The 2026 AHA/ASA Guidelines Update: Part 2 – Developing a New PES Program to Support Guideline Updates

Anne W. Alexandrov, PhD, AGACNP-BC, ANVP-BC, FAAN, Sarah Livesay, DNP, APRN, FNCS, FAAN & Debbie Hill, BS, FAHA

Introduction

The new American Heart Association/ American Stroke Association (AHA/ASA) 2026 guidelines[1] cite pharyngeal electrical stimulation (PES) as an important treatment consideration for patients with acute stroke. Stroke program leaders, including stroke coordinators, advanced practice providers (APPs), physicians, nurse managers, speech and language pathologists (SLPs), nutrition support dietitians, and pharmacists are essential clinicians to guide PES program development alongside non-clinical service line managers and other administrators. Because dysphagia has a significantly negative impact on patient, family, and caregiver outcomes, pairing clinical leaders with non-clinical business managers ensures patient-centeredness in PES program development.

In this article, we approach different elements that are key to successful program development, namely 1) patient identification with baseline data collection, 2) interdisciplinary support, 3) training and clinical pathway development, and 4) program outcome identification and measurement.

Patients & Baseline Data

Any time a new program is being considered for development and implementation, baseline data are key to building consensus around need. All stroke center hospitals admit patients with strokes complicated by dysphagia. Given that severe dysphagia is the United States Food and Drug Administration (USFDA) indication for PES treatment, pulling data on these patients' hospitalization experiences over the previous 1 to 2 years will be helpful to identify opportunities to target for improvement.

A recent health economics study conducted using Medicare claims data showed that severe dysphagia is costly, leading to significant hospital financial losses.[2] Costs were associated with tube feeding dependence, associated pulmonary complications including pneumonia, critical care unit length of stay (LOS), and overall hospital LOS. Of note, percutaneous endoscopic gastrostomy (PEG) tube insertions were associated with the highest financial losses incurred during acute hospitalization in both ischemic and hemorrhagic stroke patients.[2] Additionally, readmissions within 30-days of discharge for

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

Stroke Clinician Volume 3, Issue 2, Spring 2026

complications related to dysphagia can contribute to the total aggregate number of institutional cases that may impact hospital reimbursement; therefore, these should be examined closely in both ischemic and hemorrhagic post-stroke dysphagia patients.

Establishing baseline clinical and financial performance can be a powerful driver for new program implementation. Since stroke is the leading reason for PEG insertion in the United States[3] and early PEG insertion is often advocated to facilitate discharge to inpatient rehabilitation or skilled nursing facilities, understanding how PEG use relates to readmissions, complications such as pneumonia, and worsening financial loss is essential, especially since early treatment with PES can result in reduced risk for aspiration,[4,5] reduced pneumonia rates,[6] and faster resumption of oral intake with shorter feeding tube duration.[5]

Interdisciplinary Support

The development and subsequent implementation of a robust PES program requires identification of stakeholders within an organization. Stakeholders can be divided into 3 main groups: 1) Clinicians; 2) patients; and 3) administrators.

Clinicians consist of all those stroke interdisciplinary healthcare providers that will be involved in caring for PES patients. Nurses from neurocritical care and stroke unit settings, as well as stroke coordinators and nurse managers should be actively engaged in program development, and meet with the core PES leadership group regularly to discuss patient identification methods, treatment methods and experiences, and program outcomes. Engaging nurses in this manner will also enable the stroke team to connect findings from admission dysphagia screenings to PES patient selection, empowering the nursing staff in an important aspect of program success.

Physician colleagues from neurocritical care, the stroke team, and physical medicine and rehabilitation should serve as active champions for PES programs. As medical leaders caring for post-stroke severe dysphagia patients, they should consider all cases that require a nasogastric or nasojejunal feeding tube insertion as potential patients that can be treated with the Phagenyx® PES system. While physicians often don't have time to get involved with the "nitty gritty" of program development, they should be active partners in examining program outcomes, and they will be particularly useful in tying clinical signs and symptoms as well as neuroimaging findings to PES treatment results. Additionally, physicians should be made aware of the new guideline recommendations which state that early PEG placement should not be undertaken until approximately 2 weeks have passed with nasogastric or nasojejunal tube feeding, demonstrating no improvement in swallowing.[1] This provides ample time for up to 6-days of treatment with PES to be given, and ultimately may lead to resumption of safe oral intake with PEG tube avoidance.

