Pediatric Dysphagia: Transitioning to School Services

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Objectives

● Outline the role of the school-based SLP in dysphagia management for children with medical complexities
● Discuss challenges in transitioning into school services for children with dysphagia
● Identify main components of a school-based swallowing evaluation
● Name and interpret common instrumental testing options
● Determine appropriate intervention and management decisions using case studies
● Provide additional resources for continued learning

Why do I need to know this as a school-based SLP?

● Number of children requiring dysphagia management in educational system is increasing
  ○ Increasing survival rates of premature infants and children with disabilities
  ○ 25-45% typically developing children
  ○ Up to 80% children with developmental disabilities

Why do I need to know this as a school-based SLP?

● A 2008 study queried aspects of current caseloads, formal education, post-degree training, and self-assessment of confidence to treat swallowing in the school setting
  ○ 9% of these participants reported a high self-confidence even though they had limited or no formal education, post-graduate degree training, or previous experiences with dysphagia management
  ○ This work has been replicated with similar results reported.

(Lefton-Greif, 2008; Linscheid et al., 2005; Arvedson, 2008; ASHA practice portal 2019)

Why do I need to know this as a school-based SLP?

● ASHA guidelines:
  ○ Recommending a safe swallowing/feeding plan for the Individualized Family Service Plan (IFSP), Individualized Education Program (IEP), or 504 Plan.
  ○ Individuals with Disabilities Education Improvement Act, Part B (2004):
    ○ Children with dysphagia may qualify for skilled therapy involving feeding and swallowing in schools under the “other health impairment” category.
    ○ Students must have proper nutrition and hydration to be able to fully access and participate in their education

(O’Donoghue, Creel, & Jones, 2004; O’Donoghue & Dean-Claytor, 2008)
Feeding and Swallowing Considerations for the Student with Medically Complexities

Review: The Medically Complex Child
- Children with significant chronic conditions in two or more systems
- Children with a single dominant chronic condition

Neurologic issues
Respiratory concerns
Gastrointestinal problems
Cardiac compromise
Anatomical abnormalities
Multiple comorbidities
  - Prematurity
  - Chronic conditions that affect multiple systems in the body
  - Increasing survival rates of premature infants and children with disabilities

Etiology of Swallow and Feeding Impairment
- Complex medical conditions (i.e., heart conditions, GERD, TBI etc)
- Developmental disability
- Neuromuscular coordination (i.e., hypotonia, hypertonia)
- Genetic syndromes
- Medication side effects
- Neurologic disorders
- Sensory issues
- Structural abnormalities (e.g., cleft lip and/or palate)
- Behavioral factors
- Socio-emotional factors

Adapted from ASHA Practice Portal on Pediatric Dysphagia

Review: Dysphagia
- A problem with feeding or swallowing, secondary to a primary disorder. This can occur anywhere from the mouth to the stomach.
- More likely to occur in children with atypical development such as congenital or acquired neurological conditions, structural abnormalities, or other complex medical conditions

Review: Aspiration
- Food or liquid passing below the true vocal folds into the airway
- A possible outcome of dysphagia
- May result in recurrent upper respiratory infections, airway obstruction, pneumonia, weight loss, discomfort, and even death

Remember: many children with dysphagia have SILENT aspiration
Signs or Symptoms of Dysphagia:

- Gagging
- Coughing/choking while eating
- New onset of feeding difficulty
- Weight loss
- Irritability or behavior problems during meal times
- Prolonged mealtimes (>30 minutes)
- Avoiding or refusing certain foods
- Excessive drooling
- Frequent respiratory illnesses causing child to miss school

Transitioning to School Services:

How do I evaluate a child for feeding or swallowing impairment?

Goals of a School Swallow Evaluation

- Presence, absence, or risk of swallow problem
- Possible etiology of problem
- Estimated severity if swallow problems are present
- Baseline observations of feeding and swallowing behaviors
- Determine need for instrumental assessment or other referrals
  - Repeat imaging?
  - Where are we transitioning from?

Communicating with the Team

- Other school personnel on feeding team
- Releases to communicate
- External providers
  - primary care
  - previous feeding therapists
  - medical SLP

Key Components of the Swallow Evaluation

1. History (medical, developmental, feeding)
   - Do I have any medical reports available to me?
2. Oral motor exam and general physical examination
3. Observation of feeding
4. Indicators for referral and/or instrumental testing

* Optimal if conducted in collaboration with other members of the school swallowing and feeding team.

