

2024 Annual ACT-VAD Report

ACTION Learning Network



APRIL 2018 - DECEMBER 2024 ⓘ

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)

1,676

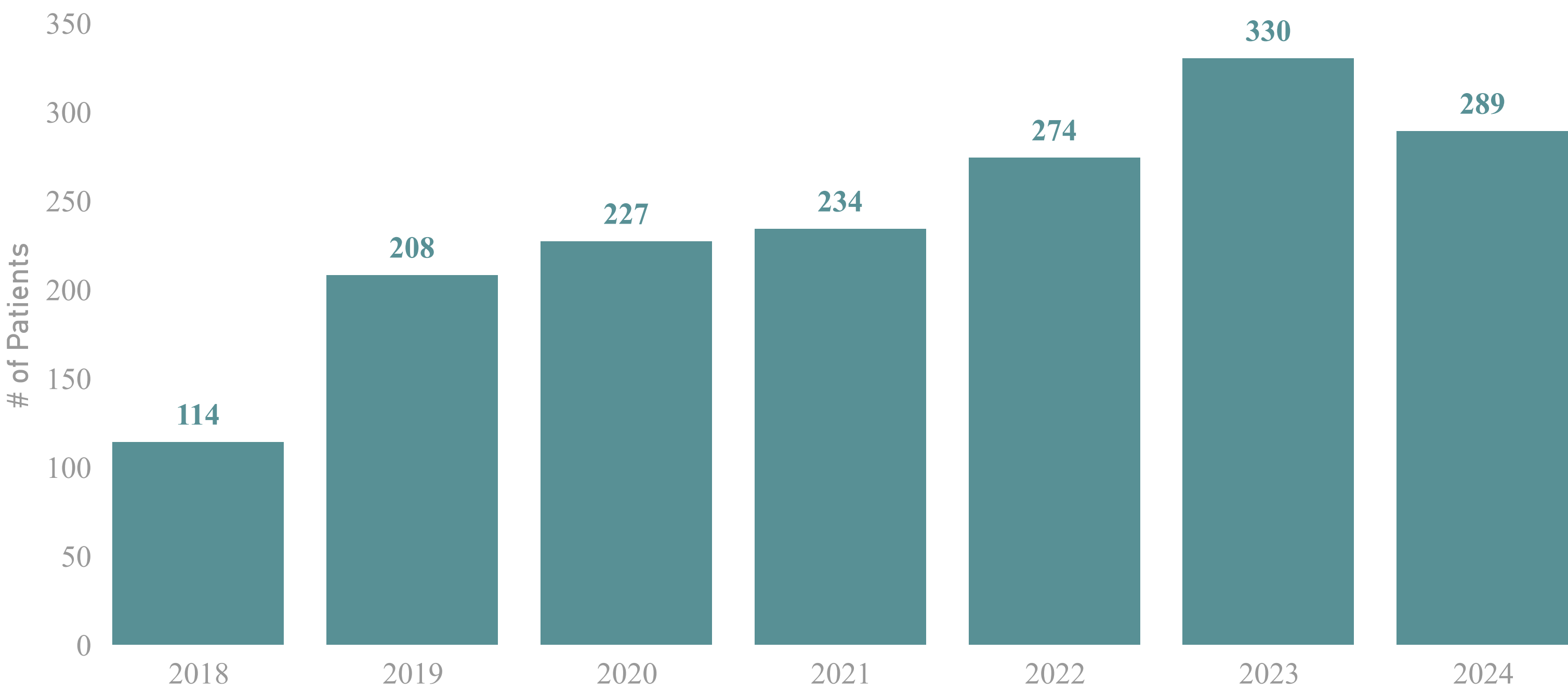
Devices Implanted

Number of Devices Implanted Since April 2018

2,184

Patient Population by Year

