EVALUATION DE LA FONCTION DE DEGLUTITION EN REANIMATION

réanimation 2023
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Porte Maillot

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Conflit d’intérêt

AUCUN

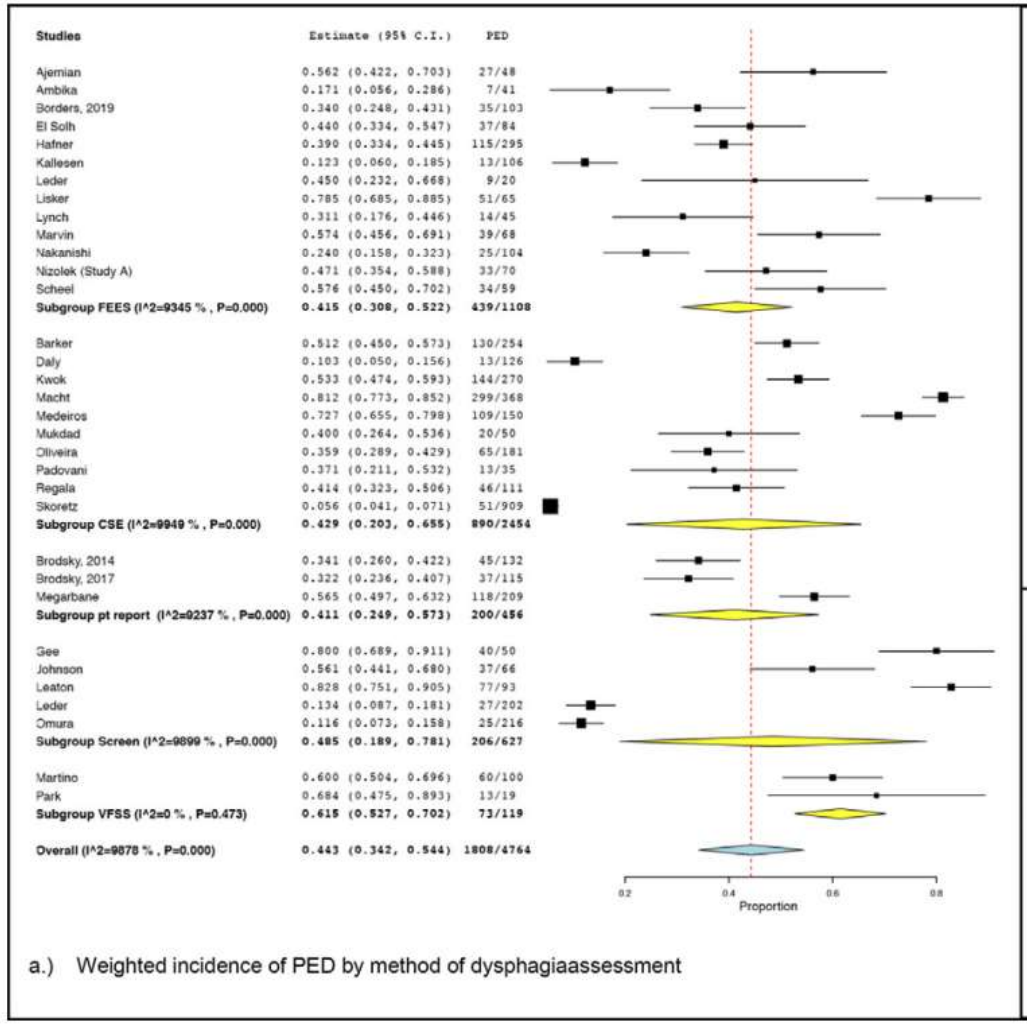
POURQUOI EVALUER ?

PED is prevalent in critically ill patients after endotracheal intubation, with 41%, or two of every five patients, impacted. It is likely to be difficult to detect at the bedside, with 36% of patients with PED aspirating silently. Wide variation in the incidence of PED was observed across the included studies; however, commonly cited reasons within PED research for heterogeneity were unable to explain this variation. Future high-quality research should focus on reaching consensus on methods for early and accurate identification of patients at risk of negative health outcomes associated with PED.

