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# STS Intermacs

## Quarterly Quality Assurance Report (2021 Q2) - Prior VAD Patients

### HOSPX - DEMO SITE REPORT

*Implant and event dates: June 23, 2006 to June 30, 2021*

09/30/2021

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HOSPX - DEMO SITE REPORT**

***STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients***  
***COVERAGE: June 23, 2006 - June 30, 2021***  
***SITE: HOSPX - DEMO SITE REPORT***

## **About This Report**

The “Cumulative” version of the Quality Assurance report focuses on the complete cohort of patients. This report includes all patients enrolled in Intermacs within the report coverage window.

The “Prior VAD Patients” version of the report is limited to patients whose first device pre-implant form indicates prior VAD support.

## **Confidential**

This report is intended only for STS Intermacs personnel at the hospital named on the cover of this report. Distribution of the report to other personnel within the hospital is left to the discretion of the STS Intermacs site administrator and physician representative. The STS Intermacs data in this report may not be distributed to anyone outside of your hospital. STS Intermacs has a separate mechanism for the creation and distribution of STS Intermacs aggregate data.

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**This quarterly report includes clinical information from 40 patients receiving implants between June 23, 2006 and June 30, 2021 at HOSPX - DEMO SITE REPORT.**

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Topics in **grey** are not part of this report, but will become part of future reports.

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## **I. Introduction and Methods**

### **I.A. Purpose of this Report**

As specified by the STS Intermacs Leadership, the primary goals of the registry are:

- Facilitate the refinement of patient selection to maximize outcomes with current and new device options.
- Identify predictors of good outcomes as well as risk factors for adverse events after device implantation.
- Develop consensus best practice guidelines to improve clinical management by reducing short and long term complications of MCS therapy.
- Guide clinical application and evolution of next generation devices.
- Utilize Registry information to guide improvements in technology, particularly as next generation devices evolve.

Consistent with these goals, we have greatly expanded our site reports to move towards these goals at the hospital and patient level. Specifically, these reports will provide information in the following areas:

- Statistical Summaries and Benchmarks for Quality Assurance
- Patient Level Data
- Registry Compliance
- Data Quality Queries

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## **I.B. Source of Data and Limitations**

The data in this report are based on all data entered into the STS Intermacs web-based data application through June 30, 2021. Patient enrollment in STS Intermacs began on June 23, 2006 and retrospective entry of patients with implants after March 1, 2006 was allowed. Your institution may have joined STS Intermacs at a later date and therefore your patient enrollment may have begun at a later date. This report is restricted to your patients who were implanted after your enrollment date and received a primary implant.

STS Intermacs is a registry that strives to meet the data quality standards of a prospective clinical trial. STS Intermacs is an on-going registry and therefore data quality efforts will always have an associated lag time.

As you review the data from your hospital that are contained in this report, you may find some information that appears incorrect or inconsistent. Please remember that this report is a direct function of the data that has been entered at your hospital. Therefore, please check any data issues with your online submitted data. The only caveat to this is that any corrections that you have made to your data since June 30, 2021 will not appear in this report. They will appear in the next quarterly report.

A registry that collects data on mechanical circulatory assist devices is necessarily complex. This complexity is the result of the support that the device provides (left ventricular support, right ventricular support, biventricular support, total heart support) and the potential for multiple exchanges within a patient. The major outcomes are just as complex because the standard outcome of death must be considered in the presence of transplantation and explant due to recovery of the heart. We have organized this report so that the pre-implant data represents all prospective device implants of LVAD, BiVAD or TAH. This is based on the organization of the STS Intermacs web-based data entry and will allow a complete picture of the patients and devices entered for your hospital.

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## **I.C. Statistical Summaries and Benchmarks for Quality Assurance**

A primary purpose of this report is to provide statistical summaries of patients enrolled at the local hospital and to provide side-by-side comparisons of the hospital data with the data from the entire STS Intermacs Registry. Therefore these reports will provide the data information component of quality assurance where the hospital can compare both their patient mix with a national standard and will also be able to compare their outcomes after device implant with national results.

STS Intermacs is a valuable source of benchmarking according to what is occurring across the country in the MCSD community. This benchmark is not intended to imply good practice or bad practice but rather allows the hospital to compare the characteristics of their implanted patients with the patients from a national database.

## **I.D. Registry Compliance**

Each hospital is evaluated for compliance and data entry.

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## **I.E. Future Reports**

As previously stated, this report is a major step in greatly expanded quarterly reports from STS Intermacs. We will continue expansion of this report which will be the results of our pre-specified plans and feedback from the MCSD community.

Some of our specific plans include statistical summaries according to primary and secondary implants and also according to adult and pediatric patients. We also plan to add a section that summarizes the results of the initial screening log. This will include a frequency of the reasons for failing to obtain informed consent and a comparison to the national experience.

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### **I.F. Report Coverage - Inclusion / Exclusion Criteria**

Starting 2020 Q4 the INTERMACS reports have been restructured to provide information from ALL patients enrolled in INTERMACS. To organize the information a series of reports is provided to compare patient characteristics and outcomes of different kinds of patients at your site with the aggregate INTERMACS cohort. The following report versions are created:

- Cumulative - All Patients
- Cumulative - Primary Patients
- Cumulative – Prior VAD Patients
- Recent - All Patients
- Recent - Primary Patients
- Recent – Prior VAD Patients

The CUMULATIVE report versions includes patients enrolled throughout the entire registry and is intended to provide a comprehensive set of long term outcomes. The RECENT report is limited to patients enrolled within the last rolling 6 quarters and provides information on contemporary patients.

The versions of the reports generated for ALL PATIENTS include all patients implanted within the report coverage dates. The PRIMARY PATIENTS versions are limited to patients that do not have a history of prior VAD reported on the pre-implant form of their first INTERMACS enrolled implant. The PRIOR VAD PATIENTS reports are limited to patients in which a prior VAD is indicated on their first enrolled pre-implant form.

There are a few administrative scenarios in which patients are excluded from the CUMULATIVE – ALL PATIENTS Report in order facilitate accurate comparisons to the aggregate INTERMACS data. The following patients are removed from all analyses:

- Retrospective Patients – the patient’s initial implant date is prior to your site’s activation in INTERMACS
- Implant, Pre-Implant, or Patient form not validated – patients missing a fully submitted implant, pre-implant, or patient form are not included because key data elements used in the reporting may be missing.
- Patient Implant Date Outside of Report Coverage – Patients implanted prior to the start of data collection June 23, 2006 or after the report coverage stop date December 31, 2020 are not include in the report.
- Pediatric Patients (Age <19 years at implant

Patients that meet these exclusion criteria are listed in “Exhibit 49: Patients Implanted at your Center but Excluded from the Cumulative - All Patient Report

The accompanying Data Quality Report lists all patients enrolled in STS Intermacs at your site.

Transfer patients and their subsequent experience are analyzed in the report for the site that implanted the patients first device enrolled in INTERMACS.



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## **II. Statistical Summaries and Benchmarks for Quality Assurance**

The first part of this section contains summary statistics of patients implanted (and enrolled in STS Intermacs) at your hospital. As a benchmark, the corresponding summary statistics for the entire Intermacs Registry are also provided. For explanations and/or definitions of the data elements go to the STS Intermacs User's Guide [www.intermacs.org](http://www.intermacs.org) and select 'Intermacs Appendices', Appendix M/User's Guide'.

The summary statistics for continuous variables includes N (the number of patients with data), MEAN (the average value), STD (standard deviation), MIN (the smallest value), and MAX (the largest value).

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***Exhibit 1: Device Counts for Patients in this Report***

The following tables list the number of implants received by patients meeting the inclusion criteria for this report. Subsequent exhibits are based on a patient level analysis. Characteristics are reported at the time of first implant. Unless noted otherwise, outcomes and follow-up include all information reported to INTERMACS for the patient.

NOTE: For most patients a second device indicates a device exchange. However, this count also includes the patients who receive a subsequent RVAD.

**GROUP=HOSPX-9999**

Device	IMPLANT DATE PERIOD			TOTAL
	< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	
	n	n	n	
Primary Device	11	18	11	40
2nd Device	1	3	0	4
3rd Device	1	0	0	1
4th Device	0	0	0	0
5th Device	0	0	0	0

**GROUP=STS InterMACs**

Device	IMPLANT DATE PERIOD			TOTAL
	< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	
	n	n	n	
Primary Device	540	897	1140	2577
2nd Device	72	126	60	258
3rd Device	14	30	6	50
4th Device	1	6	0	7
5th Device	0	1	0	1

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**II.A. Pre-Implant Summaries - Demographics**

**Exhibit 2: Age Group**

The following tables summarize age groups at your site and STS InterMACS over time.

AGE GROUP (yr)	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
19-39	1	9.0 %	4	22.2 %	1	9.0 %	6	15.0 %	106	19.6 %	152	16.9 %	169	14.8 %	427	16.5 %
40-59	4	36.3 %	10	55.5 %	5	45.4 %	19	47.5 %	249	46.1 %	435	48.4 %	475	41.6 %	1159	44.9 %
60-79	6	54.5 %	4	22.2 %	5	45.4 %	15	37.5 %	184	34.0 %	306	34.1 %	492	43.1 %	982	38.1 %
80+	.	.	.	.	.	.	.	.	1	0.1 %	4	0.4 %	4	0.3 %	9	0.3 %
TOTAL	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	540	100.0 %	897	100.0 %	1140	100.0 %	2577	100.0 %

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**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Demographics****Exhibit 3: Gender**

The following tables summarize gender at your site and STS InterMACS over time.

GENDER	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Female	3	27.2 %	3	16.6 %	3	27.2 %	9	22.5 %	138	25.5 %	178	19.8 %	247	21.6 %	563	21.8 %
Male	8	72.7 %	15	83.3 %	8	72.7 %	31	77.5 %	402	74.4 %	719	80.1 %	892	78.2 %	2013	78.1 %
Unspecified	.	.	.	.	.	.	.	.	.	.	.	.	1	0.0 %	1	0.0 %
TOTAL	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	540	100.0 %	897	100.0 %	1140	100.0 %	2577	100.0 %

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**II.A. Pre-Implant Summaries - Demographics**

**Exhibit 4: Race**

The following tables summarize race at your site and STS InterMACS over time. The coordinator may check all that apply.

RACE	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
African American	1	9.0 %	9	50.0 %	4	36.3 %	14	35.0 %	99	18.3 %	215	23.9 %	285	25.0 %	599	23.2 %
Other, Unknown, Undisclosed	5	45.4 %	5	27.7 %	1	9.0 %	11	27.5 %	64	11.8 %	134	14.9 %	143	12.5 %	341	13.2 %
White	5	45.4 %	4	22.2 %	6	54.5 %	15	37.5 %	377	69.8 %	548	61.0 %	712	62.4 %	1637	63.5 %
TOTAL	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	540	100.0 %	897	100.0 %	1140	100.0 %	2577	100.0 %

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**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Demographics****Exhibit 5: Hispanic Ethnicity**

The following tables summarize Hispanic ethnicity at your site and STS InterMACS over time.

HISPANIC ETHNICITY	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Non-Hispanic	9	81.8 %	14	77.7 %	9	81.8 %	32	80.0 %	501	92.7 %	789	87.9 %	1020	89.4 %	2310	89.6 %
Unknown	.	.	.	.	.	.	.	.	.	.	21	2.3 %	28	2.4 %	49	1.9 %
Hispanic	2	18.1 %	4	22.2 %	2	18.1 %	8	20.0 %	39	7.2 %	87	9.6 %	92	8.0 %	218	8.4 %
TOTAL	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	540	100.0 %	897	100.0 %	1140	100.0 %	2577	100.0 %

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**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Clinical Characteristics****Exhibit 6. BSA**

The following tables summarize body surface area (BSA) at your site and STS Intermacs over time. BSA is a variable that is calculated based on the patient's height and weight. The Boyd calculation is used in this analysis.

**GROUP=HOSPX-9999**

PRE-IMPLANT BSA		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	<b>N</b>	10	18	11	39
	<b>Mean</b>	2.13	1.82	2.08	1.97
	<b>Std</b>	0.36	0.48	0.27	0.42
	<b>Min</b>	1.40	1.03	1.67	1.03
	<b>Max</b>	2.89	2.83	2.73	2.89

**GROUP=STS Intermacs**

PRE-IMPLANT BSA		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	<b>N</b>	527	887	1134	2548
	<b>Mean</b>	2.08	2.06	2.08	2.07
	<b>Std</b>	0.29	0.32	0.32	0.31
	<b>Min</b>	1.30	0.46	0.98	0.46
	<b>Max</b>	3.01	3.28	3.30	3.30

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**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 7. Device Strategy**

The following tables summarize pre-implant device strategy at your site and STS Intermacs over time.

PRE-IMPLANT DEVICE STRATEGY	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
BTT - Listed	1	9.0 %	6	33.3 %	.	.	7	17.5 %	140	25.9 %	217	24.1 %	124	10.8 %	481	18.6 %
BTT - Likely	3	27.2 %	3	16.6 %	2	18.1 %	8	20.0 %	124	22.9 %	131	14.6 %	81	7.1 %	336	13.0 %
BTT - Moderate	4	36.3 %	1	5.5 %	.	.	5	12.5 %	71	13.1 %	93	10.3 %	84	7.3 %	248	9.6 %
BTT - Unlikely	1	9.0 %	1	5.5 %	.	.	2	5.0 %	24	4.4 %	26	2.8 %	28	2.4 %	78	3.0 %
Destination Therapy	1	9.0 %	7	38.8 %	9	81.8 %	17	42.5 %	154	28.5 %	411	45.8 %	795	69.7 %	1360	52.7 %
Bridge to Recovery	.	.	.	.	.	.	.	.	20	3.7 %	9	1.0 %	14	1.2 %	43	1.6 %
Rescue Therapy	1	9.0 %	.	.	.	.	1	2.5 %	5	0.9 %	6	0.6 %	7	0.6 %	18	0.6 %
Other	.	.	.	.	.	.	.	.	2	0.3 %	4	0.4 %	7	0.6 %	13	0.5 %
TOTAL	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	540	100.0 %	897	100.0 %	1140	100.0 %	2577	100.0 %



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**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 8. Patient Profile Levels**

The following tables summarize pre-implant STS InterMACS patient profile levels at your site and STS InterMACS over time.

PRE-IMPLANT PATIENT PROFILE	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>1 Critical Cardiogenic Shock</b>	7	63.6 %	2	11.1 %	2	18.1 %	11	27.5 %	240	48.2 %	416	49.3 %	562	49.2 %	1218	49.1 %
<b>2 Progressive Decline</b>	1	9.0 %	5	27.7 %	3	27.2 %	9	22.5 %	125	25.1 %	259	30.7 %	347	30.4 %	731	29.4 %
<b>3 Stable but Inotrope Dependent</b>	2	18.1 %	10	55.5 %	3	27.2 %	15	37.5 %	82	16.4 %	101	11.9 %	148	12.9 %	331	13.3 %
<b>4 Resting Symptoms</b>	.	.	.	.	.	.	.	.	23	4.6 %	43	5.1 %	47	4.1 %	113	4.5 %
<b>5 Exertion Intolerant</b>	.	.	.	.	.	.	.	.	7	1.4 %	7	0.8 %	7	0.6 %	21	0.8 %
<b>6 Exertion Limited</b>	1	9.0 %	.	.	1	9.0 %	2	5.0 %	10	2.0 %	6	0.7 %	6	0.5 %	22	0.8 %
<b>7 Advanced NYHA Class 3</b>	.	.	1	5.5 %	2	18.1 %	3	7.5 %	10	2.0 %	11	1.3 %	23	2.0 %	44	1.7 %
<b>TOTAL</b>	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	497	100.0 %	843	100.0 %	1140	100.0 %	2480	100.0 %

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**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 9a. Medications - IV Inotropes Within 48 Hours of Implant**

The following tables summarize IV inotrope therapy within 48 hours prior to implant at your site and STS Intermacs over time.

IV INOTROPES	HOSPX-9999								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Dobutamine	8	5	62.5%	13	10	76.9%	10	4	40.0%
Dopamine	8	0	0.0%	13	0	0.0%	10	0	0.0%
Milrinone	8	7	87.5%	13	11	84.6%	10	8	80.0%
Levosimendan	8	0	0.0%	13	0	0.0%	10	0	0.0%
Epinephrine	8	2	25.0%	13	2	15.4%	10	3	30.0%
Norepinephrine	8	4	50.0%	13	2	15.4%	10	2	20.0%
Isoproterenol	8	0	0.0%	13	0	0.0%	10	0	0.0%
Other Specify	8	1	12.5%	13	0	0.0%	10	1	10.0%
Unknown	8	0	0.0%	13	0	0.0%	10	0	0.0%

IV INOTROPES	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Dobutamine	382	150	39.3%	667	287	43.0%	868	378	43.5%
Dopamine	382	40	10.5%	667	61	9.1%	868	52	6.0%
Milrinone	382	268	70.2%	667	470	70.5%	868	566	65.2%
Levosimendan	382	0	0.0%	667	0	0.0%	868	2	0.2%
Epinephrine	382	80	20.9%	667	138	20.7%	868	207	23.8%
Norepinephrine	382	74	19.4%	667	104	15.6%	868	160	18.4%
Isoproterenol	382	4	1.0%	667	1	0.1%	868	0	0.0%
Other Specify	382	30	7.9%	667	11	1.6%	868	7	0.8%
Unknown	382	3	0.8%	667	1	0.1%	868	4	0.5%

IV INOTROPES	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
Dobutamine	31	19	61.3%	1917	815	42.5%
Dopamine	31	0	0.0%	1917	153	8.0%
Milrinone	31	26	83.9%	1917	1304	68.0%
Levosimendan	31	0	0.0%	1917	2	0.1%
Epinephrine	31	7	22.6%	1917	425	22.2%
Norepinephrine	31	8	25.8%	1917	338	17.6%
Isoproterenol	31	0	0.0%	1917	5	0.3%

(Continued)

**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

***II.A. Pre-Implant Summaries - Clinical Characteristics***

***Exhibit 9a. Medications - IV Inotropes Within 48 Hours of Implant***

IV INOTROPES	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Other Specify	31	2	6.5%	1917	48	2.5%
Unknown	31	0	0.0%	1917	8	0.4%

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 9b. Medications - History and Current Use**

The following tables compare the history and current use of specific medications prior to implant at your site and STS InterMACS.

ACE INHIBITORS	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	4	10.8	353	14.6
Known previous use (within past year)	11	29.7	501	20.7
No	19	51.4	1312	54.2
Unknown	3	8.1	255	10.5
TOTAL	37	100	2421	100

ALDOSTERONE ANTAGONIST	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	10	27.0	540	22.3
Known previous use (within past year)	11	29.7	444	18.3
No	13	35.1	1202	49.6
Unknown	3	8.1	235	9.7
TOTAL	37	100	2421	100

ALLOPURINOL*	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	4	14.3	194	8.8
Known previous use (within past year)	.	.	72	3.3
No	19	67.9	1661	75.1
Unknown	5	17.9	284	12.8
TOTAL	28	100	2211	100

AMIODARONE	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	16	43.2	1100	45.4
Known previous use (within past year)	1	2.7	225	9.3
No	18	48.6	935	38.6
Unknown	2	5.4	161	6.7
TOTAL	37	100	2421	100

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 9b. Medications - History and Current Use**

ANGIOTENSIN RECEPTOR BLOCKER	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	2	5.4	156	6.4
Known previous use (within past year)	2	5.4	310	12.8
No	30	81.1	1654	68.3
Unknown	3	8.1	301	12.4
TOTAL	37	100	2421	100

ANTIPLATELET THERAPY DRUG	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	20	54.1	1378	56.9
Known previous use (within past year)	5	13.5	351	14.5
No	12	32.4	585	24.2
Unknown	.	.	107	4.4
TOTAL	37	100	2421	100

BETA BLOCKERS	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	12	32.4	835	34.5
Known previous use (within past year)	12	32.4	740	30.6
No	10	27.0	693	28.6
Unknown	3	8.1	153	6.3
TOTAL	37	100	2421	100

WARFARIN (COUMADIN)	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	4	10.8	339	14.0
Known previous use (within past year)	7	18.9	376	15.5
No	24	64.9	1485	61.3
Unknown	2	5.4	221	9.1
TOTAL	37	100	2421	100

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

**II.A. Pre-Implant Summaries - Clinical Characteristics**

***Exhibit 9b. Medications - History and Current Use***

NESIRITIDE	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	31	91.2	2152	93.3
Unknown	1	2.9	132	5.7
Yes	2	5.9	22	1.0
TOTAL	34	100	2306	100

NITRIC OXIDE	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	30	81.1	2127	87.9
Unknown	1	2.7	136	5.6
Yes	6	16.2	158	6.5
TOTAL	37	100	2421	100

LOOP DIURETICS	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	9	24.3	596	24.6
Unknown	3	8.1	67	2.8
Yes	25	67.6	1758	72.6
TOTAL	37	100	2421	100

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 9b. Medications - History and Current Use**

PRE-IMPLANT LOOP DIURETIC TYPE*	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Furosemide	20	19	95.00%	1533	913	59.56%
Torsemide	20	1	5.00%	1533	248	16.18%
Bumetanide	20	0	0.00%	1533	366	23.87%
Other	20	0	0.00%	1533	8	0.52%

CARDIAC RESYNCHRONIZATION THERAPY (CRT)*	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	17	68.0	1568	74.8
Unknown	5	20.0	123	5.9
Yes	3	12.0	404	19.3
TOTAL	25	100	2095	100

METALAZONE / THIAZIDE*	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	21	75.0	1878	84.9
Unknown	4	14.3	99	4.5
Yes	3	10.7	234	10.6
TOTAL	28	100	2211	100

METALAZONE / THIAZIDE - FREQUENCY*	HOSPX-9999		STS InterMACS	
	N	%	N	%
Regular	.	.	96	41.0
Intermittent	3	100	138	59.0
TOTAL	3	100	234	100

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

**II.A. Pre-Implant Summaries - Clinical Characteristics**

***Exhibit 10. Laboratories***

The following tables summarize pre-implant laboratories at your site and STS InterMACS.

		HOSPX-9999	STS InterMACS
Sodium (mEq/L)	N	37	2414
	Mean	137.11	135.66
	Std	5.08	5.12
	Min	125.00	115.00
	Max	154.00	159.00
Potassium (mEq/L)	N	37	2415
	Mean	4.22	4.12
	Std	0.48	0.48
	Min	3.40	2.80
	Max	5.70	6.50
BUN (mg/dL)	N	37	2413
	Mean	27.24	30.05
	Std	14.71	19.04
	Min	7.00	2.00
	Max	69.00	166.00
Creatinine (mg/dL)	N	37	2414
	Mean	1.72	1.41
	Std	1.52	0.81
	Min	0.50	0.30
	Max	9.10	14.00
Alanine Aminotransferase/ALT (u/L)	N	36	2327
	Mean	108.31	94.58
	Std	290.61	366.66
	Min	5.00	3.00
	Max	1716.00	9930.00
Aspartate Aminotransferase/AST (u/L)	N	36	2323
	Mean	70.67	96.74
	Std	120.35	352.28
	Min	15.00	2.00
	Max	607.00	10000.00
LDH (μkat/L), (U/L)	N	24	1761
	Mean	890.33	706.77
	Std	1100.56	740.70
	Min	19.00	17.00
	Max	3892.00	8923.00
All	N	40	2577



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 10. Laboratories**

PRE-IMPLANT LABORATORIES		HOSPX-9999	STS Intermacs
Total Bilirubin (mg/dL)	N	37	2323
	Mean	2.23	2.02
	Std	3.30	3.20
	Min	0.20	0.10
	Max	20.20	47.60
Albumin (g/dL)	N	37	2297
	Mean	3.43	3.07
	Std	0.53	0.69
	Min	2.10	0.10
	Max	4.30	7.90
Pre-albumin (mg/dL)	N	19	1275
	Mean	18.12	15.37
	Std	8.00	6.80
	Min	7.00	3.00
	Max	37.00	45.00
Total Cholesterol (mg/dL)	N	27	1304
	Mean	117.89	118.57
	Std	41.94	41.55
	Min	54.00	50.00
	Max	246.00	284.00
Brain Natriuretic Peptide (pg/mL)	N	0	993
	Mean	.	1310.85
	Std	.	1205.00
	Min	.	2.00
	Max	.	7500.00
Pro Brain Natriuretic Peptide (pg/mL)	N	19	540
	Mean	7216.79	9633.46
	Std	7247.15	10813.57
	Min	535.00	34.00
	Max	28576.00	60000.00
White Blood Cell Count (x10 <sup>6</sup> /μL)	N	37	2411
	Mean	11.47	10.97
	Std	5.65	5.35
	Min	5.00	1.00
	Max	28.90	64.00
Hemoglobin (g/dL)	N	37	2410
	Mean	9.56	9.45
	Std	1.82	1.97
	Min	7.20	0.10
	Max	15.60	17.80
All	N	40	2577

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Clinical Characteristics**

**Exhibit 10. Laboratories**

PRE-IMPLANT LABORATORIES		HOSPX-9999	STS InterMACs
Platelets (x10/ $\mu$ L)	N	37	2410
	Mean	194.30	171.07
	Std	100.59	87.71
	Min	52.00	0.00
	Max	548.00	771.00
INR	N	35	2318
	Mean	1.30	1.37
	Std	0.33	0.58
	Min	1.00	0.80
	Max	2.20	13.40
Sensitivity CRP (mg/L)	N	5	663
	Mean	53.31	39.67
	Std	78.58	61.61
	Min	0.30	0.00
	Max	175.82	593.00
All	N	40	2577

PRE-IMPLANT LUPUS ANTICOAGULANT STATUS*	HOSPX-9999		STS InterMACs	
	N	%	N	%
Negative	4	14.3	229	10.4
Positive	.	.	40	1.8
Unknown	24	85.7	1943	87.8
TOTAL	28	100	2212	100

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant****Exhibit 11. Pre-Implant Comorbidities**

The following tables compares pre-implant comorbidities at the time of durable MCS/D implant between your site and STS Intermacs over time. This section was revised during the v6.0 launch (11/24/20) and includes mapped data from patients implanted 2012 and later. Information on Prior Sternotomy and History of Hematopoietic Cancer is currently being mapped and will be available in the reports starting next quarter.

