

# Patients' Consensus on PICO Scoping for Health Technology Assessment (HTA) Under the New EU Regulation: Preliminary Findings Using a Modified Delphi Methodology

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## INTRODUCTION

- The EU Health Technology Assessment (HTA) Regulation emphasizes the need to standardize PICO (Patient, Intervention, Comparator, Outcomes) requirements across member states and to harmonize the collection of inputs from different stakeholders.<sup>1,2</sup>
- However, harmonizing PICO frameworks presents significant challenges due to diverse healthcare systems and varying stakeholder perspectives, particularly regarding patient perspectives.
- Consensus research enables structured and transparent stakeholder engagement, facilitating the achievement of reliable agreement among participants.<sup>3</sup> As such, it could represent a viable method to systematically integrate patients' perspective in the development of PICO requirements.
- For innovative therapies, such as gene therapy, integrating the patient perspective is particularly important due to the complex and potentially life-altering effects associated with treatment. Furthermore, as real-world data on patient impact for similar existing therapies are often limited, it is essential for the HTA to capture outcomes and priorities directly from patients to ensure a comprehensive evaluation.<sup>4</sup>
- This study aims to evaluate the feasibility, reliability, and efficiency of consensus research for incorporating patient perspectives into HTA PICO scoping for gene therapies.

## OBJECTIVES

- Primary objective:** To determine whether a modified Delphi consensus study is an appropriate methodology to collect the patient perspective from a diverse range of patient profiles in PICO development.
- Secondary objective:** To illustrate the process of achieving consensus among patients from different European countries on PICO scoping results through a case study.

