Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools

Working Group on Dysphagia in Schools


Index terms: swallowing, schools
DOI: 10.1044/policy.GL2007-00276

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Executive Summary

Speech-language pathologists (SLPs) play a significant role in the management of students with swallowing and feeding problems in school settings. The Rehabilitation Act of 1973 (Section 504) and the Individuals with Disabilities Education Improvement Act (IDEA 2004) mandate services for health-related disorders that affect the ability of the student to access educational programs and participate fully. However, uncertainty about the educational relevance of dysphagia management persists, resulting in a lack of guidelines for addressing swallowing and feeding disorders in the schools. ASHA's guidelines for SLPs providing swallowing and feeding services in the schools are intended to clarify the administrative and programmatic issues for SLPs to provide these services and to support the contention that these services are relevant for the education of students with swallowing and feeding disorders.

Addressing swallowing and feeding disorders is educationally relevant and part of the school system's responsibility for the following reasons:

1. Students must be safe while eating in school. This includes providing appropriate personnel, food, and procedures to minimize risks for choking and for aspiration during oral feeding.
2. Students must be adequately nourished and hydrated so that they can attend to and fully access the school curriculum.
3. Students must be healthy (e.g., free from aspiration pneumonia or other illnesses related to malnutrition or dehydration) to maximize their attendance at school.
4. Students must develop skills for eating efficiently during meals and snack times so that they can complete these activities with their peers safely and in a timely manner.

The school-based population covered under IDEA Part B ranges in age from 3 to 21 years. States may provide early intervention services through the school districts for students from birth to 3 years under IDEA Part C. The need for educational and related services may persist for students with dysphagia throughout their school years. Objectives should be updated to accommodate the varying demands of the educational environment and the changing abilities of each student. The scope of swallowing and feeding disorders includes difficulty ingesting food and liquid, managing saliva, and taking oral medications. The disorders may be characterized by choking and aspiration, oral-motor and sensory impairments, maladaptive behaviors during eating activities, refusal to eat, and restricted variety of accepted food and liquid. Anatomic, neurologic, and/or physiologic functions may be affected. These functions include motor planning, postural and oral-pharyngeal motor abilities, sensory processing, respiration, and digestion. Primary global developmental delays, behavioral disorders, and complex medical conditions may also result in swallowing and feeding disorders. The range of severity and persistence of these disorders vary from transient delays in development of eating skills that resolve readily with education and treatment to chronic, complex disorders that have health as well as educational consequences.

In addition to the anatomic, neurologic, and physiologic components of dysphagia, social, emotional, behavioral, nutritional, environmental, familial, communicative, and cultural factors also have a significant impact on a student's swallowing and feeding impairment. Effective evaluation and management typically require a team approach. The SLP collaborates with the student's educational and medical teams and family to address issues related to the student's nutrition, medication administration, medication side effects, family values, and cultural preferences; and to develop educational and therapeutic strategies for advancing and improving skills and behaviors.

SLPs should be mindful of the legal, ethical, and educational frameworks for these services as they work with their school administrators and service teams to develop school policy, procedures, and service delivery models. Similar to other special-needs procedures, the model for optimum delivery of school-based dysphagia services includes a referral process, parent/guardian notification and involvement, screening and evaluation, the individualized education program (IEP), and/or 504 plan. In addition the plan should include the individualized swallowing and feeding plan; the individualized health care plan (referred to as the IHP, IHCP, or HCP); a process for securing physician clearance for clinical evaluation, diet, and prescriptive recommendations for instrumental and other medical assessments; therapeutic intervention; and monitoring of swallowing and feeding status. Use of standard recording forms may facilitate documentation of this process. Depending on the personnel resources in the district, size of student population with dysphagia, and distribution of students in the district, the system may utilize a school-based team, a district-based traveling team, or a combination of the two models to service all the schools in the district. District/school personnel may benefit from the support of community-based SLPs with pediatric dysphagia expertise, and district-supported continuing education opportunities for school-based SLPs.
Management and treatment plans for students with dysphagia are individualized according to the needs of each student. For example, a student may benefit from an individualized mealtime plan to improve eating efficiency and to address deficiencies in swallowing and feeding skills.

The collaboration of the school-based dysphagia team with medical professionals includes consideration of whether a referral is warranted for medical assessment or medical clearance. Typically, this consideration would arise for the student with a medically complex condition as opposed to the student for whom medical conditions are stable and special care during the school day is not specified in the student's IEP or IHP. Although SLPs do not need a medical prescription or other form of medical approval to perform clinical evaluations or implement intervention programs, there may be instances in which a prescription, referral, or medical clearance may be requested. The school-based SLP has a responsibility to participate with the student's dysphagia team, educational team, and family to determine whether the student's medical condition warrants medical clearance for clinical procedures or for medical assessments or consultations for management of dysphagia and dysphagia-related conditions. The school administration policy should include guidelines for funding the collaboration between school-based and medical care providers.

The guidelines recognize the need for collaboration with states, school districts, individual schools, and SLPs to advance the treatment of persons with dysphagia in the schools through the following:

- expansion of continuing education programs focused on delivery of swallowing and feeding services in the schools
- clarification of reimbursement mechanisms
- advocacy at federal, state, and local levels for inclusion of dysphagia services in schools, including appropriate staff and resource allocation
- research on outcomes of dysphagia assessment and intervention in schools and the impact on overall school performance

GUIDELINES

Purpose
The purpose of this document is to provide guidelines addressing issues, models, and procedures for managing students with swallowing and feeding disorders in the schools. The need for guidelines was stimulated by multiple factors: (a) an increase in the number of students requiring swallowing and feeding management in the schools (Logemann & O'Toole, 2000; Martin et al., 2005); (b) lack of clearly identified teams and procedures to address these disorders; and (c) revisions of IDEA (2004) and the Rehabilitation Act of 1973 (Section 504) that mandate services for health-related disorders that affect the ability of the student to access educational programs and participate fully.

Background
In 2005, the American Speech-Language-Hearing Association (ASHA) Coordinating Committee on Dysphagia in Schools was appointed by Celia Hooper, 2003–2005 vice president for professional practices in speech-language pathology, to

- determine the scope of service needs for students in the schools with swallowing and feeding disorders;
• analyze the needs of ASHA members who practice in school settings related to provision of services to students with dysphagia;
• recommend actions and strategies to address these needs;
• develop a long-term plan to implement these recommendations.

The Coordinating Committee's recommendations included forming a committee to write policy documents on this topic. Other recommendations included
• increasing legislation and advocacy to promote the role of SLPs as a provider of dysphagia services in schools and to identify dysphagia as a disorder that affects performance in school;
• gathering more survey and demographic data;
• developing resources to promote awareness and education about dysphagia in schools among ASHA members.

Several ASHA documents provide a broad foundation for these guidelines. The most directly related to this topic are the position statement and technical report on *Roles of Speech-Language Pathologists in Swallowing and Feeding Disorders* (ASHA, 2001a, 2001b) and *Knowledge and Skills Needed by Speech-Language Pathologists Providing Services to Individuals With Swallowing and/or Feeding Disorders* (ASHA, 2002).

**Survey Data**
On ASHA's 2006 Schools Survey, 10.2% of respondents (SLPs in schools) reported that they treat students with dysphagia, with a mean number of 3.5 students with dysphagia in their caseload (ASHA, 2006). Another survey was fielded to members of Special Interest Divisions 13, Swallowing and Swallowing Disorders (Dysphagia), and 16, School-Based Issues. The three most frequently reported barriers to dysphagia management in the schools were: (a) liability concerns, (b) proving educational relevance, and (c) self-reported lack of experience in dysphagia (Owre, 2006).