Cardiothoracic issues	HOSPX-9999								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Frequent ICD Shocks	2	1	50.0%	18	0	0.0%	7	0	0.0%
Chronic Lung Disease	10	1	10.0%	18	0	0.0%	8	1	12.5%
Pulmonary Hypertension	2	2	100.0%	18	2	11.1%	8	2	25.0%
Recent Pulmonary Embolus	2	0	0.0%	18	0	0.0%	7	0	0.0%
History of Atrial Arrhythmia	2	1	50.0%	18	4	22.2%	7	0	0.0%
Thoracic Aortic Disease	2	0	0.0%	18	0	0.0%	8	0	0.0%

Cardiothoracic issues	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Frequent ICD Shocks	341	23	6.7%	896	41	4.6%	982	37	3.8%
Chronic Lung Disease	530	43	8.1%	896	63	7.0%	981	80	8.2%
Pulmonary Hypertension	348	73	21.0%	896	129	14.4%	976	160	16.4%
Recent Pulmonary Embolus	341	3	0.9%	896	15	1.7%	982	16	1.6%
History of Atrial Arrhythmia	341	53	15.5%	896	160	17.9%	980	210	21.4%
Thoracic Aortic Disease	341	3	0.9%	896	12	1.3%	981	9	0.9%

Cardiothoracic issues	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
Frequent ICD Shocks	27	1	3.7%	2176	100	4.6%
Chronic Lung Disease	28	1	3.6%	2179	163	7.5%
Pulmonary Hypertension	28	6	21.4%	2170	343	15.8%
Recent Pulmonary Embolus	27	0	0.0%	2176	34	1.6%
History of Atrial Arrhythmia	27	5	18.5%	2174	414	19.0%
Thoracic Aortic Disease	28	0	0.0%	2175	24	1.1%

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant**

**Exhibit 11. Pre-Implant Comorbidities**

Nutritional/GI issues	HOSPX-9999								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Severe Diabetes	7	6	85.7%	18	2	11.1%	8	2	25.0%
Malnutrition/Cachexia	3	1	33.3%	18	0	0.0%	8	1	12.5%
History GI Ulcers	2	0	0.0%	18	0	0.0%	8	1	12.5%
Liver Dysfunction	0	.	.	18	1	5.6%	7	0	0.0%
Hepatitis	10	1	10.0%	18	0	0.0%	8	0	0.0%

Nutritional/GI issues	STS InterMACS								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Severe Diabetes	392	65	16.6%	897	93	10.4%	982	140	14.3%
Malnutrition/Cachexia	347	21	6.1%	897	37	4.1%	981	41	4.2%
History GI Ulcers	341	8	2.3%	897	7	0.8%	981	10	1.0%
Liver Dysfunction	18	0	0.0%	852	65	7.6%	982	72	7.3%
Hepatitis	521	13	2.5%	897	8	0.9%	983	9	0.9%

Nutritional/GI issues	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Severe Diabetes	28	6	21.4%	2178	266	12.2%
Malnutrition/Cachexia	28	1	3.6%	2176	93	4.3%
History GI Ulcers	28	1	3.6%	2176	25	1.1%
Liver Dysfunction	25	1	4.0%	1846	137	7.4%
Hepatitis	28	0	0.0%	2182	18	0.8%

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant**

**Exhibit 11. Pre-Implant Comorbidities**

Vascular issues	HOSPX-9999								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Heparin-induced Thrombocytopenia	2	0	0.0%	18	0	0.0%	8	0	0.0%
Chronic Coagulopathy	2	0	0.0%	18	0	0.0%	8	0	0.0%
Cerebrovascular Disease	11	3	27.3%	18	0	0.0%	8	0	0.0%
Major Stroke	11	3	27.3%	18	0	0.0%	5	0	0.0%
Peripheral Arterial Disease	9	0	0.0%	18	0	0.0%	8	0	0.0%

Vascular issues	STS InterMACS								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Heparin-induced Thrombocytopenia	347	16	4.6%	896	22	2.5%	972	19	2.0%
Chronic Coagulopathy	341	5	1.5%	896	20	2.2%	971	13	1.3%
Cerebrovascular Disease	534	69	12.9%	896	51	5.7%	982	67	6.8%
Major Stroke	528	46	8.7%	893	40	4.5%	887	50	5.6%
Peripheral Arterial Disease	530	22	4.2%	896	32	3.6%	981	37	3.8%

Vascular issues	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Heparin-induced Thrombocytopenia	28	0	0.0%	2166	50	2.3%
Chronic Coagulopathy	28	0	0.0%	2165	38	1.8%
Cerebrovascular Disease	28	0	0.0%	2180	136	6.2%
Major Stroke	25	0	0.0%	2082	101	4.9%
Peripheral Arterial Disease	28	0	0.0%	2179	85	3.9%

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant**

**Exhibit 11. Pre-Implant Comorbidities**

Oncology/infection issues	HOSPX-9999								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
History Solid Organ Cancer	4	0	0.0%	18	0	0.0%	8	1	12.5%
Currently has Cancer v6	0	.	.	0	.	.	3	0	0.0%
History of Solid Organ Transplant v6	0	.	.	0	.	.	3	0	0.0%
History of Bone Marrow Transplant (BMT)	2	0	0.0%	18	0	0.0%	8	0	0.0%
HIV	2	0	0.0%	18	0	0.0%	5	0	0.0%

Oncology/infection issues	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
History Solid Organ Cancer	355	20	5.6%	896	26	2.9%	983	39	4.0%
Currently has Cancer v6	0	.	.	4	0	0.0%	115	3	2.6%
History of Solid Organ Transplant v6	0	.	.	4	0	0.0%	116	1	0.9%
History of Bone Marrow Transplant (BMT)	341	0	0.0%	897	2	0.2%	984	3	0.3%
HIV	341	0	0.0%	885	5	0.6%	869	5	0.6%

Oncology/infection issues	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
History Solid Organ Cancer	28	1	3.6%	2177	78	3.6%
Currently has Cancer v6	3	0	0.0%	119	3	2.5%
History of Solid Organ Transplant v6	3	0	0.0%	120	1	0.8%
History of Bone Marrow Transplant (BMT)	28	0	0.0%	2179	5	0.2%
HIV	25	0	0.0%	2052	10	0.5%

***COVERAGE: June 23, 2006 - June 30, 2021***

***SITE: HOSPX - DEMO SITE REPORT***

***II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant***

***Exhibit 11. Pre-Implant Comorbidities***

Data collection for the psychosocial issues section changed structure as a part of the v6.0 release. Mapping of this data is underway and this information will be available in the reports starting next quarter.

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant**

**Exhibit 12. Pre-Implant Potential Barriers to Heart Transplant**

The following tables compare pre-implant potential barriers to heart transplant at your site and STS Intermacs over time. This section was revised during the v6.0 launch (11/24/20) and includes mapped data from patients implanted 2012 and later.

Potential Barriers to Heart Transplant	HOSPX-9999								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Advanced Age	10	0	0.0%	18	2	11.1%	8	0	0.0%
Frailty	10	0	0.0%	18	2	11.1%	7	0	0.0%
Patient Does Not Want Transplant	10	0	0.0%	18	0	0.0%	7	0	0.0%
Musculoskeletal Limitation to Ambulation	10	0	0.0%	18	0	0.0%	7	0	0.0%
Contraindications to Immunosuppression	10	0	0.0%	18	0	0.0%	7	0	0.0%
Allosensitization	10	0	0.0%	18	0	0.0%	7	0	0.0%
Chronic Renal Disease	10	2	20.0%	18	2	11.1%	8	0	0.0%
Large BMI	10	1	10.0%	18	1	5.6%	8	2	25.0%
Chronic Infectious Concerns	10	0	0.0%	18	0	0.0%	8	1	12.5%

Potential Barriers to Heart Transplant	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Advanced Age	528	37	7.0%	897	72	8.0%	979	103	10.5%
Frailty	528	28	5.3%	897	57	6.4%	973	88	9.0%
Patient Does Not Want Transplant	528	7	1.3%	897	11	1.2%	964	12	1.2%
Musculoskeletal Limitation to Ambulation	528	3	0.6%	897	5	0.6%	974	7	0.7%
Contraindications to Immunosuppression	528	0	0.0%	896	0	0.0%	969	5	0.5%
Allosensitization	528	6	1.1%	896	5	0.6%	963	12	1.2%
Chronic Renal Disease	528	38	7.2%	897	66	7.4%	977	80	8.2%
Large BMI	528	41	7.8%	897	82	9.1%	981	121	12.3%
Chronic Infectious Concerns	528	11	2.1%	896	20	2.2%	975	26	2.7%

Potential Barriers to Heart Transplant	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
Advanced Age	28	2	7.1%	2179	199	9.1%
Frailty	27	2	7.4%	2173	162	7.5%
Patient Does Not Want Transplant	27	0	0.0%	2164	28	1.3%
Musculoskeletal Limitation to Ambulation	27	0	0.0%	2174	14	0.6%
Contraindications to Immunosuppression	27	0	0.0%	2168	5	0.2%
Allosensitization	27	0	0.0%	2162	19	0.9%

(Continued)



**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

***II.A. Pre-Implant Summaries - Comorbidities and Potential Barriers to Heart Transplant***

***Exhibit 12. Pre-Implant Potential Barriers to Heart Transplant***

Potential Barriers to Heart Transplant	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Chronic Renal Disease	28	3	10.7%	2177	163	7.5%
Large BMI	28	3	10.7%	2181	224	10.3%
Chronic Infectious Concerns	28	1	3.6%	2174	52	2.4%

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

**II.A. Pre-Implant Summaries - Hemodynamics**

***Exhibit 13. General Hemodynamics***

The following table summarizes pre-implant heart rate, systolic BP and diastolic BP at your site and STS InterMACS.

PRE-IMPLANT GENERAL HEMODYNAMICS		HOSPX-9999	STS InterMACS
Heart Rate	N	37	2392
	Mean	95.35	93.43
	Std	21.07	18.46
	Min	55.00	35.00
	Max	140.00	170.00
Diastolic Blood Pressure (mmHg)	N	32	2202
	Mean	67.88	68.21
	Std	11.52	12.24
	Min	50.00	20.00
	Max	100.00	111.00
Systolic Blood Pressure (mmHg)	N	35	2240
	Mean	96.46	100.66
	Std	17.82	16.51
	Min	62.00	53.00
	Max	127.00	186.00
All	N	40	2577

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Hemodynamics**

**Exhibit 14a. Echo Hemodynamics - LVEDD**

The following tables summarizes pre-implant LVEDD at your site and STS Intermacs over time.

**GROUP=HOSPX-9999**

PRE-IMPLANT LVEDD (cm)		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	N	7	16	8	31
	Mean	5.57	6.94	6.17	6.44
	Std	2.13	1.34	1.15	1.57
	Min	1.10	3.80	4.61	1.10
	Max	7.40	9.10	8.10	9.10

**GROUP=STS Intermacs**

PRE-IMPLANT LVEDD (cm)		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	N	335	667	785	1787
	Mean	6.12	6.40	6.40	6.34
	Std	1.42	1.28	1.15	1.26
	Min	1.10	1.20	2.77	1.10
	Max	10.00	12.00	10.50	12.00

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Hemodynamics**

**Exhibit 14b. Echo Hemodynamics - LVEF**

The following tables summarizes pre-implant LVEF at your site and STS Intermacs over time.

PRE-IMPLANT LVEF	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
> 50 (normal)	.	.	.	.	.	.	.	.	7	1.3 %	6	0.6 %	3	0.3 %	16	0.6 %
40-49 (mild)	.	.	.	.	.	.	.	.	9	1.7 %	7	0.7 %	5	0.5 %	21	0.8 %
30-39 (moderate)	3	30.0 %	1	5.5 %	.	.	4	11.1 %	29	5.6 %	35	3.9 %	39	3.9 %	103	4.3 %
20-29 (moderate/severe)	6	60.0 %	2	11.1 %	1	12.5 %	9	25.0 %	91	17.7 %	164	18.2 %	192	19.5 %	447	18.6 %
< 20 (severe)	1	10.0 %	13	72.2 %	7	87.5 %	21	58.3 %	326	63.6 %	626	69.7 %	715	72.6 %	1667	69.6 %
Not Recorded or Not Documented	.	.	2	11.1 %	.	.	2	5.5 %	41	8.0 %	49	5.4 %	26	2.6 %	116	4.8 %
Unknown	.	.	.	.	.	.	.	.	9	1.7 %	10	1.1 %	4	0.4 %	23	0.9 %
TOTAL	10	100.0 %	18	100.0 %	8	100.0 %	36	100.0 %	512	100.0 %	897	100.0 %	984	100.0 %	2393	100.0 %

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Hemodynamics**

**Exhibit 14c. Echo Hemodynamics - RVEF**

The following tables summarizes pre-implant RVEF at your site and STS Intermacs over time.

PRE-IMPLANT RVEF	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Normal	2	20.0 %	3	16.6 %	4	50.0 %	9	25.0 %	74	14.4 %	155	17.2 %	220	22.3 %	449	18.7 %
Mild	.	.	1	5.5 %	.	.	1	2.7 %	61	11.9 %	180	20.0 %	219	22.2 %	460	19.2 %
Moderate	.	.	4	22.2 %	4	50.0 %	8	22.2 %	83	16.2 %	202	22.5 %	214	21.7 %	499	20.8 %
Severe	1	10.0 %	5	27.7 %	.	.	6	16.6 %	58	11.3 %	163	18.1 %	172	17.4 %	393	16.4 %
Not Done	4	40.0 %	2	11.1 %	.	.	6	16.6 %	147	28.7 %	114	12.7 %	90	9.1 %	351	14.6 %
Not Applicable (v4)	.	.	.	.	.	.	.	.	.	.	2	0.2 %	1	0.1 %	3	0.1 %
Unknown	3	30.0 %	3	16.6 %	.	.	6	16.6 %	89	17.3 %	81	9.0 %	68	6.9 %	238	9.9 %
TOTAL	10	100.0 %	18	100.0 %	8	100.0 %	36	100.0 %	512	100.0 %	897	100.0 %	984	100.0 %	2393	100.0 %

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Hemodynamics****Exhibit 14d. Echo Hemodynamics - Mitral Regurgitation**

The following tables summarizes pre-implant mitral regurgitation at your site and STS InterMACS over time.

PRE-IMPLANT MITRAL REGURGITATION	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>0 (none)</b>	1	10.0 %	.	.	.	.	1	2.7 %	75	14.6 %	109	12.1 %	100	10.1 %	284	11.8 %
<b>1 (mild)</b>	5	50.0 %	4	22.2 %	4	50.0 %	13	36.1 %	193	37.6 %	303	33.7 %	358	36.3 %	854	35.6 %
<b>2 (moderate)</b>	3	30.0 %	7	38.8 %	3	37.5 %	13	36.1 %	135	26.3 %	248	27.6 %	272	27.6 %	655	27.3 %
<b>3 (severe)</b>	1	10.0 %	4	22.2 %	1	12.5 %	6	16.6 %	55	10.7 %	143	15.9 %	167	16.9 %	365	15.2 %
<b>Not Recorded or Not Documented</b>	.	.	3	16.6 %	.	.	3	8.3 %	49	9.5 %	94	10.4 %	87	8.8 %	230	9.6 %
<b>~Unknown~</b>	.	.	.	.	.	.	.	.	5	0.9 %	.	.	.	.	5	0.2 %
<b>TOTAL</b>	10	100.0 %	18	100.0 %	8	100.0 %	36	100.0 %	512	100.0 %	897	100.0 %	984	100.0 %	2393	100.0 %

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Hemodynamics****Exhibit 14e. Echo Hemodynamics - Aortic Regurgitation**

The following tables summarizes pre-implant aortic regurgitation at your site and STS Intermacs over time.

PRE-IMPLANT AORTIC REGURGITATION	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>0 (none)</b>	7	70.0 %	5	27.7 %	3	37.5 %	15	41.6 %	243	47.4 %	399	44.4 %	376	38.2 %	1018	42.5 %
<b>1 (mild)</b>	2	20.0 %	7	38.8 %	2	25.0 %	11	30.5 %	139	27.1 %	270	30.1 %	334	33.9 %	743	31.0 %
<b>2 (moderate)</b>	.	.	1	5.5 %	.	.	1	2.7 %	25	4.8 %	49	5.4 %	55	5.5 %	129	5.3 %
<b>3 (severe)</b>	.	.	.	.	.	.	.	.	3	0.5 %	9	1.0 %	8	0.8 %	20	0.8 %
<b>Not Recorded or Not Documented</b>	1	10.0 %	5	27.7 %	3	37.5 %	9	25.0 %	102	19.9 %	170	18.9 %	211	21.4 %	483	20.1 %
<b>TOTAL</b>	10	100.0 %	18	100.0 %	8	100.0 %	36	100.0 %	512	100.0 %	897	100.0 %	984	100.0 %	2393	100.0 %

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Hemodynamics****Exhibit 14f. Echo Hemodynamics - Tricuspid Regurgitation**

The following tables summarizes pre-implant tricuspid regurgitation at your site and STS Intermacs over time.

PRE-IMPLANT TRICUSPID REGURGITATION	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>0 (none)</b>	2	20.0 %	1	5.5 %	1	12.5 %	4	11.1 %	73	14.2 %	102	11.3 %	105	10.6 %	280	11.7 %
<b>1 (mild)</b>	7	70.0 %	6	33.3 %	5	62.5 %	18	50.0 %	211	41.2 %	380	42.3 %	429	43.5 %	1020	42.6 %
<b>2 (moderate)</b>	1	10.0 %	1	5.5 %	1	12.5 %	3	8.3 %	117	22.8 %	217	24.1 %	235	23.8 %	569	23.7 %
<b>3 (severe)</b>	.	.	7	38.8 %	1	12.5 %	8	22.2 %	45	8.7 %	93	10.3 %	94	9.5 %	232	9.6 %
<b>Not Recorded or Not Documented</b>	.	.	3	16.6 %	.	.	3	8.3 %	59	11.5 %	105	11.7 %	121	12.2 %	285	11.9 %
<b>~Unknown~</b>	.	.	.	.	.	.	.	.	7	1.3 %	.	.	.	.	7	0.2 %
<b>TOTAL</b>	10	100.0 %	18	100.0 %	8	100.0 %	36	100.0 %	512	100.0 %	897	100.0 %	984	100.0 %	2393	100.0 %



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Hemodynamics**

**Exhibit 15. Swan Hemodynamics**

The following table summarizes pre-implant hemodynamics derived from a Swan-Ganz catheter at your site and STS InterMACS.

PRE-IMPLANT SWAN HEMODYNAMICS		HOSPX-9999	STS InterMACS
Pulmonary Artery Systolic Pressure (mmHg)	N	30	1832
	Mean	46.17	46.28
	Std	12.71	14.93
	Min	17.00	9.00
	Max	70.00	96.00
Pulmonary Artery Diastolic Pressure (mmHg)	N	30	1817
	Mean	25.07	23.69
	Std	8.55	8.73
	Min	8.00	0.00
	Max	47.00	60.00
~Mean RA Pressure (mmHg)~	N	20	1130
	Mean	21.60	14.62
	Std	13.93	8.34
	Min	4.00	-3.00
	Max	54.00	54.00
Mean Pulmonary Artery Capillary Wedge Pressure (mmHg)	N	20	1280
	Mean	26.35	25.83
	Std	10.26	9.44
	Min	14.00	0.00
	Max	45.00	50.00
Cardiac Index	N	24	1552
	Mean	2.58	2.47
	Std	0.89	4.52
	Min	1.20	0.60
	Max	4.40	176.00
Cardiac Output (L/min)	N	27	1635
	Mean	4.98	4.61
	Std	1.68	1.68
	Min	2.28	0.60
	Max	8.80	13.60
All	N	40	2577

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT****II.A. Pre-Implant Summaries - Hemodynamics****Exhibit 16. ECG Cardiac Rhythm**

The following tables summarizes pre-implant ECG cardiac rhythm at your site and STS Intermacs.

ECG CARDIAC RHYTHM	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Sinus	8	72.7 %	6	33.3 %	6	75.0 %	20	54.0 %	294	54.4 %	512	57.0 %	605	61.4 %	1411	58.2 %
Atrial fibrillation	1	9.0 %	3	16.6 %	.	.	4	10.8 %	44	8.1 %	83	9.2 %	83	8.4 %	210	8.6 %
Atrial Flutter	.	.	1	5.5 %	.	.	1	2.7 %	6	1.1 %	15	1.6 %	11	1.1 %	32	1.3 %
Not done	.	.	.	.	.	.	.	.	10	1.8 %	14	1.5 %	9	0.9 %	33	1.3 %
Atrial Paced, Ventricular Sensed	1	9.0 %	.	.	.	.	1	2.7 %	7	1.2 %	18	2.0 %	15	1.5 %	40	1.6 %
Atrial Sensed, Ventricular Paced	1	9.0 %	2	11.1 %	1	12.5 %	4	10.8 %	29	5.3 %	86	9.5 %	115	11.6 %	230	9.5 %
Atrial Paced, Ventricular Paced	.	.	1	5.5 %	.	.	1	2.7 %	15	2.7 %	64	7.1 %	69	7.0 %	148	6.1 %
Unknown	.	.	1	5.5 %	.	.	1	2.7 %	15	2.7 %	25	2.7 %	18	1.8 %	58	2.3 %
Other, specify	.	.	4	22.2 %	1	12.5 %	5	13.5 %	120	22.2 %	80	8.9 %	59	5.9 %	259	10.6 %
TOTAL	11	100.0 %	18	100.0 %	8	100.0 %	37	100.0 %	540	100.0 %	897	100.0 %	984	100.0 %	2421	100.0 %

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 17a. Functional Capacity - NYHA Class**

The following table summarizes the pre-implant NYHA Class at your site and STS Intermacs over time.

PRE-IMPLANT NYHA CLASS	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>Class I</b>	.	.	.	.	1	12.5 %	1	2.7 %	7	1.2 %	3	0.3 %	8	0.8 %	18	0.7 %
<b>Class II</b>	.	.	.	.	1	12.5 %	1	2.7 %	7	1.2 %	32	3.5 %	24	2.4 %	63	2.6 %
<b>Class III</b>	.	.	3	16.6 %	.	.	3	8.1 %	49	9.0 %	88	9.8 %	67	6.8 %	204	8.4 %
<b>Class IV</b>	8	72.7 %	15	83.3 %	5	62.5 %	28	75.6 %	396	73.3 %	705	78.6 %	846	85.9 %	1947	80.4 %
<b>Unknown</b>	3	27.2 %	.	.	1	12.5 %	4	10.8 %	81	15.0 %	68	7.5 %	39	3.9 %	188	7.7 %
<b>TOTAL</b>	11	100.0 %	18	100.0 %	8	100.0 %	37	100.0 %	540	100.0 %	896	100.0 %	984	100.0 %	2420	100.0 %

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 17b. Functional Capacity - VO2 Max**

The following table summarizes the pre-implant VO2 max at your site and STS InterMACS.

VO2 MAX		HOSPX-9999	STS InterMACS
VO2 Max (mL/kg/min)	N	0	95
	Mean	.	82.15
	Std	.	366.63
	Min	.	5.00
	Max	.	2800.00
All	N	40	2577

The following table summarizes the reasons the pre-implant VO2 max was incomplete at your site and STS InterMACS.

VO2 MAX - Reason for Incomplete	HOSPX-9999		STS InterMACS	
	N	%	N	%
Not Done: Other	17	45.9	727	31.3
Not Done: Too Sick	13	35.1	1439	61.9
Unknown	7	18.9	160	6.9
TOTAL	37	100	2326	100

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

***II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life***

***Exhibit 17c. Functional Capacity - R Value at Peak***

The following table summarizes the pre-implant R value at peak at your site and STS InterMACS.

R VALUE AT PEAK		HOSPX-9999	STS InterMACS
Peak R (%)	N	0	59
	Mean	.	11.06
	Std	.	24.20
	Min	.	0.76
	Max	.	115.00
All	N	40	2577

The following table summarizes the reasons the pre-implant R value at peak was incomplete at your site and InterMACS.

R VALUE AT PEAK - Reason for Incomplete	HOSPX-9999		STS InterMACS	
	N	%	N	%
Not Done	27	73.0	2118	89.7
Unknown	10	27.0	244	10.3
TOTAL	37	100	2362	100

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 17d. Functional Capacity - Six Minute Walk**

The following table summarizes the pre-implant six minute walk at your site and STS InterMACS.

6 MINUTE WALK		HOSPX-9999	STS InterMACS
Six Minute Walk (ft)	N	1	202
	Mean	601.00	800.93
	Std	.	588.40
	Min	601.00	0.00
	Max	601.00	6759.00
All	N	40	2577

The following table summarizes the reasons the pre-implant six minute walk was incomplete at your site and STS InterMACS.

6 MINUTE WALK - Reason for Incomplete	HOSPX-9999		STS InterMACS	
	N	%	N	%
Not Done: Other	10	27.8	448	20.2
Not Done: Too Sick	23	63.9	1688	76.1
Unknown	3	8.3	83	3.7
TOTAL	36	100	2219	100

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18a. Quality of Life - EQ-5D Mobility**

The following table compares the EQ-5D Mobility domain between your site and STS InterMACS.

EQ-5D Mobility	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
I have no problems in walking about	1	50.0 %	2	33.3 %	1	50.0 %	4	40.0 %	45	29.0 %	61	22.1 %	101	28.4 %	207	26.3 %
I have some problems in walking about	1	50.0 %	3	50.0 %	1	50.0 %	5	50.0 %	78	50.3 %	135	48.9 %	166	46.7 %	379	48.2 %
I am confined to bed	.	.	1	16.6 %	.	.	1	10.0 %	32	20.6 %	75	27.1 %	75	21.1 %	182	23.1 %
Unknown	.	.	.	.	.	.	.	.	.	.	5	1.8 %	13	3.6 %	18	2.2 %
<b>TOTAL</b>	2	100.0 %	6	100.0 %	2	100.0 %	10	100.0 %	155	100.0 %	276	100.0 %	355	100.0 %	786	100.0 %

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18b. Quality of Life - EQ-5D Self Care**

The following table compares the EQ-5D Self Care domain between your site and STS InterMACS.

EQ-5D Self Care	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
I have no problems with self-care	2	100.0 %	3	50.0 %	.	.	5	50.0 %	72	46.4 %	96	34.7 %	144	40.5 %	312	39.6 %
I have some problems washing or dressing myself	.	.	.	.	2	100.0 %	2	20.0 %	51	32.9 %	93	33.6 %	120	33.8 %	264	33.5 %
I am unable to wash or dress myself	.	.	3	50.0 %	.	.	3	30.0 %	32	20.6 %	83	30.0 %	82	23.0 %	197	25.0 %
Unknown	.	.	.	.	.	.	.	.	.	.	4	1.4 %	9	2.5 %	13	1.6 %
<b>TOTAL</b>	2	100.0 %	6	100.0 %	2	100.0 %	10	100.0 %	155	100.0 %	276	100.0 %	355	100.0 %	786	100.0 %



COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18c. Quality of Life - EQ-5D Usual Activities**

The following table compares the EQ-5D Usual Activities domain between your site and STS InterMACS.

EQ-5D Usual Activities	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
I have no problems with performing my usual activities	2	100.0 %	.	.	.	.	2	20.0 %	36	23.2 %	32	11.5 %	72	20.2 %	140	17.8 %
I have some problems with performing my usual activities	.	.	2	33.3 %	1	50.0 %	3	30.0 %	60	38.7 %	101	36.5 %	122	34.3 %	283	36.0 %
I am unable to perform my usual activities	.	.	4	66.6 %	1	50.0 %	5	50.0 %	59	38.0 %	136	49.2 %	145	40.8 %	340	43.2 %
Unknown	.	.	.	.	.	.	.	.	.	.	7	2.5 %	16	4.5 %	23	2.9 %
<b>TOTAL</b>	2	100.0 %	6	100.0 %	2	100.0 %	10	100.0 %	155	100.0 %	276	100.0 %	355	100.0 %	786	100.0 %

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18d. Quality of Life - EQ-5D Pain/Discomfort**

The following table compares the EQ-5D Pain/Discomfort domain between your site and STS Intermacs.

EQ-5D Pain/Discomfort	HOSPX-9999								STS Intermacs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
I have no pain or discomfort	2	100.0 %	3	50.0 %	2	100.0 %	7	70.0 %	57	36.7 %	101	36.5 %	127	35.7 %	285	36.2 %
I have moderate pain or discomfort	.	.	2	33.3 %	.	.	2	20.0 %	78	50.3 %	134	48.5 %	180	50.7 %	392	49.8 %
I have extreme pain or discomfort	.	.	1	16.6 %	.	.	1	10.0 %	20	12.9 %	34	12.3 %	36	10.1 %	90	11.4 %
Unknown	.	.	.	.	.	.	.	.	.	.	7	2.5 %	12	3.3 %	19	2.4 %
<b>TOTAL</b>	2	100.0 %	6	100.0 %	2	100.0 %	10	100.0 %	155	100.0 %	276	100.0 %	355	100.0 %	786	100.0 %

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18e. Quality of Life - EQ-5D Anxiety/Depression**

The following table compares the EQ-5D Anxiety/Depression domain between your site and STS InterMACS.

EQ-5D Anxiety	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
I am not anxious or depressed	2	100.0 %	4	66.6 %	1	50.0 %	7	70.0 %	65	41.9 %	111	40.2 %	154	43.3 %	330	41.9 %
I am moderately anxious or depressed	.	.	2	33.3 %	1	50.0 %	3	30.0 %	78	50.3 %	136	49.2 %	151	42.5 %	365	46.4 %
I am extremely anxious or depressed	.	.	.	.	.	.	.	.	11	7.0 %	25	9.0 %	36	10.1 %	72	9.1 %
Unknown	.	.	.	.	.	.	.	.	1	0.6 %	4	1.4 %	14	3.9 %	19	2.4 %
<b>TOTAL</b>	2	100.0 %	6	100.0 %	2	100.0 %	10	100.0 %	155	100.0 %	276	100.0 %	355	100.0 %	786	100.0 %

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18f. Quality of Life - EQ-5D Visual Analog Scale**

The following table compares the EQ-5D Visual Analog Scale domain between your site and STS Intermacs.

**GROUP=HOSPX-9999**

EQ-5D - VAS Score		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	<b>N</b>	2	6	2	10
	<b>Mean</b>	3.00	44.17	40.00	35.10
	<b>Std</b>	4.24	35.56	35.36	33.65
	<b>Min</b>	0.00	0.00	15.00	0.00
	<b>Max</b>	6.00	80.00	65.00	80.00

**GROUP=STS Intermacs**

EQ-5D - VAS Score		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	<b>N</b>	149	263	334	746
	<b>Mean</b>	47.00	46.72	46.80	46.81
	<b>Std</b>	24.75	25.25	26.57	25.72
	<b>Min</b>	0.00	0.00	0.00	0.00
	<b>Max</b>	95.00	100.00	100.00	100.00

COVERAGE: June 23, 2006 - June 30, 2021

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18g. Quality of Life - EQ-5D Incomplete - Patient Reasons**

The following table compares the Patient Reasons the EQ-5D was not completed.