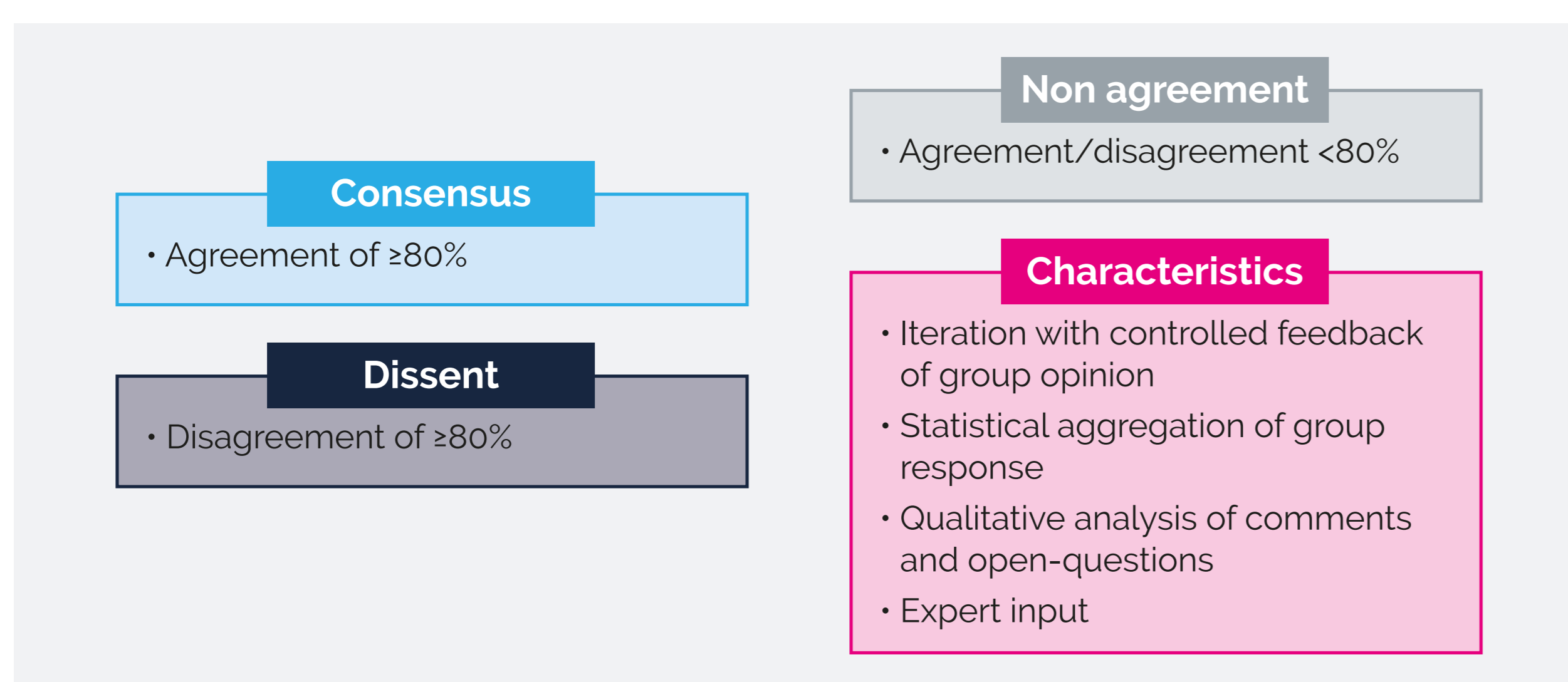
## METHODS

- Firstly, in order to determine a suitable case study for the project, various disease areas where patient input could add the greatest value (areas with innovative therapies and high uncertainty) were considered. This stage involved consultations with relevant patients' organizations within the network of the European Patients Forum (EPF) to identify the appropriate partner. The European Alliance of Neuromuscular Disorders Association (EAMDA) was identified as the most appropriate collaborator, given the diseases it covers along with therapeutic expertise, and extensive patients' network across Europe.
- In agreement with EAMDA, PICO scoping for Onasemnogene abeparvovec for children and adolescents up until the age of 9 years old with Spinal Muscular Atrophy (SMA) was selected as the case study for the consensus exercise.

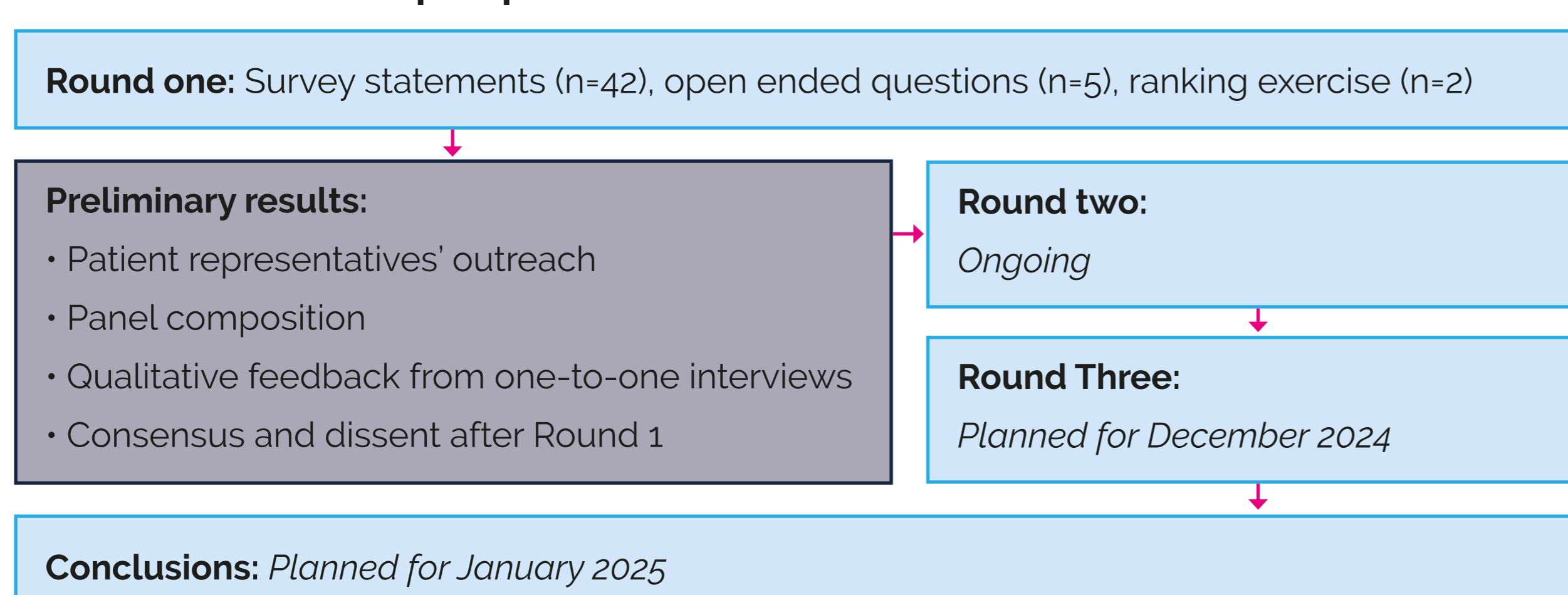
*Onasemnogene abeparvovec is a one-time gene therapy, approved for the treatment of patients with SMA (SMN1 gene mutation) under two years of age. This research project has no product specific advertising or marketing intent.*

