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## ***Dysphagia Team Management: Continuous Quality Improvement in a Long-Term Care Setting***

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*The following article was originally published by ASHA in the Winter 1994 **Quality Improvement Digest**.*

The emergence of feeding and swallowing intervention by speech-language pathologists in the 1970s has proved to be an important aspect of total patient care and is now routine in many medical facilities. Increased numbers of individuals in our rapidly aging population require institutional care; as a result, maintaining nutrition and hydration has become a critical concern for health care professionals who work with patients in long-term care settings.

In February 1987, the Dietary Service and Speech Pathology Section at the Department of Veterans Affairs Medical Center in Miami, Florida, documented that 57% of the residents in the 240 bed Nursing Home Care Unit presented with feeding and swallowing problems. A Dysphagia Team was established in July 1987 to address the needs of those residents. The present interdisciplinary Team consists of a speech-language pathologist, geriatrician, nurse practitioner, dietitian, psychologist, dental hygienist, and radiologist.

In addition to providing comprehensive assessment and indirect dysphagia intervention, the Team served as the primary force in expanding an interdisciplinary continuous quality improvement program to include a nutritionally supportive environment within the long-term care setting. The focus of the overall program was to maximize physical and functional abilities, consistently provide adequate nutrition and hydration, provide attention to the quality of feeding, and enhance the quality of life for patients. The Dysphagia

Team implemented several interdisciplinary programs to address the feeding/swallowing needs of the patients residing in the Nursing Home Care Unit.

### **Quality Improvement Goals**

In 1987, quality improvement projects within the medical center focused on structure monitors rather than outcome and process monitors. Table 1 describes the various types of quality assurance monitors.

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**Table 1.** Types of Quality Improvement Monitors

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- **Structure:** Structure relates to institutional and provider characteristics, such as budget, organizational mission, policies, staff qualifications, specialty certification, the facility, and equipment.
- **Process:** The sequence of activities, procedures, or functions used by practitioners and managers in the delivery of care, such as nutrition screening and assessment; development of care plans; treatment counseling and education; production and distribution of food; and follow-up of monitoring of care.
- **Outcome:** Observable end results or changes in the patient's health nutrition status.

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*(American Dietetic Association, 1993)*

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After an initial 3- month review of clinical care for individuals with dysphagia the Team concluded that each quality improvement project should embrace these objectives:

- (1) The major goal of intervention for individuals with dysphagia is to assure safe, adequate nutrition and hydration.
- (2) The quality improvement process would include meaningful data collection for quality patient care and management, which in turn would facilitate professional and clinical development and provide objective data for administrators to support a dysphagia program.
- (3) Four major areas of clinical care were targeted for quality improvement and appropriate development of new procedures or programs.
  - Identification/screening
  - Education
  - Assessment/diagnosis
  - Treatment/management

Examples of the Dysphagia Team's continuous quality improvement process are provided. Figure 1 provides a flowchart of the four clinical areas and the year each program or outcome monitor was initiated. The challenges, initiatives, Team participation, and outcome are described for each major area.

### ***Identification/Screening***

**Challenge:** The reported incidence of malnutrition among geriatric institutionalized patients ranges from 12% to 70% (Cooper & Cobb, 1988). Undernutrition adversely affects the quality

of life, as well as increased morbidity (i.e., skin, urinary tract, and pulmonary infections) and mortality (Siebens et al., 1986; Silver, Morley, Strome, Jones, & Vickers, 1988; Rudman & Feller, 1989).

One explanation for the high incidence of malnutrition and dehydration may be the large number of patients who require feeding assistance and the lack of time for staff to feed them. Because many of the institutionalized elderly are unable to perform self-care activities, it is not surprising to find that most patients require some help in eating. Dysphagia is a sequela to a variety of neurological and structural disorders. Trupe, Siebens, and Siebens (1984) found that 59% of the residents in a 240 bed nursing home exhibited clinical signs of oral or pharyngeal stage dysphagia.

### **Initiative #1 – Determine the prevalence of dysphagia.**

The Fleming Index of Dysphagia (Veterans Administration, 1986) was used to assess the entire population of the Miami VA Nursing Home Care Unit. The Index showed collection of demographic data and identified specific swallowing problems that suggested the need for a more detailed assessment and intervention.