Patient Reasons for Incomplete EQ-5D	HOSPX-9999								STS InterMACS							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Too sick (ex., intubated/sedated, critically ill, on short-term VAD)	5	55.5 %	8	72.7 %	2	33.3 %	15	57.6 %	243	65.3 %	402	69.5 %	393	66.9 %	1038	67.5 %
Too tired	1	11.1 %	.	.	.	.	1	3.8 %	6	1.6 %	6	1.0 %	10	1.7 %	22	1.4 %
Too stressed, anxious, and/or depressed	.	.	1	9.0 %	.	.	1	3.8 %	6	1.6 %	14	2.4 %	18	3.0 %	38	2.4 %
No time / too busy	.	.	.	.	2	33.3 %	2	7.6 %	10	2.6 %	27	4.6 %	18	3.0 %	55	3.5 %
Too much trouble / don't want to be bothered / not interested	.	.	.	.	1	16.6 %	1	3.8 %	3	0.8 %	4	0.6 %	3	0.5 %	10	0.6 %
Can't concentrate	.	.	.	.	.	.	.	.	.	.	3	0.5 %	6	1.0 %	9	0.5 %
Unwilling to complete instrument, no reason given	.	.	1	9.0 %	.	.	1	3.8 %	1	0.2 %	9	1.5 %	7	1.1 %	17	1.1 %
Unable to read English and/or illiterate	.	.	.	.	.	.	.	.	2	0.5 %	5	0.8 %	3	0.5 %	10	0.6 %
Administrative (check specific reason below)	.	.	1	9.0 %	1	16.6 %	2	7.6 %	59	15.8 %	108	18.6 %	129	21.9 %	296	19.2 %
Other/Unknown	3	33.3 %	.	.	.	.	3	11.5 %	42	11.2 %	.	.	.	.	42	2.7 %
<b>TOTAL</b>	<b>9</b>	<b>100.0 %</b>	<b>11</b>	<b>100.0 %</b>	<b>6</b>	<b>100.0 %</b>	<b>26</b>	<b>100.0 %</b>	<b>372</b>	<b>100.0 %</b>	<b>578</b>	<b>100.0 %</b>	<b>587</b>	<b>100.0 %</b>	<b>1537</b>	<b>100.0 %</b>

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 18h. Quality of Life - EQ-5D Incomplete - Administrative Reasons**

The following table compares the Administrative Reasons the EQ-5D was not completed.

Administrative Reasons for Incomplete EQ-5D	HOSPX-9999						STS InterMACS							
	2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Urgent/emergent implant, no time to administer QOL instruments	1	100.0 %	1	100.0 %	2	100.0 %	3	4.4 %	11	10.1 %	12	9.3 %	26	8.5 %
Coordinator too busy or forgot to administer QOL instruments	.	.	.	.	.	.	9	13.2 %	55	50.9 %	79	61.2 %	143	46.8 %
Unable to contact patient (ie., not hospitalized or no clinic visit) within the window for QOL instr	.	.	.	.	.	.	2	2.9 %	2	1.8 %	10	7.7 %	14	4.5 %
Other reason (describe)	.	.	.	.	.	.	54	79.4 %	40	37.0 %	28	21.7 %	122	40.0 %
<b>TOTAL</b>	1	100.0 %	1	100.0 %	2	100.0 %	68	100.0 %	108	100.0 %	129	100.0 %	305	100.0 %

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.A. Pre-Implant Summaries - Functional Capacity and Quality of Life**

**Exhibit 19. Trailmaking**

Trailmaking Test time is the number of seconds required to complete the test.

**GROUP=HOSPX-9999**

Trailmaking Time(s)		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	<b>N</b>	1	6	1	8
	<b>Mean</b>	307.00	199.17	110.00	201.50
	<b>Std</b>	.	173.33	.	155.73
	<b>Min</b>	307.00	63.00	110.00	63.00
	<b>Max</b>	307.00	545.00	110.00	545.00

**GROUP=STS Intermacs**

Trailmaking Time(s)		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	<b>N</b>	120	159	201	480
	<b>Mean</b>	138.56	146.18	145.58	144.03
	<b>Std</b>	82.10	81.59	103.68	91.48
	<b>Min</b>	24.00	34.00	42.00	24.00
	<b>Max</b>	510.00	545.00	1093.00	1093.00

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

***SITE: HOSPX - DEMO SITE REPORT***

***II.B. Implant Summaries***

***Exhibit 20. VAD Indication***

The following table summarizes additional implant reasons that necessitated the placement of a VAD at your site and STS InterMACS.

VAD INDICATION	HOSPX-9999		STS InterMACS	
	N	%	N	%
Failure to wean from Cardio Pulmonary Bypass	1	2.9 %	53	2.2 %
Persistent Heart Failure Following Cardiac Surgery	5	14.7 %	142	6.1 %
None	28	82.3 %	2117	91.5 %
Total Patients	34	100.0 %	2312	100.0 %



**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.B. Implant Summaries**

**Exhibit 21. Device Type**

The following tables summarizes the implant side (location) of VADs at your site and STS InterMACs over time.

Device Type	HOSPX-9999								STS InterMACs							
	< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>LVAD</b>	9	81.8 %	15	83.3 %	11	100.0 %	35	87.5 %	437	80.9 %	780	86.9 %	1053	92.3 %	2270	88.0 %
<b>RVAD</b>	.	.	.	.	.	.	.	.	8	1.4 %	5	0.5 %	2	0.1 %	15	0.5 %
<b>BIVAD</b>	2	18.1 %	3	16.6 %	.	.	5	12.5 %	69	12.7 %	87	9.6 %	72	6.3 %	228	8.8 %
<b>TAH</b>	.	.	.	.	.	.	.	.	26	4.8 %	25	2.7 %	13	1.1 %	64	2.4 %
<b>TOTAL</b>	11	100.0 %	18	100.0 %	11	100.0 %	40	100.0 %	540	100.0 %	897	100.0 %	1140	100.0 %	2577	100.0 %

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.B. Implant Summaries**

***Exhibit 22. Additional Interventions within 48 Hours of Implant***

This table lists the interventions that occurred during the 48 hours prior to implant. A patient can have more than 1 additional intervention.

ADDITIONAL INTERVENTIONS	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
IABP	35	4	11.43%	2308	196	8.49%
Dialysis	35	1	2.86%	2308	115	4.98%
Ultrafiltration	35	1	2.86%	2308	39	1.69%
Ventilator	35	4	11.43%	2308	344	14.90%
Feeding Tube	35	1	2.86%	2308	117	5.07%
ECMO	35	0	0.00%	2308	111	4.81%
None	35	21	60.00%	2308	1230	53.29%
CABG+	35	0	0.00%	2308	6	0.26%
Aortic Valve Replacement/Repair+	35	0	0.00%	2308	11	0.48%
Mitral Valve Replacement/Repair+	35	0	0.00%	2308	2	0.09%
Congenital Cardiac Surgery+	35	0	0.00%	2308	0	0.00%
LVAD+	35	1	2.86%	2308	580	25.13%
RVAD+	35	2	5.71%	2308	160	6.93%
TAH+	35	0	0.00%	2308	6	0.26%
Aneurysmectomy+	35	0	0.00%	2308	0	0.00%

Note: + = variable collected post relaunch (5/2/2012)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

***Exhibit 23a. Patient Percent Experiencing Each Adverse Event Type***

For each adverse event type, the percent of patients with a least one event of that type reported is presented at for your site and STS-INTERMACS overall.

Patient percent experiencing a specific adverse event = number of unique patients with reported event / number of patients at your site \* 100

While useful, this measure does not take into consideration the varying amount of time on support for each patient (exposure time) or the timing of the adverse events. Subsequent exhibits use adverse event rates that more accurately compare adverse events reported at your site to the overall cohort.

	HOSPX-9999			STS InterMACS		
	Events	Patients	Patient Percent	Events	Patients	Patient Percent
Arterial Non-CNS Thromboembolism	.	.	.	37	34	1.3%
Bleeding	21	15	37.5%	2107	987	38.3%
Cardiac Arrhythmia	14	14	35.0%	924	592	23.0%
Device Malfunction and/or Pump Thrombosis	5	4	10.0%	747	489	19.0%
Hepatic Dysfunction	.	.	.	137	128	5.0%
Infection	22	18	45.0%	2788	1312	50.9%
Myocardial Infarction	.	.	.	7	6	0.2%
Neurological Dysfunction	8	7	17.5%	869	630	24.4%
Other Serious Adverse Event	6	3	7.5%	1299	660	25.6%
Pericardial Drainage	2	1	2.5%	115	106	4.1%
Psychiatric Episode	.	.	.	213	169	6.6%
Rehospitalization	58	24	60.0%	6716	1646	63.9%
Renal Dysfunction	7	6	15.0%	525	450	17.5%
Respiratory Failure	9	8	20.0%	875	661	25.6%
Venous Thromboembolism	.	.	.	94	89	3.5%
Wound Dehiscence	2	2	5.0%	61	55	2.1%

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

***Exhibit 23b. Adverse Event Exposure***

The following table summarizes the total time patients receiving primary prospective implants have been followed at your site and STS InterMACS overall. The total follow-up time is divided into an early period (less than or equal to three months) and late period (more than three months). These totals are the accrued exposure time for each patient group and are used as the denominators in the following rate calculations.

Patient Follow-Up	HOSPX-9999	STS InterMACS
Patient exposure during the first 3 months post implant (months)	92	6725
Patient exposure after the first 3 months post implant (months)	527	41023
Number of Patients	40	2577

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

**Exhibit 23c. Adverse Event Rates**

**GROUP=HOSPX-9999**

	HOSPX-9999					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
Bleeding	19	32.5%	20.54	2	5.0%	0.38
Cardiac Arrhythmia	12	30.0%	12.98	2	5.0%	0.38
Device Malfunction and/or Pump Thrombosis	.	.	.	5	10.0%	0.95
Infection	12	27.5%	12.98	10	25.0%	1.90
Neurological Dysfunction	4	7.5%	4.33	4	10.0%	0.76
Other Serious Adverse Event	5	7.5%	5.41	1	2.5%	0.19
Pericardial Drainage	2	2.5%	2.16	.	.	.
Rehospitalization	14	30.0%	15.14	44	50.0%	8.36
Renal Dysfunction	6	15.0%	6.49	1	2.5%	0.19
Respiratory Failure	9	20.0%	9.73	.	.	.
Wound Dehiscence	2	5.0%	2.16	.	.	.

**GROUP=STS Intermacs**

	STS Intermacs					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
Arterial Non-CNS Thromboembolism	31	1.1%	0.46	6	0.2%	0.01
Bleeding	1098	26.5%	16.33	1009	19.0%	2.46
Cardiac Arrhythmia	585	17.2%	8.70	339	8.0%	0.83
Device Malfunction and/or Pump Thrombosis	162	5.7%	2.41	585	15.1%	1.43
Hepatic Dysfunction	81	3.1%	1.20	56	2.1%	0.14
Infection	1231	31.7%	18.31	1557	31.2%	3.80
Myocardial Infarction	3	0.1%	0.04	4	0.1%	0.01
Neurological Dysfunction	390	13.3%	5.80	479	13.0%	1.17
Other Serious Adverse Event	806	18.6%	11.99	493	11.3%	1.20
Pericardial Drainage	110	3.9%	1.64	5	0.2%	0.01
Psychiatric Episode	134	4.8%	1.99	79	2.3%	0.19
Rehospitalization	1102	29.3%	16.39	5614	56.7%	13.68
Renal Dysfunction	366	13.2%	5.44	159	5.1%	0.39
Respiratory Failure	670	21.4%	9.96	205	6.4%	0.50
Venous Thromboembolism	80	2.9%	1.19	14	0.5%	0.03
Wound Dehiscence	52	1.8%	0.77	9	0.3%	0.02

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

**Exhibit 23d. Infection Rates by Location**

The following table compares infection rates according to location at your site and STS InterMACS. Every infection location reported is counted in the table.

**GROUP=HOSPX-9999**

	HOSPX-9999					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
GI	4	10.0%	4.33	.	.	.
Line Sepsis	1	2.5%	1.08	.	.	.
Other Specify	.	.	.	1	2.5%	0.19
Positive Blood Cultures	3	7.5%	3.24	2	5.0%	0.38
Pulmonary	5	12.5%	5.41	.	.	.
Pump/Related - Drive Line	.	.	.	5	12.5%	0.95
Pump/Related - Pump Interior	.	.	.	1	2.5%	0.19
Pump/Related - Pump Pocket	.	.	.	1	2.5%	0.19
Unknown	1	2.5%	1.08	.	.	.
Urinary Tract	3	7.5%	3.24	1	2.5%	0.19

**GROUP=STS InterMACS**

	STS InterMACS					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
GI	87	3.3%	1.29	90	3.1%	0.22
Line Sepsis	38	1.4%	0.57	31	1.0%	0.08
Mediastinum	79	2.9%	1.17	41	1.3%	0.10
Other Specify	189	6.6%	2.81	208	6.6%	0.51
Peripheral Wound	52	2.0%	0.77	45	1.6%	0.11
Positive Blood Cultures	269	9.0%	4.00	417	11.9%	1.02
Pulmonary	385	12.7%	5.73	233	6.8%	0.57
Pump/Related - Drive Line	95	3.5%	1.41	545	13.5%	1.33
Pump/Related - Exit Cannula	1	0.0%	0.01	15	0.6%	0.04
Pump/Related - Pump Interior	5	0.2%	0.07	10	0.4%	0.02
Pump/Related - Pump Pocket	41	1.5%	0.61	64	2.2%	0.16
Unknown	26	1.0%	0.39	31	1.2%	0.08
Urinary Tract	209	7.3%	3.11	176	5.1%	0.43

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

***Exhibit 23e. Bleeding Rates by Source***

The following table compares bleeding rates according to source at your site and STS InterMACS. Every bleed source reported is counted in the table.

NOTE: These rates are reported for patients receiving a implant starting in March 2009.

**GROUP=HOSPX-9999**

	HOSPX-9999					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
ENT / Dental	1	2.6%	1.12	.	.	.
GI OVERALL: upper, lower, unknown	4	7.9%	4.50	1	2.6%	0.19
GI: Lower gastrointestinal (colon, rectum, and anus)	1	2.6%	1.12	.	.	.
GI: Upper gastrointestinal (esophagus, stomach, duod)	3	7.9%	3.37	.	.	.
GI: unknown, but guaiac positive stools	.	.	.	1	2.6%	0.19
Mediastinal: Unspecified	1	2.6%	1.12	.	.	.
Other	9	21.1%	10.12	.	.	.
Pleural space	1	2.6%	1.12	.	.	.
Pump Pocket	.	.	.	1	2.6%	0.19
Retroperitoneal	1	2.6%	1.12	.	.	.
Urinary tract	2	5.3%	2.25	.	.	.

**GROUP=STS InterMACS**

	STS InterMACS					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
Device anastomosis	12	0.4%	0.18	3	0.1%	0.01
ENT / Dental	55	1.9%	0.84	60	1.8%	0.15
GI OVERALL: upper, lower, unknown	357	10.8%	5.45	645	13.5%	1.64
GI: Lower gastrointestinal (colon, rectum, and anus)	96	3.2%	1.47	144	4.0%	0.37
GI: Upper gastrointestinal (esophagus, stomach, duod)	167	5.2%	2.55	326	8.4%	0.83
GI: unknown, but guaiac positive stools	116	4.1%	1.77	187	5.1%	0.47
Intra-abdominal	15	0.6%	0.23	18	0.7%	0.05
Mediastinal: Unspecified	113	3.6%	1.73	4	0.2%	0.01
Mediastinal: aortic-venous cannulation site	4	0.2%	0.06	.	.	.
Mediastinal: chest wall	110	4.0%	1.68	4	0.2%	0.01
Mediastinal: coagulopathy with no surgical site	34	1.2%	0.52	4	0.2%	0.01
Mediastinal: inflow conduit	4	0.2%	0.06	.	.	.
Mediastinal: other surgical site	33	1.2%	0.50	3	0.1%	0.01
Mediastinal: outflow conduit	5	0.2%	0.08	2	0.0%	0.01
Mediastinal: outflow-aorta anastomosis	13	0.5%	0.20	.	.	.
Other	308	8.1%	4.70	250	6.8%	0.63
Pleural space	45	1.7%	0.69	8	0.3%	0.02
Pulmonary	25	0.8%	0.38	7	0.2%	0.02
Pump Pocket	15	0.4%	0.23	3	0.1%	0.01
Retroperitoneal	11	0.4%	0.17	3	0.1%	0.01
Urinary tract	12	0.4%	0.18	18	0.6%	0.05

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

***Exhibit 23f. Device Malfunction and/or Pump Thrombosis by type***

The following table compares Device Malfunction and/or Pump Thrombosis rates according to type at your site and STS InterMACS.

NOTE: These rates are reported for patients receiving implant starting with Version 4.0 (June 2, 2014).

**GROUP=HOSPX-9999**

	<b>HOSPX-9999</b>		
	<b>Late (After the First Three Months)</b>		
	<b>Episodes</b>	<b>Patient %</b>	<b>Rate (per 100 pt month)</b>
Device Malfunction	1	3.4%	0.21
Pump Thrombosis	3	10.3%	0.63

**GROUP=STS InterMACS**

	<b>STS InterMACS</b>					
	<b>Early (During the First Three Months)</b>			<b>Late (After the First Three Months)</b>		
	<b>Episodes</b>	<b>Patient %</b>	<b>Rate (per 100 pt month)</b>	<b>Episodes</b>	<b>Patient %</b>	<b>Rate (per 100 pt month)</b>
Device Malfunction	56	2.7%	1.09	165	7.0%	0.58
Pump Thrombosis	90	4.0%	1.75	175	7.1%	0.62



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Adverse Event Rates**

***Exhibit 23g. Neurological Dysfunction by Category***

The following table compares neurological dysfunction rates according to category at your site and STS InterMACS.

NOTE: These rates are reported for patients receiving implant starting with Version 3.0 (May 2, 2012).

**GROUP=HOSPX-9999**

	HOSPX-9999					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
CVA	1	2.5%	1.33	2	5.0%	0.40
Encephalopathy	.	.	.	1	2.5%	0.20

**GROUP=STS InterMACS**

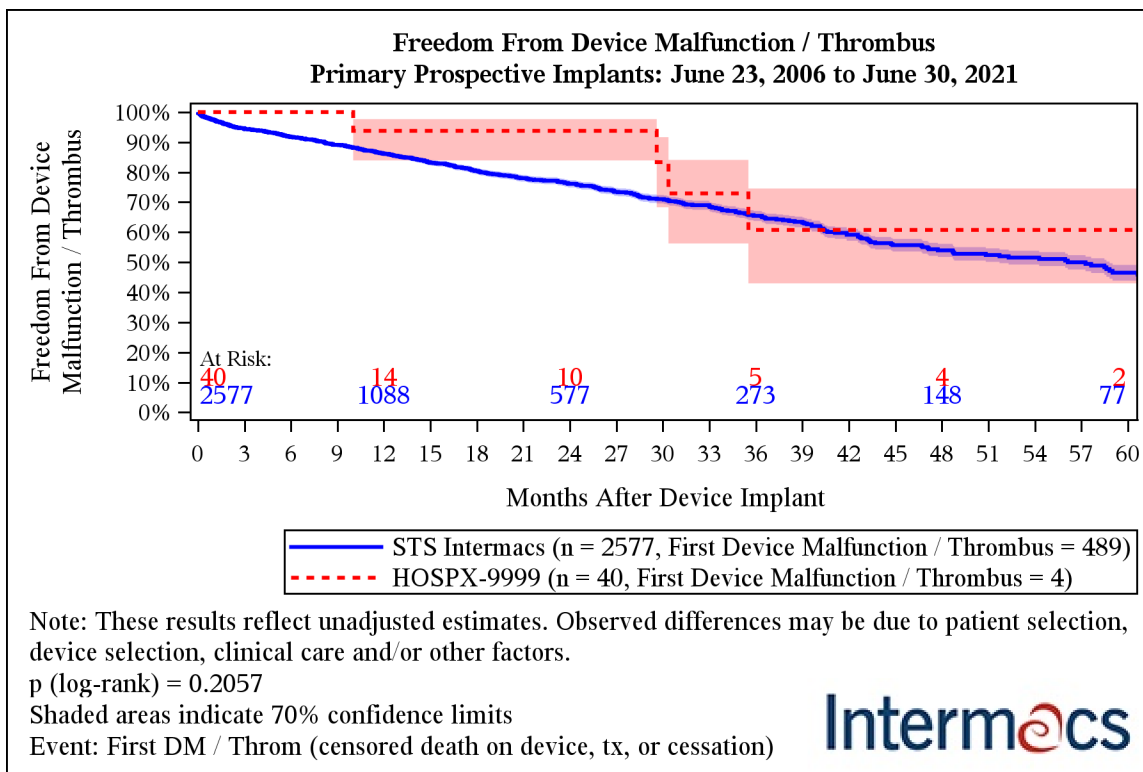
	STS InterMACS					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
CVA	205	7.6%	3.38	258	8.1%	0.72
Confusion	33	1.2%	0.54	41	1.3%	0.11
Encephalopathy	43	1.6%	0.71	32	1.2%	0.09
Seizure	25	1.0%	0.41	25	0.8%	0.07
TIA	25	0.9%	0.41	51	1.6%	0.14

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 24a. Time to First Device Malfunction / Thrombus**



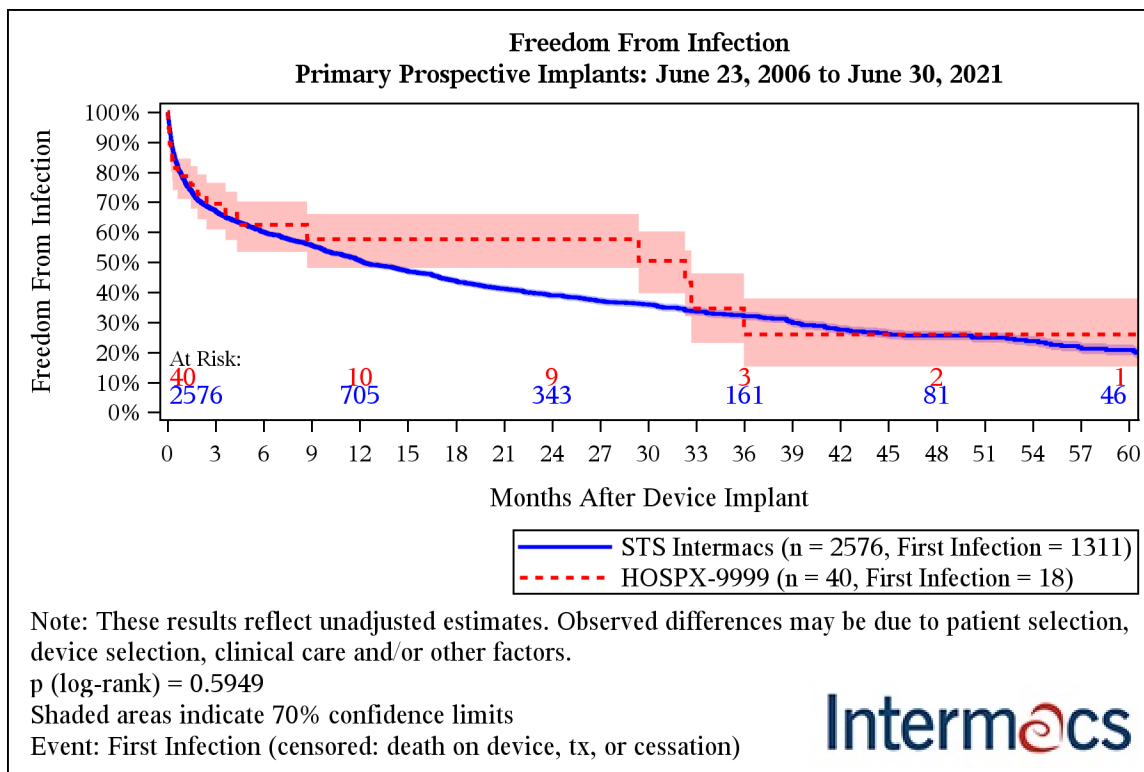
Months after Device Implant	STS Intermacs	HOSPX-9999
1	97.5% (97.1%-97.8%)	100.0% (100.0%-100.0%)
3	94.5% (94.0%-94.9%)	100.0% (100.0%-100.0%)
6	91.7% (91.1%-92.3%)	100.0% (100.0%-100.0%)
9	89.1% (88.4%-89.8%)	100.0% (100.0%-100.0%)
12	86.2% (85.3%-87.0%)	93.8% (83.9%-97.7%)
24	76.1% (74.9%-77.3%)	93.8% (83.9%-97.7%)
36	65.5% (63.8%-67.1%)	60.8% (43.0%-74.5%)
48	54.0% (51.8%-56.1%)	60.8% (43.0%-74.5%)
60	46.5% (43.9%-49.1%)	60.8% (43.0%-74.5%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 24b. Time to First Infection**



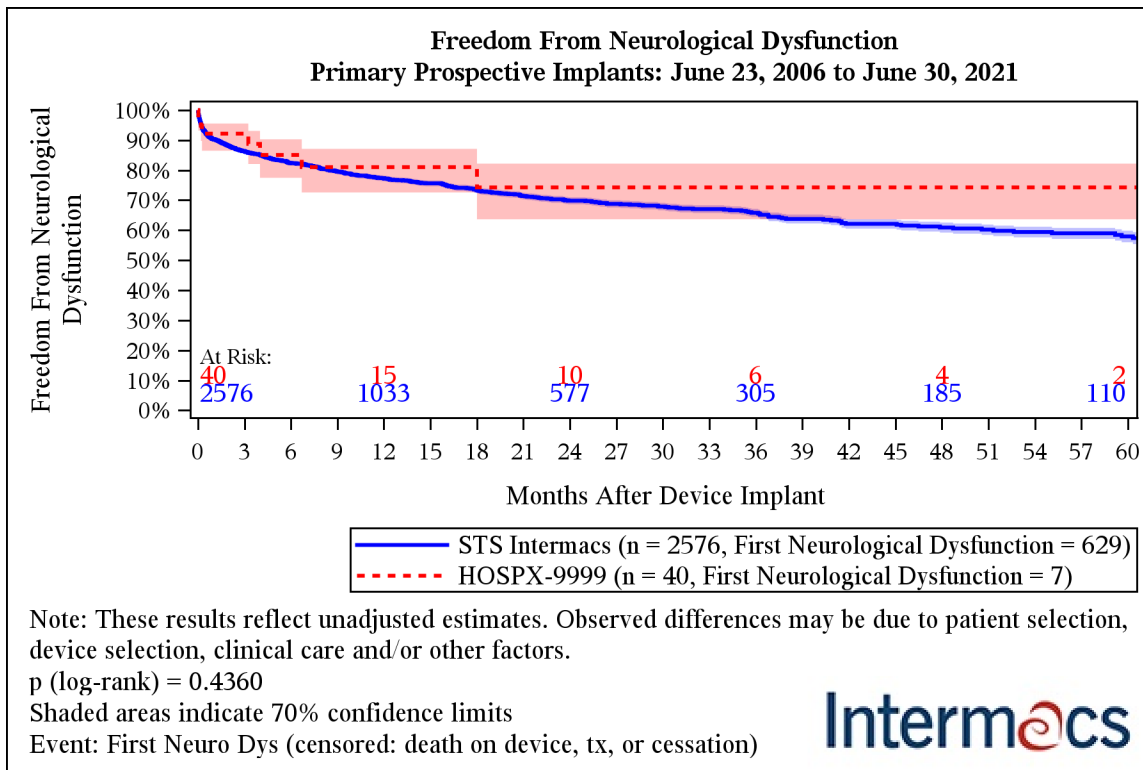
Months after Device Implant	STS Intermacs	HOSPX-9999
1	77.8% (77.0%-78.7%)	78.7% (71.0%-84.5%)
3	67.1% (66.1%-68.1%)	69.4% (60.9%-76.5%)
6	60.1% (59.1%-61.1%)	62.5% (53.5%-70.2%)
9	55.7% (54.6%-56.8%)	57.7% (48.1%-66.1%)
12	50.6% (49.5%-51.7%)	57.7% (48.1%-66.1%)
24	39.0% (37.7%-40.2%)	57.7% (48.1%-66.1%)
36	32.0% (30.6%-33.4%)	25.9% (15.3%-38.0%)
48	25.6% (24.0%-27.2%)	25.9% (15.3%-38.0%)
60	20.8% (19.0%-22.6%)	25.9% (15.3%-38.0%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 24c. Time to First Neurological Dysfunction**



Months after Device Implant	STS Intermacs	HOSPX-9999
1	90.3% (89.7%-90.9%)	92.2% (86.5%-95.5%)
3	86.3% (85.6%-87.0%)	92.2% (86.5%-95.5%)
6	82.4% (81.6%-83.2%)	85.1% (77.5%-90.3%)
9	79.5% (78.6%-80.3%)	81.0% (72.6%-87.1%)
12	77.3% (76.3%-78.2%)	81.0% (72.6%-87.1%)
24	69.8% (68.6%-71.0%)	74.3% (63.7%-82.2%)
36	65.8% (64.4%-67.1%)	74.3% (63.7%-82.2%)
48	60.9% (59.2%-62.5%)	74.3% (63.7%-82.2%)
60	57.9% (56.0%-59.8%)	74.3% (63.7%-82.2%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

***Exhibit 25. Hospital Days for Discharged Patients***

This table compares hospital days (initial hospitalization) from implant date to discharge date for patients with submitted discharge forms. For most patients this is the date they were discharged alive on a device but for patients that died or were transplanted in the implantation hospitalization it is the death date or transplant date, respectively. The first section (All) compares overall hospital days. The remaining sections compare hospital days by each device type, LVAD, Bi-VAD and TAH respectively.

