

# GUSS

## ( G u g g i n g S w a l l o w i n g S c r e e n )<sup>1</sup>

Patient	Date:
	Time:
	Investigator:

### 1. Preliminary Investigation / Indirect Swallowing Test

	<i>YES</i>	<i>NO</i>
<b>VIGILANCE</b> <i>(The patient must be alert for at least 15 minutes)</i>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
<b>COUGH and/or THROAT CLEARING</b> <i>(Voluntary cough! Patient should cough or clear his or her throat twice)</i>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
<b>SALIVA SWALLOW</b>		
• <b>SWALLOWING SUCCESSFUL</b>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
• <b>Drooling</b> <i>(Herausrinnen von Speichel aus dem Mund)</i>	0 <input type="checkbox"/>	1 <input type="checkbox"/>
• <b>VOICE CHANGE</b> <i>(hoarse, gurgely, coated, weak, choke on own saliva)</i>	0 <input type="checkbox"/>	1 <input type="checkbox"/>
<b>SUM:</b>		<b>(5)</b>
	<b>1 – 4 = Investigate further<sup>2</sup></b> <b>5 = Continue with „Direct Swallowing Test“</b>	

<sup>1</sup>The Gugging Swallowing Screen. *Stroke*. 2007;38:2948 Michaela Trapl, SLT, MSc; Paul Enderle, MD, MSc; Monika Nowotny, MD; Yvonne Teuschl, PhD; Karl Matz, MD; Alexandra Dachenhausen, PhD Michael Brainin, MD

# GUSS

## (Gugging Swallowing Screen)<sup>1</sup>

### 2. Direct Swallowing Test

(Material: Aqua bi, flat teaspoon, food thickener, bread)

<i>In the following order:</i>	1 →	2 →	3 →
	<b>SEMISOLID*</b>	<b>LIQUID**</b>	<b>SOLID ***</b>
<b>DEGLUTITION:</b>			
▪ Swallowing not possible	0 <input type="checkbox"/>	0 <input type="checkbox"/>	0 <input type="checkbox"/>
▪ Swallowing delayed (> 2 sec.) (Solid textures > 10 sec.)	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
▪ Swallowing successful	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
<b>COUGH (involuntary):</b> (before, during or after swallowing – until 3 minutes later)			
▪ Yes	0 <input type="checkbox"/>	0 <input type="checkbox"/>	0 <input type="checkbox"/>
▪ No	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
<b>DROOLING:</b>			
▪ Yes	0 <input type="checkbox"/>	0 <input type="checkbox"/>	0 <input type="checkbox"/>
▪ No	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
<b>VOICE CHANGE:</b> (listen to the voice before and after swallowing- patient should speak „Oh“)			
▪ Yes	0 <input type="checkbox"/>	0 <input type="checkbox"/>	0 <input type="checkbox"/>
▪ No	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
<b>SUM:</b>	<b>(5)</b>	<b>(5)</b>	<b>(5)</b>
	1 – 4 = Investigate further <sup>2</sup> 5 = Continue „LIQUID“	1 – 4 = Investigate further <sup>2</sup> 5 = Continue „SOLID“	1 – 4 = Investigate further <sup>2</sup> 5 = NORMAL

<sup>1</sup>The Gugging Swallowing Screen. *Stroke*. 2007;38:2948 Michaela Trapl, SLT, MSc; Paul Enderle, MD, MSc; Monika Nowotny, MD; Yvonne Teuschl, PhD; Karl Matz, MD; Alexandra Dachenhausen, PhD Michael Brainin, MD

# G U S S

## ( G u g g i n g S w a l l o w i n g S c r e e n )<sup>1</sup>

### Instruction „Direct Swallowing Test“

- \* First administer 1/3 - 1/2 teaspoon Aqua bi with food thickener (pudding-like consistency). If there are no symptoms apply 3 to 5 teaspoons. Assess after the 5<sup>th</sup> spoonful.
- \*\* 3, 5, 10, 20 ml Aqua bi – if there are no symptoms continue with 50 ml Aqua bi (Daniels et al. 2000; Gottlieb et al. 1996) Assess and stop the investigation when one of the criteria is observed.
- \*\*\* Clinical: Dry bread ; FEES: Dry bread which is dipped in coloured liquid.
- <sup>2</sup> Use functional investigation such as Videofluoroscopic Evaluation of Swallowing (VFES) , Fiberoptic Endoscopic Evaluation of Swallowing (FEES)

### S U M M A R Y

<b>Sum „Indirect Swallowing Test“:</b>	<b>( 5 )</b>
<b>Sum „Direct Swallowing Test“:</b>	<b>( 1 5 )</b>
<b>Sum TOTAL:</b>	<b>( 2 0 )</b>

<sup>1</sup>The Gugging Swallowing Screen. *Stroke*. 2007;38:2948 Michaela Trapl, SLT, MSc; Paul Enderle, MD, MSc; Monika Nowotny, MD; Yvonne Teuschl, PhD; Karl Matz, MD; Alexandra Dachenhausen, PhD Michael Brainin, MD

# GUSS

## ( G u g g i n g S w a l l o w i n g S c r e e n )<sup>1</sup>

RESULTS		SEVERITY CODE	RECOMMENDATIONS
<b>20</b>	Semisolid / liquid and solid textures successful	Slight / No dysphagia Minimal risk of aspiration	<ul style="list-style-type: none"> <li>• Normal diet</li> <li>• Regular liquids</li> <li>• First time under supervision of the SLT or a trained stroke nurse !</li> </ul>
<b>15-19</b>	Semisolid and liquid texture successful and solid unsuccessful	Slight dysphagia with a low risk of aspiration	<ul style="list-style-type: none"> <li>• Dysphagic diet (pureed and soft food)</li> <li>• Liquids very slowly – one sip at a time</li> <li>• Functional swallowing assessments such as Fiberoptic Endoscopic Evaluation of Swallowing (FEES) or Videofluoroscopic Evaluation of Swallowing (VFES)</li> <li>• Refer to Speech and Language Therapist (SLT)</li> </ul>
<b>10-14</b>	Semisolid swallow successful and liquids unsuccessful	Moderate dysphagia with a risk of aspiration	<p>Dysphagia diet beginning with:</p> <ul style="list-style-type: none"> <li>• Semisolid textures such as baby food and additional parenteral feeding</li> <li>• All liquids must be thickened!</li> <li>• Pills must be crushed and mixed with thick liquid</li> <li>• No liquid medication!!</li> <li>• Further functional swallowing assessments (FEES, VFES)</li> <li>• Refer to Speech and Language Therapist (SLT)</li> </ul> <p style="text-align: center;"><i>Supplementation with nasogastric tube or parenteral</i></p>
<b>0-9</b>	Preliminary investigation unsuccessful or semisolid swallow unsuccessful	Severe dysphagia with a high risk of aspiration	<ul style="list-style-type: none"> <li>• NPO (non per os = nothing by mouth)</li> <li>• Further functional swallowing assessments (FEES, VFES)</li> <li>• Refer to Speech and Language Therapist (SLT)</li> </ul> <p style="text-align: center;"><i>Supplementation with nasogastric tube or parenteral</i></p>

<sup>1</sup>The Gugging Swallowing Screen. *Stroke*. 2007;38:2948 Michaela Trapl, SLT, MSc; Paul Enderle, MD, MSc; Monika Nowotny, MD; Yvonne Teuschl, PhD; Karl Matz, MD; Alexandra Dachenhausen, PhD Michael Brainin, MD