Participants: Dietitian, speech-language pathologist, nurses.

Outcome: In February 1987, the Speech Pathology Section and Dietary Service documented that 43% of the residents in the Nursing Home Care Unit presented with swallowing problems and were considered at risk for aspiration. As a result, an interdisciplinary Dysphagia Team was established to address the needs of these residents.

### **Initiative #2 – Determine the prevalence of feeding problems.**

Residents were observed during meals and snacks. Their ability to eat was documented and the need for partial, moderate, or total feeding assistance was determined.

Participants: Dietitian, diet technician, nurse, nurse assistant, speech-language pathologist, psychologist, physician.

Outcome: In an initial survey in 1987, 57% of the residents required feeding assistance. Additional observations in 1988 and 1989 revealed that 60% of the residents required partial, moderate, or total feeding assistance during meals and snacks.

### **Initiative #3: Identification of patients requiring feeding assistance.**

A computer-generated “feeder list” was initiated in 1992 to provide documentation of patients who required feeding assistance. The physician places orders for feeding assistance in the patient’s medical record and the ward clerk enters the hospital computer diet order. Nursing and dietary staff can obtain an updated list daily. Patients identified as requiring feeding assistance have their meals delivered on a different colored tray with the Silver Spoons logo, rather than the traditional meal tray. The special trays provide easy identification of any patient who requires feeding assistance during meals.

Participants: Physician, nurse practitioner, ward clerk, head nurse, nurse, nurse assistant, dietitian, diet technician, food service staff, speech-language pathologist, psychologist, personnel service staff, volunteers.

Outcome: The interdisciplinary approach to feeding assistance allows easy identification of patients who require feeding assistance at

meal times and provides documentation of the number of patients who require feeding assistance. The computer-generated feeder list has been used to tabulate the number of patients who require feeding assistance on each unit. This information has helped in setting staffing patterns for meals. The number of patients who require feeding assistance, multiplied by the number of meals and snacks per day and the amount of time required to feed the patient, better defines the amount of staff needed to assist in feeding the patients. A result was that the personnel service established an agreement to recommend that all employees assigned to light duty assist in feeding patients.

### ***Education***

**Challenge:** A continuing education program was implemented for administrative, professional, and nonprofessional staff and volunteers to improve overall patient care in the area of feeding and swallowing disorders.

### **Initiative #1: Professional education and training for the Dysphagia Team staff.**

Certification or licensure is necessary but often not sufficient to support privileging of many clinical procedures available for the diagnosis and treatment of dysphagia. Therefore, practitioners have found it necessary to pursue postgraduate education and training to meet the credentialing and privileging requirements set by medical centers. Dysphagia Team members requested funding from the medical center to attend workshops. As the Team developed clinical expertise, proposals for educational grants were submitted to bring experts to the medical center for workshops and on-site demonstrations or to support travel funds for mentorship training.

Participants: Dysphagia Team members, supervisors or service chiefs, medical center education staff, research staff.

Outcome: Initially three members of the Team were sent for a 3-day course. Subsequently the members of the Team have attended more than 20 national and state workshops/courses, two members of the Team have been funded to observe with a mentor, the team obtained education funding to provide a national 3-day conference, and five experts have served as on-site mentors for the Team.

### **Initiative #2: Professional education and training for house staff.**

The Dysphagia Team initiated an ongoing in-service program for house staff that included basic lectures, as well as workstation and role-playing activities. Nursing staff in-services are arranged with the head nurse and are offered at 7:30 a.m. and 3:30 p.m. during shift changes. Physician training was addressed during Clinical Grand Rounds and by walking rounds on high-risk units. The Team provides lectures for the weekly Geriatric Seminars established for the Geriatric Fellows and provides in-services for Medical Student Geriatric Rotation and Medical Center Journal Club.

Participants: Dysphagia Team members.