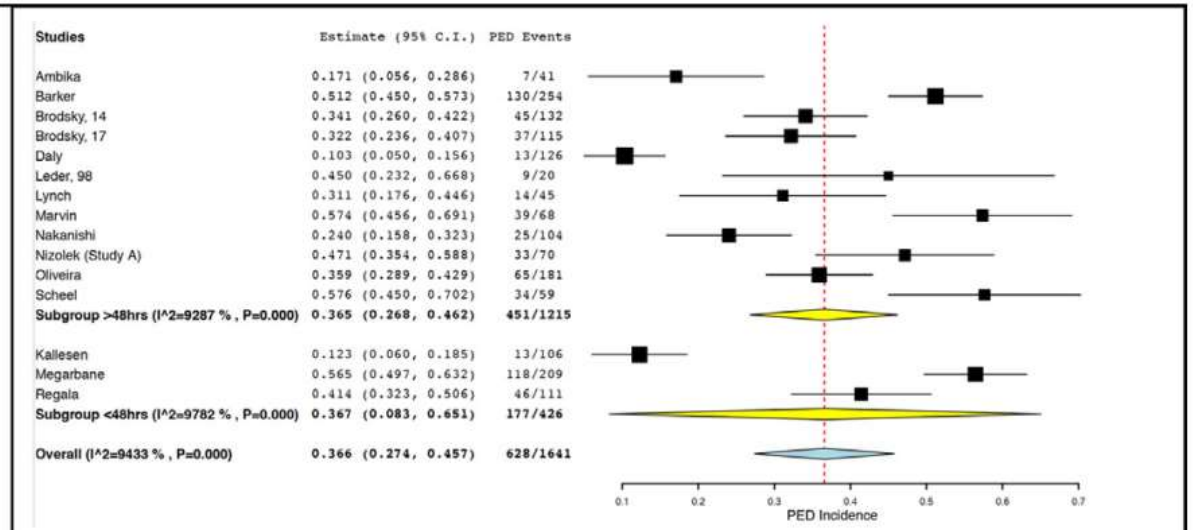
McIntyre M, Doeltgen S, Dalton N, Koppa M, Chimunda T. Post-extubation dysphagia incidence in critically ill patients: A systematic review and meta-analysis. Australian Critical Care. janv 2021;34(1):67-75.

POURQUOI EVALUER ?

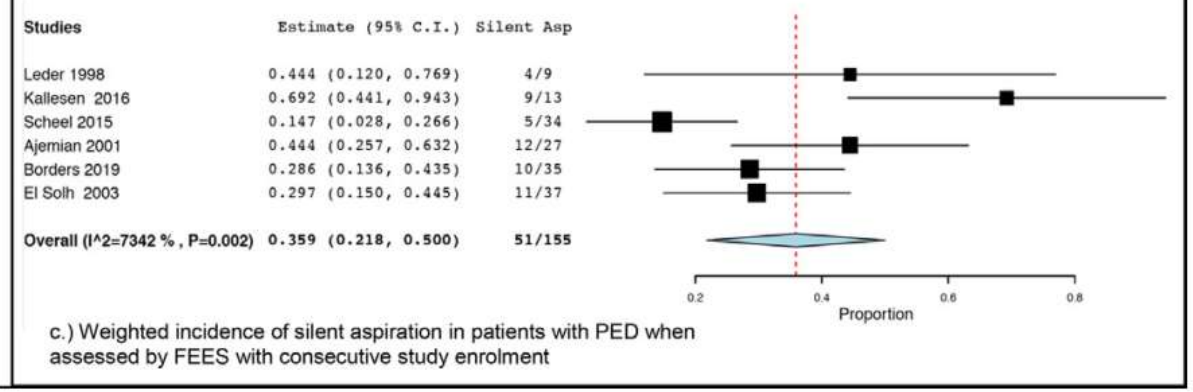
M. McIntyre et al. / Australian Critical Care 34 (2021) 67–75



a.) Weighted incidence of PED by method of dysphagiaassessment



b.) Weighted incidence of PED by total population median intubation duration



c.) Weighted incidence of silent aspiration in patients with PED when assessed by FEES with consecutive study enrolment

POURQUOI EVALUER ?