**Educational Relevance**
The educational goal for students with special needs is to optimize each student's developmental potential while maintaining adequate nutrition, hydration, and health so that each student may access and benefit fully from the educational program (Arvedson, 2000).

Schools are mandated to address functional performance in light of their educational impact, according to IDEA 2004. The following examples are arguments that support the educational relevance of addressing swallowing and feeding at school:

1. It is the responsibility of the school system to ensure that students are safe while attending school. Appropriate personnel, food, and procedures must be provided to minimize risks for choking and for aspiration during oral intake.
2. Students must have sufficient physical well-being and energy in order to function in the educational setting. Students who are under-nourished or dehydrated due to swallowing and feeding problems cannot attend adequately to the learning environment, and consequently their performance at school may suffer.

3. Students must have adequate health to attend school and to receive instruction. Students with swallowing and feeding disorders may miss school more frequently than other students due to related health issues. These may include repeated upper respiratory infections or other pulmonary problems related to aspiration during oral feeding or gastroesophageal reflux. In addition, students who have difficulty managing their saliva or who resist tooth brushing due to sensory-based disorders or autism spectrum disorders may have poor oral hygiene. Increased oral bacteria due to poor oral hygiene in adults is associated with greater risk of developing pneumonia (Langmore et al., 1998) and may be similar in children, although there are no published data.

4. In order for students to participate fully in the educational program, they need to be efficient during regular meal and snack times, so that their meal and snack times are completed in similar times as their peers, and preferably with their peers. Optimally, they should complete their meal or snack within 30 minutes or less. Prolonged mealtime is a major “red flag” for a swallowing and feeding disorder. Prolonged feeding times are indicative of excessive effort and energy that interfere with other activities important to a student's school day experiences. Prolonged mealtimes often are stressful for the student, and this stress can carry over into the remainder of the school day. Some students may require more frequent snacks or meals to maximize educational performance.

**Swallowing and Feeding Disorders**

Dysphagia is defined as “a swallowing disorder. The signs and symptoms of dysphagia may involve the mouth, pharynx, larynx, and/or esophagus” (ASHA, 2001b). ASHA documents have adopted “swallowing and feeding disorders” as the more inclusive phrase for dysphagia and delays and/or disorders in the development of eating and drinking skills, which are common in varied pediatric populations. Swallowing and feeding include the introduction, preparation, transfer, and transport of food and liquid from mouth through esophagus into stomach. In addition, management of saliva and oral intake of medications are included. Swallowing and feeding disorders vary considerably in their characteristics and severity. Children may demonstrate choking and aspiration, oral sensorimotor impairments, maladaptive behaviors during eating, refusal to eat, and acceptance of a restricted variety of food and liquid. Anatomic, neurologic, and/or physiologic impairments may include, but are not limited to, motor planning, postural control and oral-pharyngeal motor skills, sensory processing, respiration, and digestion. Students with severe disorders may experience deficiencies in nutrition and hydration, as well as reduced respiratory health.

**Population**

The school-based population covered under IDEA Part B ranges in age from 3 to 21 years. States may provide early intervention services through the school districts for children from birth to 3 years under IDEA Part C. ASHA’s guideline document focuses on children 3 years and older, although some of the information will be relevant to younger children.
Swallowing and feeding disorders affect students with typical development as well as those with difficulties related to medical or neurodevelopmental factors. Prevalence is variable, with estimates ranging from 25% to 35% in normally developing children (Linscheid, 1992). Children with neurologic deficits (e.g., cerebral palsy), as well as airway deficits, are most likely to demonstrate swallowing problems. From 25% to 80% of individuals with cerebral palsy (depending on the subgroup) have additional impairments, with about half showing gastrointestinal and feeding problems (Odding, Roebroeck, & Stam, 2006). During the first year of life, 57% of children with cerebral palsy are estimated to have problems sucking, 38% with swallowing, and 33% with undernutrition (Reilly, Skuse, & Poblete, 1996). As the severity of cerebral palsy increases, the severity of oral sensorimotor deficits also increases. As expected, children with spastic quadriparesis are the most severely affected (90% with swallowing and feeding problems; Stallings, Charney, Davies, & Cronk, 1993).

Swallowing and feeding disorders that are apparent in early childhood may resolve, persist, or deteriorate throughout the student's preschool, elementary, and/or secondary education. The education, health, and social/emotional effects of dysphagia change across the educational continuum for each student. Students may be identified as having swallowing and feeding difficulties at any time throughout their education.

In preschool and elementary education, the primary issues for related services are
- identifying students with swallowing and feeding problems;
- determining the strategies to maintain the student's health and safety in the school setting;
- facilitating developmental gains in swallowing and feeding skills.

In the preadolescent, therapeutic and educational intervention continues for
- improving the efficiency of the student's swallowing and feeding behaviors;
- generalizing swallowing and feeding skills for varied social purposes in a variety of settings.

In the adolescent and young adult years, therapeutic intervention continues for
- promoting greater independence for meeting the swallowing and feeding challenges of the student's advancing nutritional needs and increasing complexity of social, academic, and community environments;
- developing and generalizing the compensations that will be needed for the transition to adult environments;
- monitoring for potential regression or changes in swallowing;
- responding to and minimizing regression.

Swallowing and feeding disorders are manifested in varied ways and levels of severity. Problems include, but are not limited to, the following:
- prolonged and/or stressful mealtimes
- coughing and throat clearing when eating and drinking or from accumulation of saliva
- wet breath sounds and/or gurgly voice quality associated with swallowing
- spillage of food and liquid from the mouth
- drooling
• food remaining in mouth (pocketing) after swallowing
• swallowing solid food without chewing
• inability to drink from a cup
• multiple swallows per bite of food or sip of liquid
• effortful swallowing
• gagging or vomiting associated with eating and drinking.

Other relevant problems noted by history and/or parent/guardian report may include the following:
• weight loss or lack of weight gain expected for age
• frequent respiratory illness resulting in reduced school attendance
• constipation, diarrhea, or other gastrointestinal tract problems
• need for special strategies or distractions at mealtimes

Classification of Pediatric Swallowing and Feeding Problems
Several ways to classify swallowing and feeding problems in children have been reported in the literature. Currently, there is no classification system that adequately captures the mixed etiologies of pediatric feeding problems (Burklow, Phelps, Schultz, McConnell, & Rudolph, 1998). A comprehensive classification system is needed to conceptualize the assessment and treatment of feeding difficulties in a multilevel, yet systematic, manner to describe mixed feeding etiologies, which are common among children in schools. Table 1 presents one attempt at categorization of swallowing and feeding disorders of children in schools (with the realization that this table is not all inclusive). SLPs must be aware that children often have problems in more than one of the categories.

Focus of Interdisciplinary Decision Making
Students may present with a wide range of severity in swallowing and feeding disorders. Adequate nutrition and hydration are of utmost importance for these students, along with airway and pulmonary stability. Some students with complex medical conditions may receive all food orally. Others may get their nutrition needs met totally or primarily by tube feeding. Students with complex medical histories may also have developmental and/or behavioral swallowing and feeding disorders that are secondary to their underlying physiologic impairments. Management decisions should relate to the student's current medical, physiologic, and developmental status as well as overall potential. SLPs need to be knowledgeable about specific etiologies and medical conditions associated with dysphagia.