Key Component 1: Case History

- Family history
- Prenatal history
- Perinatal history
- Developmental milestones
- Medical history and current diagnoses
- Growth history
- Nutrition history
- Feeding behaviors
- Psychosocial history
Remember that any of these systems can impact feeding and swallowing performance:
- Neurologic issues
- Respiratory concerns
- Gastrointestinal problems
- Cardiac compromise
- Anatomical abnormalities

**Neurologic:** CP, TBI, IVH, HIE, etc.
Risk for:
- Silent aspiration
- Delayed swallow initiation
- Inability to clear pharyngeal residue
- Impaired oral skills and oral control of bolus
- Esophageal dysphagia
- Reflux/constipation (food refusal)

**Respiratory:** CLD, dependence on respiratory support, trach, etc.
Risk for:
- Discoordination of breathing/swallowing
- Silent aspiration
- Decreased hyolaryngeal excursion
- Decreased sensation
- Decreased tolerance of aspiration

**Gastrointestinal:** reflux (GERD), constipation, short gut syndrome, dysmotility, etc.
Risk for:
- Impaired sensation 2/2 chronic reflux
  - Delayed swallow initiation and silent aspiration
- Volume limiting
- Texture sensitivity
- Food refusal

**Cardiac:** risk for fatigue, poor tolerance of aspiration

Anatomic abnormalities: poor oral skills, posterior spillage, residue, decreased pharyngeal pressures (increased residue), aspiration

What if the student falls into more than one category?
- Most medically complex children do!
- What does that mean for your swallow evaluation in the school setting?
  - Medical records and history from parents
    - Ask for test results!
  - Many of the components of dysphagia impacted by these systems cannot be observed clinically and require instrumental assessment
**Dysphagia in the Medically Complex Child**

Pediatric feeding problems are complex and heterogeneous.

In infants, feeding behaviors are considered appropriate functional responses to challenges of feeding.

When older children present with feeding difficulties, they also often have complex medical history and yet are often not treated as such.

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**Indications for Instrumental Swallow Evaluation**

- Concern for safety
  - Dysphagia contributing to weight loss
  - Respiratory issues (i.e., frequent respiratory illnesses)
  - Airway safety (i.e., choking)
- Need to identify swallow impairment to guide treatment
- Inconsistent or unclear signs and symptoms of dysphagia during swallow screen
- Time since previous imaging

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**Common Testing Options**

**Modified Barium Swallow Study (MBSS):**
- Real-time X-ray images examining the oral cavity, pharynx and upper esophagus during a swallow.
- Involves trial feeding with different consistencies of food and liquid, using barium as the contrast.

**Fiberoptic Endoscopic Evaluation of Swallowing (FEES):**
- Involves the insertion of a flexible endoscope into the nose which is then lowered down to the level of the soft palate. The pharynx and larynx can be viewed before and after the swallow.
Other Instrumental Testing Options

- EMG (electromyography)
- Manometry
- pH monitoring
- Upper GI Study
- Esophagram
- Endoscopy
- Allergy testing

Intervention and Management Decisions

Treatment

- Should be based on assessment results and recommendations
- Consider the etiology of dysphagia and other underlying medical diagnoses
- Can be compensatory or restorative
- Uses a team approach

Treatment - the Pieces of the Puzzle

- Positioning
- Drooling
- Aspiration prevention
- Gastroesophageal reflux disease management (GERD)
- Esophageal dysphagia precautions
- Sensorimotor interventions
- Behavioral interventions
- Nutrition

Aspiration Treatment

- Dependent on cause of aspiration
- Goal: prevent aspiration using least invasive methods and least restrictive diet
- Noninvasive
  - Swallow therapy (compensatory and restorative)
  - Positioning
  - Alterations in diet (e.g., texture, size, temperature, modality, timing)
Esophageal Dysphagia Precautions

- Smaller more frequent meals
- Alternate bites and sips
- Remain upright for 60 min after meal
- Add moisture
- Thin purees
- Avoid hard dry foods like meat, hard breads, sandwiches

Behavioral Feeding Disorders

- “When a child has a response to foods, liquids, and/or mealtimes that interferes with his or her ability to function in normal, daily living activities both at home and in the school setting” (Homer 2016)
- Rarely occur in isolation, occur with other medical diagnoses
- Refusal behaviors are communication
  - Often begin as an appropriate response to underlying discomfort

Goals of Treatment in the Schools:

- Identify underlying cause of behaviors and address them
- Decrease mealtime stress
- Decrease incidence of problem behaviors in school setting
- Least restrictive/most normalized diet for age/developmental level

*Think safety and socialization

Undernutrition

- Goal for safe and efficient nutrition and hydration
- Know the signs of undernutrition and dehydration
- Supplemental or alternate means of nutrition (i.e., NG or GT)
- Be familiar with School Lunch Program
- Important to work with school cafeteria/nutrition manager (modifications, food allergies)

(Homer 2016)

Case Study #1

Case Study #2
Continued Education

- Four-part series on Dysphagia Management in the Schools through the VDOE website revised spring 2019.

- Continuing education credits available if you complete the quizzes.

Additional Resources

- www.asha.org/practice-portal/clinical-topics/pediatric-dysphagia
- www.feedingmatters.org

Interested in a Ph.D.? Let’s Talk!

Or

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