- Atteintes musculaires : NMR
- Atteintes respiratoires : hypoxie/hypercapnie, désynchronisation respiration/déglutition
- Atteintes neurologiques : AVC, traumatismes crâniens, pathologies neuromusculaires et neurodégénératives, anoxies cérébrales, neuroadaptatives…
- Atteintes traumatiques (intubation, trachéotomie)
- RGO

Zuercher P, Moret CS, Dziewas R, Schefold JC. Dysphagia in the intensive care unit: epidemiology, mechanisms, and clinical management. Critical Care. 28 mars 2019;23(1):103.

QUELS FACTEURS DE RISQUE

Meta-analysis of risk factors of post-extraction dysphagia in ICU.

Risk factors	Combination studies	OR (95% CI)	z	P	Heterogeneity of study design			Analysis model	Egger test
					X^2	P	I^2		
Age	4	1.04 (1.03–1.05)	6.34	.28	3.84	.28	22%	Fixed	0.044
Tracheal intubation time	6	1.61 (1.28–2.04)	4.00	<.0001	63.64	<.00001	92%	Random	0.037
APACHE II	3	1.04 (1.01–1.08)	2.75	.006	1.39	.50	0	Fixed	0.967
Tracheostomy	3	3.75 (1.81–7.80)	3.54	.0004	2.89	.24	31%	Fixed	0.121

CI = confidence interval, ICU = intensive care unit, OR = odds ratio.

Hou L, Li Y, Wang J, Wang Y, Wang J, Hu G, et al. Risk factors for post-extubation dysphagia in ICU: A systematic review and meta-analysis. Medicine. 10 mars 2023;102(10):e33153.

QUAND EVALUER ?

Amélioration de la déglutition entre 2h post-extubation et 24h post-extubation en fonction des textures (Marvin S & al 2018)

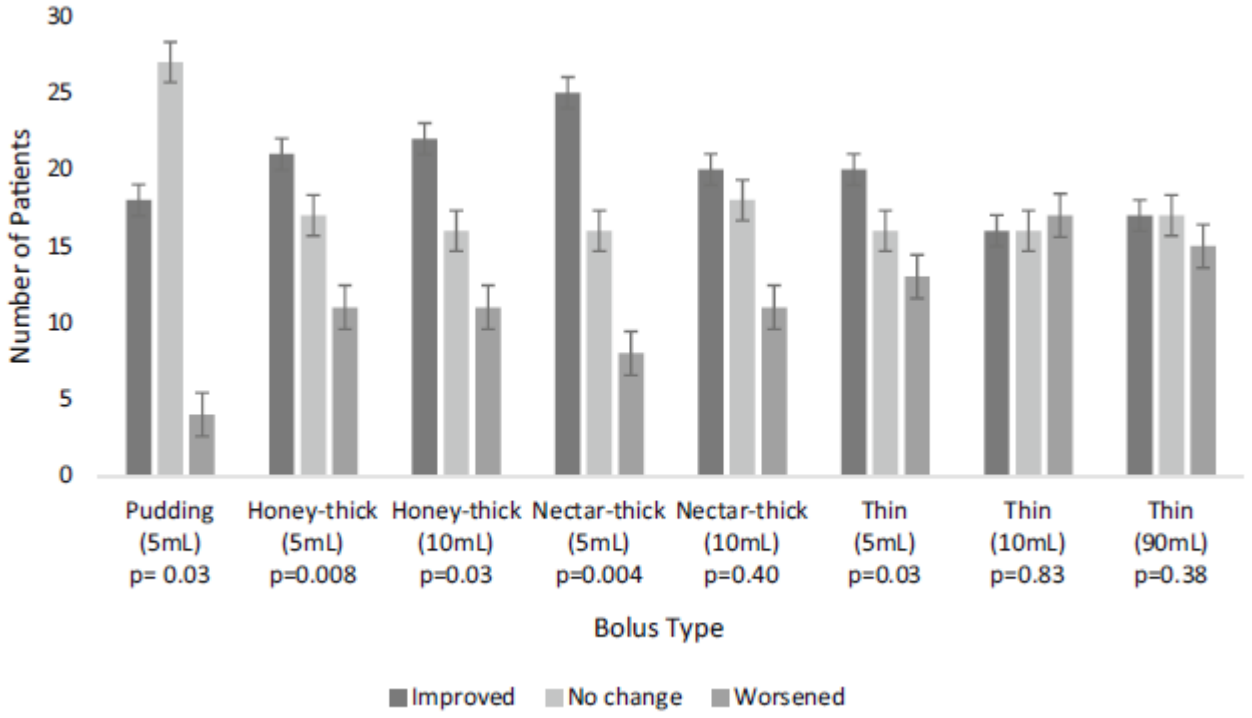
Dysphagia
https://doi.org/10.1007/s00455-018-9926-3