It is particularly important for students with complex medical or surgical histories to have the school team and the medical team (e.g., physician, nurse, dietitian, SLP, psychologist) collaborate to make decisions that optimize the student's health status and facilitate full participation in the school setting. The collaboration involves exchange of information to and from the school. The SLP has a skill set that makes him or her uniquely qualified to make pertinent observations about the student that are valuable to others on the school team and to the medical team. Considerations for determining which students with complex medical conditions need this collaboration and the extent of the collaboration include
• instability of the medical condition;
• increased complexity of the medical issues;
• seriousness of the potential health consequences for the student;
Table 1. Categorization of swallowing and feeding disorders of students in schools.

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples of diagnoses</th>
<th>Descriptions or implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural abnormalities</td>
<td>Pierre Robin sequence</td>
<td>Airway obstruction, macroglossia, cleft palate.</td>
</tr>
<tr>
<td></td>
<td>Beckwith-Wiedemann</td>
<td>Macroglossia.</td>
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<tr>
<td></td>
<td>Cleft palate with or without cleft lip</td>
<td>Food or liquid out the nose possible prior to surgery, as well as with velopharyngeal insufficiency.</td>
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<tr>
<td>Facial paralysis and adnasal</td>
<td>Enlarged tonsils and adenoids</td>
<td>Food gets stuck or airway is negatively impacted.</td>
</tr>
<tr>
<td>Oropharyngeal stricture or stenosis</td>
<td>Difficulty with solid food that may not move through the narrowed area.</td>
<td>Restriction by oropharyngeal exudation with swallowing, limited phonation, may benefit from speech therapy if no contraindications.</td>
</tr>
<tr>
<td>Tracheostomy (may also be complicated</td>
<td></td>
<td>Oral skill levels need to be considered in relation to developmental levels of overall functioning, not usually an isolated disorder of swallowing.</td>
</tr>
<tr>
<td>by underlying reason for the tracheostomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tube placement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary global developmental delays</td>
<td>Multiple diagnoses that include mental disabilities. Other labels include developmental disability, speech-language impairment, sensory impairment, intellectual impairment, delayed gross and fine motor skills.</td>
<td>Primary global developmental delays.</td>
</tr>
<tr>
<td>Neurologic conditions</td>
<td>Cerebral palsy</td>
<td>Variable oral and pharyngeal phase problems.</td>
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<tr>
<td></td>
<td>Muscular dystrophy</td>
<td>Weakness of muscle action.</td>
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<tr>
<td></td>
<td>Cranial nerve dysfunctions</td>
<td>Facial dysmorphism and high aspiration risk with reduced sensation common.</td>
</tr>
<tr>
<td></td>
<td>Traumatic brain injury</td>
<td>Severe swallowing problems common in acute phase, usually improve over time.</td>
</tr>
<tr>
<td></td>
<td>Down syndrome</td>
<td>Low tone, global developmental delays, growth retardation, hydrocephalus and celiac disease common, swallowing problems variable, usually total oral feeders.</td>
</tr>
<tr>
<td></td>
<td>Mental disabilities/developmental disabilities</td>
<td>Immature skills common, often appropriate for developmental skill levels, not chronic age.</td>
</tr>
<tr>
<td></td>
<td>Pervasive developmental disorder</td>
<td>Autistic spectrum—often food selectivity with narrow range of textures, tastes, temperature, color of food, etc. Disruptive behaviors may interfere with advancing feeding skills.</td>
</tr>
<tr>
<td></td>
<td>Behavioral issues</td>
<td>Psychosocial difficulties that may or may not have an underlying medical diagnosis. From environmental stimulation, dysfunctional feeding and student interactions, stressful mealtimes for parent/ guardian and student.</td>
</tr>
<tr>
<td></td>
<td>Negative feeding behaviors shaped and maintained by reinforcement (internal or external) learned aversions</td>
<td>Selective food refusal, rigid eating routines, restricted in variety, or ritualistic.</td>
</tr>
<tr>
<td></td>
<td>Emotional/behavioral difficulties</td>
<td>Phobias, depression, conditioned emotional reactions.</td>
</tr>
<tr>
<td>Complex medical conditions: cardiorespiratory problems</td>
<td>Congenital heart disease (may include status following surgery, heart transplant)</td>
<td>Fatigue with feeding, Some have incoordination of oral and pharyngeal phase swallowing.</td>
</tr>
<tr>
<td></td>
<td>Chronic lung disease, may have history of bronchopulmonary dysplasia</td>
<td>Risk of aspiration with oral feeding in some, but not all. Tachyptnea (rapid breathing rate) in some.</td>
</tr>
<tr>
<td></td>
<td>Asthma</td>
<td>Aspiration with feeding may be a factor for some students.</td>
</tr>
<tr>
<td>Gastrointestinal tract problems</td>
<td>Tracheoesophageal fistula</td>
<td>Surgical repair in early infancy to eliminate aspiration between trachea and esophagus. May be somewhat limited in solid foods.</td>
</tr>
<tr>
<td></td>
<td>Esophageal motility deficits</td>
<td>May or may not be tube fed. Reflux or vomiting in some.</td>
</tr>
<tr>
<td>Sphincter dysfunction</td>
<td>Re reflux or vomiting may be persistent.</td>
<td></td>
</tr>
<tr>
<td>Metabolic dysfunction</td>
<td>Dumping syndrome</td>
<td>Interference with development and/or maintenance of normal feeding patterns, need medical and nutritional guidance.</td>
</tr>
<tr>
<td></td>
<td>Hereditary fructose intolerance</td>
<td>Need for special diet, not oral sensorimotor issues.</td>
</tr>
<tr>
<td>Renal disease</td>
<td>Multiple specific diagnoses, e.g., steroid (chronic renal insufficiency) or renal tubular atrophy (reduced excretion of acid, with imbalance of acid-base balance in kidney)</td>
<td>Impaired growth almost invariably occurs with altered renal function. Growth failure often first clinical sign. May not have feeding or swallowing problem—other factors interfere with growth that may include gastrointestinal reflux and gastrointestinal hormonal imbalance.</td>
</tr>
</tbody>
</table>
• deficiencies in nutrition and hydration.

**Nutrition Issues**
Adequate nutrition and hydration are fundamental for all students to participate and fully access the school curriculum. Students may be dependent on classroom staff for assistance during mealtimes to make sure that their nutritional needs are met. Depending on the needs of the students, the school system may need to adapt the regular school menu to ensure that the diet presented to these students at school meets the safety requirements of the swallow and feeding plan as well as providing a nutritionally balanced meal. School system personnel should consult *Guidance for Accommodating Children With Special Dietary Needs in School Nutrition Programs: Guidance for School Food Service Staff* (U.S. Department of Agriculture, 2001) when modifying diets for children who receive federally funded lunch programs. All diet modifications should consider the nutritional needs of students, and when possible the system should consult with a dietitian. School personnel also need to be able to recognize the signs and symptoms of undernutrition.

**Medication Issues**
Many students with complex medical conditions take multiple medications for a variety of reasons. Members of the dysphagia team need to be knowledgeable about what those medications are, the optimum methods for administering the medications in school, what the side effects may be for swallowing and feeding, and what the interactions of multiple medications may be. Members of the dysphagia team need to appreciate the effects that certain medications may have on a variety of functions, such as hunger and appetite, taste, level of alertness, muscle function, and gastrointestinal tract function. When SLPs and other members of the team become aware of changes in a student's eating behavior at school, they need to consider the possibility that these changes may be related at least in part to medications. For example, reglan (metoclopramide) has been shown to cause movement disorders in some students and adults (Hammer & Bell, 2005). Some commonly used anticonvulsants for seizure disorders may produce drowsiness (Buchholz, 1995). Benzodiazepines, used as anticonvulsants and occasionally for treatment of spasticity, may also reduce activity in brain stem centers that regulate swallowing (Buchholz, 1995; Wyllie, Wyllie, Cruse, Rothnew, & Erenberg, 1986).