Outcome: The number of consults to the Dysphagia Team more than tripled during a 1-year period. The Nursing Service recognized the value of a training program and a member of the Dysphagia Team has been invited to provide a 1-hour in-service on feeding and swallowing disorders during the monthly nursing orientation. Appendix A provides an example of a pre-/posttraining observation tool for nursing staff.

### **Initiative #3: Nonprofessional education and training.**

In 1987 a training program was initiated to train volunteers in appropriate feeding strategies to assist nursing staff with supervised feeding. Volunteers attend a 2-hour training session. The training program was extended to spouse and family support groups, private duty sitters and aides, and nonprofessional employee groups. The training is offered quarterly and all volunteers are encouraged to attend initial and follow-up training. The Dysphagia Team has also participated in health fairs, assisted with the National Nutrition Screening Initiative, and provided community support group training.

Participants: Dysphagia Team members, social work staff, voluntary service staff, patients' spouses and families, private duty staff, nonprofessional staff.

Outcome: To date more than 400 volunteers and family members have participated in the training, leading to increased awareness of individual patient needs for feeding assistance, increased awareness of swallowing disorders and the need for appropriate diet modification, and increased participation of spouses and family members in providing feeding assistance to maintain nutrition and hydration.

### **Initiative #4: Administrative education.**

In addition to traditional quarterly and annual reports, the Dysphagia Team hosts an annual Dysphagia Team Birthday Party. During this party the Dysphagia Team presents an historical review of the Dysphagia Team development, the results of the quality improvement projects over the past year, the current research projects and a list of publications and presentations, and also reviews goals for the next year.

Participants: Dysphagia Team members, supervisors and service chiefs, assistant director, director, chief of staff, personnel service staff.

Outcome: An annual Dysphagia Team Birthday Party with a formal presentation of objective data and accomplishments has been successful in heightening awareness of the dysphagia programs at the Miami VA.

#### **Initiative #5: Educational literature.**

The Dysphagia Team identified a need for educational literature to address the needs of specific patient populations and to reinforce professional and nonprofessional training programs. A booklet was designed to train volunteers to assist in supervised feeding. Three brochures were developed for patient/caregiver training: “Oral Management for the Dysphagic Individual,” which introduces strategies for the oral and dental care of patients with dysphagia; “Swallowing Problems and Liquid Modification,” which provides strategies for patients who require modification of liquid consistencies to prevent aspiration; and “Tube Feeding Instructions,” a guide for individuals who require enteral tube feeding. Finally, a brochure for house staff was developed to provide information regarding early identification of feeding and swallowing disorders, appropriate referral sources, and lists of diet and feeding modifications for persons with dysphagia. The literature is distributed during training sessions or appropriate counseling sessions.

Participants: Dysphagia Team members, support staff.

Outcome: Increased referrals to the Dysphagia Team have promoted early identification of high-risk patients. Nondietary staff, volunteers, patients, and

families have become active participants in preventing malnutrition and dehydration.

The new term for such educational programs may be interpreted as “marketing.” The Dysphagia Team learned to develop a marketing or promotional plan that identified the audience, estimated the cost (staff time required to plan and present, audiovisuals, and literature), and determined the time (time of day and length of activity), frequency (how often to provide the activity) and duration (how long to continue the activity within the professional setting) for each activity or in-service. The Team also learned how important it is to evaluate the outcome of the activity and to determine if it was productive to continue the educational program initiative.

#### ***Assessment/Diagnosis***

**Challenge:** The clinical examination is the most widely used diagnostic technique in the evaluation of dysphagia and, if warranted, an instrumental technique may be recommended to complete the assessment. Instrumental techniques help evaluate oral, pharyngeal, laryngeal, upper esophageal, and respiratory function as it applies to normal and abnormal swallowing. Reports in the literature have indicated that there may be intra and interobserver variability. Ekberg, Nylander, Fork, et al., (1988) studied the interobserver variability of six radiologists during retrospective reviews of 72 cineradiographic examinations. There was high concordance for the assessment of contrast medium reaching into the trachea, absent pharyngeal constriction, and the presence of Zenker diverticula; concordance was less for normal pharyngeal function. The authors concluded that the number of disagreements varied according to the observer’s experience. No data were available regarding the intra- or

interobserver variability of two instrumental tests used by Miami VA speech-language pathologists, and a quality improvement activity was initiated to enhance proficiency in review of videotaped studies and to provide a structured opportunity to assist in credentialing and privileging requirements within the service.

