

# 2022 Annual ACT-VAD Report

ACTION Learning Network

action

ADVANCED CARDIAC THERAPIES  
IMPROVING OUTCOMES NETWORK

APRIL 2018 - DECEMBER 2022

## Key Findings

Over 1000 devices with over 200,000 device days in the database

Continued shift of patient diagnosis with now 37% of patients with congenital heart disease

Stroke incidence of 12% shows sustained improvement compared to historical reports

## Patient Population

Number of patients in the ACT-VAD registry (Since April 2018)

1,002

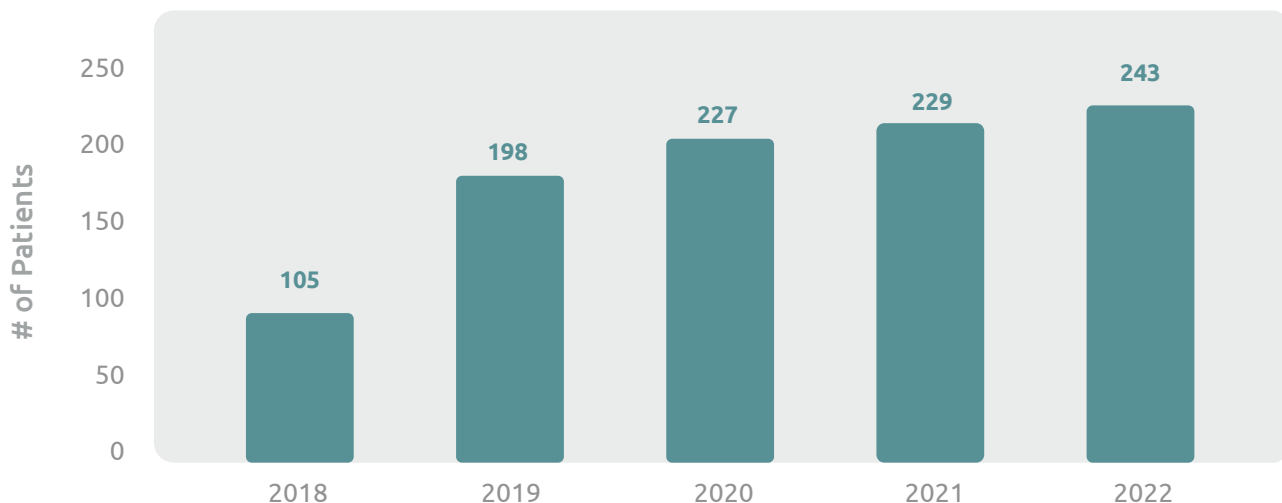
## Devices Implanted

Number of Devices Implanted Since April 2018

1,284

## Patient Population by Year

Number of new patients in the ACT-VAD registry per year since April 2018



