Comprehensive Dysphagia Management: Assessment, Nutrition, & Medication Challenges for the Speech Language Pathologist

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Jackson, MS
Dysphagia

dys·pha·gia
\dis-ˈfā-j(e-)ə\n
- Disorders
- Dysphagia risk?
- Which ones travel together?
- Phase of swallow affected:
  - oral
  - pharyngeal
  - esophageal

- Medications
- One pill may not be the problem-what is taken together is

- Drug Interactions
- Bedside Evaluation
- Standardized
- Personal evaluation
Statistics for Dysphagia

- An estimated 15 million people in the United States have the current diagnosis of dysphagia.

- Approximately one million people annually receive a new diagnosis of dysphagia.

- Nearly 60,000 people die each year from complications associated with swallowing disorders.

- 25% of the elderly are malnourished.
Dysphagia

- Caregiver Compliance
- Misjudge the assistance needed
- Too busy
- RNs don’t have the knowledge either disinterested vs. lack of training
- CNAs disagree with recommendations (Colodny, 2001)

- One pill may not be the problem - what is taken together with the pill is!
  - Drug-Drug Interaction
  - Drug-Food Interaction
  - Drug-Herb Interaction
Coughing? Why? What Reason? Cannot be established at bedside

- Medication side effect
- Post nasal drip
- Penetration/aspiration from initial swallow or residue
- 30% of unexplained cough have reflux
- 38.1% with unexplained cough have esophageal cancer

Will dysphagia therapy change this? NO
Increase risk for esophageal cancer
Review patient’s charts carefully

- Look for COPD
- Boniva drug
- Reflux
- Bone Density
- Psy. Meds
Dysphagia

- Behavioral, sensory & preliminary motor preparation for swallow:
- Swallow starts with smelling food!
  - We call it Dysphagia Aromatherapy!
- Cognitive awareness of eating situation
- Sensory input to the patient
- Self feed as long as possible but make it enjoyable

Remember: all physiologic responses to smell/presence of food: INCREASES SALIVATION
Statistics

- Every $1 spent on nutritional services saves at LEAST $3.25 in medical costs
  Mealtimepartners.com February Newsletter

- Pre-thickened liquids 44%-59% LESS EXPENSIVE than mixing at bedside
  (Nursing Economics. April/May 2010)

- US Census Bureau:
  - 21% nursing home pts MUST BE FED
  - 26% nursing home pts NEED HELP AT MEALS
  - 40% nursing home pts UNDERNOURISHED
Dysphagia Patient Screening

- If we ask specific questions, not general, such as do you have trouble swallowing? Patient usually responds NO
- We must look at diet changes reported if any
- Check if they refuse certain foods
- Make excuse for diet changes
- Make a refusal to eat with the family
- Weight loss

- Poor awareness or have difficulty controlling secretions
- Constant chest secretions
- Gurgly voice
- Cough before, during, and after swallow
Observe Patient at MEALTIME

- Breathing difficulty
- Voice changes
- Multiple swallows per bolus
- Throat clearing
- Coughing
- Increased secretions
- Pocketing
- Significant fatigue at meal
- Holding food
- Decreased chewing
- Prolonged mealtime
- Requires extra time
- Assess environment and behavioral variables
- Identify positive and negative variables:
  - Lighting
  - Atmosphere
  - Table mates
  - Time needed for meal completion
  - Consumption
  - Amount of assistance required
  - Response to food (Mills, 2000)
Chart Review and Medical HX

- Medical/Health Status
- Function Status
- Oral/dental status
- GE Reflux status
- (All are predictors of aspiration pneumonia)
- At risk if you have dentures and teeth and you do not clean them
- Mouth sores from meds
MOUTH CARE for the SLP

- IMPORTANT AND A NECESSITY!!!
- Mouth care delegated to CNA’s and student nurses
- Mouth care is a 24/7 service before and after a meal
- Should play a major role for the SLP now

VERY IMPORTANT ALWAYS!!!
MOUTH CARE

- 4 common etiologies that contribute to oral mucosa breakdown:
  - Motor/cognitive deficits
  - Oropharyngeal musculature/swallowing dysfunction
  - Specific medications
  - Oxygen or suctioning therapies
MOUTH CARE

44% - 65% of patients dependent on caregivers receive INADEQUATE ORAL CARE!!!