**Initiative #1: Videofluoroscopic exam of swallow function observer reliability.**

Videofluoroscopic study of oral and pharyngeal swallowing is a procedure often referred to as the “modified barium swallow” (Logemann, 1986). To enhance proficiency and knowledge in evaluating the structures and function of the oral, pharyngeal, laryngeal, and upper esophageal areas during oral preparation and swallowing, the speech-language pathologists reviewed videotapes of videofluoroscopic studies and completed an observation check sheet. Interobserver reliability data were collected and reviewed for agreement. Table 2 provides examples of high-risk observations monitored for inter- and intraobserver reliability.

Participants: Speech-language pathologists, radiologists.

Outcome: As reported by Eckbert et al., (1988), clinicians obtained 100% agreement for observation of tracheal aspiration of the contrast medium. Initially there was 80% agreement for other parameters listed on the observation check sheet; within a 3-month period there was 100% agreement.

**Table 2. Videofluoroscopic Examination of Swallow Function Examples of Inter-/Intraobserver Reliability**

<b>Aspiration observed</b>	yes/no
<b>Number of times aspiration observed</b>	
<b>Time of aspiration observed</b>	
Before the swallow	yes/no
During the swallow	yes/no
After the swallow	yes/no
<b>Consistency aspirated</b>	
Thin liquid	yes/no/na
Thick liquid	yes/no/na
Ultrathick liquid	yes/no/na
Formable solid	yes/no/na
Particulate solid	yes/no/na
Multitexture	yes/no/na
Crunchy solid	yes/no/na
<b>Aspirated during</b>	
Single bolus	yes/no/na
Consecutive swallow	yes/no/na
<b>Aspirated when using</b>	
Spoon	yes/no/na
Cup	yes/no/na
Straw	yes/no/na
<b>Residue in</b>	
Valleculae	yes/no
Pyriiform sinus	yes/no
Laryngeal vestibule	yes/no
<b>Residue cleared with</b>	
automatic second swallow	yes/no
verbal cue to swallow	yes/no
<b>Patient successfully cleared airway</b>	yes/no/na
<b>Transit time will allow for</b>	
Adequate nutrition	yes/no
Adequate hydration	yes/no

**Initiative #2: Fiberoptic endoscopic evaluation of swallowing (FEES); observer reliability.**

Langmore, Schatz, and Olsen (1988) introduced the use of the fiberoptic nasopharyngolaryngoscope to evaluate pharyngeal swallow to assist in the diagnosis of aspiration among adult patients unsuited for videofluoroscopic studies. Observations obtained by FEES are made by directly viewing events that occur before and after the swallow. Endoscopy provides a view of the hypopharynx and larynx; aspiration or evidence of aspiration can be observed. Inter- and intraobserver reliability of physical signs of glottic closure, pharyngeal residue, laryngeal penetration, and tracheal aspiration are obtained by viewing videotaped FEES procedures of all of the patients evaluated each month.

Participants: Speech-language pathologists, otolaryngologists.

Outcome: Interobserver reliability of FEES has improved from 80% to 100% on the variables of glottic closure, pharyngeal residue, laryngeal penetration, and tracheal aspiration during a retrospective review of videotapes.

***Treatment/Direct Feeding Assistance***

**Challenge:** Many institutionalized elderly are unable to perform self-care activities, so it is not surprising to find that most patients require some help in eating. The responsibility for nutrition and hydration of the patients was left to the nursing staff. Feeding an eating-dependent patient requires a minimum of 30-45 minutes of personnel time; patients with moderate to severe dementia may take up to 90 minutes per meal to feed. It has been reported (Hu, Huang, & Cartwright, 1986) that patients who live in a nursing home are provided an

average of only 14 minutes of staff feeding assistance per day.

Elderly individuals often have a deficit in thirst perception (Phillips, Rolls, Ledinghan, et al., 1984) and regulation of fluid intake, which may lead to a decline in renal function, electrolyte imbalance, or dehydration. Individuals with special diet modifications, dysphagia, memory or cognitive impairments, and physical limitations are at greater risk for dehydration.

