



Alberta College of
Speech-Language Pathologists
and Audiologists

Protocol:

Swallowing (Dysphagia) and Feeding

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Contents

PREAMBLE.....	3
A. DEFINITION OF SERVICE.....	3
B. SCOPE OF PRACTICE.....	6
C. TARGET CLIENT POPULATION.....	6
D. RESOURCE REQUIREMENTS.....	6
E. COLLABORATION REQUIREMENTS.....	7
F. HEALTH AND SAFETY PRECAUTIONS.....	8
G. COMPONENTS OF SERVICE DELIVERY.....	8
1. DETERMINATION OF NEED.....	8
2. RISK MANAGEMENT DETERMINATION.....	8
a. RISK OF ASPIRATION AND AIRWAY OBSTRUCTION.....	8
b. RISKS ASSOCIATED WITH INGESTION OF FLUID OR FOOD STIMULI.....	10
c. RISKS ASSOCIATED WITH RADIATION EXPOSURE.....	11
d. RISKS ASSOCIATED WITH DYSPHAGIA MANAGEMENT.....	11
e. RISKS ASSOCIATED WITH NON-ORAL NUTRITION.....	13
3. PROCEDURES.....	13
a. SCREENING.....	13
b. ASSESSMENT OF SWALLOWING AND FEEDING.....	14
c. MANAGEMENT OF SWALLOWING AND FEEDING.....	21
4. DISCHARGE CRITERIA.....	23
5. ADDITIONAL CONSIDERATIONS.....	23
APPENDIX A.....	24
GLOSSARY.....	26
REFERENCES.....	29
ACKNOWLEDGEMENTS.....	30



Protocol: Swallowing (Dysphagia) and Feeding

Protocol: *Describes criteria, activities and procedures that should be adhered to by regulated members of ACSLPA in the provision of specific professional services.
Protocols are evidence-informed*

Preamble

The recommendations outlined in this protocol are an important component in the provision of safe, quality care for swallowing (dysphagia) and feeding disorders. The intent of this document is to provide speech-language pathologists (SLPs) in Alberta with a framework necessary to make responsible decisions regarding swallowing and feeding service delivery. It is not intended to be a tutorial or to provide SLPs with all of the information required to practice in the area of swallowing and feeding.

It should be noted that many SLPs are involved with feeding issues independent of dysphagia (swallowing disorder). Alternatively, clients may present with both dysphagia and additional feeding concerns. Although the full range and complexity of feeding disorders that may present to an SLP is beyond the scope of this document, key components of feeding assessment and intervention will be addressed.

According to Alberta's *Health Professions Act* (HPA) (2000), competence refers to the combined knowledge, skills, attitudes and judgement required to provide professional services. All members of regulated health professions, including SLPs, are ethically responsible for their own competence. This protocol incorporates "must", "should", and "may" statements. "Must" statements establish standards to which members must always adhere. These can be found in ACSLPA's *Standards of Practice* document and in the *Speech-Language Pathologists and Audiologists Professions Regulation* related to restricted activities. "May" and "should" statements within this protocol describe best practices. To the greatest extent possible, members should follow these best-practices. The inclusion of a particular recommendation in this protocol does not necessarily indicate that the practice is supported by high-level research evidence (i.e., evidence from randomized clinical trials), but rather that the recommendation is grounded in current best evidence derived from a broad review of the research literature and/or expert opinion. SLPs should exercise professional judgment, taking into account the environment(s) and the individual client's needs when considering deviation from this protocol.

A. Definition of Service

Swallowing is a behaviour that healthy individuals effortlessly perform more than 1000 times per day. Swallowing is essential for nourishment and hydration, yet also provides us pleasure and is central to social events in our daily lives.

Dysphagia is the term used to refer to an impairment or disorder of the process of deglutition (swallowing) affecting the oral, pharyngeal and/or esophageal phases of swallowing. Dysphagia in itself is not a disease but rather a secondary consequence of one or more underlying pathologies, including neurogenic (e.g., amyotrophic lateral sclerosis, Parkinson's disease, stroke, spinal cord injury), oncologic,

structural, psychogenic, surgical, congenital or iatrogenic (e.g., side-effects of neuroleptic medications, insertion of a tracheostomy tube). Negative consequences of dysphagia can include malnutrition, dehydration, airway obstruction, and aspiration pneumonia, impaired growth and development, reduced rehabilitative potential and quality of life, as well as social isolation. Quality of life for caregivers can also be negatively impacted.

Children develop dysphagia as a consequence of the same diseases and injuries that affect swallowing in adults. Their swallowing function can also be impaired from congenital conditions and craniofacial abnormalities such as cleft lip and palate. Premature infants frequently exhibit swallowing and feeding difficulties, including difficulty co-ordinating respiration and swallowing. A history of non-oral feeding can impact future swallowing and feeding abilities. Issues associated with neurological disorders, developmental disabilities and/or family dynamics can result in swallowing and feeding disorders in children. Sensory and behavioural issues that may or may not be associated with a medical diagnosis may result in refusals to accept a sufficient variety of foods or textures to provide adequate nutrition. Pediatric swallowing and feeding challenges are complicated by the fact that the swallowing system is changing with growth; simultaneous with these changes is the child's need for adequate nutrition to sustain growth. In the meantime, the family is learning to understand and cope with the child's unique needs.

Clients with dysphagia have worse health outcomes than similar clients without dysphagia. The presence of oropharyngeal dysphagia in recovering stroke patients, in particular, has been associated with malnutrition, dehydration, pulmonary compromise, increased length of hospital stay and institutional care.

The World Health Organization (WHO) International Classification of Functioning (ICF), Disability and Health¹ supports the use of unified terminology across health-related disciplines. Discussion of the purpose of intervention for swallowing disorders is framed using WHO terminology as illustrated in Figure 1. (Note: Items under the heading "Dimension" are the unified terms being defined).

WHO established a health classification system, the ICF that offers service providers an internationally-recognized conceptual framework and common language for discussing and describing human functioning and disability. This framework can be used to describe the role of speech-language pathologists in enhancing quality of life by providing intervention for dysphagia and feeding disorders. The overall objective of speech-language pathology dysphagia services is to optimize each individual's ability to swallow, optimize his/her nutritional status, and improve not only quality of life, but quality of life of family members/caregivers. This includes safe and effective swallowing of saliva and the widest variety of liquids and solids possible. This objective is best achieved through the provision of services that are integrated into meaningful life contexts.