ORIGINAL ARTICLE

Post-extubation Dysphagia: Does Timing of Evaluation Matter?

Stevie Marvin[1] · Susan Thibeault[2] · William J. Ehlenbach[3]

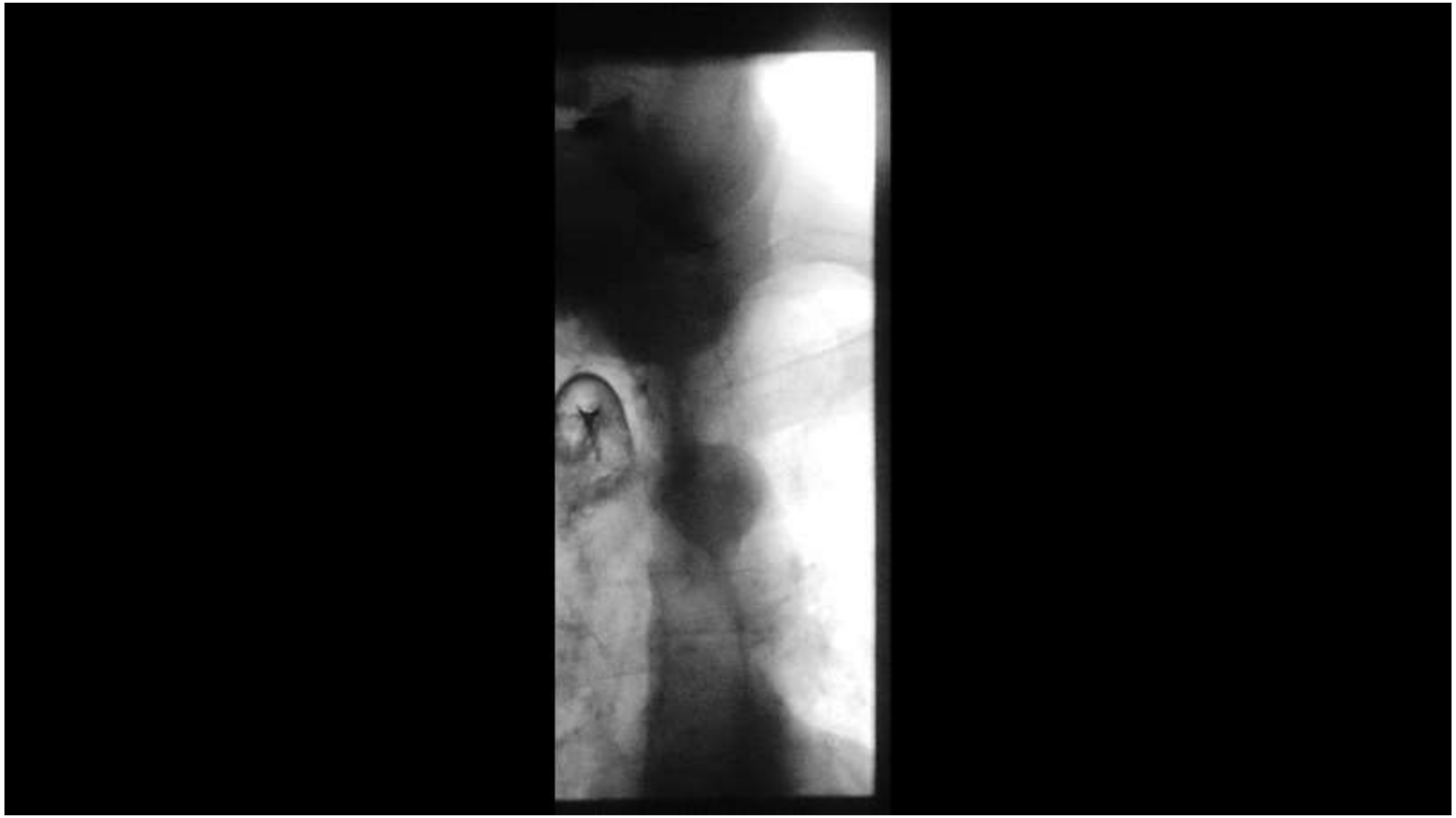
Received: 29 September 2017 / Accepted: 17 July 2018



