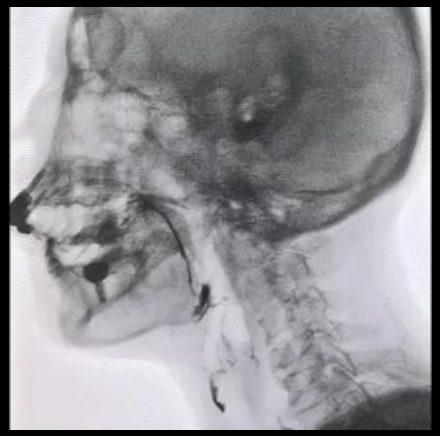
語言治療師之吞嚥困難評估、治療與個案分享

Dysphagia Assessment and Treatment by Speech-Language Pathologists, with Case Presentations






臺中榮總復健醫學部語言治療師 黃瑄湄 MS, SLP 2025.11.17

黃瑄湄 語言治療師

- 國立臺北護理健康大學聽語障礙科學研究所碩士
- 中山醫學大學語言治療與聽力學系
- 美國南加大凱克醫院語言治療部門進修
- 夏威夷卡皮歐拉尼婦幼醫學中心復健科進修

吞嚥治療師

神經內科病房吞嚥評估和治療、吞嚥儀器檢查

- MBSImP certified clinician
- FEES trained clinician
- MDTP certified provider

黃瑄湄 MS.SLP

吞嚥 語言治療師

腦中風吞嚥障礙之臨床需求與挑戰

- 中風後吞嚥障礙是很常見之併發症，發生率約27-67%，且可能會增加吸入性肺炎的感染率、顯著增加死亡率 *(Holas MA et al, Arch Neurol 1994, Smithard DG et al, Stroke 1996)*
- 在台灣現行醫療環境下，病人有吞嚥障礙往往會長期放置鼻胃管，長期置放管路可能會增加上呼吸道感染或肺炎併發症等風險，但目前缺乏移除管路的標準評估流程
- 2021年成立「臺中榮總吞嚥障礙跨領域照護團隊」，希冀降低住院期間吸入性肺炎感染併發症、減少非必要的鼻胃管留置

高齡長者 常見吞嚥問題

肺活量不足、口腔和喉嚨肌肉退化，導致容易嗆咳、發聲困難

營養不良、肌少症、吸入性肺炎

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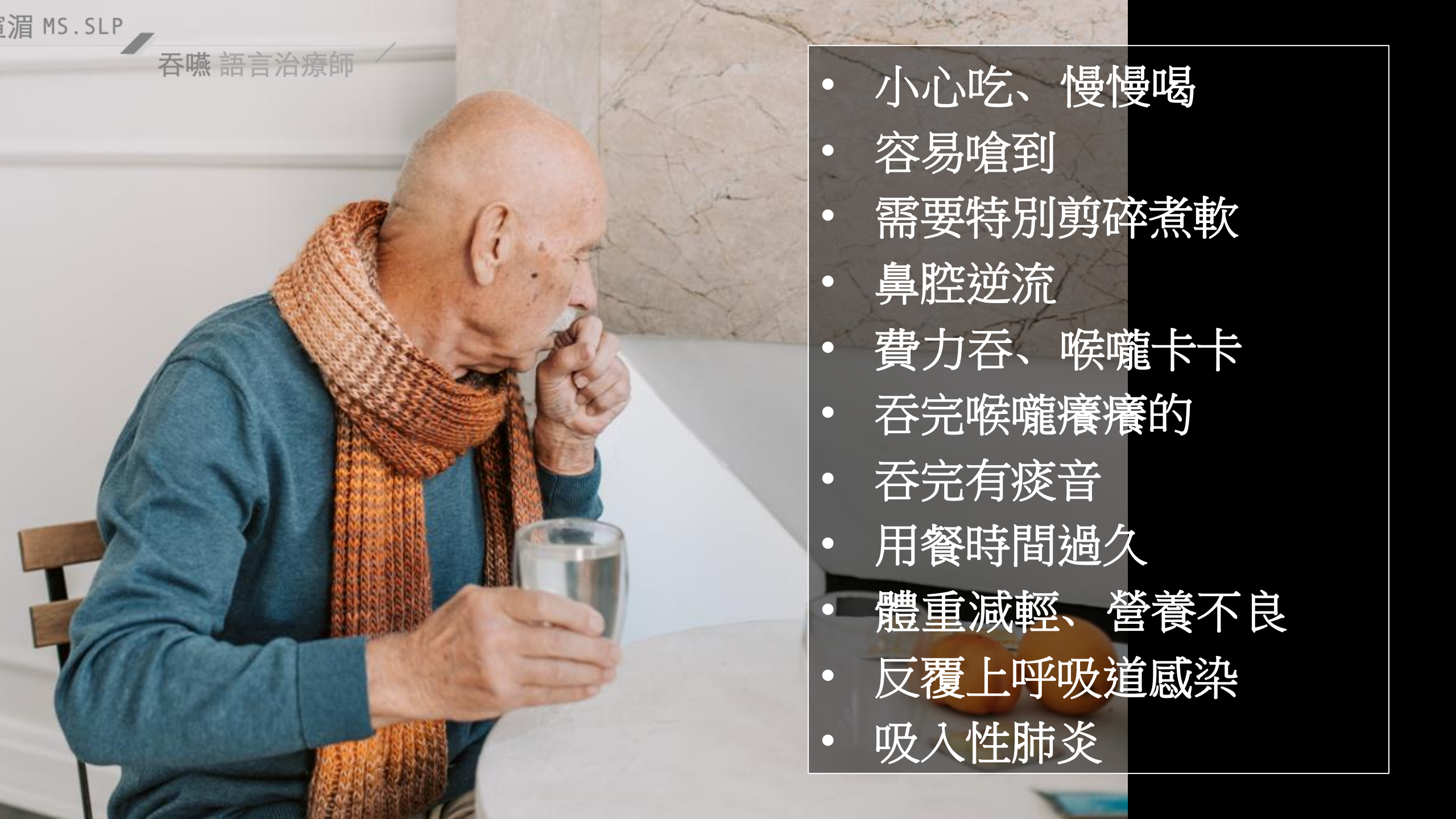
吞嚥 語言治療師



- 小心吃、慢慢喝
- 容易嗆到
- 需要特別剪碎煮軟
- 鼻腔逆流
- 費力吞、喉嚨卡卡
- 吞完喉嚨癢癢的
- 吞完有痰音
- 用餐時間過久
- 體重減輕、營養不良
- 反覆上呼吸道感染
- 吸入性肺炎

Aspiration in Patients With Acute Stroke

Stephanie K. Daniels, MS, Kevin Brailey, PhD, Daniel H. Priestly, MD, Lisa R
Leon A. Weisberg, MD, Anne L. Foundas, MD

ABSTRACT. Daniels SK, Brailey K, Priestly DH, Herrington LR, Weisberg LA, Foundas AL. Aspiration in patients with acute stroke. Arch Phys Med Rehabil 1998;79:14-9.

Objectives: To determine the frequency and clinical predictors of aspiration within 5 days of acute stroke.

Design: Case series.

Setting: Tertiary care center.

Patients: Consecutive stroke patients (n = 55) with new neurologic deficit evaluated within 5 days of acute stroke.

Main Outcome Measures: Comparison of features identified on clinical swallowing and oromotor examinations and occurrence of aspiration (silent or overt) evident on videofluoroscopic swallow study (VSS).

Results: Aspiration occurred in 21 of 55 patients (38%). Whereas 7 of 21 patients (33%) aspirated overtly, 14 (67%) aspirated silently on VSS. Chi-square analyses revealed that dysphonia, dysarthria, abnormal gag reflex, abnormal volitional cough, cough after swallow, and voice change after swallow were significantly related to aspiration and were predictors of the subset of patients with silent aspiration. Logistic regression revealed that abnormal volitional cough and cough with swallow, in conjunction, predicted aspiration with 78% accuracy.

Conclusions: Silent aspiration appears to be a significant problem in acute stroke patients because silent aspiration occurred in two thirds of the patients who aspirated. The prediction of patients at risk for aspiration was significantly improved by the presence of concurrent findings of abnormal volitional cough and cough with swallow on clinical examination.

commonly associated
quent cause of death
imperative that acute st
ration pneumonia be id
prevent increased morb
important to identify
rately predict aspiration

Chronic stroke patie
of developing aspiratio
videofluoroscopic exam
to 24 months after stro
found that aspiration o
tion occurred more ofte
signs (71%) as compar
signs (29%). Dysphoni
in patients with aspirat
Massey[1] studied stroke
stroke and found that 1
VSS. Furthermore, 8 of
On clinical examinatio
and dysphonia distingui
pirating patients. In add
studied patients with bi
tence of abnormal gag
predictive of aspiration
isolation. Linden and
examined 15 patients
damage 1 to 46 months
or a wet, hoarse voca
patients who aspirated.

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吞嚥 語言治療師

67 %

靜默式吸入

Daniels, S. K., Brailey, K., Priestly, D. H., Herrington, L. R., Weisberg, L. A., & Foundas, A. L. (1998). Aspiration in patients with acute stroke. *Archives of physical medicine and rehabilitation*, *79*(1), 14-19.

