

Orthophonic Management of Cancer-Related Dysphagia in Head and Neck Cancer: A Theoretical and Applied Study

التكفل الأرتفوني بالديسفاجيا السرطانية لدى مرضى سرطان الرأس والعنق:
دراسة نظرية تطبيقية

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Abstract:

الملخص:

This study proposes an orthophonic protocol for cancer-related dysphagia in patients with head and neck cancer.

The descriptive analytical approach was employed, it reviews recent clinical guidance and evidence.

The study concluded that dysphagia results from tumor, surgery, radiotherapy, chemo radiotherapy, pain, xerostomia, fibrosis, trismus, and airway weakness. The protocol covers screening, assessment, risk classification, exercises, compensation, diet, oral care, follow-up, and coordination.

Keywords: cancer-related dysphagia, speech-language pathology, orthophony, head and neck cancer, swallowing rehabilitation.

تقترح هذه الدراسة بروتوكولا أرتفونيا للتكفل بالديسفاجيا السرطانية لدى مرضى سرطان الرأس والعنق.

تم توظيف المنهج الوصفي التحليلي بالاستناد إلى إرشادات عيادية ودراسات حديثة.

خلصت الدراسة إلى أن عسر البلع ينتج عن الورم، والجراحة، والعلاج الإشعاعي، والكيماوي الإشعاعي، والألم، وجفاف الفم، والتليف، والتحدد الفكي، وضعف حماية الطريق الهوائي. ويشمل البروتوكول الفحص، والتقييم، وتصنيف الخطر، والتمارين، والتعويض، والتغذية، والعناية، والمتابعة ضمن فريق متخصص.

الكلمات المفتاحية: الديسفاجيا السرطانية، الأرتفونيا، اضطرابات البلع، سرطان الرأس والعنق، التأهيل البلعومي.

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1- Introduction

Swallowing is a vital aerodigestive function. It protects the airway, maintains hydration and nutrition, and allows the patient to take part in family and social meals. Dysphagia is therefore not a minor symptom. It is a disorder that affects safety, efficiency, communication, dignity, and daily participation. In oncology care, it becomes more sensitive because swallowing difficulty may interfere with treatment tolerance, recovery, and the patient's confidence during meals.

In head and neck cancer, the tumor and treatment affect the same structures that support speech, voice, chewing, bolus preparation, pharyngeal propulsion, laryngeal closure, and breathing-swallow coordination. Dysphagia may appear before treatment due to tumor mass, pain, reduced mobility, or oral obstruction. It may worsen during radiotherapy or chemo radiotherapy because of mucosal inflammation, dry mouth, taste change, fatigue, and painful swallowing. It may also persist after treatment because of fibrosis, trismus, stenosis, neuropathy, salivary dysfunction, or surgical anatomical change.

For this reason, the orthophonist has a central clinical role. This role is not limited to articulation, language, or voice. It also includes screening for swallowing risk, clinical observation, referral for instrumental assessment when needed, patient education, preventive exercises, compensatory strategies, diet adaptation, oral care guidance, outcome monitoring, and coordination with oncology, otolaryngology, nutrition, dentistry, nursing, and psychology teams.

The article adopts a proactive and individualized view of dysphagia care. The patient should not be seen only after severe weight loss, aspiration signs, or feeding-tube dependence. Orthophonic care should begin with baseline assessment, continue during treatment, and extend to survivorship follow-up. This pathway helps clinicians move from delayed symptomatic intervention to structured prevention and rehabilitation.

The present article develops a theoretical and applied orthophonic framework for cancer-related dysphagia in head and neck cancer. It aims to support Arabic and Algerian clinical practice by proposing a clear protocol that can be adapted to hospital units, oncology departments, rehabilitation services, and speech-language pathology training programs.

