

Creation and Implementation of the UCSF Laryngeal Symptom Diary

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Objectives

- Assess a new clinical tool, the UCSF Laryngeal Symptom Diary, for its *ease of use*, clinical *value in patient symptom tracking*, and *utility for long-term decision-making* following trial vocal fold injection.



Methods

- Consecutive adults patients undergoing trial VFI (with carboxymethylcellulose) given diary
- Follow-up survey completed by the patient and laryngologist.
- Revised UCSF-LSD was finalized for implementation into routine clinical practice
 - Modifications based upon experience using the diary by treating laryngologists, laryngology fellow, SLPs, and patient input and commentary.



• UCSF LARYNGEAL SYMPTOM DIARY •

Name: _____ Date of Injection: _____
(mm/dd/yyyy)

You are planned for a “Trial Vocal Fold Injection.” A temporary filler will be placed in your vocal cord(s). The goal of this temporary injection is to see if your voice and throat symptoms improve with the procedure. This diary will help you track your symptoms over time. Your change in symptoms is important in helping your doctor decide on next steps in your treatment. This “Trial Vocal Fold Injection” may help decide if a longer-term treatment option could help you.

Rate the following by drawing an X on the line:

- **Voice quality:** *How was the sound of your voice over the past few days?*
- **Voice volume:** *How loud was your voice over the past few days?*
- **Voice effort:** *How hard was it to produce your voice over the past few days?*
- **Other Symptom:** _____

BEFORE TRIAL VOCAL FOLD INJECTION

Voice Quality	Poor _____	Excellent _____
	☹	☺
Voice Volume	Weak _____	Normal _____
	☹	☺
Voice Effort	Maximal _____	Minimal _____
	☹	☺
Other: _____	_____	_____
	☹	☺

WHEN TO COMPLETE THE DIARY EACH WEEK

Sunday Monday Tuesday Wednesday Thursday Friday Saturday

Procedure explanation added to help patients understand the procedure itself and its role

Description for each symptom added to ensure patient understanding

Patient selected “wildcard” symptom

Patients complete this section on the day of the procedure.

Scales arranged from Negative to Positive for each symptom



Week 1 _____ (mm/dd/yyyy)

Voice Quality	Poor _____	Excellent
	☹	☺
Voice Volume	Weak _____	Normal
	☹	☺
Voice Effort	Maximal _____	Minimal
	☹	☺
Other: _____	_____	_____
	☹	☺

Week 2 _____ (mm/dd/yyyy)

Voice Quality	Poor _____	Excellent
	☹	☺
Voice Volume	Weak _____	Normal
	☹	☺
Voice Effort	Maximal _____	Minimal
	☹	☺
Other: _____	_____	_____
	☹	☺

Week 3 _____ (mm/dd/yyyy)

Voice Quality	Poor _____	Excellent
	☹	☺
Voice Volume	Weak _____	Normal
	☹	☺
Voice Effort	Maximal _____	Minimal
	☹	☺
Other: _____	_____	_____
	☹	☺

Patients complete the diary weekly until follow-up.

Diary can be completed long than the first follow up if clinically indicated



Results

- 29 undergoing trial VFI enrolled
 - 15 F (51.7%)
 - Mean age 61.5 \pm 14.2 yrs

- F/U: 5.98 (2.14 – 12.85) weeks
 - Pre-injection VHI-10: 28.52
 - Post-injection VHI-10: 21.85
 - Δ VHI-10: -7.41 (Z=-3.621, p<0.001)

- Patient reported “successful” trial
VFI: 79.3% (n=23/29)

Patient Diagnoses		
Diagnosis	No.	%
Vocal Fold Atrophy	6	20.7%
+ Tremor	3	10.3%
+ Parkinson’s	1	3.4%
+ Hypomobility	3	10.3%
+ Scar	1	3.4%
+ Cough	1	3.4%
Vocal Fold Scar	3	10.3%
Vocal Fold Sulcus	3	10.3%
Vocal Fold Paralysis		
+ Short Closure Pattern	2	6.9%
+ Vocal Fold Paresis	1	3.4%
+ Scar/Teflon Granuloma	1	3.4%
Cricoarytenoid Joint Fixation	2	6.9%
Vocal Fold Paresis		
+ AD-Spasmodic Dysphonia	1	3.4%
+ Vocal Fold Scar	1	3.4%

Abbreviations: AD, adductor



Results

- Diary returned by 82.3% (n=24/29)
- If returned, 100% completion rate
- Median of 5 weeks (mean 4.75 weeks, range 0-17) recorded

- Survey participation rate: 91.7% (n=27/29)



UCSF Laryngeal Symptom Diary Survey Results

	Survey Response				
	-2	-1	0	+1	+2
Patient Survey Questions (N=27)					
1. The explanations given by your doctor were clear on how to fill out the diary	1	0	1	2	23
2. The written explanations were helpful to fill out the diary	0	0	5	0	22
3. I would have been able to fill out the diary without the doctor's explanation	0	0	8	9	10
4. I found it difficult to remember to fill out the diary each week	0	0	20	5	2
5. I found the diary useful to follow the evolution of my symptoms after the injection	1	1	7	5	13
6. I found the diary useful when it came to make a decision about permanent treatment	2	0	17	4	4
Clinician Survey Questions (N=24)					
1. The voice diary helps me guide the patient on a decision for permanent treatment	0	1	6	4	13
2. Overall, the voice diary answers were congruent with the general impression the patient had about the result of the injection	0	2	0	6	16

- **66.7%** found the diary *useful for following symptom evolution*
- Laryngeal surgeon noted excellent concordance between diary and patient's overall reported injection benefit (**91.7%**)
- Useful for clinician-recommendation of *subsequent treatment options in 70.8%* of patients.



Conclusions

- Easy and accurate tracking of a variety of symptom changes over time
- Facilitates patient recollection of their symptom evolution, captures “peak” benefit following trial VFI, and demonstrates concordance with patient’s overall impression of the trial VFI.
- Beneficial for guiding long-term treatment plans