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



ACT-VAD Patient Characteristics

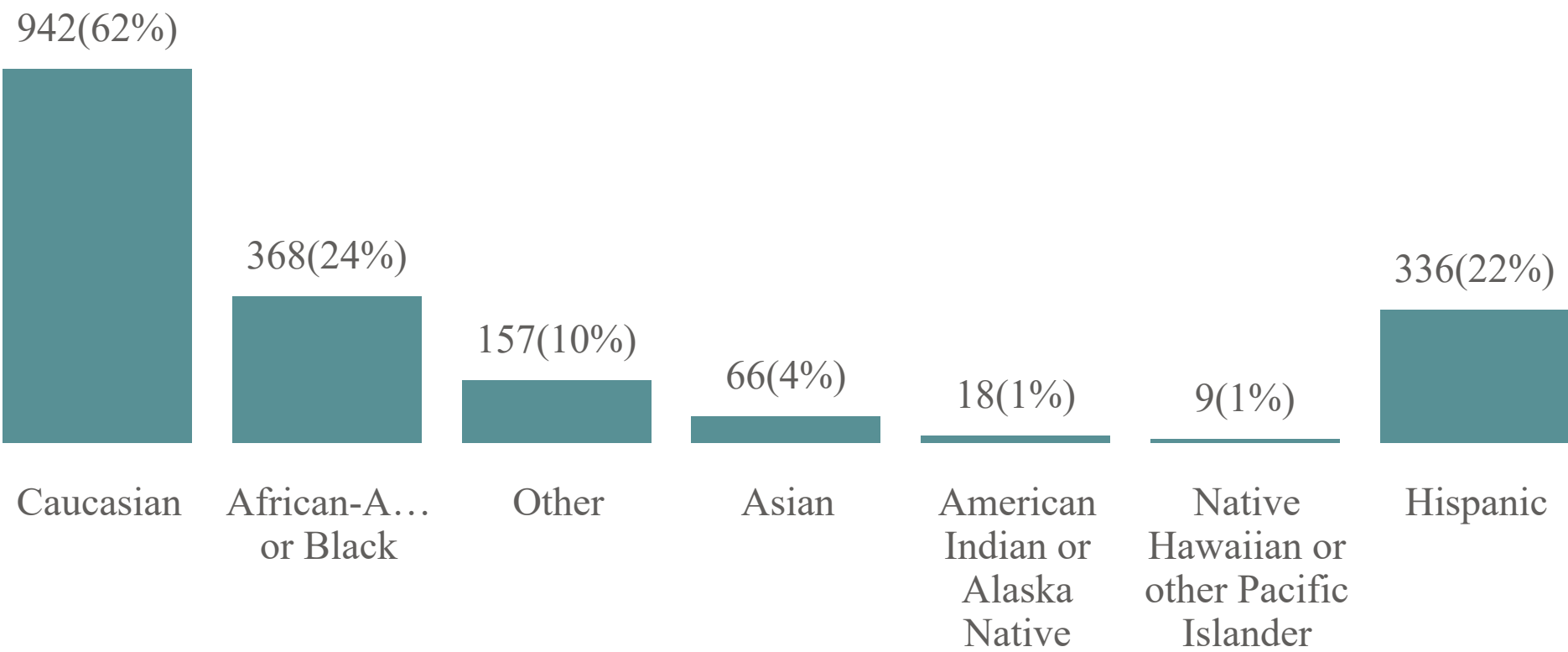
Demographics

Age

Median Age in Years

4.0 y

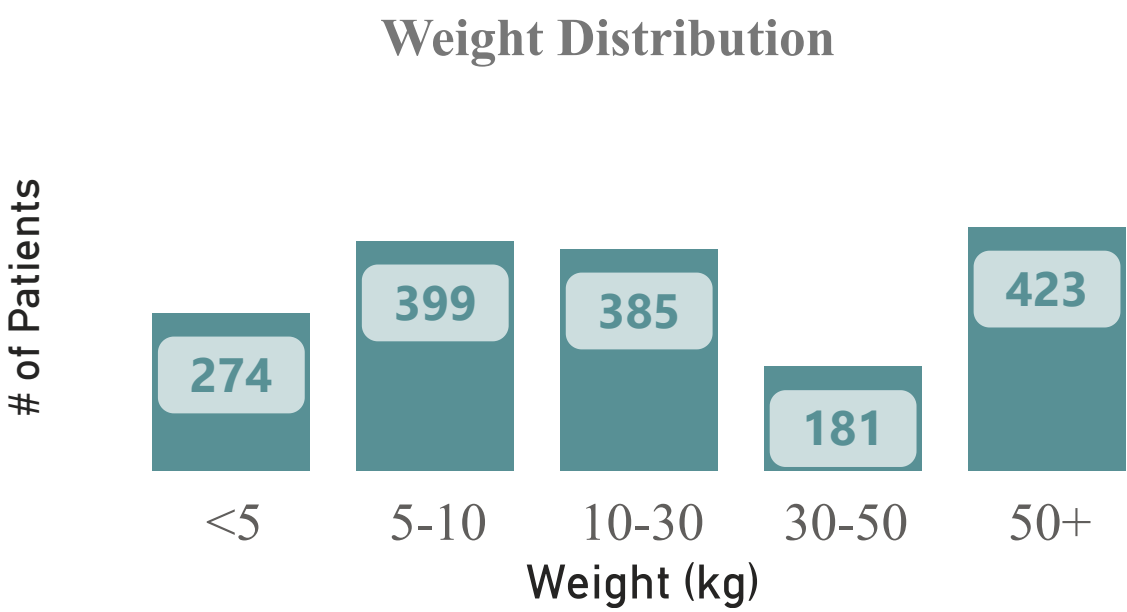
Race & Ethnicity



Weight

Median Weight

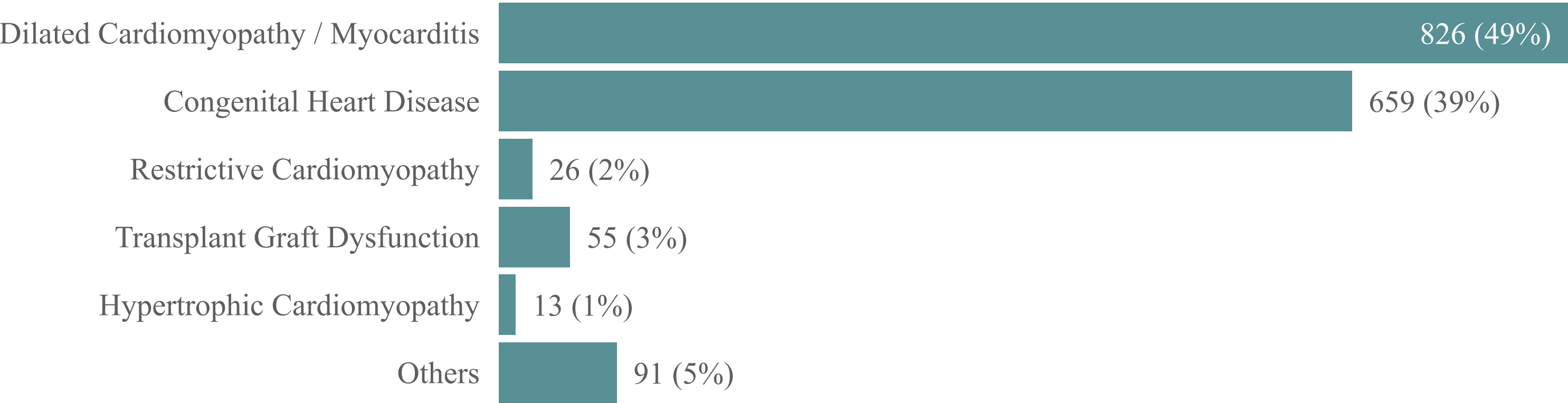
14.5 kg



Sex