**Cultural Considerations**
Schools today reflect the rich diversity of cultures in the communities in which they exist. The attitudes and beliefs of a culture have a profound impact on the learning environment. One of the most significant aspects of a culture is its relationship with food and eating, as well as feeding. Therefore, best practice in dysphagia services demands sensitivity to cultural differences (Riquelme, 2004).

To deliver competent services in the area of swallowing and feeding that are sensitive to a student's culture, SLPs need to develop knowledge and skills related to
- current research and preferred practice patterns in the identification/assessment of swallowing and feeding disorders;
• community standards of typical swallowing and feeding patterns and preferences;
• incorporation of the dietary preferences of students and their families, related to the identification/assessment of swallowing and feeding disorders;
• application of the standards of the student's community for dismissal/discharge criteria (ASHA, 2004b).

Professionals who work with students with swallowing and feeding disorders (including those who are resistant to feeding) need to be aware of the cultural beliefs and attitudes of each student's family. These attitudes and beliefs guide the family’s integration of the feeding program at home. Collaboration is optimal when trust exists between families and school-based teams. This trust, which is based on mutual respect, includes sensitivity to cultural beliefs and preferences.

Part of any successful feeding program will be balancing the parent/guardian's beliefs with new strategies to improve the feeding situation. People of different cultures embrace different expectations for independence in feeding, duration of breast or bottle feeding, and the introduction of solid foods and opportunities for self-feeding. Some cultures may believe in the healing value of specific textures or food types that may conflict with recommendations of the dysphagia team. The school dysphagia team will need to help families
• observe their child to understand his or her communicative cues (too much, more, slow down, not now, etc.);
• become aware of the cues they are sending to their child (verbal or nonverbal) regarding eating;
• develop an understanding of the nature of the swallowing and feeding disorder against a backdrop of their cultural attitudes about disabilities in general;
• address their frustration and feelings resulting from their difficulty feeding their child, as many cultures deem this a primary caregiver function.

**Legal Issues**

The legal and legislative issues on the provision of swallowing evaluation, management, and supportive services as related to the educational environment are complex. Applicable laws at both the federal and the state levels will govern the provision of services and the nature of services to be provided. Federal laws pertinent to the consideration of dysphagia management in the school setting include, but are not limited to, the following:

• The Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. §1400, *et seq* and its accompanying regulations
• The Rehabilitation Act of 1973, as amended, 29 U.S.C. § 701(b)(1)
• The Americans with Disabilities Act (ADA) of 1990, as amended, 42 U.S.C. §12101

In addition to the legislation, case law or court decisions serve to clarify and enhance interpretations and applications of the law. Current case law potentially analogous to the issue of dysphagia management in the school setting includes the following:

Additional legal guidance is found at the state level. Licensure acts and their governing licensing boards regulate the practice of speech-language pathology in most states. Many states outline the speech-language pathology scope of practice in general terms, and therefore assessment and intervention for dysphagia, even though not explicitly authorized, may be encompassed within the general definition. State licensing boards may provide additional clarification, typically through a board policy statement, about whether a particular area of practice is deemed to be included within the scope of speech-language pathology practice.

**Ethical Issues**
Professional and ethical standards are defined by ASHA's Code of Ethics (ASHA, 2003) and practice policy documents. State licensing boards may also set standards for professional and ethical practice within the state. Certified SLPs living in states with licensure requirements must adhere to both standards.

ASHA's Scope of Practice in Speech-Language Pathology includes assessment and management of swallowing disorders and the use of instrumentation for the diagnosis of swallowing and feeding disorders (ASHA, 2001b). ASHA's Code of Ethics mandates that SLPs must be competent in any area of service that they deliver (ASHA, 2003). ASHA's practice policy documents on swallowing and feeding disorders clarify that the assessment and management of swallowing and feeding disorders in children are sufficiently different from adult dysphagia to warrant different practice patterns and additional knowledge and skills. (ASHA, 2001a, 2002, 2004a, 2004e). Therefore, SLPs who manage swallowing and feeding in the schools are ethically bound to achieve and maintain competence in this area of practice.

**Competency Issues**
As noted above, experience in adult dysphagia does not in itself qualify an individual to provide services to students without additional knowledge and skills. Mechanisms to develop competency in providing swallowing and feeding services in schools may include the following:

- classes or workshops to acquire, maintain, and update knowledge and skills about normal swallowing and feeding development in the pediatric population and assessment and management of swallowing and feeding disorders in students with various etiologies
- mentored observations of swallowing and feeding assessment and treatment
- mentored hands-on clinical experiences
- verification/documentation of competency level in accordance with organizational policy;
- training in policy and procedures in the school's swallowing program (e.g., process, forms, team function, documentation)
As dysphagia practice continues to evolve, it is incumbent on SLPs to continually update their knowledge of research and practice involving swallowing and feeding for students in the schools. The search for well-documented evidence related to treatment and outcomes is ongoing for all SLPs, who are encouraged to participate in such research where possible.

**Reimbursement Issues**

Some school districts submit claims to third-party payers for reimbursement of swallowing and feeding services rendered in the schools. SLPs are responsible and accountable for all submitted claims when they have been the service provider. SLPs should have an understanding of the requirements of the payer (e.g., state Medicaid, private health insurance) to ensure that they are in compliance.

Requirements of third-party payers (which may differ from school policies) may include but are not limited to the following:

- definition of qualified provider
- student eligibility for services as defined by the payer
- required documentation (e.g., referral, certification, and recertification by the physician, goals and progress notes)
- supervision of support personnel, including SLPs who are not licensed or ASHA-certified (ASHA, 2004c, 2004d, 2005a, 2005b)
- diagnosis codes and/or procedure codes for services provided (e.g., *International Classification of Diseases, Ninth Revision, Clinical Modification* [ICD-9-CM]; *Current Procedural Terminology* [CPT])

**Team Approach**

According to Arvedson (2000, p. 29), “Most feeding and swallowing disorders do not occur in isolation, but are part of a broader spectrum of disabilities.” Effective evaluation and management may require the expertise of several disciplines. Therefore, whenever possible, swallowing and feeding disorders are best addressed using an interdisciplinary team approach. The SLP with appropriate training is in a position to play a key role on the school swallowing and feeding team because of his or her unique combination of knowledge and skills, including

- knowledge of the relevant anatomy and physiology related to swallowing and feeding function;
- knowledge of normal and abnormal development of swallowing and feeding;
- knowledge of all phases of the swallow process: oral preparatory (bolus formation), oral transit, pharyngeal, and esophageal;
- knowledge of communication problems as they impact on swallowing and feeding function;
- skills to identify, assess/evaluate, and treat students with dysphagia.

**Team Members**

The school-based swallowing and feeding team consists of members who serve in the school system as well as medical practitioners outside the school. The school-based team consists of core members who are primarily responsible for decisions regarding dysphagia. The core team typically consists of an SLP (who often serves as dysphagia case manager), the parent/guardian, nurse, classroom teacher, occupational therapist (OT) or physical therapist (PT; as needed), and a school administrator. Additional school team members could include a school psychologist, social worker, and/or cafeteria personnel. Medical professionals outside the school system may include the following: physicians (e.g., pediatrician,
gastroenterologist, neurologist, cardiologist, pulmonologist, psychiatrist, ENT, radiologist), SLP, nurse, dietitian/nutritionist, psychologist, OT, PT, and/or social worker.

