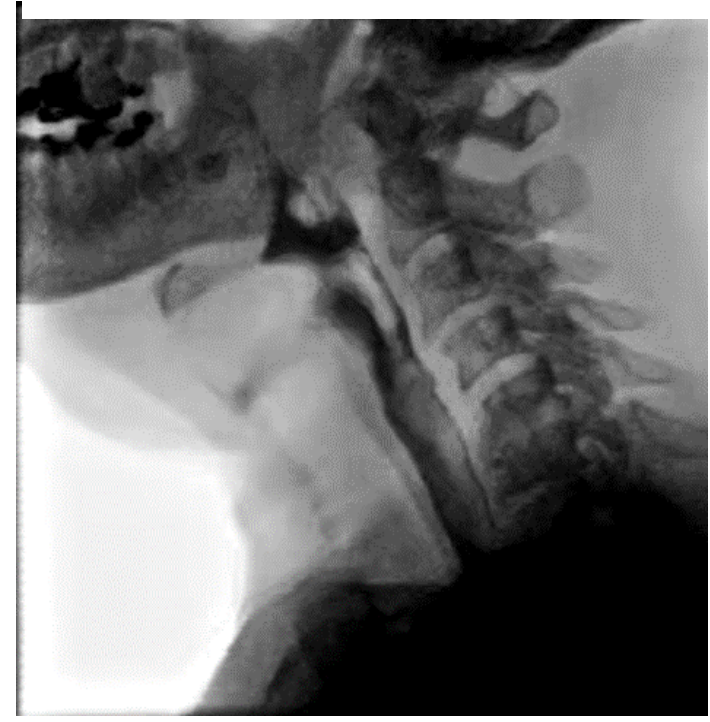


Functional oral intake in the acute setting:

Which factors influence change following receipt of VFSS?



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Background

Videofluoroscopic Swallow Study (VFSS) allows for direct radiological visualisation of swallowing and is used routinely in acute care to guide decision-making regarding dysphagia management. A recent study¹ showed that 10% of acute patients referred to speech pathology received a VFSS. However, specific factors that influence change following VFSS within the acute setting are not well-understood.

Aim: To identify which factors influence change or no change in functional oral intake scale (FOIS)² following a Videofluoroscopy Swallow Study.

Method

A prospective file audit was completed of all acute adult inpatients who received a VFSS within 5 hospitals in a local health district, over a 6-month period. Routine data collected, including hospital site, patient age, key diagnoses relevant to dysphagia, reason for VFSS, hospital site, and highest Penetration Aspiration Score³ (PAS).



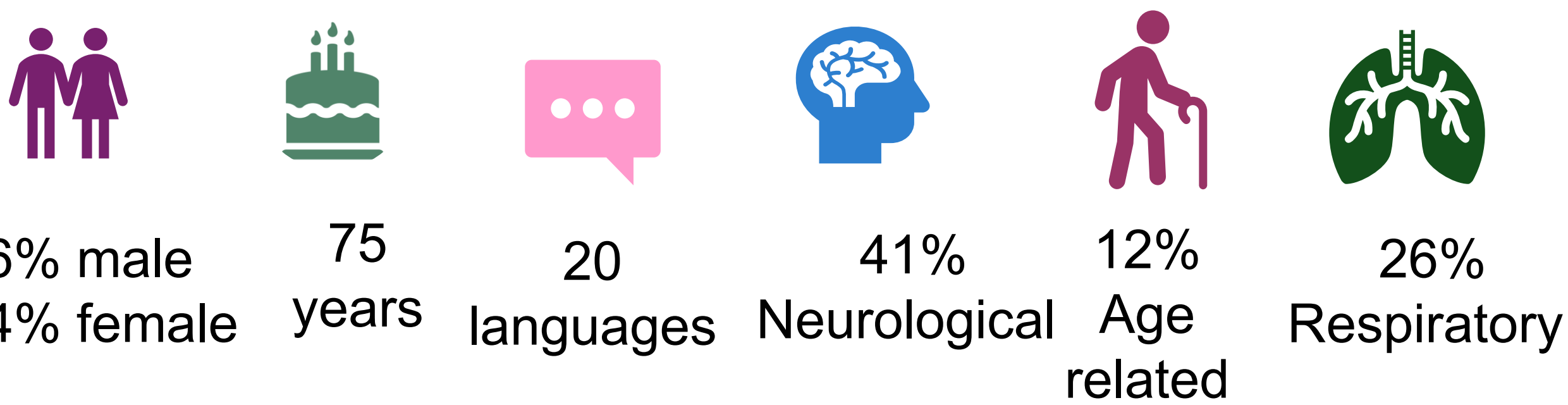
The FOIS was collected immediately pre and post VFSS. The change in FOIS ratings was grouped into 3 possible outcomes.