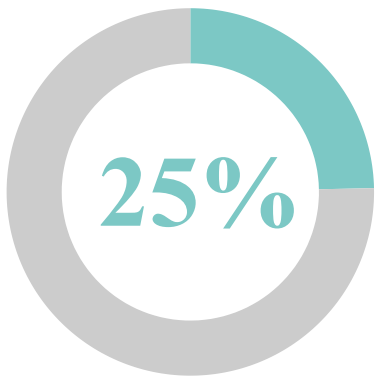
Diagnosis



ECMO

Number on ECMO at Implant

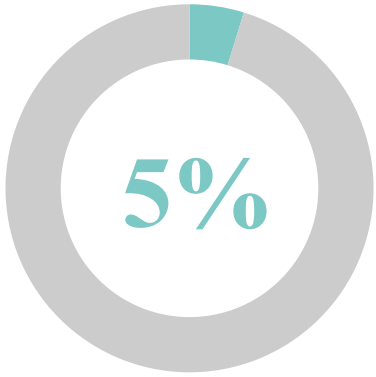
411



Dialysis

Dialysis Dependent at Implant

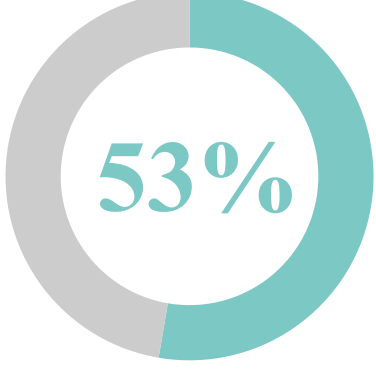
80



Ventilator

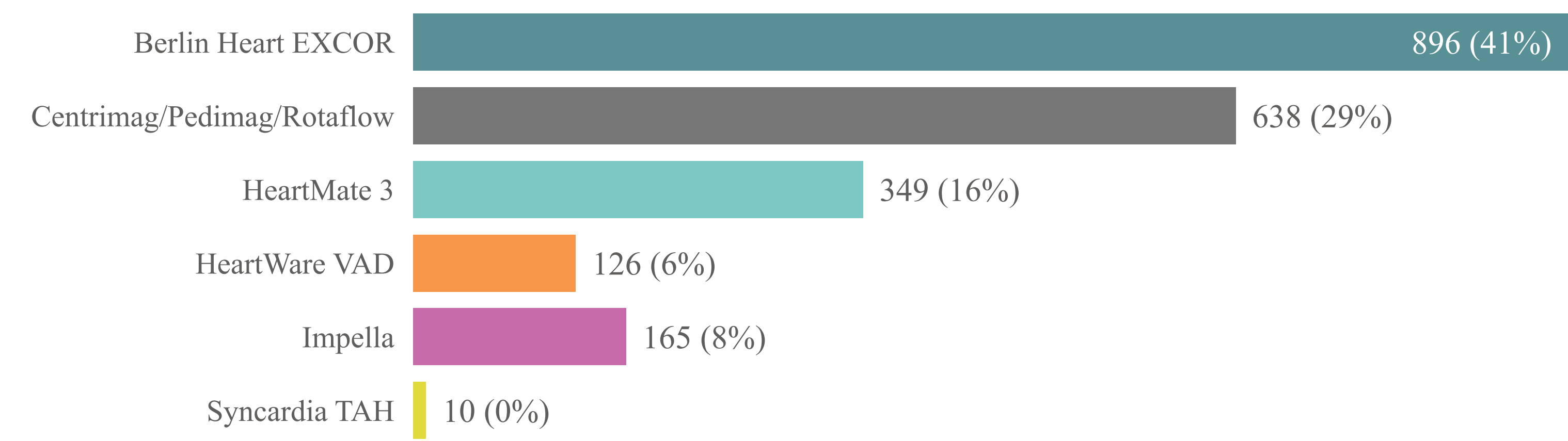
Ventilator Support in 7 Days Prior to Implant

