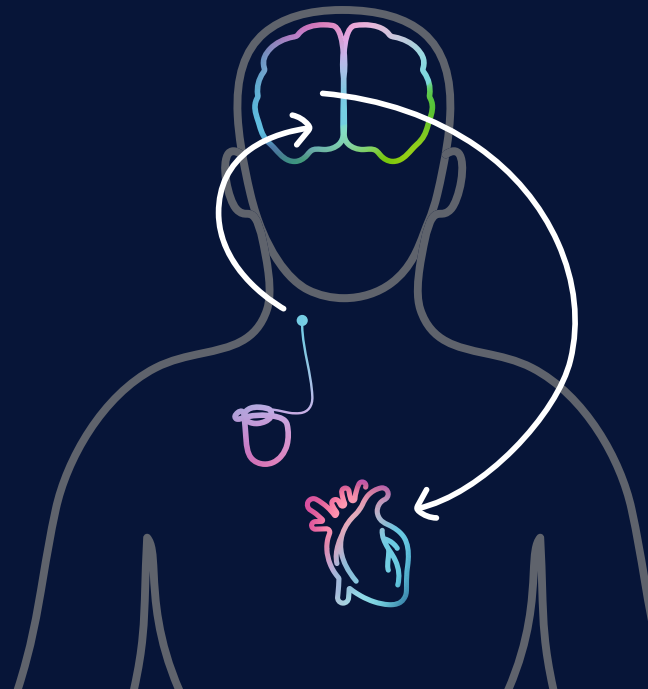


# BeAT-HF Clinical Trial Summary

- Sustained and significant symptomatic improvements and safety at long-term follow-up
- Reduction in all-cause death, LVAD or transplant
- Improvement in the hierarchical composite (win ratio) of mortality, morbidity and QOL
- Improvement in clinical stability analysis, which include mortality, HF hospitalizations and symptoms



## Unique post-market trial design

BeAT-HF was designed to provide additional long-term clinical evidence supporting Barostim

### Design

- Prospective, multicenter, randomized 2-arm parallel-group, open-label with blinded endpoint evaluation
- 103 US Centers and 5 United Kingdom center
- Groups
  - Barostim plus GDMT (Barostim group)
  - GDMT alone (Control)
- FDA approval on safety and patient-centered symptomatic improvements in August 2019

### Eligibility Criteria

- NYHA Class III or Class II (with a recent history of Class III)
- Left ventricular EF  $\leq$  35%
- 6MHW 150 – 400 m
- HF Hospitalization or NT-proBNP > 400
- Stable optimal management  $\geq$  4 weeks
- No class I indication for CRT
- NT-proBNP < 1600 pg/ml

Initial Enrollment  
April 2016

6 month f/u  
2019

>3.5 year f/u  
2022

#### Endpoints @ 6 months for FDA approval (n=264)

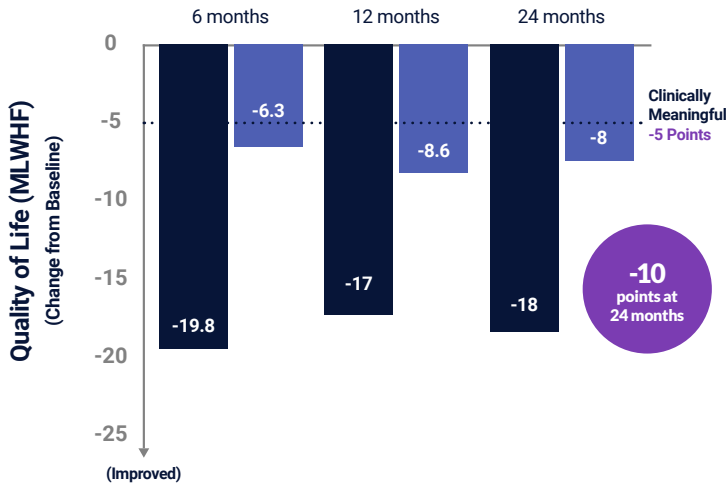
- Exercise capacity improvement (6MHW) @ 6 months
- Quality-of-life improvement (MLWHQ) @ 6 months
- NYHA class improvement @ 6 months
- Reduction in NT-proBNP @ 6 months

#### Long-term Follow-up (n=264+59=323)

- CV mortality or morbidity
- Symptom improvement
- Additional clinical and economic endpoints