Dimension (Terminology)	Definition	Examples
Impairment	Problems in body structures and/or body functions such as significant deviation or loss	Examples of specific impairments that may affect swallowing: decreased tongue strength, delayed onset of the pharyngeal swallow, reduced laryngeal or hyoid excursion, incomplete or mistimed airway closure leading to penetration or aspiration, weak pharyngeal contraction or incomplete upper esophageal sphincter opening leading to pharyngeal residues.
Activity/ Participation	Aspects of functioning from an individual or societal perspective	Examples of limitations and restrictions: difficulty maintaining adequate nutrition and hydration, respiratory complications secondary to aspiration, decreased ability to enjoy favourite foods, frequent need to spit secretions.
Contextual Environmental Factors	Factors that impact disability ranging from the individual's immediate environment to the general environment	Examples of difficulties imposed by the environment: inability to engage in eating as a social activity, difficulty obtaining specific required foods in some environments, social isolation due to need to spit or reliance on tube feeding.
Contextual Personal Factors	Individual factors that influence performance in the environment	Examples of relevant individual factors: race, gender, age, lifestyle, habits, upbringing, coping styles, social background, education, past experiences, character style, behaviour, food preferences.

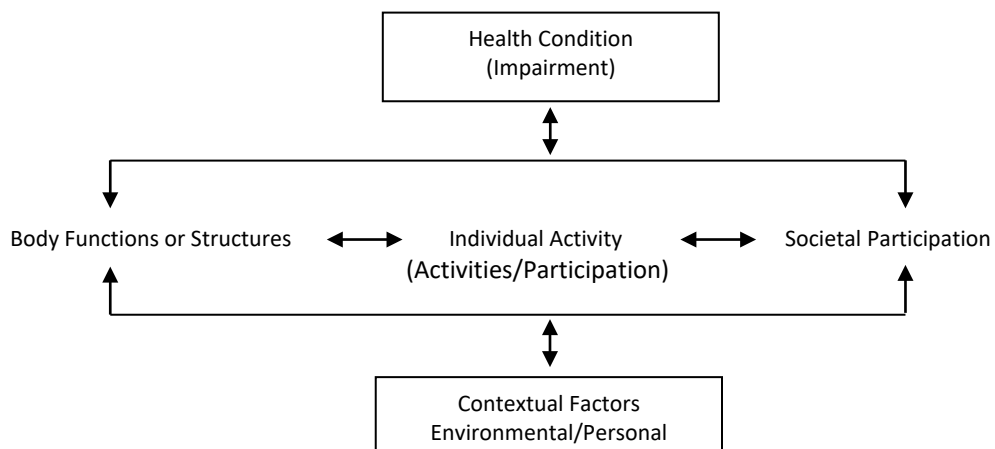


Figure 1: WHO Framework (adapted from Eadie^[2])

Services offered by SLPs to individuals with dysphagia and feeding disorders encompass all components and factors identified in the WHO framework. That is, SLPs work to improve quality of life by reducing impairments to oral-motor functions and structures, lessening limitation to activity and participation, and/or modifying the environmental barriers of the individuals they serve. They serve individuals with known impairments, delays or disorders of swallowing and feeding and those experiencing activity limitations or participation restrictions secondary to dysphagia and feeding disorders. The role of SLPs includes identification, assessment and management of swallowing and feeding function.

B. Scope of Practice

Schedule 28 of the *Health Professions Act* states... “In their practice, speech-language pathologists do one or more of the following: assess, diagnose, rehabilitate and prevent communication and oral motor and pharyngeal dysfunctions and disorders, teach, manage and conduct research in the science and practice of speech-language pathology, and provide restricted activities authorized by the regulations”.

As well as providing direct swallowing and feeding services, SLPs are expected to act as a resource for clients and their care providers, the dysphagia and feeding team, and the community at large. This may involve education of the public, where this is within the member’s mandate, regarding indicators of dysphagia and feeding concerns and general awareness of strategies to address these concerns.

ACSLPA requires that all potential registrants show evidence of study of dysphagia in order to become registered. Dysphagia has specifically been included in the recommendations for Canadian graduate school curricula in speech-language pathology since 1998 and has been included in the mandatory content covered in the SAC (formerly CASLPA) certification examination for newly qualified clinicians since 1998.

C. Target Client Population

These practice recommendations apply to the delivery of services by a SLP to any client with dysphagia or feeding disorders, regardless of age, gender, ethnicity, etiology or the setting in which the service is provided. Although services for clients with oral stage saliva control issues (drooling) are referred to in this document, a protocol is not specifically included for this issue.

D. Resource Requirements

A variety of different tools and instruments may be needed for dysphagia service delivery:

RECOMMENDATION 1

ACSLPA members must ensure that equipment is in working order, calibrated as required prior to use, and that appropriate cleaning, disinfection and sterilization policies are followed.

RECOMMENDATION 2

SLPs should use standardized methods for dysphagia assessment whenever possible, including forms to guide observations, and a well-thought-out plan of food and fluid stimuli.

E. Collaboration Requirements

A client-centred approach is fundamental to effective dysphagia and feeding service delivery. SLPs strive to provide client-centred dysphagia and feeding services, respecting the client's dietary, language, cultural, ethnic and personal needs at all times.

Clients stand to receive the greatest benefit when a variety of health-care professionals collaborate, each bringing his/her own particular expertise to the provision of dysphagia and feeding services. The SLP brings an in-depth understanding of interactions between dysphagia and anatomy, physiology, respiration, voice, motor speech and structurally-related disorders, an understanding of child development on a pediatric team, as well as expertise in intervention with the client and his/her family. It is for these reasons that SLPs typically assume a key role on the dysphagia and feeding team.

Any regulated health professional trained in the clinical assessment of clients (e.g., nurses, physicians, dietitians, physiotherapists and occupational therapists) may play a role in the evaluation of swallowing and feeding within their range of competencies. SLPs play a fundamental role in devising dysphagia screening programs and serve as a resource to those who conduct screening and evaluation regarding the appropriate interpretation of findings. The variety of acuities and complexities associated with dysphagia may require differing levels of expertise from service providers. SLPs should feel comfortable requesting support from one another, as well as requesting and providing support to other members of the health care team.

RECOMMENDATION 3

SLPs should work collaboratively with other members of the health care team in the care of a client's dysphagia and feeding concerns.

SLPs not only assess swallowing and feeding function but develop, implement and monitor dysphagia and feeding management programs. Collaboration with other health care personnel is strongly recommended and is likely to occur in a wide variety of activities including stimulus preparation and texture modification; client positioning, transfer and transport; suctioning; decision-making regarding intake mode (route of nutrition); performance and interpretation of instrumental swallowing assessments; counselling related to recommendations; etc. Collaborators will likely include, but not be limited to caregivers and families, primary care physicians, radiologists, dietitians, nurses, respiratory therapists, medical radiation technologists, occupational therapists, physiotherapists, pharmacists, psychologists, bio-ethicists, pastoral care staff, personal support workers, social workers and other members of the health care team as appropriate. Specialists (e.g., gastroenterologists, otolaryngologists, dentists) should be consulted as required.

F. Health and Safety Precautions

During the execution of any dysphagia and feeding service component, SLPs make every effort to minimize risk and ensure the safety of the client, caregiver(s) and themselves as the clinician.