883



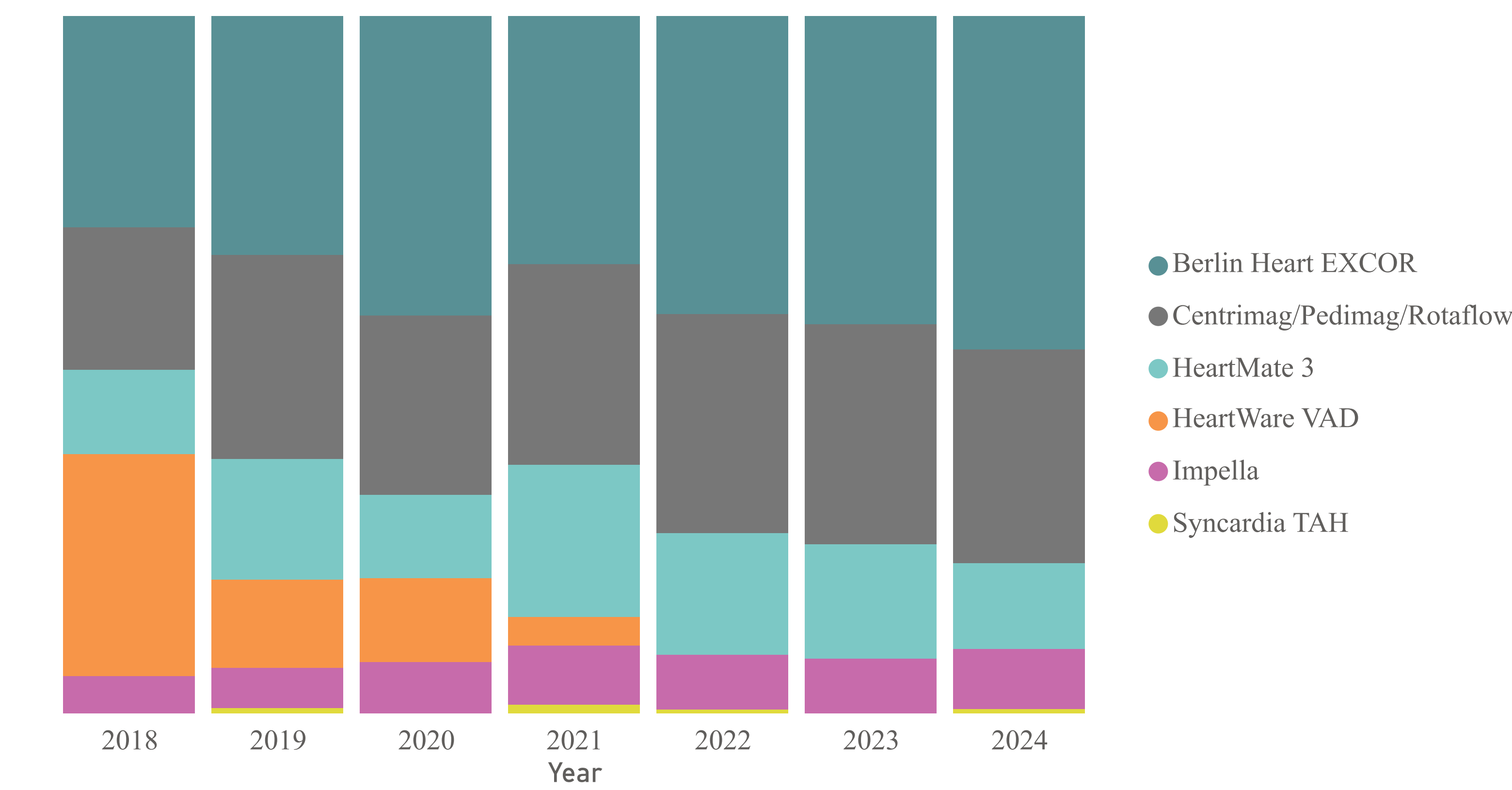
Types of Devices Implanted

Type of Devices Implanted Between April 2018 and December 2024



Devices Implanted by Year

Devices Implanted Each Year Between April 2018 and December 2024



ACT-VAD Clinical Outcomes

Postoperative Course

Device Days

Total Number of Device Days

421,258

Post-Implant ICU Days

Median Days for First Post-Implant ICU Stay