**Initiative #1: Silver Spoons.**

The Dysphagia Team and Nursing Service developed the Silver Spoons Program in 1988. Volunteers aid nursing staff by providing eating assistance to patients with feeding/swallowing problems. All volunteers interested in participating in the feeding program attend an orientation and are given practical training in important aspects of feeding.

Participants: Voluntary service staff, nurses, dietitians, speech-language pathologists, volunteers.

**Initiative #2: Happy Hour.**

Happy Hour is a daily afternoon gathering when fluids and snacks are offered to patients in a social milieu. This hydration hour was specifically designed to ensure the provision of fluids at least once per day (in addition to meal times) to decrease the incidence of dehydration. Consistencies of foods and liquids are varied as necessary for individuals with dysphagia.

Participants: Nurses, dietitians, diet technicians, speech-language pathologists, volunteers, recreation therapists.

**Initiative #3: Dining environment.**

Prior to the interdisciplinary dysphagia management programs, patients with feeding or swallowing problems were fed in their rooms. Patients left in their rooms were often poorly positioned during feeding, were left in bed for many hours of each day, and were rushed in the eating process. Dietary and nursing staff coordinated efforts to provide a second seating in the dining room. Patients with feeding and swallowing problems, identified by the Dysphagia Team and nursing staff, were taken to the dining room at a time when the most staff/volunteer assistance is available.

Participants: Dietary staff, nurses, building management staff.

Outcome: Initiatives #1, #2, and #3: Seventy-two percent (72%) of the patients fed in dining rooms gained weight; 28% lost weight. There was an average weight gain of 2.06 lbs. for individuals fed in the dining rooms. Staff ability to provide feeding assistance improved in the dining room, compared to feeding patients individually in their rooms. Dining rooms were established for each unit in the Nursing Home Care Unit.

Patients fed meals in their room without assistance had an average weight loss of 1.38 lbs., compared with patients who were fed by Silver Spoon volunteers at meals and Happy Hour (+4.16 - +6.15 lbs.) during a 3-month period. Patients with probable Alzheimer's disease benefited from volunteer feeding programs; 94% maintained or gained weight.

Additional benefits of the feeding programs include more efficient use of staff and volunteer time, increased monitoring of patients with feeding/swallowing problems,

a change in environment for patients, and an opportunity for increased pleasure in eating.

**Initiative #4: Dietary modifications and cost justification.**

Overall cost-benefit analysis of a dysphagia treatment program may include food costs, patient length of stay, and staff utilization. The Dysphagia Team initially addressed food costs savings.

Daily Meal Costs: The cost of the daily meals for each patient was tabulated before the Dysphagia Team's evaluation and after recommendations for modification of the diet and feeding were implemented.

Participants: Dietitian, nurses, food service manager.

Outcome: Analysis of the data collected showed an average food cost savings of 85 cents per patient per day or an average savings of \$71.40 per patient per quarter. Standard diets for patients with dysphagia were established with improved patient consumption, new food products were added, and costs savings have continued.

Daily Snack Costs: The dietary service calculated the costs of serving individual snacks to patient rooms and costs of serving bulk snacks to the nursing station for Happy Hour.

Participants: Food service manager, dietitian, nurses.

Outcome: The dietary service found that it was very efficient and cost-effective to deliver snacks in bulk to each unit instead of serving individual snacks to patients in their rooms. There was an average food cost savings of \$3.32 per unit per day to deliver the snacks in bulk.



## ***Enteral Tube Feeding (Special Focus on PEGS)***

**Challenge:** Alternate or supplemental nutrition devices (e.g., intravenous [IV], nasogastric tube [NG], jejunostomy, percutaneous endoscopic gastrostomy [PEG], total parenteral nutrition [TPN]) provide hydration and nutrition if patients with disordered swallowing are unable to digest a sufficient amount orally without risk of medical complications. Ciccon, Silverstone, Graver, and Foley (1988) observed 70 tube-fed patients aged 65-95 years during an 11-month period to determine indications, benefits, and complications of enteral alimentation. Twenty-eight (40%) of the 70 patients died during the study period. After this study various articles described the risks and benefits of enteral tube feeding, challenging our Dysphagia Team to carefully consider all options for patients with dysphagia. PEG feeding has become a common practice in extended-care facilities, though little is known about long-term results.