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在喝水的過程當中，蔡伯伯有靜默式吸入的狀況（00:20）

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臺中榮總
吞嚥障礙跨域團隊照護

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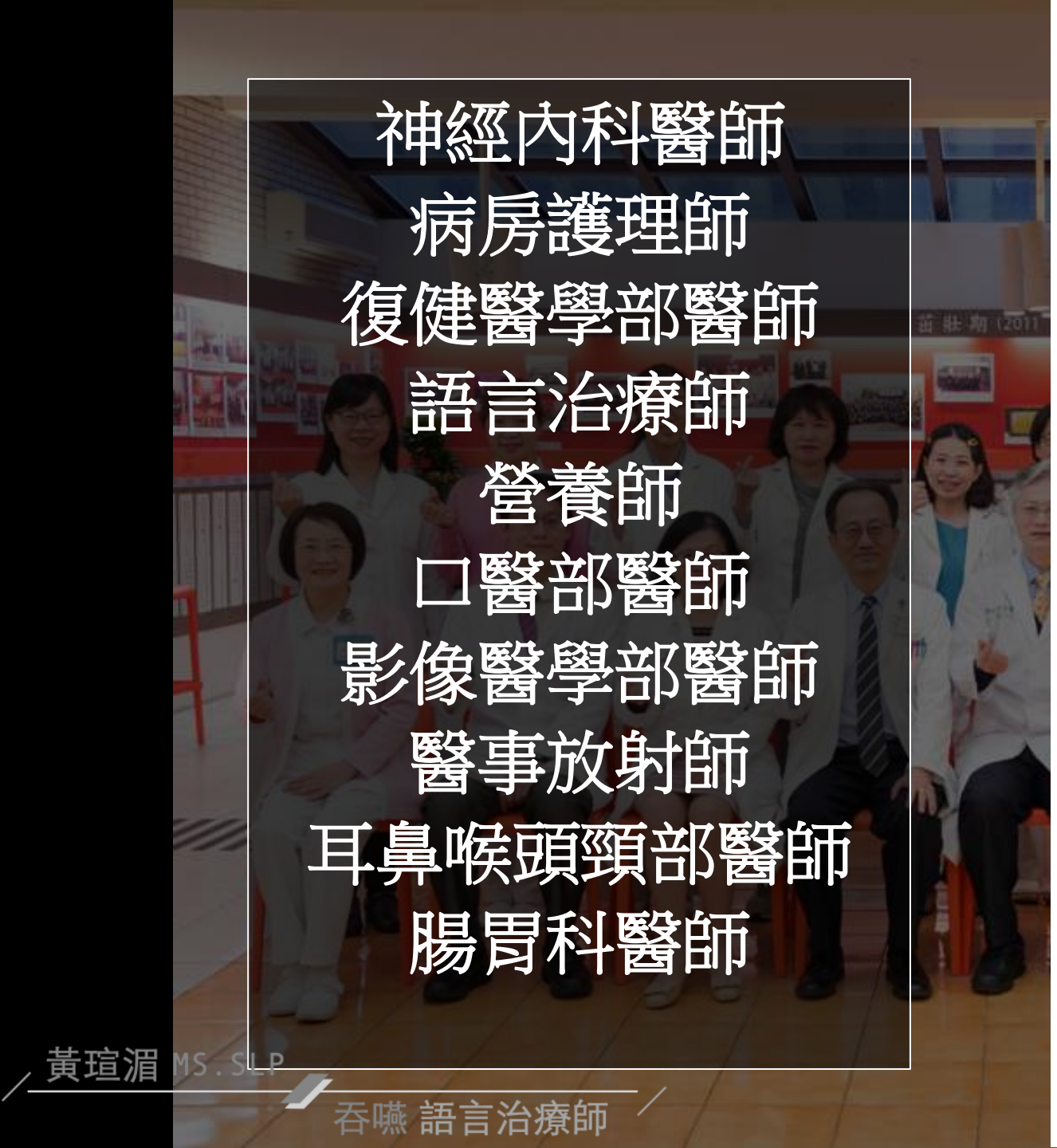
黃瑄湄 MS. SLP

吞嚥 語言治療師



神經內科醫師
病房護理師
復健醫學部醫師
語言治療師
營養師
口醫部醫師
影像醫學部醫師
醫事放射師
耳鼻喉頭頸部醫師
腸胃科醫師

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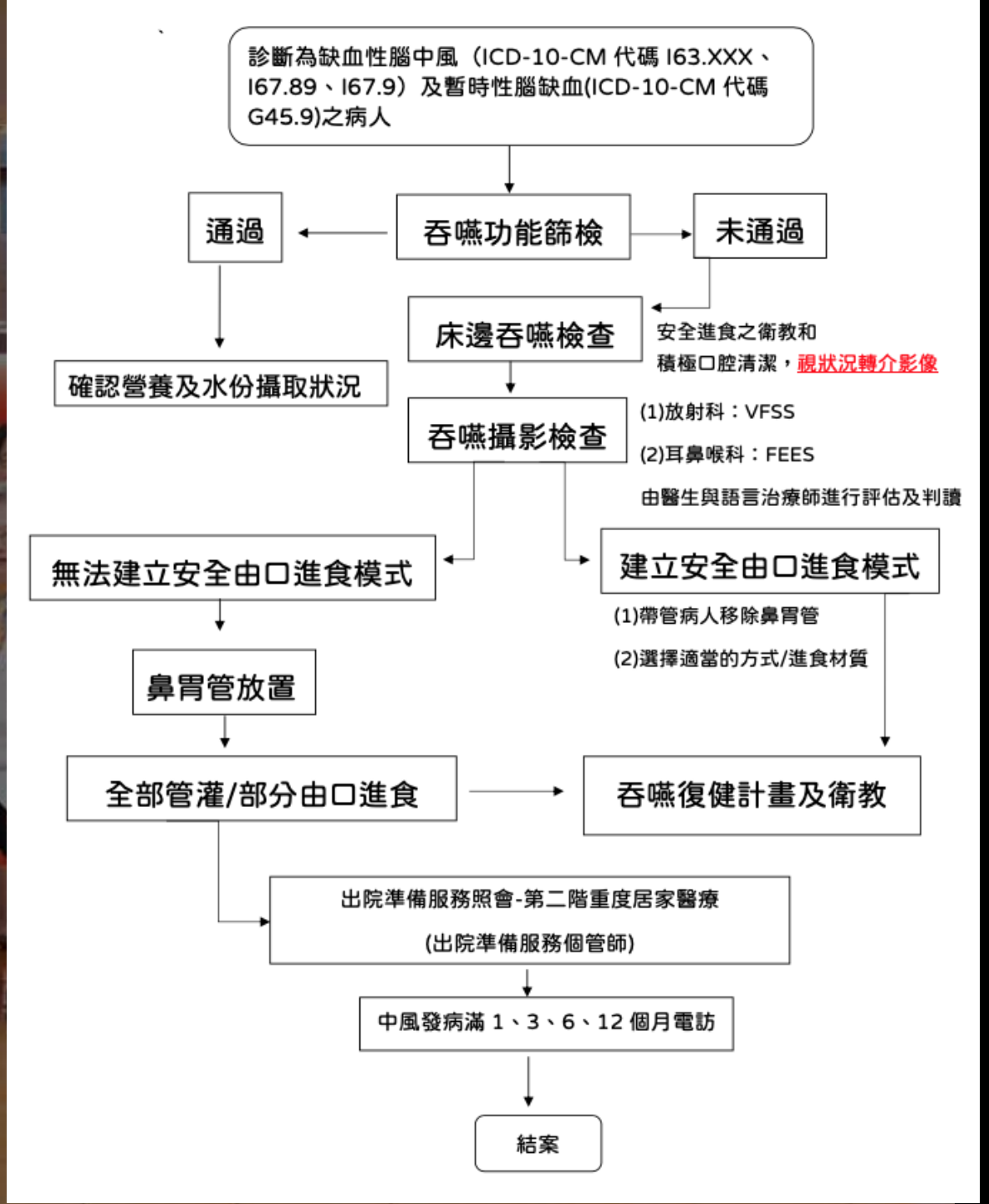
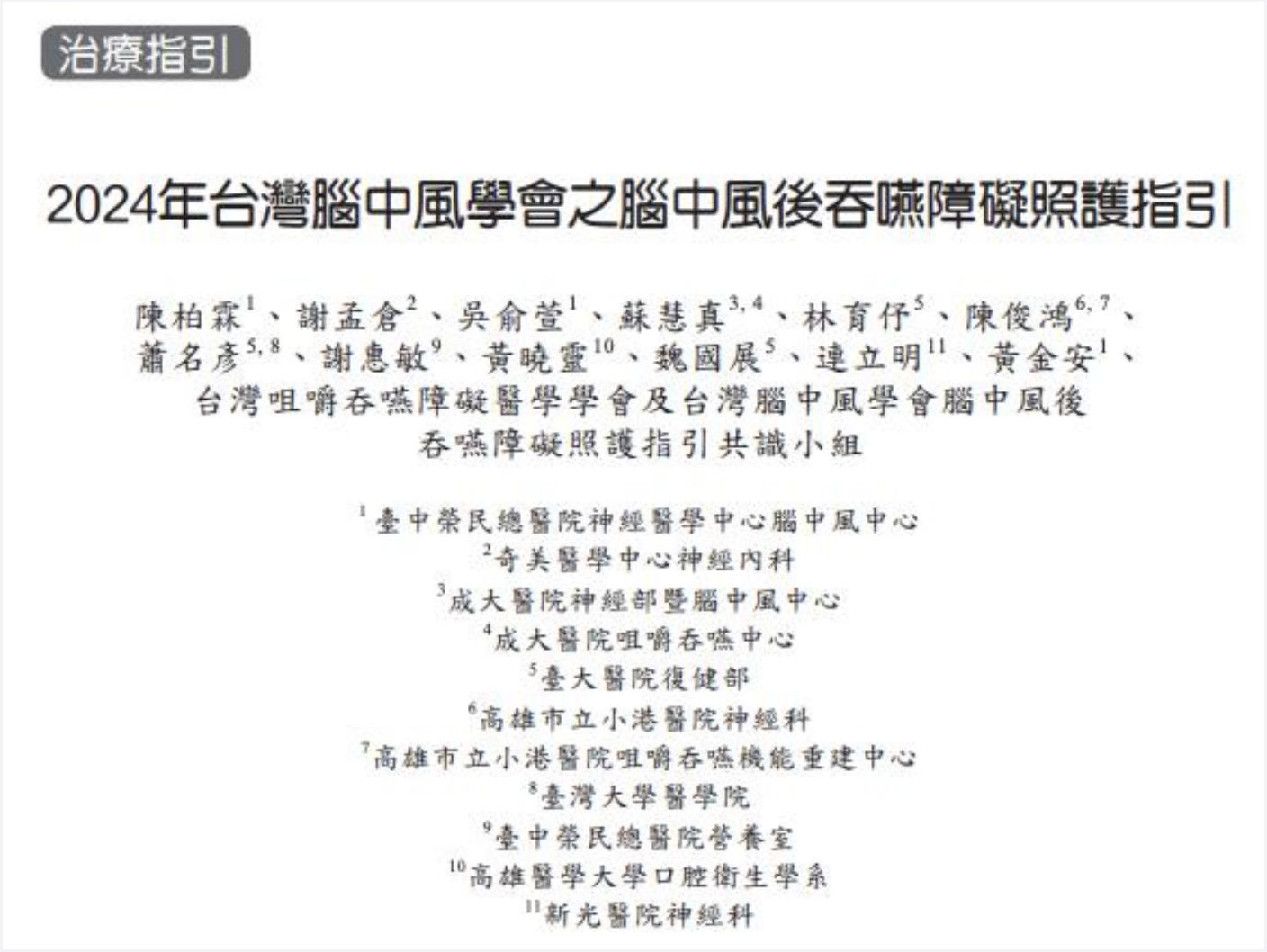