**Typical Core Team Member Contributions**

Each profession brings specialized knowledge for addressing the needs of the student with dysphagia. These roles should fit into systematic procedures that may vary from district to district. Typical contributions of core members are described below (Homer, 2003):

Dysphagia case manager (may be SLP or another discipline)
- accepts referrals and disseminates information to appropriate personnel;
- coordinates and assists with scheduling the initial clinical evaluation;
- participates in the IEP with appropriate team members;
- responds to issues and concerns;
- ensures the procedure is being followed and maintains documentation;
- ensures interdepartmental coordination of dysphagia cases;
- maintains communication with interdisciplinary team members.

SLP
- may serve as dysphagia case manager;
- identifies at-risk students;
- provides assessment and treatment;
- recommends the videofluoroscopic swallowing study (VFSS) or other instrumental evaluation when indicated;
- works with nurse to secure doctor's orders for VFSS or diet order;
- attends VFSS when possible;
- communicates closely with SLP performing videofluoroscopic studies;
- establishes swallowing and feeding plan;
- monitors student's swallowing and feeding plan;
- trains school-based personnel and the parent/guardian as needed;
- provides therapeutic intervention;
- communicates with the parent/guardian;
- communicates with medical professionals.

Parent/guardian
- shares knowledge of student's feeding habits, food preferences, and mealtime environment;
- provides medical and feeding history including food allergies, dietary restrictions, and medications;
- shares beliefs related to foods and eating;
- implements swallowing and feeding goals and strategies in home and community environments.

School nurse
- monitors the health, weight, and overall nutrition status of the student;
- writes the IHP (emergency plan) and trains personnel;
- monitors respiration periodically as needed;
• troubleshoots issues related to tracheostomies, feeding tubes, ventilators, etc.;
• assists in contacting and communicating with physicians;
• consults with parent/guardian and teachers;
• administers or assists with administering tube feeding and/or medications.

Occupational therapist

• addresses fine motor skills related to self-feeding;
• addresses sensory and regulation issues;
• addresses positioning and adaptive equipment for eating.

Physical therapist

• addresses postural skills and mobility issues;
• addresses positioning and adaptive equipment needs related to positioning for meal-times.

Classroom teacher

• implements the swallowing and feeding plan in the classroom;
• monitors changes in student's swallowing and feeding in daily classroom activities;
• coordinates the personnel responsible for feeding students;
• communicates with the parent/guardian;
• implements the IHP/emergency plan as needed;
• oversees mealtime environment to make it safe in the classroom or cafeteria;
• supports communication and social goals during feeding.

School System Policy and Procedure
School systems have policies and procedures that are followed throughout the district. Ideally the school system's policy manual will include policies and procedures for addressing dysphagia. The goal of a system-supported process is to develop procedures that are utilized consistently throughout a school district.

With a systematic policy in place, employees are knowledgeable about how to deal with various issues involving students who have a swallowing and feeding disorder. It provides the necessary steps to ensure that all team members are accountable within their respective roles on the team. Their responsibilities include accurate documentation throughout the process. A systematic procedure ensures that students with dysphagia are fed safely and effectively, and may protect employees and the entire school system in the event of litigation (Homer, 2003, 2004; Homer, Bickerton, Hill, Parham, & Taylor, 2000). “The keys to minimizing liability exposure are planning, procedures, training, and the proper execution of those procedures” (R. L. Hammonds, personal communication, September 22, 1998).

The process for developing a system-wide approach includes the following:
• determine organizational procedures for developing new programs
• define the population to be served
• estimate the number of students to be served
• educate administrators on scope of practice of SLPs, definition of dysphagia, signs and symptoms of dysphagia, implications of not intervening, educational impact, liability issues, relation to IDEA
• develop an interdisciplinary team procedure
• develop a district-wide plan that addresses dysphagia (Homer, 2003; Homer et al., 2000)

School-Based Dysphagia Service Delivery

The steps in dysphagia service delivery include the following:
• referral
• parent/guardian notification, involvement, and permission to assess following screening as needed
• screening
• evaluation
• IEP or 504 plan as appropriate
• swallowing and feeding plan
• IHP, IHCP, or HCP
• process for securing physician orders
• intervention and monitoring

A detailed description of each step follows:

Referral. Staff members are trained in the referral process so they understand when and how to refer a student in the event that a concern has been raised by school staff members, parent/guardian, or outside professionals. The district determines who will receive and review the referral based on its local policy. The referral process should be easy to use and readily available (see example in Appendix A).

Parent/guardian notification and involvement. Following the initial referral, the parent/guardian is contacted to discuss the dysphagia management process and provide information about the student. Parents/guardians play a key role as active members of the dysphagia team. A parent/guardian interview is an important source of information regarding such factors as medical history, mealtime environment, and cultural factors in the home (see Appendix B). It is important that the dysphagia team establish open communication with the parent/guardian that respects their knowledge of their student. This communication allows for consistency of strategies across varied settings to ensure the health and safety of the student.

Screening and evaluation. Review of the referral is considered part of the screening process. The parent/guardian and teacher interviews also serve as part of the screening and evaluation process. The teacher interview includes gathering information about how the student's dysphagia affects his or her academic progress and ability to participate in extracurricular activities. Following the screening, a comprehensive, interdisciplinary swallowing and feeding evaluation may occur (see Appendix C). Members of the evaluation team may be selected according to the student's needs. An interdisciplinary observation of the student during a typical mealtime at school may be conducted as an initial evaluation of the student's swallowing and feeding. The person supervising or assisting the student during the meal may be directed by the team to try some modifications and strategies as part of the diagnostic process. The information gathered from this evaluation may be
used in determining pertinent team members, swallowing and feeding strategies, and future course of action. Recommendations for further diagnostic workup or testing procedures may occur later in the process. Results and recommendations should be documented. The above information may be used to draft a swallowing and feeding plan, which may be temporary depending on the need for further diagnostics.

**IEP/504 plan.** An IEP meeting is convened at this stage in the process if a student is determined to be eligible for services. Core dysphagia team members meet with the parent/guardian to discuss the student's swallowing and feeding issues. Evaluation results including team recommendations are reviewed and discussed. All team members, including the parent/guardian, should be aware that the IEP document can be reviewed often and may change depending on the needs of the student throughout a typical school year. If the student does not have an existing swallowing and feeding plan, a plan will be created during this meeting. This discussion lends itself to obtaining additional medical history from the parent/guardian. If a student already has a dysphagia plan in place, it is reviewed and adjusted as appropriate. Goals/objectives and accommodations are written and reviewed during this meeting. It is important for the team leader to confirm that the team members' concerns are discussed and documented before the meeting is adjourned. At times, additional meetings may be needed to allow the parent/guardian to review information provided and feel comfortable with the recommended plan.

**Swallowing and feeding plan (Appendix D).** The swallowing and feeding plan includes training, service delivery, and daily management. The purpose of the swallowing and feeding plan is to ensure that the student receives adequate nutrition efficiently and in the safest manner possible to minimize aspiration risk. A swallowing and feeding plan typically includes recommendations/guidelines on the following: positioning, equipment, diet/food preparation, feeding plan techniques and precautions (which may include behavioral considerations), and the name and contact information for the dysphagia case manager. All pertinent personnel will require adequate education and training related to the swallowing and feeding plan by the SLP. It is important to verify and document the educational training within the plan.

**IHP.** The IHP, also called the emergency plan, is drawn up at the IEP conference by the school nurse. The IHP provides classroom information on specific precautions related to the student's dysphagia—for example, how to respond when the student is in distress. Classroom personnel are trained on the IHP, and it is kept in an easily accessible place. The swallowing and feeding plan may be attached to the IHP for additional information on the student's swallowing and feeding safety precautions.