# ACT-VAD Patient Characteristics

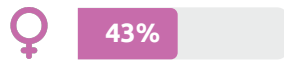
## Demographics

### Age

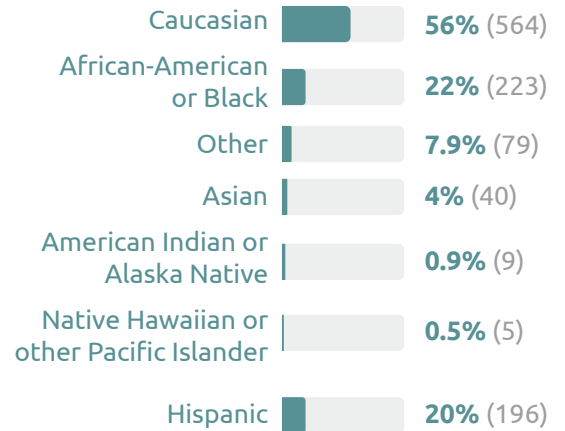
Median Age in Years

5.3 y

### Sex



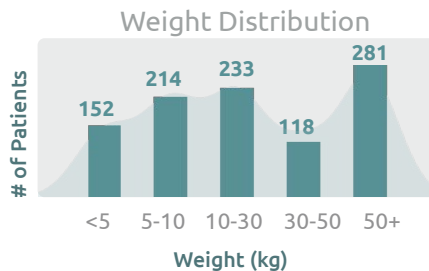
### Race & Ethnicity



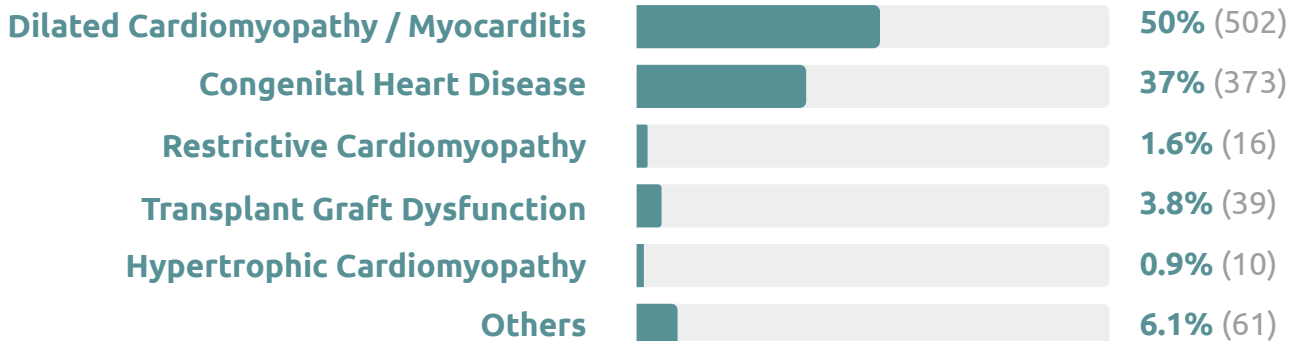
### Weight

Median Weight

16.6 kg



## Diagnosis



## Patient Characteristics at Implant

### ECMO

Number on ECMO at Implant

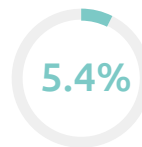
251



### Dialysis

Dialysis Dependent at Implant

54



### Ventilator

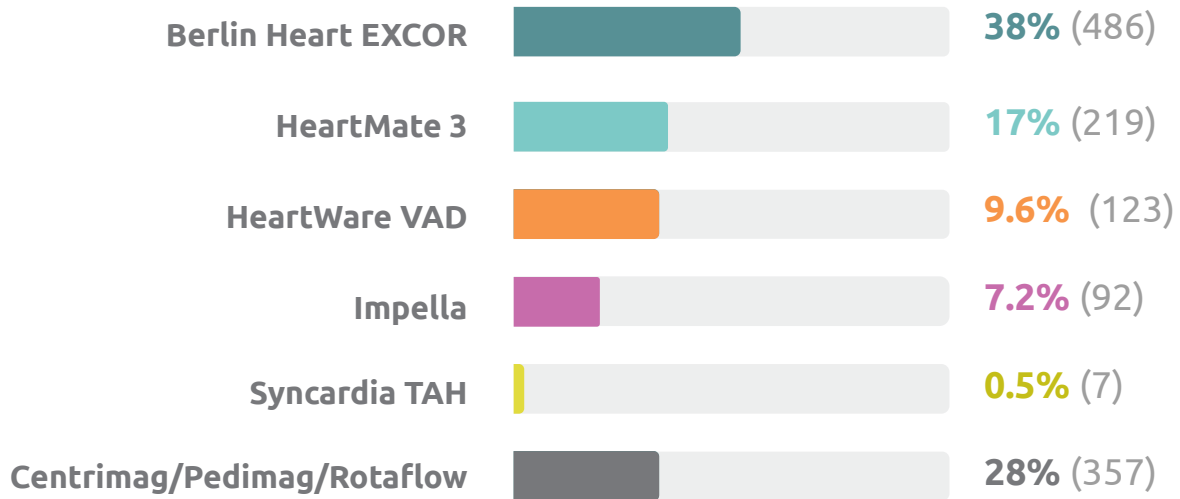
Ventilator Support in 7 Days Prior to Implant