# Durable symptom improvement & safety

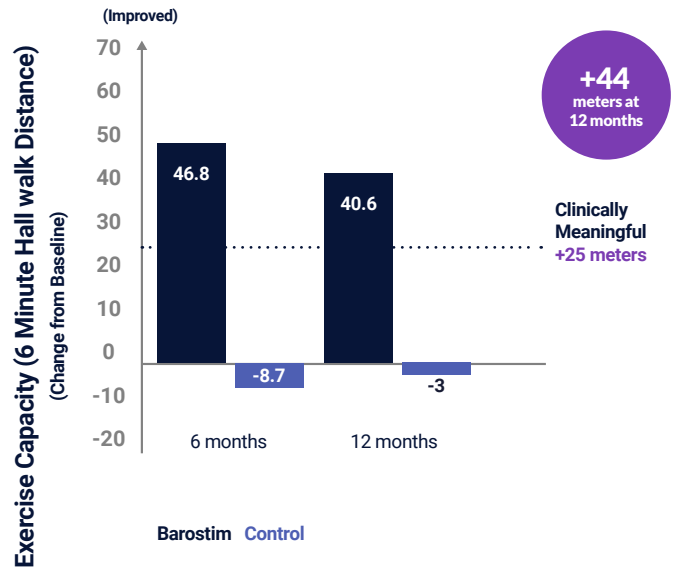
## Quality of life (MLWHF)<sup>1,2</sup>



Barostim Control

Nominal p-value < 0.001 for between group differences at all time points  
No statistical differences in treatment effect size across time points

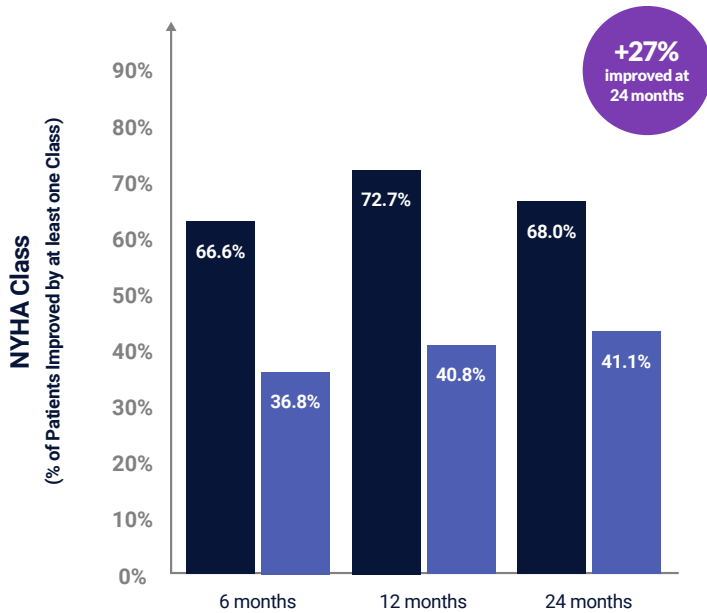
## Exercise Capacity (6MHW)<sup>1,2</sup>



Barostim Control

Nominal p-value < 0.001 for between group differences at all time points  
No statistical differences in treatment effect size across time points

## Functional Status (NYHA Class)<sup>1,2</sup>



Barostim Control

Nominal p-value < 0.001 for between group differences at all time points  
No statistical differences in treatment effect size across time points