Speech and language pathologists (SLPs) are essential personnel to initiating a PES program and the availability of PES treatment has generated a lot of enthusiasm within many SLP hospital and rehabilitation center departments. The manufacturer of the USFDA approved PES catheter provides training and ongoing resources to support

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

SLP management and leadership of PES programs. Ultimately, SLPs frequently become the key personnel in the early identification of patient candidates for PES treatment, so early consultation within the first few days of acute hospitalization is important; this is important since early PES treatment has been shown to very effective at resolving or significantly reducing the severity of dysphagia.[7]

Other key clinicians that should be considered when developing a PES program include nutrition support dietitians that prescribe and make recommendations for tube feeding formulas and work closely with SLPs in determining oral diet consistencies and textures once oral intake can be safely resumed. Also, clinical pharmacists should be consulted to advise on tube feeding delivery of medications and changes in medication delivery once progression to oral intake has occurred.

Patients are a key group for involvement in PES program development, implementation, and ongoing program refinement. Understanding patients' perceptions of having dysphagia can open the door to developing a PES program, because severe dysphagia is a devastating outcome of stroke that significantly impacts patient's quality of life and their ability to socially reintegrate into their family, friend, and work communities. For patients treated with PES, understanding perceptions of how that experience unfolded can also provide important information about how to improve and even market a new PES program.

Lastly, program administrators are often the gatekeepers for PES program development. Often administrators are unwilling to bring in new technology due to costs, yet have no idea what the actual cost of care is when dysphagia patients develop complications such as pneumonia or incur readmissions within 30-days of discharge due to problems associated with severe dysphagia, PEG tube placement, aspiration, nutritional disorders including dehydration, or secretion management. Baseline data should be used to demonstrate financial opportunities to administrative stakeholders. Additionally, sharing published health economics work that shows the significant cost of post-stroke dysphagia,[2] especially in patients with PEGs can be eye-opening and garner administrative support. Also, the new guideline recommendation for delayed PEG placement at 2 weeks post initiation of tube feeding[1] should cause administrators to recognize an opportunity for PES treatment that might reduce time to important hallmarks like trach decannulation, and improve time to oral intake resumption, both of which can shorten critical care days and overall hospital LOS. Establishing key outcomes for PES program tracking that are of interest of administrators should be considered carefully to enable potent markers of success while allowing identification of ways to improve program roll out and refinement.

Training & Clinical Pathway Development

Interdisciplinary stakeholders are the essential people to identify necessary education and training needs, while also laying out what the clinical pathway should look like for PES treatment. With earlier PES treatment aligned with faster improvement in dysphagia,[7] all acute stroke patients – both

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

ischemic and hemorrhagic – requiring tube feeding should be considered as potential PES treatment candidates within the first few days of hospital admission.

The current USFDA approved indication for PES treatment is for *severe* post-stroke dysphagia. Patients capable of taking a modified oral diet are not ideal candidates for PES and in one clinical trial that enrolled a large number of these patients, PES made no difference in dysphagia outcomes.[8] However, severe dysphagia patients, such as those post-stroke patients requiring tube feedings, including those with tracheostomies for poor secretion management, make up the ideal candidates for PES treatment.

Several studies have evaluated PES in relation to trach decannulation demonstrating that PES treatment results in faster trach decannulation, better secretion management, and reduced risk for aspiration.[5,9-12] Because of this, starting treatment early in these patients advantages them, as well as the hospital, in facilitating dysphagia resolution or improvement, with reduced critical care utilization. Whether the patient is intubated, tracheotomized or not, the clinical pathway for PES initiation should begin as early into hospitalization as possible in acute stroke patients, and the need for tube feeding due to severe dysphagia can serve as a simple trigger to initiate the PES conversation with the interdisciplinary team.

Since nursing staff are commonly charged with performing bedside swallow screens on dysphagia patients, they can play an important role in patient identification. Ensuring provision of education that incorporates PES patient identification is, therefore, key to operationalizing a new program. SLPs can obtain initial education and ongoing user training from the manufacturer who is staffed with expert SLPs that can guide PES use and consult on various aspects of program management. Physicians and administrators can benefit from external interdisciplinary consultants with expertise in program development, implementation, and ongoing management. Since the number of sites using PES is growing at a fast pace, networking with vascular neurologists, neurocritical care physicians, and hospital administrators with actual PES program experience can be highly beneficial and aid in garnering program support.

Program Outcomes & Measurement

One of the most important steps to PES program implementation is identifying key outcomes and cycles for their measurement over time. A number of outcome measures have been used in published PES clinical research, including the Dysphagia Severity Rating Scale (DSRS),[13] the Penetration Aspiration Scale (PAS),[14] the Functional Oral Intake Scale (FOIS),[15] hospital LOS, critical care LOS, PEG avoidance, time to tracheotomy decannulation, and time to resumption of oral intake. Safety measures have also included indicators such as pneumonia, death, reintubation (in previously intubated or tracheotomy patients), and hospital readmission within 30-days of discharge for dysphagia related complications. The DSRS[13] is not commonly used in the United States and therefore may not be the best measure to implement for a new program, whereas the FOIS[15] is easily measured, has sound psychometrics, can be followed post-hospital or rehabilitation

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

center discharge, and is highly sensitive to change. You may find that your SLPs are already utilizing the PAS[14] in their instrumental assessments of patients' swallows, but that their findings may not have been fully understood by the entire interdisciplinary treatment team who may not be aware of this measure. Establishing methods that capture key PES outcomes tied to functional, physiological, and financial domains in a hospital registry will be beneficial to programs so that they can track PES results in an ongoing user-friendly manner over time. Consider including patients that for whatever reason were unable to be treated with PES in your registry so that you can compare outcomes between those receiving treatment with those that did not.