Data was analysed using descriptive statistics and nominal logistic regression.

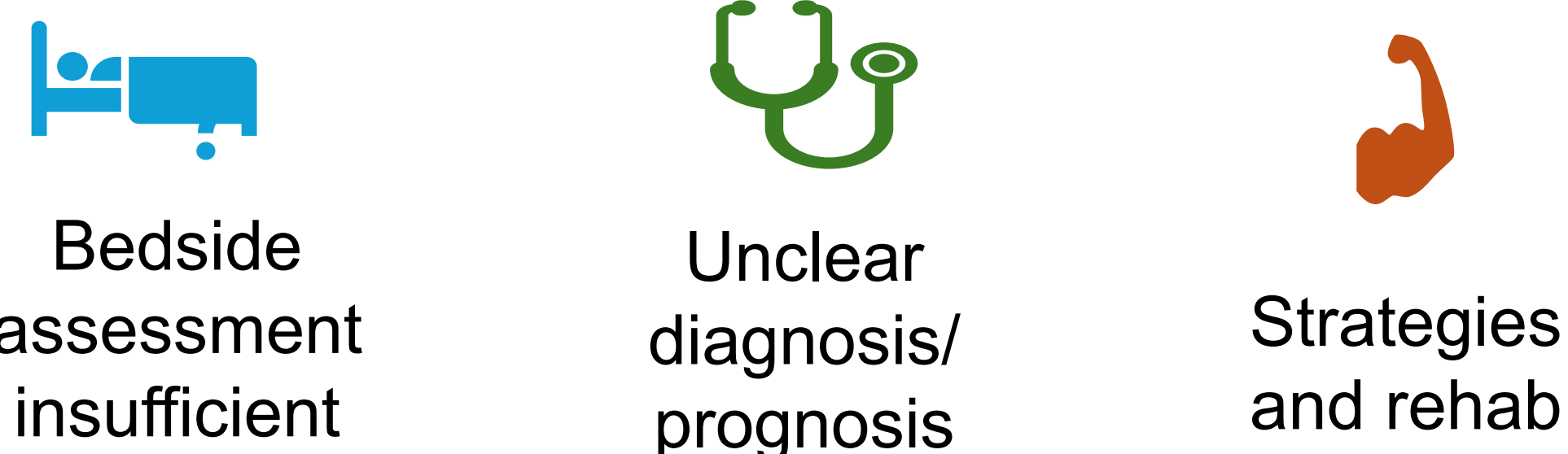
Outcome	Descriptor	Icon
Numerically positive change towards 'unrestricted oral intake'	FOIS score after VFSS is closer to 7 than before VFSS	
No change	FOIS score before and after VFSS are the same	
Numerically negative change towards 'no oral intake'	FOIS score after VFSS is closer to 1 than FOIS before VFSS	