RECOMMENDATION 4

SLPs must adhere to standard practices for infection prevention and control, and radiation safety procedures, as per their employer and provincial standards.

SLPs may refer to Alberta Health Infection Prevention and Control Documents and the *Radiation Protection Act* in order to familiarize themselves with guidelines and legislation (see Appendix 1 for a listing of relevant references/articles of interest). SLPs should also consult their radiation safety officer. Additional precautions may be necessary where specified by the practice setting, the SLP's judgement, or other members of the health care team.

G. Components of Service Delivery

Basic competencies or standards for dysphagia service delivery can be found in ACSLPA's *Standards of Practice* document and *Speech-Language Pathologists and Audiologists Professions Regulation* related to restricted activities. e

1. Determination of Need

Identification of a client who may require the services of a SLP for swallowing and/or feeding difficulty may occur by:

- self-identification;
- a person known to the client (family member, caregiver or acquaintance);
- an SLP or another health care professional through a swallowing screening process; or
- a nurse practitioner or physician.

2. Risk Management Determination

a. Risk of Aspiration and Airway Obstruction

The oropharynx is a common physiological pathway for the functions of breathing and swallowing. Dysphagia is therefore recognized to constitute a risk of harm, with specific risk of airway obstruction or illness related to *aspiration* (entry of food or liquid into the airway, below the level of the true vocal folds). Swallowing assessment and management usually involves the oral administration of fluid or food stimuli; under these circumstances, the risk of choking and aspiration cannot be completely eliminated.

RECOMMENDATION 5

SLPs should be adequately trained and have current knowledge to provide emergency assistance to clients who are experiencing airway compromise. Current CPR (cardio-pulmonary resuscitation) certification is strongly recommended.

RECOMMENDATION 6

SLPs must ensure that the appropriate medical assistance is available when the risk of severe aspiration and/or choking is extremely high.

When the risk of airway compromise (e.g., severe aspiration and/or choking) is judged by the SLP to be extremely high, it is appropriate to engage in team discussion and collaborative decision-making with the primary health care provider regarding potential risks prior to proceeding with the oral administration of fluid or food stimuli.

RECOMMENDATION 7

SLPs must take steps to minimize the harmful consequences of aspiration that may occur during or after swallowing service delivery. The SLP must ensure that the client and family are adequately informed regarding the nature of the swallowing problem, risk of aspiration, and appropriate management to minimize risk for aspiration and pneumonia.

Aspiration serves as the physiological mechanism by which harmful substances are transported into the lungs. *Aspiration pneumonia* is a serious health condition that may arise when a client's immune and respiratory functions are insufficient to remove pathogenic bacteria from the respiratory system. *Aspiration pneumonitis* is a related serious health condition that develops following the aspiration of acidic material (such as gastroesophageal reflux). SLPs must take steps to minimize risk of respiratory compromise when evaluating and treating clients. These steps may include arranging for pre-assessment mouth care to minimize the presence of harmful bacteria in oropharyngeal secretions and arranging for the client to remain in an upright posture following assessment-related oral intake to promote gastric emptying and reduce the risk that gastroesophageal reflux might be aspirated.

The relationship between dysphagia and aspiration is complex and multi-factorial. This is why not all people who aspirate develop pneumonia. Aspiration pneumonia is an inflammation of the lungs and bronchial tubes caused by inhaling foreign material, usually food, drink, emesis or secretions from the mouth and throat, into the lower airway. The severity of the ensuing infection depends on the type of organisms causing the pneumonia (including bacteria, viruses, and fungi), the volume and acidity of material aspirated, and the degree to which a variety of environmental risk factors are controlled during mealtimes. Positioning during meals, proper feeding techniques, good oral hygiene, consistent handwashing/infection control by care providers and appropriate use of antibiotics may reduce the risk of aspiration and prevent it from developing into pneumonia.

The prevention of aspiration pneumonia also depends on predicting who is at high risk for developing pneumonia. This risk is extremely high in clients with an altered level of consciousness, clients less than 24-48 hours following extubation of an artificial airway, clients with an inability to maintain their airway, and in those who are already seriously ill and considered medically fragile. Common characteristics of the medically-fragile adult include: limited mobility, diminished ability to perform basic activities of daily living, the presence of malnutrition, and a history of dementia with one or more other active disease processes. Common characteristics of medically-fragile children include limited mobility, airway management issues, developmental delays and malnutrition. These issues may be related to one or more co-morbidities including, but not limited to: neurological, cardiac, congenital anomalies, and active disease processes. Medically-fragile individuals often have a poor immune response that is insufficient to resist infection, and they are more likely to develop aspiration pneumonia. Scrupulous oral hygiene paired with appropriate positioning to limit

aspiration of secretions (e.g., side-lying or upright such that secretions can run out) is especially important for medically-fragile individuals who have poor management of oral secretions.

The respiratory status of persons who are at high risk of developing pneumonia as a result of aspiration should be closely monitored for signals of decline. Components of respiratory status that should be monitored by the interdisciplinary team include: breath sounds on chest auscultation; level of oxygen required to maintain adequate oxygen saturation; colour, quantity, and consistency of sputum; and respiratory rate. The SLP should include monitoring of respiratory status over time as an adjunct to the dysphagia evaluation since unexplained decline in one or more of these areas may be related to aspiration of food/drink. An important consideration when making treatment/management decisions is the client's and/or caregiver's ability to assess changes in the client's condition and access support from the appropriate health care professionals. This can have a major impact on the risk to the client.

b. Risks Associated with Ingestion of Fluid or Food Stimuli

Swallowing and feeding assessment and management often involve the administration of fluid or food stimuli to the client.

RECOMMENDATION 8

Certain food or fluid stimuli used in swallowing assessment may pose greater risk of harm than others. SLPs must be aware of these differences and adjust the use of fluid and/or food stimuli accordingly.

Swallowing and feeding assessment and management often involve the administration of fluid or food stimuli to the client. The following factors should be considered:

- Barium preparations are the most commonly used contrast medium for radiographic swallowing assessment. SLPs should defer to the radiologist for selection of appropriate and safe contrast media, especially when alternatives to barium preparations are being considered.
- SLPs may choose to use coloured juices, purees and/or solids to aid visualization and discrimination from secretions. If the addition of food colouring (and specifically blue dye) is being considered, SLPs should be aware of local policy regarding its use.
- Highly acidic stimuli may contribute to an elevated risk of aspiration pneumonitis in clients who aspirate. SLPs should avoid the use of highly acidic stimuli in swallowing assessment.
- Clients may have known allergies or other medical conditions (e.g., brittle diabetes) that make it medically inadvisable for them to swallow some stimuli. SLPs must be aware of such conditions prior to performing a swallowing assessment and should take these into account when selecting stimuli for use in assessment.

c. Risks Associated with Radiation Exposure

RECOMMENDATION 9

Radiation exposure involves a risk of biohazard to both the client and to workers who are exposed during the performance of their duties. In both cases steps must be taken to avoid unnecessary or excessive exposure.