(Nursing staff perspectives on oral care for neuroscience patients. Journal of Neuroscience Nursing. (Cohn, Fulton, 2006)

What does that mean for the SLP?
This is an area we can improve better conditions of our patients through education and training.

IT IS EVERYONE’s RESPONSIBILITY!!!
MOUTH CARE GUIDELINES FOR THE SLP

- Regular tooth brushing for alert patients
- Alcohol free mouthwash for alert patients
- Hard candies, ice chips, sips of water or water sprays-only when upright and if tolerated – patient specific
- Biotene, Oasis, Sage Products
- Swab less alert patients with chlorhexidine 0.12% alcohol free mouthwash or water
- Remove/clean dentures regularly
- Treat cracked lips with lip balm ointment preferably Burt Bees and not petroleum jelly because of interactions
Why should hospitals care so much about the oral cavity?

- Most bacterial nosocomial pneumonia are caused by aspiration of bacteria colonizing the oropharynx or upper GI tract of the patient.  
  Center for Disease Control (1997)

- Nosocomial pneumonia accounts for 10-15% of all hospital acquired infections. 20-50% of all infected patients will die as a result of the infection.  
Why is Speech-Language Pathology Addressing the issue of Oral Care?
Current Oral Care Practices

Foam swabs are commonly used to provide mouth care to patients who cannot provide their own care.

SWABS ARE NOT EFFECTIVE FOR PLAQUE REMOVAL AND ONLY PROVIDE MOISTURE REFIEF.
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<th>ICU</th>
<th>Acute Care</th>
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<td>Standard Already Created. Told to change anything but the key points (Win Win Situation)</td>
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<td>Multiple in-services</td>
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<td>Chose objective research measure</td>
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HEAD ACUTE DYSPHAGIA SCREEN for STROKE (HeADSS)
An Initial Swallow Screen for Acute Stroke Patients

- Is the patient able to maintain consciousness? NO
  - Can the patient sit/be sat upright? NO
    - Has the patient had previous swallow difficulties? YES
      - Is there a confirm aspiration pneumonia? YES
        - Place NIL BY MOUTH
        - Do NOT continue the screen
        - Do NOT refer to SALT
        - Refer to Dietitian
        - Maintain medical management until fit for screening
        - Place completed Screening Outcome Sticker in the medical notes
        - Return this form to Adult SALT Dept.
      
  - Place NIL BY MOUTH
  - Do NOT continue the screen
  - Refer to SALT
  - Refer to Dietitian
  - Place completed Screening Outcome Sticker in the medical notes
  - Return this form to Adult SALT Dept.

PROCEED WITH CAUTION: Ensure the Patient's mouth is MOIST and CLEAN prior to water trial
Materials: A) water B) digital timer C) 50mls medicine pot/ aliquot D) clear glass
1. Measure 50 mls into the clear glass and SET THE TIMER TO 5 SECONDS.
2. Give the clear glass to the patient. Do not permit drinking until you are ready to begin timing.
3. Explain to the patient that when you say "GO" you want him/her to start drinking without stopping and that you will time them.
4. Say "GO" and begin timing from the moment the WATER TOUCHES THE LIPS. Observe the patient's larynx for movement during the swallowing and check the patient for signs of difficulty, e.g. delayed and/or absent swallow and/or coughing.

- 50 mls swallowed WITHIN 5 SECONDS, NO COUGHING during or following swallowing. NO OTHER difficulties
  - Place patient on THEIR normal diet and fluids
  - Return this form to Adult SALT Dept.
  - Place completed screening outcome stick in notes
  - Observe patient eating and drinking during their first meal following this screen
  - If there is any indication of coughing/discomfort or chestiness, place NBM and refer to SALT

OUTCOME
- Patient is placed on their normal diet and fluids.
- Patient is NBM and awaiting SALT Assessment.
- Patient is NBM and will be medically managed.

