

Variation in the Provision and Outcomes of Speech and Language Therapy for People with Parkinson's Disease in the UK

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Introduction

- 90% of patients with PD experience deterioration of speech¹ (**dysarthria**), 80% will experience swallowing difficulties² (**dysphagia**) and approximately 35% will see a decline in voice quality³ (**dysphonia**)
- Provision of SLT for PD across the UK is varied⁴ and more research is needed to explore the effectiveness of SLT intervention⁵
- The RCSLT Online Outcome Tool (**ROOT**)⁶ collects Therapy Outcome Measure (**TOM**)⁷ data from SLT services across the UK⁸
- The TOM is a **psychometrically robust outcome measure**⁹ and is based on the World Health Organization's **International Classification of Functioning, Disability and Health**¹⁰, and measures change in these domains, including 'impairment' (level of severity of the disorder) and 'activity' (level of severity of with communicating with others or eating and drinking).

Methods

- 6 NHS SLT services** from across the UK entered **1191 datasets** from patients with PD into ROOT between 01/07/2010 – 30/06/2020 (*Nb. not all services provided data for the entire duration*)
- Data from each service was analysed to calculate:
 - the **composition** of cases
 - average **TOM scores at the start** of episodes of care
 - the proportion of treatment episodes demonstrating **improvement, maintenance or decline** in TOM scores

Results

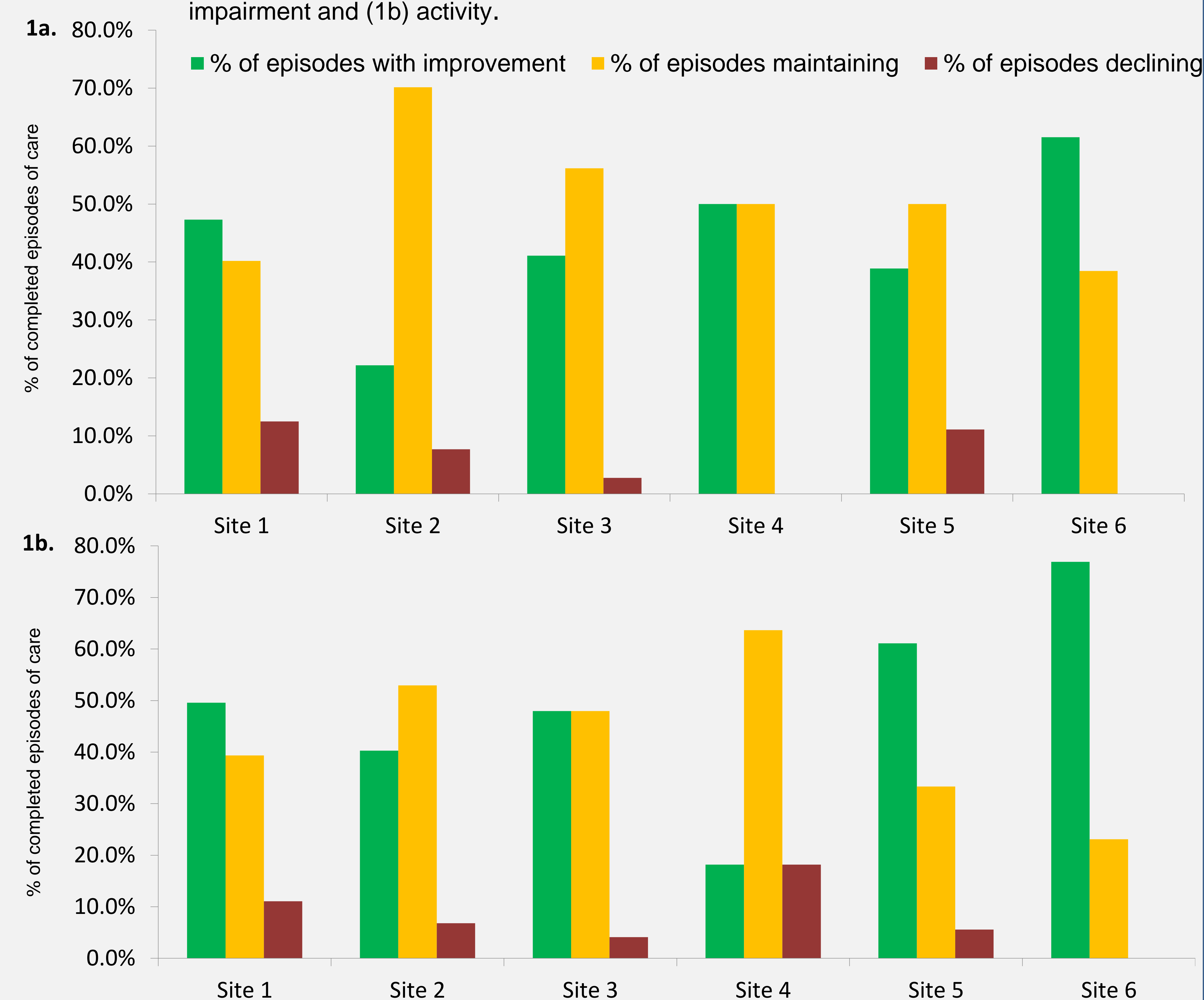
- There are **observable inconsistencies** in the composition of caseloads among PD SLT services
- For example: **At Site 1, 25.2% of cases are for dysarthria, compared with 96% at Site 3. Further to this, there are stark differences in the patterns for dysphagia patients, making up 63% and 2% respectively.**
- There are **clinically significant differences** between services in how **severely patients present** at the start of treatment
- For example: **At Sites 1, 2 and 5 patients are generally presenting more severely (in impairment & activity) when they start treatment, compared to Sites 3, 4, and 6.**
- There is **variation in the nature of treatment outcomes** from different services.
- For example: **At Sites 1 & 6, the majority of cases make improvement in both impairment and activity domains, whereas other sites have mostly maintained performance (Sites 2, 3, 4) or a more complex picture, such as Site 5, where the majority of cases make improvement in activity but maintain a level of impairment (Site 5).**

Discussion

- Despite PD's **progressive nature**, patients with communication or swallowing disorders **can make improvements** following SLT
- Referral **patterns** and care **pathways** for PD SLT are **heterogeneous** across the UK
- Variation** in the processes and practices of PD SLT services may be associated with **differences in patient outcomes**
- Closer **inspection** of the **differences** between services will inform on how to **improve the quality of care** for PD patients and **enhance treatment outcomes**

Figures

Proportion of episodes of care showing clinically significant improvement, maintenance or decline between the start and end of Therapy Outcome Measures ratings for: (1a) impairment and (1b) activity.



Table

Composition of caseloads of PD patients in each site.

NHS Trust	Number of episodes of care for PD	Proportion (%) of episodes of care by target for Intervention (Swallowing or Communication Disorder)				Median impairment score at start of episode	Median Activity score at start of episode
		Dysarthria	Dysphagia	Dysphonia	Other disorders		
Site 1	841	25.2	63.4	7.7	3.7	3	3.5
Site 2	221	16.7	76.0	0.5	6.8	3	3.5
Site 3	75	93.3	2.7	0.0	4.0	4	4
Site 4	22	31.8	68.2	0.0	0.0	4	4
Site 5	18	38.9	61.1	0.0	0.0	3	3.5
Site 6	14	21.4	50.0	14.3	14.3	3.75	4

Speech and language therapy services for people with Parkinson's disease are varied across the UK in terms of:

- The patients that services provide with treatment
- The severity of a patient's presentation at the start of treatment
- The nature of change that is observed following therapy

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