Clinician-Reported Outcomes: A Rare Opportunity for Orphan Labels?

Authors

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Background

- With growing focus on patient-centered drug development, healthcare decision-makers are increasingly supporting Clinician-Reported Outcome Measure (ClinROM) use to indirectly capture patient symptoms and functioning when self-reporting is limited or infeasible[1,2]
- This is the first-known study to assess ClinROM inclusion in FDA orphan drug labels

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 ClinROM, 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, co-reported Patient Reported Outcome Measure (PROM))
- Descriptive and trend analyses (significance level: p=0.05) were conducted

Results

- Of 198 orphan labels, 10.1% (n=20) met eligibility with ClinROM reporting (Table 1, Fig. 1)
- ClinROMs were used as primary endpoints in the majority (16/20) of reviewed labels (Fig. 2)
- Slightly more instruments assessed patient symptoms versus functioning (52.2% vs. 47.8%)
- 'Rare Disease-Specific' ClinROMs were most common (e.g., Quantitative Myasthenia Gravis), followed by 'Generic' instruments (e.g., Clinical Impression Improvement); no 'Study-Specific' instruments were used (Fig. 3)

Conclusions

- The vast majority of FDA orphan drug labels do not reference ClinROMs
- When included, ClinROMs are often primary endpoints and co-reported with PROMs
- Expanding ClinROM use may enhance patient-centered rare disease data collection and healthcare decision-making where self-report is limited

References

1. U.S. Food & Drug Administration (FDA). FDA Patient-Focused Drug Development Guidance Series for Enhancing the Incorporation of the Patient's Voice in Medical Product Development and Regulatory Decision Making. https://www.fda.gov/drugs/development-approval-process-drugs/fda-patient-focused-drug-development-guidance-series-enhancing-incorporation-patients-voice-medical. Published online September 9, 2020. Accessed February 25, 2025.
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Affiliations

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Clinician-Reported Outcome Measures can contextualize patient experiences yet are rarely included in orphan drug labels.

Expanding ClinROM use may enhance patient-centered rare disease data collection and healthcare decision-making.

Table 1:
Select ClinROM Descriptive Statistics

ClinROM-Based Labeling			
Orphan Labels Reviewed (n)	**198**		
ClinROM-Based Labels (n)	**20**		
Co-Reported PROM Labels (n)	10		
Unique ClinROM Instruments (n)	**23**		
Trial and Drug Results (n=20 labels)			
Study Design (n, %)		**Indication Type (n, %)**	
RCT	15 (75.0)	Initial	20 (100.0)
Open Label	5 (25.0)	Expanded	0 (0.0)
Approval Year (n, %)		**Indicated Therapeutic Area (n, %)**	
2018	4 (20.0)	Neurology	10 (50.0)
2019	0 (0.0)	Oncology	4 (20.0)
2020	1 (5.0)	Immunology	3 (15.0)
2021	2 (10.0)	Endocrinology	2 (10.0)
2022	2 (10.0)	Cardiovascular	1 (5.0)
2023	3 (15.0)		
2024	8 (40.0)		

Figure 1:
ClinROM Reporting in Orphan Labels

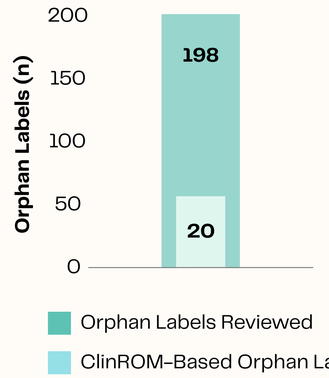


Figure 2:
Endpoint Rankings by ClinROM Labels (n=20)

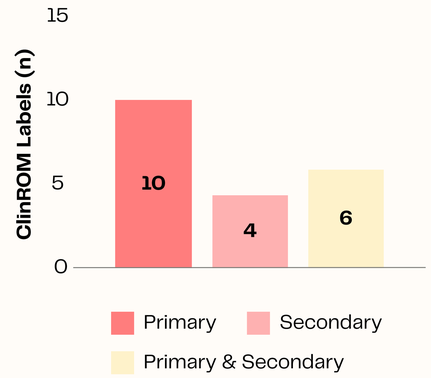
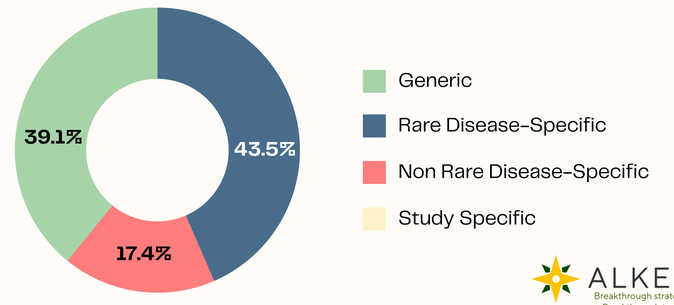


Figure 3:
Unique ClinROMs by Instrument Category (n=23)



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