HOSPITAL DAYS FOR DISCHARGED PATIENTS			HOSPX-9999				STS Intermacs			
			< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL	< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
All		N	7	15	8	30	427	714	934	2075
		Mean	30.43	34.73	20.50	29.93	34.45	30.68	31.63	31.88
		Std	11.91	27.44	5.95	20.93	29.02	26.81	39.28	33.41
		Median	29	28	20	25	27	23	22	23
		Min	16	0	12	0	0	0	0	0
		Max	49	98	32	98	223	307	754	754
BiVAD		N	.	3	.	3	40	52	41	133
		Mean	.	59.00	.	59.00	54.68	46.48	65.15	54.70
		Std	.	51.97	.	51.97	27.36	28.53	65.55	43.57
		Median	.	79	.	79	47	40	48	45
		Min	.	0	.	0	16	0	0	0
		Max	.	98	.	98	119	129	378	378
LVAD		N	7	12	8	27	374	650	887	1911
		Mean	30.43	28.67	20.50	26.70	29.52	28.81	29.92	29.46
		Std	11.91	16.32	5.95	13.13	21.61	25.16	36.98	30.67
		Median	29	27	20	24	24	21	21	22
		Min	16	13	12	12	0	0	0	0
		Max	49	73	32	73	153	307	754	754
RVAD		N	.	.	.	.	6	3	1	10
		Mean	.	.	.	.	86.33	47.00	42.00	70.10
		Std	.	.	.	.	40.39	51.29	.	43.96
		Median	.	.	.	.	80	22	42	71
		Min	.	.	.	.	35	13	42	13
		Max	.	.	.	.	156	106	42	156
TAH		N	.	.	.	.	7	9	5	21
		Mean	.	.	.	.	138.14	69.44	58.20	89.67
		Std	.	.	.	.	71.02	56.26	30.80	64.98
		Median	.	.	.	.	128	43	54	85
		Min	.	.	.	.	25	14	23	14
		Max	.	.	.	.	223	182	94	223

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - 30 Day Readmission**

**Exhibit 26. 30 Days Readmission**

The following tables present the counts and percentages of patients that were discharged alive on a device that were readmitted within 30 days for your site and for STS Intermacs overall. Percentages are listed by device type and discharge year.

**GROUP=HOSPX-9999**

30 Day Readmission		Device Type						TOTAL		
		LVAD			BiVAD					
		Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission	Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission	Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission
Discharge Year										
	2007	1	0	0.0%	.	.	.	1	0	0.0%
	2009	1	1	100.0%	.	.	.	1	1	100.0%
	2010	2	0	0.0%	.	.	.	2	0	0.0%
	2011	1	1	100.0%	.	.	.	1	1	100.0%
	2012	1	0	0.0%	.	.	.	1	0	0.0%
	2013	1	1	100.0%	.	.	.	1	1	100.0%
	2014	1	0	0.0%	.	.	.	1	0	0.0%
	2015	9	3	33.3%	.	.	.	9	3	33.3%
	2016	.	.	.	2	0	0.0%	2	0	0.0%
	2017	2	0	0.0%	1	0	0.0%	3	0	0.0%
	2018	3	0	0.0%	.	.	.	3	0	0.0%
	2019	1	0	0.0%	.	.	.	1	0	0.0%
	2020	3	0	0.0%	.	.	.	3	0	0.0%
	2021	1	1	100.0%	.	.	.	1	1	100.0%
TOTAL		27	7	25.9%	3	0	0.0%	30	7	23.3%

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - 30 Day Readmission**

**Exhibit 26. 30 Days Readmission**

**GROUP=STS InterMACS**

30 Day Readmission		Device Type								
		LVAD			RVAD			BiVAD		
		Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission	Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission	Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission
Discharge Year										
	2006	9	1	11.1%	.	.	.	2	1	50.0%
	2007	11	3	27.3%	2	0	0.0%	4	3	75.0%
	2008	15	2	13.3%	.	.	.	3	0	0.0%
	2009	23	7	30.4%	.	.	.	1	0	0.0%
	2010	35	4	11.4%	.	.	.	7	1	14.3%
	2011	51	19	37.3%	.	.	.	4	1	25.0%
	2012	102	31	30.4%	1	0	0.0%	6	2	33.3%
	2013	121	42	34.7%	2	0	0.0%	11	3	27.3%
	2014	120	30	25.0%	2	1	50.0%	11	3	27.3%
	2015	146	51	34.9%	1	1	100.0%	13	7	53.8%
	2016	160	34	21.3%	.	.	.	13	1	7.7%
	2017	201	54	26.9%	.	.	.	14	3	21.4%
	2018	229	59	25.8%	.	.	.	9	2	22.2%
	2019	279	71	25.4%	.	.	.	8	3	37.5%
	2020	231	44	19.0%	.	.	.	11	3	27.3%
	2021	158	26	16.5%	.	.	.	11	2	18.2%
	<b>TOTAL</b>	1891	478	25.3%	8	2	25.0%	128	35	27.3%

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - 30 Day Readmission**

**Exhibit 26. 30 Days Readmission**

GROUP=STS InterMACS

30 Day Readmission		Device Type			TOTAL		
		TAH					
		Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission	Patients Discharged Alive on Device (n)	Patients with 30 day Readmission	% With 30 day Readmission
Discharge Year							
	2006	.	.	.	11	2	18.2%
	2007	1	0	0.0%	18	6	33.3%
	2008	.	.	.	18	2	11.1%
	2009	.	.	.	24	7	29.2%
	2010	.	.	.	42	5	11.9%
	2011	.	.	.	55	20	36.4%
	2012	1	0	0.0%	110	33	30.0%
	2013	.	.	.	134	45	33.6%
	2014	1	1	100.0%	134	35	26.1%
	2015	2	1	50.0%	162	60	37.0%
	2016	2	1	50.0%	175	36	20.6%
	2017	4	2	50.0%	219	59	26.9%
	2018	2	0	0.0%	240	61	25.4%
	2019	2	1	50.0%	289	75	26.0%
	2020	1	0	0.0%	243	47	19.3%
	2021	.	.	.	169	28	16.6%
	TOTAL		16	6	37.5%	2043	521



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27a. 6 Minute Walk - Overall**

The following tables summarize Six Minute Walk completion status and values at your site and STS InterMACs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS										
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
		N	N	%	N	%	N	%	Mean	Std	Median	Min
Pre-Implant	40	16	40.0	23	57.5	1	2.5	601.0	.	601.0	601.0	601.0
3 Month	25	10	40.0	2	8.0	13	52.0	690.8	438.7	831.0	49.0	1250.0
6 Month	18	10	55.6	.	.	8	44.4	971.9	191.9	1007.0	671.0	1200.0
1 Year	12	8	66.7	.	.	4	33.3	1020.0	112.2	1025.0	900.0	1130.0
2 Year	9	7	77.8	.	.	2	22.2	1375.0	106.1	1375.0	1300.0	1450.0
3 Year	3	3	100.0	.	.	.	.	.	.	.	.	.
4 Year	1	1	100.0	.	.	.	.	.	.	.	.	.
5 Year	1	1	100.0	.	.	.	.	.	.	.	.	.

**GROUP=STS InterMACs**

VISIT	Patients (n)	COMPLETION STATUS													
		Not Done: Other/Unknown		Not Done: Too Sick		Outlier		Complete							
												Six Minute Walk (ft)			
	N	N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	2577	687	26.7	1688	65.5	1	0.0	201	7.8	771.3	411.8	750.0	0.0	2000.0	
3 Month	1915	1130	59.0	253	13.2	2	0.1	530	27.7	1018.6	377.5	1030.0	5.0	2213.0	
6 Month	1595	923	57.9	136	8.5	3	0.2	533	33.4	1085.1	381.3	1100.0	18.0	2362.0	
1 Year	1089	669	61.4	74	6.8	.	.	346	31.8	1130.1	371.5	1150.0	3.0	2330.0	
2 Year	573	359	62.7	36	6.3	.	.	178	31.1	1125.1	401.4	1137.5	66.0	2250.0	
3 Year	282	186	66.0	11	3.9	.	.	85	30.1	1106.5	360.4	1130.0	345.0	2100.0	
4 Year	155	104	67.1	11	7.1	.	.	40	25.8	1133.6	331.6	1159.0	400.0	1899.0	
5 Year	85	57	67.1	5	5.9	.	.	23	27.1	1141.0	296.4	1150.0	640.0	1800.0	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

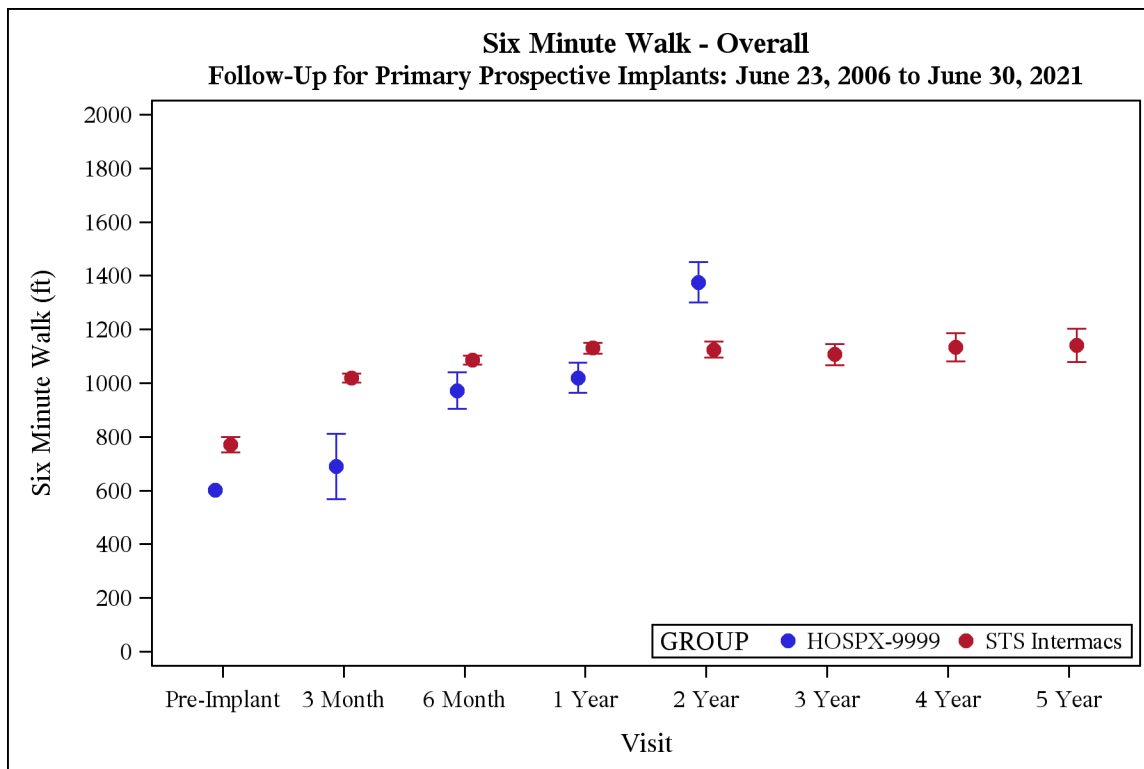
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27a. 6 Minute Walk - Overall**

The following figure summarize Six Minute Walk - Overall values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27b. 6 Minute Walk - LVAD**

The following tables summarize Six Minute Walk completion status and values at your site and STS InterMACs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS										
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
		N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	35	14	40.0	20	57.1	1	2.9	601.0	.	601.0	601.0	601.0
3 Month	22	8	36.4	1	4.5	13	59.1	690.8	438.7	831.0	49.0	1250.0
6 Month	16	9	56.3	.	.	7	43.8	950.0	196.2	950.0	671.0	1200.0
1 Year	9	5	55.6	.	.	4	44.4	1020.0	112.2	1025.0	900.0	1130.0
2 Year	9	7	77.8	.	.	2	22.2	1375.0	106.1	1375.0	1300.0	1450.0
3 Year	3	3	100.0	.	.	.	.	.	.	.	.	.
4 Year	1	1	100.0	.	.	.	.	.	.	.	.	.
5 Year	1	1	100.0	.	.	.	.	.	.	.	.	.

**GROUP=STS InterMACs**

VISIT	Patients (n)	COMPLETION STATUS								Six Minute Walk (ft)				
		Not Done: Other/Unknown		Not Done: Too Sick		Outlier		Complete						
	N	N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	2270	636	28.0	1444	63.6	1	0.0	189	8.3	769.4	401.6	750.0	0.0	2000.0
3 Month	1741	1031	59.2	210	12.1	.	.	500	28.7	1027.6	378.6	1040.0	5.0	2213.0
6 Month	1473	862	58.5	116	7.9	3	0.2	492	33.4	1090.9	384.5	1100.0	78.0	2362.0
1 Year	1012	618	61.1	70	6.9	.	.	324	32.0	1135.1	371.3	1173.5	3.0	2330.0
2 Year	545	339	62.2	34	6.2	.	.	172	31.6	1127.3	405.4	1140.5	66.0	2250.0
3 Year	266	175	65.8	11	4.1	.	.	80	30.1	1131.9	350.3	1171.0	345.0	2100.0
4 Year	147	99	67.3	10	6.8	.	.	38	25.9	1128.0	326.3	1159.0	400.0	1899.0
5 Year	80	54	67.5	5	6.3	.	.	21	26.3	1138.2	303.7	1150.0	640.0	1800.0

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

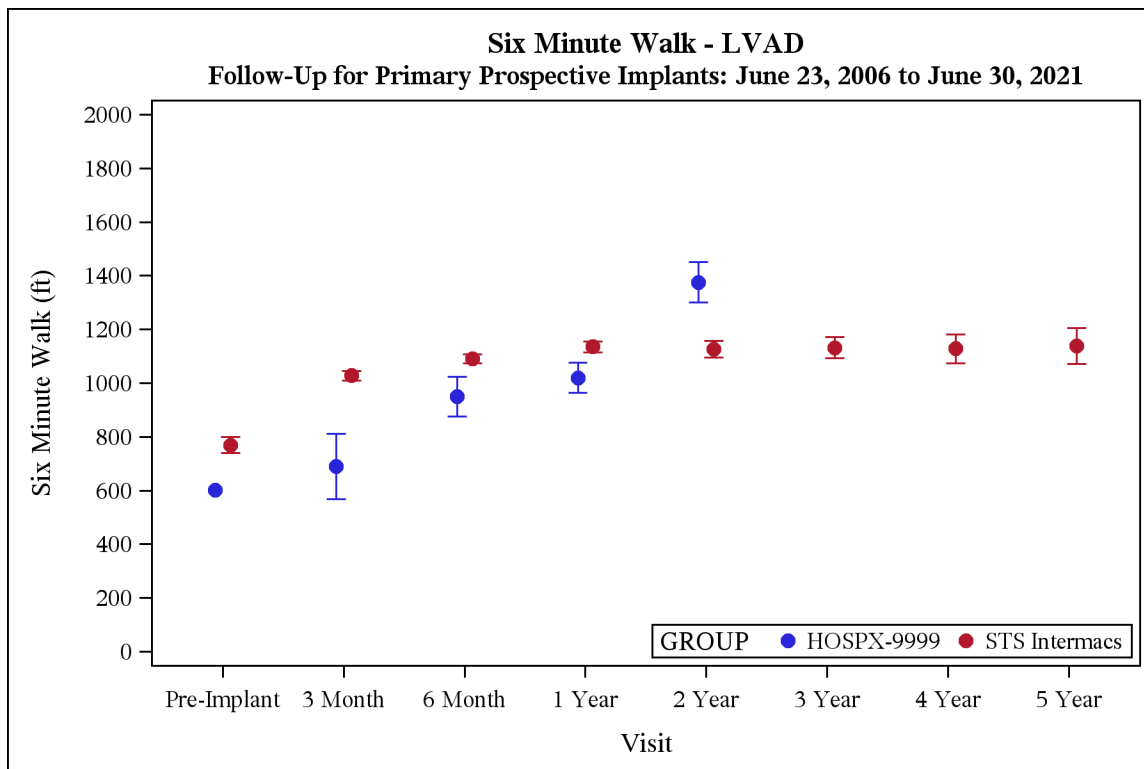
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27b. 6 Minute Walk - LVAD**

The following figure summarize Six Minute Walk - LVAD values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27c. 6 Minute Walk - BiVAD**

The following tables summarize Six Minute Walk completion status and values at your site and STS InterMACs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS										
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
		N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	5	2	40.0	3	60.0	.	.	.	.	.	.	.
3 Month	3	2	66.7	1	33.3	.	.	.	.	.	.	.
6 Month	2	1	50.0	.	.	1	50.0	1125.0	.	1125.0	1125.0	1125.0
1 Year	3	3	100.0	.	.	.	.	.	.	.	.	.

**GROUP=STS InterMACs**

VISIT	Patients (n)	COMPLETION STATUS												
		Not Done: Other/Unknown		Not Done: Too Sick		Outlier		Complete						
		N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	228	45	19.7	176	77.2	.	.	7	3.1	912.4	641.7	1004.0	126.0	1800.0
3 Month	128	79	61.7	29	22.7	1	0.8	19	14.8	894.6	310.4	910.0	210.0	1570.0
6 Month	99	52	52.5	13	13.1	.	.	34	34.3	977.7	354.0	1050.0	18.0	1614.0
1 Year	70	47	67.1	4	5.7	.	.	19	27.1	1093.6	308.9	1044.0	733.0	1797.0
2 Year	27	19	70.4	2	7.4	.	.	6	22.2	1062.5	277.2	983.0	767.0	1542.0
3 Year	15	10	66.7	.	.	.	.	5	33.3	700.4	289.7	730.0	425.0	1150.0
4 Year	7	4	57.1	1	14.3	.	.	2	28.6	1239.5	570.6	1239.5	836.0	1643.0
5 Year	5	3	60.0	.	.	.	.	2	40.0	1171.0	292.7	1171.0	964.0	1378.0

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

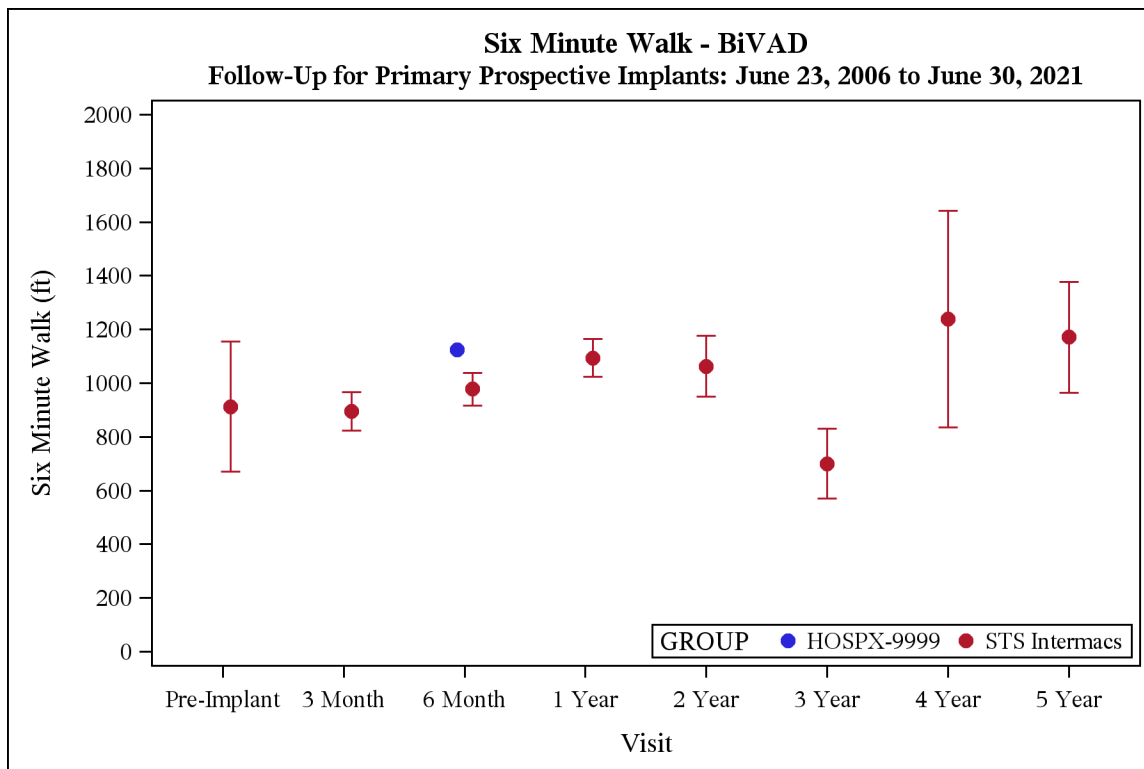
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27c. 6 Minute Walk - BiVAD**

The following figure summarize Six Minute Walk - BiVAD values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**COVERAGE: June 23, 2006 - June 30, 2021**

## ***SITE: HOSPX - DEMO SITE REPORT***

### II.C. Post Implant Summary - Functional Capacity

***Exhibit 27d. 6 Minute Walk - TAH***

The following tables summarize Six Minute Walk completion status and values at your site and STS Intermacs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=STS Intermacs**

[illegible]

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

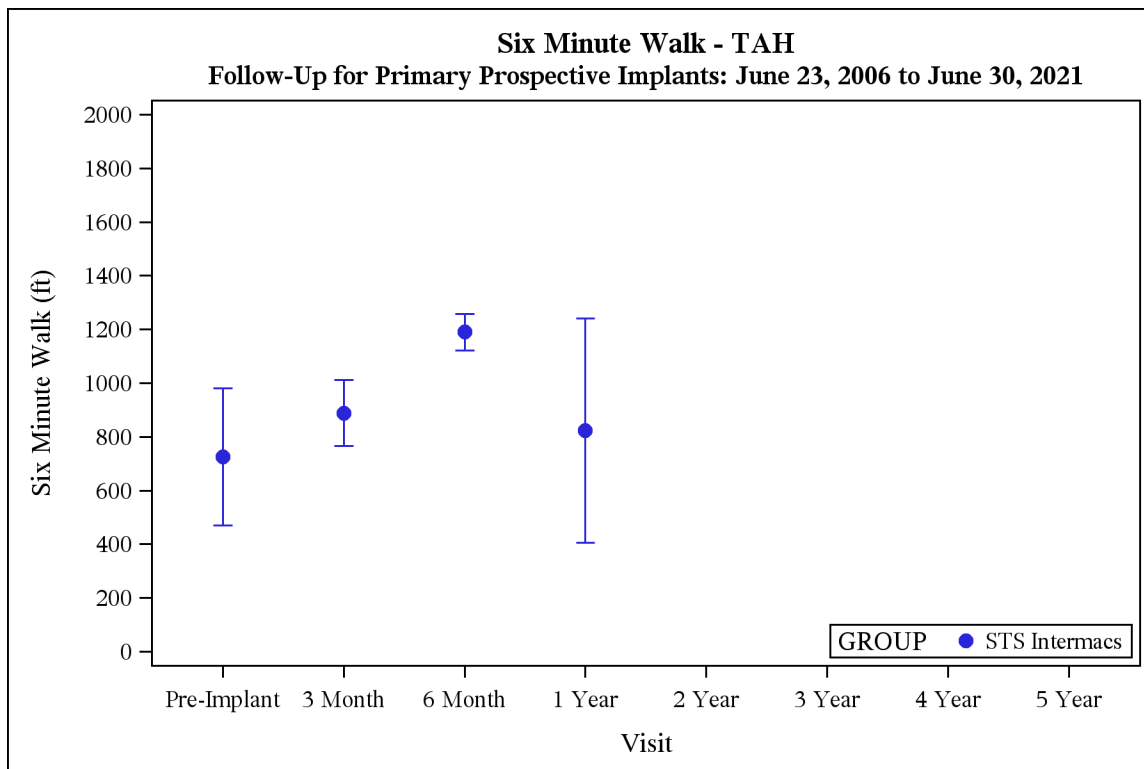
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 27d. 6 Minute Walk - TAH**

The following figure summarize Six Minute Walk - TAH values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.







**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

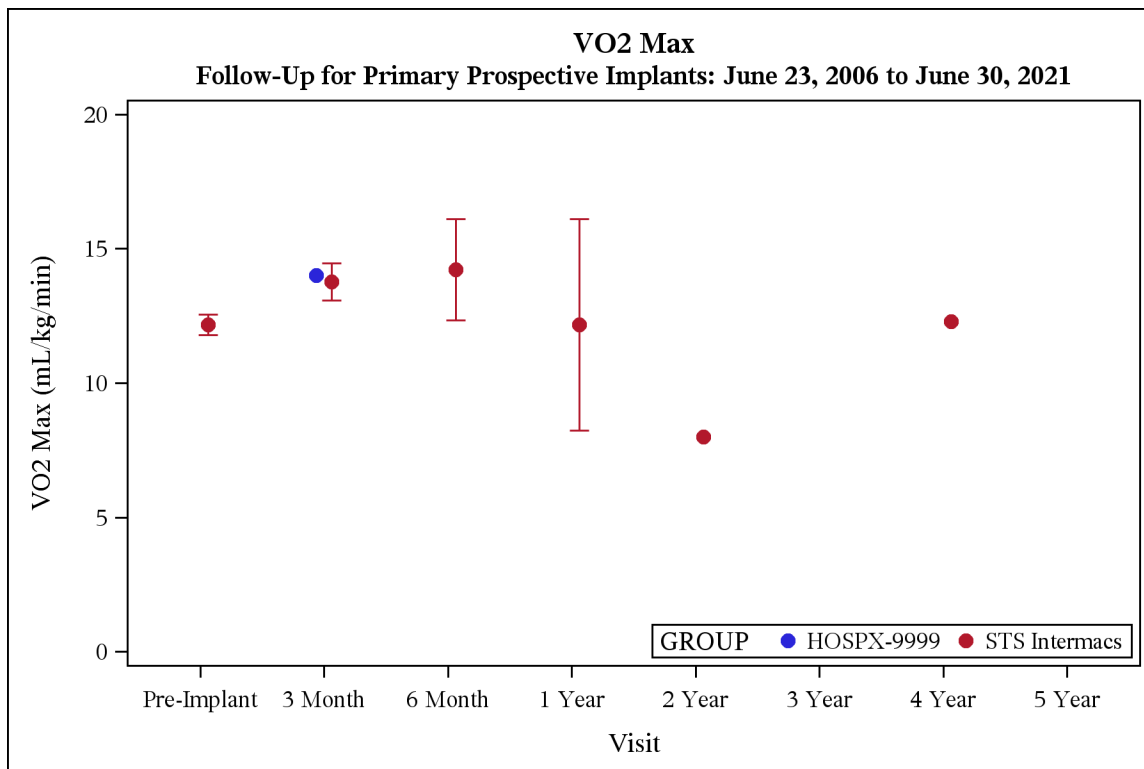
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 28. VO2 Max**

The following figure summarize VO2 Max values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.