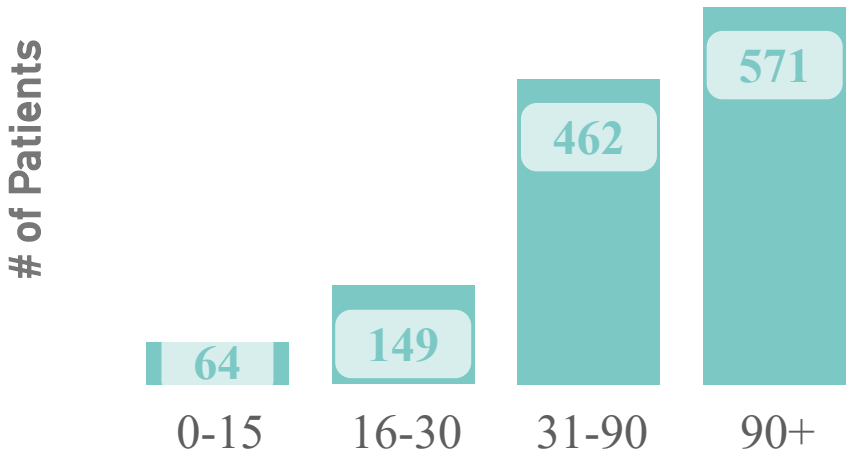
25

Hospital Days

Total Number of Hospital Days After Initial Implant
(Does Not Include Readmission)

146,959

78

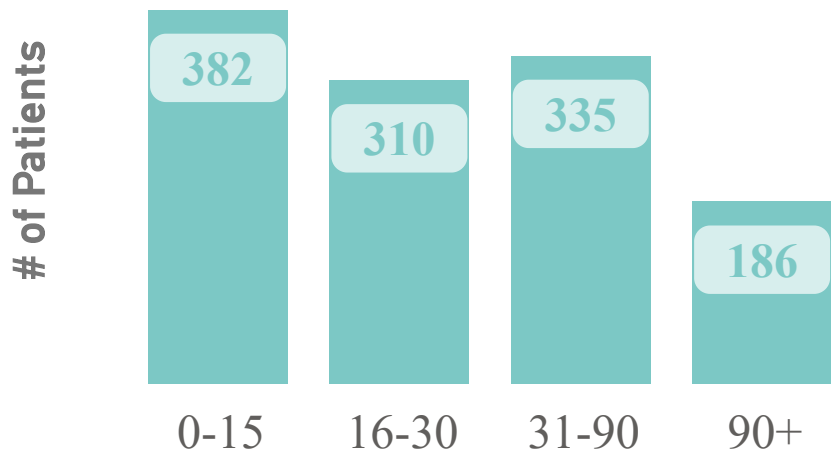


ICU Days

Post-Implant ICU Days

57,965

25



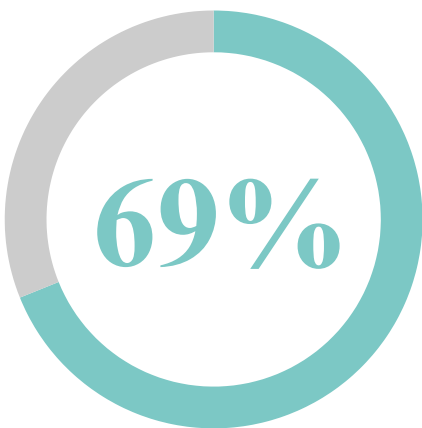
Clinical Outcomes

Clinical Outcomes for Patients Receiving Implants
Between April 2018 and December 2024