2- Statement of the problem

Cancer-related dysphagia remains less visible than other communication disorders, although it may threaten nutrition, respiration, survival, and social participation. In many clinical contexts, referral to the orthophonist occurs late, often after coughing during meals, severe weight loss, tube-feeding dependence, recurrent chest infection, or clear avoidance of food. This delay reduces the preventive value of orthophonic care and limits the possibility of preserving functional swallowing.

The problem is also linked to the lack of standardized Arabic clinical protocols for oncology-related dysphagia. Many services rely on general swallowing assessment, while head and neck cancer requires special attention to tumor site, treatment modality, radiation field, oral toxicities, trismus, lymph edema, voice change, airway status, and late fibrosis. This creates a need for an applied protocol that links screening, assessment, risk classification, intervention, and follow-up.

The main research question is: How can a structured theoretical and applied orthophonic protocol be developed for the assessment and management of cancer-related dysphagia in patients with head and neck cancer before, during, and after medical or surgical treatment?

This question leads to the following sub-questions: What are the clinical characteristics of cancer-related dysphagia? How do surgery, radiotherapy, chemo radiotherapy, and chemotherapy affect swallowing? What signs require urgent referral? Which assessment components are clinically useful? What preventive, compensatory, and rehabilitative strategies are appropriate? How can follow-up be organized within a multidisciplinary pathway?

3- Study hypotheses and objectives

The study is based on six assumptions. First, early speech-language pathology intervention may reduce functional decline and support safer oral intake. Second, cancer-related dysphagia is multifactorial and should not be explained by one mechanism alone. Third, clinical assessment may be insufficient in high-risk cases, especially when silent aspiration or severe pharyngeal residue is suspected. Fourth, preventive exercises are more useful when they start before or at the beginning of radiotherapy and continue with realistic follow-up. Fifth, adherence is a major determinant of treatment benefit. Sixth, quality of life should be considered a core outcome, not a secondary issue.

The objectives are to clarify the concept of cancer-related dysphagia from a speech-language pathology perspective; analyze the effects of head and neck cancer treatments on swallowing; identify red flags for referral; organize the components of clinical and instrumental assessment; propose an applied risk grid; develop a phase-based management protocol; and highlight the importance of multidisciplinary, culturally sensitive, and patient-centered care.

The practical objective is to provide an adaptable framework for orthophonists working in Arabic-speaking clinical settings. The proposed framework can serve as a basis for institutional protocols, clinical training, patient education sheets, and future field studies that evaluate treatment adherence, swallowing safety, oral intake, and swallowing-related quality of life.

4- Significance and methodology

The importance of this study lies in its interdisciplinary and applied nature. Dysphagia in head and neck cancer is a medical, functional, nutritional, respiratory, psychological, and social problem. A patient who cannot swallow safely may lose weight, avoid family meals, fear choking, depend on tube feeding, and experience loss of independence. This makes dysphagia management a core component of cancer rehabilitation and not a marginal service.

The study adopts a descriptive analytical method. It reviews and analyzes recent peer-reviewed studies, clinical guidance, evidence summaries, and consensus literature related to head and neck cancer dysphagia. The analysis is then translated into a practical protocol suitable for orthophonic clinical practice.

The applied dimension is built around four principles: early baseline assessment, risk-based follow-up, individualized therapy, and multidisciplinary coordination. These principles allow the clinician to connect medical information with functional swallowing signs and to choose interventions according to the patient's treatment phase, risk level, pain, fatigue, oral intake, and quality of life.

5- Conceptual framework

Dysphagia is difficulty in moving food, liquids, medication, or saliva from the mouth to the stomach safely and efficiently. It may involve oral preparation, oral transport, pharyngeal transfer, esophageal passage, or more

than one phase. In head and neck cancer, the disorder is often evaluated through safety indicators, such as penetration, aspiration, and airway protection, and efficiency indicators, such as oral residue, pharyngeal residue, prolonged mealtime, and reduced intake (Baijens et al, 2021, pp. 577-581), (Kuhn et al., 2023, pp. 571-576).

