

## Supplementary File 3: GRADE-CERQual Evidence Profile

### Systematic Review: Lived Experiences of Patients Using Left Ventricular Assist Devices (LVADs)

The GRADE-CERQual (Confidence in Evidence from Reviews of Qualitative Research) approach was used to assess confidence in each review finding. Each theme was evaluated across four components: methodological limitations, coherence, adequacy of data, and relevance. All themes began at high confidence and were downgraded based on concerns identified in each component.

| Review Finding                              | Contributing Studies                                  | Methodological Limitations                                                                                              | Coherence                                                                                                         | Adequacy of Data                                                                       | Relevance                                                                | Overall CERQual | Explanation of Judgement                                                                                                         |
|---------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------|
| Theme 1: Physical and Functional Dimensions | [2], [6], [9]-[15], [17]-[24] (16 studies)            | Minor concerns: 3 studies lacked reflexivity statements; convenience sampling in 5 studies                              | High: Consistent pattern of paradoxical improvement and limitation across all contexts                            | High: Rich data from 16 studies with detailed participant accounts                     | High: Directly addresses review question across diverse LVAD populations | High            | Downgrading not warranted. Consistent, rich findings across multiple studies with minor methodological concerns only.            |
| Theme 2: Emotional-Psychological Dimensions | [2], [6], [9]-[24] (18 studies)                       | Minor concerns: Insufficient reflexivity in 4 studies; limited psychological assessment tools used alongside interviews | High: Universal reporting of anxiety, depression, and post-traumatic growth with consistent non-linear trajectory | High: Most extensively reported theme with rich, thick descriptions across all studies | High: Central to understanding LVAD lived experience                     | High            | No downgrading. Reported in all 18 studies with substantial depth and consistency.                                               |
| Theme 3: Hope and Optimism                  | [2], [6], [9]-[12], [14]-[17], [22]-[24] (13 studies) | Minor concerns: Some studies did not distinguish between types of hope (e.g., BTT vs DT contexts)                       | Moderate: Generally consistent; some variation in how hope was conceptualized across cultural contexts            | Moderate: Adequate data but less richly described than physical and emotional themes   | High: Directly relevant to psychosocial support needs                    | Moderate        | Downgraded one level for minor concerns about coherence and adequacy. Cultural variations in hope expression not fully explored. |

| Review Finding                                  | Contributing Studies                                               | Methodological Limitations                                                                                                                        | Coherence                                                                                                                | Adequacy of Data                                                                                          | Relevance                                                                           | Overall CERQual | Explanation of Judgement                                                                                                                                     |
|-------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Theme 4: Social Relationships                   | [2], [6], [9]-[15], [17]-[21], [23], [24] (15 studies)             | Moderate concerns: Limited dyadic perspectives (only 3 studies included caregivers); most relied on patient-only accounts of relationship changes | Moderate: Consistent themes of isolation and role reversal, but cultural variations in family dynamics not well explored | Moderate: Adequate overall but thin data on social relationships in non-Western contexts                  | High: Directly relevant to family-centered care models                              | Moderate        | Downgraded one level for moderate methodological concerns and limited cultural diversity in relationship narratives.                                         |
| Theme 5: Adaptation and Coping                  | [2], [6], [9]-[15], [17]-[20], [23] (14 studies)                   | Minor concerns: Few studies used established coping frameworks; temporal evolution of coping underexplored                                        | Moderate: General agreement on coping categories but variation in how strategies were classified                         | Moderate: Adequate data on problem-focused and emotion-focused strategies; limited data on meaning-making | High: Directly informs patient education and support interventions                  |                 | Downgraded one level for moderate concerns about coherence in coping classification and thinner data on existential coping.                                  |
| Theme 6: Holistic Support Systems               | [2], [6], [9], [10], [13]-[15], [17], [20], [22]-[24] (12 studies) | Minor concerns: Limited exploration of healthcare system-level barriers to holistic care                                                          | High: Consistent emphasis on multidimensional support needs across studies                                               | High: Rich descriptions of support needs from both patient and caregiver perspectives                     | High: Directly applicable to clinical practice and care model design                | High            | No downgrading. Consistent, well-supported findings with direct clinical relevance.                                                                          |
| Theme 7: Liminality and Identity Reconstruction | [2], [6], [9], [11], [13], [14], [17]-[19], [23] (10 studies)      | Moderate concerns: Theoretical framing varied; not all studies explicitly engaged with liminality theory                                          | Moderate: Core experience of being 'in-between' was consistent, but depth of identity exploration varied                 | Moderate: Fewer studies with less thick description compared to physical and emotional themes             | Moderate: Highly relevant but predominantly from Western, English-speaking contexts | Moderate        | Downgraded one level for moderate methodological and relevance concerns. Limited cultural diversity constrains transferability of identity-related findings. |

| Review Finding                                    | Contributing Studies                                                | Methodological Limitations                                                                                   | Coherence                                                                            | Adequacy of Data                                                                               | Relevance                                                                                  | Overall CERQual | Explanation of Judgement                                                                                                                           |
|---------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Theme 8: Technology Integration and Device Burden | [2], [6], [9], [10], [13]-[15], [17], [20], [21], [23] (11 studies) | Moderate concerns: Limited distinction between device generations; most studies did not specify device model | Moderate: Consistent burden reported but variation in degree of integration achieved | Moderate: Adequate data on burden but limited longitudinal perspectives on integration process | Moderate: Relevant but rapid technological change may limit applicability to newer devices | <b>Moderate</b> | Downgraded one level for moderate concerns across all four domains. Technology evolution limits applicability; most data from pre-HeartMate 3 era. |

## Notes

Reference numbers correspond to the reference list in the main manuscript.

CERQual confidence ratings: High = highly likely that the review finding is a reasonable representation of the phenomenon of interest; Moderate = likely that the review finding is a reasonable representation; Low = possible that the review finding is a reasonable representation; Very Low = unclear whether the review finding is a reasonable representation.

Contributing studies are listed by reference number. Total number of contributing studies is shown in parentheses.