Recommendations for Including or Reviewing Patient-Reported Outcome Endpoints in Grant Applications

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on behalf of the PROTEUS Consortium

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Patient-Reported Outcomes Tools: Engaging Users and Stakeholders

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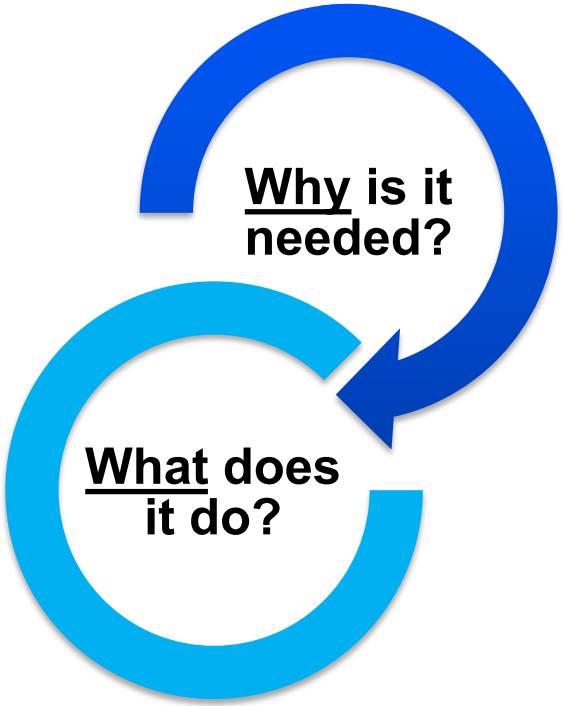

Space constraints in grant applications limit the inclusion of all recommended PRO information from existing guidelines

Identifies the key information from existing guidelines that should be included in grant applications to ensure rigorous methods for assessing the patient's perspective

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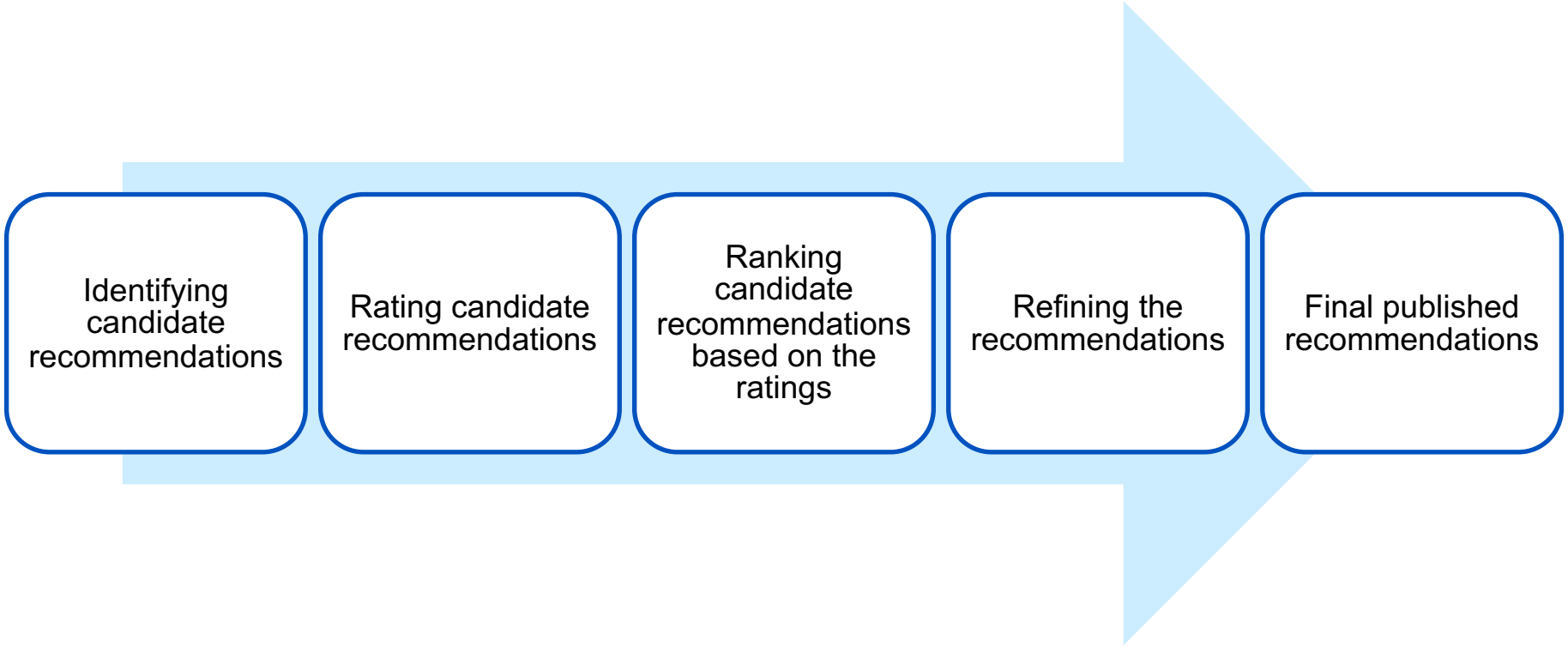
Methods for Development