**Process for securing physician orders for VFSS, clinical evaluation, and/or diet orders.** Collaboration between the dysphagia team and the student's physician or dietitian is advisable for students with complex conditions or severe dysphagia. A written referral or order from the treating physician is required for instrumental evaluations such as VFSS or fiberoptic endoscopic evaluation of swallowing. Some school systems have assumed financial responsibility for these evaluations; however, frequently the students have private insurance or Medicaid that covers
the majority of costs. The dysphagia case manager and/or nurse work with the parent/guardian to secure orders for additional testing as well as for a specialized diet, and for facilitating reimbursement. The hospital-based SLP should be provided with information to fully understand the concerns of the school staff and the purpose for the study (see Appendix E). When possible, the school-based SLP attends the VFSS to discuss the results and recommendations with the hospital-based SLP.

*Intervention and monitoring (treatment logs).* SLPs may provide direct intervention to students with swallowing and feeding concerns for oral sensorimotor skills, sensory stimulation, and so on. Other students may need only monitoring of swallowing and feeding status. Services should be recorded in treatment logs (Homer, Beauxis, & Fish-Finnigan, 2003).

**Documentation of Services**
A record (see Appendix F) of the services that a student with dysphagia receives may be facilitated by forms and may include
- meetings and conversations with the parent/guardian and teachers;
- training of school system personnel;
- direct contact with the student;
- monitoring activities;
- dates verifying that the dysphagia procedure was followed (if the system has a specific procedure in place);
- adjustments and changes to a student's swallowing and feeding plan.

**Dysphagia Team Models**
School districts, depending on the personnel, will need to design a service delivery model that addresses the needs of the students with dysphagia and utilizes the trained personnel available to the system. Each district will need to determine which SLPs on staff are competent to provide dysphagia services. The logistics of providing dysphagia services in the schools will depend on the trained personnel available, the number of students with dysphagia, and the size of the district.

Suggestions for structuring teams follow:

*School-based teams.* Districts with a large number of dysphagia-trained SLPs have the opportunity to develop teams composed of the professionals working together in the same school. The SLP, OT, PT, and nurse who are assigned to the school serve as the interdisciplinary dysphagia team along with the classroom teacher, principal, and other professionals as appropriate. The following are some benefits of the school-based team:
- A school-based team facilitates ongoing monitoring of students.
- It provides regular access to student, teacher, parent/guardian, etc.
- SLP works on speech and language skills as well as dysphagia.
- SLP is on campus in the event that a student chokes or experiences difficulty eating.

*District-based team or “traveling team.”* Many districts will have a limited number of SLPs trained in dysphagia evaluation and treatment. Other districts may be small and have a very limited number of students spread throughout the district who exhibit signs of dysphagia. These districts could form a district-based team in which a core group composed of an SLP serving as the dysphagia case manager,
an OT and/or PT, and a school nurse travel throughout the district to serve the students with dysphagia. The district team would be responsible for accepting referrals, evaluating the students, attending IEP meetings, communicating with physicians regarding instrumental evaluations and diet orders, training staff, and monitoring the swallowing and feeding plans of the students. The following are some benefits of the district-based team:

- Team members, including the SLP, become specialists in dysphagia.
- Districts are able to address dysphagia with only a few trained SLPs.
- Ongoing training is easier with fewer people.

Combination team. In most cases, a combination of school-based and district-based models may serve a district most effectively. Districts that have many dysphagia-trained SLPs may be able to utilize those professionals at their assigned schools to have a school-based team. In addition, the district could have traveling dysphagia team members who work in schools where there is not a dysphagia-trained SLP. For example, a district may have only two schools where the SLP is not trained to work with students with dysphagia. The district could reduce the caseloads of other SLPs who have dysphagia training to allow them to travel to those schools. The OT, PT, and nurse who typically serve those two schools could be on the dysphagia team and collaborate with the traveling SLP. The following are some benefits of the combination team:

- The most knowledgeable professional is on campus in most instances.
- The district can utilize professionals already on staff.
- The district is working toward a goal of having dysphagia teams be school-based (Homer, 2003).

Continuum of Dysphagia Services in the Schools
The relationship between the skills and knowledge of SLPs and the resources available to districts may have an effect on how the district is able to serve students with dysphagia. Following are some suggestions for adapting services to available resources and personnel:

1. The school district has no SLPs with dysphagia training.
   - The school district may contract services with a private consultant or agency to provide dysphagia evaluation and treatment.

2. The SLP has enough dysphagia training to recognize the need for an outside expert, but the district is not supportive of contracting with private consultants.
   - SLP may be able to work with the parent/guardian and refer the student to a medical facility with SLPs who have expertise in pediatric dysphagia.
   - SLP works toward educating the administration and advocating for outside consultants to train and work with district SLPs.
   - SLP provides the safest feeding procedures to the staff and documents this process.

3. The SLP has enough dysphagia training to recognize the need for an outside expert, and the district is supportive.
   - District could bring in a consultant to assist in the development of a swallowing and feeding program to be carried out by school-based employees.
Consultation would be ongoing.
• An SLP in a specific school has knowledge and experience in pediatric dysphagia and works with the school’s administration. Administration may adopt processes/procedures to work with students who have dysphagia within the school.
• District at large may not have a formal process/procedure in place, but SLP advocates to develop school-based model and establish district policies.

4. A large district has comprehensive programs in place to evaluate and treat students with swallowing and feeding disorders in the school.
• District recruits and provides training to SLPs with dysphagia experience.
• District fosters professional development and is supportive of its clinicians.

5. A district provides a comprehensive outreach center or clinic with a swallowing and feeding focus.
• This model may be more common in a special needs school setting with more medically complex students.
• School districts that have a sufficient number of students requiring dysphagia services may choose this option.

**Service Delivery**
Management of students with dysphagia in the schools addresses the impact of the disorder on the student’s education performance. Some students will benefit from intervention to address oral sensorimotor and broad sensory issues, while others may require training in swallowing and feeding strategies during mealtimes. Following are examples of service components:

• The case manager monitors that the student is being fed according to the student’s swallowing and feeding plan.
• The frequency of monitoring depends on the student’s response during feeding and the need to observe/reinstruct the individual who is feeding the student.
• Suggested activities of the SLP:
  - Consult with classroom teacher, paraprofessionals, student health aide, lunch duty teachers, parent/guardian, etc.
  - Observe student during lunch and/or snack.
  - Eat lunch with student at a specified interval.
  - Work directly with student during lunch as needed.
  - Hold a staffing meeting of primary dysphagia team members at specified intervals to discuss student’s status.
  - Monitor student during mealtimes more often for the first several weeks. After initial set-up, develop a schedule according to the student’s needs.
  - Work directly with the student during speech/language sessions to incorporate dysphagia goals and objectives.

**Bridging Medical and Educational Settings**
The collaboration between the school-based dysphagia team and medical professionals includes consideration of whether a referral is warranted for medical assessment, medical clearance, or ongoing medical care. Typically, this consideration would arise for the student with a medically complex condition as opposed to the student for whom medical conditions are stable and for whom special care during the school day is not specified in the IEP or IHP.
Medical assessment. If the dysphagia team determines that medical assessment is advisable prior to initiation of a school-based dysphagia program or during the course of a program, the recommendation may be made to the family to seek medical consultation. This recommendation would apply to referral for a VFSS as well as to other medical diagnostic and/or treatment consultations.

