

LOS ANGELES COUNTY+USC MEDICAL CENTER

DEPARTMENT OF NURSING SERVICES AND EDUCATION

3-OUNCE WATER SWALLOW SCREENING PROCEDURE

PURPOSE:

To summarize nursing responsibilities when performing a 3-ounce (oz) water swallow screen.

SUPPORTIVE DATA:

Normal swallowing involves multiple complex and coordinated interactions within the central and peripheral nervous systems necessitating that each system is intact.

Dysphagia, or impaired swallowing, is a common complication of acute stroke with an incidence that ranges from 37% to 78%. Aspiration can be a frequent and common complication among this population. If aspiration occurs about one-third will develop pneumonia, hence increasing morbidity and mortality. Utilization of an evidence-based swallow screen can help identify patients who can safely receive medications by mouth, and identify those patients who should remain NPO until an in-depth evaluation can be performed by a speech-language pathologist.

Any patient presenting for stroke or stroke symptoms must be screened before receiving anything by mouth. A swallow screen may be ordered by the provider via the use of a stroke order set, however the bedside nurse can independently perform the screen and document the results in iView. A swallow screen may also be ordered for other diagnoses in addition to stroke.

EQUIPMENT LIST:

- 8oz cup
- 3 oz (90 mL) of drinking water
- Straw (optional)
- Towel

CONTENT:

PROCEDURE STEPS

Pre-Swallow Screen Safety Assessment

1. Assess patient by using the following safety screening questions; the nurse will document if the answer is yes to any of these screening questions:

KEY POINTS

- If the answer to any of the safety screening questions is **YES, STOP! DO NOT** proceed with the swallow screen. Keep patient NPO, including medications and inform the provider.
- If the answer to all of the safety screening questions is **NO, CONTINUE** with the swallow screen.
- Pre-swallow Screen Safety Assessment is documented in Stroke Navigator Band in “contraindications to swallow screen”

Yes No

- Intubated or Tracheostomy tube present
- Unable to manage oral secretions
- Obvious signs of respiratory distress
- Not alert/ unable to follow commands
- Unable to sit up \geq 30 degrees
- Existing PEG or feeding tube

PROCEDURE STEPS

2. Explain procedure to patient.
3. Sit patient upright with HOB 80 - 90 degrees or as high as tolerated.

Performing the Swallow Screen

4. Instruct patient to drink entire 3oz cup of water, with or without a straw, in sequential swallows without interruption.
5. During and after swallowing, assess for coughing or choking.
6. Determine if patient passed or failed the screening.

KEY POINTS

Staff may assist the patient by holding the cup and/or the straw.

Coughing or choking are overt signs of dysphagia.

Criteria for failure are:

- Inability to drink the 3oz in its entirety
- Interrupted drinking
- Coughing during drinking
- Coughing immediately after completion of drinking 3oz of water

Post Swallow Assessment

7. Notify the provider and keep patient NPO, if the patient fails.
- Document results of the screen and notification of provider in the Stroke Navigator Band.
 - Patients who fail the swallow screen may need a formal swallow evaluation by speech-language pathologist.
8. Notify the provider if the patient passes the screen.

Note: attached screen shots from Orchid

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References

Armstrong, J.R. & Mosher, B. D. (2011). Aspiration pneumonia after stroke: intervention and prevention. *The Neurohospitalist*, 1 (2), 85-93. Doi: 10.1177/1941875210395775

Fedder, W.N. (2017). Review of evidenced-based nursing protocols for dysphagia assessment. *Stroke*, 48, 99-101. Doi: 10.1161/STROKEAHA.116.011738

Schrock, J.W., Berstein, J., Glasenapp, M., Drogell, K. & Hanna, J. A. (2011). A novel emergency department dysphagia screen for patients presenting with acute stroke. *Academic Emergency Medicine*, 18, 584-589. doi: 10.1111/j.1553-2712.2011.01087.x

Bedside Swallow Screen

Motor Function			
NIH Stroke Scale			
Bedside Swallow Screen/Stroke Patient			
Stroke Education			
	Dysarthria		
	Extinction and Inattention		
	NIH Stroke Score		
	Bedside Swallow Screen/Stroke Patient		
	Contraindications to Swallow Screen	Contraindications to Swallow Screen	X
	Stroke Education		
	Written Education Info Given	<input type="checkbox"/> Not alert/can't follow commands	
	Activation of EMS	<input type="checkbox"/> Intubated/tracheostomy tube	
	Follow-up After Discharge	<input type="checkbox"/> Unable to sit up 30 degrees or higher	
	Medication Prescribed	<input type="checkbox"/> Unable to manage oral secretions	
	Risk Factors	<input type="checkbox"/> Obvious signs of respiratory distress	
	Warning Signs and Symptoms	<input type="checkbox"/> No contraindications	
	Discharge Instructions for Stroke Given		

If any of the contraindications apply, it triggers the **“Keep NPO, inform provider”**

NIH Stroke Scale			
Bedside Swallow Screen/Stroke Patient			
Stroke Education			
	Extinction and Inattention		
	NIH Stroke Score		
	Bedside Swallow Screen/Stroke Patient		
	Contraindications to Swallow Screen	Not alert/...	
	Swallow Screen Result	Swallow Screen Result	X
	Stroke Education	Keep NPO, inform provider	
	Written Education Info Given		
	Activation of EMS		

If **NO CONTRAINDICATIONS**, it still continues to guide nurses to the procedure and safety precautions.

Patients have to be able to tolerate the entire 3 ounces, no coughing, or wet/gurgled voice.

NIH Stroke Scale			
Bedside Swallow Screen/Stroke Patient			
Stroke Education			
	NIH Stroke Score		
	Bedside Swallow Screen/Stroke Patient		
	Contraindications to Swallow Screen	No contr...	
	Three Ounce Water Swallow Screen	Three Ounce Water Swallow Screen	X
	Stroke Education		
	Written Education Info Given	<input type="checkbox"/> Passed swallow screen	
	Activation of EMS	<input type="checkbox"/> Wet/Gurgly sounding voice	
	Follow-up After Discharge	<input type="checkbox"/> Cough-wet, weak	
	Medication Prescribed	<input type="checkbox"/> Coughing/choking immediately after completion	
	Risk Factors	<input type="checkbox"/> Unable to drink entire 3 oz	

If the patient fails the swallow test, it will alert the nurse to keep patient NPO and notify provider.

NIH Stroke Scale			
Bedside Swallow Screen/Stroke Patient			
Stroke Education			
	Extinction and Inattention		
	NIH Stroke Score		
	Bedside Swallow Screen/Stroke Patient		
	Contraindications to Swallow Screen	No contr...	
	Three Ounce Water Swallow Screen	Wet/Gur...	
	Swallow Screen Result	Swallow Screen Result	X
	Stroke Education	Keep NPO, inform provider	
	Written Education Info Given		