517



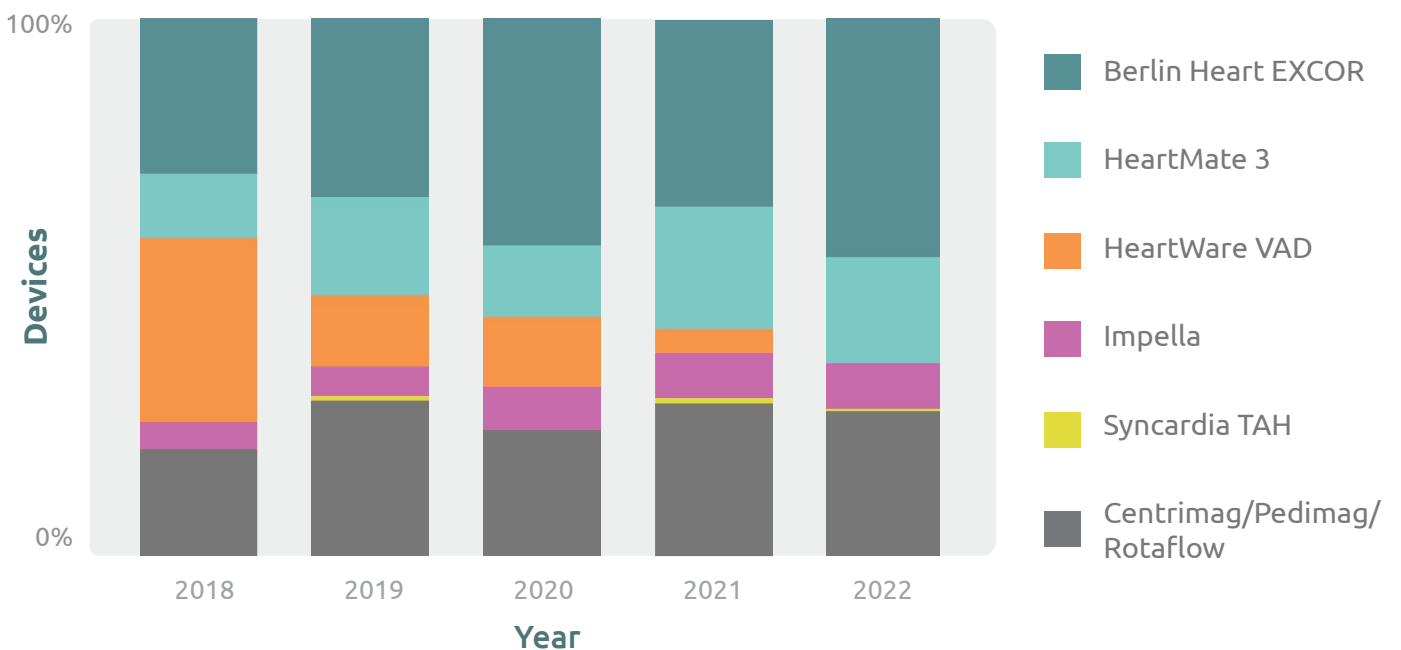
## Types of Devices Implanted

Devices Implanted Between April 2018 and December 2022 (N=1284)



## Types of Devices Implanted by Year

Devices Implanted Each Year Between April 2018 and December 2022



## Postoperative Course

### Device Days

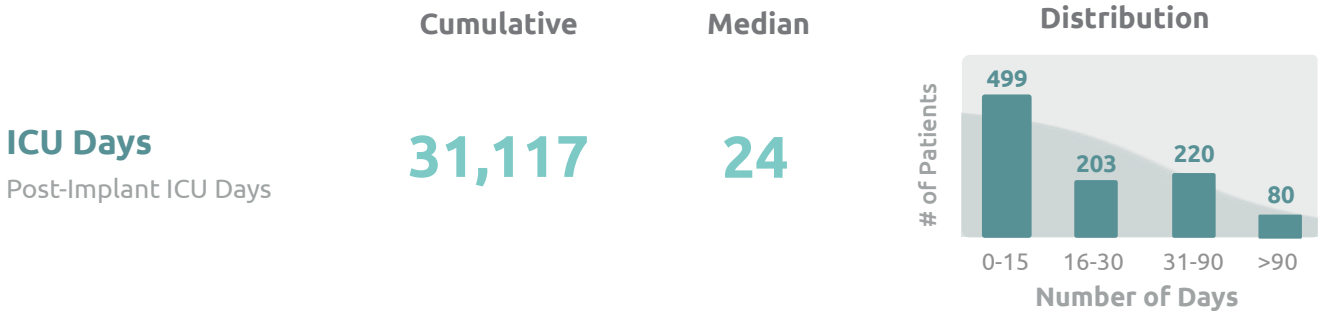
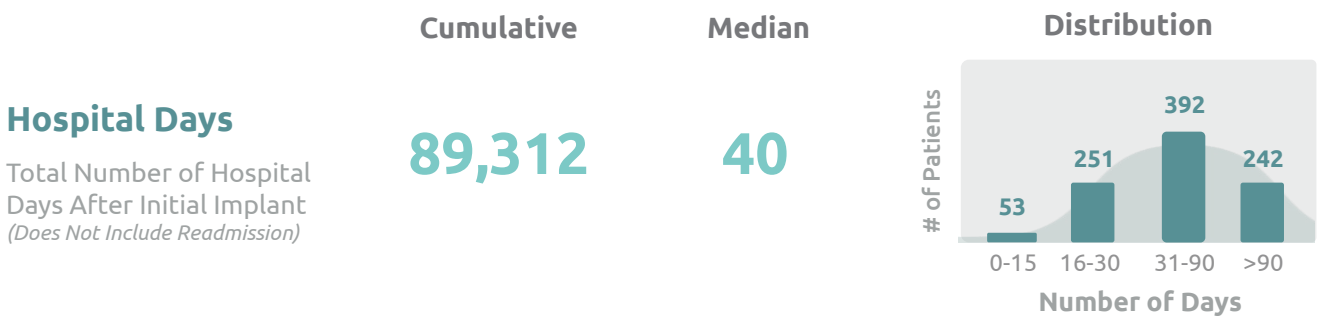
Total Number of Device Days