SLPs involved in radiological swallowing assessment (videofluoroscopy) may refer to the *Radiation Protection Act* or consult their radiation safety officer in order to familiarize themselves with this legislation, including the radiation protection regulations in Section 18 of the document. SLPs must familiarize themselves with any employer policies related to radiological swallowing assessments.

d. Risks Associated with Dysphagia Management

Certain dysphagia management techniques carry additional risk of harm.

RECOMMENDATION 10

Dysphagia management techniques should be carefully considered by clinicians and discussed with the client during the pre-treatment consent process. Potential risks and benefits need to be weighed carefully and may require consultation with the client's physician before proceeding.

Clinicians should make a conscientious effort to use current best-available research evidence in making decisions about management techniques. Clinical practice should be based on an explicit physiologic rationale. The use of non-supported techniques may increase the risk of discomfort or harm and result in inefficient use of time and resources. Professional best practice involves the integration of research evidence, theoretically-based techniques and clinician expertise to ensure that the type, intensity and duration of swallowing interventions are reasonable and appropriate for a given client. New and seldom-used approaches should be critically evaluated and incorporated judiciously.

Management techniques (in no particular order) may include, but are not limited, to the following:

- **Recommendation Regarding Mode of Intake (Oral/Non-oral)**
The safest and most efficient route to minimize risks of aspiration, airway obstruction, malnutrition and dehydration should be considered with input from the client and team, giving consideration to quality of life and end-of-life issues. Non-oral feeding does not have to be permanent. Regular review is recommended. A mode of intake (route of nutrition) does not have to be exclusive. For example, if non-oral, a client may have pleasure and/or therapeutic feedings. If oral, a client may receive supplementation via an alternative to oral feeding (ATOF).
- **Diet Texture Restriction or Modification**
The SLP should ensure that diet texture modifications are necessary and effective prior to implementation.

- **Postural Modification**

Postural modifications are a common form of compensatory swallowing management in which the client is instructed to swallow with the head or body in a specified position (e.g., with the chin tucked, with the head turned, etc.). Because postural modifications alter the physical configuration of the oropharynx, they have the potential to benefit or further impair swallowing function. SLPs should be knowledgeable about which interventions can be confidently recommended following a clinical swallowing assessment. For example, chin tuck is not introduced without observing its effect under fluoroscopy (Baylow et al., 2009).

- **Breath-Control Techniques**

Two breath-control techniques have been described as potentially beneficial for clients with pre-swallow aspiration: the supraglottic swallow and the super-supraglottic swallow. In some clients, these techniques have the potential to contribute to cardiac arrhythmia.

- **Electrical Stimulation Techniques**

Electric stimulation has gained widespread use despite minimal research evidence supporting it. The technique involves placing surface electrodes on the underside of the jaw and throat to stimulate muscles involved in swallowing; the ultimate goal being to re-develop the muscle contraction patterns. Several studies have examined its efficacy in healthy and disordered populations with mixed results. Some studies found no significant difference between traditional treatment and electrical stimulation treatment groups. It was also noted that electrical stimulation might actually result in the lowering of the hyolaryngeal complex. This is of particular concern due to the risk it poses for aspiration and airway obstruction and would be detrimental to the treatment of patients with dysphagia. Furthermore, it remains uncertain whether the swallow elicited during electrical stimulation therapy is safer than nonstimulated swallows. Considering the lack of consensus on its effectiveness, clinicians should be cautious in adopting electric stimulation until more evidence exists to support this method of treatment.

- **Mal-adaptation**

Many swallowing treatment techniques are designed to alter the physiology of a client's swallowing. Clinicians should remain alert to the fact that alterations in swallowing physiology have the potential to either benefit or further impair swallowing function. In some cases, it may be necessary to reverse the effects of a previously-taught swallowing technique in order to achieve optimal swallowing function.

RECOMMENDATION 11

As technological advances are made, SLPs should familiarize themselves with new techniques for assessment and intervention, and carefully weigh the benefits and risks of each. SLPs should ensure that any management techniques utilized are reasonable and appropriate. New approaches to management must be critiqued and incorporated judiciously.

e. Risks Associated with Non-oral Nutrition/Alternatives to Oral Feeding (ATOF)

RECOMMENDATION 12

When a client is determined to be unable to swallow any fluid or food safely, or when dysphagia compromises his/her ability to obtain adequate nutrition and/or hydration orally, total or supplementary non-oral nutrition may be recommended.

The choice to proceed with non-oral nutrition/ATOF is difficult for clients and their families, and discussions should include all members of the dysphagia team. In these discussions, SLPs should remember that the primary indications for non-oral nutrition are:

- to optimize nutrition and/or hydration;
- when used in lieu of oral routes of nutrition, to limit the occurrence of aspiration and/or airway obstruction; and

- to improve quality of life for client and caregivers when oral feeding is difficult and takes excessive time.

3. Procedures

This document divides dysphagia and feeding services into the following components:

- Screening
- Assessment
 - Determination of readiness
 - Clinical (non-instrumental)
 - Instrumental
- Management

a. Screening

RECOMMENDATION 13

SLPs are encouraged to become involved in the design and implementation of swallowing screening or pre-assessment programs in order to identify individuals of all ages with suspected dysphagia who require further assessment.

In the context of swallowing, screening is considered an optional component of swallowing service delivery and may or may not involve the services of an SLP. Although a process for swallowing screening may be established within a health care institution, medical referral is not a prerequisite. Where institutional policy dictates that a physician's referral is required for swallowing screening, institutional policy takes precedence.

Wherever possible, it is recommended that swallowing screening be conducted by a trained and regulated health care provider using valid and reliable measures.

The following activities can be used to identify the likelihood of risks, signs or indicators of dysphagia and feeding difficulties:

- Recognition of risk for dysphagia through review of medical chart, diagnosis or medical history.
- Recognition of overt signs of swallowing difficulty (e.g., coughing, choking, inability to swallow) during the routine or planned oral administration of medications, water or meals.
- Confirmation of the presence of specific clinical observations that are indicators of risk for dysphagia or maladaptive feeding behaviours during the physical examination of a client or during an observation of the client's or caregiver's feeding practices.