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Recommendations for including or reviewing patient reported outcome endpoints in grant applications

Claire Snyder,[1] Alexandra Gilbert,[2] David Moher,[3] Derek Kyte,[4] Ellie Daniels,[5] Madeleine King,[6] Melanie Calvert,[4,7] Ronald C Chen,[8] Michael Brundage,[9] on behalf of the PROTEUS consortium

Patient reported outcomes are increasingly included in research studies to provide the patient perspective. Grant applicants and grant reviewers require guidance on the key information that should be included in funding applications to demonstrate rigorous methods for patient reported outcomes. This paper provides prioritised practical recommendations from an international consortium of experts on patient reported outcomes to inform grant applicants in preparing their research strategies and grant reviewers in evaluating applications.

Recommendations organized in three categories:

1. Always cover*
   - Assumes 1 paragraph of space is available
2. Cover if PRO is a primary endpoint, or if 2nd paragraph of space is available*
3. Cover if space allows

**example text provided*

Snyder et al, BMJ 2021;373:n1367

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Always Include

1) Describe the **rationale** for PRO assessment
2) State the **PRO specific research question**(s)
3) Specify the **PRO concepts or domains used to evaluate the research question(s)** (eg, overall health related quality of life, specific domain, specific symptom), and the questionnaire(s) selected to assess them:
4) Describe the **time points** for PRO assessment
5) Include a **data collection plan** outlining the permitted mode(s) of administration (eg, paper, telephone, electronic, other) and setting (eg, clinic, home, other)
6) State the **PRO analysis method(s), in relation to the objective(s)**. State the broad PRO objectives, specifying if they are exploratory/descriptive or aim to evaluate treatment efficacy/clinical benefit. If they are to evaluate treatment efficacy/clinical benefit, state specific hypotheses (including relevant PRO concepts or domains) and include whether the between-group comparison tests for superiority, equivalence, or non-inferiority. If the broad PRO objectives include within-patient or within-treatment group comparisons, clearly state the assumption (that is, improvement, worsening, stable state, overall effect), specific objective (eg, proportion of responders, time to PRO event, magnitude of improvement or worsening), and principal time point of interest

PRO is 1° Endpoint or 2nd Paragraph Available

1) **Summarise PRO findings** in relevant studies
2) **Justify the PRO instrument selected** and provide or cite evidence of PRO instrument measurement properties and patient acceptability or burden, ideally in the population of interest
3) If PROs will not be collected from the entire study sample, provide a rationale and describe the **PRO specific eligibility criteria**
4) When the study context requires someone other than a study participant to answer on his or her behalf (a proxy reported outcome), state and **justify the use of a proxy respondent**
5) Specify PRO data collection and management strategies to **minimise missing data**
6) State **whether PRO data will be monitored** during the study to inform the clinical care of individual study participants
7) When a PRO is the primary endpoint, state the required **sample size** (and how it was determined) and **recruitment target** (accounting for expected loss to follow-up)
8) Outline the methods for **handling missing items or entire assessments**
9) Specify whether more than one **language version** will be used
10) Include PRO analysis plans for addressing **multiplicity** or type I (α) error

If Space Allows

- Describe **instrument's domains, number of items, recall period, and scaling and scoring**
- Provide or cite evidence of instrument **interpretation guidelines**, if available, ideally in the population of interest
- Specify the **individual(s) responsible for the PRO content** of the protocol
- State whether the measure will be used in accordance with any **user manual** and specify and justify deviations if planned
- Provide or cite evidence of the **validity of proxy assessment**, if available and relevant
- Justify **if the initial PRO assessment is not before randomisation**, where applicable
- Specify **whether PRO collection is prior to clinical assessments**
- If using multiple questionnaires, specify **whether order of administration will be standardised**
- Provide a **rationale for the PRO assessment time points** and specify time windows for PRO assessment
- State whether **translated versions** have been developed using currently recommended methods
- Describe the process of PRO assessment for **participants who discontinue or deviate** from the assigned intervention protocol, where applicable
- If PRO data will be **monitored to inform clinical care,** describe how this will be **managed** in a standardised way
- Describe how **PRO data monitoring for clinical care will be explained to participants**
- If sample size is not established on the basis of the PRO endpoint, then discuss the **power of the principal PRO analyses**
- State how **missing data will be described**

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