Signature: ___________________________ Print name: ___________________________ Date: ___________ Ward: ___________

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How They Form

Attachment 1

Growth 2

Detachment 3

Interventional Patient Hygiene Implementation Plan Checklist

Phase 1: Pre-Trial
- Establish mutual expectations for successful evaluation (include timeframe of trial)
- Determine units for evaluation
- Set date for in-service and trial
- Order product codes and establish delivery dates (include compliance tracked placement)
- Review clinical practice assessment forms
- Protocol/guideline development (sample CD-Rom)

Phase 2: Evaluation
- Education prior to trial; education website, online video, inservices, posters, product, protocol awareness
- Identify 3 key believers per shift
- Execute trial with follow-up schedule
- Summarize clinical evaluation findings
- Meet and review results with unit manager, committee members (PST)
- Set committee meeting date for approval

Phase 3: Conversion
- Set conversion date based on successful trial
- Patient Cleansing hardware agreement
- Set in-service dates and posters
- Determine suggested initial per levels (reference protocol and average census)
- Obtain letter/mandate from unit manager stating conversion date and Sage presence
- Establish distributor stock requirements

SAGE
www.sageliquid.com
Oral Care
SAGE Products
Oral Care Reduces Pneumonia in Older Patients in Nursing Homes

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OBJECTIVES: Acquisition of oral secretions and their bacteria is increasingly being recognized as an important factor in pneumonia. We investigated whether oral care lowers the frequency of pneumonia in institutionalized older people.

DESIGN: Survey.

SETTING: Eleven nursing homes in Japan.

PARTICIPANTS: Four hundred seventy-three patients randomly assigned to an oral care group or a no-oral care group.

INTERVENTION: Nurses or caregivers cleaned the patients' teeth by toothbrush after each meal. Swabbing with peri-oral iodine solution was additionally used in some cases. Dental or dental hygienist provided professional care once a week.

MEASUREMENTS: Pneumonia, febrile days, death from pneumonia, activities of daily living, and cognitive function.

RESULTS: During follow-up, pneumonia, febrile days, and death from pneumonia decreased significantly in patients with oral care. Oral care was beneficial in incontinent and demented patients. Activities of daily living and cognitive function showed a tendency to improve with oral care.

CONCLUSION: We suggest that oral care may be useful in preventing pneumonia in older patients in nursing homes.


Key words: silent aspiration, aspiration pneumonia, oral health; activities of daily living; cognitive function.

Pneumonia is not only a common infection in older people, but is also the most common cause of death from non-malignant infections in this population. Bacterial pneumonia is thought to be due to organisms that inhabit the oropharynx, and aspiration of oropharyngeal contents has been suggested as the mechanism by which these bacteria reach the lower respiratory tract. Many older patients in nursing homes have poor oral health because of the difficulty of access to professional dental care and insufficient personal oral hygiene care. It is recognized that community-acquired pneumonia and long absences can be the result of infection by anaerobic bacteria, and dental plaque would seem to be a logical source of these bacteria, especially in patients with periodontal disease. However, to our knowledge, whether improving oral hygiene would lower the risk in either of these settings has not been studied. In the present study, we treated these patients with oral care to minimize respiratory infections, possibly caused by silent aspiration. A preliminary experiment has been reported elsewhere.

SUBJECTS AND METHODS: The present study was performed with older patients in 11 nursing homes in Japan. Each nursing home has from 30 to 100 beds and serves as a long-term care facility for older patients who are physically handicapped or suffering from mental deterioration. Thus, a large extent, they are dependent on the service of caregivers for activities of daily living (ADLs). The criteria for patient selection were that physical symptoms and cognitive impairment must have been stable for the preceding 3 months. During this 3-month period no patient had acute disorders (e.g., severe infection, heart failure, or stroke requiring special treatment and intensive care). Chronic diseases suffered by the patients included previous stroke, hypertension, arthralgia, previous myocardial infection, diabetes mellitus, and inactive gastric ulcer. Mental function varied from slight cognitive impairment to dementia. A few patients in each nursing home could not participate in the study because they could not give informed consent.
Good Oral Hygiene

- An oral hygiene program must begin with a good assessment tool.