Swallowing screening is not sufficient to assess the nature or severity of dysphagia, but provides an indication of the likelihood of:

- the presence or absence of dysphagia;
- pulmonary, hydration or nutrition risks associated with continuation of the current feeding method; and/or
- candidacy/need for further assessment by either a SLP or another regulated health care professional.

b. Assessment of Swallowing and Feeding

Swallowing assessments come in two major forms: clinical (otherwise known as “non-instrumental” or “bedside” assessments) and instrumental. Feeding assessments are typically of a clinical or “non-instrumental” nature.

i) Determination of Readiness for Swallowing Assessment

A client's eligibility and readiness for swallowing assessment is first to be determined on the basis of medical history review and current medical status. These steps serve to identify clients who are more suitably referred to other professionals (such as in the case of primary esophageal complaint) or for whom medical status concerns (such as reduced consciousness) suggest that assessment of swallowing should be temporarily deferred. In some institutions, policy may mandate that a physician's referral be received prior to initiating a swallowing assessment.

Once eligibility and readiness have been confirmed, swallowing assessment may proceed. It is most common to begin this process with a clinical (non-instrumental) assessment.

ii) Clinical Swallowing and Feeding Assessment

The clinical assessment of swallowing and feeding function serves to evaluate both the structure and function of the oro-pharyngeal swallowing mechanism and the appropriateness of current feeding practices given the individual's oral motor abilities and developmental/cognitive abilities. Clinical swallowing assessment enables the clinician to:

- form clinical impressions regarding the overall nature, severity and causal factors of oral, pharyngeal, laryngeal and esophageal swallowing impairment;
- judge the risk of potential medical complications secondary to swallowing impairment or adverse feeding practices, such as pulmonary, nutritional or hydrational compromise;
- judge the impact of dysphagia or feeding abnormalities/difficulties on functional and psychosocial aspects of daily living;

- judge the client’s or caregiver’s attention to difficulties with oral preparation and swallowing that occur during eating, and his/her ability to make appropriate adjustments (e.g., positioning, size of bolus, texture adjustment);
- determine immediate recommendations for management of the dysphagia and feeding practices; and
- determine the need for further assessment using instrumentation, or for referral to another health care professional.

RECOMMENDATION 14

The clinical swallowing assessment should involve inspection and evaluation of sensory and motor function of the oral cavity and structures, management of secretions, the thyroid cartilage, laryngeal and respiratory behaviours during swallowing, the effect of compensatory manoeuvres and consideration of the client experience. As an adjunct to clinical assessment, certain instrumental procedures may also be included.

Assessment should include:

- inspection of the oral cavity to determine structural integrity of the teeth, lips, tongue, hard palate, soft palate, and visible oropharyngeal mucosa;
- assessment of the integrity of the cranial nerves involved in swallowing (V, VII, IX, X, XII);
- evaluation of the sensory and motor function of oral cavity structures involved in manipulating the food bolus, the saliva bolus and swallowing (jaw, lips, tongue, hard palate, soft palate and cheeks);
- observation of the timing and range of thyroid cartilage movement during saliva, fluid and/or food swallows;
- evaluation of alterations in laryngeal or respiratory behaviours (e.g., coughing, throat clearing, voice quality) following saliva, fluid and/or food swallows;
- inspection of the oral cavity for residue following fluid and/or food swallows;
- inquiry regarding the client’s experience of any swallowing difficulty during saliva, fluid and/or food swallows; and
- where appropriate, evaluation of the impact of compensatory swallowing manoeuvres on swallowing signs and symptoms.

Evaluation of oral motor skills as they relate to drooling may be completed in conjunction with a feeding and swallowing assessment. Any client with neurological issues who drools should be observed during a variety of activities (e.g., at rest, during fine motor activities, while eating, and while vocalizing). Caregiver information related to volume and frequency of drooling during these activities, as well as when the client is fatigued, can be helpful in determining whether drooling is impacting client and family quality of life.

In cases where the client has sensory aversion to, or is unable to, cooperate with oral inspection, cursory observation during functional activities (eating, speaking, tooth brushing, playing) should be made and reported as such.

In addition to the core content of a clinical swallowing and feeding assessment, listed above, certain adjunct procedures may be included at the SLP’s discretion. These include, but are not necessarily limited to, the following procedures:

- *Cervical auscultation* refers to the use of a stethoscope, laryngeal microphone or accelerometer to evaluate the acoustics or vibratory characteristics of swallowing. To date, there is insufficient evidence to support the use of this technique for detecting the presence or absence of aspiration during swallowing.
- *Pulse oximetry* refers to the monitoring of peripheral blood oxygenation through a fingertip device that detects hemoglobin levels in the blood. It has previously been suggested that aspiration events might lead to desaturation events that could be readily detected using this technique. Desaturation events cannot be directly linked to specific aspiration events; consequently, the relationship between pulse oximetry events and swallowing events must be interpreted with caution. However, since desaturation is an indication of overall medical stress, when this information is available to clinicians who are working with medically fragile clients, it can be used to monitor the appropriateness of continuing a client assessment. Many factors affect pulse oximetry readings. SLPs may consult respiratory therapists regarding use and interpretation of pulse oximetry. In emergency situations, SLPs will ensure that the appropriate emergency protocol is enacted.
- Respiratory events associated with swallowing may be measured using either *nasal cannula* (airflow) or *respiratory inductance plethysmography* (thoracic wall movements). These techniques can aid in the identification of the timing of swallowing within the respiratory cycle. To date, there is no evidence that aspiration can be clearly detected in respiratory signals.

iii) Instrumental Swallowing Assessment

Instrumental assessment is an adjunct to clinical assessment and serves to determine the nature and severity of impairment in the structure and function of the oral, pharyngeal, laryngeal and upper esophageal stages of swallowing, and to evaluate the impact of treatment strategies that may enhance the safety and efficiency of the swallow.

Candidacy for instrumental assessment is determined on the basis of the clinical assessment. An instrumental assessment is indicated when:

- inconsistent or incomplete findings are obtained on the clinical assessment;
- compromised safety and efficiency of the oropharyngeal swallow is suspected;
- oropharyngeal swallow function requires further description and analysis in order to plan appropriate management;
- cognitive or communicative deficits preclude completion of a valid clinical assessment;
- confirmation of a change in swallow function from a previous assessment is needed;
- there is a need to confirm a suspected medical diagnosis and/or contribute to a differential diagnosis;
- nutritional or pulmonary compromise is thought to be the possible result of oropharyngeal dysphagia; and/or
- the client has a medical condition or a diagnosis that is associated with a high risk for dysphagia (such as neurologic, pulmonary or cardiopulmonary, gastrointestinal problems; immune system compromise; surgery and/or radiotherapy to the head and neck; cranio-facial abnormalities, etc).

There may also be contraindications for instrumental assessment. Instrumental assessment may be judged inappropriate when the client is:

- medically unstable and unable to tolerate the procedure;
- unable to co-operate or participate in the procedure; and/or
- unable to be adequately positioned for the procedure.

The results of instrumental assessment can inform client and caregiver decision-making and, as such, can be a valuable component of assessment. If it is felt that instrumental assessment will not inform decision making or significantly alter the management plan, the SLP needs to consider whether an instrumental assessment is necessary.