- A modified Delphi panel survey was developed, utilizing structured opinion statements developed based on a literature review and input from a Steering Committee comprised of two neurologists with expertise in SMA and two representatives from European patient advocacy groups (PAGs), EAMDA and EPF.
- EAMDA and EPF collaborated in the identification of relevant profiles for patient representatives to participate in the Delphi panel. Eleven representatives of patients with SMA from 12 European countries were invited.
- The first round involved virtual interviews with a research team member, while the next two rounds, which are still to be undertaken, will use electronic surveys.
- The interviews recorded participants' agreement levels with consensus statements and gathered qualitative feedback to better understand patients' perspectives on PICO scoping.
- Pre-set analysis rules and characteristics determined how the Delphi was conducted, whether a statement advanced to the next round and specified the level of agreement required to achieve consensus or dissent (**Figure 1** and **Figure 2**).
- Measures of central tendency (mode, mean) and variability (interquartile range) will be shared with panellists in the next survey rounds to help them review their responses considering the overall group responses.

**Figure 1. Delphi rules & characteristics**



**Figure 2. Modified Delphi panel framework**



## ACKNOWLEDGEMENTS

The authors would like to thank the panellists who contributed and are contributing to this study with their knowledge and expertise, EAMDA and EPF for coordinating and carrying out recruitment and Arabela Acaline, Dr Diana Anamaria Epure, and Dr. Juan Francisco Vazquez Costa for being part of the steering committee and contributing to the development of the consensus survey.

## DISCLOSURES

This study was supported by grants from the European Commission and in-kind contributions from OPEN Health Scientific Office.