依據臨床指引，引領中風後吞嚥障礙照護流程

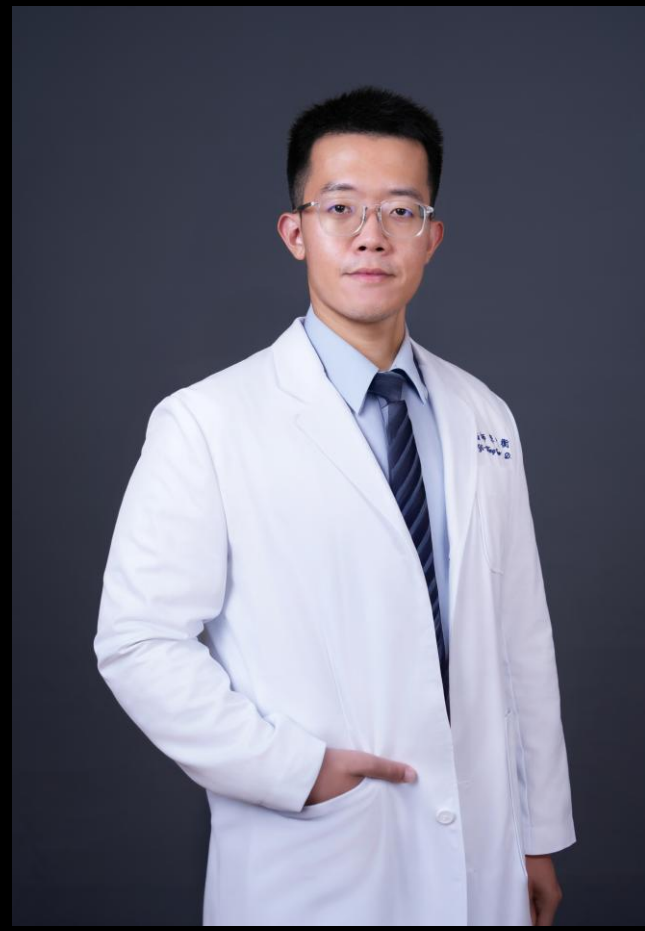
由臺中榮總吞嚥障礙跨領域團隊主導撰寫 2024 年台灣腦中風學會吞嚥障礙照護指引，為目前全國最具系統性與實證基礎的臨床參考文件

復健醫學部醫師 初步評估和轉介

傅俊銘醫師

林修平醫師

李友淳醫師



李宜衡醫師

黃瑄湄 MS.SLP
吞嚥 語言治療師

語言治療師 增進吞嚥功能和風險把關







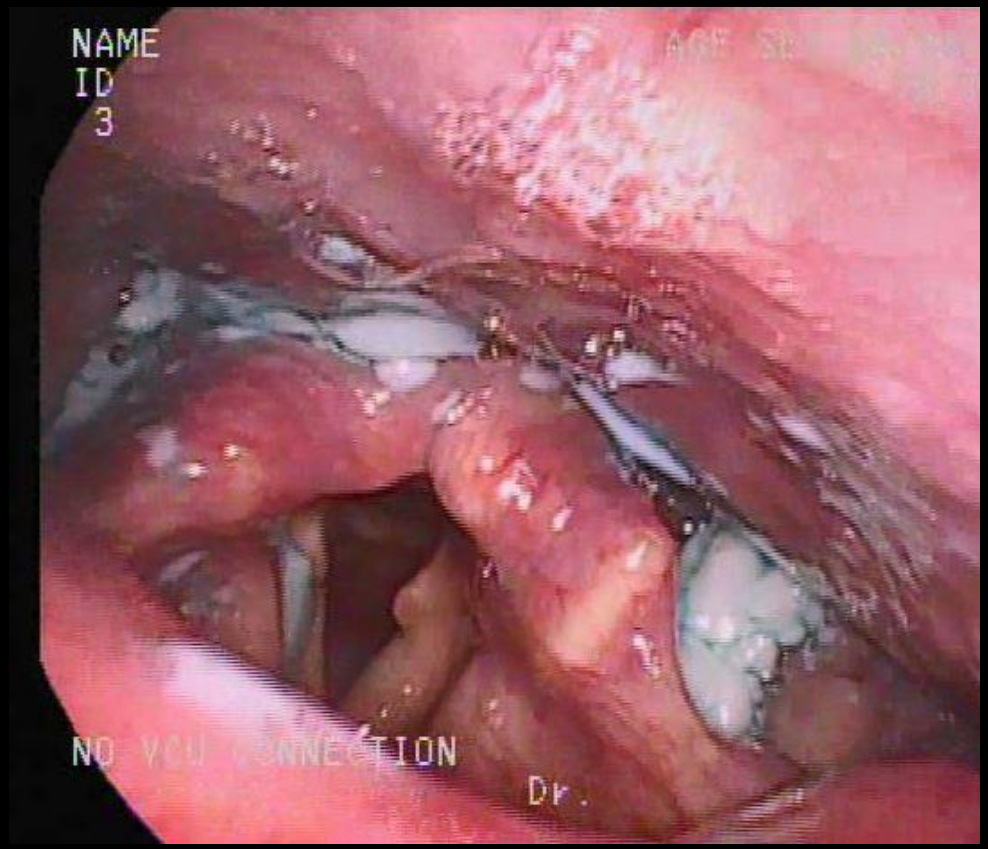
由左而右依序為

語言治療師 黃鈺婷、 羅羿翾、 尤懿親、 黃瑄湄、 邱暐茜、 陳思凡、 鄭伊伶

黃瑄湄 MS.SLP

吞嚥 語言治療師

吞嚥螢光攝影



吞嚥內視鏡檢查

耳鼻喉頭頸部謝宜凌醫師

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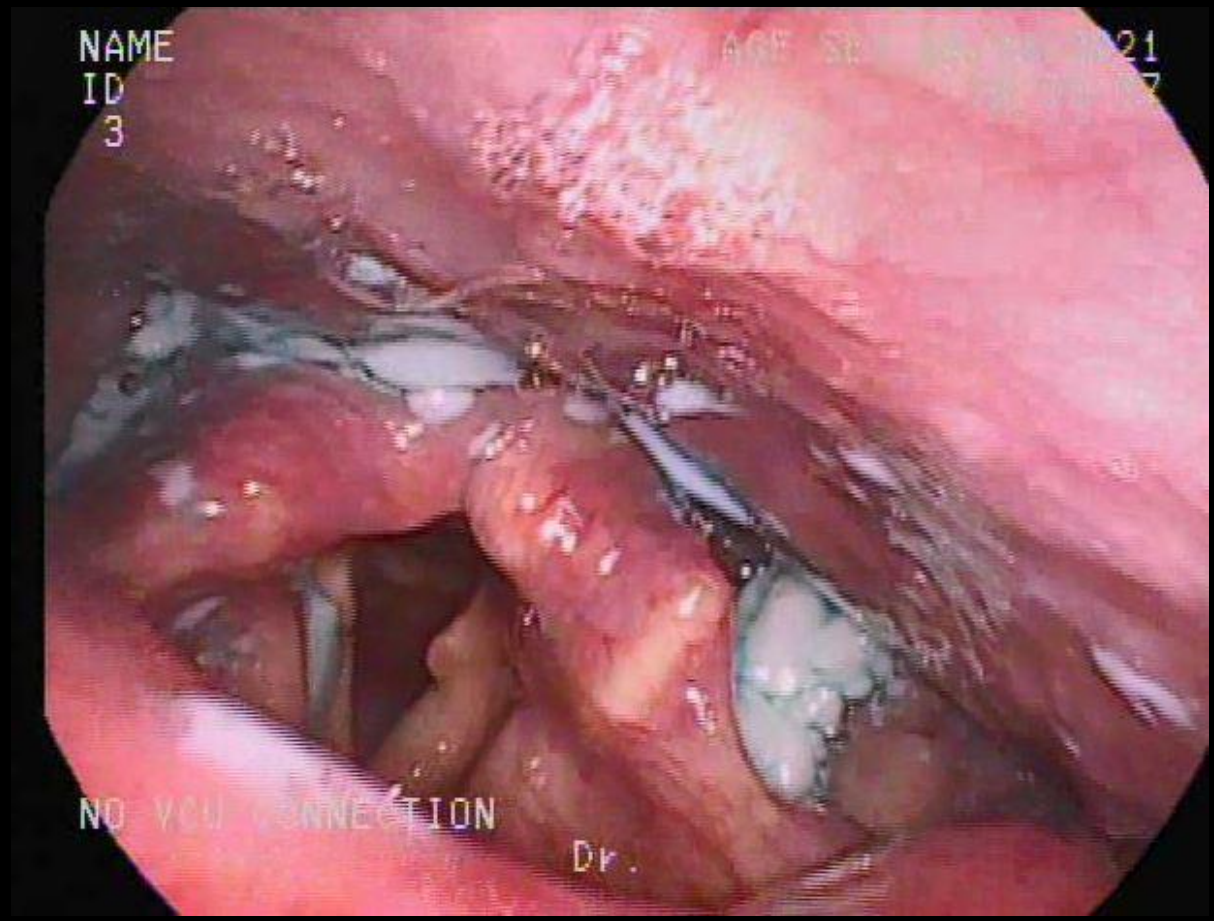
吞嚥 語言治療師