**226,085 Days**

### Post-Implant ICU Days

Median Days for First Post-Implant ICU Stay

**24 Days**



## Clinical Outcomes

Clinical Outcomes for Patients Receiving Implants Between April 2018 and December 2022

|                            |           |
|----------------------------|-----------|
| Transplanted, alive        | 622 (62%) |
| Alive on device            | 143 (14%) |
| Ventricular recovery, wean | 85 (8.5%) |
| Transferred                | 14 (1.4%) |
| Deceased on device         | 138 (14%) |

## Patients Discharged

Percent of Patients with a HM3 or HVAD discharged before Transplant



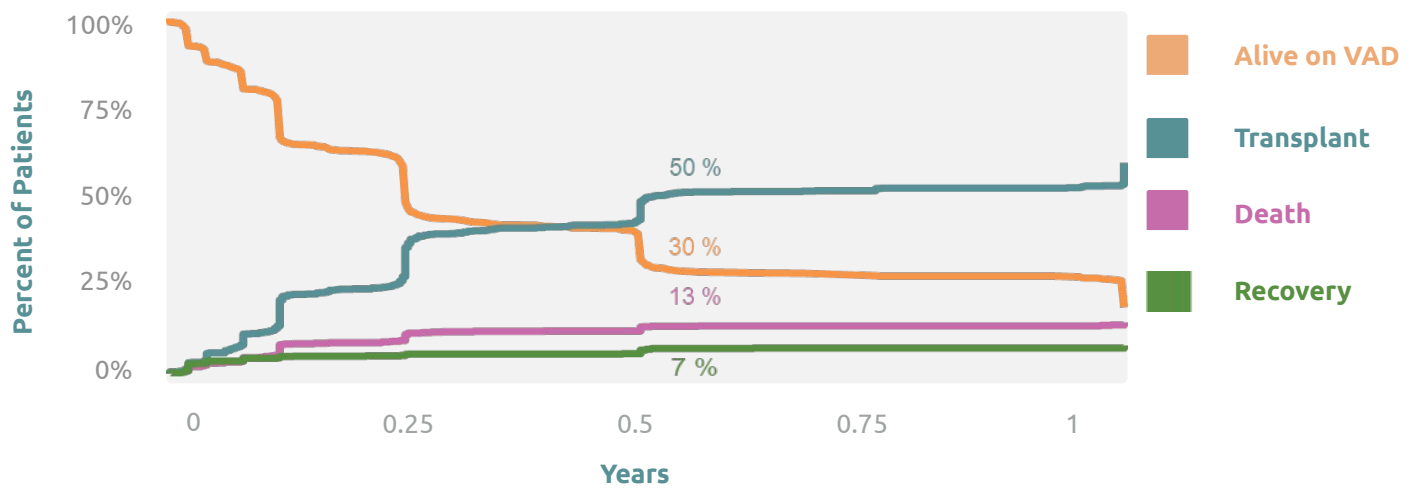
Number of patients with a HM3 or HVAD discharged before Transplant