QUI EVALUER ?

- Post-extubation et patient trachéotomisé bien sûr …

Ballonnet gonflé ou dégonflé?



QUI EVALUER ?

- Quid du patient intubé ?

Table 2. OMF Score

OMF	Saliva Management	Swallowing	Lip Closure	Tongue Motility	Jaw Motility
0	No pooling	Spontaneous	Complete	Regular	Regular
1	Pooling in pharynx	After stimulation	Incomplete	Limited	Limited
2	Pooling in mouth	None	Atone	Atone	Atone
3	Anterior leakage	…	…	…	…

OMF indicates oral motor function.

Table 1. Modified Version of the Semi-Quantitative Airway Score of Coplin et al[1]

m-sqAS	Spontaneous Cough	Gag	Sputum Quantity	Suctioning Frequency	Sputum Viscosity	Sputum Character
0	Vigorous	Vigorous	None	>3 h	Watery	Clear
1	Moderate	Moderate	1 Pass	2–3 h	Frothy	Tan/Yellow
2	Weak	Weak	2 Passes	1–2 h	Thick	…
3	None	None	3 Passes	<1 h	…	…

m-sqAS indicates modified semiquantitative airway score.
Adapted from Steidl et al[4] with permission. Copyright ©2017, S. Karger AG, Basel.

Suntrup-Krueger S, Schmidt S, Warnecke T, Steidl C, Muhle P, Schroeder JB, et al. Extubation Readiness in Critically Ill Stroke Patients: A Prospective Observational Trial on When and Howto Assess. Stroke. août 2019;50(8):1981-8

QUI EVALUER ?

- Quid du patient intubé ?

Table 4. Results of Swallowing Examinations Before and After Extubation (n, % of Patients in Whom Tests Were Performed, Unless Otherwise Stated)

	Successful Extubation	Reintubation	*P* Value
Preextubation tests performed, n (%)	101 (100)	32 (100)	
m-sqAS (sum score, pts)	3.2±2.1	4.9±2.5	0.001*
OMF (sum score, pts)	2.7±2.2	5.0±1.8	0.001*

Suntrup-Krueger S, Schmidt S, Warnecke T, Steidl C, Muhle P, Schroeder JB, et al. Extubation Readiness in Critically Ill Stroke Patients: A Prospective Observational Trial on When and Howto Assess. Stroke. août 2019;50(8):1981-8

OUTILS : COMMENT EVALUER ?

GUSS – ICU

(Gugging Swallowing Screen for ICU)

Recommended for all patients who were **intubated for more than 24 hours.**

The screening is to be conducted no earlier than 1 hour after extubation. If necessary, perform oral hygiene.

