PROM-ising Progress? Patient-Reported Outcome Measures in Orphan Labels

Authors

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Background

- Healthcare decision makers increasingly recognize the value of Patient-Reported Outcome Measures (PROMs) in rare disease drug development due to data collection challenges with endpoint selection[1-4]
- This study examined recent trends in PROM inclusion in FDA orphan drug labels and compared results with prior research findings[5]

Methodology

- We reviewed FDA databases for new molecular entities and biologic license applications with orphan designation from January 1, 2018, to October 31, 2024
- Eligible labels referenced a PROM, and data was abstracted from labels, trial records, and other secondary sources on approval details, trial design, and instrument characteristics (e.g., endpoint ranking, outcomes, category, validation)
- Descriptive and trend analyses (significance level: p=0.05) were conducted, and PROM utilization was compared to published 2002-2017 findings[5]

Results

- Of 198 orphan labels, 13.1% (n=26) met eligibility with PROM reporting (Table 1)
- PROM use increased 4.8% between review periods (8.3% in 2002-2017 vs. 13.1% in 2018-2024), with twice as many orphan labels referencing PROMs in the past 6 years versus the prior 16 years (26 vs. 13 labels)
- A greater proportion of labels ranked PROMs as primary endpoints in 2018-2024 vs. 2002-2017 (Fig. 1)
- 'Rare Disease-Specific' instruments were the most commonly used overall; their use, along with that of 'Generic' instruments, increased in the past 6 years versus previously, while use of 'Study Specific' instruments decreased (Fig. 2)
- Nearly all PROMs were validated (96.2%; 76.9%) and captured symptoms (75.0%; 92.3%) during 2018-2024 and 2002-2017 review periods, respectively

Conclusions

- The vast majority of FDA orphan drug labels do not reference PROMs, however, PROM-based labeling has been increasing incrementally in recent years
- When included, PROMs are often primary endpoints, symptom-focused, and rare disease-specific
- Greater prioritization of suitable PROMs can strengthen label claims and better convey orphan treatment value

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Most orphan drug labels don't reference **Patient-Reported Outcome Measures**, missing a key opportunity to capture **how treatments impact patients' lives.**

Prioritization of suitable PROMs can strengthen label claims and better convey orphan treatment value.

Table 1: PROM Descriptive Statistics (2018 – 2024)

PROM-Based Labeling			
Orphan Labels Reviewed (n)	198		
PROM-Based Labels (n)	26		
Unique PROM Instruments (n)	20		
Trial and Drug Results (n=26 labels)			
Study Design (n, %)		**Indication Type (n, %)**	
RCT	20 (76.9)	Initial	23 (88.5)
Open Label	6 (23.1)	Expanded	3 (11.5)
Approval Year (n, %)		**Indicated Therapeutic Area (n, %)**	
2018	5 (19.2)	Neurology	9 (34.6)
2019	3 (11.5)	Oncology	8 (30.8)
2020	1 (3.8)	Immunology	6 (23.1)
2021	3 (11.5)	Endocrinology	3 (11.5)
2022	2 (7.7)	Cardiovascular	0 (0.0)
2023	6 (23.1)		
2024	6 (23.1)		

Figure 1: Endpoint Rankings by PROM Labels

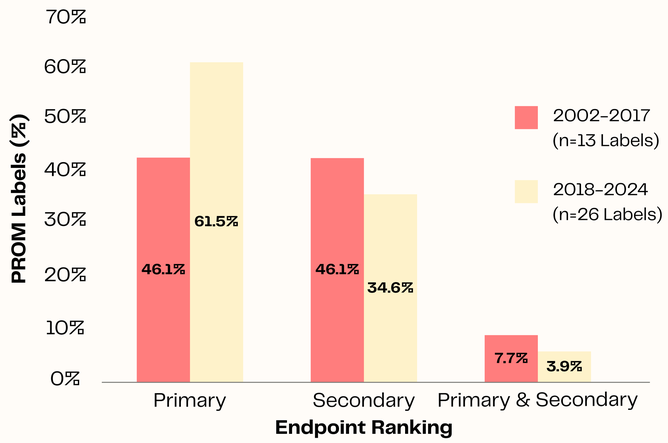
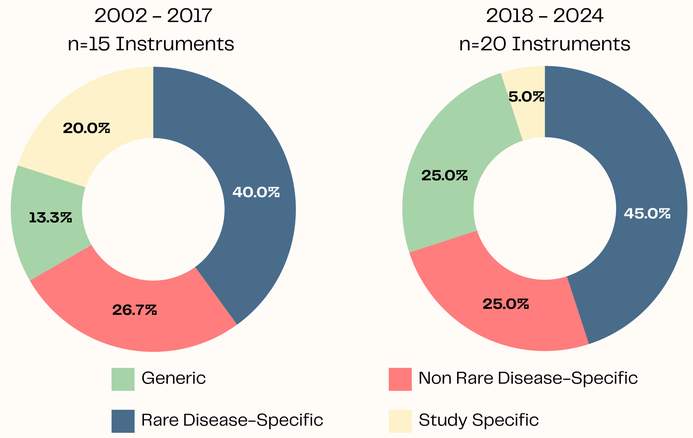


Figure 2: Unique PROMs by Instrument Category



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