Real-world Findings of Usability and Usefulness of MSProDiscuss™: A Physician-Completed Digital Tool to Evaluate Early Signs of Disease Progression

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Background

- Defining the transition from relapsing-remitting multiple sclerosis (RRMS) to secondary progressive multiple sclerosis (MS) can be challenging and may impact treatment decision making[1]
- The Multiple Sclerosis Progression Discussion (MSProDiscuss™) tool was developed with an aim to facilitate and prompt physician-patient discussion in evaluating early, subtle signs of MS disease progression and to educate and sensitize patients about the risk of transitioning from RRMS to SPMS[2,3]
- MSProDiscuss has been developed based on qualitative research with experienced MS neurologists and patients, and empirical assessments of real-world evidence[1]
  - The tool is based on a set of weighted questions that include information on MS relapses, symptoms, and impact on daily living experienced by the patient within the past 6 months. The tool's traffic light system-linked output is meant as an aid for discussing the signs of MS disease progression[2]
- In a separate validation study, the tool has been pilot-tested and validated with clinicians in the real world to determine its sensitivity and specificity to differentiate between RRMS and SPMS patients as well as to evaluate its psychometric properties[3]
- MSProDiscuss is ready for implementation in daily clinical practice, is part of several non-interventional studies, and is freely available online at www.msprodiscuss.com as well as on the neurocompass educational portal

Objectives

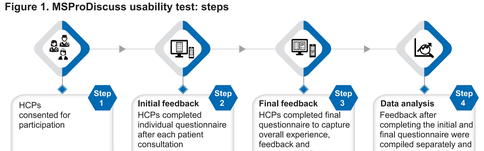
- To report physician findings on usability and usefulness testing of the MSProDiscuss tool while discussing disease progression with patients in the real-world setting

Methods

Study conduct

- The usability test was conducted to help inform any adaptations required in general and also on any country-specific variations that might be required to make it a better tool in clinical practice
- Healthcare practitioners (HCPs) from 34 countries across North America, Europe, Asia, South America, Africa, and Australia participated in an online survey between July and December 2019 to provide their feedback on understanding, usefulness, usability, and integration/adoption of the MSProDiscuss tool into daily clinical practice
- The HCPs used the tool on what they felt was a broad range of MS patients excluding patients with clinically isolated syndrome and primary progressive MS. The HCP's feedback was requested in two parts using two different questionnaires (**Figure 1**):
  - **Initial questionnaire:** Feedback was taken after each instance of using MSProDiscuss during a face-to-face individual patient consultation. Each HCP was expected to fill 10 (small countries) to 40 (large countries) individual questionnaires
  - **Final questionnaire:** Feedback was taken to capture the overall experience on the tool after the desired number of completed individual patient consultations
- The HCPs were also requested to provide general feedback and recommendations for further improvement of the tool

Figure 1. MSProDiscuss usability test: steps



HCP, healthcare practitioner

- The tool was evaluated for time needed for completion, comprehensibility of the questions included, usability and usefulness, (**initial questionnaire**) and additionally, integration into clinical practice (**final questionnaire, Table 1**) on a 5-point Likert scale
- Data are presented using descriptive statistics. Both weighted and unweighted percentages were calculated

Table 1. Usability test questions

	Initial questionnaire	Final questionnaire
Questions related to usability and comprehensibility	1. The time it took me to complete the tool was satisfactory.	1. The time it took me to complete the tool was satisfactory.
	2. The patient was able to comprehend the questions from the tool that I asked in the course of the patient consultation.	2. The patients were able to comprehend my questions from the tool during consultations.
	3. I would use this tool again in the future with this patient.	3. The questions in the tool are similar to what I would ask during a regular consultation.
Questions related to usefulness	4. The tool helped me discuss symptoms of MS progression and the impact on patients' daily activities.	4. The tool helped me better discuss symptoms suggestive of MS progression and its impact on patients' daily activities.
		5. The tool helped me better understand symptoms suggestive of MS progression and its impact on patients' daily activities.
	5. The tool helped me discuss the topic of progression with my patient.	6. The tool helped me discuss the topic of progression with my patients.
	6. The green/yellow/red results at the end of the questionnaire helped me discuss progression with my patient.	7. The green/yellow/red results at the end of the questionnaire helped me discuss progression with my patients.
	7. The tool helped me discuss symptoms of MS progression and its impact on cognitive function.	8. The tool helped me better understand symptoms suggestive of MS progression and its impact on cognitive function.
		9. The tool helped me better discuss symptoms suggestive of MS progression and its impact on cognitive function.
Questions related to integration to clinical practice		10. I would recommend this tool to a colleague.
		11. It is feasible to integrate the tool into my clinical practice.
		12. It would be easy to integrate the tool into my clinical practice.
		13. I would be willing to integrate the tool into my clinical practice.