Patients reserve the right to refuse medical treatment, including refusal of enteral tube feeding. No data are available to document the risk and benefit of dysphagia intervention in patients with documented aspiration who refuse tube feeding. Two populations were selected for quality improvement monitoring: (a) patients with PEGs placed before admission to the nursing home; and (b) patients who elected not to have enteral tube feeding following the Dysphagia Team evaluation.

### **Initiative #1: Monitoring and re-evaluation of patients with percutaneous endoscopic gastrostomies (PEG).**

The Dysphagia Team decided to monitor the weights of patients with PEGs on a monthly basis and results were reviewed on a

quarterly basis. Table 3 provides an example of the data collected by the Dysphagia Team. When appropriate the Team recommended follow-up dysphagia evaluation and intervention.

Participants: Dysphagia Team members.

Outcome: Seventy-five (75%) of the patients with PEGs gained weight, 8% maintained weight, and 17% lost weight. There were no deaths during the first quarter of data collection. Initially 21% of the nursing home population had enteral tube feeding; the average has now decreased to 11% of the residents. During the initial quarter of monitoring, 25% of the patients had the PEG removed after follow-up Dysphagia Team evaluation. During the second quarter, 13% of the patients with enteral tube feeding were able to have the tube removed.

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**Table 3. Dysphagia Team**

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### **High Risk Quality Management Monitor Percutaneous Endoscopic Gastrostomy**

Patient I.D.:  
Admission to ECU/NHCU:  
Unit:  
Major medical/psychiatric diagnosis:  
Date of PEH placement:  
Restraint required to maintain tube placement:  
List any complication(s): (example: leaking at PEG site)  
Skin turgor:  
Height:  
Ideal body weight:  
Actual weight:  
% Ideal body weight:  
Albumin:  
Formula:  
Rate of formula:  
Continuous/bolus:  
Prescribed water:  
Head of bed:  
Other observations or notes:

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**Initiative #2: Monitor nutrition and health status of patients who elect not to have enteral tube feeding.** The Miami VA Dysphagia Team respects the patient's wishes and provides the safest diet and compensatory strategies for maximum oral intake. The team monitors these patients for weight loss, dehydration, and complications (infections).

Participants: Dysphagia Team members.

Outcome: Initial data suggest that patients with progressive neurological diseases maintain oral intake with diet modification and an assigned feeder for each meal. Patients status post-head and neck surgery have an average of 2-3 instances of aspiration pneumonia per year; when the patients tire of acute illnesses, they reconsider PEG placement. Less than 20% of the population died within a 3-month period.

### ***Transition From Quality Improvement Data to Clinical Improvement***

The Miami Dysphagia Team continuous quality improvement data demonstrated improved nutrition and hydration status, along with weight gain of nursing home residents, less food waste, and less need for supplements when an appropriate diet is supplied and consumed. Subjectively, patients and volunteers benefit from the one-on-one socialization and attention during meals and modification of the dining environment.

Educational programs have assisted in early identification and intervention of high-risk elderly individuals, and essentially initiated a preventive approach to the management of patients with feeding and swallowing disorders. An increased number of referrals offered support for a full-time dysphagia

specialist position within the medical center, and an outpatient dysphagia clinic was established to follow patients after discharge from the nursing home or hospital.

Outcome data have supported the need for new policies, procedures, and programs within the medical center. For example, a successful procedure for obtaining and monitoring patient weights on a monthly basis was introduced, a policy was established for laboratory orders to monitor nutrition, and the gastroenterologists began to require a dysphagia evaluation prior to placement of a percutaneous endoscopic gastrostomy for alternate feeding. A member of the Dysphagia Team was selected as the chair of the Medical Center Nutrition Committee.