Outcome	Count	% of Total
Transplant	1079	64.4%
Transferred	27	1.6%
Recovery	82	4.9%
Dead	210	12.5%
Alive on device	278	16.6%

Patients Discharged

Percent of Patients with a HM3 or HVAD discharged before Transplant



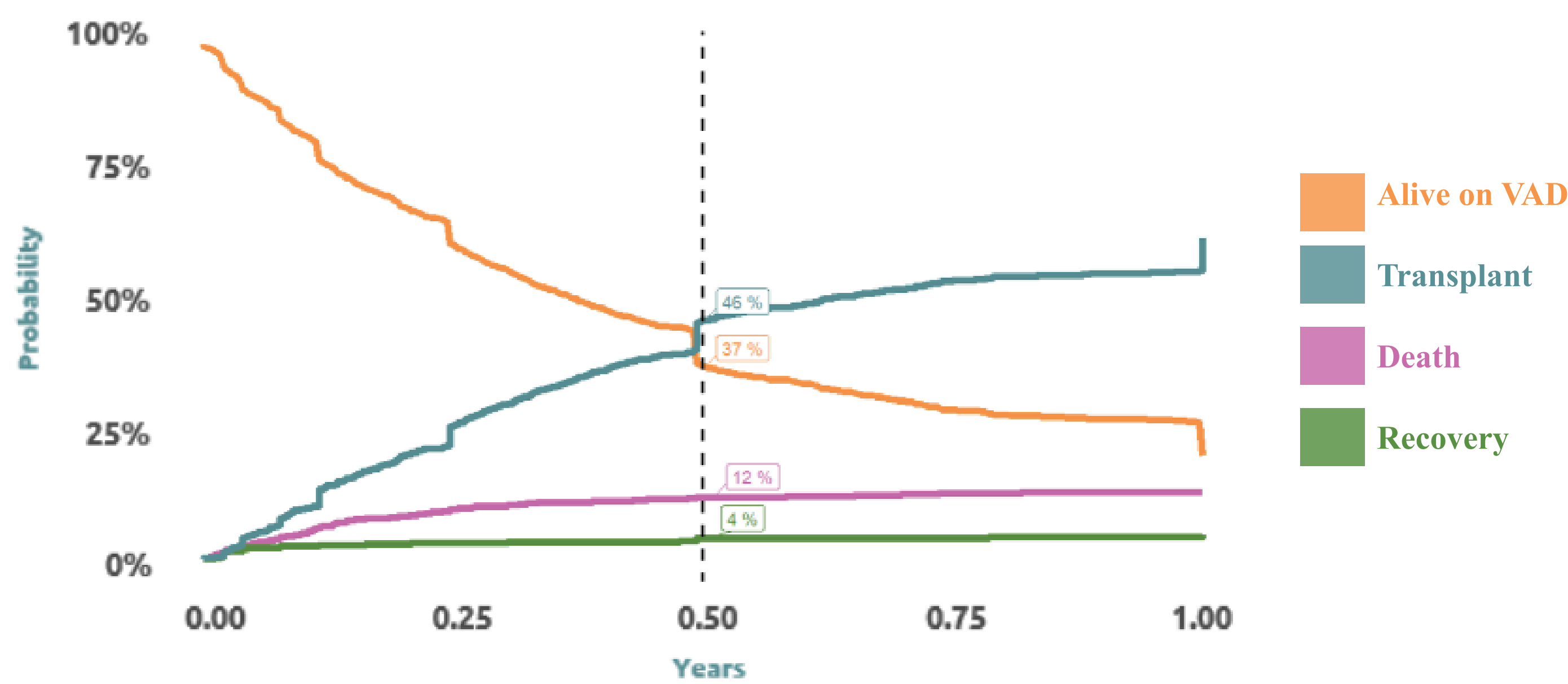
Number of patients with a HM3 or HVAD discharged before Transplant