- Some are available commercially, and others can be found on the Internet.

- Any protocol should first identify the usual care practices of patients and then identify those most at risk and those that will need assistance.
Tips for Oral Care Management

An examination should be performed upon admission and at least once a day.

Using a flashlight and tongue depressor, examine the oral mucosa, the lips and corners of the mouth, the tongue and teeth/dentures.

Look for signs of candidiasis or signs of xerostomia and check chewing and swallowing ability.

Remember that the environment of the oral cavity can change very quickly when health status, medications or dependency change.
Oral Care Program

Includes brushing at least twice daily,

Suctioning oral secretions to decrease the bacterial load

Keeping the oral mucosa moist with adequate hydration or saliva substitutes and moisturizers.

Tools should be available in a place near the patient to allow for convenient cleansing.

Brushing with simple non-detergent toothpaste or baking soda is most effective.
Deep Cleaning

Only swab with dental sponges between brushings to mop up secretions and other oral contaminants. Suction toothbrushes are available for known aspirators.

A method for deep cleaning should be available when needed.

Chlorhexidine can be prescribed for this. Dentures require the same care as teeth.

The oral care team must develop a policy and procedures for changing out and replacing suction equipment, implementing special cleaning techniques for ventilators, and looking at ways to improve overall health in the at-risk patient.
The team should include speech-language pathologists, nurses, respiratory therapists, dietitians and nursing assistants, who most likely will perform the care.

Physicians such as pulmonologists or internists would be helpful; and a dentist or dental hygienist, if available, would be very valuable.

It is not the speech-language pathologist's responsibility to build and execute the protocol but to provide expertise, education and quality assurance support as a member of the team.
Role of the SLP in Oral Care

The speech-language pathologist usually is best equipped to meet this challenge and help to develop teams within settings.

We have a unique knowledge of oral structures and functions and know how disease and trauma can change the status of the oral environment and how to combat aspiration pneumonia.

No one protocol meets the needs of patients in all settings. A team should develop a protocol in each setting.
Who is at risk?

Patients at risk include those who are:

✓ dependent for oral care

✓ have large numbers of missing teeth or dentures

✓ have limited hand dexterity or decreased mental capacity

✓ have multiple medical co-morbidities are immunosuppressed or ventilator dependent, receive non-prandial feedings
Who is at risk?

✅ have had a stroke or are neurologically impaired, have severe xerostomia, and have known dysphagia.
Aspiration

- Oral care can decrease aspiration pneumonia rates, according to a growing body of evidence.
  - Physicians, nursing staff, patients and families do not understand the need for oral care.

- SLPs must improve education, training and commitment from facility leadership to decrease the rate of aspiration pneumonia.
3 categories of risk factors that lead to aspiration pneumonia:

• Any factor that increases the bacterial load or colonization in the oral-pharyngeal cavity (e.g., lack of daily tooth brushing or xerostomia)

• Any factor that decreases the patient's resistance to the inoculum (e.g., malnutrition or ventilator dependency)

• Any factor that increases the risk of aspiration (e.g., paralysis from stroke or chronic neurological disease affecting the muscles and nerves involved in swallowing).
Challenges for the SLP

- **How** to help prevent the aspiration of bacteria-laden saliva and foster better oral care in their settings and further reduce the incidence of aspiration pneumonia.
Medication

- Conduct a chart review for medical dx and meds
- Evaluation is important
- Bedside assessments - standardized
- Bedside tools
- Recommendation for nutrition, hydration, further assessment
Medications

- Food and drug interactions
  - Increased risk
  - Meds taken for long periods of time
  - Several meals taken at a time
  - Questionable nutritional status
  - Depends on patient’s physical, metabolic, disease status
  - Food changes effect of drug
  - Reduces efficiency of drug
  - Promotes nutritional deficiencies
  - Influences intake
  - Creates toxic reaction

