European Stroke Organisation and European Society for Swallowing Disorders guideline for the diagnosis and treatment of post-stroke dysphagia.

Guideline ID: 2556 Published: 2021 Sep

European Stroke Organisation (ESO) | European Society for Swallowing Disorders

Dziewas R, Michou E, Trapl-Grundschober M, et al. European Stroke Organisation and European Society for Swallowing Disorders guideline for the diagnosis and treatment of post-stroke dysphagia. Eur Stroke J. 2021 Sep;6(3):LXXXIX-CXV. [323 references] PubMed

View Original Guideline

Overview

Guideline Objective

To inform physicians, speech-and-language therapists (SLTs) as well as stroke-nurses, and all the members of the multidisciplinary team on how to screen, assess, and treat patients with post-stroke dysphagia (PSD) to avoid dysphagia-related complications and to facilitate recovery of swallowing function

Patient Population

Patients with suspected or confirmed PSD

Recommendations

Recommendation Statements

Impact of Post-stroke Dysphagia (PSD) on Stroke Outcome

In patients with acute and/or subacute stroke, the presence of dysphagia has an adverse effect on functional outcome and mortality, increases the risk of pneumonia, malnutrition, percutaneous endoscopic gastrostomy (PEG)-feeding, and discharge to institutional care and prolongs hospital length-of-stay. (**Quality of evidence: Moderate ⊕⊕⊕; Expert consensus**)

Dysphagia and Nutritional Screening

Dysphagia Screening

Recommendation 1: In all patients with acute stroke, we recommend a formal dysphagia screening test to prevent post-stroke pneumonia and decrease risk of early mortality. We recommend to screen the patients as fast as possible after admission. For screening, either water-swallow-tests or multiple-consistency tests may be used. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Strong for intervention ↑↑**)

Recommendation 2: In patients with acute stroke, we recommend no administration of any food or liquid items, including oral medication, until a dysphagia screening has been done and swallowing was judged to be safe. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Strong for intervention ↑↑**)

Nutritional screening

There is consensus among the guideline group (15/15) that patients with acute stroke should be screened for nutritional risk within the first days after hospital admission using validated screening tools. (**Expert consensus**)

Dysphagia Assessment

Recommendation 3: We suggest a dysphagia assessment in all stroke patients failing a dysphagia screen and/or showing other clinical predictors of post-stroke dysphagia, in particular a severe facial palsy, severe dysarthria, severe aphasia or an overall severe neurological deficit (NIH-SS ≥ 10 points). Dysphagia assessment should be done as soon as possible. In addition to the clinical swallow examination, Videofluoroscopic Swallowing Study

(VFSS) or, preferentially, Flexible Endoscopic Evaluation of Swallowing (FEES). should be available. (**Quality of evidence: Low ⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 4: We suggest that in acute stroke patients swallowing of tablets should routinely be evaluated as part of dysphagia assessment in addition to assessing the swallowing of liquid and different food consistencies and quantities. (**Quality of evidence: Low ⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Treatment of Post-stroke Dysphagia

Dietary Interventions

Recommendations 5: In patients with post-stroke dysphagia, we suggest that texture modified diets and/or thickened liquids may be used to reduce the risk of pneumonia. (**Quality of evidence Low ⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 6: In patients with post-stroke dysphagia, we recommend that texture modified diets and/or thickened liquids are prescribed only based on an appropriate assessment of swallowing. (**Quality of evidence: Low ⊕⊕; Strength of recommendation: Strong for intervention ↑↑**)

Recommendation 7: In stroke patients put on texture modified diet and/or thickened liquids we recommend to monitor fluid balance and nutritional intake. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Strong for intervention ↑↑**)

Behavioural Interventions

Recommendation 8: In patients with post-stroke dysphagia, we suggest behavioural swallowing exercises to rehabilitate swallowing function. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 9: In patients with post-stroke dysphagia, we suggest that behavioural interventions should not be limited to one specific manoeuvre or training, but the treatment should be tailored to the specific swallowing impairment of the individual patient based on a careful assessment of dysphagia. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 10: In patients with post-stroke dysphagia, we suggest that acupuncture may be used to rehabilitate swallowing function. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Nutritional Interventions

Recommendation 11: In unselected stroke patients, we suggest to avoid routine use of oral nutritional supplementation. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Weak against intervention ↓?**)

Recommendation 12: In stroke patients who tolerate an oral diet and present with a risk of malnutrition or with manifest malnutrition, we suggest to consider the use of oral nutritional supplementation. (**Quality of evidence: Low ⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 13: In patients with post-stroke dysphagia and insufficient oral intake, we suggest an early enteral nutrition via a nasogastric tube. (**Quality of evidence: Moderate ⊕⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Interventions to Improve Oral Health

Recommendation 14: In stroke patients we suggest to implement oral health care interventions to reduce the risk of pneumonia. (**Quality of evidence: Low ⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Pharmacological Treatment