Lastly, Phagenyx® PES treatment performed in the inpatient setting is currently eligible for a Centers for Medicare and Medicaid Services (CMS) new technology add-on payment (NTAP)[16] through September 30, 2026 under ICD-10-PCS code XWHD7Q7 (*insertion of neurostimulator lead into mouth and pharynx, via. natural or artificial opening, new technology group*).[17] CMS has proposed continuation of the NTAP, but this has not been finalized as of the time of this publication. Stroke clinicians should keep an eye on NTAP reimbursement, but not overlook the potential for reductions in the cost of care due to faster decannulation, reduced complications, and reduced critical care/hospital LOS resulting from PES treatment.

Conclusions

The establishment of PES programs in both acute care hospitals and rehabilitation centers provides highly vulnerable stroke survivors with an important patient-centered treatment opportunity. Given that patients are the ones that ultimately have to live with dysphagia, providing severe dysphagia patients with a choice to pursue treatment with PES is the right thing to do. The collection of baseline data, organizing the right interdisciplinary team, listening to patient feedback and perceptions about life with dysphagia, ensuring appropriate education and training, and establishing powerful PES outcome measures will enable successful program development, implementation, and refinement over time.

Author Affiliations

Anne W. Alexandrov, PhD, AGACNP-BC, ANVP-BC, FAAN
College of Nursing, College of Medicine, and College of Graduate Health Sciences
University of Tennessee Health Science Center at Memphis, Memphis, TN USA
NET SMART Program
Health Outcomes Institute, LLC-P
Fountain Hills, Arizona USA

Sarah Livesay, DNP, APRN, FNCS, FAAN
Rush University College of Nursing
Department of Adult and Gerontological Nursing

Debbie Hill, BS, FAHA
Lombardi Hill LLC, Stroke Challenges

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

Corresponding Author

Anne W. Alexandrov, PhD, AGACNP-BC, ANVP-BC, FAAN
College of Nursing, College of Medicine, and
College of Graduate Health Sciences
University of Tennessee Health Science Center at Memphis
NET SMART Program
Health Outcomes Institute, LLC-P
Fountain Hills, Arizona USA
Anne@netsmart-stroke.org

References

1. Prabhakaran S, Gonzalez NR, Zachrison KS, et al. 2026 Guideline for the Early Management of Patients With Acute Ischemic Stroke: A Guideline From the American Heart Association/American Stroke Association. *Stroke*. Published online January 26, 2026. https://doi.org110.1161/str.0000000000000513

2. Alexandrov AW, Ryschon AM, Choi HA, Badjatia N, Cusack TJ, Alexandrov AV, Mayer SA, Pietzsch JB. Health-Economic Implications of Post-Stroke Dysphagia: A Contemporary Medicare Claims Analysis. Neurol Ther. 2026 Jun;15(3):1409-1422. doi: 10.1007/s40120-026-00925-z. Epub 2026 Apr 13. PMID: 41973348; PMCID: PMC13172161.

3. Stein DJ, Moore MB, Hoffman G, Feuerstein JD. Improving All-Cause Inpatient Mortality After Percutaneous Endoscopic Gastrostomy. Dig Dis Sci. 2021 May;66(5):1593-1599. doi: 10.1007/s10620-020-06396-y. Epub 2020 Jun 19. PMID: 32556970.

4. Jayasekeran V, Singh S, Tyrrell P, Michou E, Jefferson S, Mistry S, Gamble E, Rothwell J, Thompson D, Hamdy S. Adjunctive functional pharyngeal electrical stimulation reverses swallowing disability after brain lesions. Gastroenterology. 2010 May;138(5):1737-46. doi: 10.1053/j.gastro.2010.01.052. Epub 2010 Feb 2. PMID: 20138037.

5. Suntrup-Krueger S, Labeit B, von Itter J, Jung A, Claus I, Ahring S, Warnecke T, Dziewas R, Muhle P. Treating postextubation dysphagia after stroke with pharyngeal electrical stimulation - insights from a randomized controlled pilot trial. Neurotherapeutics. 2025 Jul;22(4):e00613. doi: 10.1016/j.neurot.2025.e00613. Epub 2025 May 17. PMID: 40383663; PMCID: PMC12418440.

