behaviours, including repetitions, prolongations and blocks.

PROLONGATIONS:

This refers to the involuntary stretching of individual sounds/phonemes within a word.

PSYCHO-EMOTIONAL PROBLEMS:

These are problems that have both a psychological and emotional component.

PSYCHOSOCIAL PROCESSES:

These are processes of, or relating to, the relationship between social factors and individual thought and behaviour.

REFRAMING:

Reframing involves looking at an event or situation from another point of view in order to reshape the emotional response that comes from viewing the situation in a negative way.

REPETITIONS:

These are the involuntary reiteration of sounds, syllables and/or words.

SCREENING:

Screening is a process where a member applies certain measures that are designed to identify patients who may have a hearing, balance, communication, swallowing or similar disorder[s], for the sole purpose of determining the patient's need for a speech-language pathology assessment, an audiological assessment, or both. This does not include:

- Inadvertently noticing possible stuttering, hearing, balance, communication, swallowing or similar disorder[s], or

- Considering information that is shared about an individual's possible stuttering, hearing, balance, communication, swallowing or similar disorder[s], for the purpose of providing general educational information and/or recommending a referral for a speech-language pathology screening or assessment, an audiological screening or assessment, or both.

SECONDARY BEHAVIOURS:

Secondary behaviours are behaviours that naturally develop to end or avoid the moment of stuttering. These include escape, struggle and avoidance behaviours.

SECONDARY GAINS:

This refers to the benefits of reinforcement experienced as a result of a behaviour that appears to have a negative outcome (e.g., stuttering may result in sympathy).

SELF-EFFICACY:

Self-efficacy is the belief that one's actions are responsible for successful outcomes.

SELF-TALK:

Self-talk is a cognitive process whereby people engage in an internal dialogue to guide their behaviour.

STRUGGLE BEHAVIOURS:

These are effortful behaviours exhibited when trying to complete a stuttered word, such as grimacing, arm movements, tremors, etc.

TRANSFER/GENERALIZATION:

This is the process of learning to apply the fluency skills learned within the clinical setting to the patient's/client's everyday situations.

L) FREQUENTLY ASKED QUESTIONS

WAITING LISTS

1) SLPs may not have control over response time to referrals. What do we do about our long waiting lists for SLP service?

'Timely manner' is a relative term and is determined by your service delivery model and/or workplace environment. When you have the opportunity you must use your clinical judgement regarding prioritization of assessments and caseload.

Advocate for services or processes which reduce waiting times for those patients/clients who stutter.

SCREENING

2) Screening for stuttering is not something that we always do in my setting (School Health Support Services). We receive information from a school board SLP who has already completed a screen to identify the presence of stuttering.

Although screening is included as part of the continuum of care, the PSG for Developmental Stuttering does not require a member to screen. You can use given information and your professional judgement and go straight to a stuttering assessment. However, if you carry out a screen then you should possess the appropriate competencies and follow the relevant standards and guides in this document.

ASSESSMENT/TREATMENT

3) It may not be possible for me to ensure availability of materials and equipment in my setting. Can I provide a good stuttering assessment and treatment without having audio or video recording equipment?

The practice standard in the Resource Requirements section states, "SLPs must ensure availability of standardized assessment materials and appropriate equipment for stuttering assessment and management." It is up to your professional judgement as to where and when you would use this equipment. Bear in mind that there are many instances where recording devices are critical to assessment or intervention and therefore members must ensure they are available. Many smart phones and tablets have recording capabilities. If you use these devices, make sure that the pertinent information is documented, and the file is deleted from your phone or tablet. If you intend to keep the recording, upload or e-mail the audio file to your secure desktop or laptop computer and then delete it from your phone or device. Members must advocate for minimum equipment requirements.

4) Would clients demonstrating less typical/more severe types of stuttering be prioritized or at least given some concessions within the SLP's service provision to address these more severe stuttering types sooner?

The PSG encourages members to advocate for more timely intervention regardless of the presenting speech patterns since these do not always reflect the actual severity of the problem. Moreover, early identification may be of critical importance in preventing further development of stuttering.

5) In my setting it is difficult to sample a variety of speech situations. With preschool children it is often parental report that gives us added information about other speaking environments. It is not possible to see them in other environments.

The Practice Standard in the Risk Management Determination states that "SLPs must sample a broad variety of speaking situations before coming to a conclusion regarding the presence or absence of stuttering behaviour".

Parental or self-reports are useful, but not necessarily accurate. Samples can include recordings made by patient/client/family, or from direct observation of different communication situations created by the member such as a phone call, reading aloud, talking to other people (school secretary, friend, parent etc).

COUNSELLING

6) When would counselling requirements go beyond "the limits expected with a stuttering disorder"?

Counselling comprises activities and behaviours that educate and support patients/clients and their families who experience emotional distress related to a communication disorder, in this case stuttering. All members should be able to educate and support their patients/clients.

Counselling activities may also include systematically reducing anxiety related to specific speaking situations, or helping a patient/client/significant other accept their communication diagnosis, etc. CASLPO's Code of Ethics states that "Audiologists and SLPs shall practice within the limits of their competence as determined by their education, training and professional experience." (Code of Ethics 4.2.2). If you feel that you do not have the knowledge, skills and judgement to address the stressors associated with stuttering, then you should refer the patient/client to another SLP who is more experienced.

If the patient/client shares with you psychosocial/emotional concerns that are unrelated to stuttering, for example, relationship, work or financial difficulties, problems with depression or anger management you must refer the individual to an appropriate professional.

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