**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

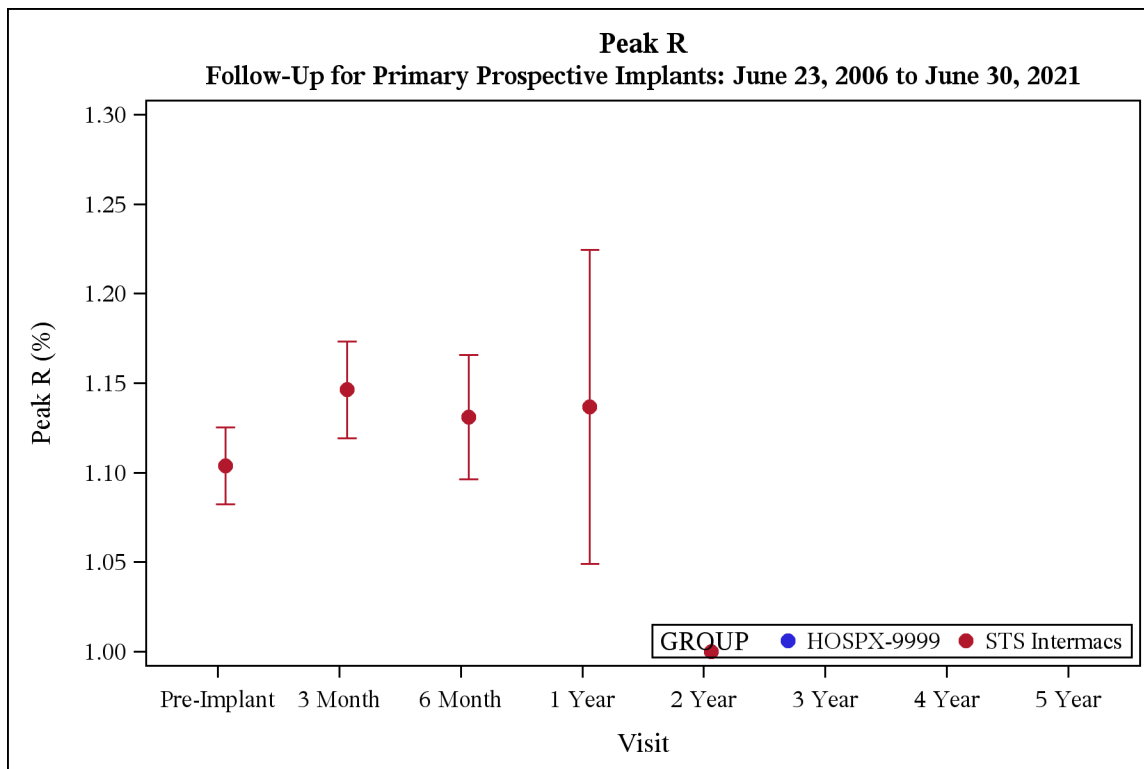
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 29. Peak R**

The following figure summarize Peak R values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 30. Gait Speed**

The following tables summarize Gait Speed completion status and values at your site and STS InterMACs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS						Gait Speed (Feet/Sec) - DV					
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
		N	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	40	29	72.5	10	25.0	1	2.5	2.2	.	2.2	2.2	2.2	
3 Month	25	17	68.0	1	4.0	7	28.0	4.3	1.4	4.6	2.5	6.0	
6 Month	18	14	77.8	.	.	4	22.2	5.6	2.0	5.0	3.9	8.3	
1 Year	12	8	66.7	.	.	4	33.3	4.8	1.0	4.9	3.5	5.8	
2 Year	9	7	77.8	.	.	2	22.2	4.1	0.6	4.1	3.8	4.5	
3 Year	3	3	100.0	.	.	.	.	.	.	.	.	.	
4 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	
5 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	

**GROUP=STS InterMACs**

VISIT	Patients (n)	COMPLETION STATUS								Gait Speed (Feet/Sec) - DV					
		Not Done: Other/Unknown		Not Done: Too Sick		Outlier		Complete							
		N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	2577	1051	40.8	1474	57.2	1	0.0	51	2.0	2.8	1.4	2.7	0.5	7.5	
3 Month	1915	1363	71.2	227	11.9	1	0.1	324	16.9	3.4	1.3	3.1	0.0	10.0	
6 Month	1595	1169	73.3	118	7.4	.	.	308	19.3	3.4	1.3	3.3	0.0	8.3	
1 Year	1089	804	73.8	61	5.6	1	0.1	223	20.5	3.7	1.3	3.5	0.7	8.8	
2 Year	573	418	72.9	34	5.9	1	0.2	120	20.9	3.8	1.4	3.7	1.5	9.3	
3 Year	282	216	76.6	11	3.9	1	0.4	54	19.1	3.4	1.4	3.3	0.0	7.5	
4 Year	155	118	76.1	9	5.8	1	0.6	27	17.4	3.6	1.4	3.5	0.8	6.5	
5 Year	85	66	77.6	4	4.7	.	.	15	17.6	3.6	1.1	3.8	0.7	5.0	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

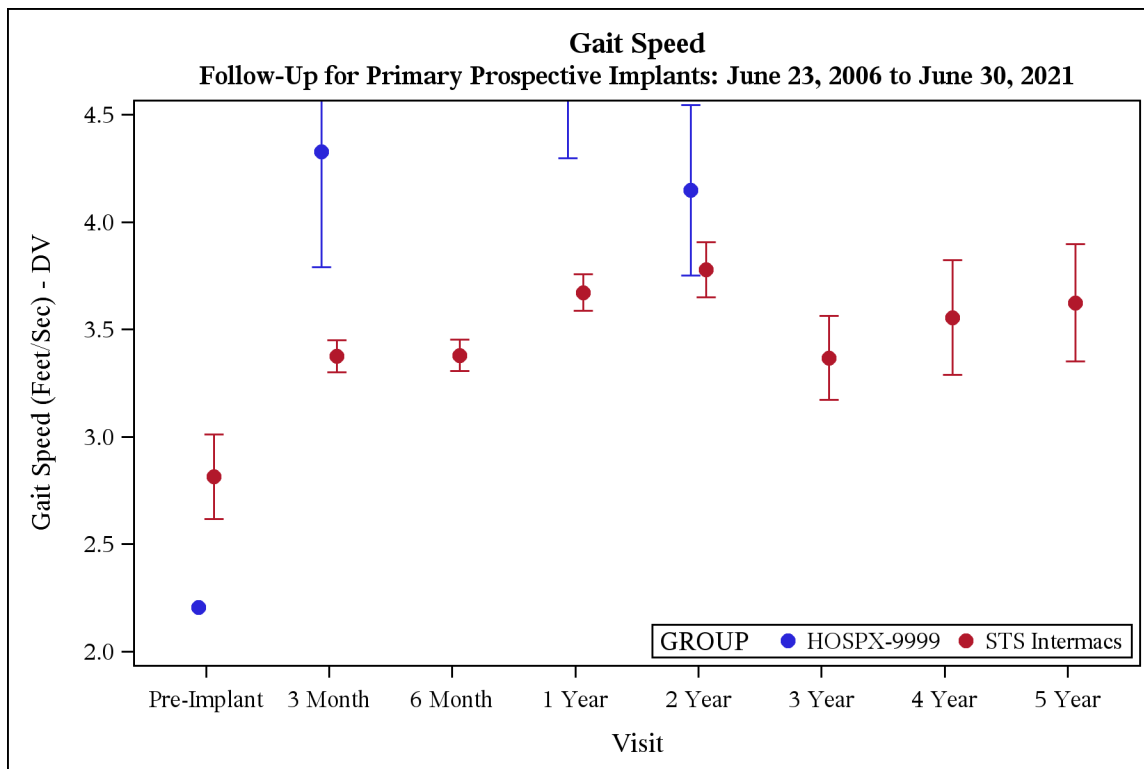
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 30. Gait Speed**

The following figure summarize Gait Speed values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 31. Trailmaking**

The following tables summarize Trailmaking completion status and values at your site and STS InterMACS at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS				Trailmaking Time (sec)				
		Incomplete		Complete						
	N	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	40	32	80.0	8	20.0	201.5	155.7	151.0	63.0	545.0
3 Month	25	12	48.0	13	52.0	151.9	86.0	140.0	50.0	322.0
6 Month	18	4	22.2	14	77.8	133.2	81.6	127.0	38.0	316.0
1 Year	12	5	41.7	7	58.3	138.6	105.3	90.0	35.0	300.0
2 Year	9	6	66.7	3	33.3	53.7	11.0	53.0	43.0	65.0
3 Year	3	3	100.0	.	.	.	.	.	.	.
4 Year	1	1	100.0	.	.	.	.	.	.	.
5 Year	1	1	100.0	.	.	.	.	.	.	.

**GROUP=STS InterMACS**

VISIT	Patients (n)	COMPLETION STATUS				Trailmaking Time (sec)				
		Incomplete		Complete						
	N	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	2577	2097	81.4	480	18.6	144.0	91.5	122.0	24.0	1093.0
3 Month	1915	1294	67.6	621	32.4	114.3	67.2	96.0	10.0	691.0
6 Month	1595	1003	62.9	592	37.1	111.7	67.1	94.0	4.0	600.0
1 Year	1089	686	63.0	403	37.0	113.2	100.2	94.0	25.0	1676.0
2 Year	573	382	66.7	191	33.3	104.7	54.5	92.0	13.0	395.0
3 Year	282	188	66.7	94	33.3	114.5	68.3	92.0	28.0	375.0
4 Year	155	119	76.8	36	23.2	118.9	72.8	93.5	49.0	384.0
5 Year	85	58	68.2	27	31.8	131.8	72.6	120.0	47.0	363.0

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

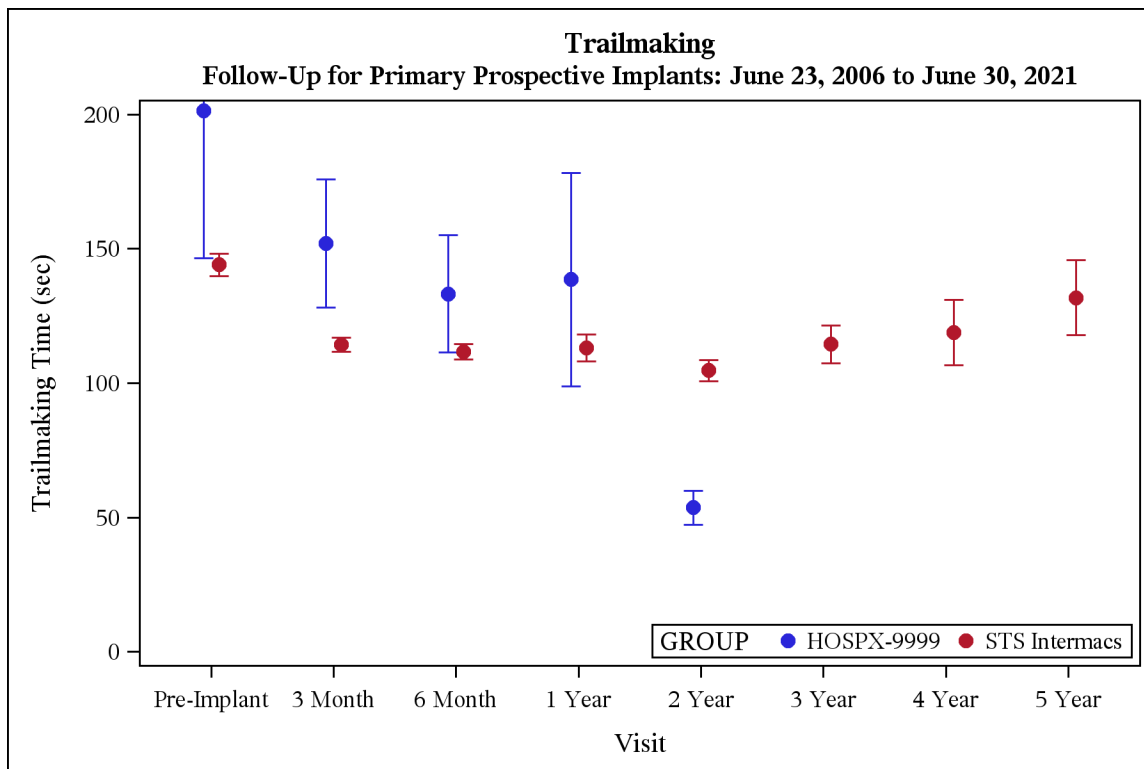
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 31. Trailmaking**

The following figure summarize Trailmaking values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.





**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 32. NYHA Class**

The following tables summarize NYHA completion status and values at your site and STS InterMACs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS				NYHA Class				
		Not Done: Other/Unknown		Complete						
	N	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	40	7	17.5	33	82.5	3.8	0.7	4.0	1.0	4.0
3 Month	25	3	12.0	22	88.0	2.3	1.0	2.0	1.0	4.0
6 Month	18	1	5.6	17	94.4	1.6	0.6	2.0	1.0	3.0
1 Year	12	1	8.3	11	91.7	1.9	0.7	2.0	1.0	3.0
2 Year	9	1	11.1	8	88.9	1.9	0.6	2.0	1.0	3.0
3 Year	3	.	.	3	100.0	1.7	0.6	2.0	1.0	2.0
4 Year	1	.	.	1	100.0	1.0	.	1.0	1.0	1.0
5 Year	1	.	.	1	100.0	1.0	.	1.0	1.0	1.0

**GROUP=STS InterMACs**

VISIT	Patients (n)	COMPLETION STATUS				NYHA Class				
		Not Done: Other/Unknown		Complete						
	N	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	2577	345	13.4	2232	86.6	3.8	0.5	4.0	1.0	4.0
3 Month	1915	408	21.3	1507	78.7	2.3	0.8	2.0	1.0	4.0
6 Month	1595	278	17.4	1317	82.6	2.1	0.8	2.0	1.0	4.0
1 Year	1089	167	15.3	922	84.7	2.0	0.8	2.0	1.0	4.0
2 Year	573	74	12.9	499	87.1	2.0	0.8	2.0	1.0	4.0
3 Year	282	36	12.8	246	87.2	2.0	0.8	2.0	1.0	4.0
4 Year	155	20	12.9	135	87.1	2.0	0.7	2.0	1.0	4.0
5 Year	85	12	14.1	73	85.9	2.0	0.8	2.0	1.0	4.0

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

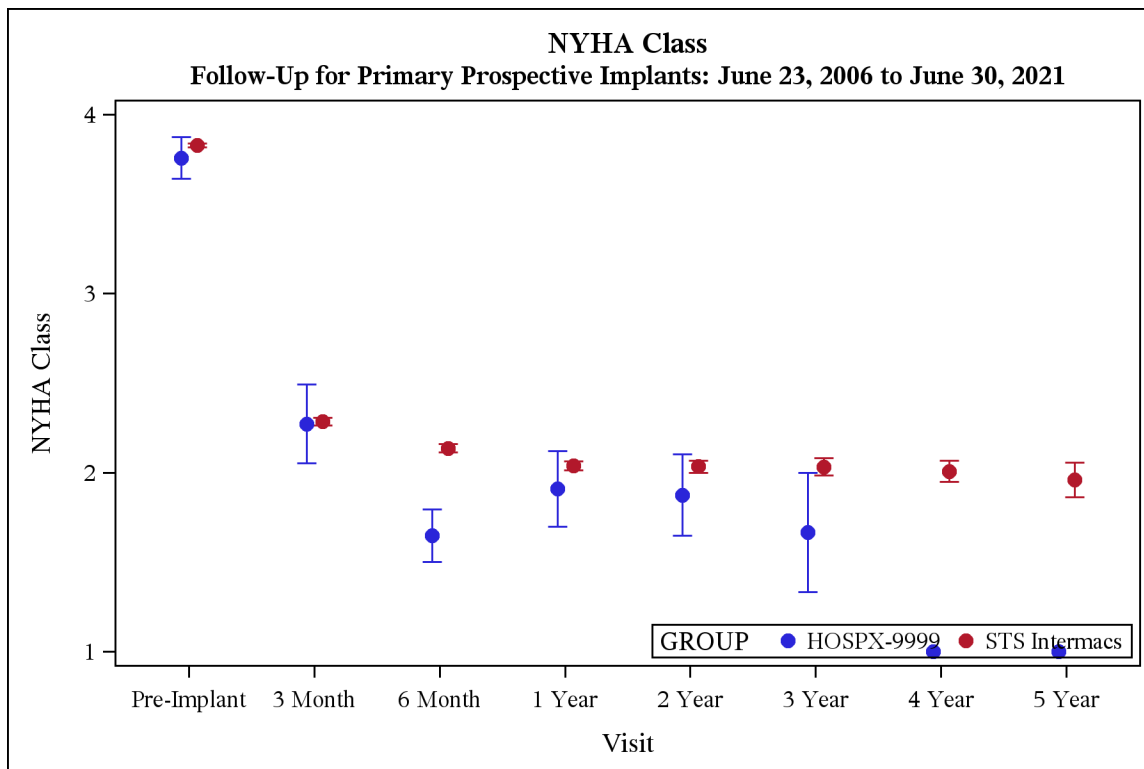
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Functional Capacity**

**Exhibit 32. NYHA Class**

The following figure summarize NYHA Class values your site and STS Intermacs at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Quality of Life**

**Exhibit 33a. EQ-5D Index**

The following tables summarize EQ-5D Index completion status and values at your site and STS InterMACS at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS											
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
		N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	40	15	37.5	15	37.5	10	25.0	0.6	0.3	0.6	0.2	1.0	
3 Month	25	7	28.0	.	.	18	72.0	0.8	0.3	0.8	0.2	1.0	
6 Month	18	5	27.8	.	.	13	72.2	0.9	0.1	1.0	0.7	1.0	
1 Year	12	5	41.7	.	.	7	58.3	0.9	0.1	1.0	0.8	1.0	
2 Year	9	4	44.4	.	.	5	55.6	0.9	0.1	1.0	0.8	1.0	
3 Year	3	3	100.0	.	.	.	.	.	.	.	.	.	
4 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	
5 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	

**GROUP=STS InterMACS**

VISIT	Patients (n)	COMPLETION STATUS						EQ-5D Index					
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
		N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	2577	797	30.9	1038	40.3	742	28.8	0.5	0.3	0.6	-0.1	1.0	
3 Month	1915	986	51.5	95	5.0	834	43.6	0.8	0.2	0.8	-0.1	1.0	
6 Month	1595	772	48.4	51	3.2	772	48.4	0.8	0.2	0.8	0.2	1.0	
1 Year	1089	523	48.0	20	1.8	546	50.1	0.8	0.2	0.8	0.1	1.0	
2 Year	573	280	48.9	10	1.7	283	49.4	0.8	0.2	0.8	0.3	1.0	
3 Year	282	135	47.9	1	0.4	146	51.8	0.8	0.2	0.8	0.1	1.0	
4 Year	155	79	51.0	4	2.6	72	46.5	0.8	0.2	0.8	0.2	1.0	
5 Year	85	38	44.7	5	5.9	42	49.4	0.8	0.2	0.8	0.4	1.0	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

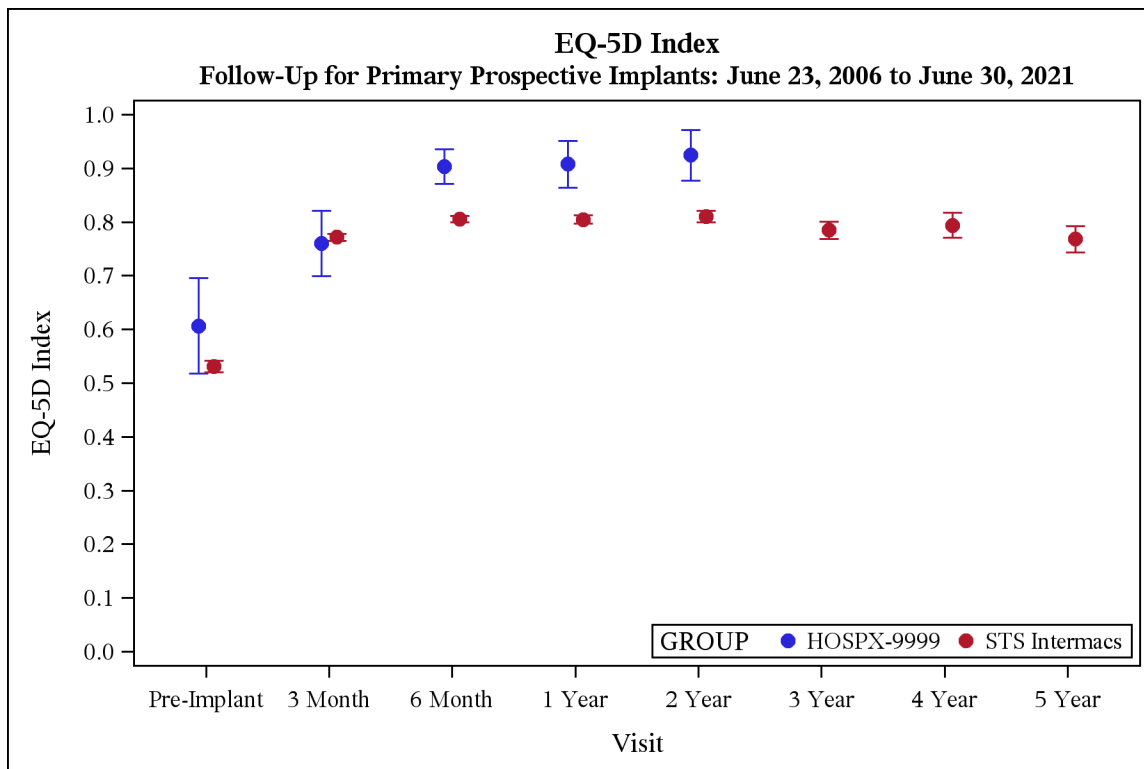
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Quality of Life**

**Exhibit 33a. EQ-5D Index**

The following figure summarize EQ-5D Index values your site and STS Intermacs at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Quality of Life**

**Exhibit 33b. EQ-5D Visual Analog Scale**

The following tables summarize EQ-5D Visual Analog Scale completion status and values at your site and STS InterMACs at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT		COMPLETION STATUS						VAS: Own Health State					
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
	Patients (n)	N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	40	15	37.5	15	37.5	10	25.0	35.1	33.6	27.5	0.0	80.0	
3 Month	25	7	28.0	.	.	18	72.0	73.8	20.6	77.5	25.0	100.0	
6 Month	18	3	16.7	.	.	15	83.3	75.3	17.9	80.0	35.0	90.0	
1 Year	12	6	50.0	.	.	6	50.0	78.3	16.0	80.0	60.0	100.0	
2 Year	9	4	44.4	.	.	5	55.6	83.0	14.0	90.0	60.0	95.0	
3 Year	3	3	100.0	.	.	.	.	.	.	.	.	.	
4 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	
5 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	

**GROUP=STS InterMACs**

VISIT	Patients (n)	COMPLETION STATUS						VAS: Own Health State				
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
	N	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	2577	793	30.8	1038	40.3	746	28.9	46.8	25.7	50.0	0.0	100.0
3 Month	1915	1001	52.3	95	5.0	819	42.8	71.8	19.6	75.0	0.0	100.0
6 Month	1595	787	49.3	51	3.2	757	47.5	73.8	18.5	75.0	0.0	100.0
1 Year	1089	543	49.9	20	1.8	526	48.3	74.9	18.3	80.0	5.0	100.0
2 Year	573	288	50.3	10	1.7	275	48.0	73.4	21.0	80.0	0.0	100.0
3 Year	282	139	49.3	1	0.4	142	50.4	74.2	17.7	76.5	9.0	100.0
4 Year	155	84	54.2	4	2.6	67	43.2	72.3	20.9	75.0	0.0	100.0
5 Year	85	37	43.5	5	5.9	43	50.6	74.4	17.1	75.0	30.0	100.0

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

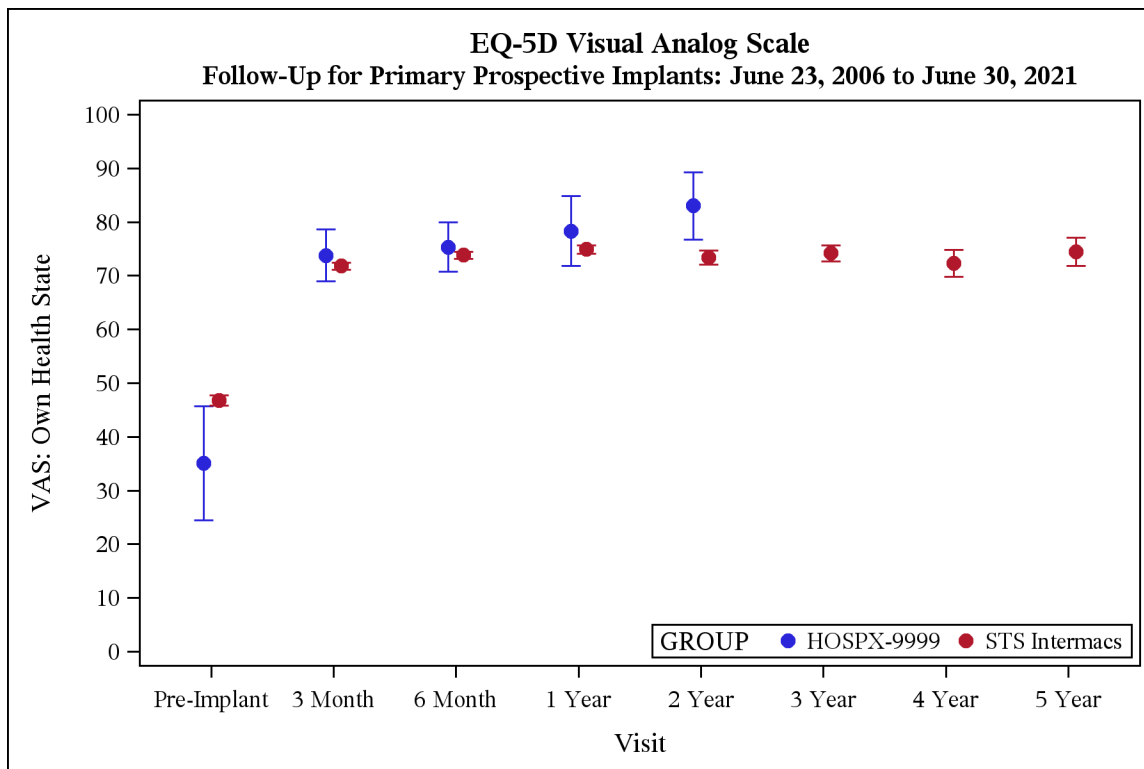
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Quality of Life**

**Exhibit 33b. EQ-5D Visual Analog Scale**

The following figure summarize EQ-5D Visual Analog Scale values your site and STS InterMACS at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Quality of Life**

**Exhibit 33c. KCCQ-12 - Scored**

The following tables summarize KCCQ-12 - Scored completion status and values at your site and STS InterMACS at select follow-up visits. Only follow-up data for patients first devices are considered for this summary. Unlikely values have been categorized as outliers and are listed in the accompanying data quality report.

**GROUP=HOSPX-9999**

VISIT	Patients (n)	COMPLETION STATUS						KCCQ-12 Score					
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
		N	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	40	21	52.5	10	25.0	9	22.5	31.7	15.7	32.3	2.6	49.5	
3 Month	25	11	44.0	.	.	14	56.0	71.2	21.4	77.6	25.0	96.9	
6 Month	18	7	38.9	.	.	11	61.1	74.8	18.2	76.6	43.2	100.0	
1 Year	12	5	41.7	.	.	7	58.3	68.3	27.3	84.4	26.0	96.9	
2 Year	9	4	44.4	.	.	5	55.6	85.0	10.4	83.3	69.8	94.8	
3 Year	3	3	100.0	.	.	.	.	.	.	.	.	.	
4 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	
5 Year	1	1	100.0	.	.	.	.	.	.	.	.	.	

**GROUP=STS InterMACS**

VISIT	Patients (n)	COMPLETION STATUS										
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
		N	%	N	%			Mean	Std	Median	Min	Max
Pre-Implant	2577	889	34.5	961	37.3	727	28.2	31.4	22.1	27.1	0.0	100.0
3 Month	1915	1007	52.6	89	4.6	819	42.8	61.5	20.5	62.5	0.0	100.0
6 Month	1595	789	49.5	48	3.0	758	47.5	65.5	19.8	67.7	3.1	100.0
1 Year	1089	531	48.8	16	1.5	542	49.8	67.7	20.0	71.1	10.9	100.0
2 Year	573	274	47.8	10	1.7	289	50.4	68.6	21.3	72.9	4.7	100.0
3 Year	282	129	45.7	1	0.4	152	53.9	68.8	21.4	73.8	0.0	100.0
4 Year	155	82	52.9	4	2.6	69	44.5	69.3	19.1	75.0	30.7	100.0
5 Year	85	37	43.5	5	5.9	43	50.6	68.3	22.2	73.4	25.0	100.0

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

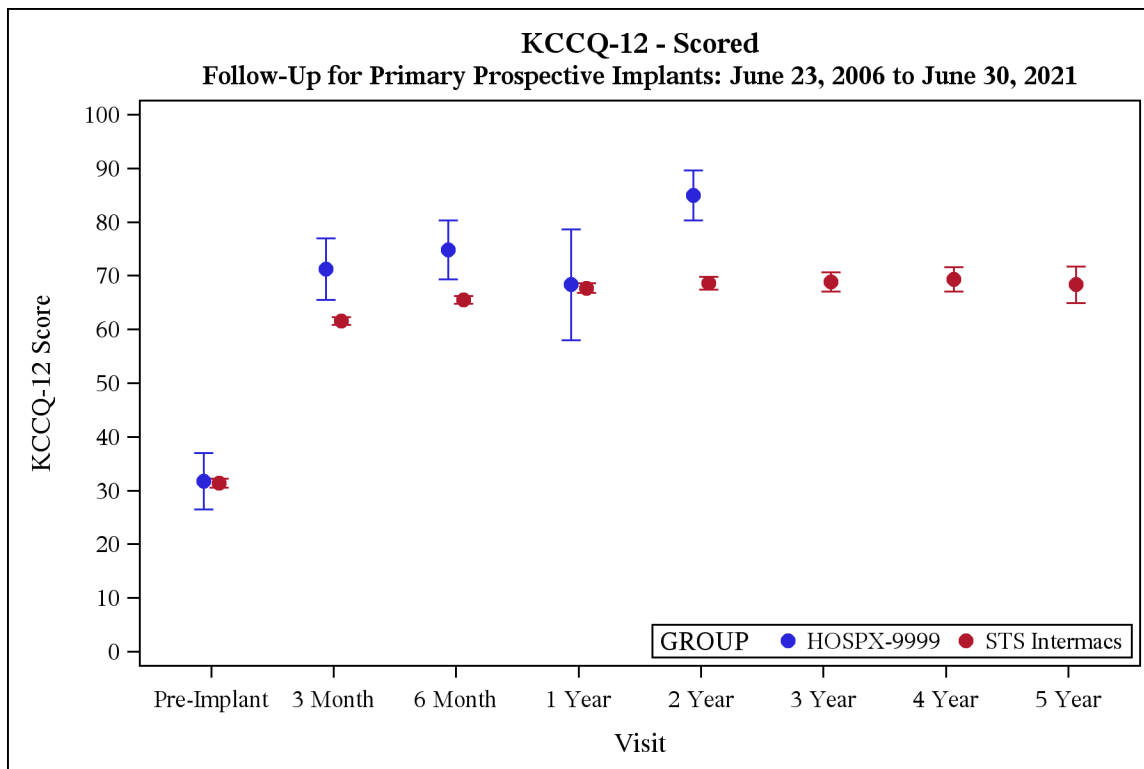
**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**II.C. Post Implant Summary - Quality of Life**

**Exhibit 33c. KCCQ-12 - Scored**

The following figure summarize KCCQ-12 - Scored values your site and STS Intermacs at select follow-up visits. Only follow-up data for patients' first devices are considered for this summary. The dots represent average values and the error bars are the standard errors.





***STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients******COVERAGE: June 23, 2006 - June 30, 2021******SITE: HOSPX - DEMO SITE REPORT******II.E. Post Implant Outcomes***

This section provides statistical summaries of outcomes after VAD implant. These depictions include all patients who received a primary device at your institution and compares it with the equivalent group in InterMACS. The p-values are a univariate comparison (log-rank test) of survival at your institution with survival for the entire registry. Univariate comparisons are well known to be limited in value because no adjustment is made for differing patient characteristics in the groups. Nevertheless, these comparisons can provide an initial comparison of unadjusted results. Future version of this report will provide risk adjusted comparisons.

Note: If your site did not report any patients within a specified group, only the overall STS InterMACS data will be displayed.

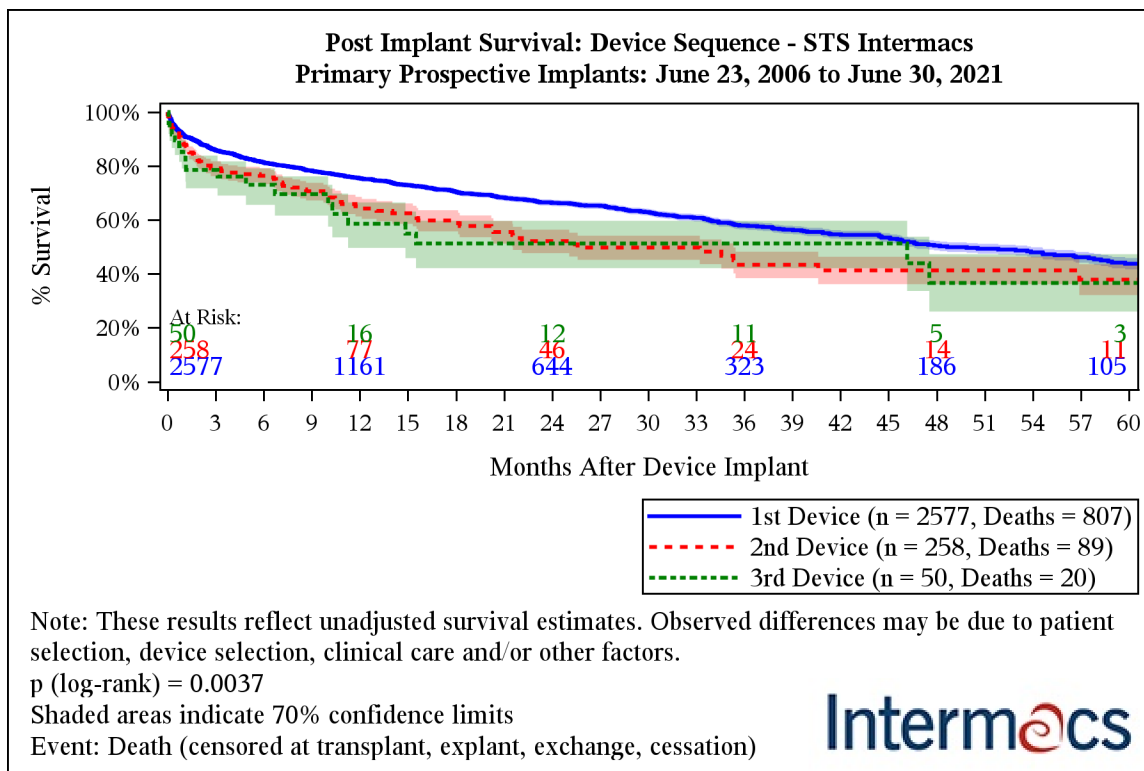
# STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

## Exhibit 34a. Post Implant Survival - Device Sequence - STS Intermacs

The following figure compares survival time on specific devices based on device sequence for all of STS Intermacs. Each curve represents survival from the time the device was implanted until death. Patients are censored at time of transplant, explant for any reason, or the device was turned off.



Months after Device Implant	1st Device	2nd Device	3rd Device
1	91.5% (90.9%-92.0%)	88.3% (86.0%-90.3%)	85.2% (79.1%-89.6%)
3	85.9% (85.2%-86.6%)	79.1% (76.2%-81.7%)	78.5% (71.8%-83.9%)
6	81.3% (80.5%-82.1%)	76.4% (73.3%-79.2%)	73.0% (65.6%-79.1%)
9	78.3% (77.4%-79.2%)	70.6% (67.2%-73.8%)	69.6% (61.6%-76.2%)
12	75.4% (74.5%-76.3%)	65.1% (61.3%-68.6%)	58.6% (49.6%-66.5%)
24	66.3% (65.1%-67.4%)	52.1% (47.7%-56.4%)	51.3% (42.1%-59.7%)
36	57.9% (56.5%-59.3%)	43.4% (38.4%-48.2%)	51.3% (42.1%-59.7%)
48	50.5% (48.7%-52.2%)	41.3% (36.2%-46.3%)	36.6% (26.0%-47.3%)
60	43.8% (41.7%-45.8%)	37.8% (32.1%-43.5%)	36.6% (26.0%-47.3%)

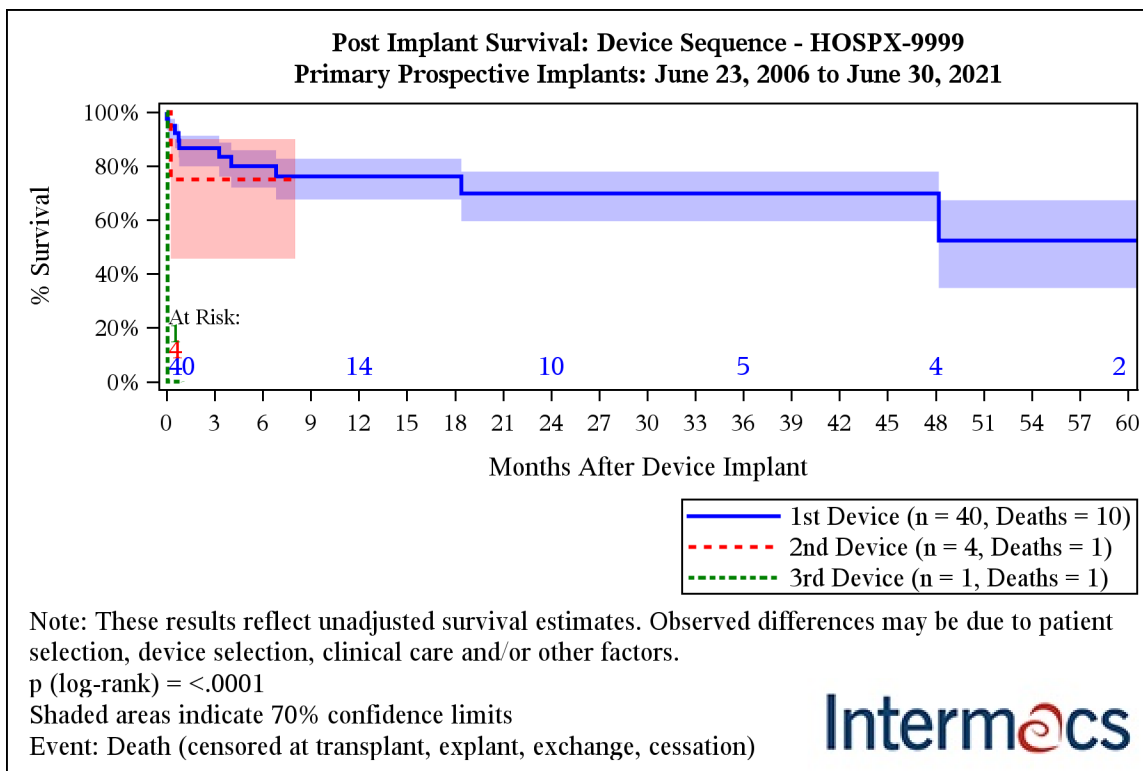
**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 34b. Post Implant Survival - Device Sequence - HOSPX-9999**

The following figure compares survival time on specific devices based on device sequence for your site. Each curve represents survival from the time the device was implanted until death. Patients are censored at transplant, explant for any reason, or the device was turned off.



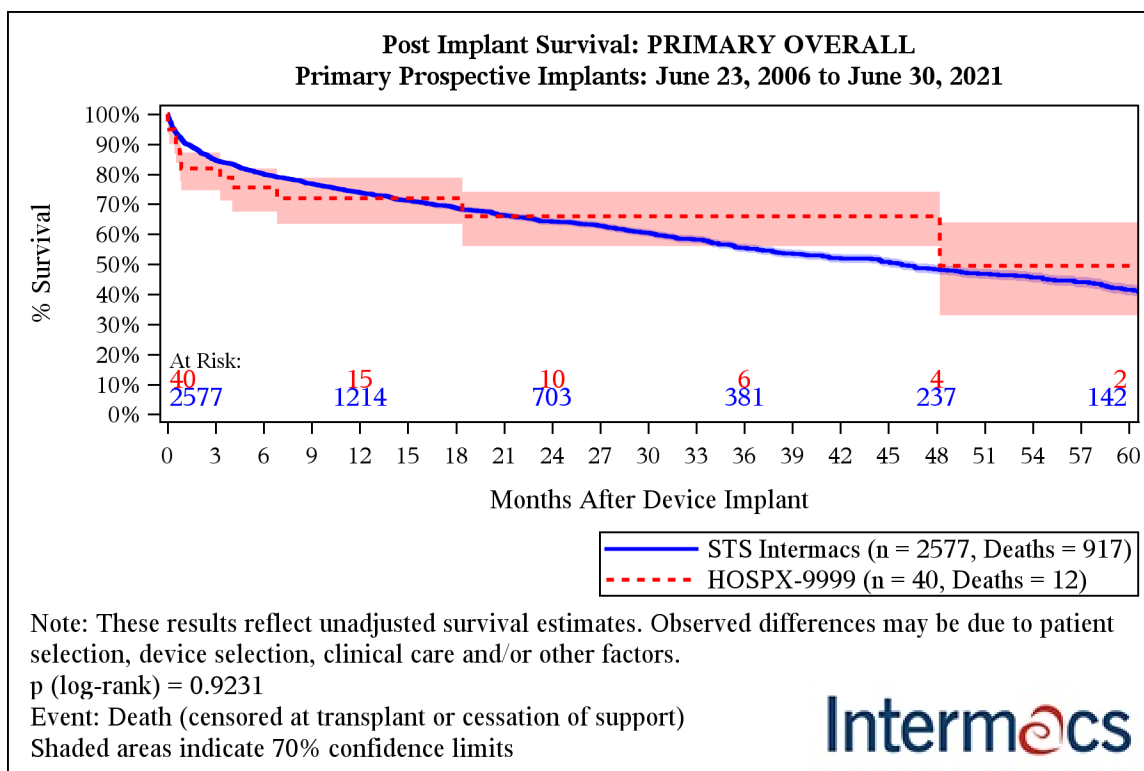
Months after Device Implant	1st Device	2nd Device	3rd Device
1	86.6% (79.9%-91.2%)	75.0% (45.6%-90.0%)	0.0% (0.0%-0.0%)
3	86.6% (79.9%-91.2%)	75.0% (45.6%-90.0%)	
6	79.9% (72.0%-85.9%)	75.0% (45.6%-90.0%)	
9	76.1% (67.6%-82.7%)		
12	76.1% (67.6%-82.7%)		
24	69.8% (59.5%-77.9%)		
36	69.8% (59.5%-77.9%)		
48	69.8% (59.5%-77.9%)		
60	52.3% (34.8%-67.3%)		

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 35. Post Implant Survival - PRIMARY OVERALL**



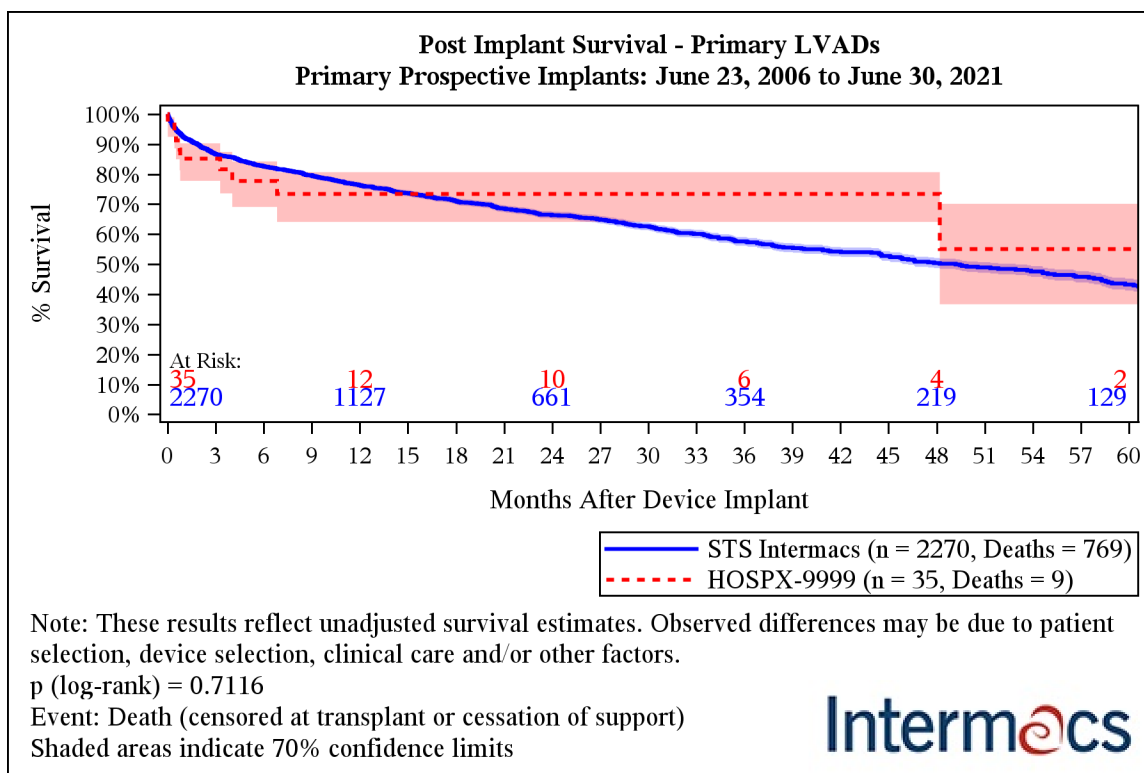
Months after Device Implant	STS Intermacs	HOSPX-9999
1	90.9% (90.3%-91.4%)	81.9% (74.7%-87.2%)
3	84.7% (84.0%-85.4%)	81.9% (74.7%-87.2%)
6	80.0% (79.1%-80.8%)	75.6% (67.5%-81.9%)
9	76.9% (76.0%-77.7%)	72.0% (63.5%-78.8%)
12	73.9% (72.9%-74.8%)	72.0% (63.5%-78.8%)
24	64.1% (63.0%-65.3%)	66.0% (56.0%-74.2%)
36	55.4% (54.1%-56.8%)	66.0% (56.0%-74.2%)
48	48.3% (46.7%-49.9%)	66.0% (56.0%-74.2%)
60	41.5% (39.7%-43.3%)	49.5% (33.0%-64.0%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 36. Post Implant Survival - Primary LVADs**



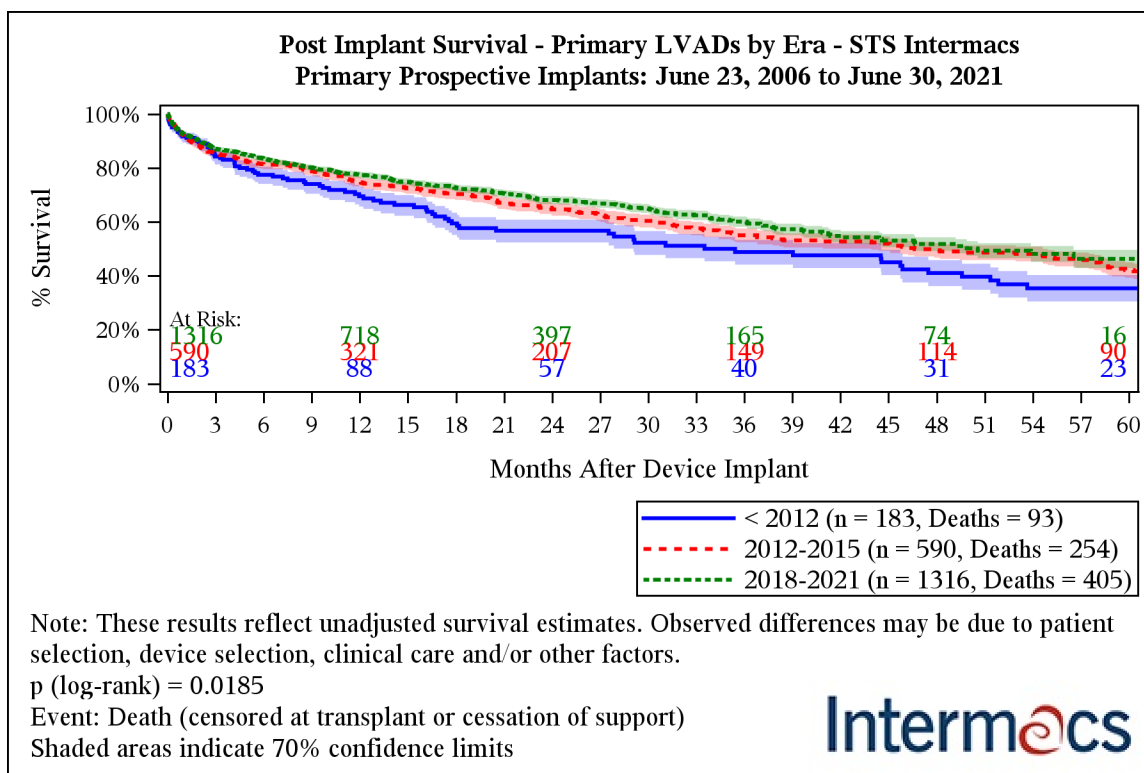
Months after Device Implant	STS InterMACS	HOSPX-9999
1	92.4% (91.8%-93.0%)	85.2% (77.8%-90.3%)
3	86.7% (85.9%-87.4%)	85.2% (77.8%-90.3%)
6	82.6% (81.7%-83.4%)	77.7% (69.1%-84.2%)
9	79.6% (78.7%-80.5%)	73.4% (64.1%-80.7%)
12	76.3% (75.3%-77.2%)	73.4% (64.1%-80.7%)
24	66.3% (65.1%-67.5%)	73.4% (64.1%-80.7%)
36	57.6% (56.2%-59.1%)	73.4% (64.1%-80.7%)
48	50.4% (48.7%-52.1%)	73.4% (64.1%-80.7%)
60	43.2% (41.3%-45.2%)	55.1% (36.7%-70.1%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 37a. Post Implant Survival - Primary LVADs by Era - STS Intermacs**



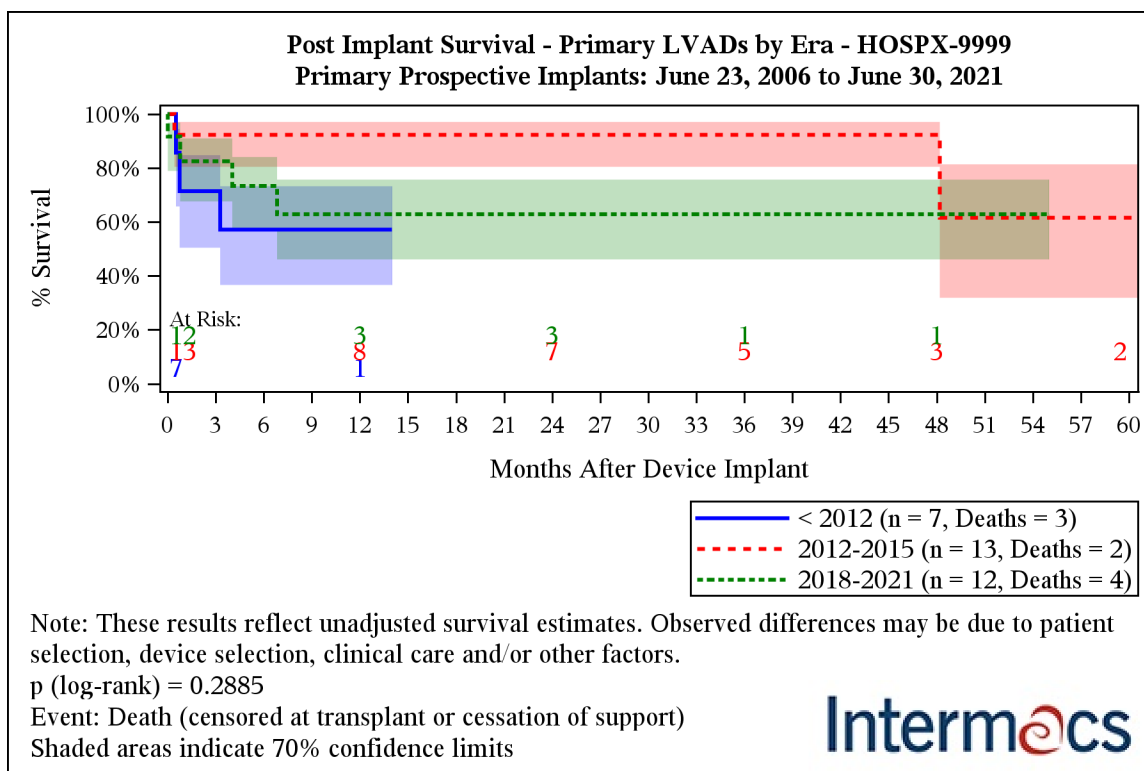
Months after Device Implant	< 2012	2012-2015	2018-2021
1	91.7% (89.4%-93.6%)	92.2% (91.0%-93.2%)	92.6% (91.9%-93.3%)
3	84.3% (81.3%-86.8%)	85.6% (84.1%-87.0%)	87.1% (86.2%-88.0%)
6	77.5% (74.1%-80.5%)	81.2% (79.5%-82.8%)	83.5% (82.4%-84.5%)
9	74.0% (70.5%-77.3%)	79.2% (77.4%-80.8%)	80.2% (79.0%-81.3%)
12	69.5% (65.7%-73.0%)	74.9% (73.0%-76.7%)	77.5% (76.3%-78.6%)
24	56.7% (52.4%-60.8%)	64.6% (62.3%-66.9%)	68.1% (66.6%-69.6%)
36	48.8% (44.2%-53.3%)	55.0% (52.4%-57.6%)	60.1% (58.2%-62.0%)
48	41.1% (36.2%-45.8%)	49.5% (46.7%-52.1%)	51.8% (49.2%-54.3%)
60	35.4% (30.5%-40.3%)	42.2% (39.3%-45.0%)	46.3% (42.9%-49.6%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 37b. Post Implant Survival - Primary LVADs by Era - HOSPX-9999**



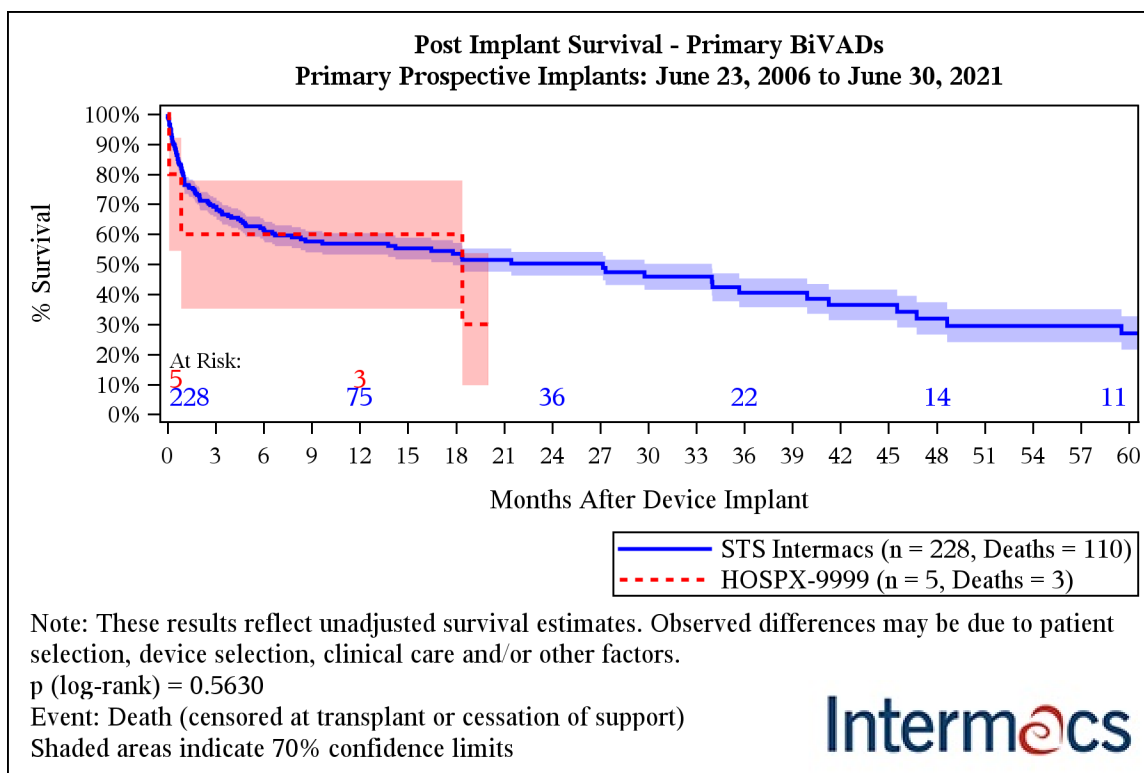
Months after Device Implant	< 2012	2012-2015	2018-2021
1	71.4% (50.4%-84.8%)	92.3% (80.4%-97.1%)	82.5% (67.6%-91.0%)
3	71.4% (50.4%-84.8%)	92.3% (80.4%-97.1%)	82.5% (67.6%-91.0%)
6	57.1% (36.6%-73.2%)	92.3% (80.4%-97.1%)	73.3% (57.4%-84.1%)
9	57.1% (36.6%-73.2%)	92.3% (80.4%-97.1%)	62.9% (46.1%-75.7%)
12	57.1% (36.6%-73.2%)	92.3% (80.4%-97.1%)	62.9% (46.1%-75.7%)
24		92.3% (80.4%-97.1%)	62.9% (46.1%-75.7%)
36		92.3% (80.4%-97.1%)	62.9% (46.1%-75.7%)
48		92.3% (80.4%-97.1%)	62.9% (46.1%-75.7%)
60		61.5% (31.9%-81.4%)	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 38. Post Implant Survival - Primary BiVADs**



Months after Device Implant	STS Intermacs	HOSPX-9999
1	79.1% (76.3%-81.7%)	60.0% (35.2%-77.9%)
3	69.1% (65.9%-72.1%)	60.0% (35.2%-77.9%)
6	61.4% (57.9%-64.7%)	60.0% (35.2%-77.9%)
9	57.6% (54.0%-61.0%)	60.0% (35.2%-77.9%)
12	56.9% (53.2%-60.3%)	60.0% (35.2%-77.9%)
24	50.2% (46.2%-54.1%)	
36	40.5% (35.7%-45.3%)	
48	31.9% (26.6%-37.3%)	
60	27.0% (21.6%-32.7%)	