206

Competing Outcomes

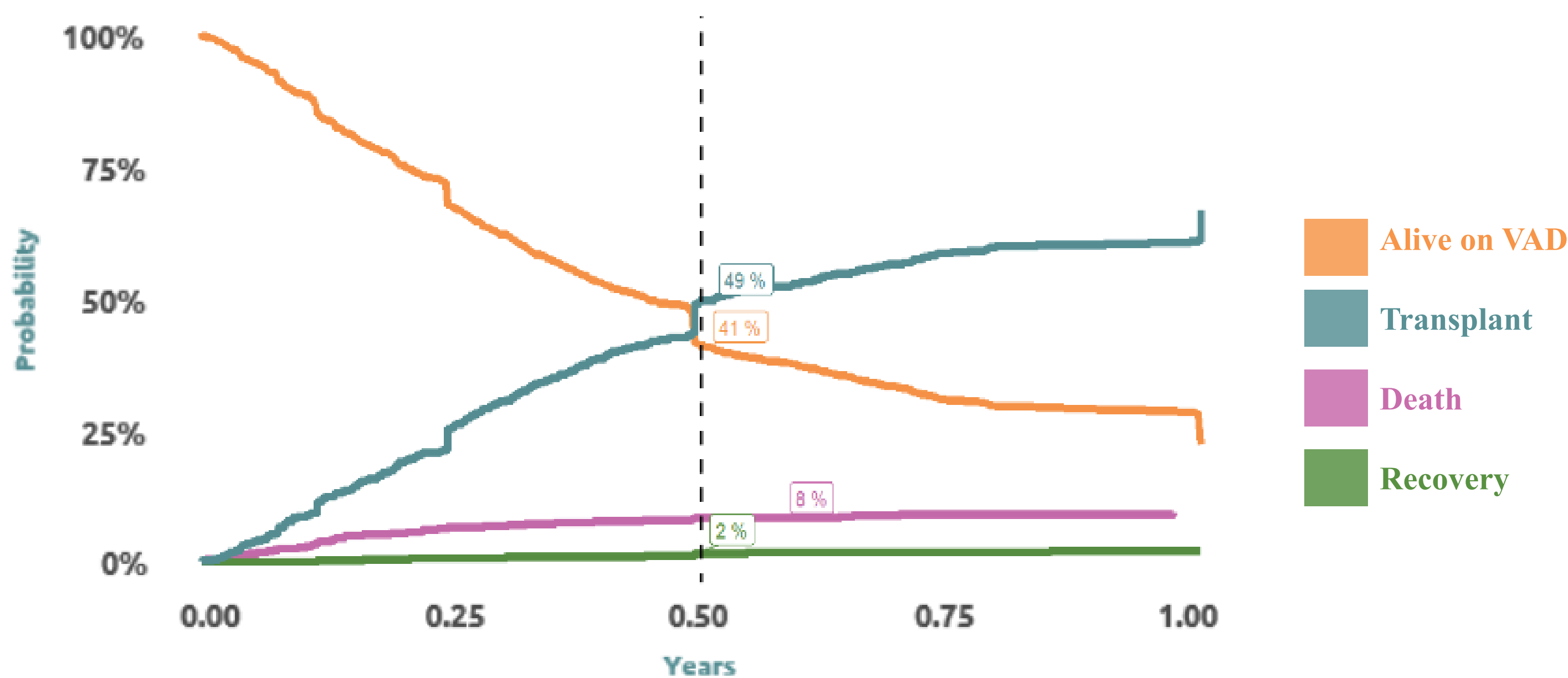
All ACTION Patients

Competing Risk Curves Depicting Alive on VAD, Death, Recovery, and Transplant for 1,676 ACTION Patients Receiving Implants between April 2018 and December 2024.



Patients with Durable Devices

Competing Risk Curves Depicting Alive on VAD, Death, Recovery, and Transplant for ACTION Patients Receiving Berlin Heart, HVAD, or Syncardia Implants between April 2018 and December 2024.