Intervention program. Although SLPs do not require a medical prescription or other form of medical approval to perform clinical evaluations or implement intervention programs, there are instances when a prescription, referral, or medical clearance may be requested from the student's primary care physician or other health care provider. This request may be provided to the family for their consideration and implementation or, in instances when the school has approval for direct communication with the health care providers, may be made directly to the provider after discussion with the family. These requests for medical collaboration may include the following:

1. Prescription or medical clearance for clinical dysphagia assessment and/or intervention. This prescription or clearance may be advisable for students who receive part or all of their nutrition or hydration via enteral or parenteral tube feeding and may be considered for students with medically complex conditions, including but not limited to degenerative neurologic disorders and pulmonary disease. Medical clearance may be considered when the student's medical status is a significant variable for determining the appropriate clinical assessment strategies;

   • management of daily activities involving swallowing, such as nutrition, hydration, administration of oral medications, saliva clearance, and oral hygiene;

   • treatment objectives and strategies.

2. In some cases, the school-based dysphagia team or special services team may determine that the IHP for a student with a medically complex condition needs to be approved by the student’s primary health care provider or school physician. The school-based SLP consults with the student's swallowing and feeding team and educational team to determine whether the student's medical condition warrants medical clearance of the IHP. The SLP participates in determining the need for medical assessments or medical consultations for management of dysphagia and dysphagia-related medical conditions and requesting the medical referral. The school administration policy should include guidelines for funding the collaboration between school-based and medical care providers.

Future Needs
The diagnosis and treatment of dysphagia in school-aged students require the coordinated efforts of states, school districts, and individual SLPs with the support and guidance of ASHA. Some anticipated needs are listed below:

• expansion of continuing education programs focused on delivery of swallowing and feeding services in the schools;

• clarification of reimbursement mechanisms;

• advocacy at federal, state, and local levels for inclusion of dysphagia services in schools, including appropriate staff and resource allocation;

• research on outcomes of dysphagia assessment and intervention in schools and the impact on overall school performance.
References


Homer, E. (2004). Dysphagia in the schools: One school district’s proactive approach to providing services to children. Perspectives on Swallowing and Swallowing Disorders (Dysphagia), 13(1), 1, 7-9.


Appendix A: Feeding/Swallowing Team Referral Form

Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools

Date form completed: ____________________

Student: ____________________ School: ____________________

Date of Birth: ____________________ Classroom Teacher: ____________________

Completed by: ____________________ Title: ____________________

Please check all that apply:

Medical Information
- Repeated respiratory infections/history of recurring pneumonia
- Receives nutrition through tube feeding
- Vocal fold paralysis
- Cleft palate
- Reported medical history of swallowing problems
- History of head injury
- Weight loss / failure to thrive
- Frequent constipation, diarrhea, or other gastrointestinal tract problems

Observed Behaviors
- Requires special diet or diet modification (e.g., baby foods, thickener, soft food only)
- Poor upper body control
- Poor oral motor functioning
- Maintains open mouth posture
- Drooling
- Nasal regurgitation
- Food remains in mouth after meals (puckering)
- Wet breath sounds and/or gurgly voice quality following meals or drinking
- Coughing/choking during meals
- Swallowing solid food without chewing
- Effortful swallowing
- Eyes watering/crying during meals
- Unusual food/neck posturing during eating
- Hyperresponsive gag reflex
- Refusal to eat
- Food and/or drink escaping from the mouth or trach tube
- Spitting up or vomiting associated with eating and drinking
- Shared speech
- Mealtime takes more than 30 minutes

Additional Information or Comments: ____________________

St. Tammany Parish Schools Dysphagia Team 9/66
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### Appendix B: Parent/Guardian Input - Swallowing and Feeding

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Student</td>
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<tr>
<td>Date of Birth</td>
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<tr>
<td>Current Height and Weight</td>
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<tr>
<td>Physician</td>
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<tr>
<td>Allergies</td>
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<tr>
<td>Does your student feed himself/herself?</td>
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<td>___ Yes, independently</td>
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<td>___ Yes, with assistance</td>
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<tr>
<td>___ No</td>
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<tr>
<td>Does your student enjoy meals?</td>
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<tr>
<td>How do you know when your student is hungry?</td>
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<tr>
<td>How do you know when your student is full?</td>
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<tr>
<td>How long does it take your student to complete a meal?</td>
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<td>___ 10-20 min</td>
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<td>___ 20-30 min</td>
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<td>___ 30-40 min</td>
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<td>___ &gt;40 min</td>
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<td>Does your student have difficulty with any of the following?</td>
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<td>___ Choking during a meal</td>
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<td>___ Tongue thrust</td>
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<tr>
<td>___ Very fussy eating behaviors</td>
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<tr>
<td>___ Cheewing</td>
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<tr>
<td>___ Breathing</td>
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<tr>
<td>___ Chronic ear infection</td>
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<td>___ Noisy breathing</td>
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<tr>
<td>___ Gurgling</td>
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<tr>
<td>___ Chronic respiratory problems (pneumonia)</td>
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<tr>
<td>___ Coughing with or without spraying of food</td>
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<tr>
<td>___ Being touched around the mouth</td>
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<tr>
<td>___ Chronic respiratory problems (pneumonia)</td>
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<td>___ Gagging</td>
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<tr>
<td>___ Drooling</td>
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<td>___ Frequent</td>
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<td>___ Occasional</td>
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<tr>
<td>Was or is your student fed through a feeding tube?</td>
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<td>If yes, when?</td>
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<td>Why?</td>
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<tr>
<td>___ Aspiration</td>
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<td>___ Medication</td>
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<td>___ Transition to Oral Feeding</td>
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<td>___ Liquids only</td>
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<td>___ Other</td>
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<tr>
<td>What are your student’s food preferences?</td>
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<tr>
<td>Likes</td>
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<td>Dislikes</td>
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<td>What kinds of food does your student eat?</td>
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<td>___ Liquids</td>
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<td>___ Thickened liquids</td>
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<td>___ Mashed</td>
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<td>___ Ground</td>
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<td>___ Chopped</td>
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<tr>
<td>___ Bite-sized pieces</td>
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<tr>
<td>___ Table foods (whatever your family is eating)</td>
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<td>Does your student take any nutritional supplements?</td>
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<tr>
<td>If yes, specify</td>
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<td>Do certain foods/liquids appear to be more difficult for your student to eat?</td>
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<td>How is your student positioned during feeding?</td>
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<tr>
<td>___ Sitting in a chair</td>
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<td>___ Sitting in a wheelchair</td>
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<tr>
<td>___ Sitting</td>
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<td>___ Hold on lap</td>
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<td>___ Reclined</td>
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<td>___ Lying down</td>
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<td>___ Other</td>
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<td>What utensils are used?</td>
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<td>___ Bottle</td>
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<td>___ Spoon</td>
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<td>___ Fork</td>
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<tr>
<td>___ Sippy cup</td>
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<tr>
<td>___ Cup (no lid)</td>
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<tr>
<td>___ Straw</td>
<td></td>
<td></td>
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<tr>
<td>___ Other adaptive equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has your student ever had a swallow study?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>If yes, when?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What were the results?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Comments or Concerns</td>
<td></td>
<td></td>
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<tr>
<td>Parent/guardian signature</td>
<td></td>
<td></td>
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<tr>
<td>Date</td>
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</tbody>
</table>

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Appendix C: Interdisciplinary Consultation Swallowing and Feeding Observation/Evaluation

Date of Consultation: ____________________

Student: ____________________  Age: ________  Date of Birth: ____________________

Diagnosis: ____________________  Exceptionality: ____________________  Physician: ____________________

School: ____________________  Classroom Teacher: ____________________

SLP: ____________________  OT: ____________________  Nurse: ____________________

Medical History: ____________________

GENERAL INFORMATION

During this consultation the student was:

Seating: ___ wheelchair  ___ Tumbleform  ___ Rifton Chair  ___ other__________

Student Position: ___ upright  ___ semi upright  ___ reclining <30°  ___ other__________