## RESULTS

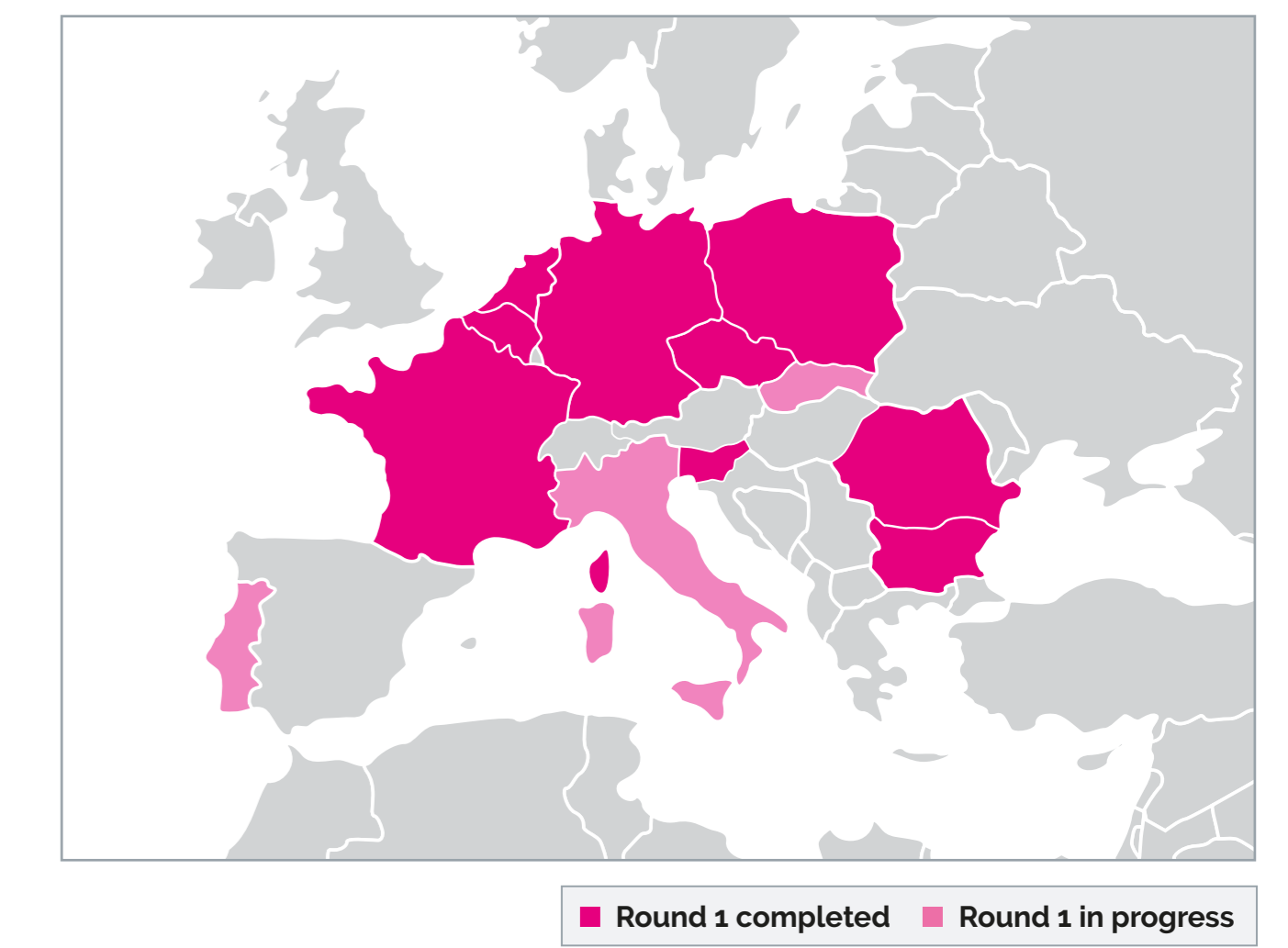
### Recruitment through PAGs

- Recruitment led by two PAGs, EPF and EAMDA, helped identify patient representatives with significant expertise and active roles in advocacy, research, and policy-making.
- A key challenge with recruitment was the PAGs' limited time resources, which affected the timelines for engaging patient representatives, underscoring the need for strategies to address these constraints.
- Considering the potential to scale this methodology in the future, structured and targeted engagement strategies that include European and national associations and relevant healthcare professionals are needed to boost participation and efficiency.

### Panel composition & representativeness

- The panel comprises of 9 panellists who completed round 1 of the survey. Three additional panellists (from Portugal, Italy and Slovakia) are planned to complete round 1.
- This analysis integrates a total of 9 EU countries, representing diverse geographies and varying country sizes (**Figure 3**).
- 100% of panellists feel "somewhat or very comfortable" representing the voice of SMA patients in their country(ies).
- 100% of panellists are actively involved in PAGs activities.
- Size of SMA patients' network:
  - Between 50 – 200 patients, 89% of panellists
  - Between 5-10 patients, 11% of panellists