Cancer-related dysphagia refers to swallowing impairment caused by the tumor itself, by oncological treatment, or by the interaction of disease, treatment, general health, pain, fatigue, nutritional status, and psychosocial factors. It is frequent in head and neck cancer because the oral cavity, tongue, mandible, pharynx, larynx, salivary glands, and esophagus may be involved directly or indirectly (Govender et al., 2024, pp.703-706), (Schellen, et al., 2026, pp. 1-4).

Orthophonic management refers to assessment, prevention, treatment, counseling, follow-up, and interprofessional coordination. It may include oral-peripheral examination, clinical swallowing assessment, referral for FEES or VFSS, diet and liquid consistency recommendations, swallowing exercises, postural strategies, airway protection maneuvers, respiratory-swallow coordination, oral care education, and quality-of-life monitoring (Kuhn et al., 2023, pp. 571-592); (Zhang et al., 2024, pp. 4-8).

Head and neck cancer includes cancers of the oral cavity, oropharynx, hypopharynx, larynx, nasopharynx, nasal cavity, paranasal sinuses, salivary glands, and related cervical structures. These cancers can affect speech, voice, resonance, mastication, swallowing, breathing, taste, smell, hearing, and psychosocial participation (Baijens et al, 2021, pp. 577-616); (Goyal et al., 2022, pp. 70-92).

6- Normal and disordered swallowing

Normal swallowing requires precise sensor motor coordination. The oral phase depends on lip closure, jaw movement, dental status, tongue strength, cheek tone, salivation, oral sensation, and voluntary bolus control. Impairment at this level may lead to oral leakage, poor chewing, food pocketing, drooling, delayed oral transit, residue, or prolonged meals (Baijens et al, 2021, pp. 582-590); (Schellen, et al., 2026, pp. 1-4).

The pharyngeal phase is rapid and highly protective. It requires soft palate elevation, tongue base retraction, pharyngeal contraction, laryngeal elevation, laryngeal vestibule closure, vocal fold closure, upper esophageal sphincter opening, and coordination with respiration. Impairment may lead to coughing, choking, wet voice, repeated swallows, pharyngeal residue,

penetration, aspiration, or silent aspiration (Kuhn et al., 2023, pp. 571-579); (Zhang et al., 2024, pp. 1-3).

The esophageal phase involves movement of the bolus through the esophagus toward the stomach. Disorders at this level may produce the sensation of food sticking, regurgitation, reflux, or difficulty with solids. Head and neck cancer patients can present with mixed oropharyngeal and esophageal signs, especially after radiotherapy, laryngectomy, reconstruction, or stenosis. Instrumental assessment is needed when clinical findings are unclear or when silent aspiration is suspected (Kuhn et al., 2023, pp. 579-584), (Zhang, et al., 2024, pp. 4-6).

7- Specific features of cancer-related dysphagia

Cancer-related dysphagia is usually dynamic. It may change from week to week during radiotherapy. Early toxicities include mucositis, pain, thick saliva, taste change, nausea, fatigue, and reduced appetite. Late toxicities include fibrosis, trismus, neuropathy, lymphedema, reduced tongue base retraction, reduced hyolaryngeal excursion, reduced pharyngeal constriction, stenosis, and chronic xerostomia (Zhang, et al., 2024, pp. 1-4), (Schellen, et al., 2026, pp. 1-5).

This type of dysphagia is patient-specific. The same treatment may produce different outcomes according to tumor site, radiation dose, surgical reconstruction, baseline swallowing function, nutritional reserve, age, comorbidities, oral hygiene, pain control, psychological adjustment, family support, and adherence to exercises. Recent evidence emphasizes that adherence to prophylactic exercises is a determinant of functional benefit.

Clinically, the disorder should be interpreted as a combined structural, sensory, motor, nutritional, respiratory, and psychosocial condition. This broad view is important because a safe diet recommendation alone is not sufficient. Effective care should also include exercise selection, counseling, oral care, nutritional coordination, and long-term monitoring (Govender et al., 2024, pp. 703-718), (Kuhn et al., 2023, pp. 571-592).