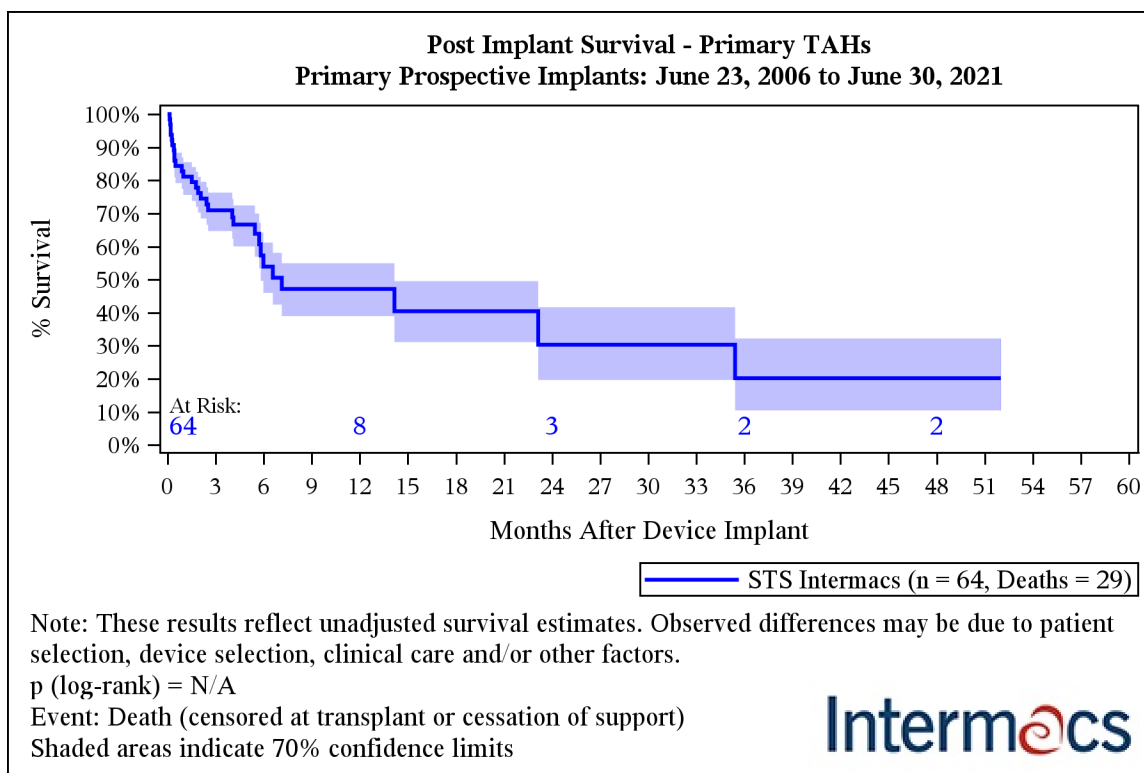


**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 39. Post Implant Survival - Primary TAHs**



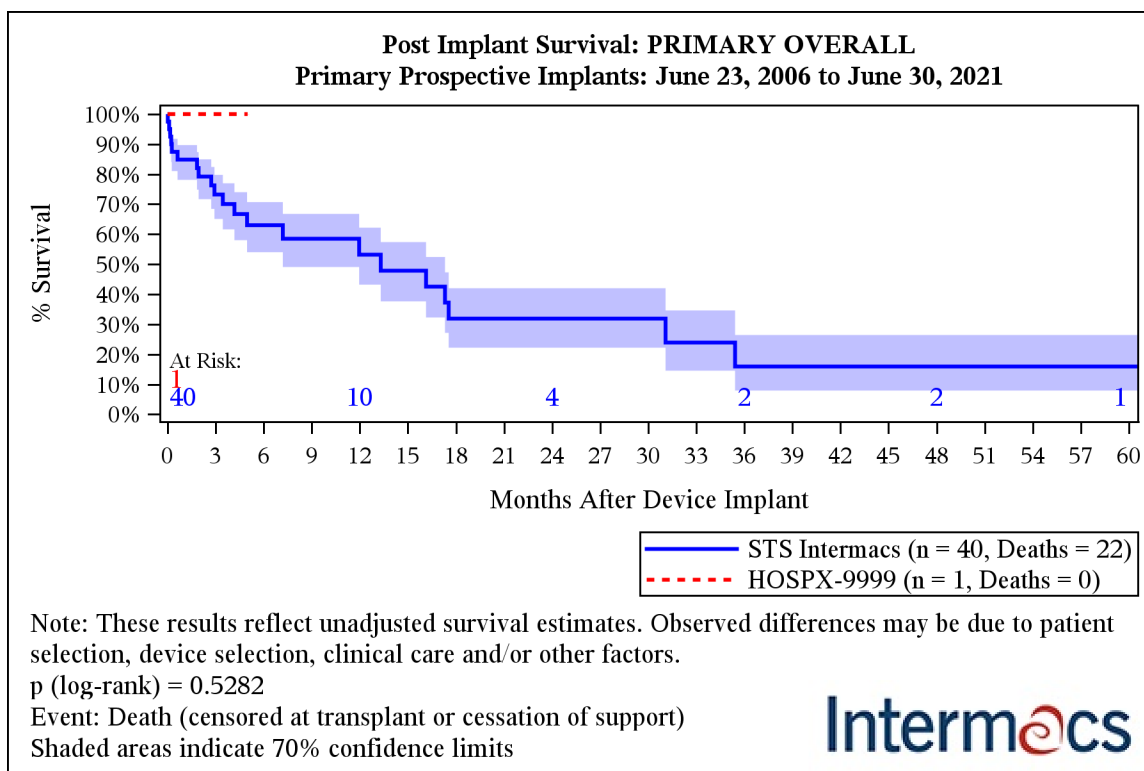
Months after Device Implant	STS InterMACS
1	81.1% (75.6%-85.5%)
3	70.9% (64.7%-76.3%)
6	53.9% (46.0%-61.2%)
9	47.2% (39.0%-54.9%)
12	47.2% (39.0%-54.9%)
24	30.3% (19.7%-41.7%)
36	20.2% (10.5%-32.2%)
48	20.2% (10.5%-32.2%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 40. Post Implant Survival - Primary LVADs - PULSATILE FLOW**



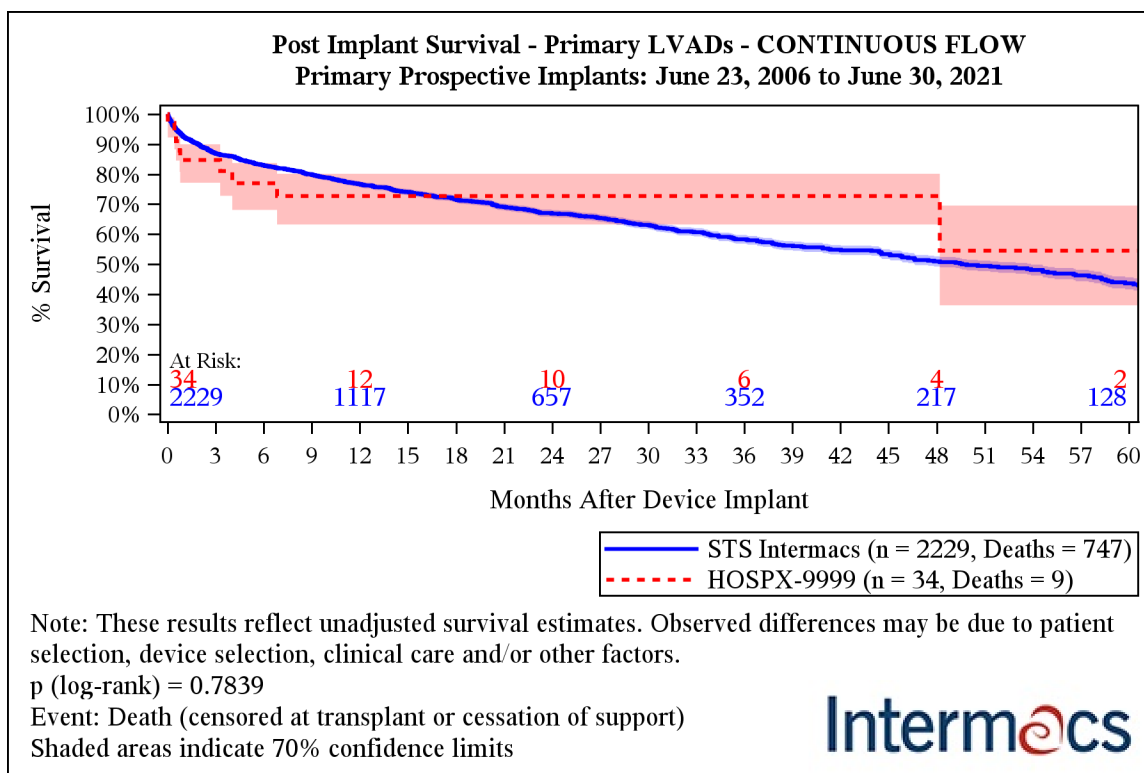
Months after Device Implant	STS Intermacs	HOSPX-9999
1	84.9% (78.1%-89.7%)	100.0% (100.0%-100.0%)
3	73.2% (65.1%-79.7%)	100.0% (100.0%-100.0%)
6	63.0% (54.0%-70.7%)	
9	58.5% (49.1%-66.8%)	
12	53.2% (43.2%-62.2%)	
24	31.9% (22.2%-42.0%)	
36	16.0% (7.9%-26.4%)	
48	16.0% (7.9%-26.4%)	
60	16.0% (7.9%-26.4%)	

# STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

## Exhibit 41. Post Implant Survival - Primary LVADs - CONTINUOUS FLOW



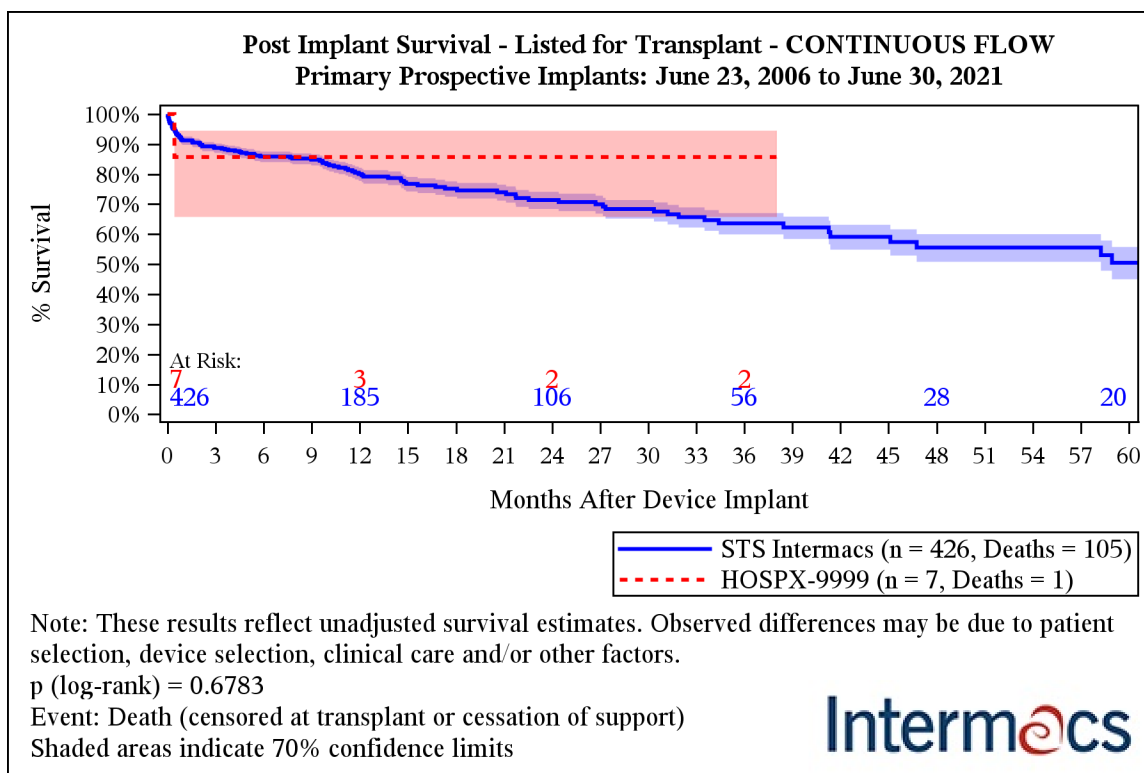
Months after Device Implant	STS Intermacs	HOSPX-9999
1	92.6% (92.0%-93.1%)	84.7% (77.1%-89.9%)
3	86.9% (86.2%-87.6%)	84.7% (77.1%-89.9%)
6	82.9% (82.1%-83.7%)	77.0% (68.1%-83.7%)
9	79.9% (79.0%-80.8%)	72.7% (63.2%-80.1%)
12	76.7% (75.7%-77.6%)	72.7% (63.2%-80.1%)
24	66.8% (65.6%-68.0%)	72.7% (63.2%-80.1%)
36	58.3% (56.9%-59.7%)	72.7% (63.2%-80.1%)
48	50.9% (49.2%-52.6%)	72.7% (63.2%-80.1%)
60	43.6% (41.6%-45.6%)	54.5% (36.3%-69.6%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 42. Post Implant Survival - Listed for Transplant - CONTINUOUS FLOW**



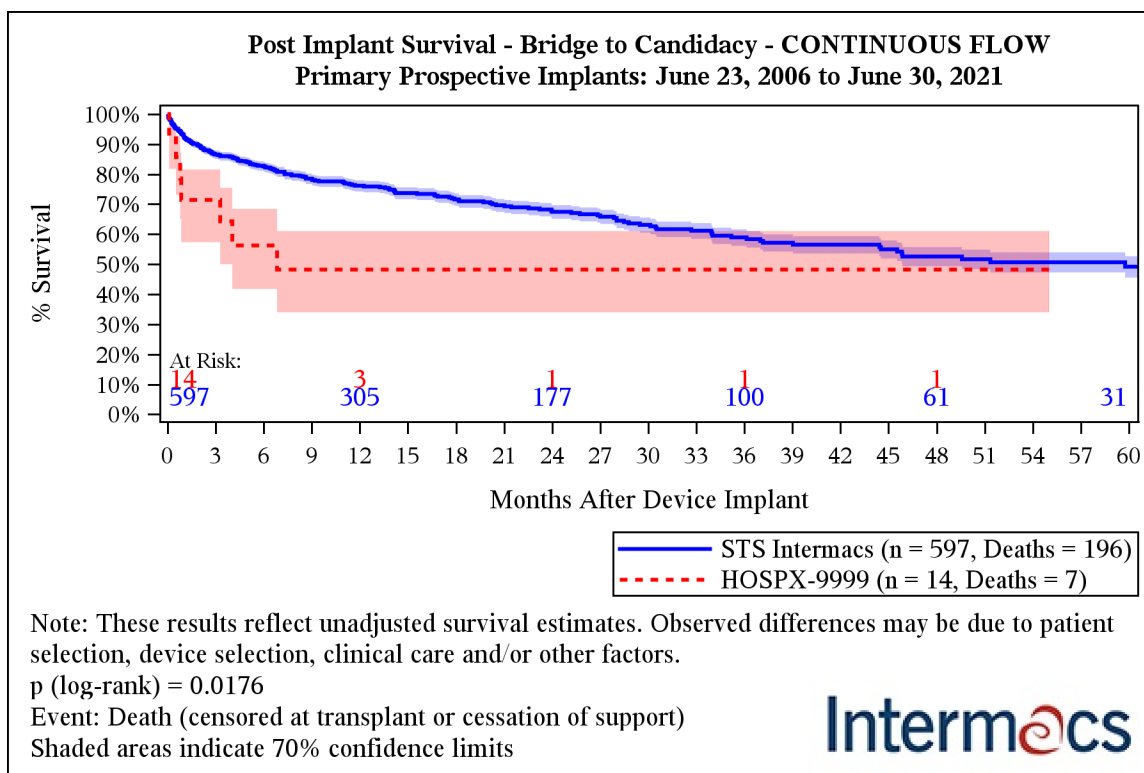
Months after Device Implant	STS Intermacs	HOSPX-9999
1	91.2% (89.8%-92.5%)	85.7% (65.7%-94.5%)
3	88.7% (87.1%-90.2%)	85.7% (65.7%-94.5%)
6	85.9% (84.0%-87.5%)	85.7% (65.7%-94.5%)
9	84.8% (82.9%-86.6%)	85.7% (65.7%-94.5%)
12	80.1% (77.8%-82.1%)	85.7% (65.7%-94.5%)
24	71.4% (68.4%-74.1%)	85.7% (65.7%-94.5%)
36	63.6% (59.9%-67.0%)	85.7% (65.7%-94.5%)
48	55.5% (50.8%-60.0%)	
60	50.5% (45.0%-55.7%)	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 43. Post Implant Survival - Bridge to Candidacy - CONTINUOUS FLOW**



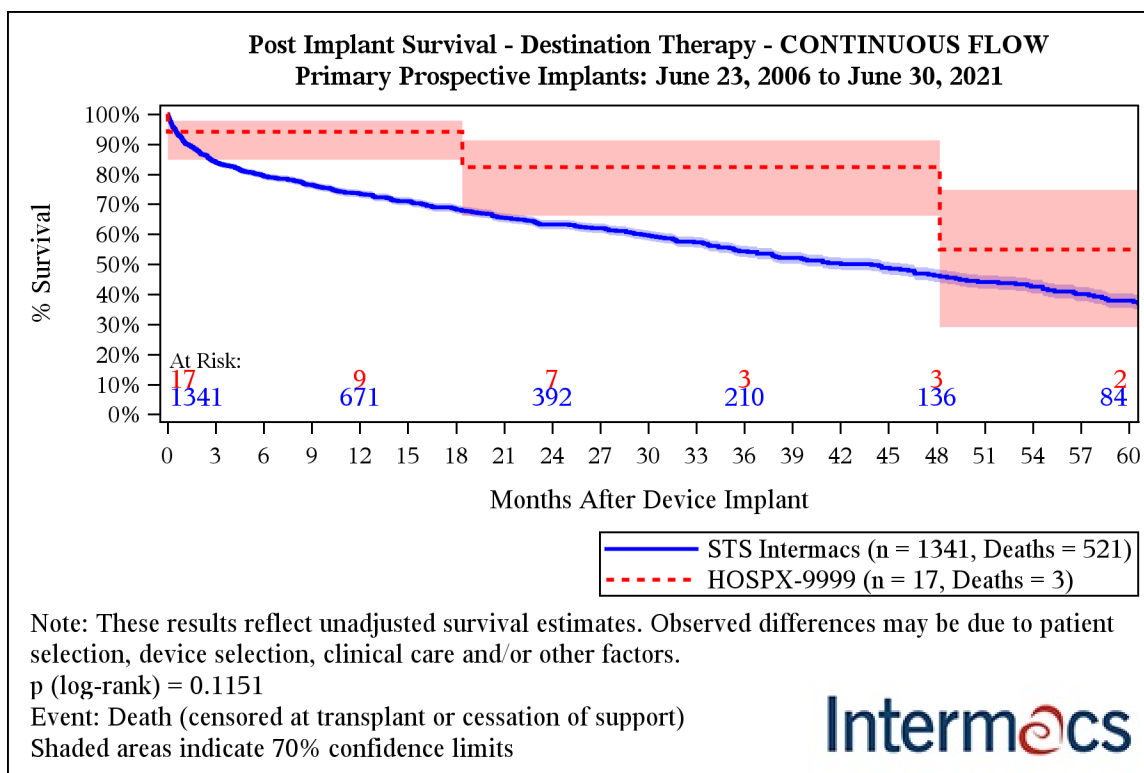
Months after Device Implant	STS Intermacs	HOSPX-9999
1	92.9% (91.8%-93.9%)	71.4% (57.3%-81.6%)
3	86.5% (85.1%-87.9%)	71.4% (57.3%-81.6%)
6	82.6% (80.9%-84.1%)	56.3% (41.8%-68.4%)
9	78.5% (76.7%-80.2%)	48.2% (34.0%-61.1%)
12	76.1% (74.2%-77.9%)	48.2% (34.0%-61.1%)
24	67.5% (65.1%-69.7%)	48.2% (34.0%-61.1%)
36	58.9% (56.2%-61.6%)	48.2% (34.0%-61.1%)
48	52.6% (49.4%-55.7%)	48.2% (34.0%-61.1%)
60	49.2% (45.6%-52.7%)	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 44. Post Implant Survival - Destination Therapy - CONTINUOUS FLOW**



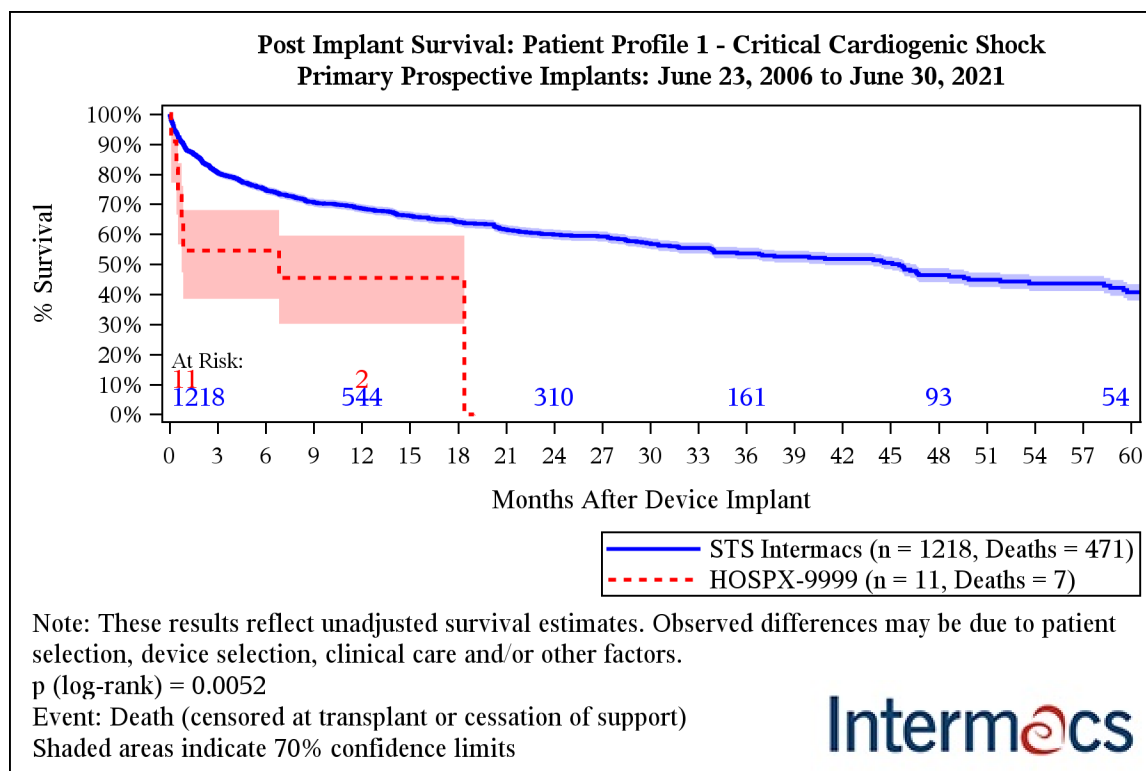
Months after Device Implant	STS Intermacs	HOSPX-9999
1	91.1% (90.3%-91.8%)	94.1% (84.8%-97.8%)
3	84.1% (83.0%-85.0%)	94.1% (84.8%-97.8%)
6	79.4% (78.2%-80.5%)	94.1% (84.8%-97.8%)
9	76.5% (75.2%-77.7%)	94.1% (84.8%-97.8%)
12	73.5% (72.2%-74.8%)	94.1% (84.8%-97.8%)
24	63.2% (61.7%-64.7%)	82.4% (66.1%-91.3%)
36	54.3% (52.4%-56.1%)	82.4% (66.1%-91.3%)
48	46.2% (44.1%-48.3%)	82.4% (66.1%-91.3%)
60	37.9% (35.5%-40.3%)	54.9% (29.0%-74.8%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 45a. Post Implant Survival: Patient Profile 1 - Critical Cardiogenic Shock**



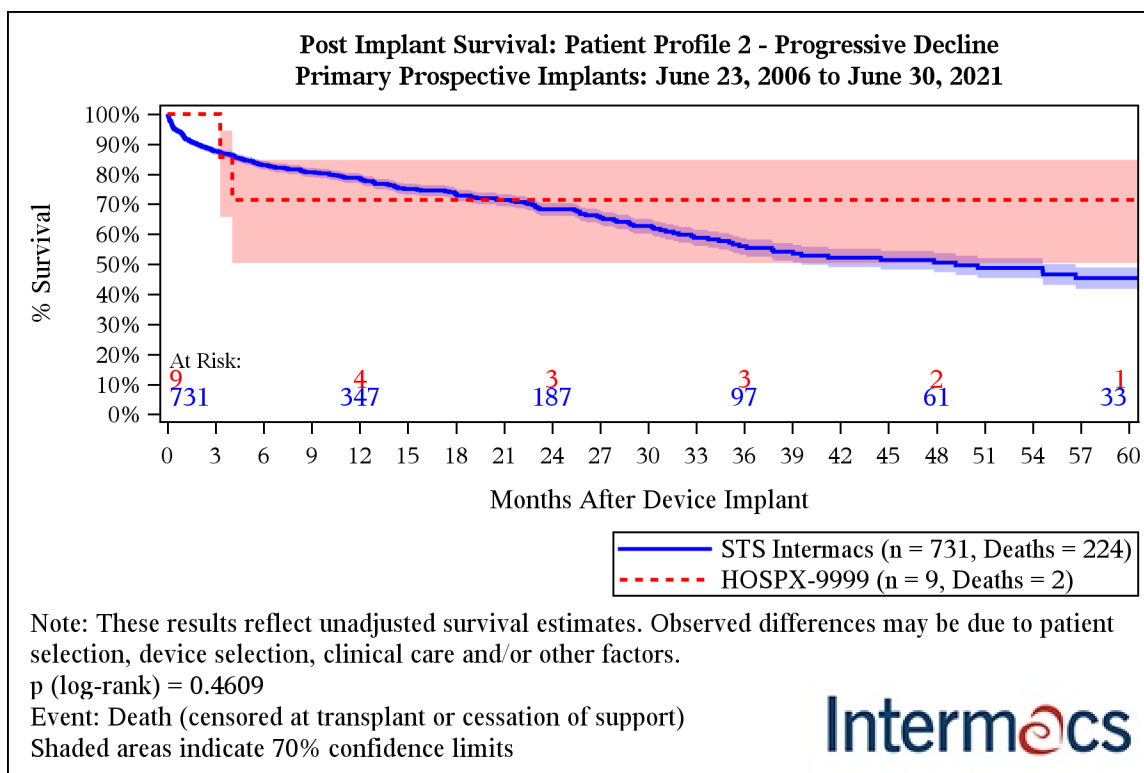
Months after Device Implant	STS Intermacs	HOSPX-9999
1	88.6% (87.7%-89.5%)	54.5% (38.5%-68.1%)
3	80.5% (79.4%-81.6%)	54.5% (38.5%-68.1%)
6	74.7% (73.4%-76.0%)	54.5% (38.5%-68.1%)
9	70.7% (69.3%-72.1%)	45.5% (30.2%-59.5%)
12	68.5% (67.1%-69.9%)	45.5% (30.2%-59.5%)
24	59.8% (58.2%-61.5%)	
36	53.6% (51.7%-55.5%)	
48	46.4% (44.0%-48.7%)	
60	40.7% (37.9%-43.4%)	

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 45b. Post Implant Survival: Patient Profile 2 - Progressive Decline**



Months after Device Implant	STS Intermacs	HOSPX-9999
1	92.8% (91.8%-93.7%)	100.0% (100.0%-100.0%)
3	87.6% (86.4%-88.8%)	100.0% (100.0%-100.0%)
6	83.0% (81.5%-84.4%)	71.4% (50.4%-84.8%)
9	80.6% (79.0%-82.1%)	71.4% (50.4%-84.8%)
12	78.6% (76.9%-80.2%)	71.4% (50.4%-84.8%)
24	68.3% (66.1%-70.4%)	71.4% (50.4%-84.8%)
36	56.0% (53.1%-58.8%)	71.4% (50.4%-84.8%)
48	50.6% (47.4%-53.7%)	71.4% (50.4%-84.8%)
60	45.4% (41.8%-49.0%)	71.4% (50.4%-84.8%)

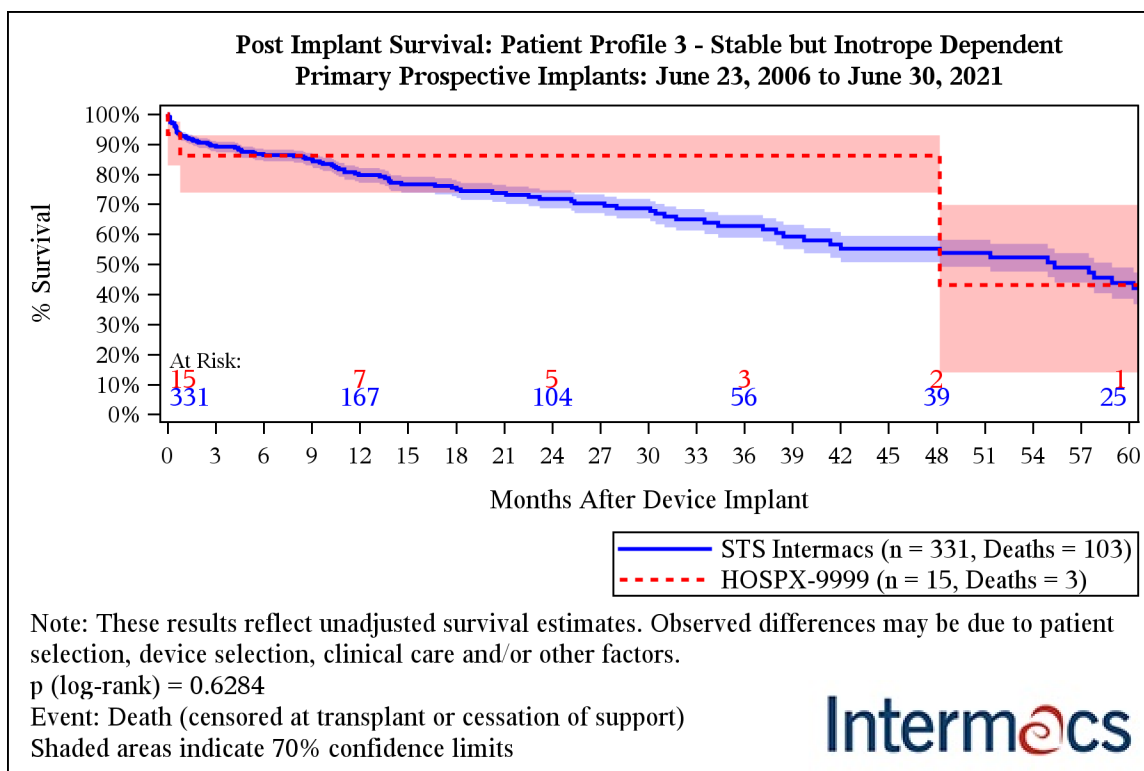


**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 45c. Post Implant Survival: Patient Profile 3 - Stable but Inotrope Dependent**