- Liquids with medication
  - Follow meds with 100ml of liquids
  - Never take medications with grapefruit juice
  - Negates effect of medication
  - Allow it to build up/unable to breakdown
Medications

- Concerns regarding medications
- None of the studies evaluate safe medication swallowing

- Videofluoroscopic studies do not necessarily include pill swallowing performance

- Swallowing pills is a different process than swallowing fluids or food

- Patients vary considerably in their pill taking behavior
Pill Swallowing
Assessment of Dysphagia

- Prove medical necessity
- Defensive documentation
- Chart review-diagnoses
- Test/measures
- Comprehensive evaluation & Prognosis-judgment call
- Plan of care interventions
- DO NOT Write “NOT TESTED” = write WHY
Dysphagia Evaluation/Screening

- Bedside Swallow Assessment (water by spoon/cup)
- Gugging (semi-solid, liquid, solid)
- Standardized Swallowing Assessment (SSA 3 tsps and \( \frac{1}{2} \) glass of water)
- Kidd Water Test (50 ml in 5 ml increments)
Bed Screen

- Massey Bedside (1 tsp., 1 glass water
- Mass. General Hospital Swallow Screen Test (MGH-SST)
- 3 oz water swallow
- Toronto Bedside Swallowing Screening Test (TOR-BSST) 4 hour training
- EATS (semisolid, liquid, solid)
3 Ounce Water Test

- 3 ounces of water w/out stopping
- Fail to cough, stop, choke, wet hoarse vocal quality in test/1 min

If failed:
- MBS/FEES, not BEDSIDE EXAM (GO FOR FEES)
- Bedside screen misses 20% of patients
- Good predictor of ability to tolerate thin liquids
Dysphagia Screening/Assessment

- Swallowing ability should be screened using a simple, valid, reliable tool before initiating oral intake of medications, fluids or food.
Bedside Evaluation

- Frenchay Dysarthria Assessment
- Clinical Observational Dysphagia Assessment
- (CODA) Alimed (Cranial Nerve Test)
- Mann Assessment of Swallowing Ability (MASA)
- Bedside Evaluation of Dysphagia (BED)
- Swallowing Ability and Function Evaluation (SAFE)
- Feeding and Swallowing Disorders in Dementia
- Dysphagia 2 go app
- Observation
- Cervical Auscultation
Nutrition

- Why do we worry about dysphagia?

- Nutritional status – assess using a validated tool or measure, to avoid malnutrition

- Explain the nature of the dysphagia, recommendations, follow-up & re-ax to patients, family & care providers

- Provide client and/or legal decision maker with enough info to allow informed decision making

- Reassess those receiving modified texture diets or enteral feeding for changes in swallowing status
Mealtime Tips: Setting the Stage

- Glasses on, hearing aids in
- Dentures in, unless very poor fitting (e.g. muscle tone/weight loss makes them “slide around”)
- In general, TV & radio off
- Normal table
- Prescribed, adapted equipment/utensils available at every meal
- Prescribed medication delivery adhered to
Mealtime Tips: Setting the Stage

Neglect: unless told otherwise...
- Put plate, cup, utensils on “good” side
- Approach from the “good” side
- Speak to them on the “good side”

Hemiplegia (muscle weakening, usually on 1 side)
- Ensure tray is in reach
- Model creativity e.g. rip packages with teeth
- Empathize but don’t dwell
Persons with language changes (aphasia)
Short, clear directions
Use ‘do’ statements, rather than ‘don’t’ statements
Talking louder doesn’t help
No ‘baby’ talk – they are a competent adult

Attention/Orientation Challenges
Say their name & get eye contact before giving directions
State what meal it is (e.g. “it’s lunchtime”) and what is available (e.g. “There’s your meat, beans, etc…”)

## Oral Care Protocol

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<td><strong>Teeth</strong> (shape, cavities, color)</td>
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WE THANK YOU!