8- Effects of head and neck cancer treatments on swallowing

The tumor itself can obstruct the bolus pathway, restrict tongue or pharyngeal mobility, cause pain, reduce mouth opening, alter voice quality, or create the sensation of a foreign body. Dysphagia may therefore be a presenting symptom before treatment starts. Baseline assessment before treatment is important because it establishes the patient's functional status

and helps clinicians compare later deterioration or recovery(Baijens et al, 2021, pp. 582-590), (Kuhn et al., 2023, pp. 571-579).

Surgery may change anatomy and motor control. Partial glossectomy may reduce bolus formation and propulsion. Pharyngeal surgery may reduce constriction and clearance. Laryngeal surgery may affect airway protection, voice, and swallowing coordination. Total laryngectomy separates the airway from the digestive tract, but patients may still develop dysphagia because of stricture, pharyngoesophageal spasm, fistula, prosthesis problems, or reduced tongue base propulsion (Schellen, et al., 2026, pp. 3-6), (Goyal et al., 2022, pp. 78-84).

Radiotherapy and chemo radiotherapy are major causes of acute and late dysphagia. Acute effects include inflammation, mucositis, pain, edema, xerostomia, and taste change. Late effects are often related to fibrosis, neuropathy, reduced tissue elasticity, trismus, and muscle disuse. Evidence summaries recommend coordinated rehabilitation that includes screening, oral care, preventive swallowing training, feeding management, and pain control (Zhang et al., 2024, pp. 4-8).

Chemotherapy may intensify mucositis, nausea, vomiting, reduced immunity, fatigue, and loss of appetite. When combined with radiotherapy, the patient may reduce oral intake because swallowing is painful and exhausting. This disuse may further weaken swallowing muscles. The clinical principle of maintaining safe oral intake and exercise during treatment remains important when medically appropriate(Hutcheson et al., 2013, pp. 1127-1134), (Schellen, et al., 2026, pp. 4-8).

9- Oral problems during cancer treatment

Oral toxicities are central in cancer-related dysphagia. Mucositis causes pain, ulcers, bleeding, and difficulty tolerating food or exercises. Xerostomia reduces lubrication, increases oral residue, makes chewing difficult, and may increase the need for repeated swallows. Thick saliva can interfere with speech, oral clearance, and comfort during meals. These symptoms should be recorded at each follow-up session and discussed with the medical team (Zhang et al., 2024, pp. 6-8), (Goyal et al., 2022, pp. 79-83).

Oral care is therefore part of dysphagia management. It includes gentle cleaning, monitoring of ulcers, hydration advice, management of thick secretions, dental follow-up, and avoidance of irritating textures when mucosal inflammation is present. Oral care should be linked to swallowing

rehabilitation because pain and secretions affect exercise adherence, food tolerance, and swallowing safety(Zhang et al., 2024, pp. 6-8).

Pain management also influences adherence. A patient with uncontrolled pain will not perform exercises regularly and will avoid oral intake. The orthophonist should not prescribe exercises in isolation. The plan must be coordinated with the physician, nurse, dentist, and dietitian so that oral care, pain control, nutrition, and swallowing rehabilitation support each other (Goyal et al., 2022, pp. 703-718).

10- Clinical manifestations of cancer-related dysphagia

Cancer-related dysphagia may appear through oral, pharyngeal, laryngeal, nutritional, respiratory, and psychosocial signs. Oral signs include dryness, ulcers, oral residue, thick saliva, poor chewing, reduced tongue movement, and food pocketing. Pharyngeal and laryngeal signs include repeated swallows, coughing, choking, wet voice, weak cough, sensation of residue, or delayed throat clearing (Baijens et al, 2021, pp. 582-596).