**Figure 3. Countries represented in the Panel**



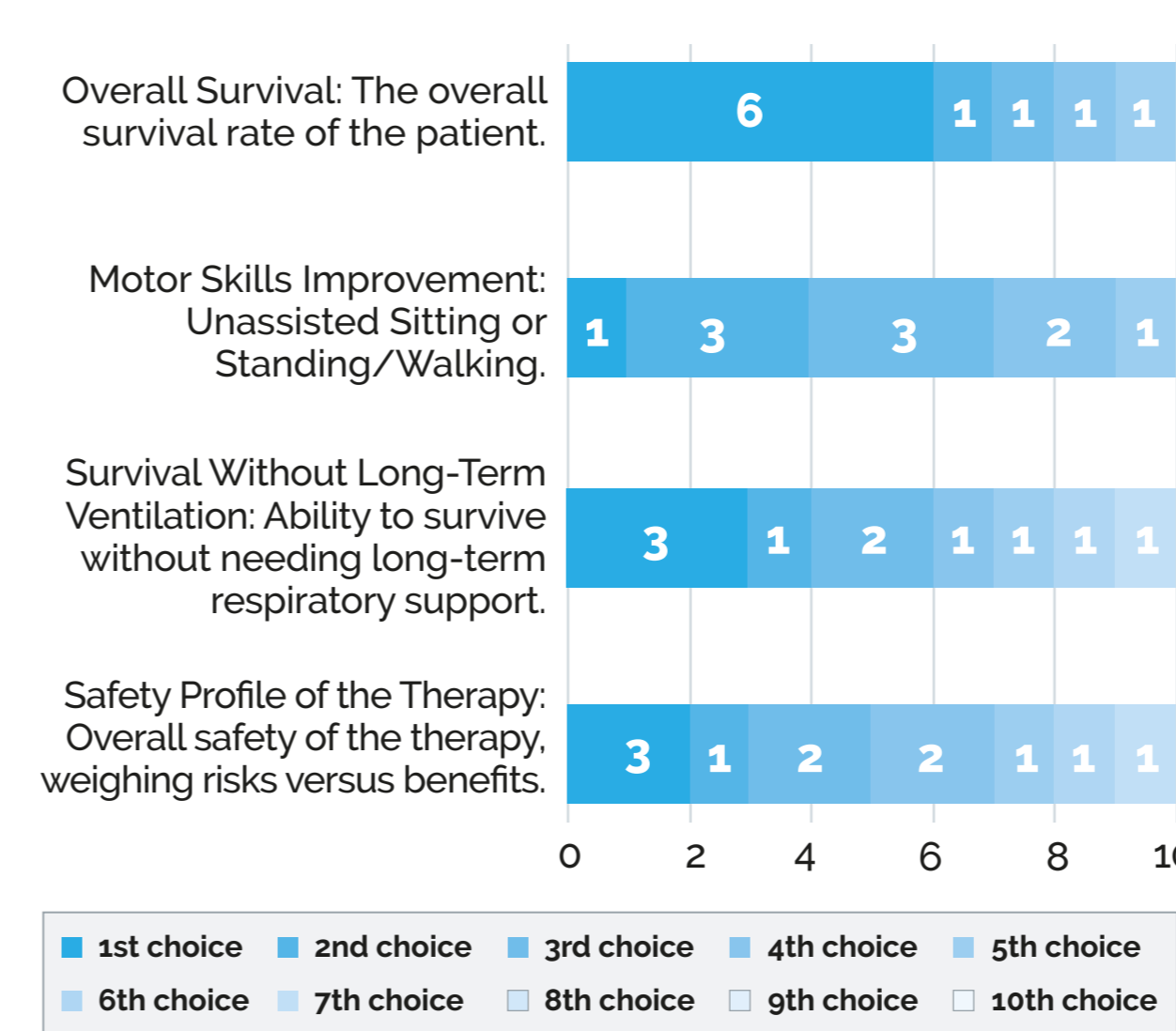
### Consensus analysis after round 1 & ranking of preferences

- The survey comprised of 41 opinion statements, and two ranking exercises.
- A total of 22 statements (53%) achieved consensus after round 1 (**Table 1**).
- The two ranking exercises, elicited patients' preferences on intervention's outcomes (**Figure 4**), and on their trade-offs between access to treatment and certainty of evidence (**Figure 5**).
- Qualitative feedback collected during the one-to-one interviews on topics that did not achieve consensus and on the reasons behind the rankings will be incorporated into the survey statements for following rounds.

