Guidelines: Paediatric Dysphagia
Guidelines for assessment and intervention in Paediatric Patients with Dysphagia

Introduction

Speech-language therapists involved in the management of dysphagia are required to adhere to the Health Professions Act No 56 1974 Code of Ethics which states that "A practitioner shall perform .... only a professional act....for which he or she is adequately educated, trained and sufficiently experienced.” (Rule 21: Amendment R717 4th August 2006 of the Health Professions Act No 56 1974) The management of patients with dysphagia is essentially an exercise in clinical reasoning and decision-making. Appropriate decision-making is dependent on the knowledge base of the therapist and his/her skill in integrating and interpreting clinical findings. Ideally, all beginning clinicians should work under the supervision of an experienced therapist for a period of at least six months. Should this not be possible, he/she must have an experienced clinician as a mentor who can be consulted for advice and support. All clinicians, whatever their level of expertise, should strive to have regular discussion with their colleagues. Adult and paediatric dysphagia are two distinct areas and knowledge and competence in one area does not presuppose competence in the other. Clinicians require specific training in the area/s in which they are working.

Ethical issues in the management of dysphagia

There are many ethical issues involved in dysphagia management. These include informed consent, decision-making capacity in patients who may have compromised communication and/or cognition, and end-of-life issues. The dysphagia clinician must be conversant with the ethical principles which govern the profession. If a course of action is chosen which the clinician believes may harm the patient, s/he must record such opinion in writing.

Professional values and attitudes

Intervention in dysphagia may place a patient at risk. Dysphagia management thus requires clinicians who have insight into the strengths and limitations of their own knowledge and clinical skills. The clinician must know when s/he has reached the limits of the intervention that s/he may safely provide.
Clinicians should also provide appropriate education and training to caregivers and relevant healthcare professionals to assist in the intervention process. It is not the role of the speech-language therapist to take over the role of feeding infants and children with dysphagia, but rather to facilitate safe feeding, through intervention strategies and training of caregivers.

The management of dysphagia is a team enterprise, and the clinician must work within a multidisciplinary team and communicate effectively with all of its members. Where dysphagia teams do not already exist, the clinician must work towards building one. The final responsibility for decision-making rests with the patient's doctor, and the clinician must be able to provide information accurately to facilitate this decision-making.

**Minimum requirements to perform the tasks**

**Knowledge required for the management of dysphagia**

- Embryology, anatomy, neuroanatomy, physiology and sensation of normal and abnormal respiration, airway protection and swallowing & feeding
- Changes in the anatomy and physiology with the developmental process
- Common conditions associated with feeding and swallowing difficulties in the paediatric population (e.g. prematurity, neurology, craniofacial, genetic syndromes, gastrointestinal, complex medical conditions), as well as the expected effects on feeding and swallowing
- Nutrition and the implications of inadequate nutrition during childhood
- Infant and early childhood development with regard to the development of feeding skills, as well as parent-infant interaction
- Signs and symptoms of dysphagia
- Risks and complications associated with aspiration
- Various assessment procedures, including indications, contra-indications, advantages, limitations and specific procedures involved
- Appropriate management, including determining candidacy for intervention, intervention procedures (compensatory and facilitatory) and rationale
- Indications and contra-indications of non-oral feeding, the types and methods of non-oral feeding, and available enteral feeds
- Effect of cognitive, communicative, cultural, psychological and behavioural factors on feeding and swallowing management
- Appreciation of family and cultural values, as well as quality of life issues
- Current evidence-based practice in dysphagia management
- Universal precautions for infection control
- Code of ethics for the profession

**Skills required for the management of dysphagia**

- Obtain a detailed case history
- Conduct a clinical swallowing evaluation (ensure appropriate positioning, follow infection control protocols and universal precautions)
- Interpret risk factors for dysphagia
- Determine the need for objective (instrumental) assessment and select appropriate procedure
- Follow a standard protocol for instrumental assessments such as Videofluoroscopic Swallowing Studies (VSS) or Fiberoptic Endoscopic Evaluation of Swallowing (FEES)
- Identify normal and abnormal anatomy and physiology during instrumental assessments
- Determine the integrity of airway protection during swallowing
- Interpret data from all assessment procedures
- Diagnose and describe feeding and swallowing difficulties
- Determine appropriate intervention strategies to eliminate / minimize aspiration and maximise nutrition, health, quality of life and developmental outcomes e.g. diet modifications, positioning, utensil adaptations
- Counsel caregivers (and patients where appropriate) regarding the diagnosis, prognosis and intervention options. Advantages and disadvantages of all intervention options should be discussed.
- Develop and implement a treatment plan in collaboration with family members and health professionals
- Determine the need for referral to other health professionals for further assessment and / or intervention
- Effective communication with team members in terms of sharing information and developing treatment plans
- Training of health professionals and caregivers
- Document assessment results, team decisions, recommendations and progress accurately
- Advocate for swallowing services for patients if necessary
- Compile and update a database for review and research purposes.

Other relevant issues

Management of dysphagia in the paediatric population

Screening
Swallowing screening is usually performed by other members of the health care team to identify patients who require comprehensive evaluation. Speech-language therapists should be involved in the education of other health care professionals regarding the risk factors associated with various conditions and to identify clinical signs of dysphagia. Screening results should not be used to plan intervention.

