

## Focus on Functional Cognition: OT Evaluation of Adults With Advanced Heart Failure

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**PURPOSE:** Pre-operative OT evaluations of LVAD candidates are needed as this population grows and ages (Yuzefpolskaya et al., 2023). Despite known cognitive and frailty concerns in heart failure, there is scarce evidence on pre-op client factors affecting functioning (Goh et al. 2022; Salmon et al., 2022).

**AIMS:** 1) Describe relationships between baseline functional factors in LVAD candidates 2) Identify factors influencing OT pre-op prognostication of LVAD self-care.

**DESIGN:** IRB-approved cross-sectional study of OT pre-op LVAD evaluations at an urban hospital.

**METHOD:** Retrospective medical record review; coders with high inter-rater reliability (>.9). Measures: Cognition: Allen Cognitive Level Screen (ACLS), Montreal Cognitive Assessment (MoCA); Frailty: Grip strength (GS); Ordinal performance-based measure of LVAD battery management (BMA); ADLs: Activity Measure for Post-Acute Care (AM-PAC); LVAD self-care prognostication: Nominal coding of OT notes.

**ANALYSIS:** Pearson correlation for relationships between measures; binary logistic regression with forward LR for predictors of OT prognoses.

**RESULTS:** 187 candidates were evaluated in 4 years. There were moderate associations between BMA and MoCA ( $r=-.44$ ,  $p=.00$ ), AM-PAC ( $r=-.45$ ,  $p=.00$ ), and GS ( $r=-.47$ ,  $p=.00$ ), and between AM-PAC and GS ( $r=.51$ ,  $p=.00$ ). MoCA and ACLS predicted OT prognoses of independence (MoCA:  $\beta=.21$ ,  $p=.00$ , ACLS:  $\beta=.30$ ,  $p=.00$ ) and 24/7 supervision with LVAD self-care (MoCA:  $\beta=-.20$ ,  $p=.00$ , ACLS:  $\beta=-.18$ ,  $p=.00$ ). BMA predicted OT pre-op prognosis of independence ( $\beta=-.20$ ,  $p=.01$ ). GS was predictive of OT pre-op prognosis for 24/7 supervision ( $\beta=-.14$ ,  $p=.01$ ).

**CONCLUSIONS:** Multiple correlations suggest the interplay of cognition, frailty, and activity performance in LVAD candidates. Multiple predictors of pre-op LVAD self-care prognoses indicate multifactorial OT clinical reasoning.

**IMPACT:** OTPs can provide valuable insight into LVAD self-care prognoses using multifactorial functional measures.

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