Supplemental Material
Table S1. REVIVAL Inclusion Criteria.

1. Ambulatory.
2. Chronic systolic heart failure ≥ 12 months.
3. NYHA II - IV for at least 45 of the last 60 days.
4. Last documented left ventricular ejection fraction ≤ 35% by any imaging modality.
5. Age 18 - 80 years.
6. Currently under the care of a cardiologist at study site.
7. On appropriate evidenced -based heart failure medications – ACE inhibitor, ARB or sacubitril--valsartan; beta blocker; aldosterone antagonist; hydralazine/long-acting nitrate [required of African-American subjects only] for ≥ 3 months absent contraindications or intolerances.
8. Has ICD or CRT-D. If CRT-D, present for ≥ 3 months.
9. Demonstrated advanced heart failure, including any of the following*:
   i. Serum sodium ≤ 135 mEq/L (obtained as an outpatient)**
   ii. Serum BNP ≥ 750 pg/mL or NT-proBNP ≥ 3000 pg/mL** (obtained as an outpatient)
   iii. Seattle Heart Failure Model (SHFM) one year predicted survival ≤ 85%**
   iv. Heart Failure Survival Score (HFSS) ≤ 7.19**
   v. Peak VO₂ ≤ 55% of predicted for age by Wasserman equation or ≤ 14 ml/kg/min, with RER ≥ 1.05 ***
   vi. VE/VC02 slope ≥ 40***
   vii. 6-minute walk test (6MWT) distance ≤ 350 m without significant non-cardiac limitation**
viii. Currently listed as Heart Transplant Status 2 due to heart failure limitation OR History of one (1) hospitalization (≥ 24 hours) for acute or acute on chronic heart failure in the past year with either serum BNP ≥ 500 pg/mL or NT-proBNP ≥ 2000 pg/mL**

( obtained as an outpatient)

10. History of two (2) hospitalizations (≥ 24 hours) for acute or acute on chronic heart failure in the past year.

11. Willingness to continue to receive heart failure care from the enrolling advanced heart failure clinic over the next two (2) years and to come for all scheduled study visits.

12. Written Informed consent given.

* Qualifying measure must be the most recent of that type of measure obtained (i.e., a BNP ≥ 1000 obtained 2 months prior would not qualify the heart failure subject if a more recent BNP was < 1000)

** Using values obtained within the prior 90 days, except for peak VO\textsubscript{2} within 365 days

*** Obtained within the prior 365 days
Table S2. REVIVAL Exclusion Criteria.

1. Known serious medical problem other than heart failure that would be expected to limit 2-year survival (≥50% mortality within 2 years from non-heart failure diagnosis).
2. Patient is not likely to be compliant with the protocol, in the opinion of the Investigator.
3. Currently hospitalized.
4. Current use of an intravenous inotrope.
5. Primary functional limitation from non-cardiac diagnosis even if not likely to limit survival.
6. Chronic hemodialysis or peritoneal dialysis or serum creatinine value of ≥ 3 mg/dL at time of enrollment.
7. Cardiac amyloidosis, cardiac sarcoidosis, constrictive pericardial disease, active myocarditis or congenital heart disease with significant structural abnormality.
8. Hypertrophic cardiomyopathy unless dilated LV and no outflow gradient.
9. Cardiac conditions that are amenable to surgical or percutaneous procedures (other than VAD or transplant) that would substantially improve prognosis and for which this subject is a reasonable candidate, regardless of whether the procedure will or will not be performed.
10. Uncorrected hyperthyroidism or hypothyroidism.
11. Pregnancy.
| PATIENT               | Missing (n=43) | Not missing (n=52) | p     |
|----------------------|----------------|--------------------|-------|
| Age, years           | 59.6 (13.2)    | 64.5 (10.1)        | 0.048 |
| Sex                  |                |                    | 0.076 |
| Male                 | 38 (88.4)      | 38 (73.1)          |       |
| Female               | 5 (11.6)       | 14 (26.9)          |       |
| Race                 |                |                    | 0.441 |
| African-American/Black | 6 (14.0)    | 4 (7.7)            |       |
| White                | 37 (86.0)      | 46 (88.5)          |       |
| Other                | 0 (0.0)        | 2 (3.8)            |       |
| New York Heart Association Class |       |                    | 0.773 |
| I                    | 1 (2.3)        | 3 (5.8)            |       |
| II                   | 15 (34.9)      | 13 (25.0)          |       |
| III                  | 22 (51.2)      | 30 (57.7)          |       |
| IIIb                 | 4 (9.3)        | 4 (7.7)            |       |
| IV                   | 1 (2.3)        | 2 (3.8)            |       |
| 6 minute walk distance (m) | 342.5±105.2   | 362±88.4           | 0.417 |
| Normalized peak VO₂ (ml/kg/min) | 14.49±4.43    | 14.61±4.19         | 0.853 |
|                                | Group 1 | Group 2 | p-value |
|--------------------------------|---------|---------|---------|
| Presence of ICD or CRT         | 23 (53.5)| 27 (51.9)| 1       |
| Number of heart failure        | 1.00 (1.13)| 0.79 (1.16)| 0.246   |
| hospitalizations               |         |         |         |
| **CAREGIVER**                  |         |         |         |
| Age                            | 56.8 (16.1)| 60.5 (11.9)| 0.272   |
| Sex                            |         |         |         |
| Male                           | 3 (7)   | 14 (28)  | 0.014   |
| Female                         | 40 (93) | 36 (72)  |         |
| Race                           |         |         |         |
| African-American/Black         | 5 (11.9)| 3 (6)    | 0.730   |
| White                          | 36 (85.7)| 46 (92)  |         |
| Other                          | 1 (2.4) | 1 (2)    |         |
| Relationship to patient        |         |         |         |
| Other                          | 1 (2.3) | 2 (3.9)  | 0.123   |
| Friend                         | 3 (7)   | 0 (0)    |         |
| Other family member            | 6 (14)  | 2 (3.9)  |         |
| Son/Daughter                   | 3 (7)   | 5 (9.8)  |         |
| Spouse/Domestic Partner        | 30 (69.8)| 42 (82.4)|         |