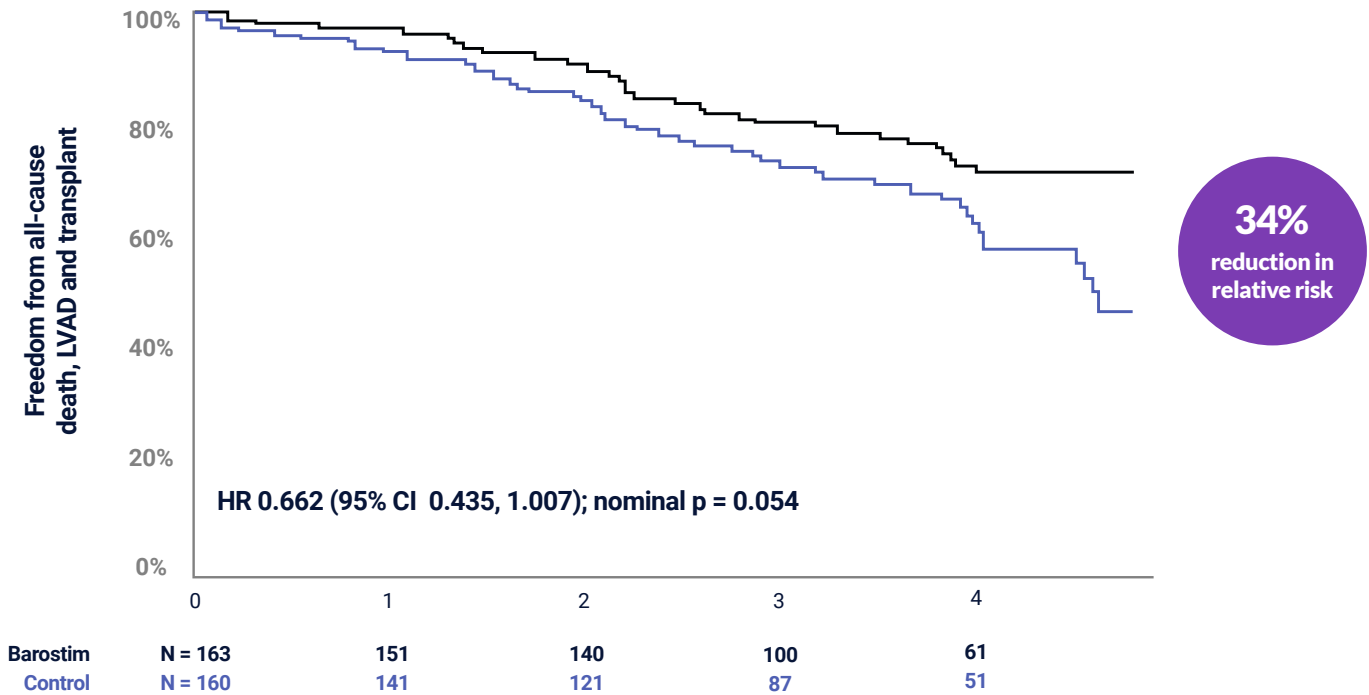
## Safety Profile: MANCE<sup>\*2</sup>

97%

MANCE-free rate

\* Major Adverse Neurological or Cardiovascular system or procedure-related event rate

# Freedom From All-cause Death, LVAD, and Transplant<sup>2</sup>

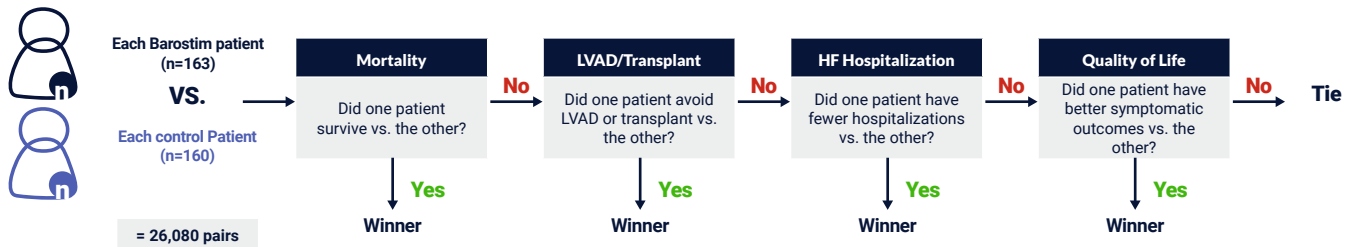


Curves estimated using Kaplan-Meier method. Hazard ratio and p-value from Cox proportional hazards model.

# Hierarchical Composite Using Win Ratio Analysis<sup>2</sup>

### Rationale:

- CV Mortality + HF Morbidity: 40% of patients contributed to the end point
- Win ratio: 100% of patients contribute to the end point
- Ranks events by severity
- Allows for patient-reported outcomes such as QOL



$$\text{Win Ratio} = \frac{\text{Total wins for treatment arm}}{\text{Total wins for control arm}}$$

1.26

nominal p = 0.04

# Primary Composite Endpoint: CV Mortality & HF Morbidity\*<sup>2</sup>

- No statistically significant difference [Rate Ratio 0.94, (95% Confidence Interval 0.57, 1.57); p = 0.82]
- The COVID pandemic seems to have impacted the HF morbidity results of the study
- This COVID impact was stronger in the control group than the BAT group