影像醫學部王俊皓放射師

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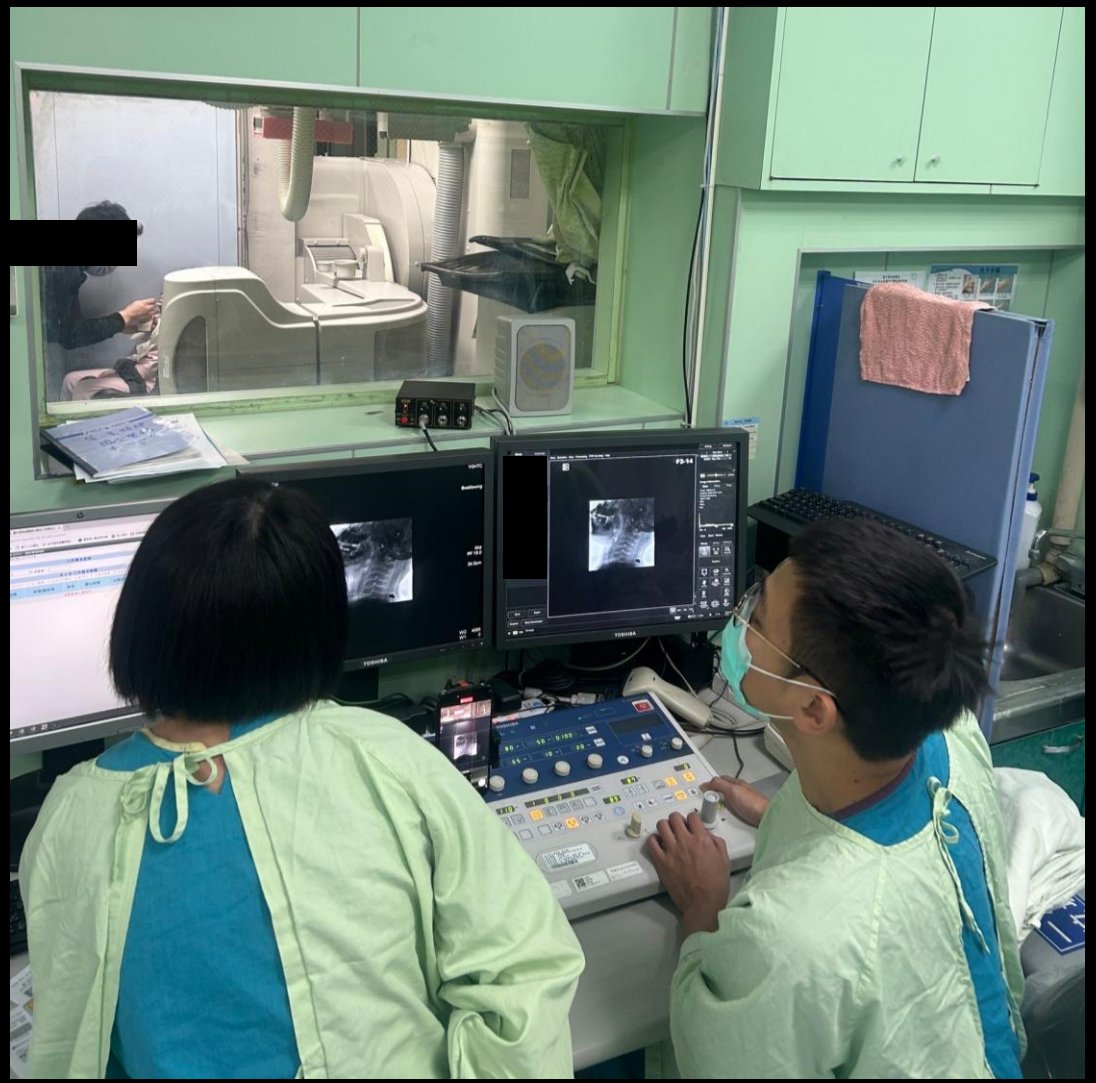

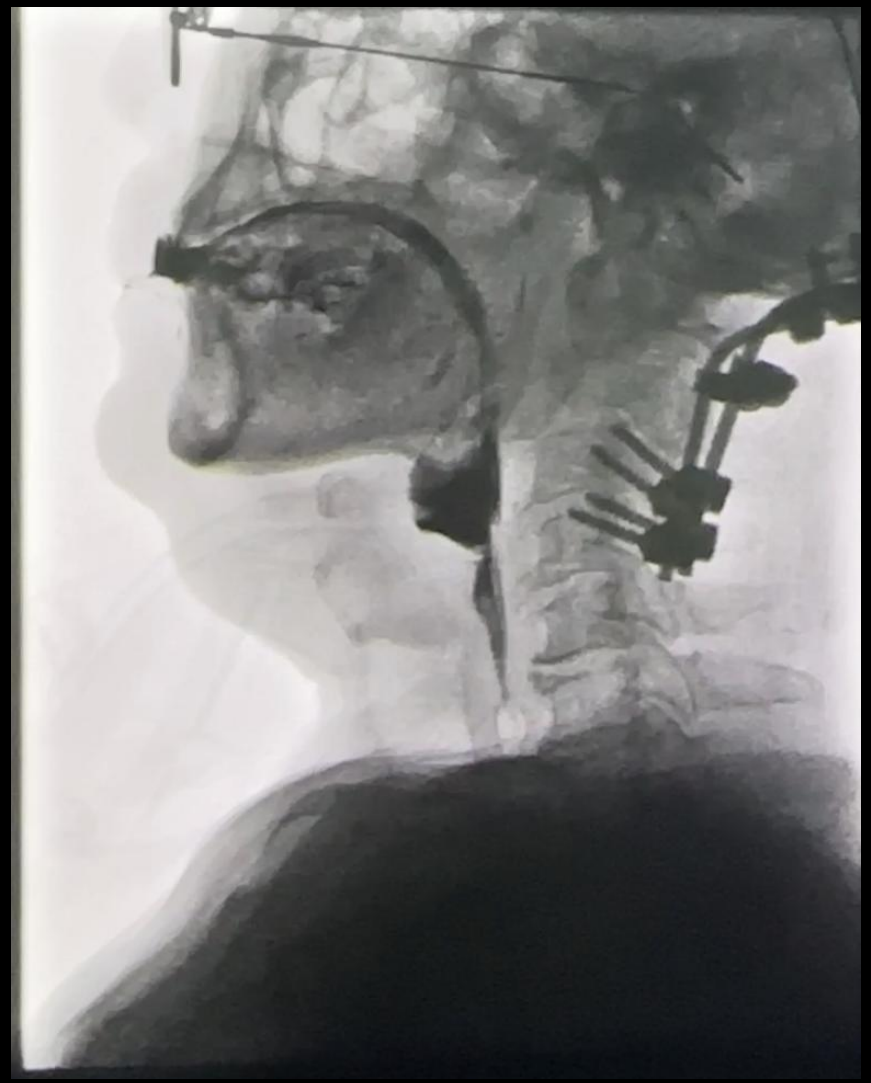

改良式吞嚥鋇劑攝影檢查

Modified Barium Swallow Study

透視

Fluoroscopy

鋇劑

Barium


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吞嚥 語言治療師
感謝臺中榮民總醫院影像醫學部王俊皓醫事放射師提供

- Thin liquid (IDDSI 0)
  粉水比 1g : 20 ml 水

以下使用市售增稠劑調製

- Slightly thick (IDDSI 1)
- Moderately thick (IDDSI 3)
- Extremely thick (IDDSI 4)
- 自備食物