Food Presented by: ___ classroom teacher  ___ paraprofessional  ___ parent/guardian  ___ other__________

Utensils used: ___ bottle  ___ sippy cup  ___ cup  ___ spoon  ___ fork  ___ straw__________

GENERAL OBSERVATIONS

Behavior: ___ cooperative  ___ resistant  ___ refusal  ___ other__________

Alertness: ___ alert  ___ lethargic  ___ irritable  ___ other__________

Follows directions: ___ verbal  ___ gestural  ___ none  ___ single-step only__________

Vision: ___ visual impairment  ___ moderate impairment  ___ severe impairment__________

GENERAL PHYSICAL OBSERVATIONS

Abnormal reflexes observed: ____________________

Trunk: ___ excessive extension  ___ dystonia  ___ scoliosis  ___ kyphosis  ___ asymmetric

Head Control: ___ adequate  ___ poor  ___ excessive head/neck hyperextension

___ receives external positioning  ___ receives manual positioning  ___ reflexive position patterns

Facial: ___ asymmetric  ___ contortions  ___ jaw extension  ___ grimaces/tics

___ open mouth posture  ___ increase tone  ___ decrease tone

Breathing Patterns: ___ mouth breather  ___ audible inhalation  ___ nasal congection

OBSERVATION OF FEEDING

Food Consistencies: ___ pureed  ___ ground  ___ mashed  ___ chopped  ___ bite size

___ mixed (indicate consistencies of mixtures)

Food Presented during evaluation: ____________________
Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools

<table>
<thead>
<tr>
<th>Indicate food consistency:</th>
<th>Indicate observed behaviors:</th>
<th>Additional observations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepts food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lips</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor lip closure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Drooling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reduced lip action to clear material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tongue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor blade formation/movement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Decrease anterior/posterior movement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Food residue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence of rotary jaw movement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Munching jaw movement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed swallow initiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swallow delay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cough following swallow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increased clearing throat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual food in oral cavity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good swallow</td>
<td></td>
<td></td>
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<tr>
<td>Fatigues easily</td>
<td></td>
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</tr>
</tbody>
</table>

**OBSERVATION OF DRINKING**

<table>
<thead>
<tr>
<th>Liquid Consistencies:</th>
<th><strong>unthickened</strong></th>
<th><strong>nectar</strong></th>
<th><strong>honey</strong></th>
<th><strong>pudding</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Presented during Evaluation:</td>
<td></td>
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</tbody>
</table>

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<th>Additional observations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongue thrust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced tongue retraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anterior loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited jaw opening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited upper lip closure over cup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed swallow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coughing following drink</td>
<td></td>
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</tbody>
</table>
OBSERVATION OF DRINKING

Liquid Consistencies:  __ unthickened  __ nectar  __ honey  __ pudding
Liquid Presented during Evaluation: ________________________________

<table>
<thead>
<tr>
<th></th>
<th>Indicate liquid consistency</th>
<th>Indicate observed behaviors</th>
<th>Additional observations</th>
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<tr>
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ADDITIONAL COMMENTS

RECOMMENDATIONS
1. __________________________________________________________
2. __________________________________________________________
3. __________________________________________________________
4. __________________________________________________________

INTERDISCIPLINARY CONSULTATION CONDUCTED BY:

Speech/Language Pathologist

Occupational Therapist

Nurse

ADDITIONAL PARTICIPANTS

Signature: ______________________________________  Title: ______________________________________

____________________________________  ________________________________

St. Tammany Parish Schools Dysphagia Team 9/06
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Appendix D: Swallowing and Feeding Plan

Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools

Date of Plan: ____________
Review Date: ____________

Student: __________________________ Date of Birth: ____________
School: __________________________ Teacher: ________________
Dysphagia Case Manager: __________________________ If there are any questions regarding this student’s feeding plan, please contact the Case Manager at the following Location(s): ________________ Phone/s: ________________
Case History: ____________________________________________________________________________________________

Feeding Recommendations:
Positioning: __________________________
Equipment: __________________________
Tube Feed: __ tube fed/nothing by mouth __ tube and oral feed
(amount fed orally: __________________________)
Diet/Food Prep:
Food Consistency: __ Puried __ Ground __ Chopped __ Mash __ Bite sized
Liquid Consistency: __ Nc liquids __ Thin liquids
__ Thickened liquids (circle) nectar honey pudding
Other: __________________________

Feeding Plan Techniques/Precautions:
Amount of food per bite: __________________________
Food placement: __________________________
__ Keep student in upright position ______ minutes after meal.
__ Offer a drink after _____ bites
Additional precautions/comments: __________________________

Swallowing and Feeding Plan In Service Training
I, the undersigned, have read and been trained on implementing the swallowing and feeding plan for __________________. I agree to follow the swallowing program as specified.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date Review</th>
<th>Date</th>
</tr>
</thead>
<tbody>
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Appendix E: Pre VFSS Information Form

Date form completed: ____________________

Name: ____________________________________ Date of Birth: ____________
Diagnosis: ____________________________ CA: ____________
Referring SLP: __________________________
Brief Medical History: ____________________________________________

Positional concerns/adaptive equipment currently used at school:
____________________________________________________________________

Current diet:
____________________________________________________________________

Summary of Interdisciplinary Consultation: The following was observed during a clinical observation of the student’s feeding and swallowing at school.

Out Phase

_ drooling
_ pocketing  _ lateral sulcus  _ anterior sulcus
_ not clearing the oral cavity before swallow
_ anterior loss/poor lip seal
_ excessive chewing
_ hyper/hypo sensitivity
_ difficulty with bolus formation

Pharyngeal Phase Inferences

_ coughing/choking  _ before  _ after  _ during swallow
_ delay in triggering swallow
_ wet/gurgly voice quality after swallow
_ decreased/absent laryngeal elevation
_ expectorating food
_ apneustic swallows

Information that the school system would like to get from the VFSS is as follows:

1. _______________________________________________________________
2. _______________________________________________________________
3. _______________________________________________________________
4. _______________________________________________________________

We have included a St. Tammany Parish School Board Authorization for Release of Confidential Information.

St. Tammany Parish Schools Dysphagia Team 9/06.
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Appendix F: Swallowing and Feeding Team Procedure Checklist

Student: ___________________  School: ___________________
SLP: ___________________  OT: ___________________  Nurse: ___________________

**PROCEDURE:**
- Referral form completed and sent to Dysphagia Coordinator
- Parent/guardian informed of concern
- Interdisciplinary consultation conducted
- IEP meeting held (check attendance)

1. Person attending:
   - __ Teacher  __ SLP  __ Nurse  __ Other
   - __ OT  __ IEP facilitator  __ Administrator  __ Parent/guardians

2. Issues Addressed at IEP (check issues addressed)
   - __ Emergency Plan
   - __ Medical History
   - __ Referral to Physician
   - __ Release of Information
   - __ Temporary Feeding Plan
   - __ Special Diet

Training is conducted (check and date)
- __ Emergency Plan
- __ Feeding Plan

Medical information/referral from physician is requested (check and date)
- __ Clinical Evaluation
- __ VNSI

Studies conducted (VNSI attended by case manager)

Diet prescription is sent to/received from physician

Diet order faxed to food service supervisor

School cafeteria manager and parent/guardian notified of diet order

Diet change started at school

Therapy feeding guidelines and swallowing treatment plan developed

IEP reviewed to update information

School personnel and parent/guardians trained in feeding/treatment plan

Feeding/treatment plan initiated

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St. Tammany Parish Schools Dysphagia Team, Revised 9/96
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