**145**

## Competing Outcomes

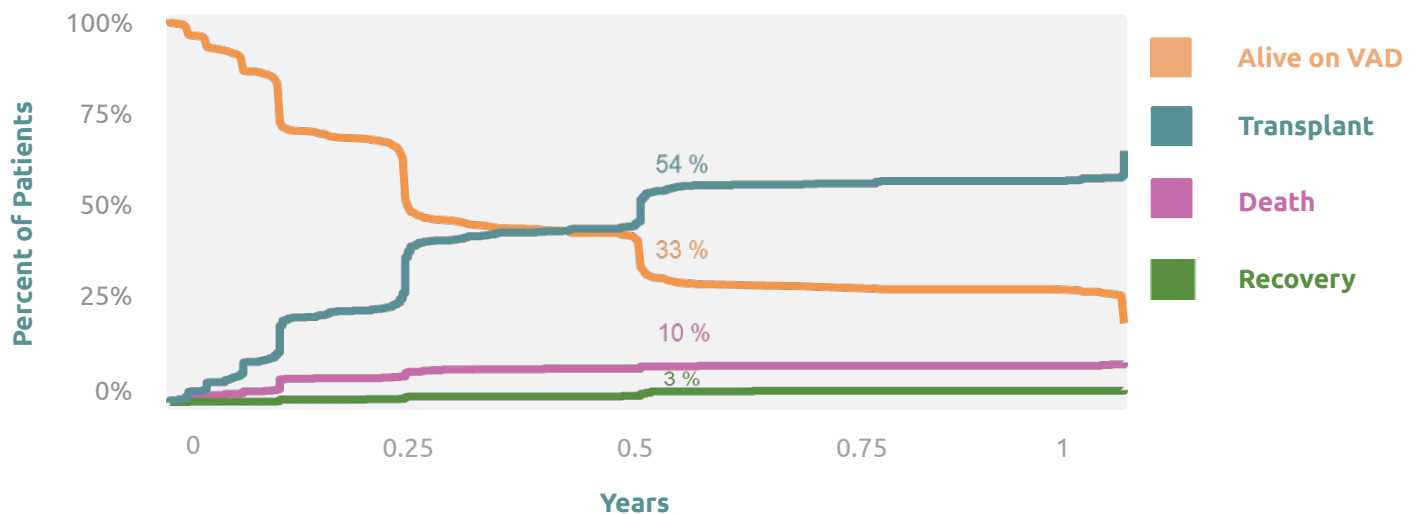
### All ACTION Patients

Competing Risk Curves Depicting Alive on VAD, Death, Recovery, and Transplant for 1,002 ACTION Patients Receiving Implants between April 2018 and December 2022.



### Patients with Durable Devices

Competing Risk Curves Depicting Alive on VAD, Death, Recovery, and Transplant for ACTION Patients Receiving Berlin Heart, HVAD, HM3, or Syncardia Implants between April 2018 and December 2022.



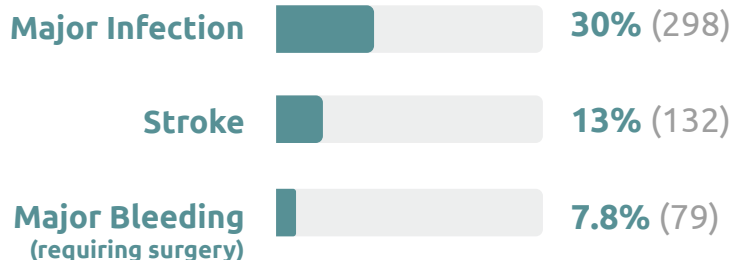
## Adverse Events

### Patients Without Major Adverse Events

Percent of Patients That Have Not Had Major Infection, Stroke, or Major Bleeding (Clots)

**53%**

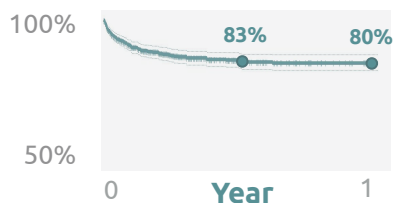
### Adverse Event Types



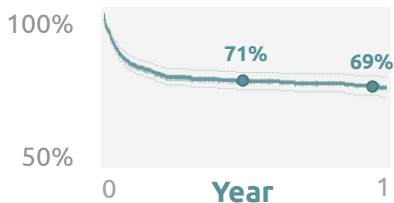
## Freedom from Adverse Events at One Year

Percent of Patients Free from Stroke, Bleeding, and Infection

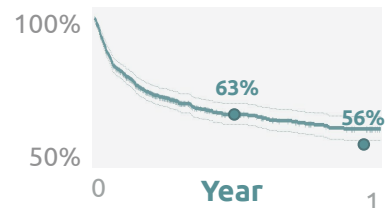
### Stroke



### Major Bleeding



### Major Infection



## Survival at One Year

Survival Rate of 1,002 ACTION patients receiving implants between April 2018 and December 2022

