

# Using the Guys Neurological Disability Scale as a Tool to Evaluate Multiple Sclerosis (MS) Symptom Severity and Prevalence in Patients Attending the MS Specialist Rehabilitation Clinic

## Introduction

The multidisciplinary MS Specialist Clinic at the West Midlands Rehabilitation Centre provides symptom management for people with MS, creating individualised rehabilitation goals with aims to improve quality of life. The Guys Neurological Disability Scale (GNDS) is a reliable and valid multi-dimensional questionnaire used for scoring symptom severity and disability in MS across 12 subscales: memory and concentration, mood, vision, speech and communication, swallowing, bladder function, bowel function, upper limb function, lower limb function, sexual activities, fatigue and 'other'. The severity of each subscale is graded from 0 (normal function) to 5 (total loss of function).

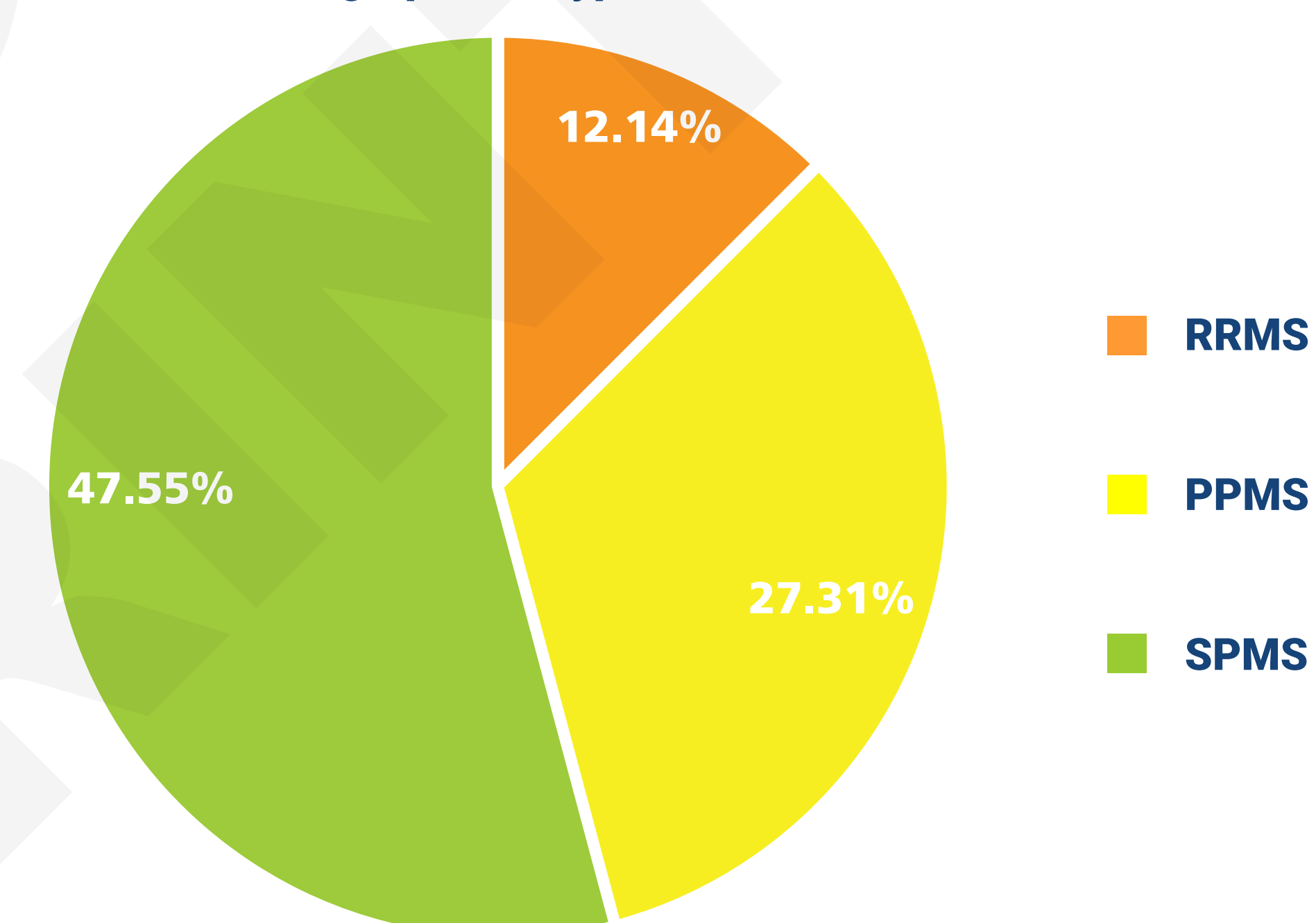
## Aims and Objectives

- To determine if the GNDS is a useful tool for evaluating symptom severity and prevalence for patients attending the MS Clinic.
- To determine the demographics of our patient population.
- To evaluate the most prevalent and severely reported symptoms for our patient population.
- To determine if current service provision meets the needs of our patient population.