Data presented as mean (SD), or counts and percentages.

CRT, chronic resynchronization therapy; ICD, implantable cardiac defibrillator; VO\textsubscript{2}: oxygen consumption
Table S4. Baseline health-related quality of life and burden based on patient meeting study endpoint.

| Patient outcome | Without event Median (P25, P75) | With event* Median (P25-P75) | p |
|-----------------|---------------------------------|-----------------------------|---|
| **Patient KCCQ** (Baseline A cohort, n=400) | 64.5 (49, 80), n=242 | 62 (46-76), n=131 | 0.07 |
| **Patient EQ-VAS** (Baseline A cohort, n=400) | 70 (50, 75), n=238 | 60 (50, 75), n=129 | 0.16 |
| **Patient KCCQ** (Baseline B cohort, n=337) | 64 (49, 80), n=214 | 63 (48, 77), n=103 | 0.22 |
| **Patient EQ-VAS** (Baseline B cohort, n=337) | 69 (50-75), n=211 | 62.5 (50-75), n=102 | 0.55 |
| **Caregiver EQ-VAS** (n=95) | 85 (75, 90), n=65 | 90 (77.5, 94), n=32 | 0.39 |
| **Caregiver OCBS, time** (n=95) | 2.27 (1.67, 2.77), n=61 | 2.03 (1.80, 2.83), n=30 | 0.74 |
| **Caregiver OCBS, difficulty** (n=95) | 1.2 (1.00, 1.47), n=63 | 1.07 (1.00, 1.33), n=30 | 0.20 |

*Those with missing HRQoL data due to reaching study endpoint (Death, mechanical circulatory support or UNOS 1A/1B transplant)
|   | Time on Task | Difficulty of Task |
|---|-------------|-------------------|
|   | Mean (SD)   | Median (IQR)      | Mean (SD)   | Median (IQR) |
| 1.  | 1.80 (0.97) | 2 (1-2)           | 1.21 (0.59) | 1 (1-1)      |
| 2.  | 1.38 (0.84) | 1 (1-1)           | 1.18 (0.61) | 1 (1-1)      |
| 3.  | 1.55 (0.87) | 1 (1-2)           | 1.18 (0.59) | 1 (1-1)      |
| 4.  | 3.50 (1.12) | 3 (3-5)           | 1.43 (0.74) | 1 (1-2)      |
| 5.  | 3.06 (1.28) | 3 (2-4)           | 1.36 (0.69) | 1 (1-2)      |
| 6.  | 3.21 (1.31) | 3 (2-4)           | 1.38 (0.74) | 1 (1-2)      |
| 7.  | 2.80 (1.55) | 2 (1-4)           | 1.48 (0.89) | 1 (1-2)      |
| 8.  | 2.81 (1.37) | 3 (2-4)           | 1.49 (0.85) | 1 (1-2)      |
| 9.  | 2.68 (1.37) | 2 (2-3)           | 1.43 (0.74) | 1 (1-2)      |
| 10. | 2.22 (1.26) | 2 (1-3)           | 1.31 (0.71) | 1 (1-1)      |
| 11. | 2.25 (1.14) | 2 (1-3)           | 1.70 (1.02) | 1 (1-2)      |
| 12. | 1.40 (0.80) | 1 (1-2)           | 1.25 (0.66) | 1 (1-1)      |
| 13. | 1.76 (1.10) | 1 (1-2)           | 1.26 (0.65) | 1 (1-1)      |
| 14. | 1.90 (1.14) | 1 (1-3)           | 1.31 (0.76) | 1 (1-1)      |
| 15. | 2.52 (1.19) | 2 (2-3)           | 1.35 (0.71) | 1 (1-1)      |

*Three highest scoring items in each category are highlighted.