Assessment
Effective treatment of dysphagia is reliant on accurate diagnosis, whether the treatment is compensatory or facilitatory in nature. While it is accepted that many clinicians will not have access to resources for objective assessment, it is incumbent on the clinician to ensure that the best possible assessment is performed whatever the context. Referral to another institution for instrumental assessment should be considered (where possible) if indicated but not available at the treating institution.

Assessments should be developmentally appropriate and include the following:
- Review of the patient’s medical records - including the medical diagnosis, surgical procedures, developmental history, medications, airway status, pulmonary status, growth charts / nutritional status, temperature charts, intake-output
- Interview with caregiver (& patient where appropriate) to determine the main concern regarding feeding and swallowing; the caregiver’s perception of the difficulty, the nature of the problem, the clinical course of the problem (onset, change over time), the effect of the problem on activities of daily living, previous treatment received
- Clinical (“bedside”) Swallowing Examination incorporating:
  - Observation / Assessment of behaviour, state, stress cues, general posture and positioning, developmental reflexes, respiration, communication ability
Examination / functional assessment of the structure and function of the face, jaw, lips, muscles of mastication, teeth, tongue, hard & soft palate

- Assessment of oral and pharyngeal sensation
- If the patient is feeding orally, observation / functional assessment of feeding and swallowing of developmentally appropriate consistencies. As developmentally appropriate include assessment of suckling, sucking, co-ordination of respiration and swallowing, swallowing, bolus control and manipulation, range of utensils and saliva management.
- If the patient is not taking food or liquid orally (NPO), trial swallows of developmentally appropriate consistencies should be attempted with the permission of the treating doctor

- Interpret and integrate assessment findings to determine appropriate intervention strategies or the need for further instrumental assessments. The purpose of objective (instrumental) assessment is to aid the intervention process and should only be conducted if it will assist or change the management – the risks of radiation, particularly in the paediatric population should always be considered when recommending VSS.
- Instrumental assessment procedures include VSS and FEES and should follow a standard protocol.
- Motivate to the treating doctor for a referral for the procedure if indicated.
- Informed consent should be obtained from the caregiver - explain both the procedure and its implications, discuss prognosis and treatment plan with the caregiver

- During the assessment:
  - Identify normal and abnormal anatomy and physiology; identify problems within the phases of swallowing and determine the reasons for dysphagia.
  - Evaluate the effect of changes to the volume, consistency and rate of delivery of the bolus
  - Evaluate the efficacy of changes in positioning

**Intervention**

**Goals:**
The primary goals of intervention should ensure: optimal nutrition, safe feeding and swallowing by eliminating / minimizing the risk of pulmonary complications from aspiration, optimizing developmental outcomes and quality of life.
Strategies:
Intervention strategies include both compensatory strategies and facilitative strategies (Hall, 2001). Compensatory strategies assist in the feeding and swallowing process in the presence of disorders / difficulties e.g. changing consistencies, positioning or feeding utensils. Facilitative strategies are utilized to facilitate normal feeding skills e.g. establishing sucking, reducing oral aversions (Hall, 2001).

In collaboration with a team, these strategies should be used to address the following issues which may affect feeding and swallowing:
- Posture, positioning and seating
- Oral motor function (i.e. lip closure, chewing)
- Oral sensory issues
- Airway protection
- Co-ordination of respiration and swallowing
- Transition from tube to oral feeds
- Development of appropriate feeding and swallowing skills

In addition, the following factors may need to be considered and addressed as a team to ensure successful intervention:
- Gastro-oesophageal reflux
- Nutritional status
- Medical condition
- Surgical considerations
- Social and environmental
- Psychological and behavioural

Provision of nutrition
Speech-Language Therapists should consult with a registered dietician (or doctor/paediatrician when a dietician is unavailable) when working with infants and young children with feeding and swallowing difficulties. It is the role of the speech-language therapist to determine whether oral feeding is safe and to describe/document the safest consistency after assessment. However, it is the responsibility of the dietician to calculate appropriate volumes and adjustments based on the SLT’s recommendations.
Patients at high risk for aspiration or who are unable to meet their nutritional requirements orally should be considered for enteral feeding. The decision for enteral feeding should be made by the team in consultation with the patient/family. Gastrostomy / jejunostomy tube feeding should be considered in patients requiring long term enteral feeding, however due to the varied nature of dysphagia in the paediatric population this may differ in individuals and should be a team decision that includes the caregivers.

Patients being weaned from enteral feeding, who have suspected or confirmed dysphagia, should be assessed to determine swallowing safety and the need for intervention.

**Resources** (internet links, documents)
Evidence-based practice is a requirement and it is therefore essential that the dysphagia clinician remains informed of the most recent research and literature. There is a large and growing number of books, journal articles and multimedia materials available. The resources listed below are only a few examples.

**References**

**Books**
**Journals**

*Dysphagia*. Springer-Verlag. Contents pages and abstracts can be viewed for free on http://springerlink.com and articles can be ordered.

Other general journals such as *Seminars in Speech and Language* and *Journal of Medical Speech Language Pathology* frequently include articles on dysphagia.

**Video materials**

ASHA produces a range of training videos which can be ordered online via [www.asha.org](http://www.asha.org).

**The Dynamic Swallow DVD is available from the Department of Speech Pathology, Flinders University, Adelaide, Australia.**

*Ethical Rules for the Health Professions.* Amendment R717 4th August 2006 of the South African Health Professions Act No 56 of 1974

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