RECOMMENDATION 15

If an instrumental assessment is indicated but unavailable due to limited resources and despite reasonable efforts to obtain the assessment, the SLP may rely on findings from the clinical assessment.

When instrumental assessments cannot be obtained, this may limit the clinician's ability to determine the suitability of some specific compensatory or rehabilitative management techniques for the client.

There are two major forms of instrumental swallowing assessment: videofluoroscopy and endoscopy.

1) Videofluoroscopic Swallowing Assessment

This procedure may be referred to by a variety of names, including the following: Videofluoroscopic Swallowing Study (VFSS); Videofluoroscopic Evaluation of Swallowing (VFES); Modified Barium Swallow (MBS); Rehabilitation Barium Swallow (RBS); Cookie Swallow; Cine-esophagram; Palatopharyngeal Analysis, etc.

A videofluoroscopy involves exposure of the client to ionizing radiation. Members should refer to the *Radiation Protection Act* for further information.

As the administration of diagnostic imaging contrast agents is a restricted activity, SLPs must be familiar with and comply with regulation regarding restricted practice as outlined by ACSLPA, the HPA, and the *Speech-Language Pathologists and Audiologists Professions Regulation. Restricted Activities Competency Profiles (2016)* outlining the minimum competency requirements for a regulated member to ensure safe and effective practice in high risk activities has also been developed and is available on the ACSLPA website. Typically, the SLP and radiologist collaborate to comprehensively assess swallowing. When a radiologist is not available to participate in the VFSS or review the study with the SLP, the SLP must only comment on swallowing physiology, function and safety, and not on medical diagnosis related to anatomy.

RECOMMENDATION 16

Upon determination that a videofluoroscopy is required, the procedure should be completed in a timely manner, as permitted by practice setting restrictions and availability, in relation to priority of need identified during the prior determination of readiness for assessment.

A videofluoroscopy is a videotaped or digitized dynamic fluoroscopic image that focuses on the oral, pharyngeal, laryngeal and upper esophageal swallow physiology and incorporates compensatory treatment strategies (such as various textures, patient/client positioning, swallowing manoeuvres, etc). Videofluoroscopic swallowing assessments enable the clinician to:

- identify the presence, nature and severity of any abnormalities in oropharyngeal, laryngeal and upper esophageal swallow physiology, compared to the normal physiology expected for an individual of the same age and gender as the client;
- consult with the radiologist to identify and diagnose structural abnormalities (such as cricopharyngeal bar, Zenker’s diverticulum, cervical osteophytes, etc.) or structural changes (such as those that occur following surgical revisions or radiation therapy);
- determine the safest and most efficient route (oral and/or non-oral) for nutritional and hydrational intake;
- identify and describe the effectiveness of various compensatory strategies or manoeuvres for improving swallowing function; and
- determine the suitability of specific swallowing rehabilitative treatment techniques for the client.

RECOMMENDATION 17

A standardized protocol for videofluoroscopic examination is strongly recommended.

Administration of stimuli of different consistencies and volumes should be part of this standardized protocol. When dealing with individuals who have difficulty cooperating (e.g., young children), an individualized plan utilizing a known caregiver, favourite foods and typical feeding practices may best achieve the outcomes required.

The radiographic image should be adjusted based on considerations related to radiation dose, image acquisition rate, and to permit viewing of anatomical structures required to answer clinical questions relative to each client. It is conventional to begin the examination with a lateral view and to optionally include anterior or oblique views towards the end of the protocol. Where appropriate, the protocol should include evaluation of the impact of selected compensatory manoeuvres.

Imaging of the esophagus (an “esophageal sweep”) may optionally be included in a videofluoroscopic swallowing examination. The SLP is not qualified to interpret esophageal structure/motility on the basis of this procedure, but may reflect the radiologist’s comments regarding esophageal findings in his/her report. SLPs should be aware of the limitations of the esophageal sweep, and how this procedure and possible findings are different from an esophogram and upper GI series.

RECOMMENDATION 18

The temporal resolution of videofluoroscopy should be determined in consultation with radiology personnel, balancing issues of radiation exposure with the need to capture a comprehensive dynamic recording of swallowing.

It is recommended that an image acquisition rate of 25-30 frames per second be used whenever possible to capture events during the swallowing process. Image acquisition rates below 15 frames per second are likely to be inadequate to capture the information necessary to judge swallowing safety (Bonilha, 2013).

A videofluoroscopy requires careful analysis to ensure correct interpretation. VFSS studies should be reviewed using a playback system that supports frame-by-frame analysis (ASHA, 2004; Murray, 2009).

The risk/benefit of radiation exposure related to image acquisition rates and fluoroscope settings should be discussed with the radiologist and radiology safety officer.

Administration of a videofluoroscopy represents only a sample of the person's ability to swallow, and may not adequately represent swallowing ability during meals.

RECOMMENDATION 19

SLPs who are beginning to practice in the area of swallowing should complete a number of reviews under the direct mentorship of a more experienced clinician until they have the competence to engage in independent practice.

Inter-rater agreement is poor for videofluoroscopy. Training and group practice in reviewing videofluoroscopy can improve inter-rater agreement and consensus.

The number of reviews required will vary across clinicians. However, the determination that a clinician has achieved sufficient competency to begin independent practice should be made jointly by the mentee and mentor. Methods for evaluating competency might include comparison of independently formed interpretations of videofluoroscopic swallowing recordings between the mentor and mentee.

RECOMMENDATION 20

It is strongly recommended that SLPs who perform videofluoroscopy on a regular basis find opportunities to review interpretation of videofluoroscopy with other experienced SLPs to confirm and enhance competency.

2) Flexible Endoscopic Examination of Swallowing (FEES™)

This procedure may be referred to by a variety of names, including Fiberoptic Endoscopic Evaluation of Swallowing, Endoscopic Evaluation of Swallowing, and Laryngoscopic Evaluation of Swallowing. It is an instrumental procedure in which a flexible endoscope is passed trans-nasally into the upper pharynx to allow direct visualization of the pharynx and larynx during swallowing. FEES can be used to determine the nature and severity of swallowing impairment and to evaluate the effect of compensatory or therapeutic strategies intended to enhance the safety and efficiency of the swallow. Velopharyngeal closure, secretion management, airway protection, phonation and pharyngeal musculature can be evaluated using this procedure.

FEES may also be used as a biofeedback tool in treatment. During a FEES exam, sensation is inferred from the patient's response to the presence of residuals in the pharynx and/or penetrated or aspirated materials.

FEES involves the insertion of an endoscope through the nares into the upper pharynx, and therefore qualifies as a restricted activity under the HPA and *Speech-Language Pathologists and Audiologists Professions Regulation*. SLPs with expertise in dysphagia, specialized training in flexible endoscopy, and the requisite competencies may be qualified to use this procedure. *Restricted Activities Competency Profiles (2016)* outlining the minimum competency requirements for a regulated member to ensure safe and effective practice in high risk activities has been developed and is available on the ACSLPA website. SLPs may independently use FEES for the purpose of assessing swallowing function and related functions of structures within the aerodigestive tract. By contrast, the physician's role is to assess the integrity of the laryngeal and pharyngeal structures in order to render a medical diagnosis (ASHA, 2004).