Preliminary Investigation / Indirect Swallowing Test				**Direct Swallowing Test (4 subtests)**		
	Yes	**No**			**Pass**	**Fail**
RASS from 0 to +2	1	0	**6 points:** Proceed to "Direct Swallowing Test" **< 6 points:** Stop the screening (SLP and/or FEES)	1. Semisolid: Give 3-5 tsp. of thickened water (IDDSI 3) *	1	0
Stridor present	0	1				
Coughing and/or throat clearing efficiently	1	0		2. Liquids: Give 3, 5, 10, 20, 50 ml of water (IDDSI 0) *	1	0
Swallowing saliva possible	1	0				
Drooling (saliva)	0	1		3. Solids: Give a piece of bread (1.5 x 1.5cm) *	1	0
Change of voice after swallowing saliva	0	1				
SUM:				4. Liquids & Solids: Give a piece of bread (1.5 x 1.5cm) and a sip of water after half of the chewing time *	1	0
				SUM:		
				TOTAL SUM:		

* Observe the patient after each swallow.

Discontinue the subtest and the screening if the patient shows any of the following signs:

Difficulty swallowing (prolonged oral phase: > 10sec with liquids and semisolids, >23 sec. with bread), coughing, drooling or change of vocie.

If there are no visible problems, proceed to the next subtest. (IDDSI= International Dysphagia Standardization Initiative)

FEES (Fiberoptic Endoscopic Evaluation of Swallowing), IDDSI (International Dysphagia Standardization Initiative), RASS (Richmond Agitation Sedation Scale)

Troll, Trapl-Grundschober; 2022

Troll C, Trapl-Grundschober M, Teuschl Y, Cerrito A, Compte MG, Siegemund M. A bedside swallowing screen for the identification of post-extubation dysphagia on the intensive care unit – validation of the Gugging Swallowing Screen (GUSS)—ICU. BMC Anesthesiol. 13 avr 2023;23(1):122.

OUTILS : COMMENT EVALUER ?

(Gugging Swallowing Screen for ICU)

GUSS-ICU-EVALUATION		
Results	**Severity Code**	**Diet Recommendations (based on IDDSI-Framework)**
0-6 points	Preliminary investigation or semisolids failed (Severe Dysphagia with high risk of aspiration)	* NPO (non per os) --> Refer to Speech and Language Pathologist (SLP) / Speech&Language Therapist (SLT) or ENT/Phoniatrician/Dysphagia Specialist. Repeat the test after 4 hours at the earliest.
7 points	Semisolids passed, fluids failed (moderate dysphagia with aspiration risk)	* Pureed or liquidised textures (IDDSI 3-4) * All liquids must be thickened (IDDSI 2-3) * Pills should be crushed and mixed with puree (IDDSI: 3-4) * No liquid medication! * Optional: Further functional swallowing assessments (FEES,VFSS)[1] * Optional: Refer to Speech&Language Pathologist (SLP) / Speech&Language Therapist (SLT) * Supplementation via PEG, nasogastric tube or parenteral + supplementary food
8 points	Semisolids passed, fluids passed, solids failed (mild dysphagia with low risk of aspiration)	* Dysphagia diet (minced & moist or soft & bite-sized) (IDDSI: 5 or 6) * Liquids IDDSI 0 * Optional: Further functional swallowing assessments (FEES, VFSS)[1] * Optional: Refer to Speech&Language Pathologist(SLP) / Speech&Language Therapist (SLT) * Supplementation via PEG, nasogastric tube or parenteral + supplementary food
9 points	Semisolids passed, fluids passed, solids passed, mixed textures failed (mild dysphagia with low risk of aspiration)	* Dysphagia diet (soft & bite-sized or Easy to chew) (IDDSI: 6 or 7 EC) * avoid mixed or hard to chew textures * Liquids (IDDSI 0) * Optional: Further functional swallowing assessments (FEES, VFSS)[1] * Optional: Refer to Speech&Language Pathologist(SLP) / Speech&Language Therapist (SLT) * Supplementation via PEG, nasogastric tube or parenteral + supplementary food
10 points	All textures passed (Minimal/no Dysphagia; Minimal/no risk of aspiration)	* Normal diet (IDDSI: 7, 7 EC) * Regular liquids (IDDSI: 0) * First normal meal under supervision of a SLP/SLT or dysphagia-trained nurse to evaluate the swallowing ability of mixed consistencies