Adverse Events

Patients Without Major Adverse Events

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

53%

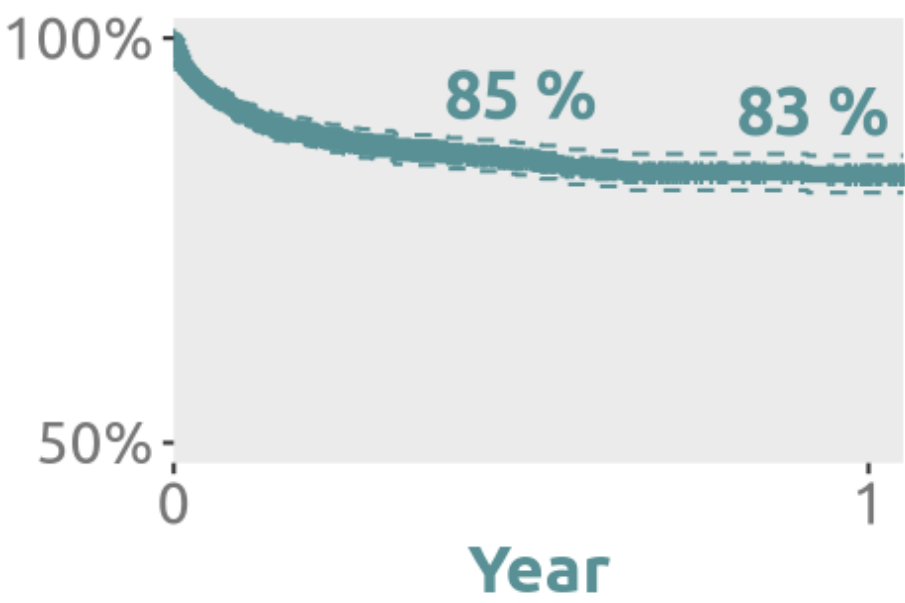
Adverse Event Types

Major Infection	<div><div></div><div></div></div>	522 (31%)
Stroke	<div><div></div><div></div></div>	215 (13%)
Major Bleeding (requiring surgery)	<div><div></div><div></div></div>	133 (8%)

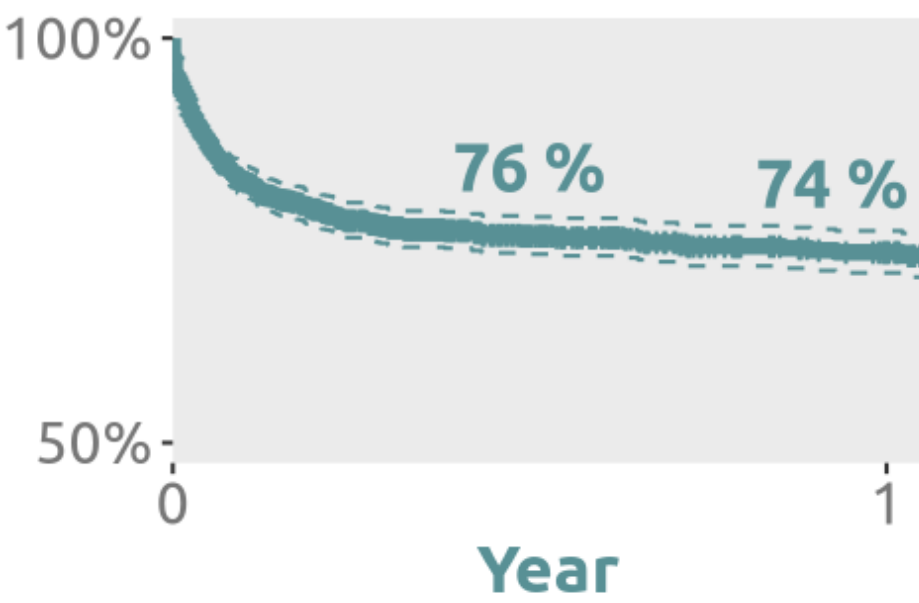
Freedom from Adverse Events at One Year

Percent of Patients Free from Stroke, Bleeding, and Infection

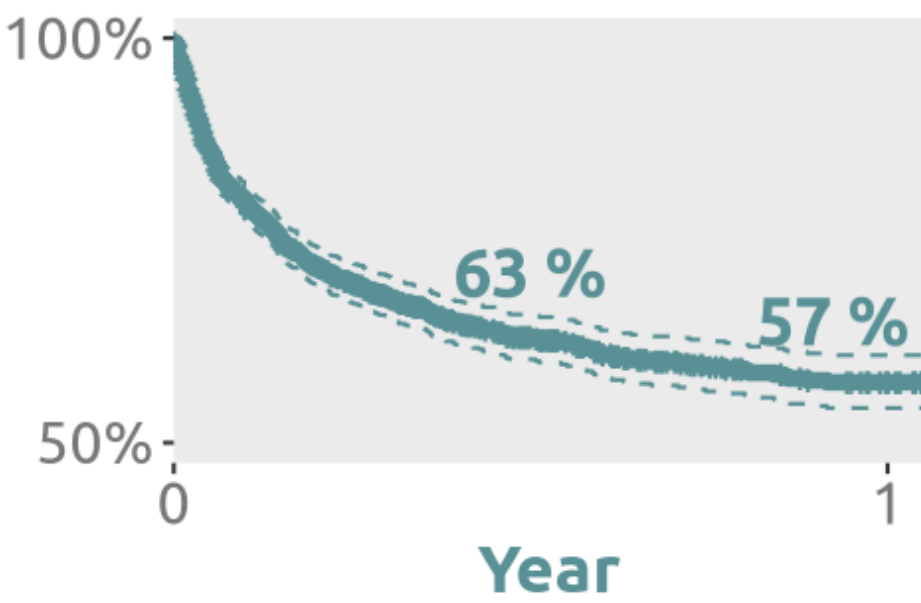
Stroke



Major Bleeding



Major Infection



Survival at One Year

Survival Rate of 1,676 ACTION patients receiving implants between April 2018 and December 2024