Results and Discussion

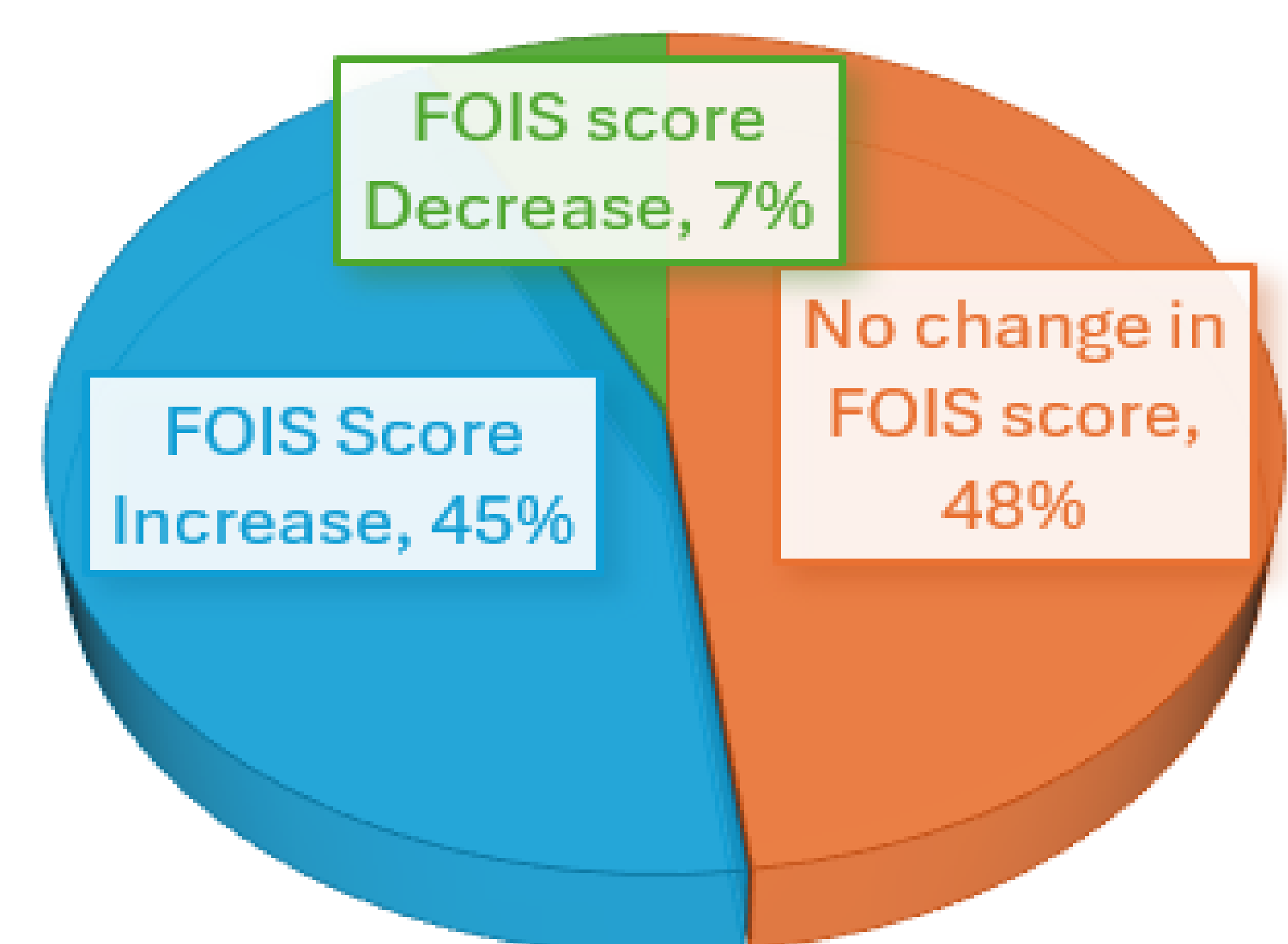
269 patients were referred for VFSS from 4 of the 5 hospital sites, over the 6month period:



The 3 top reasons for referral were:



FOIS SCORE CHANGE



Factors influencing decrease in FOIS compared with no change

Older patients (OR 1.072, p-value = 0.0108)	May reflect a higher incidence of more severe dysphagia in this cohort. Clinicians may also have been less likely to recommend NBM, enteral feeding, or heavily modified diets for older patients prior to having instrumental evidence to support this decision.
Higher PAS (OR 1.329, p-value = 0.0094)	An expected finding as a higher PAS indicates increased risk of penetration or aspiration, typically resulting in a change to oral intake.
To guide an unclear diagnosis or prognosis. (OR 0.218, p-value = 0.0207)	Suggesting that the VFSS was used to guide medical management without necessarily resulting in a change to functional oral intake for these patients.

Factors influencing increase in FOIS compared with no change

To guide compensatory strategies or swallow rehab (OR 1.998, p-value = 0.0323)	An expected finding given the goal of care for these patients is to support safe tolerance of less modified textures.
Site 4 (OR 0.328, p-value = 0.0258)	May be related to differences in acuity and resources between sites.

References

- ¹Bolt, S., Croft, T., Short, K., Baker, E., Meyer, B., Speechley, K., Descallar, J., Corry, A., Bright, M., Paisley, E., Crebert, V., and Kenny, B. (2023) Videofluoroscopy Swallowing Study in the real world: Who does and who does not receive a VFSS? Poster presentation *Speech Pathology Australia Conference, Hobart Australia*.
- ²Crary, M., Mann, G., & Groher, M. (2005). Initial psychometric assessment of a functional oral intake scale for dysphagia in stroke patients. *Archives of physical medicine and rehabilitation*, 86(8), 1516-1520. doi: 10.1016/j.apmr.2004.11.049.
- ³Rosenbeck, J. et al. (1996). A Penetration-Aspiration Scale. *Dysphagia*, 11, 93-98.

Conclusion

Most acute patients experienced either an increase or no change in FOIS post VFSS with several factors influencing whether or not change occurred.



Change or no change may benefit the patient if the VFSS has assisted to prevent an adverse outcome or to guide intervention. Further exploration of these outcomes is required.