Recommendation 15: We recommend that due to the limited evidence available with regards to clinical endpoints, pharmacological treatment of post-stroke dysphagia should be preferably used within clinical trial settings. (**Quality of evidence: low ⊕⊕; Strength of recommendation: Strong for intervention ↑↑**)

Recommendation 16: We recommend that preventive antimicrobial treatment is not used in stroke patients. (**Quality of evidence: High ⊕⊕⊕⊕; Strength of recommendation: Strong against intervention ↓↓**)

Recommendation 17: In stroke patients with poststroke dysphagia and an impaired swallow response, we suggest to consider transient receptor potential cation channel subfamily V member 1 (TRPV1) agonists and dopaminergic agents to improve swallowing safety. (**Quality of evidence: Low ⊕⊕; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 18: In stroke patients fed via a nasogastric tube, we suggest to use metoclopramide to promote gastric emptying and reduce the risk of esophago-pharyngeal

regurgitation with subsequent aspiration. (**Quality of evidence: Low ⨁⨁; Strength of recommendation: Weak for intervention ↑?**)

Neurostimulation Treatment

Recommendation 19: In patients with post-stroke dysphagia, we recommend that treatment with neurostimulation techniques should preferably be conducted within a clinical trial setting. (**Quality of evidence: low ⨁⨁; Strength of recommendation: Strong for intervention ↑↑**)

Recommendation 20: In patients with post-stroke dysphagia, we suggest treatment with repetitive transcranial magnetic stimulation (rTMS), transcutaneous electrical stimulation (TES), transcranial direct current stimulation (tDCS) and pharyngeal electrical stimulation (PES) as adjunct to conventional dysphagia treatments to improve swallowing function. (**Quality of evidence: Moderate ⨁⨁⨁; Strength of recommendation: Weak for intervention ↑?**)

Recommendation 21: In tracheotomized stroke patients with severe dysphagia, we suggest treatment with pharyngeal electrical stimulation to accelerate decannulation. (**Quality of evidence: High ⨁⨁⨁⨁; Strength of recommendation: Weak for intervention ↑?**)

Evidence Rating Scheme

Grades of Quality of Evidence

Grade	Definition	Symbol
High	Further research is very unlikely to change our confidence in the estimate of effect.	⨁⨁⨁⨁
Moderate	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.	⨁⨁⨁
Low	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.	⨁⨁

Very low	We are very uncertain about the estimate.	⨁

Recommendation Rating Scheme

Definitions and Symbols of Categories of Strength of Recommendation

Category	Definition	Symbol
Strong for an intervention	The desirable effects of an intervention outweigh its undesirable effects.	↑↑
Weak for an intervention	The desirable effects probably outweigh the undesirable effects but appreciable uncertainty exists.	↑?
Weak against an intervention	The undesirable effects probably outweigh the desirable effects but appreciable uncertainty exists.	↓?
Strong against an intervention	The undesirable effects of an intervention outweigh its desirable effects.	↓↓

Strong recommendations should be worded as "We recommend for / against..." and weak recommendations as "We suggest for / against..."

Expert Consensus Statements

An 'expert consensus statement' was added whenever the authors considered that not enough evidence was available to provide evidence-based recommendations for situations in which practical guidance is needed for the everyday clinical practice. An expert consensus statement should clearly state the direction as "suggest for" or "suggest against."

Related Content

Supporting Documents

- Supplements.
- European Stroke Organisation (ESO) Standard Operating Procedure for the Preparation and Publishing of Guidelines; 2021 Sep 24.

Implementation Tools

No implementation tools available.

Patient Education

No patient education materials available.

Disclaimer

If you desire to use content from the original clinical practice guideline cited herein, you must contact the guideline developer directly to obtain permission rights.

ECRI's Guideline Profiles are designed to provide information and assist decision-making. Variations in practice will inevitably, and appropriately, occur when clinicians take into account the needs and preferences of individual patients, available resources, and limitations unique to an institution or type of practice. Every healthcare professional using these Guideline Profiles is responsible for evaluating the appropriateness of applying them in a clinical setting.

TRUST Scorecard

Composition of Guideline Development Group (GDG)

Multidisciplinary GDG Members	**Yes**
Methodologist Involvement	**Yes**
Incorporation of Patient and Public Perspective	★☆☆☆☆

Systematic Review of Evidence

Literature Search	★★★★★
Study Selection	★★★☆☆
Evidence Synthesis	★★★★★

Foundations for Recommendations

Strength of Evidence Grade	★★★★★
Description of Benefits and Harms of Recommendations	★★★☆☆
Summary of Evidence Supporting Recommendations	★★★★☆
Strength of Recommendations Rating	★★★★★
Clear Articulation of Recommendations	★★★★★

Funding Source — **No**

Disclosure and Management of Financial Conflicts of Interests — ★★★★★

External Review — ★★★☆☆

Updating — ★★★★☆

Copyright © 2026 ECRI