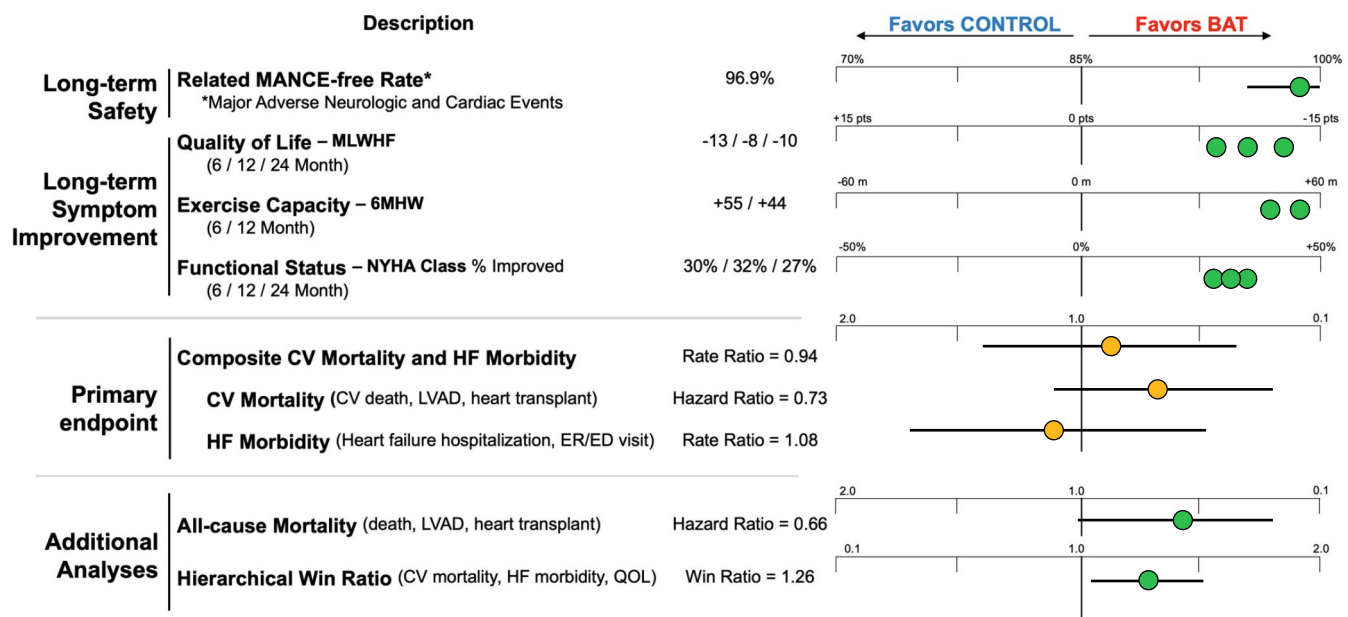
## COVID as a Potential Confounder for Heart Failure Morbidity<sup>2</sup>

Time Period	BAT*	Control*
2020	0.28	0.07
2016, 2017, 2018, 2019, 2021, 2022	0.26	0.29

\*Number of hospitalizations or emergency department visits for heart failure per patient-year of follow-up

\*composite of CV mortality (cardiovascular death, LVAD, heart transplant) and HF morbidity (HF hospitalizations, ER visits)

## BeAT-HF Summary of Key Evidence<sup>2</sup>



## Conclusion<sup>2</sup>

The totality of evidence indicates that BAT is a safe, effective and durable treatment for patients with heart failure with reduced ejection fraction

### References

1. Zile MR, et al. Baroreflex Activation Therapy in Patients With Heart Failure With Reduced Ejection Fraction. J Am Coll Cardiol 2020; 76:1-13.
2. Adapted from Dr Zile's presentation at DGK-Jahrestagung 2023, Mannheim (Germany): Baroreflex Activation Therapy (BAT) in Patients with Heart Failure and a Reduced Ejection Fraction (BeAT-HF) Trial – Long-Term Outcomes.

The Barostim™ System is CE marked and approved for sale for heart failure patients and hypertension patients in the European Union (EU).

For a complete listing of all risks and benefits, please visit [www.cvr.com/benefit-risk-analysis](http://www.cvr.com/benefit-risk-analysis). For a list of all applicable patents, see [www.cvr.com/marketing](http://www.cvr.com/marketing).

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