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不同稠度鋇劑

感謝臺中榮民總醫院影像醫學部王俊皓醫事放射師提供

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吞嚥 語言治療師

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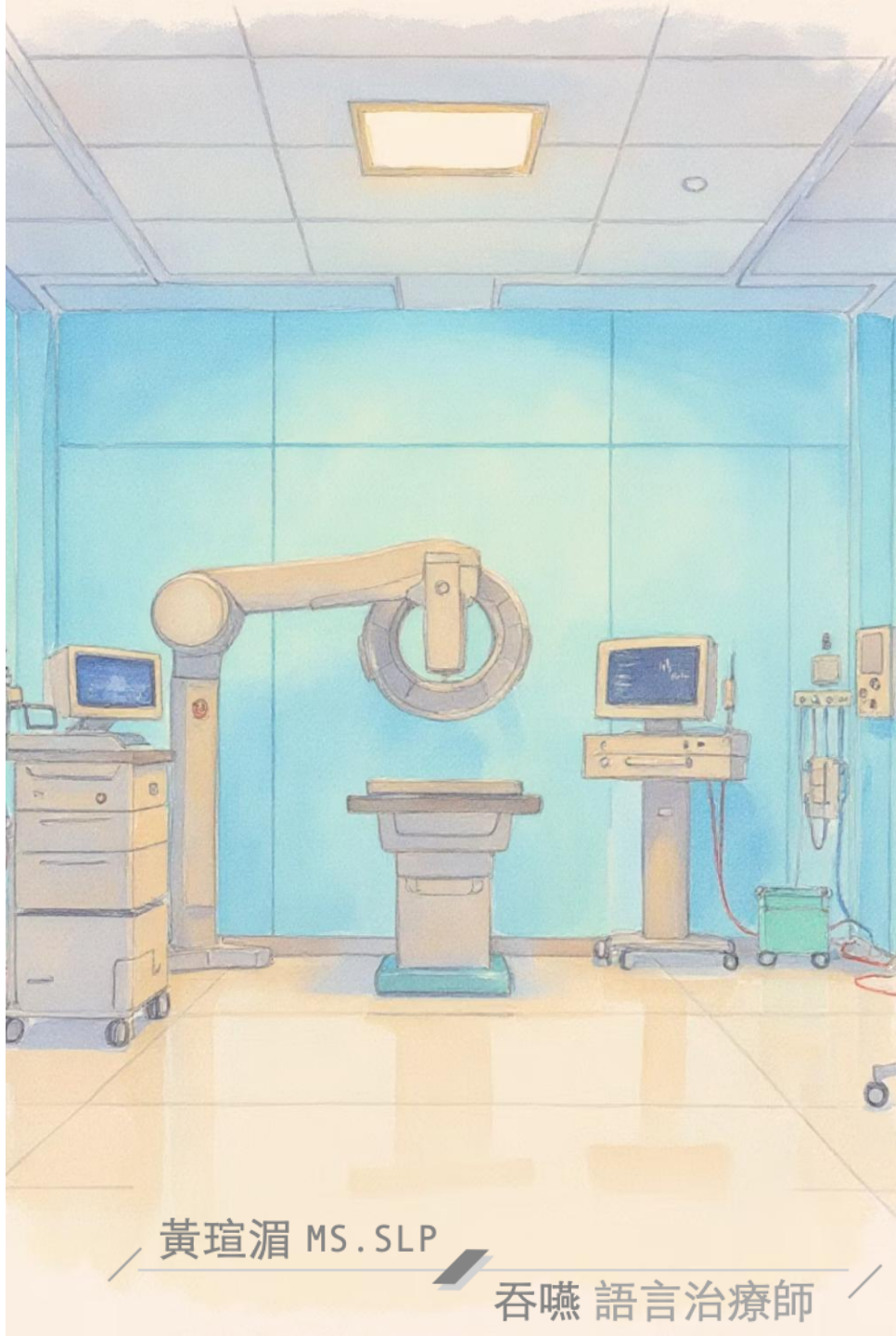
病人同意接受拍攝
TOSHIBA
黃瑄涵 MS.SLP
吞嚥 語言治療師

吞嚥攝影檢查流程

- IDDSI 0 5ml, 10ml, sequential swallowing trials
- IDDSI 1 5ml, 10ml, sequential swallowing trials
- IDDSI 3 5ml, 10ml
- IDDSI 4 5ml, 10ml
- 自備好吞或困難的食物
- 視病人檢查狀況約20-40分鐘



含著不要吞
我說吞才吞

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吞嚥 語言治療師

感謝臺中榮民總醫院影像醫學部王俊皓醫事放射師提供

咀嚼食物完
就可以吞下去

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吞嚥 語言治療師

感謝臺中榮民總醫院影像醫學部王俊皓醫事放射師提供

咽部收縮有沒有對稱

咽部地方有沒有食物殘留

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吞嚥 語言治療師

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口咽→食道→胃

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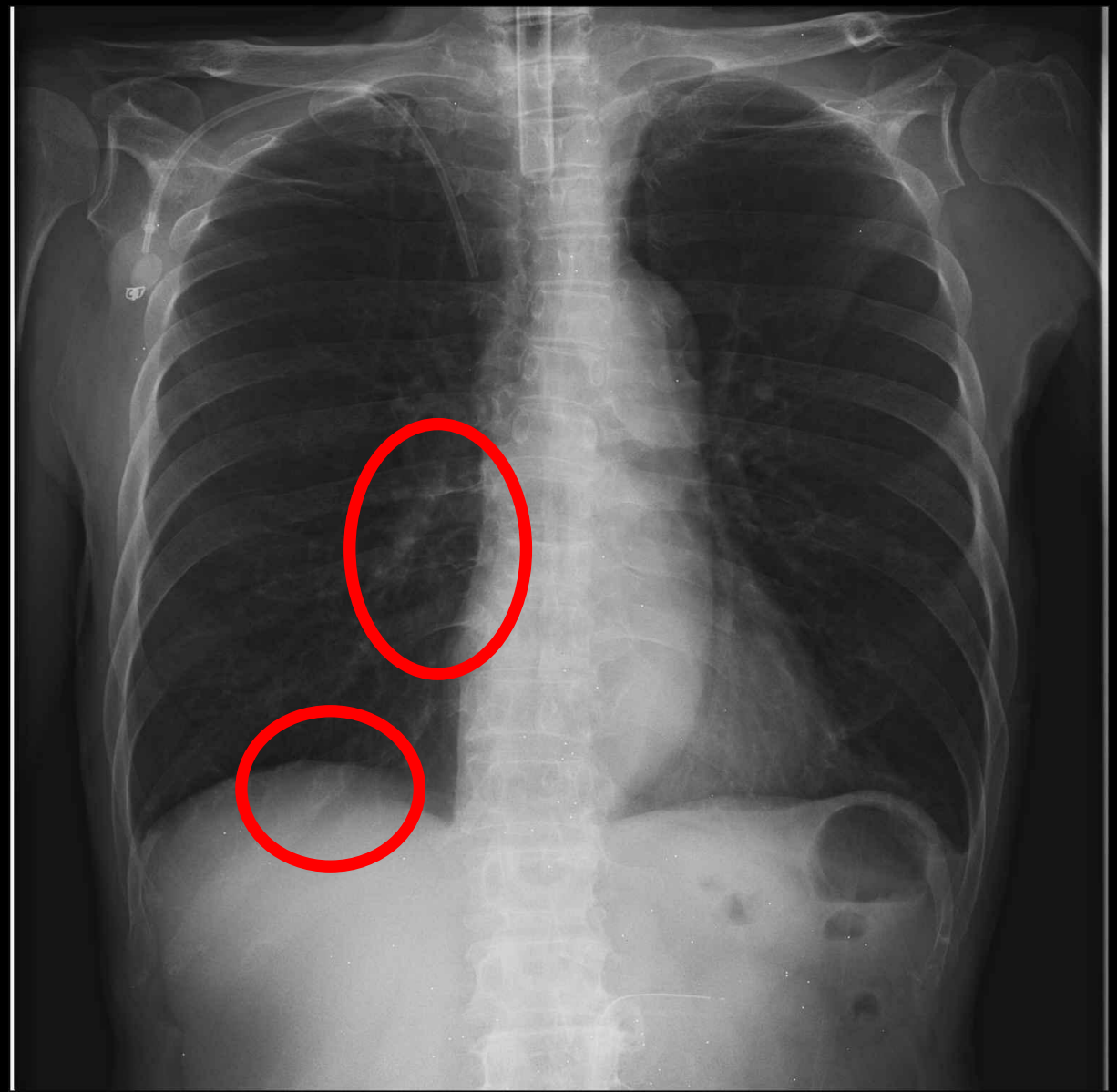
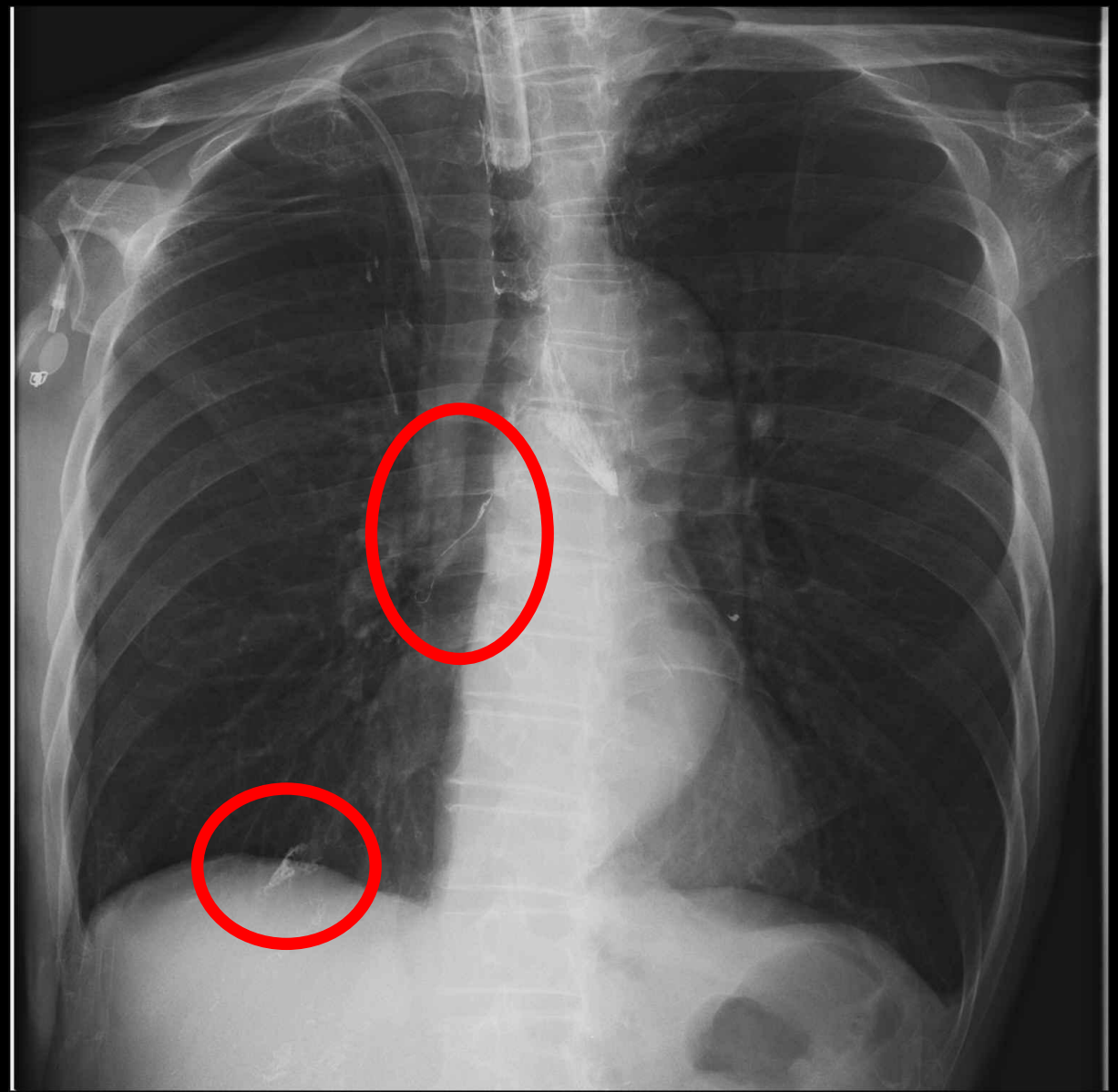
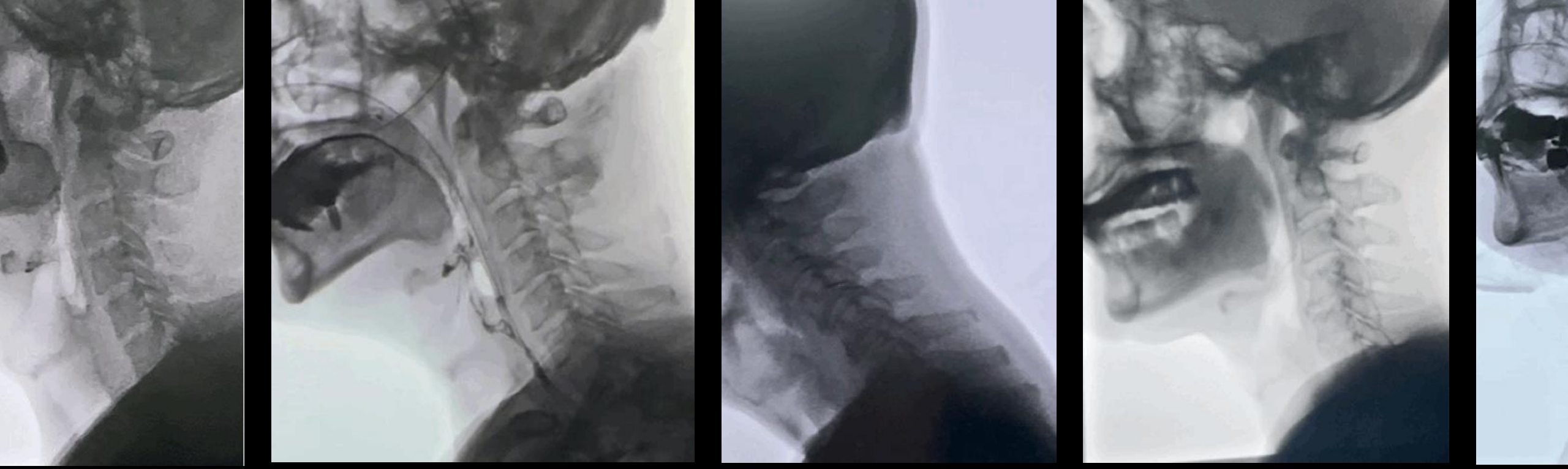
PRE