[1] Use functional investigations like: Fiberoptic Endoscopic Evaluation of Swallowing (FEES), Videofluoroscopic Swallowing Study (VFSS). (IDDSI= International Dysphagia Standardization Initiative)

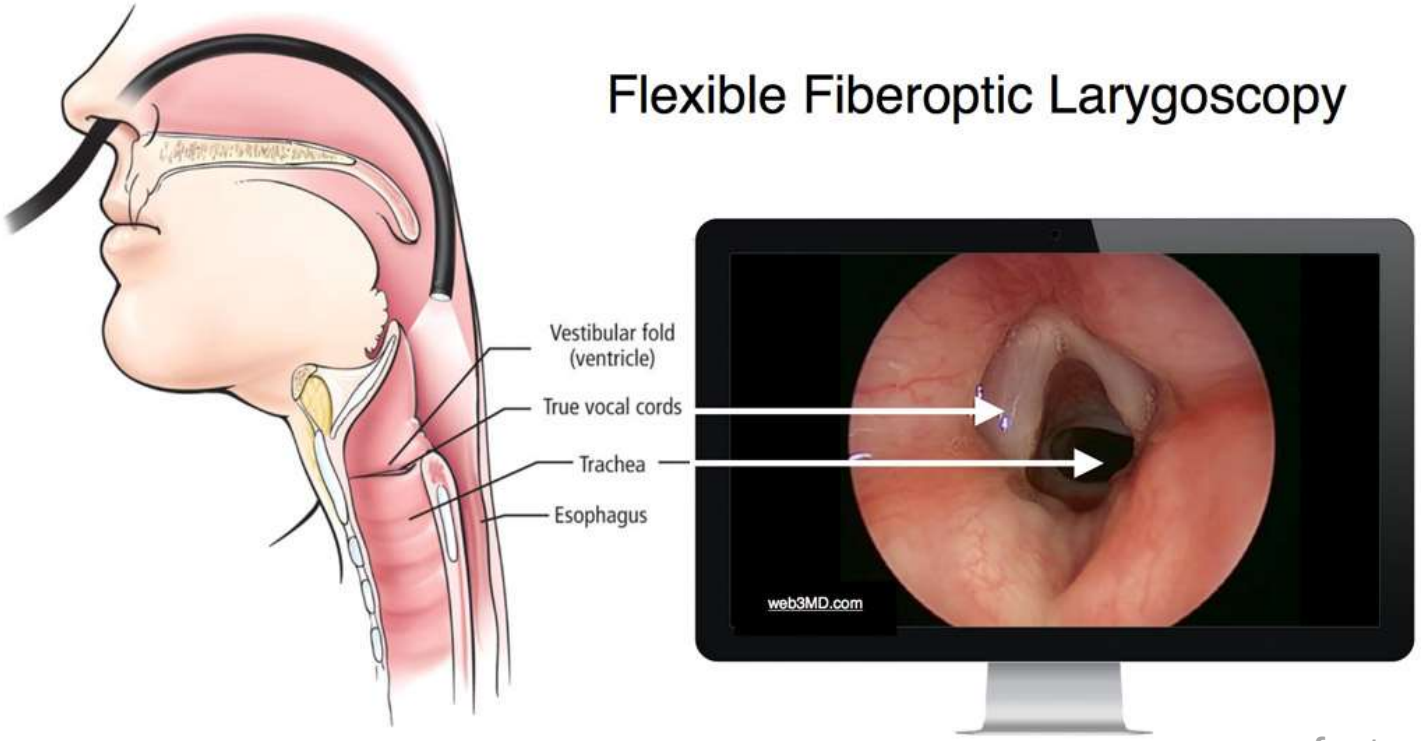
Troll, Trapl-Grundschober; 2022

Troll C, Trapl-Grundschober M, Teuschl Y, Cerrito A, Compte MG, Siegemund M. A bedside swallowing screen for the identification of post-extubation dysphagia on the intensive care unit – validation of the Gugging Swallowing Screen (GUSS)—ICU. BMC Anesthesiol. 13 avr 2023;23(1):122.