Nutritional signs include weight loss, dehydration, reduced appetite, prolonged meals, dependence on supplements, or avoidance of solids. Respiratory signs include recurrent chest infections, fever after meals, chronic cough, and shortness of breath. Psychosocial signs include fear of choking, embarrassment, avoidance of shared meals, anxiety, and reduced quality of life. These manifestations require a whole-person assessment and not only an oral-motor examination(Chen et al., 2001, pp. 870-876), (McHorney et al., 2002, pp. 97-114).

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Area	Clinical manifestations	Speech-language pathology interpretation
Mouth	Dryness, ulcers, pain, thick saliva, oral residue, food pocketing	Oral phase impairment and reduced bolus preparation
Chewing	Difficulty grinding food, fatigue, avoidance of solids, reduced jaw opening	Mastication impairment and possible trismus
Pharynx	Repeated swallows, coughing, choking, residue sensation, food sticking	Pharyngeal clearance impairment and possible aspiration risk
Larynx/voice	Wet voice, weak cough, dysphonia, altered airway protection	Possible penetration, aspiration, or residue near the airway
Nutrition	Weight loss, dehydration, reduced intake, prolonged meals	Risk of malnutrition and treatment interruption
Breathing	Chest infections, fever after meals, chronic cough, shortness of breath	Possible aspiration or poor airway clearance
Psychosocial life	Fear of eating, isolation, anxiety, avoidance of shared meals	Reduced participation and swallowing-related quality of life

Source: Prepared by the author based on current dysphagia literature and orthophonic guidance.

11- Risk signs requiring urgent speech-language pathology intervention

Urgent referral is required when the patient coughs or chokes while drinking, develops wet voice after swallowing, has recurrent chest infection, shows unexplained weight loss, reports food sticking in the throat, cannot swallow medication, avoids eating because of fear or pain, presents severe oral residue, has severe dry mouth or thick saliva, shows increasing fatigue during meals, or becomes dependent on liquids only (Kuhn et al., 2023, pp. 571-592), (Zhang et al., 2024, p. 4).

These signs may indicate aspiration risk, inadequate nutrition, or rapid functional decline. Instrumental assessment should be considered when silent aspiration is suspected, when clinical assessment does not explain symptoms, when diet recommendations are uncertain, or when a

compensatory maneuver must be tested before use. VFSS and FEES help visualize swallowing physiology, aspiration, residue, airway protection, and secretion management (Baijens et al, 2021, pp. 596-604), (Kuhn et al., 2023, pp. 579-584).

12. Speech-language pathology assessment

Assessment begins with a review of the medical file. The clinician records tumor site, stage, treatment plan, surgical procedures, radiation field when available, chemotherapy regimen, tracheostomy or laryngectomy status, respiratory status, nutritional status, weight change, tube feeding, pain, fatigue, medications, oral hygiene, dental status, and family support (Goyal et al., 2022, pp. 70-92).

The clinical interview should be functional and precise. It asks when the difficulty started, whether the problem concerns liquids, solids, pills, or saliva, whether swallowing is painful, whether coughing occurs during or after meals, whether the voice changes after drinking, whether repeated swallows are needed, whether the patient avoids certain foods, whether the mouth is dry, whether saliva is thick, whether meals are longer, and whether the patient eats alone because of embarrassment (Baijens et al, 2021, pp. 590-604).

The oral-peripheral examination includes lip seal, jaw opening, trismus, tongue strength and range of motion, cheek strength, palate movement, oral sensation, mucosal ulcers, dental or prosthetic status, saliva quantity and thickness, visible residue, voluntary cough, voice quality, respiratory pattern, and signs of fatigue. Comprehensive assessment should connect oral structures, sensory-motor status, breathing, voice, speech, swallowing, cognition, and quality of life (Zhang et al., 2024, p. 6).