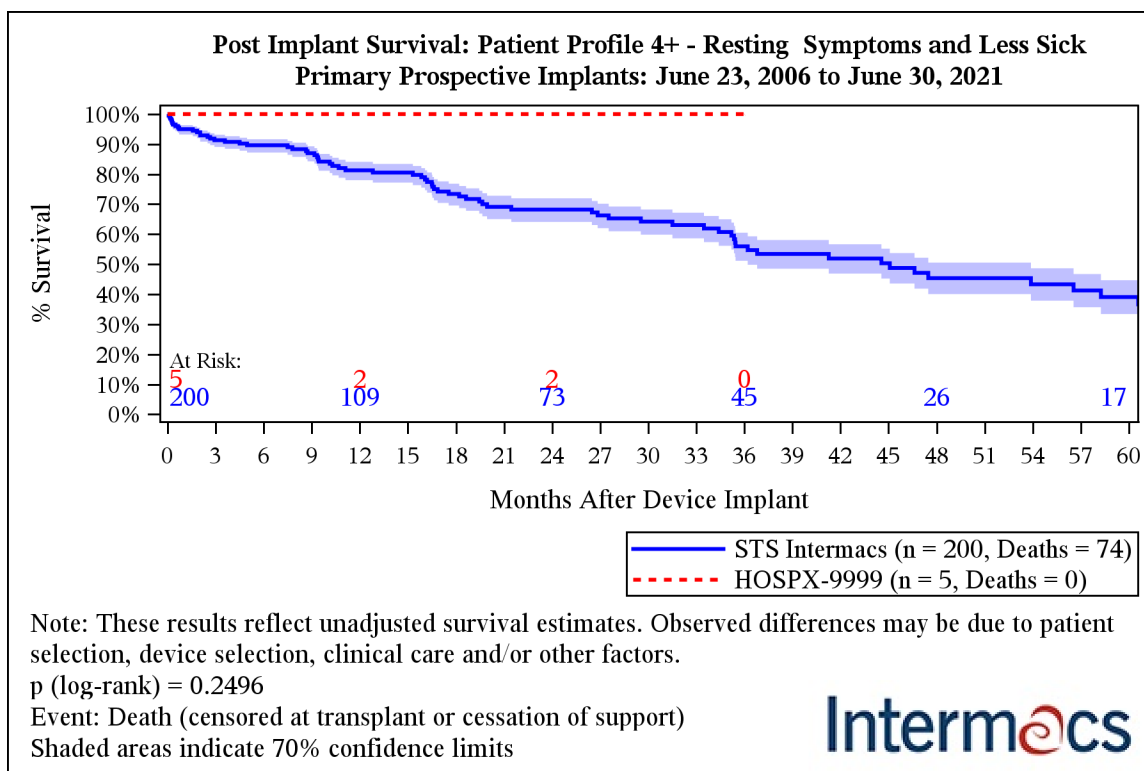
Months after Device Implant	STS InterMACS	HOSPX-9999
1	92.7% (91.1%-94.0%)	86.2% (73.9%-92.9%)
3	89.5% (87.6%-91.1%)	86.2% (73.9%-92.9%)
6	86.4% (84.3%-88.2%)	86.2% (73.9%-92.9%)
9	85.1% (82.9%-87.0%)	86.2% (73.9%-92.9%)
12	79.7% (77.1%-82.0%)	86.2% (73.9%-92.9%)
24	71.7% (68.6%-74.6%)	86.2% (73.9%-92.9%)
36	62.7% (58.8%-66.4%)	86.2% (73.9%-92.9%)
48	55.2% (50.7%-59.5%)	86.2% (73.9%-92.9%)
60	43.8% (38.5%-48.9%)	43.1% (14.0%-69.7%)

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 45d. Post Implant Survival: Patient Profile 4+ Resting Symptoms and Less Sick**



Months after Device Implant	STS Intermacs	HOSPX-9999
1	95.0% (93.2%-96.3%)	100.0% (100.0%-100.0%)
3	91.3% (89.1%-93.1%)	100.0% (100.0%-100.0%)
6	89.6% (87.2%-91.6%)	100.0% (100.0%-100.0%)
9	87.0% (84.3%-89.3%)	100.0% (100.0%-100.0%)
12	81.3% (78.0%-84.1%)	100.0% (100.0%-100.0%)
24	68.2% (64.1%-72.0%)	100.0% (100.0%-100.0%)
36	56.0% (51.2%-60.5%)	100.0% (100.0%-100.0%)
48	45.4% (40.1%-50.5%)	
60	39.1% (33.4%-44.7%)	

**Competing Outcomes - Primary LVADs - CONTINUOUS FLOW - STS Intermacs (n = 2229)**  
**Primary Prospective Implants: June 23, 2006 to June 30, 2021**

The graph illustrates the competing outcomes for patients with Primary LVADs (Continuous Flow) from the STS Intermacs registry (n = 2229) between June 23, 2006, and June 30, 2021. The Y-axis represents the Patient % (0% to 100%), and the X-axis represents the Months After Device Implant (0 to 60).

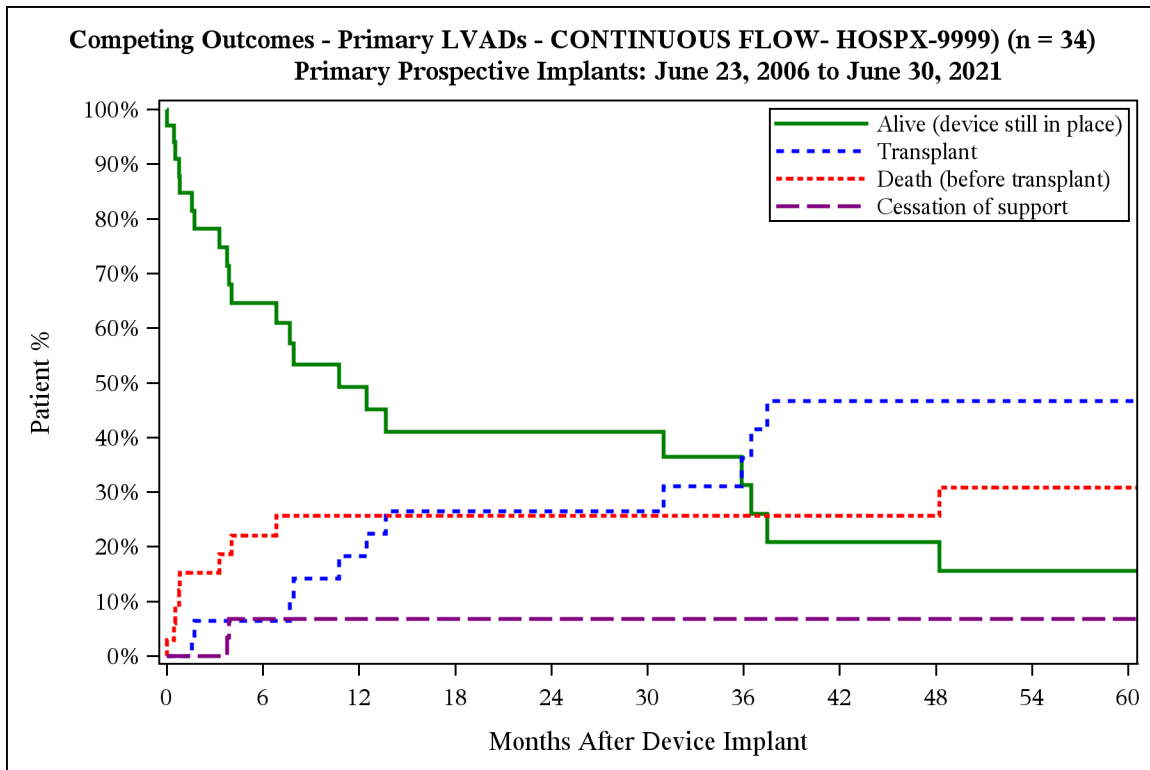
Four outcomes are tracked:

- Alive (device still in place):** Represented by a solid green line. It starts at 100% at month 0 and decreases steadily, crossing the transplant line at approximately month 36, and ending at about 21% at month 60.
- Transplant:** Represented by a dashed blue line. It starts at 0% at month 0 and increases steadily, crossing the alive line at approximately month 36, and ending at about 33% at month 60.
- Death (before transplant):** Represented by a dashed red line. It starts at 0% at month 0 and increases steadily, crossing the alive line at approximately month 36, and ending at about 43% at month 60.
- Cessation of support:** Represented by a dashed purple line. It remains very low throughout the period, starting at 0% at month 0 and ending at about 3% at month 60.

Months After Device Implant	Alive (device still in place) (%)	Transplant (%)	Death (before transplant) (%)	Cessation of support (%)
0	100	0	0	0
6	78	5	15	1
12	62	15	22	1
18	52	22	26	1
24	45	25	30	1
30	40	28	33	1
36	35	30	35	1
42	30	32	37	1
48	26	33	39	1
54	24	33	41	1
60	21	33	43	3

[illegible]

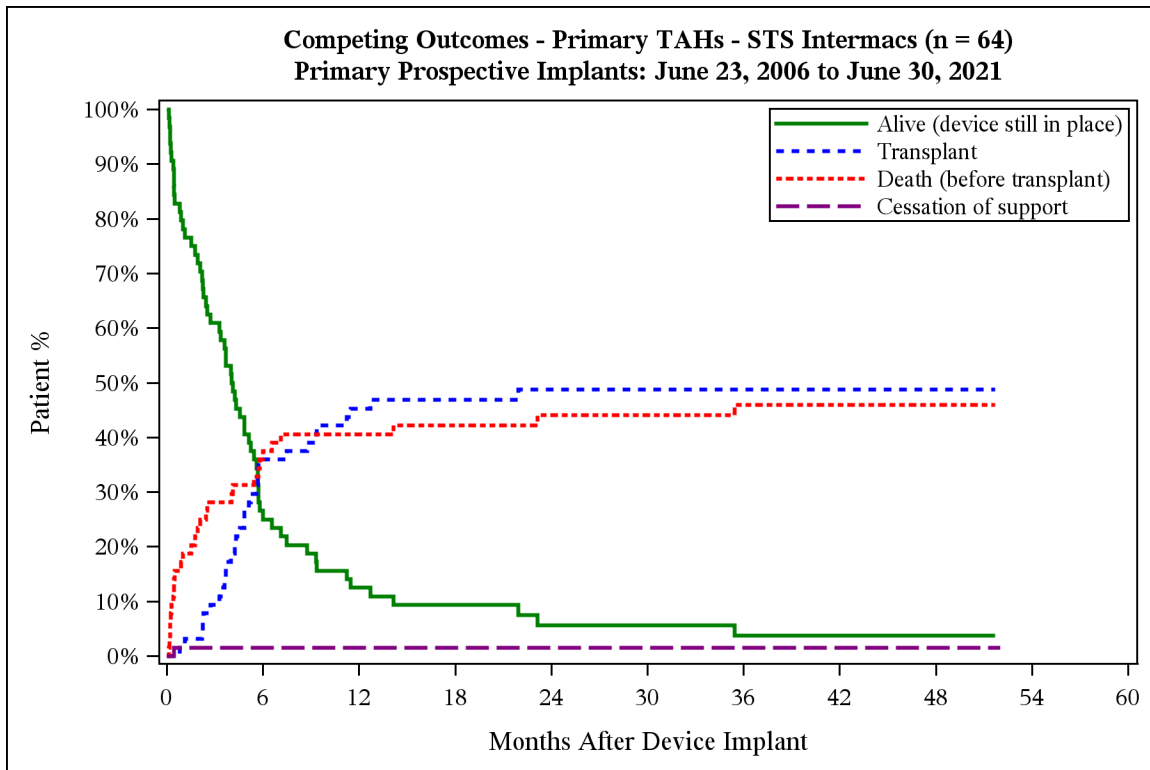
**Exhibit 46b. Competing Outcomes - Primary LVADs - CONTINUOUS FLOW - HOSPX-9999**

[illegible]

**COVERAGE: June 23, 2006 - June 30, 2021**

## ***SITE: HOSPX - DEMO SITE REPORT***

**Exhibit 47a. Competing Outcomes - Primary TAHs - STS Intermacs**

[illegible]

***STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients***

***COVERAGE: June 23, 2006 - June 30, 2021***

***SITE: HOSPX - DEMO SITE REPORT***

***Exhibit 47b. Competing Outcomes - Primary TAHs - HOSPX-9999***

Not enough patients or events to produce exhibit

***STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients***

***COVERAGE: June 23, 2006 - June 30, 2021***

***SITE: HOSPX - DEMO SITE REPORT***

***IV. Zone Conditions: Hemolysis, Hypertension, and Right Heart Failure***

The following Exhibits consist of data collected regarding the three “Zone Conditions”: Hemolysis, Hypertension, and Right Heart Failure. These zones were added to the STS InterMACS released in June of 2014. The zone sections, including data fields and flag calculations, were added to the Web Based Data Entry (WBDE) system. In the WBDE, the flags are calculated on any applicable form that is updated by a user after the release date, and the flags are displayed in the WBDE (on the Patient Summary). The report exhibits on the following pages provide useful, clinical analysis of the flags by adding comparison to the STS InterMACS Aggregate Group, and include some further division into relevant categories, such as classification of severity, and timing.

Note: Further information on the calculation and processing of the Zone Conditions can be found on the InterMACS.org website, in the Reports FAQ section. For any queries about the zone conditions or the exhibits, please don’t hesitate to contact the InterMACS Data Warehouse and Analytics Center.

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

***Exhibit 48a: Hemolysis Evaluation Condition Coverage at Follow-up***

The table below consists of data that was collected in the Hemolysis Zone for each Follow-Up interval. Patients that were implanted with a Primary Device on or after June 2, 2014 are analyzed in this exhibit. In the 'Unable to Evaluate' column, the condition could not be evaluated due to missing variables.

**GROUP=HOSPX-9999**

Follow-up Visit	Hemolysis Evaluation		
	All	Condition Evaluated	
	N	N	%
3 Month	19	19	100.00
6 Month	14	14	100.00
1 Year	10	10	100.00
2 Year	8	8	100.00

**GROUP=STS Intermacs**

Follow-up Visit	Hemolysis Evaluation				
	All	Unable to Evaluate		Condition Evaluated	
	N	N	%	N	%
3 Month	1457	79	5.42	1378	94.58
6 Month	1211	56	4.62	1155	95.38
1 Year	823	40	4.86	783	95.14
2 Year	423	28	6.62	395	93.38



**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**IV. Zone Conditions: Hemolysis**

***Exhibit 48b: Hemolysis Major and Minor Condition Coverage at Follow-up***

The table below consists of patients who had Major or Minor Hemolysis Conditions for each Follow-Up interval. Patients that were implanted with a Primary Device on or after June 2, 2014 are analyzed in this exhibit.

**GROUP=HOSPX-9999**

Follow-up Visit	Hemolysis Condition						
	All	Major		Minor		No	
	N	N	%	N	%	N	%
3 Month	19	2	10.53	1	5.26	16	84.21
6 Month	14	.	.	2	14.29	12	85.71
1 Year	10	1	10.00	.	.	9	90.00
2 Year	8	.	.	2	25.00	6	75.00
3 Year	3	.	.	1	33.33	2	66.67
4 Year	1	.	.	.	.	1	100.00
5 Year	1	.	.	.	.	1	100.00

**GROUP=STS Intermacs**

Follow-up Visit	Hemolysis Condition						
	All	Major		Minor		No	
	N	N	%	N	%	N	%
3 Month	1378	69	5.01	225	16.33	1084	78.66
6 Month	1155	32	2.77	174	15.06	949	82.16
1 Year	783	37	4.73	143	18.26	603	77.01
2 Year	395	16	4.05	77	19.49	302	76.46
3 Year	177	9	5.08	34	19.21	134	75.71
4 Year	83	6	7.23	15	18.07	62	74.70
5 Year	42	1	2.38	5	11.90	36	85.71

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

***Exhibit 48c: Hypertension Evaluation Condition Coverage at Follow-up***

The table below consists of data that was collected in the Hypertension Zone for each Follow-Up interval. Patients that were implanted with a Primary Device on or after June 2, 2014 are analyzed in this exhibit. In the 'Unable to Evaluate' column, the condition could not be evaluated due to missing variables.

**GROUP=HOSPX-9999**

Follow-up Visit	All	Hypertension Evaluation			
		Unable to Evaluate		Condition Evaluated	
		N	%	N	%
3 Month	19	9	47.37	10	52.63
6 Month	14	7	50.00	7	50.00
1 Year	10	8	80.00	2	20.00
2 Year	8	5	62.50	3	37.50

**GROUP=STS InterMACS**

Follow-up Visit	All	Hypertension Evaluation			
		Unable to Evaluate		Condition Evaluated	
		N	%	N	%
3 Month	1457	350	24.02	1107	75.98
6 Month	1211	280	23.12	931	76.88
1 Year	823	219	26.61	604	73.39
2 Year	423	101	23.88	322	76.12

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

***Exhibit 48d: Hypertension No or Yes Condition Coverage at Follow-up***

The table below consists of patients who did or did not have Hypertension Conditions for each Follow-Up interval. Patients that were implanted with a Primary Device on or after June 2, 2014 are analyzed in this exhibit.

**GROUP=HOSPX-9999**

Follow-up Visit	All	Hypertension Condition			
		HTN		No HTN	
		N	%	N	%
3 Month	10	.	.	10	100.00
6 Month	7	.	.	7	100.00
1 Year	2	.	.	2	100.00
2 Year	3	1	33.33	2	66.67
4 Year	1	.	.	1	100.00

**GROUP=STS Intermacs**

Follow-up Visit	All	Hypertension Condition			
		HTN		No HTN	
		N	%	N	%
3 Month	1107	49	4.43	1058	95.57
6 Month	931	33	3.54	898	96.46
1 Year	604	24	3.97	580	96.03
2 Year	322	14	4.35	308	95.65
3 Year	128	4	3.13	124	96.88
4 Year	62	2	3.23	60	96.77
5 Year	31	1	3.23	30	96.77

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**IV. Zone Conditions: Right Heart Failure**

***Exhibit 48e: Right Heart Failure Evaluation Condition Coverage at Follow-up***

The table below consists of data that was collected in the Right Heart Failure Zone for each Follow-Up interval. Patients that were implanted with a Primary Device on or after June 2, 2014 are analyzed in this exhibit. In the 'Unable to Evaluate' column, the condition could not be evaluated due to missing variables.

**GROUP=HOSPX-9999**

Follow-up Visit	RHF Evaluation				
	All	Unable to Evaluate		Condition Evaluated	
		N	%	N	%
<b>3 Month</b>	19	3	15.79	16	84.21
<b>6 Month</b>	14	2	14.29	12	85.71
<b>1 Year</b>	10	3	30.00	7	70.00
<b>2 Year</b>	8	.	.	8	100.00

**GROUP=STS InterMACs**

Follow-up Visit	RHF Evaluation				
	All	Unable to Evaluate		Condition Evaluated	
		N	%	N	%
<b>3 Month</b>	1457	109	7.48	1348	92.52
<b>6 Month</b>	1211	73	6.03	1138	93.97
<b>1 Year</b>	823	54	6.56	769	93.44
<b>2 Year</b>	423	18	4.26	405	95.74

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

***Exhibit 48f: Right Heart Failure Evaluation Condition Coverage at Follow-up***

The table below consists of patients who Right Heart Failure for each Follow-Up interval, including analysis of severity. Patients that were implanted with a Primary Device on or after June 2, 2014 are analyzed in this exhibit. For full details on how each severity level is calculated, please check the Reports FAQ section on the Intermacs.org website.

**GROUP=HOSPX-9999**

Follow-up Visit	RHF Condition				
	All	1. No RHF		3. RHF (Mild)	
	N	N	%	N	%
<b>3 Month</b>	16	16	100.00	.	.
<b>6 Month</b>	12	11	91.67	1	8.33
<b>1 Year</b>	7	5	71.43	2	28.57
<b>2 Year</b>	8	8	100.00	.	.
<b>3 Year</b>	3	3	100.00	.	.
<b>4 Year</b>	1	1	100.00	.	.
<b>5 Year</b>	1	1	100.00	.	.

**GROUP=STS Intermacs**

Follow-up Visit	RHF Condition								
	All	1. No RHF		3. RHF (Mild)		4. RHF (Inotropic Support)		5. RHF (RVAD Support)	
	N	N	%	N	%	N	%	N	%
<b>3 Month</b>	1348	1166	86.50	72	5.34	106	7.86	4	0.30
<b>6 Month</b>	1138	1029	90.42	52	4.57	54	4.75	3	0.26
<b>1 Year</b>	769	694	90.25	38	4.94	37	4.81	.	.
<b>2 Year</b>	405	372	91.85	14	3.46	19	4.69	.	.
<b>3 Year</b>	175	158	90.29	8	4.57	8	4.57	1	0.57
<b>4 Year</b>	86	77	89.53	4	4.65	5	5.81	.	.
<b>5 Year</b>	40	35	87.50	3	7.50	2	5.00	.	.

**STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD Patients**

**COVERAGE: June 23, 2006 - June 30, 2021**

**SITE: HOSPX - DEMO SITE REPORT**

**Exhibit 49: Patients Implanted at your Center but Excluded from the Cumulative - All Patient Report**

Excluded Patient ID	Exclusion Reason	Implant Year
452	Retrospective Patient	2006
631	Pediatric Patient (Age<19)	2007
1060	Patient Implant Date Outside of Report Coverage	2006
4756	Pediatric Patient (Age<19)	2011
5048	Pediatric Patient (Age<19)	2011
5561	Retrospective Patient	2010
5590	Retrospective Patient	2010
5591	Retrospective Patient	2010
5593	Retrospective Patient	2010
7012	Pediatric Patient (Age<19)	2012
107122	Retrospective Patient	2015
116990	Retrospective Patient	2018
125366	Implant, Pre-Implant, or Patient form not validated	2020
125722	Implant, Pre-Implant, or Patient form not validated	2020
126037	Implant, Pre-Implant, or Patient form not validated	2020
126223	Implant, Pre-Implant, or Patient form not validated	2020
126245	Implant, Pre-Implant, or Patient form not validated	2020
126375	Implant, Pre-Implant, or Patient form not validated	2020
126411	Implant, Pre-Implant, or Patient form not validated	2020
126738	Implant, Pre-Implant, or Patient form not validated	2021
126823	Implant, Pre-Implant, or Patient form not validated	2021
126928	Implant, Pre-Implant, or Patient form not validated	2021
127069	Implant, Pre-Implant, or Patient form not validated	2021
127251	Implant, Pre-Implant, or Patient form not validated	2021
127334	Implant, Pre-Implant, or Patient form not validated	2021
127727	Implant, Pre-Implant, or Patient form not validated	2021
127743	Implant, Pre-Implant, or Patient form not validated	2021
127744	Implant, Pre-Implant, or Patient form not validated	2021
127829	Implant, Pre-Implant, or Patient form not validated	2021
127830	Implant, Pre-Implant, or Patient form not validated	2021
127984	Implant, Pre-Implant, or Patient form not validated	2021
128045	Implant, Pre-Implant, or Patient form not validated	2021

# STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Prior VAD

## Patients

COVERAGE: June 23, 2006 - June 30, 2021

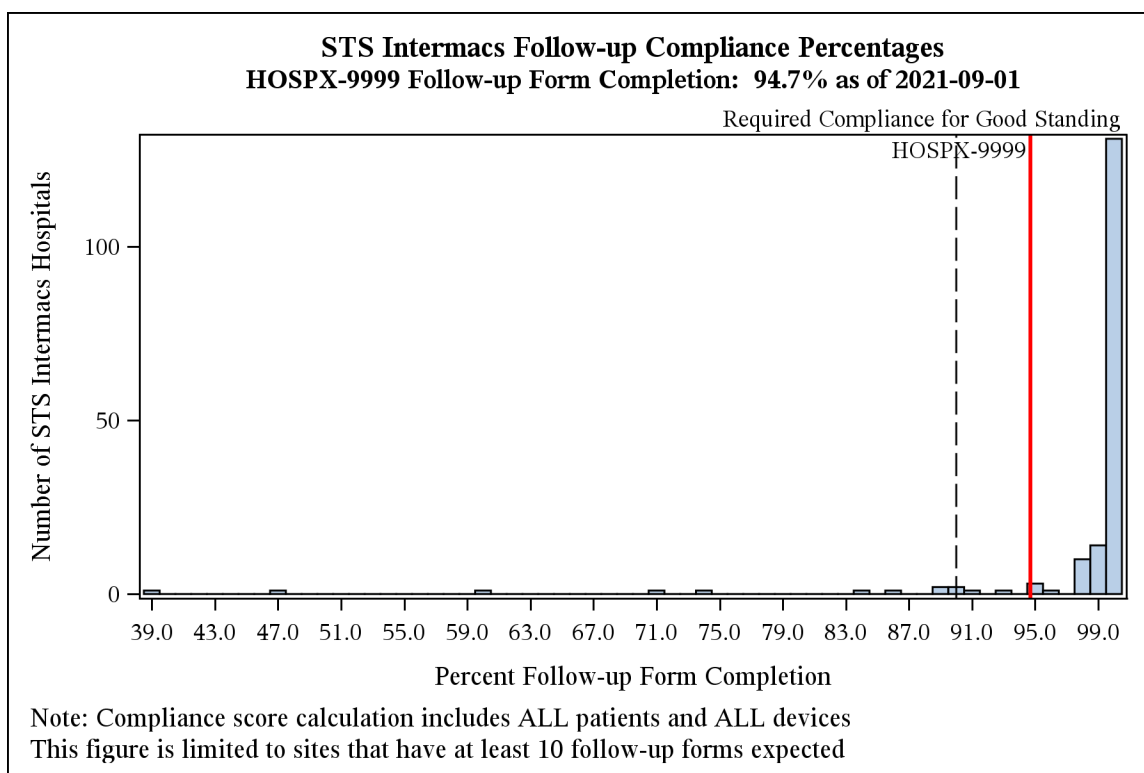
**SITE: HOSPX - DEMO SITE REPORT**

## III. Registry Compliance

### Exhibit 50. Compliance

Site compliance is determined by the percentage of all follow-up forms that are due during this reporting period that have been completed. **This calculation has been updated to include ALL follow-up forms expected for ALL patients and ALL devices.** Only active sites that have at least 10 follow-up forms due are included in this figure (n = 172 sites). This exhibit is the same in both cumulative and recent report. It is based on all follow-up forms.

STS InterMACS has defined required compliance as 90%. If your hospital is below 90%, please examine your patient follow-up table that is contained in the STS InterMACS Data Quality Quarterly Report. This table will identify the exact patients who have a 'past due' follow-up form.



BiVAD: BiVentricular Assist Device

BMI: Body Mass Index

BP: Blood Pressure

BSA: Body Surface Area

BTC: Bridge to Candidacy

BUN: Blood Urea Nitrogen

CMS: Centers for Medicare and Medicaid

COPD: Chronic Obstructive Pulmonary Disease

CNS: Central Nervous System

CRP: C - Reactive Protein

CVA: Cerebrovascular Accident

DCC: Data Coordinating Center

DT: Destination Therapy

ECMO: Extracorporeal-membrane Oxygenation

EQ-5D: Euro Quality of Life

FDA: Federal Drug Administration

HF: Heart Failure

IABP: Intra-Aortic Balloon Pump

IgG: Immunoglobulin G

INR: International Normalized Ratio

Intermacs: Interagency Registry for Mechanically Assisted Circulatory Support

LVAD: Left Ventricular Assist Device

LVEF: Left Ventricular Ejection Fraction

LVEDD: Left Ventricular End Diastolic Dysfunction

LVSF: Left Ventricular Shortening Fraction

MCSD: Mechanically Circulatory Support Device

NHLBI: National Heart Lung and Blood Institute

NT pro brain natriuretic peptide: N-Terminal pro brain Natriuretic peptide

NYHA: New York Heart Association

OR: Operating Room

Regurg: Regurgitation

RVAD: Right Ventricular Assist Device

RVEF: Right Ventricular Ejection Fraction

SAE: Serious Adverse Event

SGOT-AST: Serum Glutamic Oxaloacetic Transaminase

SGPT-ALT: Serum Glutamic Pyruvic Transaminase

STS: Society of Thoracic Surgeons

TAH: Total Artificial Heart

TIA: Transient Ischemic Attack

VAD: Ventricular Assist Device

VAS: Visual Analog Scale