Nonsurgical Treatment
Swallowing Rehabilitation

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KEYWORDS

• Dysphagia • Rehabilitation • Behavioral treatment • Non-surgical treatment
• Direct exercise • Indirect exercise • Compensatory techniques

KEY POINTS

- The speech-language pathologist is the primary member of the swallowing team who will provide ongoing nonsurgical and nonpharmacological rehabilitation for the patient with dysphagia.
- Aside from ameliorating aspiration risk, the focus of the speech-language pathologist is to improve or restore swallowing function.
- To this end, there are many direct and indirect therapeutic options whose application will depend on the pathophysiology of the disorder, and other patient variables related to the motivation and ability to participate in therapy.

INTRODUCTION

The speech-language pathologist (SLP) is the primary member of the swallowing team who will provide ongoing nonsurgical rehabilitation for the patient with dysphagia. The nonsurgical, nonpharmacologic approach to dysphagia treatment focuses on ameliorating aspiration risk and on improving or restoring voice, speech, and swallow functions. The treatment schedule should include a plan to monitor treatment effectiveness or ineffectiveness, as well as qualitative and quantitative measures of improvement or decline in function. The SLP must also maintain an awareness regarding the feasibility of treatment based on patient travel, access to the treatment center, reimbursement allotments, and need for a caregiver to monitor swallowing activities away from the treatment center.

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Abbreviations: Management of Dysphagia	
EMST	Expiratory muscle strength training
HLE	Head lift exercise
MEG	Magnetoencephalography
NMES	Neuromuscular electrical stimulation
sEMG	Surface electromyography
SLP	Speech-language pathologist
TES	Transcutaneous electrical stimulation
TTOS	Thermal tactile oral stimulation
UES	Upper esophageal sphincter

Treatment protocols typically include a multimodal approach, including diet or postural modification to address immediate airway protection concerns, as well as rehabilitative therapy targeting the pathophysiologic underpinnings of the disorder. Development of a treatment protocol will depend on the results of screenings and evaluation tests that are discussed in articles in this publication by Speyer: "Oropharyngeal Dysphagia: Screening and Assessment" and by Brady and Donzelli: "The Modified Barium Swallow and the Functional Endoscopic Evaluation of Swallowing." Changes in patients' swallowing resulting from treatment and/or the passage of time may be noted through weight changes, speed of eating, types of foods being consumed, or special scales to assess changes in quality of life brought about through changes to swallowing function. In addition, the clinician must identify those points whereby physiologic reassessment is necessary to document properly whether swallowing function is improving, whether the patient is reaching short and long-term goals, and ultimately to decide whether treatment should continue.

PRINCIPLES OF CARE

Introduction

Based on results of the swallowing evaluation, the treating clinician should have a firm sense of the patient's current swallowing ability, associated risks to airway protection, and the best rehabilitative approaches to apply in treatment. **Box 1** summarizes the primary factors in treatment planning that the rehabilitation team must be cognizant of for all patients with dysphagia. Additional factors that must be considered in treatment planning are the associated medical diagnoses, general health and nutritional

Box 1
Factors in dysphagia treatment planning

1. All medical diagnoses
2. Patients general health
3. Current swallowing ability
4. Known risks of airway protection
5. Previously tried treatments and their outcomes
6. Current nutritional status
7. Cognitive status
8. Available care giver support