POST





Modified Barium Swallow Impairment Profile **MBSImP™**

LEARNING ZONE | TRAINING ZONE | RELIABILITY ZONE

Training Zone Home
Swallow by Swallow
Full Study

Full Study

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15

Clear Scores From This Study

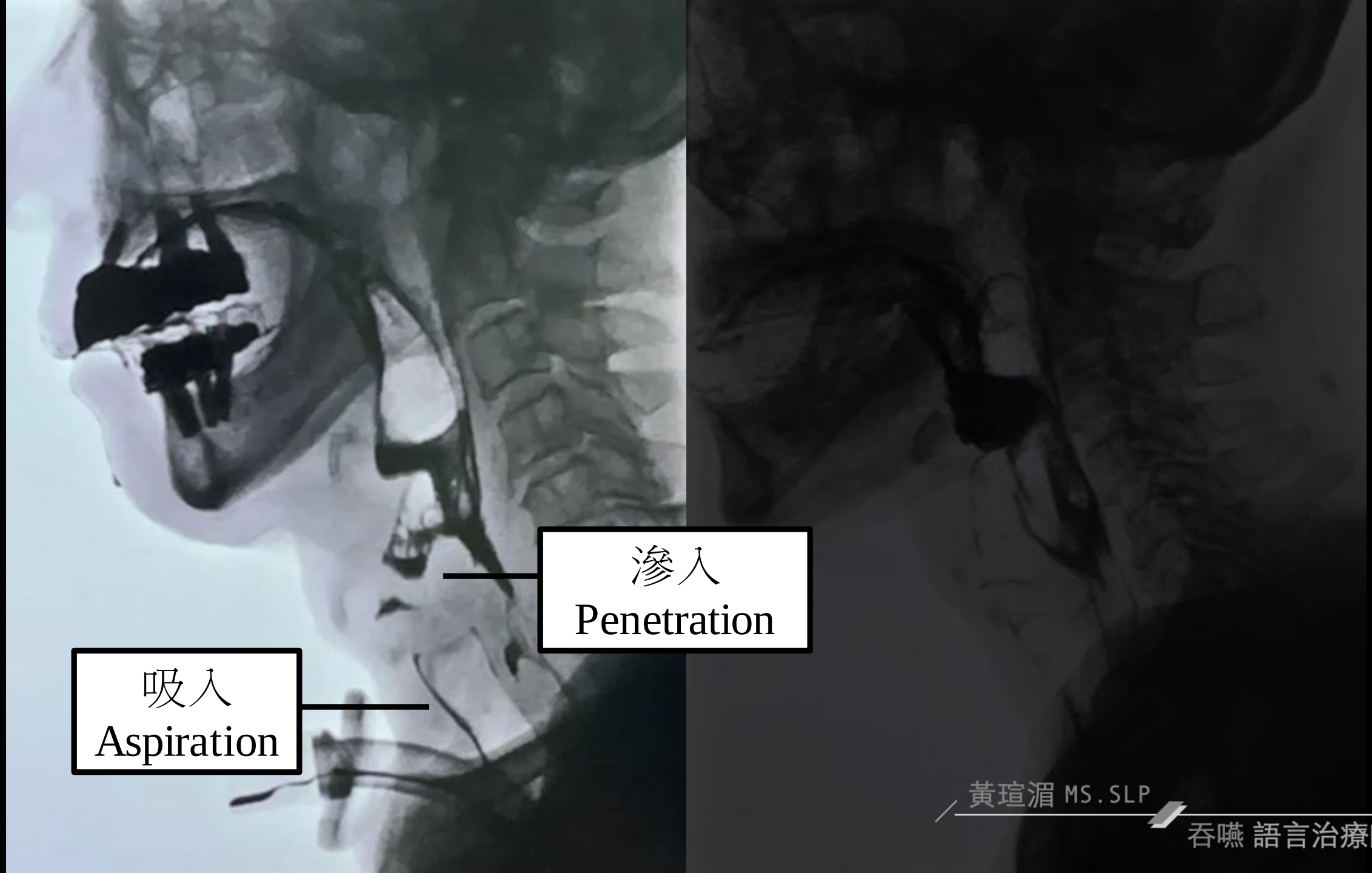
- ✓ 1 Lip Closure
- ✓ 2 Tongue Control/Bolus Hold
- ✓ 3 Bolus Preparation/Mastication
- ✓ 4 Bolus Transport/Lingual Motic
- ✓ 5 Oral Residue
- 6 Initiation of Pharyngeal Swallo
- 7 Soft Palate Elevation
- 8 Laryngeal Elevation
- 9 Anterior Hyoid Excursion
- 10 Epiglottic Movement
- 11 Laryngeal Vestibular Closure
- 12 Pharyngeal Stripping Wave
- 13 Pharyngeal Contraction
- 14 PES Opening
- 15 Tongue Base Retraction
- 16 Pharyngeal Residue
- 17 Esophageal Clearance

5 Oral Residue

✓CORRECT! Score = 3
Observed during 5mL pudding.