RECOMMENDATION 21

SLPs must be familiar with risks when performing FEES.

Risks may include, but are not limited to: discomfort; gagging and/or vomiting; nose bleed; mucosal perforation; allergic reaction/hypersensitivity to topical anaesthetic or nasal spray; laryngospasm; and vasovagal response.

Following scope insertion, a FEES examination involves observation of the oropharynx during swallowing. SLPs may choose to use coloured juices, purees and/or solids to aid visualization and discrimination from other secretions. If the addition of food colouring (and specifically blue dye) is being considered, SLPs should be aware of local policy regarding its use.

SLPs should be aware of hospital policies regarding the presence of a physician during FEES. Should a physician not be present, SLPs should refer clients to a specialist (e.g., an otolaryngologist) for diagnostic evaluation when observations of unusual or concerning structural features are noted. The SLP and the physician should discuss the impact of structural abnormalities (such as vocal cord paralysis) as they relate to the pharyngeal stage of swallowing.

RECOMMENDATION 22

A standardized protocol should be followed for FEES examinations.

3) Other Forms of Instrumental Swallowing Assessment

From time to time, it may be desirable to obtain other forms of instrumental assessment to delineate the nature of a client's swallowing impairment. These methods of instrumental assessment are not within the common scope of practice for clinically trained SLPs and are likely to be located only in university-affiliated teaching hospitals or research facilities. They include, but are not limited to: ultrasound, radio-nuclide scintigraphy, intraluminal pharyngeal manometry, intramuscular electromyography, electromagnetic articulography, esophageal manometry, and the use of electrical or transcranial magnetic stimulation to elicit swallowing evoked potentials.

SLPs may receive additional training to conduct esophageal manometry to assess swallowing function. If the SLP has not achieved competency with such technology, the SLP should refer the client to a professional with the required expertise.

c. Management of Swallowing and Feeding

Management is the generic term encompassing all recommendations or techniques applied with the intention of optimizing a client's swallowing and feeding function. Three subcategories of management include:

- i) compensatory techniques;
- ii) rehabilitative techniques; and
- iii) education.

RECOMMENDATION 23

Education regarding the nature and severity of the swallowing problem and associated risks must be provided to clients, family/caregivers and other appropriate team members. The management plan should be developed in collaboration with all of the aforementioned parties.

The SLP should take into consideration the cultural background and preferences of the client and family/caregiver when developing the management plan, including food preferences, allergies and intolerances, lifestyle issues, etc. Suggestions for changes in feeding management should be made in consultation with the family/caregivers. The management plan should encompass suggestions to minimize risk, including mode of intake, safest consistency, feeding/eating strategies, positioning during eating and requirements for oral care. In consideration of quality of life for the client and family, the SLP should limit the number of management suggestions provided as appropriate.

Components of a swallowing/feeding management plan may be carried out by the client or family, with support provided by the SLP when possible. It may be implemented by other health care team members, supportive personnel or volunteers, provided that the SLP provides appropriate training and maintains adequate supervision according to the principles set out in ACSLPA's *Speech-Language Pathologists' Guidelines for Working with Support Personnel* (2011).

RECOMMENDATION 24

In the case where a client/family chooses not to comply with the SLP's recommended management plan, the client/family must be informed of the risks of proceeding as desired and then counselled in the safest course of action, given the circumstances. These discussions should be reported to the referring physician and documented in the client record.

i) Compensatory Techniques

Compensatory techniques are defined as techniques which, when implemented, have an immediate but typically transient effect on the efficiency or safety of feeding and swallowing. These techniques compensate for, but do not remediate, abnormalities of swallowing. These techniques fall into several subcategories, including, but not limited to:

- behavioural techniques for enhancing the safety/acceptance of food/fluid (e.g., pacing), enhancing bolus control, enhancing saliva control, enhancing airway protection, eliciting timely initiation of the swallow, enhancing bolus propulsion or clearance, etc.;

- prosthetic techniques for normalizing oropharyngeal pressures; and
- environmental techniques to enhance acceptance of food/fluid, limit risks associated with feeding practices and swallowing (e.g., implementing texture restrictions and modifications, decreasing distractions while eating), or decrease negative consequences of drooling (e.g., more upright positioning, age-appropriate bibs).

Consistent with ACSLPA *Standards of Practice*, SLPs will have the requisite knowledge to select, teach and monitor the use of behavioural and environmental compensatory techniques for swallowing and feeding. They will also have the knowledge to recognize indications for prosthetic, surgical and pharmaceutical compensatory treatments.

ii) Rehabilitative Techniques

Rehabilitative techniques are defined as treatment techniques which, when provided over the course of time, result in permanent changes in the physiology of the swallowing mechanism. These may be divided into the following subcategories:

- Exercises to improve swallowing-related function of the oro-facial musculature;
- Exercises to improve tongue pressure generation ability and strength;
- Exercises to improve bolus propulsion and clearance (e.g., the effortful swallow; the Masako manoeuvre; the Mendelsohn manoeuvre; the Shaker exercise);
- Exercises to improve airway closure (e.g., laryngeal adduction exercises).

Various forms of instrumental biofeedback (e.g., EMG, oral pressure measurement) may be useful for optimizing a client's performance of rehabilitative exercises.

RECOMMENDATION 25

SLPs should obtain training in the collection and interpretation of biofeedback signals prior to utilizing such tools in treatment.

iii) Education

RECOMMENDATION 26

SLPs must provide education to the client and/or caregiver on the swallowing problem including risk factors and ways to recognize and respond to symptoms which may indicate a risk.

RECOMMENDATION 27

SLPs should provide education on all recommendations for management and where these services might be offered if the SLP is unable to provide them.

4. Discharge Criteria

Discharge planning serves to direct intervention toward the ultimate goal of appropriate and timely discharge from the current service or transition to another setting.

Ideally, the SLP determines, based on achievement of goals or completion of a management plan, the appropriate time and conditions of discharge from speech-language pathology service or transfer of speech-language pathology service to another setting.

RECOMMENDATION 28

The SLP should make recommendations for discharge based on clinical findings.

Discharge planning should include reasonable efforts to secure appropriate resources for the client, especially if discharge occurs before the achievement of goals.

Education, training and counselling to the client and/or caregiver should highlight risk factors and danger signs (“red flags”) in terms that are understood. This will facilitate early detection of worsening dysphagia and, therefore, early referral for reassessment.

5. Additional Considerations

RECOMMENDATION 29

The SLP should consider the appropriateness of telepractice for assessment and management of dysphagia and feeding on a case-by-case basis.