Clinical swallowing assessment should be conducted under safe conditions. The clinician observes posture, bolus control, chewing, oral transit, number of swallows, coughing, throat clearing, voice change, breathing after swallowing, and fatigue. Patient-reported outcome measures such as MDADI and SWAL-QOL may help document the patient's perception of swallowing and quality of life (Chen et al., 2001, pp. 870-876), (McHorney et al., 2002, pp. 97-114).

13. Proposed speech-language pathology assessment grid

The following grid is proposed as a practical screening and follow-up tool. It does not replace VFSS, FEES, medical diagnosis, or nutritional

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assessment. It organizes clinical observation and helps classify risk. Each dimension is scored from 0 to 3. A higher score indicates greater risk and the need for closer follow-up. The grid is based on risk domains commonly discussed in recent consensus and evidence summaries (Zhang et al., 2024, pp. 4-6)

Assessed dimension	Observed elements	Suggested score
Pain/odynophagia	None, mild, moderate, severe	0-3
Oral dryness/secretions	Normal saliva, mild dryness, thick saliva, severe xerostomia	0-3
Tongue movement	Normal, limited, weak, almost absent	0-3
Mouth opening	Normal, limited, painful, severely restricted	0-3
Chewing/bolus control	Effective, slow, disorganized, impossible	0-3
Oral/pharyngeal residue	Absent, mild, moderate, severe	0-3
Coughing/choking	Absent, occasional, frequent, severe	0-3
Voice after swallowing	Clear, slightly changed, wet, very wet	0-3
Fatigue and meal duration	Absent, mild, moderate, severe/prolonged	0-3
Weight/nutrition	Stable, slight loss, clear loss, severe loss or tube dependence	0-3

Interpretation: 0-7 = low risk; 8-15 = moderate risk; 16-22 = high risk; 23 or above = severe risk requiring urgent medical coordination and consideration of instrumental assessment.

14- Applied protocol for management

The first phase is pretreatment or baseline care. It aims to document function and prepare the patient before toxicity becomes severe. Procedures include clinical interview, oral-peripheral examination, baseline swallowing assessment, voice and speech screening, mouth-opening measurement, current diet analysis, weight documentation, education about warning signs, introduction of preventive exercises, oral care guidance, dietitian referral when needed, and a follow-up schedule during treatment (Zhang et al., 2024, pp. 4-6).

The second phase is care during radiotherapy, chemo radiotherapy, chemotherapy, or early postoperative recovery. Symptoms may change

quickly. Follow-up may be weekly or biweekly according to risk. Procedures include monitoring pain, mucositis, dry mouth, thick saliva, coughing, wet voice, weight, fatigue, and oral intake. Treatment may include texture modification, small boluses, repeated swallows, safe postures, effortful swallow, jaw and tongue exercises, oral care support, and medical referral when infection, aspiration, dehydration, or severe malnutrition is suspected(Zhang et al., 2024, pp. 6-8)

The third phase is post-treatment rehabilitation and survivorship follow-up. It aims to restore function, prevent late complications, and support social eating. Procedures include reassessment of swallowing, monitoring of fibrosis and trismus, gradual diet progression, tongue and jaw strengthening, residue management, respiratory-swallow coordination, patient-reported outcome measurement, instrumental assessment when risk signs persist, and long-term review every three to six months depending on the case(Goyal et al., 2022, pp. 70-92), (Schellen, et al., 2026, pp. 8-15).

15- Therapeutic interventions

Therapeutic education is the foundation. The patient and family should understand why swallowing may change, which signs are dangerous, how to maintain oral hygiene, why exercises must be continued, and when medical help is needed. Education should be simple, culturally sensitive, and repeated because pain, fatigue, anxiety, and treatment burden reduce adherence(Kuhn et al., 2023, pp. 571-592).

Compensatory strategies may include upright positioning, remaining seated after meals, small boluses, slow eating pace, repeated swallows, alternating food and liquid when safe, and selected postures such as chin tuck or head rotation. These strategies must be chosen according to assessment findings. A posture that helps one patient may increase risk in another (Baijens et al, 2021, pp. 604-616).