3 = Majority of bolus remaining

SCORING HELP | MBSImP GUIDE | OI SCORING RULES | COMPONENT SCORING TIPS


滲入
Penetration
吸入
Aspiration

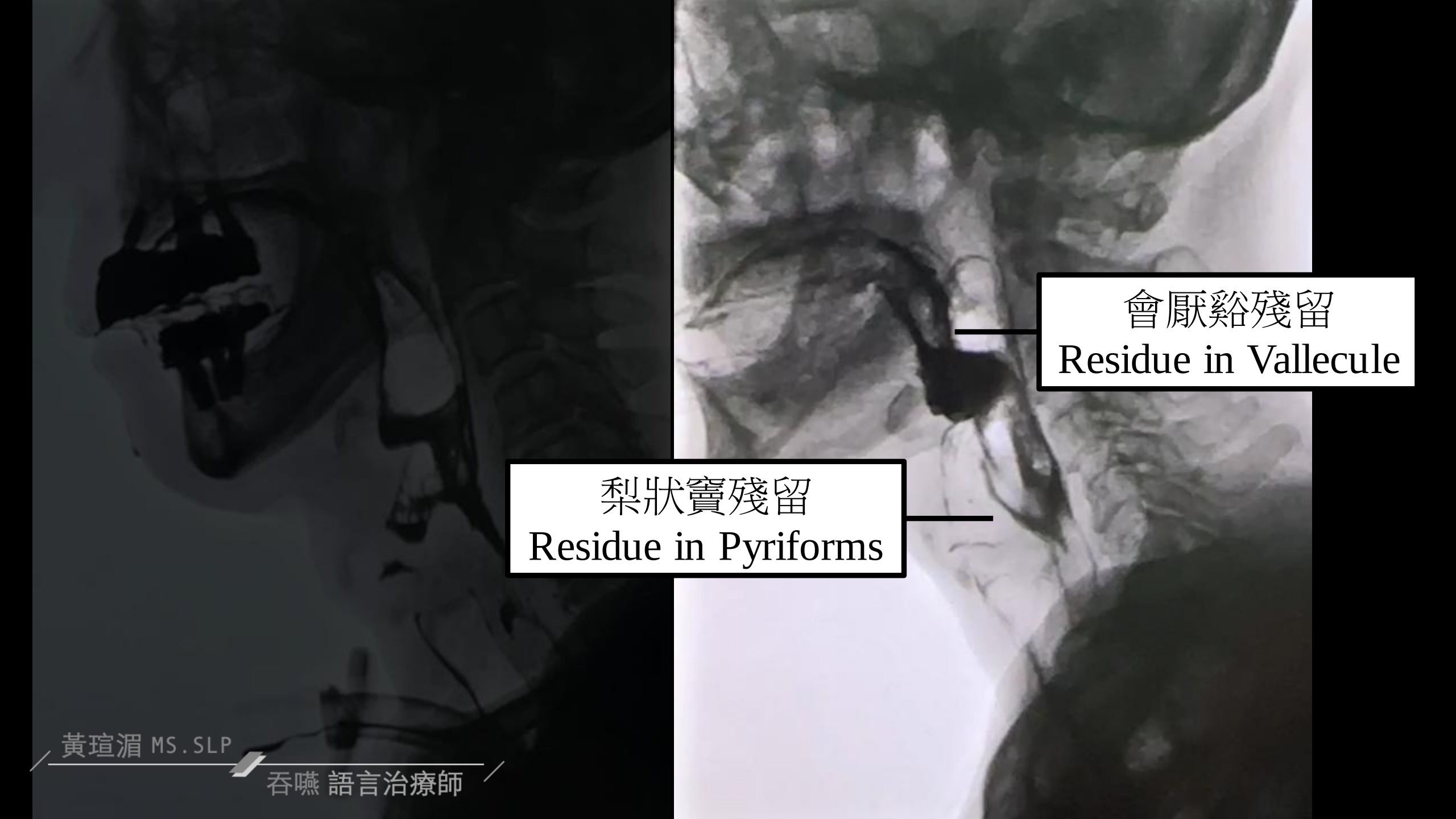
評估指標

呼吸道保護（安全性）

- Aspiration, penetration, silent Aspiration
- Penetration-aspiration Scale (PAS)

PAS Score	Description
1	Material does not enter the airway
2	Material enters the airway, remains above the vocal folds, and is ejected from the airway
3	Material enters the airway, remains above the vocal folds, and is not ejected from the airway
4	Material enters the airway, contacts the vocal folds, and is ejected from the airway
5	Material enters the airway, contacts the vocal folds, and is not ejected from the airway
6	Material enters the airway, passes below the vocal folds, and is ejected into the larynx or out of the airway
7	Material enters the airway, passes below the vocal folds, and is not ejected from the trachea despite effort
8	Material enters the airway, passes below the vocal folds, and no effort is made to eject

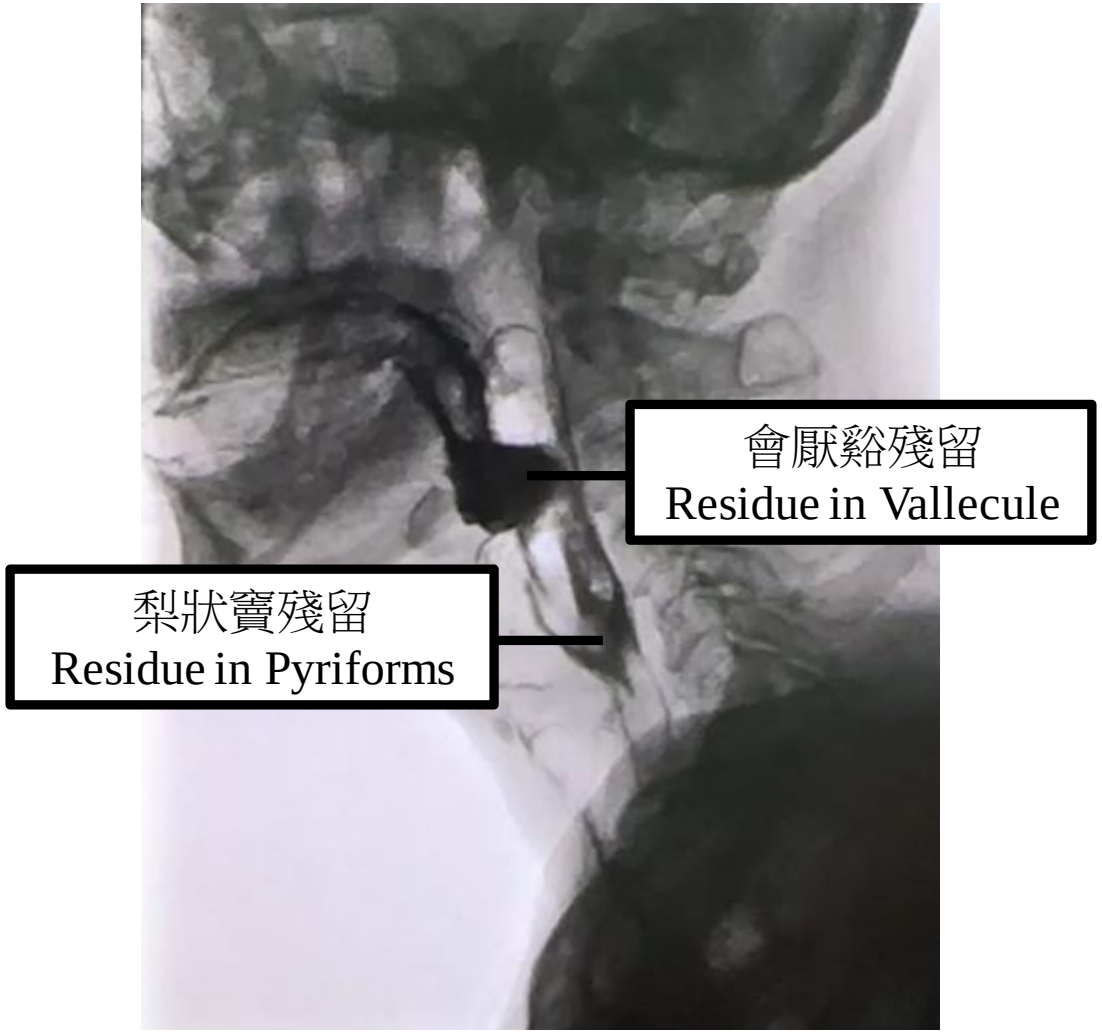
Rosenbek, J. C., Robbins, J. A., Roecker, E. B., Coyle, J. L., & Wood, J. L. (1996). A penetration-aspiration scale. *Dysphagia*, *11*(2), 93-98.



評估指標

清除異物能力（效率）

- Oral residue, Pharyngeal residue
- Trace, mild, moderate, severe residue



Martin-Harris, B., Brodsky, M. B., Michel, Y., Castell, D. O., Schleicher, M., Sandidge, J., ... & Blair, J. (2008). MBS measurement tool for swallow impairment—MBSImp: establishing a standard. *Dysphagia*, *23*(4), 392-405.