Telepractice is a recognized mode of service delivery used to overcome geographic distances between health care providers or between health care providers and their clients. Telepractice can be used in the assessment, treatment, and health information transfer related to feeding and swallowing concerns. Use of telepractice technology should be considered on a case-by-case basis weighing client factors such as the presence of a speech or voice disorder, hearing impairment, co-existing movement disorders, and behavioral and/or emotional issues.

ACSLPA’s guideline *Use of Telepractice in the Provision of Clinical Services by Speech-Language Pathologists and Audiologists (2009)* outlines the benefits, challenges, assumptions, and guiding principles related to telepractice. Registration requirements for SLPs engaged in telepractice in Alberta are also outlined in this document.

Clinically, food and fluid trials to determine aspiration risk present the greatest challenge in using telepractice systems to evaluate swallowing. Because neither tactile nor direct patient contact is possible by the SLP, a trained assistant is typically necessary to facilitate the assessment with the client. Sharma et al. (2012) provide a description of a training program and considerations for allied health assistants involved in dysphagia and feeding via telepractice.

Appendix A

Dysphagia Supporting Documents

Alberta College of Speech-Language Pathologists and Audiologists (2016). *Speech-Language Pathologist Restricted Activities Competency Profiles*. Retrieved from: <https://www.acslpa.ca/wp-content/uploads/2019/05/SLP-RA-Competency-Profiles.pdf>

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Glossary

Aspiration	Bolus entry into the airway below the true vocal folds.
ATOF	Alternative To Oral Feeding (e.g., tube feedings).
Choking	Choking is the mechanical obstruction of the flow of air into the lungs from the environment. Choking prevents breathing and can be partial or complete, with partial choking allowing some, although inadequate, flow of air into the lungs.
Client	Client refers to a recipient of speech-language pathology or audiology services, and may be an individual, family, group, community or population. An individual client may also be referred to as a patient.
Clinical Swallowing/ Feeding Assessment	The clinical assessment serves to evaluate feeding practises, as well as the structure and function of the swallow, to determine the overall nature and causal factors of feeding difficulties and impairment at the oral swallowing stage and to predict impairment of the pharyngeal, laryngeal and esophageal swallowing physiology.
Competence	According to the <i>Health Professions Act</i> , competence refers to the combined knowledge, skills, attitudes and judgement required to provide professional services.
Drooling	The abnormal spillage of saliva from the mouth onto the lips, chin, neck and/or clothing. (Also known as sialorrhea.)
Dysphagia	The term used to refer to an impairment or disorder of the process of deglutition (swallowing) affecting the oral, pharyngeal and/or esophageal phases of swallowing.
Feeding	At the simplest level, feeding is the presentation of food by one's self or caregiver (oral or non-oral). It involves consideration of the client's communication, cognition, social, emotional and physical capacities. Family/caregiver dynamics and style, environment, client history, caregiver history, culture, beliefs and values may all impact on feeding. Nutritional status needs to be considered closely with feeding.
Gagging	Gagging as a physiological reflex, is used in two different connotations in the area of swallowing and feeding. It can refer to the competence of the gag reflex for diagnostic purposes (a mechanical stimulus to the back of the mouth elicits reflex elevation of the soft palate); this confirms the integrity of the reflex pathway, via cranial nerves and the brain stem . The term is also used to refer to the response of individuals with a low threshold for the gag reflex, such that approach of a negative stimulus (such as an unpreferred food) toward the mouth, just inside the mouth or as the individual attempts to swallow the food can

provoke the gag reflex followed rapidly by retching and, in some cases, vomiting. A gag can also occur as a protective mechanism for preventing a poorly timed or chewed bolus from entering the pharynx.

NPO	Nil per os. Medical order for no oral intake (i.e., no food, liquids or medication by mouth)
Penetration	Bolus entry into the airway to the level of the laryngeal vestibule, but not below the true vocal folds.
Pleasure Feedings	Taking small amounts of food or drink by mouth to enhance quality of life rather than to meet nutritional needs. Risks associated with food textures or consistencies ingested orally have been discussed with the client and caregivers. These risks are acknowledged by the client and caregivers prior to proceeding with some oral intake for pleasure. Parameters related to the following factors are considered: Food consistency(ies), recommended volumes per feeding and per administration, rate of feeding, frequency of feeding, designated “feeders”, supervision requirements, oral hygiene, and positioning.
Screening	A short, quick method used to identify the presence of a feeding and/or swallowing issue that requires further assessment. Screening for dysphagia typically includes a brief evaluation of an individual’s level of alertness, oral motor function, and ability to swallow water (e.g., 3 ounce water test, Toronto Bedside Swallowing Test). Screening may be conducted by an SLP, by another professional, or by supportive personnel. Interpretation and communication of the results of screening are limited to advising the individual on whether or not there may be a need for further assessment, and must not be used for treatment planning.
Silent Aspiration	Bolus entry into the airway below the true vocal folds that does not present with any overt signs or symptoms (i.e., choking or coughing, etc.).
Swallowing/Feeding Intervention	Includes any SLP or supportive personnel involvement in the provision of feeding/swallowing services to patients/clients, including but not limited to screening, assessment, treatment and management.
Swallowing/Feeding Management	Management is the generic term encompassing all recommendations or treatment techniques applied with the intention of optimizing a client’s swallowing/feeding function. Management may include: education; compensatory techniques; and rehabilitative techniques.
Telepractice	Telepractice refers to the use of communications and information technologies to overcome geographic distances between health care practitioners or between practitioners and service users for the purposes of diagnosis, treatment, consultation, education and health

information transfer. It may involve “live” or “store-and-forward” service. Live or real-time service may include but is not limited to telephone or videoconferencing. Store-and-forward involves the recording, storing and subsequent transmission of audio and/or visual images for later examination (e.g., email, fax, audiotape or videotape recordings).

Therapeutic Feedings

Food and/or fluid provided during therapy exercises supervised by the treating SLP. Parameters related to the following factors are considered: food consistency(ies), recommended volumes per feeding and per administration, rate of feeding, frequency of feeding, designated “feeders”, supervision requirements, oral hygiene, and positioning. Should physician/nurse practitioner orders for the client remain to npo or on ATOP exist, the SLP must obtain physician/nurse practitioner orders for the administration of foods/fluids for therapeutic feeds to occur.

Treatment

An intervention which has as its goal to enhance the communication and/or swallowing skills of the client.

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ACSLPA has access to resources and references related to dysphagia (swallowing) and feeding issues, including references related to drooling. In addition to the list of supporting documents outlined in Appendix A of this protocol, members are encouraged to access the ACSLPA website for links, references and further information (www.acslpa.ca). A roster of registered members who have identified a willingness to share their expertise in a variety of disorder areas, including swallowing and feeding, is also available upon request.

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