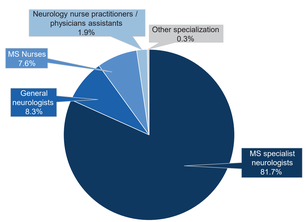
MS, multiple sclerosis

Results

Survey participants

- Of the total 390 HCPs that were invited, 301 HCPs provided feedback on at least one questionnaire. HCPs included MS specialists, general neurologists, and MS nurses and practitioners (**Figure 2**). Approximately 80% of the participating HCPs filled in the agreed number of questionnaires

Figure 2. Survey participants' composition



MS, multiple sclerosis

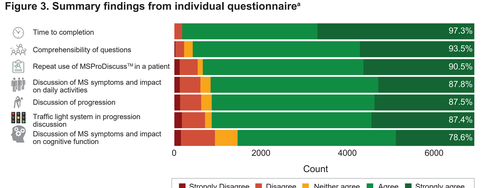
Feedback on the individual questionnaire

- The HCPs completed individual questionnaires after using MSProDiscuss on 6974 MS patients (**Figure 3**)
- In over 97% of the instances when MSProDiscuss was used, the HCPs indicated that the time taken to complete the tool was considered satisfactory (1–4 minutes)
- The majority of HCPs agreed or strongly agreed that MSProDiscuss is beneficial in their practice:
  - In 94% of cases, HCPs felt that the patients understood the questions well and HCPs were willing to use the tool again in the same patient in 91% of cases. The tool was found useful in discussing MS symptoms and its impact on daily activities in 88% of cases and cognitive function in 79% of cases and in discussing progression in general (88% of cases)

Feedback on the final questionnaire

- The overall feedback on MSProDiscuss was similar to and consistent with the findings from the feedback on the individual questionnaires (**Figure 4**):
  - Most (97%) HCPs said the patients understood the questions well and 95% agreed that the questions were similar to those asked in regular consultations
  - The majority of HCPs agreed that MSProDiscuss was helpful for understanding the impact of MS symptoms on patient's daily activities (91%) and cognitive function (80%)
  - Most (92%) HCPs would recommend MSProDiscuss to a colleague and a similar proportion of HCPs think that it is feasible to integrate MSProDiscuss in their daily clinical practice

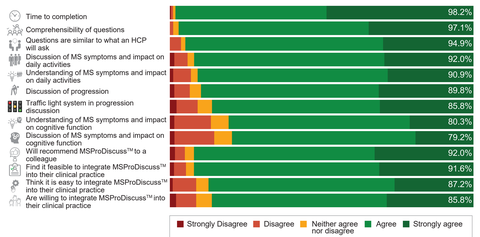
Figure 3. Summary findings from individual questionnaire[a]



[a]Percentages are based on unweighted results; weighted results were similar.

MS, multiple sclerosis

Figure 4. Summary findings from final questionnaire[a]



[a]Percentages are based on unweighted results; weighted results were similar.

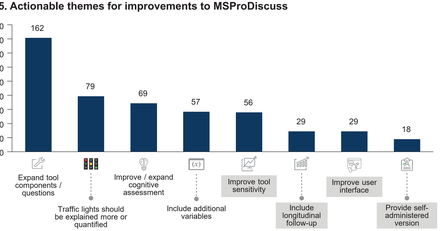
HCP, Healthcare Practitioner; MS, multiple sclerosis

Recommendations and additional feedback

HCPs described MSProDiscuss as a "good," "helpful," and "easy to use" tool in clinical practice

- Furthermore, more than half of HCPs who returned the final questionnaire have made at least one recommendation on possible improvements to MSProDiscuss (**Figure 5**), such as expanding existing variables or inclusion of additional variables:
  - To add time of disease progression or duration of disease, adherence to treatment, and more details on impact of disease on daily activities (such as, relationships, social, work, sexuality, emotional state)
  - To expand fatigue evaluation and cognitive function and include cognitive assessment scales
  - A patient-completed version of the tool
- Several of the recommendations for improvement have already been implemented, as highlighted in **Figure 5**

Figure 5. Actionable themes for improvements to MSProDiscuss



The items in grey boxes indicate actions already implemented in the updated version of the MSProDiscuss. A patient-completed "YourMS" questionnaire has been developed.

MS, multiple sclerosis

Conclusions

- MSProDiscuss takes 1–4 minutes to use in a consultation for most users. The questions in the tool can be easily understood by patients and are similar to what an HCP would normally ask in a routine consultation
- MSProDiscuss facilitates the discussion of MS disease progression and impact on cognitive function, with 90% of HCPs willing to use it again on the same patients and more than 85% of HCPs willing to integrate MSProDiscuss into their clinical practice
- The findings from this real-world study suggest that MSProDiscuss is a usable and useful tool to facilitate physician-patient discussion on disease progression in daily clinical practice by capturing structured disease history

References

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Disclosures

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