Texture modification should follow clinical findings and nutritional needs. Soft, moist, pureed, or thickened textures may be required temporarily. Dry, hard, crumbly, acidic, spicy, or very hot foods may worsen pain and residue during mucositis. The IDDSI framework provides standardized terminology for texture-modified foods and thickened liquids and can improve communication between clinicians, patients, and caregivers(Cichero et al., 2017, pp. 293-314), (Zhang et al., 2024, pp. 6-8).

Exercise-based therapy may include tongue range-of-motion and strengthening, jaw-opening exercises for trismus, effortful swallow,

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Mendelsohn maneuver, supraglottic swallow when medically appropriate, Shaker or chin-tuck-against-resistance exercises, and respiratory-swallow coordination. Preventive exercise trials support early exercise, but they also show that benefit depends on feasibility, clinical selection, timing, intensity, and adherence (Schellen, et al., 2026, pp. 6-11).

Adherence must be treated as a clinical target. The clinician may use written home programs, phone follow-up, family coaching, visual instructions, symptom diaries, or supervised sessions. The PRESTO trial showed that higher adherence to prophylactic swallowing exercises was associated with better swallowing function and muscle strength outcomes.

16- Eight-week applied program

The following model is an applied framework. It should be individualized according to tumor site, treatment type, pain level, fatigue, respiratory status, nutritional risk, cognitive status, and instrumental findings when available. The program does not replace medical care. It organizes orthophonic intervention and interprofessional follow-up based on baseline assessment, preventive care, safety monitoring, nutrition support, and long-term rehabilitation (Kuhn et al., 2023, pp. 571-592), (Zhang, et al., 2024, pp. 4-8).

Week	Objective	Intervention
1	Baseline assessment	Medical review, oral-peripheral examination, swallowing screening, warning signs
2	Preventive education	Oral care, dietitian coordination, safe intake advice, simple home exercises
3	Start exercises	Tongue range of motion, jaw opening, effortful swallow when indicated
4	Monitor toxicity	Pain, mucositis, dryness, thick saliva, fatigue, texture adjustment
5	Protect safety	Small boluses, repeated swallows, selected postures, voice monitoring
6	Support nutrition	Moist/soft foods, nutritional coordination, hydration, weight follow-up
7	Reassess function	Risk score update, adherence review, adjust exercises and compensations
8	Long-term plan	Home program, instrumental referral when needed, follow-up every 3-6 months

Source: Prepared by the author as an applied synthesis based on recent evidence and consensus literature.

17- Psychological and social dimensions

Dysphagia affects identity, emotions, and social participation. A patient who coughs during meals may feel shame. A patient who fears choking may avoid eating with family. A patient who depends on pureed food or tube feeding may experience a loss of independence. These reactions are not secondary. They shape adherence, nutrition, recovery, and participation in daily life (Chen et al., 2001, pp. 870-876).

Quality of life must therefore be a central outcome. Swallowing safety is essential, but it is not the only goal. The patient also needs comfort, dignity, confidence, and participation in daily meals. Patient-reported measures such as MDADI and SWAL-QOL can help clinicians document these outcomes and monitor change over time (Chen et al., 2001, pp. 870-876); (McHorney et al., 2002, pp. 97-114).

18- Multidisciplinary team

Effective management of cancer-related dysphagia requires a multidisciplinary team. The oncologist manages cancer treatment. The radiation oncologist monitors treatment dose and toxicity. The ENT specialist evaluates laryngeal and pharyngeal structures. The orthophonist assesses and treats swallowing, voice, speech, and communication. The dietitian manages nutritional needs and oral intake. The dentist prevents and treats oral complications. The nurse monitors daily symptoms and supports education. The psychologist supports adjustment, fear of eating, anxiety, and social withdrawal (Goyal et al., 2022, pp. 70-92).