吞嚥功能

口腔控制

Oral control

舌頭推送

Lingual propulsion

吞嚥反射

Swallowing trigger

軟腭上抬

Velar elevation

喉前庭閉合

Laryngeal vestibule closure

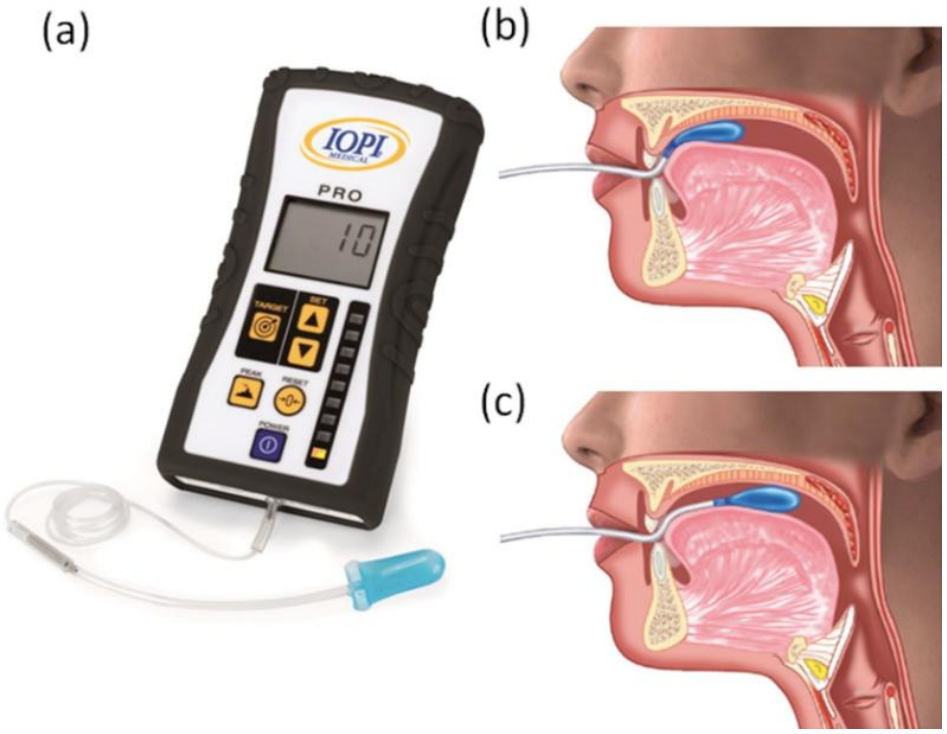
咽部收縮

Pharyngeal contraction

上食道括約肌

UES opening

吞嚥治療：舌頭肌耐力、肌力不足



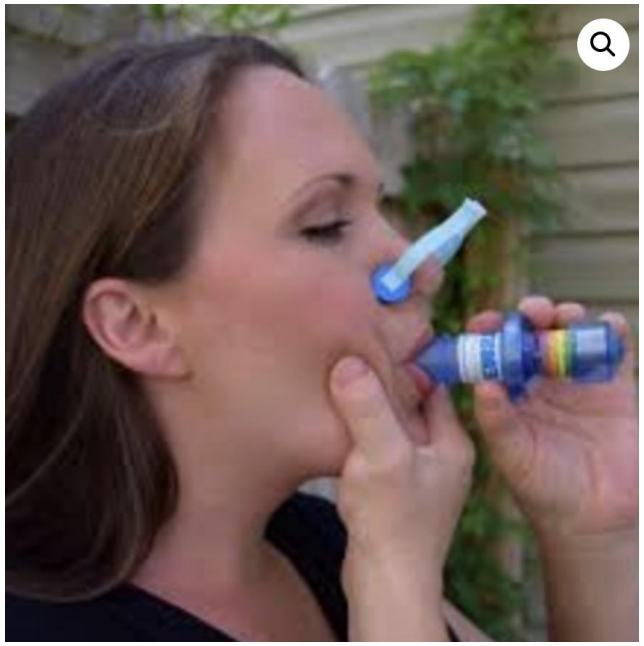
愛荷華口腔功能評量器
(Iowa oral performance instrument, IOPI)

- Objectively measure and document tongue strength
- Improving tongue strength and tongue pressure

Position	Peak (kPa)	Normal	60%	70%
Front	12	45	7	9
Back	12	40	7	9
Lip	20	35	12	14

- Below average of normal range < 1%

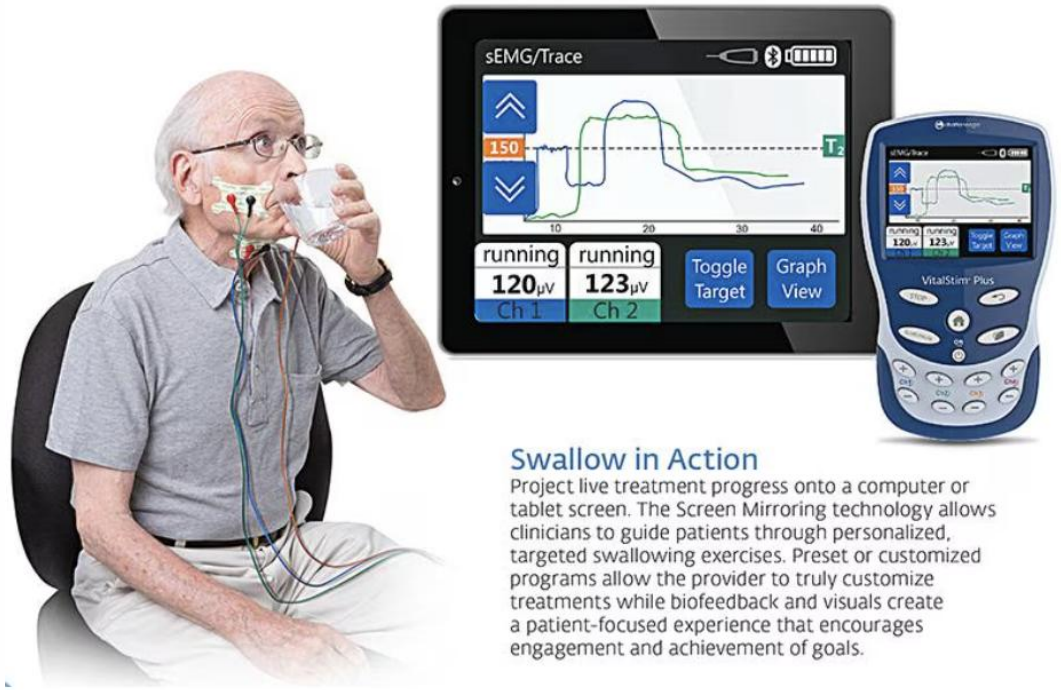
吞嚥治療：腭咽閉合不佳、肺活量不足、呼吸道保護不足



- Objectively measure respiratory muscle strength
- Improving cough effectiveness
- Improving airway protection
- Activating the submental muscles
- Normal: 60 cm-H2O

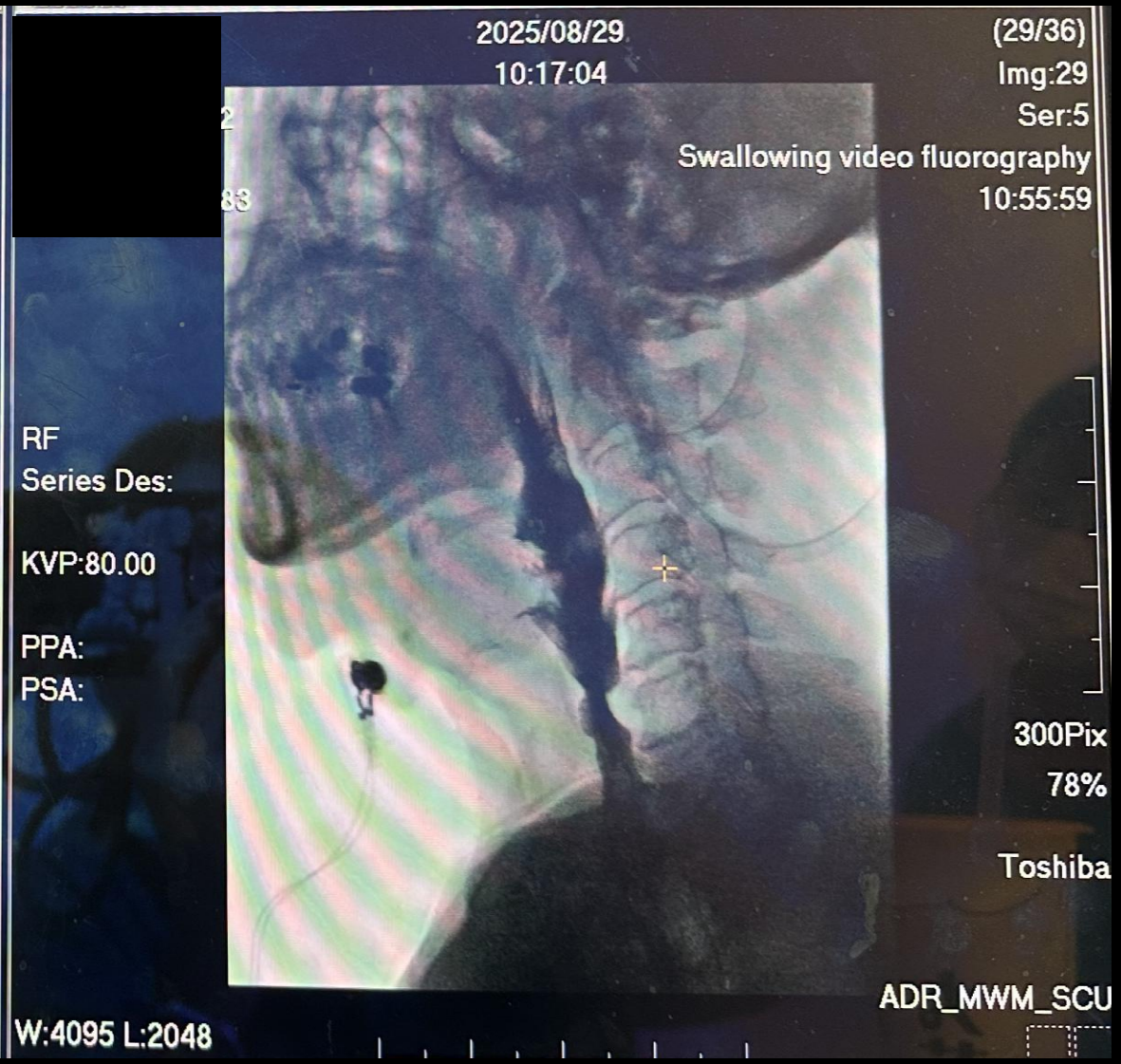
Dofin™呼吸訓練器（舒呼樂）

吞嚥治療：刺激感覺路徑、促進吞嚥相關肌群收縮



- Neuromuscular electrical stimulation, NMES
- Stimulate sensory pathways
- Facilitate swallowing-related muscle contraction
- Combined with swallow hierarchy training

VitalStim® Plus四頻道藍芽連線電刺激吞嚥治療儀



報告完畢，謝謝大家

Presentation is completed, supa-arigadou.