## Method

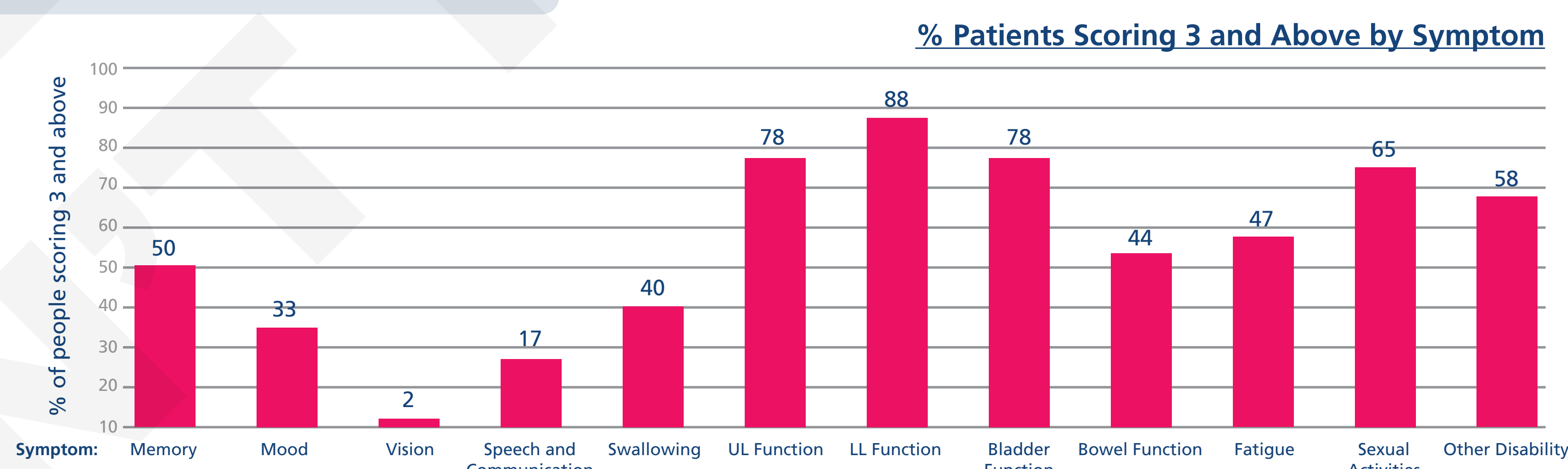
- GNDS questionnaire posted in advance of appointment with request to complete and bring to appointment.
- Questionnaire used by clinicians during the appointment to facilitate discussion and to assist in exploring management of symptoms highlighted by patient/carer.
- Scoring completed and in-putted onto excel spreadsheet for analysis.

Demographics- Type of MS



## SCORING GNDS

Grade	Level of Disability
0	Normal Status
1	Symptoms causing no disability
2	Symptoms causing mild disability (not requiring help from others)
3	Symptoms causing moderate disability (requiring help from others)
4	Symptoms causing severe disability (almost total loss of function)
5	Total loss of function (maximal help required)



## Results

- 86 questionnaires completed and returned to clinic from September 2021 - December 2022 (representing 28% of patient cohort).
- Types of MS – SPMS 55%, PPMS 31%, RRMS 14%
- >50% patients scored 3 or above in lower limb function (88%), upper limb function (78%), bladder function (78%), sexual activities (65%) 'other' (58%) and memory and concentration (50%) subscales.
- <50% patients scored 3 or above on the fatigue (47%), bowel function (44%), mood (33%), swallowing (30%), speech and communication (17%) and vision (2%) subscales.
- Lower limb function, upper limb function and bladder function were the most severely reported symptoms.
- Speech and communication and vision were the least severely reported symptoms.
- The most commonly reported 'other' symptoms were pain (34%) and spasm (34%).

## Conclusions

- Most prevalent symptoms reported support current staffing in clinics (CRM, CNS, PT and OT).
- Sexual function should be explored as pwMS may be less likely to highlight difficulties.
- GNDS is an effective tool for evaluating symptom prevalence and severity for our MS population.
- Development of OT service supported due to high severity and prevalence in multiple subscales.
- GNDS could be used as a tool to support service development.

## References

- <https://www.sralab.org/rehabilitation-measures/guys-neurological-disability-scale> -accessed 05/01/2022
- Sharrack & Hughes (1999) The guys neurological disability scale (GNDS): a new disability measure for multiple sclerosis. Multiple Sclerosis, 5, 223-233
- Rossier & Wade (2002) The Guy's Neurological Disability Scale in patients with Multiple Sclerosis: a clinical evaluation of its reliability and validity. Clinical rehabilitation, 16: 75-95