This collaboration is not optional. Dysphagia has medical, functional, nutritional, respiratory, and psychosocial consequences. Recent consensus and white-paper literature emphasize early screening, specialized assessment, prevention, intervention, surveillance, and interprofessional communication across the care pathway (Baijens et al., 2021, p. 616), (Schellen, et al., 2026, pp. 1-15).

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Specialty	Role
Oncologist	Determines cancer treatment and monitors disease status
Radiation oncologist	Monitors radiation dose, field, toxicity, and late effects
ENT specialist	Assesses laryngeal, pharyngeal, oral, and airway structures
Speech-language pathologist	Assesses and rehabilitates swallowing, voice, speech, and communication
Dietitian	Estimates nutritional needs and adapts oral or enteral feeding plans
Dentist/oral care specialist	Prevents and manages oral, dental, mucosal, and xerostomia-related problems
Nurse	Monitors daily symptoms, medication tolerance, oral care, and patient education
Psychologist	Supports adjustment, anxiety, fear of eating, and social participation

Source: Prepared by the author based on multidisciplinary care principles and recent dysphagia literature.

19- Results and discussion

The analysis shows that cancer-related dysphagia is a core field within orthophony and speech-language pathology. It requires knowledge of swallowing physiology, tumor effects, treatment toxicities, compensatory management, therapeutic exercise, oral care, nutrition, instrumental assessment, and psychosocial support. The disorder cannot be reduced to weak muscles alone. It may involve pain, mucositis, dryness, fibrosis, neuropathy, anxiety, social withdrawal, and reduced quality of life (Schellen, et al., 2026, pp. 1-5).

Early assessment is clinically justified. Baseline evaluation before radiotherapy or surgery allows comparison over time and supports proactive education. Consensus literature also highlights risk factors, screening, evaluation, prevention, intervention, and surveillance as major domains in the management of dysphagia in head and neck cancer (Kuhn et al., 2023, pp. 571-592), (Zhang et al., 2024, pp. 4-8).

Preventive exercises should be used carefully. They are not a universal prescription. They should be selected according to patient risk, treatment phase, pain, fatigue, and ability to adhere. The evidence indicates potential benefit, but also highlights gaps concerning optimal timing,

intensity, exercise content, delivery mode, and transfer to oral intake (Schellen, et al., 2026, pp. 6-15).

The applied contribution of this article is the organization of care into a practical orthophonic pathway. This pathway includes early screening, clinical assessment, risk classification, patient education, oral care, exercise selection, compensatory strategies, diet coordination, instrumental referral, psychosocial attention, and long-term follow-up. Such a model may help Arabic clinical settings move from delayed symptomatic care to preventive and structured rehabilitation.

The main findings can be summarized as follows: cancer-related dysphagia is multifactorial; head and neck cancer treatment can affect swallowing before, during, and after therapy; early orthophonic referral is needed; clinical assessment should be supported by instrumental assessment when risk is high; adherence is essential; quality of life must be monitored; and multidisciplinary teamwork is necessary for safe and effective management.

- Conclusion

This study confirms that orthophonic management of cancer-related dysphagia in patients with head and neck cancer is a clinical and human necessity. Dysphagia may threaten breathing, nutrition, oral intake, communication, social participation, and quality of life.

The orthophonist has a central role in screening, assessment, education, prevention, rehabilitation, compensatory management, and follow-up. This role becomes stronger when it is integrated into a multidisciplinary care pathway and when the patient and family are active partners in treatment.

The study recommends formal integration of orthophonists into head and neck cancer teams, baseline swallowing assessment before radiotherapy or surgery, adoption of Arabic clinical grids, training in dysphagia and instrumental assessment, close collaboration with dietitians and dentists, systematic oral care, realistic preventive exercises, long-term follow-up for fibrosis and trismus, and field studies on adherence and swallowing-related quality of life.

Developing Arabic protocols for cancer-related dysphagia can improve clinical organization and support safer, more humane, and more evidence-based care for patients with head and neck cancer.

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