## Table 2.  Operationalized criteria for assessment of quality of evidence – GRADE-CERQual

| CERQual Criteria | Operationalized definition | Approach to criteria | |
|---|---|---|---|
| Methodological limitations | Methodological limitations in approaches to identifying symptoms and impacts that may limit what type of information was reported – e.g. use of validated measures that only collect specific data (restricted), vs. qualitative interviews allow for unrestricted reporting. | Tiering system for weighted inclusion of sources by methodological adequacy:<br>• Tier 1:  Qualitative studies collecting unrestricted data directly from report of patients and family.<br>• Tier 2:  Quantitative studies measuring specific symptoms or impacts predominantly from the patient perspective.<br>• Tier 3:  Quantitative studies measure specific symptoms or impacts from the clinician or outside observer perspective.<br>Highest priority is given to direct patient voice with unrestricted approach to exploring symptoms or impacts. Lower priority is given to Tier 2 and 3 sources due to methodology that resulted in restricted data collection. | |
| Coherence | Assessment of the agreement of the primary studies regarding the concepts of interest.  Threats to coherence include: contradictory data, divergent classification, ambiguous or conflicting descriptions. | • No concerns – consistent and coherent classification of COI across studies<br>• Minor concerns – 80 – 94%% coherence in classification<br>• Moderate concerns – 50-74% coherence in classification<br>• Severe concerns- <50% coherence in classification<br>     No or minor concerns preferred. | |
| Adequacy | Adequacy is the richness and quantity of data supporting the measurable presence of a COI in the early PD population as seen in primary sources.<br><br>*Primarily*:  Percentage of Tier 1 sources (direct patient voice) that reported the COI as being measurably present in an early PD population.<br><br>*Secondarily*:  Percentage of Tiers 2 and 3 that reported the COI as being measurably present in an early PD population.<br><br>Evidence from Tiers 2 and 3 alone is *insufficient proof* of adequacy if lacking evidence in Tier 1. | *Primary classification of adequacy (Tier 1):*<br>• Grade A = Strong evidence in Tier 1<br>• Grade B = Moderate evidence in Tier 1<br>• Grade C = Limited evidence in Tier 1<br>• Grade D = lacking evidence in Tier 1<br>• Grade X = No evidence in Tier 1<br><br>*Secondary classification of adequacy (Tier 2 & 3):*<br>• Level 1 = strong evidence in Tier 2 or 3<br>• Level 2 = moderate evidence in Tier 2 or 3<br>• Level 3 = limited evidence in Tier 2 or 3<br>• Level 4 = very limited evidence in Tier 2 or 3<br>• Level x = No evidence in Tier 2 or 3<br><br>Grade A and B evidence preferred (ex. A1, A2). | *Thresholds are based on the <u>percentage of studies</u> reporting the concept:*<br><br>• X/x  = No studies reporting (Black)<br>• 1-24% of studies = Very limited evidence (Gray)<br>• 25-49% of studies = Limited evidence (Orange)<br>• 50-74% of studies = Moderate evidence (Yellow)<br>• ≥ 75% of studies = Strong evidence (Green)<br><br>Color coding is used for easy visual identification of concepts with greater supporting evidence.  Grade vs. Level is used to distinguish between Tier 1   vs. Tier 2 & 3 evidence.  Grade and Level do not indicate the prevalence or relative bothersomeness of a concept.  Concepts with low grade or level may be understudied important concepts, particularly if any evidence for bothersomeness or higher prevalence. |
| Relevance | Composite score indicating the extent to which evidence from the primary studies supports the concept as being actively <u>bothersome</u> to people with early PD, in addition to being commonly present in the population. | *Bothersome rating*:  Average frequency (%) at which concept is reported as bothersome in early PD among studies measuring frequency of the concept.<br><br>*Prevalence rating*:  Estimate of presence of concept *in an early PD population* based on the average prevalence (%, Range) reported in studies that the measured the construct. | |