6. Koestenberger M, Neuwersch S, Hoefner E, Breschan C, Weissmann H, Stettner H, Likar R. A Pilot Study of Pharyngeal Electrical Stimulation for Orally Intubated ICU Patients with Dysphagia. Neurocrit Care. 2020 Apr;32(2):532-538.

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

doi: 10.1007/s12028-019-00780-x. PMID: 31313142.

7. Cheng I, Bath PM, Hamdy S, Muhle P, Mistry S, Dziewas R, Suntrup-Krueger S. Predictors of pharyngeal electrical stimulation treatment success in tracheotomised stroke patients with dysphagia: Secondary analysis from PHADER cohort study. Neurotherapeutics. 2024 Sep;21(5):e00433. doi: 10.1016/j.neurot.2024.e00433. Epub 2024 Aug 23. PMID: 39181859; PMCID: PMC11579862.

8. Bath PM, Scutt P, Love J, Clavé P, Cohen D, Dziewas R, Iversen HK, Ledl C, Ragab S, Soda H, Warusevitane A, Woisard V, Hamdy S; Swallowing Treatment Using Pharyngeal Electrical Stimulation (STEPS) Trial Investigators. Pharyngeal Electrical Stimulation for Treatment of Dysphagia in Subacute Stroke: A Randomized Controlled Trial. Stroke. 2016 Jun;47(6):1562-70. doi: 10.1161/STROKEAHA.115.012455. Epub 2016 May 10. PMID: 27165955; PMCID: PMC4878285.

9. Suntrup S, Marian T, Schröder JB, Suttrup I, Muhle P, Oelenberg S, Hamacher C, Minnerup J, Warnecke T, Dziewas R. Electrical pharyngeal stimulation for dysphagia treatment in tracheotomized stroke patients: a randomized controlled trial. Intensive Care Med. 2015 Sep;41(9):1629-37. doi: 10.1007/s00134-015-3897-8. Epub 2015 Jun 13. PMID: 26077087.

10. Dziewas R, Stellato R, van der Tweel I, Walther E, Werner CJ, Braun T, Citerio G, Jandl M, Friedrichs M, Nötzel K, Vosko MR, Mistry S, Hamdy S, McGowan S, Warnecke T, Zwittag P, Bath PM; PHAST-TRAC investigators. Pharyngeal electrical stimulation for early decannulation in tracheotomised patients with neurogenic dysphagia after stroke (PHAST-TRAC): a prospective, single-blinded, randomised trial. Lancet Neurol. 2018 Oct;17(10):849-859. doi: 10.1016/S1474-4422(18)30255-2. Epub 2018 Aug 28. PMID: 30170898.

11. Koestenberger M, Neuwersch S, Hoefner E, Breschan C, Weissmann H, Stettner H, Likar R. A Pilot Study of Pharyngeal Electrical Stimulation for Orally Intubated ICU Patients with Dysphagia. Neurocrit Care. 2020 Apr;32(2):532-538. doi: 10.1007/s12028-019-00780-x. PMID: 31313142.

12. Muhle P, Claus I, Labeit B, Roderigo M, Warnecke T, Dziewas R, Suntrup-Krueger S. Pharyngeal Electrical Stimulation prior to extubation - Reduction of extubation failure rate in acute stroke patients? J Crit Care. 2024 Aug;82:154808. doi: 10.1016/j.jcrc.2024.154808. Epub 2024 Apr 5. PMID: 38581884.

13. Everton LF, Benfield JK, Hedstrom A, Wilkinson G, Michou E, England TJ, Dziewas R, Bath PM, Hamdy S. Psychometric assessment and validation of the dysphagia severity rating scale in stroke patients. Sci Rep. 2020 Apr 29;10(1):7268. doi: 10.1038/s41598-020-64208-9. PMID: 32350338; PMCID: PMC7190822.

14. Rosenbek JC, Robbins JA, Roecker EB, Coyle JL, Wood JL. A penetration-aspiration scale. Dysphagia. 1996

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494

Spring;11(2):93-8. doi: 10.1007/BF00417897. PMID: 8721066.

15. Crary MA, Mann GD, Groher ME. Initial psychometric assessment of a functional oral intake scale for dysphagia in stroke patients. Arch Phys Med Rehabil. 2005 Aug;86(8):1516-20. doi: 10.1016/j.apmr.2004.11.049. PMID: 16084801.

16. Medicare Electronic Application Request Information System™ (MEARIS™) https://mearis.cms.gov/public/publications/ntap/NTP221013D2MDC

17. Department of Health and Human Services, Centers for Medicare & Medicaid Services. https://www.cms.gov/files/document/spring-2026-icd-10-pcs-update-materials.pdf

DOI: 10.59236/sc.v3i2.122
ISSN: 2995-7494