OUTILS : COMMENT EVALUER ?

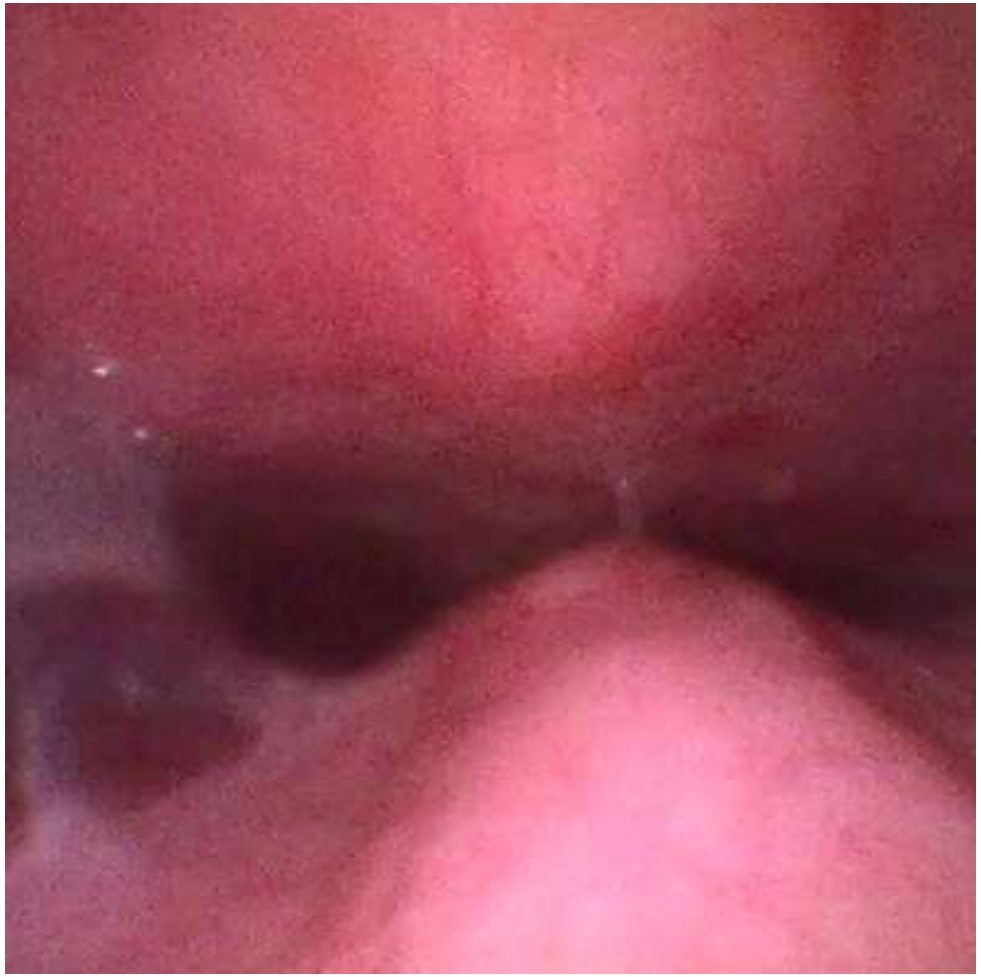
- Naso-fibroscopie de déglutition: « le gold-standard »

Warnecke et al. Critical Care Medicine. juill 2013;41(7):1728-32; Dziewas et al. S1 guideline of the German Society of Neurology. Neurol Res Pract. déc 2021



fortworthent.net

Nasofibroscopie de déglutition



OUTILS : COMMENT EVALUER ?

- Naso-fibroscopie de déglutition: « le gold-standard »
- Pour les MKDE?

Evaluation fonctionnelle de la déglutition par fibroscopie naso-pharyngée par un masseur-kinésithérapeute D.E en Secteur de Neuroréanimation -Région Nouvelle Aquitaine-

- Validé le 25/04/2023

MERCI POUR VOTRE ATTENTION

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