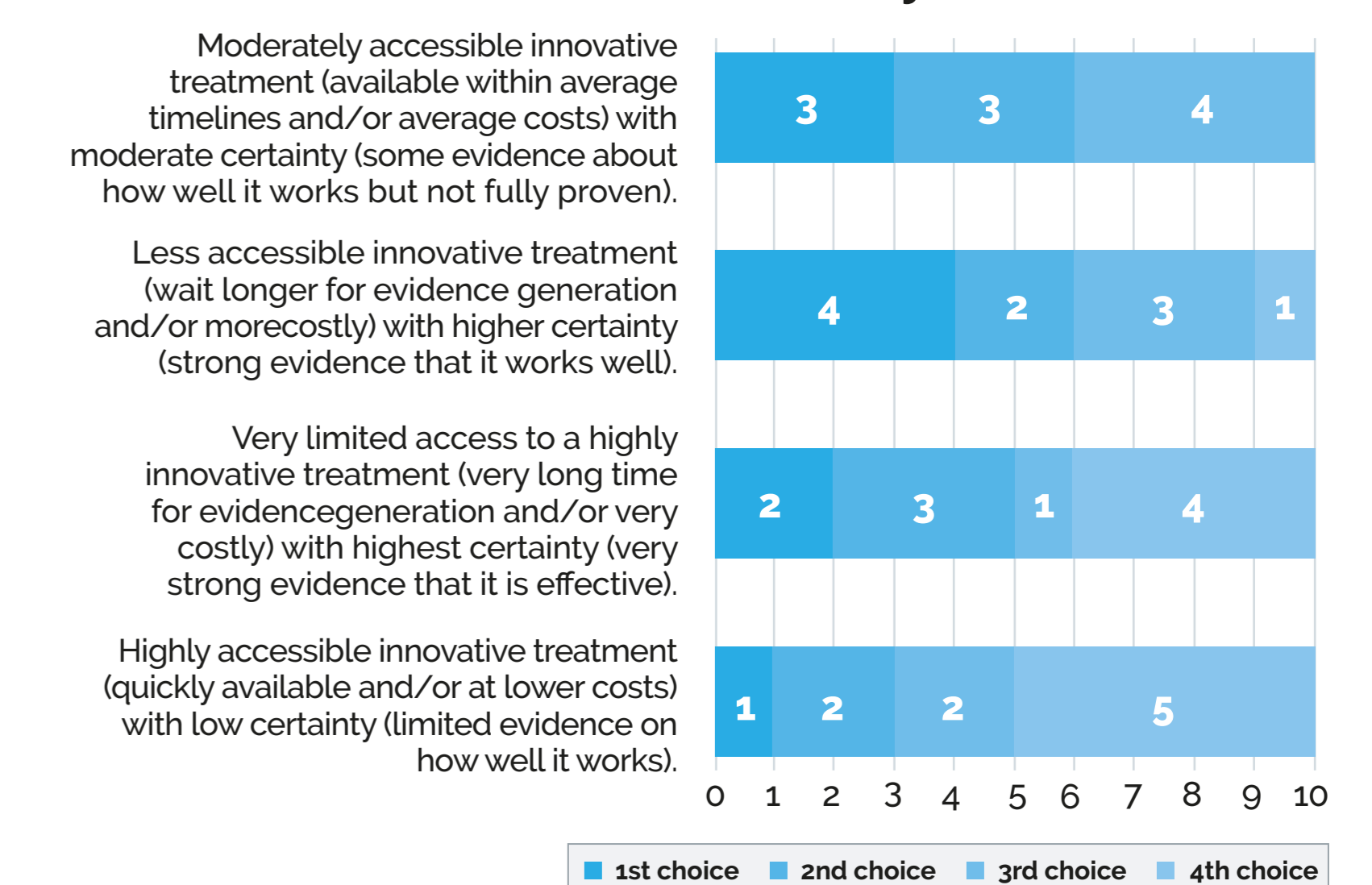
**TABLE 1. Achieved consensus across survey sections**

Survey section	Statements (N)	Statements that achieved consensus (N)
P - Population	4	1 (25%)
I - Intervention	16	8 (50%)
C - Comparator	6	2 (33%)
O - Outcome	7	6 (85%)
S - Study design	9	5 (55%)

**FIGURE 4. Highest ranked outcomes**



**FIGURE 5. Ranking of preferences between access and certainty of evidence**



## CONCLUSIONS

- Working with PAGs proved valuable for identifying patient representatives with highly relevant profiles, strong geographical representation, and extensive patient networks. However, it is essential to consider the limited time and resources available to PAGs.
- The lack of consensus on population, intervention, and comparators statements indicates differing priorities and inputs across patients from various regions that need to be addressed in following rounds.
- There is strong consensus on the importance of RWE and PCO studies in the evidence package, highlighting a collective recognition of the need for data that reflect real patient experiences and outcomes in clinical practice. But there is less consensus on the acceptability of uncertainty that needs to be further explored in the following rounds.
- While there are some areas of consensus emerging already from the first round, there are divergent views where the qualitative analysis can provide insight. This will be addressed in the following two rounds of the Delphi.
- Finally, the engagement of patients highlight the value of this exercise in providing a structured platform for patients to share their insights and contribute effectively to decision-making.

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