### ***Transition From Quality Improvement to Clinical Research and Treatment Efficacy***

The American Speech-Language-Hearing Association (1990) and the Veterans Administration (1986) have stressed the importance of maintaining careful records on each patient referred for evaluation to facilitate data collection for future use. Data should be organized to specifically describe the patient population, including age, etiology of dysphagia, and pertinent medical history. Evaluation techniques and results should be coded for each patient. These basic data may eventually demonstrate the impact of dysphagia intervention for colleagues and administrators, serve as program evaluation, and provide retrospective descriptive data for scientific investigation.

### ***Retrospective Descriptive Review (1987-1990)***

A retrospective review of the Dysphagia Team database and patient medical records

was undertaken to obtain information regarding (a) the incidence and type of feeding or swallowing disorder(s) identified in geriatric long-term care patients; and (b) the intervention strategies recommended by the Dysphagia Team for the management of patients with feeding and swallowing disorders. Subjects were 60 years of age or older; the mean age was 75.5 years (60-99). The primary etiology for a possible feeding or swallowing disorder was commonly neurogenic in origin (80%), followed by structural or mechanical etiologies and psychogenic disorders. Of the subjects, 72% required feeding assistance in order to maintain oral intake and 62% presented with oral preparatory stage delays. Oral (transition) stage dysphagia was identified in half of the patients, pharyngeal stage dysphagia in 42%, and esophageal stage dysphagia in 8%. Cognitive decline was identified in 68%. Patterns of feeding problems and types of dysphagia and cognitive impairments were compared with primary medical diagnoses. For example: 16% of the probable Alzheimer's subjects presented with dysphagia and 46% of the multi-infarct dementia subjects presented with dysphagia; both groups presented with feeding problems and cognitive impairment that interfered with oral intake. The Dysphagia Team's treatment recommendations included NG or PEG placement for 29%, food modification for 59%, liquid modification for 45%, feeding position modification for 53%, adaptive equipment for 16%, and feeding assistance for 61%. Individual speech pathology intervention was recommended for 26% of the patients.

The database has resulted in several retrospective descriptive studies for state and national presentations. The retrospective review of the data will serve as a stepping

stone for future prospective pilot data and quality improvement monitors.

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#### ***Additional Resource***

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# Appendix A

## Dysphagia Team

### Checklist for Observation of Feeding

Observer: \_\_\_\_\_ Time In \_\_\_\_\_ Time Out \_\_\_\_\_

Feeder:  RN  Family  Volunteer  Other

Patient I.D.:

Patient's Diagnosis: 1) \_\_\_\_\_  
2) \_\_\_\_\_  
3) \_\_\_\_\_

Patient Diet:

Meal:  Breakfast  Lunch  Dinner

	Yes	No	N/A	Comments
1) Patient was positioned correctly and comfortably				
2) Tray was positioned correctly				
3) Sensory motor aids were in place (glasses, hearing aid)				
4) Feeder was positioned correctly				
5) Feeder verbally identified foods and meal to patient				
6) Feeder used patient's name				
7) Feeder demonstrated conversation with patient				
8) Feeder had eye contact with patient during feeding				
9) Feeder complimented patient				
10) Feeder demonstrated positive facial expression to patient				
11) Feeder offered to add condiments to food				
12) Feeder was aware of the patient's nutritional needs (Feeder asked what kind of diet is patient on?)				
13) Information about patient's dysphagia needs was available to feeder (e.g., charts, notes near patient's bed)				
14) Feeder offered patient choices during feeding (e.g., order of foods)				
15) Feeder demonstrated awareness of any of the following dysphagia symptoms: (a) poor chewing; (b) difficulty swallowing; (c) pocketing food; (d) coughing				
16) Feeder demonstrated attention to patient's eating behavior				
17) Feeder arranged environment for patient (e.g., TV, lights, curtain)				
18) TV was on and potentially distracting				
19) Feeder provided after-the-meal care (e.g., check mouth, wash face and hands, reposition patient)				
20) Feeder offered assistance with appearance during meal (e.g., drooling, food residue on clothes)				
21) Feeder reported attending the Dysphagia Team in-service or Silver Spoons training If yes, How many? _____ 1 or 2 _____ 3 or more				

Feeder Comments: