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Quarterly Quality Assurance Report (2021 Q2) - Primary VAD Patients

HOSPX - DEMO SITE REPORT

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

09/30/2021

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**CONFIDENTIAL: This information is only intended for:
HOSPX - DEMO SITE REPORT**

COVERAGE: June 23, 2006 - June 30, 2021

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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 “Primary Patients” version of the report is limited to patients whose first device pre-implant form does not indicate 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.

Disclaimer

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This quarterly report includes clinical information from 766 patients receiving implants between June 23, 2006 and June 30, 2021 at HOSPX - DEMO SITE REPORT.

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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 PATEINTS 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 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	231	283	252	766
2nd Device	29	35	6	70
3rd Device	4	2	0	6
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	10560	11046	9558	31164
2nd Device	1692	1645	468	3805
3rd Device	300	276	47	623
4th Device	44	36	4	84
5th Device	6	3	1	10

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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	25	10.8 %	38	13.4 %	25	9.9 %	88	11.4 %	1309	12.3 %	1327	12.0 %	1157	12.1 %	3793	12.1 %
40-59	104	45.0 %	112	39.5 %	107	42.4 %	323	42.1 %	4520	42.8 %	4584	41.4 %	3799	39.7 %	12903	41.4 %
60-79	102	44.1 %	131	46.2 %	118	46.8 %	351	45.8 %	4673	44.2 %	5070	45.8 %	4559	47.6 %	14302	45.8 %
80+	.	.	2	0.7 %	2	0.7 %	4	0.5 %	58	0.5 %	65	0.5 %	43	0.4 %	166	0.5 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10560	100.0 %	11046	100.0 %	9558	100.0 %	31164	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	49	21.2 %	70	24.7 %	44	17.4 %	163	21.2 %	2211	20.9 %	2414	21.8 %	2155	22.5 %	6780	21.7 %
Male	182	78.7 %	213	75.2 %	208	82.5 %	603	78.7 %	8348	79.0 %	8614	77.9 %	7401	77.4 %	24363	78.1 %
Unspecified	1	0.0 %	18	0.1 %	2	0.0 %	21	0.0 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10560	100.0 %	11046	100.0 %	9558	100.0 %	31164	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	70	30.3 %	106	37.4 %	91	36.1 %	267	34.8 %	2345	22.2 %	2798	25.3 %	2830	29.6 %	7973	25.5 %
Other, Unknown, Undisclosed	40	17.3 %	40	14.1 %	52	20.6 %	132	17.2 %	881	8.3 %	1055	9.5 %	911	9.5 %	2847	9.1 %
White	121	52.3 %	137	48.4 %	109	43.2 %	367	47.9 %	7334	69.4 %	7193	65.1 %	5817	60.8 %	20344	65.2 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10560	100.0 %	11046	100.0 %	9558	100.0 %	31164	100.0 %

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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	196	84.8 %	239	84.4 %	188	74.6 %	623	81.3 %	9888	93.6 %	10029	90.7 %	8612	90.1 %	28529	91.5 %
Unknown	.	.	15	5.3 %	33	13.0 %	48	6.2 %	1	0.0 %	239	2.1 %	328	3.4 %	568	1.8 %
Hispanic	35	15.1 %	29	10.2 %	31	12.3 %	95	12.4 %	671	6.3 %	778	7.0 %	618	6.4 %	2067	6.6 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10560	100.0 %	11046	100.0 %	9558	100.0 %	31164	100.0 %

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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
	N	229	281	251	761
	Mean	2.04	2.01	2.06	2.03
	Std	0.29	0.34	0.32	0.32
	Min	1.12	0.98	1.01	0.98
	Max	3.11	3.05	2.98	3.11

GROUP=STS Intermacs

PRE-IMPLANT BSA		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	N	10448	11003	9528	30979
	Mean	2.08	2.07	2.09	2.08
	Std	0.30	0.32	0.32	0.31
	Min	0.70	0.75	0.47	0.47
	Max	3.44	3.62	3.89	3.89

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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	54	23.3 %	46	16.2 %	29	11.5 %	129	16.8 %	3001	28.4 %	2969	26.8 %	1047	10.9 %	7017	22.5 %
BTT - Likely	51	22.0 %	30	10.6 %	16	6.3 %	97	12.6 %	2446	23.1 %	1525	13.8 %	776	8.1 %	4747	15.2 %
BTT - Moderate	30	12.9 %	33	11.6 %	10	3.9 %	73	9.5 %	1067	10.1 %	909	8.2 %	790	8.2 %	2766	8.8 %
BTT - Unlikely	10	4.3 %	7	2.4 %	3	1.1 %	20	2.6 %	345	3.2 %	248	2.2 %	241	2.5 %	834	2.6 %
Destination Therapy	85	36.7 %	166	58.6 %	189	75.0 %	440	57.4 %	3542	33.5 %	5319	48.1 %	6538	68.4 %	15399	49.4 %
Bridge to Recovery	.	.	1	0.3 %	5	1.9 %	6	0.7 %	96	0.9 %	41	0.3 %	73	0.7 %	210	0.6 %
Rescue Therapy	1	0.4 %	1	0.1 %	61	0.5 %	33	0.2 %	20	0.2 %	114	0.3 %
Other	2	0.0 %	2	0.0 %	73	0.7 %	77	0.2 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10560	100.0 %	11046	100.0 %	9558	100.0 %	31164	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	%
1 Critical Cardiogenic Shock	41	17.7 %	34	12.0 %	37	14.6 %	112	14.6 %	1881	17.8 %	1891	17.1 %	1449	15.1 %	5221	16.7 %
2 Progressive Decline	88	38.0 %	68	24.0 %	85	33.7 %	241	31.4 %	4078	38.6 %	3832	34.6 %	3181	33.2 %	11091	35.5 %
3 Stable but Inotrope Dependent	71	30.7 %	165	58.3 %	119	47.2 %	355	46.3 %	2713	25.6 %	3897	35.2 %	3674	38.4 %	10284	33.0 %
4 Resting Symptoms	24	10.3 %	16	5.6 %	11	4.3 %	51	6.6 %	1402	13.2 %	1208	10.9 %	1071	11.2 %	3681	11.8 %
5 Exertion Intolerant	6	2.5 %	6	0.7 %	283	2.6 %	158	1.4 %	106	1.1 %	547	1.7 %
6 Exertion Limited	1	0.4 %	1	0.1 %	131	1.2 %	45	0.4 %	43	0.4 %	219	0.7 %
7 Advanced NYHA Class 3	69	0.6 %	14	0.1 %	34	0.3 %	117	0.3 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10557	100.0 %	11045	100.0 %	9558	100.0 %	31160	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	193	72	37.3%	261	131	50.2%	209	99	47.4%
Dopamine	193	16	8.3%	261	6	2.3%	209	5	2.4%
Milrinone	193	162	83.9%	261	208	79.7%	209	165	78.9%
Levosimendan	193	0	0.0%	261	0	0.0%	209	1	0.5%
Epinephrine	193	6	3.1%	261	20	7.7%	209	21	10.0%
Norepinephrine	193	14	7.3%	261	10	3.8%	209	14	6.7%
Isoproterenol	193	0	0.0%	261	0	0.0%	209	0	0.0%
Other Specify	193	5	2.6%	261	0	0.0%	209	5	2.4%
Unknown	193	0	0.0%	261	0	0.0%	209	2	1.0%

IV INOTROPES	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Dobutamine	8598	3395	39.5%	9284	3428	36.9%	8064	2943	36.5%
Dopamine	8598	1040	12.1%	9284	719	7.7%	8064	349	4.3%
Milrinone	8598	6406	74.5%	9284	7166	77.2%	8064	6229	77.2%
Levosimendan	8598	14	0.2%	9284	7	0.1%	8064	6	0.1%
Epinephrine	8598	483	5.6%	9284	814	8.8%	8064	763	9.5%
Norepinephrine	8598	483	5.6%	9284	699	7.5%	8064	631	7.8%
Isoproterenol	8598	19	0.2%	9284	10	0.1%	8064	12	0.1%
Other Specify	8598	277	3.2%	9284	94	1.0%	8064	80	1.0%
Unknown	8598	8	0.1%	9284	4	0.0%	8064	8	0.1%

IV INOTROPES	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
Dobutamine	663	302	45.6%	25946	9766	37.6%
Dopamine	663	27	4.1%	25946	2108	8.1%
Milrinone	663	535	80.7%	25946	19801	76.3%
Levosimendan	663	1	0.2%	25946	27	0.1%
Epinephrine	663	47	7.1%	25946	2060	7.9%
Norepinephrine	663	38	5.7%	25946	1813	7.0%
Isoproterenol	663	0	0.0%	25946	41	0.2%

(Continued)

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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	663	10	1.5%	25946	451	1.7%
Unknown	663	2	0.3%	25946	20	0.1%

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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	109	14.6	6136	20.3
Known previous use (within past year)	153	20.5	6371	21.0
No	306	41.1	15176	50.1
Unknown	177	23.8	2598	8.6
TOTAL	745	100	30281	100

ALDOSTERONE ANTAGONIST	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	266	35.7	11343	37.5
Known previous use (within past year)	166	22.3	5163	17.1
No	213	28.6	11887	39.3
Unknown	100	13.4	1888	6.2
TOTAL	745	100	30281	100

ALLOPURINOL*	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	62	9.8	3156	12.8
Known previous use (within past year)	24	3.8	882	3.6
No	362	57.1	17945	73.0
Unknown	186	29.3	2586	10.5
TOTAL	634	100	24569	100

AMIODARONE	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	279	37.4	11937	39.4
Known previous use (within past year)	63	8.5	1999	6.6
No	293	39.3	14468	47.8
Unknown	110	14.8	1877	6.2
TOTAL	745	100	30281	100

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	46	6.2	2934	9.7
Known previous use (within past year)	94	12.6	3878	12.8
No	416	55.8	20393	67.3
Unknown	189	25.4	3076	10.2
TOTAL	745	100	30281	100

ANTIPLATELET THERAPY DRUG	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	305	40.9	16271	53.7
Known previous use (within past year)	120	16.1	4261	14.1
No	227	30.5	8273	27.3
Unknown	93	12.5	1476	4.9
TOTAL	745	100	30281	100

BETA BLOCKERS	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	277	37.2	13609	44.9
Known previous use (within past year)	210	28.2	8795	29.0
No	165	22.1	6626	21.9
Unknown	93	12.5	1251	4.1
TOTAL	745	100	30281	100

WARFARIN (COUMADIN)	HOSPX-9999		STS InterMACS	
	N	%	N	%
Currently using	79	10.6	4715	15.6
Known previous use (within past year)	117	15.7	5353	17.7
No	415	55.7	18018	59.5
Unknown	134	18.0	2195	7.2
TOTAL	745	100	30281	100

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	661	90.1	28059	94.5
Unknown	71	9.7	1127	3.8
Yes	2	0.3	519	1.7
TOTAL	734	100	29705	100

NITRIC OXIDE	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	668	89.7	28244	93.3
Unknown	68	9.1	1141	3.8
Yes	9	1.2	896	3.0
TOTAL	745	100	30281	100

LOOP DIURETICS	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	84	11.3	4283	14.1
Unknown	48	6.4	349	1.2
Yes	613	82.3	25649	84.7
TOTAL	745	100	30281	100

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	478	320	66.95%	19716	11623	58.95%
Torsemide	478	58	12.13%	19716	3864	19.60%
Bumetanide	478	101	21.13%	19716	4421	22.42%
Other	478	0	0.00%	19716	86	0.44%

CARDIAC RESYNCHRONIZATION THERAPY (CRT)*	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	418	67.1	16047	67.0
Unknown	88	14.1	1547	6.5
Yes	117	18.8	6354	26.5
TOTAL	623	100	23948	100

METALAZONE / THIAZIDE*	HOSPX-9999		STS InterMACS	
	N	%	N	%
No	437	68.9	20780	84.7
Unknown	130	20.5	893	3.6
Yes	67	10.6	2867	11.7
TOTAL	634	100	24540	100

METALAZONE / THIAZIDE - FREQUENCY*	HOSPX-9999		STS InterMACS	
	N	%	N	%
Regular	31	46.3	1203	42.0
Intermittent	36	53.7	1663	58.0
TOTAL	67	100	2866	100

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	745	30222
	Mean	134.47	134.97
	Std	5.17	4.85
	Min	117.00	110.00
	Max	152.00	161.00
Potassium (mEq/L)	N	745	30217
	Mean	4.16	4.07
	Std	0.48	0.48
	Min	2.60	2.00
	Max	6.10	7.00
BUN (mg/dL)	N	745	30168
	Mean	31.39	29.56
	Std	19.65	17.95
	Min	1.11	0.70
	Max	336.00	336.12
Creatinine (mg/dL)	N	745	30210
	Mean	1.47	1.41
	Std	0.68	0.72
	Min	0.51	0.00
	Max	9.00	15.00
Alanine Aminotransferase/ALT (u/L)	N	669	28672
	Mean	67.19	68.15
	Std	170.07	214.66
	Min	4.00	1.00
	Max	2395.00	8230.00
Aspartate Aminotransferase/AST (u/L)	N	668	28669
	Mean	59.92	59.82
	Std	188.13	232.41
	Min	2.00	2.00
	Max	3982.00	10000.00
LDH (µkat/L), (U/L)	N	382	14854
	Mean	491.74	369.25
	Std	470.81	407.32
	Min	47.00	0.00
	Max	6454.00	18345.00
All	N	766	31164

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	667	28626
	Mean	1.44	1.37
	Std	1.77	1.76
	Min	0.10	0.08
	Max	27.20	52.00
Albumin (g/dL)	N	644	28279
	Mean	3.55	3.41
	Std	0.69	0.64
	Min	0.37	0.00
	Max	8.00	8.00
Pre-albumin (mg/dL)	N	404	15979
	Mean	18.42	18.53
	Std	7.88	7.35
	Min	3.00	3.00
	Max	55.00	60.00
Total Cholesterol (mg/dL)	N	488	17104
	Mean	127.59	129.54
	Std	42.32	103.38
	Min	51.40	50.00
	Max	410.00	7413.13
Brain Natriuretic Peptide (pg/mL)	N	12	13080
	Mean	2014.75	1234.86
	Std	1459.63	1137.52
	Min	91.00	1.00
	Max	4253.00	7500.00
Pro Brain Natriuretic Peptide (pg/mL)	N	503	7738
	Mean	6833.41	6693.98
	Std	7149.25	7770.72
	Min	27.00	26.00
	Max	60000.00	60000.00
White Blood Cell Count (x10 ⁶ /μL)	N	738	30159
	Mean	9.19	8.70
	Std	4.52	4.11
	Min	2.50	1.30
	Max	68.00	96.00
Hemoglobin (g/dL)	N	740	30161
	Mean	10.86	11.22
	Std	2.22	2.15
	Min	0.78	0.10
	Max	19.70	20.00
All	N	766	31164

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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/ μ L)	N	741	30143
	Mean	200.73	196.70
	Std	88.52	81.38
	Min	13.00	1.00
	Max	738.00	800.00
INR	N	719	28970
	Mean	1.32	1.32
	Std	0.62	0.52
	Min	0.90	0.50
	Max	13.70	15.00
Sensitivity CRP (mg/L)	N	126	8105
	Mean	44.76	22.35
	Std	61.98	45.26
	Min	0.10	0.00
	Max	300.00	800.00
All	N	766	31164

PRE-IMPLANT LUPUS ANTICOAGULANT STATUS*	HOSPX-9999		STS InterMACS	
	N	%	N	%
Negative	5	0.8	2435	9.9
Positive	3	0.5	296	1.2
Unknown	626	98.7	21858	88.9
TOTAL	634	100	24589	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	120	3	2.5%	283	13	4.6%	225	4	1.8%
Chronic Lung Disease	227	26	11.5%	283	12	4.2%	228	15	6.6%
Pulmonary Hypertension	125	40	32.0%	283	26	9.2%	228	46	20.2%
Recent Pulmonary Embolus	121	2	1.7%	283	0	0.0%	229	1	0.4%
History of Atrial Arrhythmia	120	21	17.5%	283	44	15.5%	226	38	16.8%
Thoracic Aortic Disease	120	1	0.8%	283	2	0.7%	227	6	2.6%

Cardiothoracic issues	STS InterMACS								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Frequent ICD Shocks	5157	304	5.9%	11046	565	5.1%	8649	356	4.1%
Chronic Lung Disease	10411	1221	11.7%	11046	1018	9.2%	8650	780	9.0%
Pulmonary Hypertension	5589	1718	30.7%	11046	2273	20.6%	8651	1594	18.4%
Recent Pulmonary Embolus	5173	105	2.0%	11046	180	1.6%	8668	116	1.3%
History of Atrial Arrhythmia	5158	1117	21.7%	11046	2271	20.6%	8659	1630	18.8%
Thoracic Aortic Disease	5165	65	1.3%	11046	147	1.3%	8659	51	0.6%

Cardiothoracic issues	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Frequent ICD Shocks	620	20	3.2%	24194	1195	4.9%
Chronic Lung Disease	627	35	5.6%	24571	2304	9.4%
Pulmonary Hypertension	623	107	17.2%	24225	5051	20.9%
Recent Pulmonary Embolus	624	2	0.3%	24214	381	1.6%
History of Atrial Arrhythmia	621	102	16.4%	24204	4895	20.2%
Thoracic Aortic Disease	622	9	1.4%	24204	246	1.0%

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	170	53	31.2%	283	46	16.3%	231	31	13.4%
Malnutrition/Cachexia	125	5	4.0%	283	1	0.4%	230	3	1.3%
History GI Ulcers	120	0	0.0%	283	0	0.0%	225	0	0.0%
Liver Dysfunction	5	0	0.0%	272	1	0.4%	225	12	5.3%
Hepatitis	224	29	12.9%	283	1	0.4%	228	1	0.4%

Nutritional/GI issues	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Severe Diabetes	7168	1701	23.7%	11046	1042	9.4%	8674	864	10.0%
Malnutrition/Cachexia	5242	235	4.5%	11046	286	2.6%	8660	236	2.7%
History GI Ulcers	5158	63	1.2%	11046	66	0.6%	8661	58	0.7%
Liver Dysfunction	298	7	2.3%	10317	440	4.3%	8660	290	3.3%
Hepatitis	10261	352	3.4%	11046	139	1.3%	8659	104	1.2%

Nutritional/GI issues	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
Severe Diabetes	628	101	16.1%	24365	2441	10.0%
Malnutrition/Cachexia	626	5	0.8%	24214	676	2.8%
History GI Ulcers	620	0	0.0%	24206	178	0.7%
Liver Dysfunction	502	13	2.6%	19177	735	3.8%
Hepatitis	628	3	0.5%	24558	334	1.4%

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	120	1	0.8%	283	2	0.7%	226	2	0.9%
Chronic Coagulopathy	120	1	0.8%	283	1	0.4%	225	0	0.0%
Cerebrovascular Disease	228	39	17.1%	283	15	5.3%	229	12	5.2%
Major Stroke	224	16	7.1%	283	10	3.5%	219	9	4.1%
Peripheral Arterial Disease	225	13	5.8%	283	2	0.7%	230	6	2.6%

Vascular issues	STS InterMACS								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Heparin-induced Thrombocytopenia	5189	109	2.1%	11046	96	0.9%	8649	84	1.0%
Chronic Coagulopathy	5158	47	0.9%	11046	134	1.2%	8654	85	1.0%
Cerebrovascular Disease	10511	1325	12.6%	11046	627	5.7%	8666	468	5.4%
Major Stroke	10355	616	5.9%	11006	407	3.7%	8129	318	3.9%
Peripheral Arterial Disease	10426	569	5.5%	11046	482	4.4%	8661	348	4.0%

Vascular issues	HOSPX-9999			STS InterMACS		
	N	Yes	%	N	Yes	%
Heparin-induced Thrombocytopenia	621	5	0.8%	24195	250	1.0%
Chronic Coagulopathy	620	2	0.3%	24199	262	1.1%
Cerebrovascular Disease	629	37	5.9%	24590	1472	6.0%
Major Stroke	619	27	4.4%	23976	946	3.9%
Peripheral Arterial Disease	629	16	2.5%	24583	1086	4.4%

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	126	8	6.3%	283	14	4.9%	230	9	3.9%
Currently has Cancer v6	0	.	.	0	.	.	9	0	0.0%
History of Solid Organ Transplant v6	0	.	.	0	.	.	11	0	0.0%
History of Bone Marrow Transplant (BMT)	120	0	0.0%	283	0	0.0%	231	0	0.0%
HIV	120	1	0.8%	282	0	0.0%	220	2	0.9%

Oncology/infection issues	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
History Solid Organ Cancer	5572	469	8.4%	11046	515	4.7%	8673	439	5.1%
Currently has Cancer v6	38	0	0.0%	40	0	0.0%	605	10	1.7%
History of Solid Organ Transplant v6	38	0	0.0%	40	0	0.0%	618	4	0.6%
History of Bone Marrow Transplant (BMT)	5159	3	0.1%	11046	9	0.1%	8668	13	0.1%
HIV	5156	16	0.3%	11007	31	0.3%	8084	46	0.6%

Oncology/infection issues	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
History Solid Organ Cancer	625	27	4.3%	24249	1224	5.0%
Currently has Cancer v6	9	0	0.0%	679	10	1.5%
History of Solid Organ Transplant v6	11	0	0.0%	692	4	0.6%
History of Bone Marrow Transplant (BMT)	626	0	0.0%	24213	25	0.1%
HIV	614	3	0.5%	23590	91	0.4%

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	230	29	12.6%	283	43	15.2%	231	23	10.0%
Frailty	230	5	2.2%	283	17	6.0%	229	8	3.5%
Patient Does Not Want Transplant	230	8	3.5%	283	1	0.4%	227	2	0.9%
Musculoskeletal Limitation to Ambulation	230	0	0.0%	283	0	0.0%	229	0	0.0%
Contraindications to Immunosuppression	230	0	0.0%	283	0	0.0%	228	0	0.0%
Allosensitization	230	0	0.0%	283	0	0.0%	227	3	1.3%
Chronic Renal Disease	230	26	11.3%	283	12	4.2%	228	4	1.8%
Large BMI	230	17	7.4%	283	35	12.4%	231	23	10.0%
Chronic Infectious Concerns	230	0	0.0%	283	0	0.0%	226	0	0.0%

Potential Barriers to Heart Transplant	STS Intermacs								
	< 2014			2014 - 2017			2018 - 2021 (Jan-Jun)		
	N	Yes	%	N	Yes	%	N	Yes	%
Advanced Age	10421	1334	12.8%	11046	1407	12.7%	8654	1354	15.6%
Frailty	10422	376	3.6%	11046	537	4.9%	8642	474	5.5%
Patient Does Not Want Transplant	10421	201	1.9%	11046	188	1.7%	8586	166	1.9%
Musculoskeletal Limitation to Ambulation	10422	39	0.4%	11046	37	0.3%	8641	36	0.4%
Contraindications to Immunosuppression	10422	59	0.6%	11046	37	0.3%	8627	37	0.4%
Allosensitization	10422	72	0.7%	11046	51	0.5%	8607	71	0.8%
Chronic Renal Disease	10421	902	8.7%	11046	838	7.6%	8644	641	7.4%
Large BMI	10421	1024	9.8%	11046	1270	11.5%	8654	1298	15.0%
Chronic Infectious Concerns	10422	65	0.6%	11046	82	0.7%	8640	68	0.8%

Potential Barriers to Heart Transplant	HOSPX-9999			STS Intermacs		
	N	Yes	%	N	Yes	%
Advanced Age	631	87	13.8%	24567	3506	14.3%
Frailty	629	26	4.1%	24556	1190	4.8%
Patient Does Not Want Transplant	627	8	1.3%	24500	465	1.9%
Musculoskeletal Limitation to Ambulation	629	0	0.0%	24555	92	0.4%
Contraindications to Immunosuppression	628	0	0.0%	24541	105	0.4%
Allosensitization	627	3	0.5%	24521	161	0.7%

(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	628	27	4.3%	24557	1867	7.6%
Large BMI	631	68	10.8%	24567	3064	12.5%
Chronic Infectious Concerns	626	0	0.0%	24554	177	0.7%

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	744	30090
	Mean	91.88	89.72
	Std	17.16	17.81
	Min	55.00	31.00
	Max	175.00	198.00
Diastolic Blood Pressure (mmHg)	N	731	29701
	Mean	65.33	65.46
	Std	11.86	11.69
	Min	25.00	20.00
	Max	110.00	120.00
Systolic Blood Pressure (mmHg)	N	733	29779
	Mean	105.87	105.54
	Std	16.61	16.34
	Min	53.00	44.00
	Max	163.00	193.00
All	N	766	31164

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	192	257	209	658
	Mean	6.61	6.82	6.68	6.71
	Std	1.16	1.06	1.09	1.10
	Min	1.70	3.74	3.21	1.70
	Max	10.00	10.10	9.50	10.10

GROUP=STS Intermacs

PRE-IMPLANT LVEDD (cm)		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	N	7364	8749	7092	23205
	Mean	6.82	6.81	6.77	6.80
	Std	1.16	1.11	1.06	1.11
	Min	1.00	1.20	1.60	1.00
	Max	10.00	20.00	15.00	20.00

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)	1	0.4 %	2	0.7 %	.	.	3	0.4 %	60	0.6 %	27	0.2 %	23	0.2 %	110	0.3 %
40-49 (mild)	1	0.4 %	2	0.7 %	.	.	3	0.4 %	51	0.5 %	52	0.4 %	31	0.3 %	134	0.4 %
30-39 (moderate)	19	8.7 %	8	2.8 %	8	3.4 %	35	4.7 %	402	4.1 %	380	3.4 %	275	3.1 %	1057	3.5 %
20-29 (moderate/severe)	71	32.7 %	66	23.3 %	51	22.0 %	188	25.7 %	2241	23.0 %	2747	24.8 %	2168	24.9 %	7156	24.2 %
< 20 (severe)	112	51.6 %	192	67.8 %	170	73.5 %	474	64.8 %	6493	66.7 %	7306	66.1 %	5805	66.9 %	19604	66.5 %
Not Recorded or Not Documented	12	5.5 %	8	2.8 %	2	0.8 %	22	3.0 %	437	4.4 %	482	4.3 %	341	3.9 %	1260	4.2 %
Unknown	1	0.4 %	5	1.7 %	.	.	6	0.8 %	48	0.4 %	52	0.4 %	32	0.3 %	132	0.4 %
TOTAL	217	100.0 %	283	100.0 %	231	100.0 %	731	100.0 %	9732	100.0 %	11046	100.0 %	8675	100.0 %	29453	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	25	11.5 %	68	24.0 %	59	25.5 %	152	20.7 %	1387	14.2 %	2302	20.8 %	1951	22.4 %	5640	19.1 %
Mild	15	6.9 %	75	26.5 %	81	35.0 %	171	23.3 %	1319	13.5 %	2484	22.4 %	2112	24.3 %	5915	20.0 %
Moderate	37	17.0 %	71	25.0 %	57	24.6 %	165	22.5 %	1826	18.7 %	2652	24.0 %	2110	24.3 %	6588	22.3 %
Severe	20	9.2 %	29	10.2 %	12	5.1 %	61	8.3 %	1156	11.8 %	1372	12.4 %	1051	12.1 %	3579	12.1 %
Not Done	61	28.1 %	15	5.3 %	4	1.7 %	80	10.9 %	2598	26.6 %	1398	12.6 %	843	9.7 %	4839	16.4 %
Not Applicable (v4)	.	.	2	0.7 %	2	0.8 %	4	0.5 %	.	.	23	0.2 %	23	0.2 %	46	0.1 %
Unknown	59	27.1 %	23	8.1 %	16	6.9 %	98	13.4 %	1446	14.8 %	815	7.3 %	585	6.7 %	2846	9.6 %
TOTAL	217	100.0 %	283	100.0 %	231	100.0 %	731	100.0 %	9732	100.0 %	11046	100.0 %	8675	100.0 %	29453	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	%
0 (none)	14	6.4 %	28	9.8 %	28	12.1 %	70	9.5 %	708	7.2 %	764	6.9 %	643	7.4 %	2115	7.1 %
1 (mild)	89	41.0 %	99	34.9 %	79	34.1 %	267	36.5 %	3148	32.3 %	3589	32.4 %	2902	33.4 %	9639	32.7 %
2 (moderate)	72	33.1 %	86	30.3 %	60	25.9 %	218	29.8 %	3094	31.7 %	3405	30.8 %	2667	30.7 %	9166	31.1 %
3 (severe)	32	14.7 %	48	16.9 %	50	21.6 %	130	17.7 %	2169	22.2 %	2509	22.7 %	1861	21.4 %	6539	22.2 %
Not Recorded or Not Documented	10	4.6 %	22	7.7 %	14	6.0 %	46	6.2 %	529	5.4 %	779	7.0 %	602	6.9 %	1910	6.4 %
~Unknown~	84	0.8 %	84	0.2 %
TOTAL	217	100.0 %	283	100.0 %	231	100.0 %	731	100.0 %	9732	100.0 %	11046	100.0 %	8675	100.0 %	29453	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	%
0 (none)	129	59.4 %	160	56.5 %	85	36.7 %	374	51.1 %	5739	58.9 %	6085	55.0 %	4792	55.2 %	16616	56.4 %
1 (mild)	61	28.1 %	64	22.6 %	59	25.5 %	184	25.1 %	2385	24.5 %	3021	27.3 %	2471	28.4 %	7877	26.7 %
2 (moderate)	7	3.2 %	11	3.8 %	5	2.1 %	23	3.1 %	313	3.2 %	361	3.2 %	283	3.2 %	957	3.2 %
3 (severe)	1	0.4 %	2	0.7 %	3	1.2 %	6	0.8 %	66	0.6 %	57	0.5 %	57	0.6 %	180	0.6 %
Not Recorded or Not Documented	19	8.7 %	46	16.2 %	79	34.1 %	144	19.6 %	1229	12.6 %	1522	13.7 %	1072	12.3 %	3823	12.9 %
TOTAL	217	100.0 %	283	100.0 %	231	100.0 %	731	100.0 %	9732	100.0 %	11046	100.0 %	8675	100.0 %	29453	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	%
0 (none)	21	9.6 %	25	8.8 %	31	13.4 %	77	10.5 %	973	9.9 %	876	7.9 %	857	9.8 %	2706	9.1 %
1 (mild)	108	49.7 %	114	40.2 %	106	45.8 %	328	44.8 %	3971	40.8 %	4978	45.0 %	3834	44.1 %	12783	43.4 %
2 (moderate)	68	31.3 %	88	31.0 %	64	27.7 %	220	30.0 %	2874	29.5 %	3062	27.7 %	2355	27.1 %	8291	28.1 %
3 (severe)	10	4.6 %	36	12.7 %	16	6.9 %	62	8.4 %	1195	12.2 %	1277	11.5 %	970	11.1 %	3442	11.6 %
Not Recorded or Not Documented	10	4.6 %	20	7.0 %	14	6.0 %	44	6.0 %	580	5.9 %	853	7.7 %	659	7.5 %	2092	7.1 %
~Unknown~	139	1.4 %	139	0.4 %
TOTAL	217	100.0 %	283	100.0 %	231	100.0 %	731	100.0 %	9732	100.0 %	11046	100.0 %	8675	100.0 %	29453	100.0 %

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	648	25282
	Mean	49.76	49.76
	Std	14.30	14.88
	Min	1.00	0.00
	Max	90.00	100.00
Pulmonary Artery Diastolic Pressure (mmHg)	N	648	25163
	Mean	24.21	25.03
	Std	8.07	8.85
	Min	2.00	0.00
	Max	60.00	60.00
~Mean RA Pressure (mmHg)~	N	523	19606
	Mean	20.28	13.03
	Std	12.11	8.31
	Min	0.00	-4.00
	Max	51.00	55.00
Mean Pulmonary Artery Capillary Wedge Pressure (mmHg)	N	480	19917
	Mean	24.03	24.80
	Std	9.59	9.25
	Min	2.00	0.00
	Max	50.00	50.00
Cardiac Index	N	557	20403
	Mean	2.38	2.17
	Std	1.22	0.88
	Min	0.60	0.17
	Max	17.00	21.80
Cardiac Output (L/min)	N	624	23744
	Mean	4.47	4.22
	Std	1.59	1.43
	Min	0.40	0.33
	Max	13.10	15.01
All	N	766	31164

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	101	43.7 %	121	42.7 %	135	58.4 %	357	47.9 %	4414	41.7 %	5343	48.3 %	4695	54.1 %	14452	47.7 %
Atrial fibrillation	18	7.7 %	29	10.2 %	17	7.3 %	64	8.5 %	949	8.9 %	911	8.2 %	579	6.6 %	2439	8.0 %
Atrial Flutter	1	0.4 %	4	1.4 %	2	0.8 %	7	0.9 %	101	0.9 %	106	0.9 %	92	1.0 %	299	0.9 %
Not done	2	0.8 %	3	1.0 %	2	0.8 %	7	0.9 %	150	1.4 %	180	1.6 %	117	1.3 %	447	1.4 %
Atrial Paced, Ventricular Sensed	2	0.8 %	2	0.7 %	5	2.1 %	9	1.2 %	82	0.7 %	228	2.0 %	177	2.0 %	487	1.6 %
Atrial Sensed, Ventricular Paced	20	8.6 %	68	24.0 %	27	11.6 %	115	15.4 %	664	6.2 %	2010	18.1 %	1420	16.3 %	4094	13.5 %
Atrial Paced, Ventricular Paced	5	2.1 %	19	6.7 %	24	10.3 %	48	6.4 %	316	2.9 %	1113	10.0 %	788	9.0 %	2217	7.3 %
Junctional (v6)	1	0.0 %	1	0.0 %
Unknown	4	1.7 %	4	1.4 %	3	1.2 %	11	1.4 %	278	2.6 %	250	2.2 %	186	2.1 %	714	2.3 %
Other, specify	78	33.7 %	33	11.6 %	16	6.9 %	127	17.0 %	3606	34.1 %	905	8.1 %	620	7.1 %	5131	16.9 %
TOTAL	231	100.0 %	283	100.0 %	231	100.0 %	745	100.0 %	10560	100.0 %	11046	100.0 %	8675	100.0 %	30281	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	%
Class I	6	0.0 %	11	0.0 %	16	0.1 %	33	0.1 %
Class II	1	0.4 %	2	0.7 %	6	2.5 %	9	1.2 %	39	0.3 %	76	0.6 %	114	1.3 %	229	0.7 %
Class III	40	17.3 %	36	12.7 %	21	9.0 %	97	13.0 %	1840	17.4 %	1608	14.5 %	1149	13.2 %	4597	15.1 %
Class IV	178	77.0 %	236	83.3 %	200	86.5 %	614	82.4 %	7799	73.8 %	8951	81.0 %	7237	83.4 %	23987	79.2 %
Unknown	12	5.1 %	9	3.1 %	4	1.7 %	25	3.3 %	872	8.2 %	400	3.6 %	159	1.8 %	1431	4.7 %
TOTAL	231	100.0 %	283	100.0 %	231	100.0 %	745	100.0 %	10556	100.0 %	11046	100.0 %	8675	100.0 %	30277	100.0 %

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	17	2745
	Mean	11.81	15.77
	Std	6.61	70.68
	Min	4.00	0.00
	Max	35.00	2444.00
All	N	766	31164

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	357	49.0	12556	45.6
Not Done: Too Sick	222	30.5	11766	42.7
Unknown	149	20.5	3213	11.7
TOTAL	728	100	27535	100

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	14	1671
	Mean	6.27	5.55
	Std	13.80	14.57
	Min	1.00	0.70
	Max	52.00	132.00
All	N	766	31164

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	530	72.5	24816	86.7
Unknown	201	27.5	3793	13.3
TOTAL	731	100	28609	100

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	139	5875
	Mean	760.23	830.11
	Std	333.95	1507.06
	Min	0.00	0.00
	Max	1500.00	110892.00
All	N	766	31164

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	199	32.8	8499	34.8
Not Done: Too Sick	314	51.8	14424	59.1
Unknown	93	15.3	1482	6.1
TOTAL	606	100	24405	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	28	19.4 %	72	45.2 %	22	31.8 %	122	32.7 %	1571	28.0 %	1917	32.9 %	1527	36.0 %	5015	32.0 %
I have some problems in walking about	86	59.7 %	71	44.6 %	35	50.7 %	192	51.6 %	3079	54.8 %	3037	52.2 %	2103	49.6 %	8219	52.4 %
I am confined to bed	29	20.1 %	15	9.4 %	11	15.9 %	55	14.7 %	884	15.7 %	744	12.7 %	468	11.0 %	2096	13.3 %
Unknown	1	0.6 %	1	0.6 %	1	1.4 %	3	0.8 %	76	1.3 %	119	2.0 %	138	3.2 %	333	2.1 %
TOTAL	144	100.0 %	159	100.0 %	69	100.0 %	372	100.0 %	5610	100.0 %	5817	100.0 %	4236	100.0 %	15663	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	71	49.3 %	93	58.4 %	39	56.5 %	203	54.5 %	3064	54.6 %	3331	57.2 %	2454	57.9 %	8849	56.4 %
I have some problems washing or dressing myself	49	34.0 %	48	30.1 %	18	26.0 %	115	30.9 %	1805	32.1 %	1806	31.0 %	1250	29.5 %	4861	31.0 %
I am unable to wash or dress myself	22	15.2 %	17	10.6 %	11	15.9 %	50	13.4 %	664	11.8 %	568	9.7 %	390	9.2 %	1622	10.3 %
Unknown	2	1.3 %	1	0.6 %	1	1.4 %	4	1.0 %	77	1.3 %	112	1.9 %	142	3.3 %	331	2.1 %
TOTAL	144	100.0 %	159	100.0 %	69	100.0 %	372	100.0 %	5610	100.0 %	5817	100.0 %	4236	100.0 %	15663	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	22	15.2 %	43	27.0 %	14	20.2 %	79	21.2 %	985	17.5 %	1077	18.5 %	961	22.6 %	3023	19.3 %
I have some problems with performing my usual activities	72	50.0 %	71	44.6 %	29	42.0 %	172	46.2 %	2660	47.4 %	2860	49.1 %	2032	47.9 %	7552	48.2 %
I am unable to perform my usual activities	49	34.0 %	45	28.3 %	24	34.7 %	118	31.7 %	1881	33.5 %	1731	29.7 %	1083	25.5 %	4695	29.9 %
Unknown	1	0.6 %	.	.	2	2.8 %	3	0.8 %	84	1.4 %	149	2.5 %	160	3.7 %	393	2.5 %
TOTAL	144	100.0 %	159	100.0 %	69	100.0 %	372	100.0 %	5610	100.0 %	5817	100.0 %	4236	100.0 %	15663	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	51	35.4 %	70	44.0 %	31	44.9 %	152	40.8 %	2382	42.4 %	2498	42.9 %	1816	42.8 %	6696	42.7 %
I have moderate pain or discomfort	72	50.0 %	75	47.1 %	29	42.0 %	176	47.3 %	2711	48.3 %	2730	46.9 %	1964	46.3 %	7405	47.2 %
I have extreme pain or discomfort	20	13.8 %	12	7.5 %	8	11.5 %	40	10.7 %	440	7.8 %	461	7.9 %	289	6.8 %	1190	7.5 %
Unknown	1	0.6 %	2	1.2 %	1	1.4 %	4	1.0 %	77	1.3 %	128	2.2 %	167	3.9 %	372	2.3 %
TOTAL	144	100.0 %	159	100.0 %	69	100.0 %	372	100.0 %	5610	100.0 %	5817	100.0 %	4236	100.0 %	15663	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	66	45.8 %	90	56.6 %	35	50.7 %	191	51.3 %	2562	45.6 %	2684	46.1 %	1961	46.2 %	7207	46.0 %
I am moderately anxious or depressed	63	43.7 %	61	38.3 %	31	44.9 %	155	41.6 %	2540	45.2 %	2547	43.7 %	1835	43.3 %	6922	44.1 %
I am extremely anxious or depressed	13	9.0 %	6	3.7 %	2	2.8 %	21	5.6 %	420	7.4 %	424	7.2 %	264	6.2 %	1108	7.0 %
Unknown	2	1.3 %	2	1.2 %	1	1.4 %	5	1.3 %	88	1.5 %	162	2.7 %	176	4.1 %	426	2.7 %
TOTAL	144	100.0 %	159	100.0 %	69	100.0 %	372	100.0 %	5610	100.0 %	5817	100.0 %	4236	100.0 %	15663	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
	N	144	151	65	360
	Mean	39.57	49.86	44.18	44.72
	Std	27.89	26.18	24.48	26.92
	Min	0.00	0.00	0.00	0.00
	Max	100.00	100.00	92.00	100.00

GROUP=STS Intermacs

EQ-5D - VAS Score		< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
	N	5442	5555	3931	14928
	Mean	43.15	46.35	48.66	45.79
	Std	24.81	23.69	23.83	24.24
	Min	0.00	0.00	0.00	0.00
	Max	100.00	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)	48	57.1 %	59	50.4 %	56	35.8 %	163	45.6 %	2009	43.3 %	2122	44.5 %	1342	35.0 %	5473	41.3 %
Too tired	3	3.5 %	3	2.5 %	10	6.4 %	16	4.4 %	135	2.9 %	168	3.5 %	110	2.8 %	413	3.1 %
Too stressed, anxious, and/or depressed	.	.	10	8.5 %	1	0.6 %	11	3.0 %	153	3.3 %	237	4.9 %	175	4.5 %	565	4.2 %
No time / too busy	1	1.1 %	2	1.7 %	17	10.8 %	20	5.6 %	233	5.0 %	348	7.3 %	361	9.4 %	942	7.1 %
Too much trouble / don't want to be bothered / not interested	.	.	13	11.1 %	7	4.4 %	20	5.6 %	37	0.7 %	107	2.2 %	78	2.0 %	222	1.6 %
Can't concentrate	2	2.3 %	2	1.7 %	.	.	4	1.1 %	39	0.8 %	42	0.8 %	28	0.7 %	109	0.8 %
Unwilling to complete instrument, no reason given	1	1.1 %	11	9.4 %	9	5.7 %	21	5.8 %	59	1.2 %	153	3.2 %	108	2.8 %	320	2.4 %
Unable to read English and/or illiterate	3	3.5 %	.	.	2	1.2 %	5	1.4 %	40	0.8 %	56	1.1 %	37	0.9 %	133	1.0 %
Administrative (check specific reason below)	7	8.3 %	17	14.5 %	54	34.6 %	78	21.8 %	898	19.3 %	1530	32.1 %	1588	41.4 %	4016	30.3 %
Other/Unknown	19	22.6 %	19	5.3 %	1027	22.1 %	1027	7.7 %
TOTAL	84	100.0 %	117	100.0 %	156	100.0 %	357	100.0 %	4630	100.0 %	4763	100.0 %	3827	100.0 %	13220	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 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		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL		< 2014		2014 - 2017		2018 - 2021 (Jan-Jun)		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Urgent/emergent implant, no time to administer QOL instruments	.	.	4	22.2 %	4	7.4 %	8	9.5 %	27	2.0 %	126	8.2 %	105	6.6 %	258	5.8 %
Coordinator too busy or forgot to administer QOL instruments	7	58.3 %	9	50.0 %	48	88.8 %	64	76.1 %	470	36.5 %	811	52.8 %	834	52.5 %	2115	47.9 %
Unable to contact patient (ie., not hospitalized or no clinic visit) within the window for QOL instr	1	1.8 %	1	1.1 %	50	3.8 %	49	3.1 %	103	6.4 %	202	4.5 %
Other reason (describe)	5	41.6 %	5	27.7 %	1	1.8 %	11	13.0 %	739	57.4 %	549	35.7 %	546	34.3 %	1834	41.5 %
TOTAL	12	100.0 %	18	100.0 %	54	100.0 %	84	100.0 %	1286	100.0 %	1535	100.0 %	1588	100.0 %	4409	100.0 %

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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
N	115	98	34	247
Mean	165.88	150.01	137.26	155.64
Std	99.67	68.52	67.25	84.67
Min	3.00	58.00	46.00	3.00
Max	560.00	345.00	342.00	560.00

GROUP=STS Intermacs

Trailmaking Time(s)	< 2014	2014 - 2017	2018 - 2021 (Jan-Jun)	TOTAL
N	4368	4006	2640	11014
Mean	149.55	135.95	144.57	143.41
Std	122.03	97.20	132.57	116.56
Min	1.00	4.00	6.00	1.00
Max	3600.00	3480.00	3600.00	3600.00

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	25	3.4 %	386	1.2 %
Persistent Heart Failure Following Cardiac Surgery	7	0.9 %	340	1.1 %
None	702	95.6 %	28976	97.5 %
Total Patients	734	100.0 %	29702	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	%
LVAD	218	94.3 %	273	96.4 %	240	95.2 %	731	95.4 %	9673	91.6 %	10411	94.2 %	9053	94.7 %	29137	93.4 %
RVAD	1	0.4 %	1	0.1 %	13	0.1 %	6	0.0 %	8	0.0 %	27	0.0 %
BIVAD	12	5.1 %	8	2.8 %	10	3.9 %	30	3.9 %	634	6.0 %	452	4.0 %	435	4.5 %	1521	4.8 %
TAH	.	.	2	0.7 %	2	0.7 %	4	0.5 %	240	2.2 %	177	1.6 %	62	0.6 %	479	1.5 %
TOTAL	231	100.0 %	283	100.0 %	252	100.0 %	766	100.0 %	10560	100.0 %	11046	100.0 %	9558	100.0 %	31164	100.0 %

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	734	128	17.44%	29710	6177	20.79%
Dialysis	734	8	1.09%	29710	473	1.59%
Ultrafiltration	734	5	0.68%	29710	210	0.71%
Ventilator	734	37	5.04%	29710	1677	5.64%
Feeding Tube	734	5	0.68%	29710	460	1.55%
ECMO	734	15	2.04%	29710	922	3.10%
None	734	577	78.61%	29710	21761	73.24%
CABG+	734	2	0.27%	29710	47	0.16%
Aortic Valve Replacement/Repair+	734	1	0.14%	29710	34	0.11%
Mitral Valve Replacement/Repair+	734	0	0.00%	29710	17	0.06%
Congenital Cardiac Surgery+	734	0	0.00%	29710	5	0.02%
LVAD+	734	0	0.00%	29710	0	0.00%
RVAD+	734	0	0.00%	29710	0	0.00%
TAH+	734	0	0.00%	29710	0	0.00%
Aneurysmectomy+	734	0	0.00%	29710	3	0.01%

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

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	6	6	0.8%	453	407	1.3%
Bleeding	379	211	27.5%	32441	13268	42.6%
Cardiac Arrhythmia	195	141	18.4%	15078	9017	28.9%
Device Malfunction and/or Pump Thrombosis	160	123	16.1%	12526	7500	24.1%
Hepatic Dysfunction	15	14	1.8%	1753	1584	5.1%
Infection	622	333	43.5%	36940	16133	51.8%
Myocardial Infarction	4	4	0.5%	222	200	0.6%
Neurological Dysfunction	211	166	21.7%	11047	7876	25.3%
Other Serious Adverse Event	224	127	16.6%	19500	9664	31.0%
Pericardial Drainage	18	17	2.2%	1487	1322	4.2%
Psychiatric Episode	19	14	1.8%	3051	2382	7.6%
Rehospitalization	2270	570	74.4%	114354	23409	75.1%
Renal Dysfunction	75	68	8.9%	6119	5059	16.2%
Respiratory Failure	133	102	13.3%	9037	6753	21.7%
Venous Thromboembolism	17	16	2.1%	1259	1158	3.7%
Wound Dehiscence	8	7	0.9%	564	502	1.6%

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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)	2064	85001
Patient exposure after the first 3 months post implant (months)	14787	645475
Number of Patients	766	31164

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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)
Arterial Non-CNS Thromboembolism	4	0.5%	0.19	2	0.3%	0.01
Bleeding	185	17.5%	8.96	194	15.1%	1.31
Cardiac Arrhythmia	108	12.3%	5.23	87	8.2%	0.59
Device Malfunction and/or Pump Thrombosis	32	3.5%	1.55	128	13.2%	0.87
Hepatic Dysfunction	10	1.2%	0.48	5	0.7%	0.03
Infection	190	18.9%	9.21	432	31.3%	2.92
Myocardial Infarction	3	0.4%	0.15	1	0.1%	0.01
Neurological Dysfunction	74	8.9%	3.59	137	14.4%	0.93
Other Serious Adverse Event	153	12.0%	7.41	71	6.0%	0.48
Pericardial Drainage	17	2.2%	0.82	1	0.1%	0.01
Psychiatric Episode	11	1.2%	0.53	8	0.8%	0.05
Rehospitalization	379	36.7%	18.36	1891	65.3%	12.79
Renal Dysfunction	54	6.4%	2.62	21	2.6%	0.14
Respiratory Failure	88	9.4%	4.26	45	5.0%	0.30
Venous Thromboembolism	14	1.7%	0.68	3	0.4%	0.02
Wound Dehiscence	8	0.9%	0.39	.	.	.

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	274	0.8%	0.32	179	0.5%	0.03
Bleeding	13487	26.8%	15.87	18954	25.5%	2.94
Cardiac Arrhythmia	8390	19.8%	9.87	6688	13.1%	1.04
Device Malfunction and/or Pump Thrombosis	2433	6.6%	2.86	10093	19.8%	1.56
Hepatic Dysfunction	848	2.6%	1.00	905	2.6%	0.14
Infection	12376	27.1%	14.56	24564	36.1%	3.81
Myocardial Infarction	85	0.3%	0.10	137	0.4%	0.02
Neurological Dysfunction	3803	10.6%	4.47	7244	16.7%	1.12
Other Serious Adverse Event	9641	19.3%	11.34	9859	17.1%	1.53
Pericardial Drainage	1430	4.1%	1.68	57	0.2%	0.01
Psychiatric Episode	1631	4.8%	1.92	1420	3.4%	0.22
Rehospitalization	17722	37.0%	20.85	96632	67.7%	14.97
Renal Dysfunction	3575	10.5%	4.21	2544	6.6%	0.39
Respiratory Failure	6257	16.1%	7.36	2780	7.3%	0.43
Venous Thromboembolism	994	3.0%	1.17	265	0.8%	0.04
Wound Dehiscence	390	1.2%	0.46	174	0.5%	0.03

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	8	0.9%	0.39	11	1.2%	0.07
Line Sepsis	8	1.0%	0.39	9	0.9%	0.06
Mediastinum	8	0.9%	0.39	1	0.1%	0.01
Other Specify	26	3.4%	1.26	51	5.6%	0.34
Peripheral Wound	2	0.3%	0.10	10	1.0%	0.07
Positive Blood Cultures	36	4.3%	1.74	70	7.0%	0.47
Pulmonary	52	6.1%	2.52	37	4.6%	0.25
Pump/Related - Drive Line	37	4.8%	1.79	232	19.2%	1.57
Pump/Related - Exit Cannula	2	0.3%	0.10	6	0.7%	0.04
Pump/Related - Pump Interior	1	0.1%	0.05	6	0.7%	0.04
Pump/Related - Pump Pocket	2	0.3%	0.10	6	0.8%	0.04
Unknown	3	0.4%	0.15	8	0.9%	0.05
Urinary Tract	35	4.0%	1.70	51	5.7%	0.34

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	976	2.9%	1.15	1221	3.4%	0.19
Line Sepsis	390	1.2%	0.46	531	1.5%	0.08
Mediastinum	512	1.5%	0.60	406	1.1%	0.06
Other Specify	1727	5.0%	2.03	3340	8.4%	0.52
Peripheral Wound	362	1.1%	0.43	625	1.7%	0.10
Positive Blood Cultures	2498	7.2%	2.94	6659	14.3%	1.03
Pulmonary	3782	10.4%	4.45	3234	8.0%	0.50
Pump/Related - Drive Line	1133	3.4%	1.33	8702	16.6%	1.35
Pump/Related - Exit Cannula	38	0.1%	0.04	201	0.6%	0.03
Pump/Related - Pump Interior	34	0.1%	0.04	126	0.4%	0.02
Pump/Related - Pump Pocket	313	0.9%	0.37	836	2.1%	0.13
Unknown	384	1.2%	0.45	494	1.5%	0.08
Urinary Tract	2332	6.6%	2.74	3094	6.9%	0.48

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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)
Device anastomosis	1	0.1%	0.05	.	.	.
ENT / Dental	8	0.8%	0.40	23	1.6%	0.16
GI OVERALL: upper, lower, unknown	75	8.5%	3.77	136	12.2%	0.95
GI: Lower gastrointestinal (colon, rectum, and anus)	22	2.6%	1.11	32	3.8%	0.22
GI: Upper gastrointestinal (esophagus, stomach, duod)	39	4.7%	1.96	57	6.0%	0.40
GI: unknown, but guaiac positive stools	17	2.2%	0.86	51	6.0%	0.36
Intra-abdominal	3	0.4%	0.15	2	0.3%	0.01
Mediastinal: Unspecified	19	2.2%	0.96	.	.	.
Mediastinal: chest wall	5	0.7%	0.25	1	0.1%	0.01
Mediastinal: coagulopathy with no surgical site	4	0.5%	0.20	.	.	.
Mediastinal: inflow conduit	1	0.1%	0.05	.	.	.
Mediastinal: other surgical site	2	0.3%	0.10	.	.	.
Mediastinal: outflow-aorta anastomosis	2	0.3%	0.10	.	.	.
Other	31	3.9%	1.56	22	2.3%	0.15
Pleural space	8	1.1%	0.40	1	0.1%	0.01
Pulmonary	1	0.1%	0.05	4	0.4%	0.03
Pump Pocket	8	0.9%	0.40	.	.	.
Retroperitoneal	3	0.4%	0.15	2	0.3%	0.01
Urinary tract	2	0.3%	0.10	4	0.5%	0.03

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	101	0.3%	0.12	102	0.2%	0.02
ENT / Dental	540	1.5%	0.66	1144	2.6%	0.18
GI OVERALL: upper, lower, unknown	5418	12.6%	6.62	13123	19.2%	2.09
GI: Lower gastrointestinal (colon, rectum, and anus)	1620	4.4%	1.98	3223	7.2%	0.51
GI: Upper gastrointestinal (esophagus, stomach, duod)	2745	7.0%	3.36	6628	12.0%	1.05
GI: unknown, but guaiac positive stools	1370	3.8%	1.67	3821	7.7%	0.61
Intra-abdominal	156	0.5%	0.19	258	0.8%	0.04
Mediastinal: Unspecified	1666	4.8%	2.04	88	0.3%	0.01
Mediastinal: aortic-venous cannulation site	30	0.1%	0.04	2	0.0%	0.00
Mediastinal: chest wall	949	2.9%	1.16	84	0.3%	0.01
Mediastinal: coagulopathy with no surgical site	253	0.8%	0.31	10	0.0%	0.00
Mediastinal: inflow conduit	34	0.1%	0.04	5	0.0%	0.00

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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

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)
Mediastinal: other surgical site	316	1.0%	0.39	56	0.2%	0.01
Mediastinal: outflow conduit	68	0.2%	0.08	16	0.1%	0.00
Mediastinal: outflow-aorta anastomosis	104	0.3%	0.13	11	0.0%	0.00
Other	2628	6.9%	3.21	3465	8.5%	0.55
Pleural space	611	1.8%	0.75	57	0.2%	0.01
Pulmonary	266	0.8%	0.33	127	0.4%	0.02
Pump Pocket	261	0.8%	0.32	73	0.2%	0.01
Retroperitoneal	123	0.4%	0.15	147	0.5%	0.02
Urinary tract	167	0.5%	0.20	301	0.8%	0.05

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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

	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)
Device Malfunction	5	0.8%	0.37	28	4.7%	0.33
Pump Thrombosis	13	2.0%	0.96	42	6.1%	0.49

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 Malfunction	580	2.6%	1.09	2351	8.6%	0.66
Pump Thrombosis	763	3.4%	1.43	2319	8.7%	0.65

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	36	4.4%	2.10	62	7.6%	0.52
Confusion	4	0.5%	0.23	13	1.4%	0.11
Encephalopathy	7	0.9%	0.41	8	0.9%	0.07
Seizure	13	1.7%	0.76	6	0.5%	0.05
TIA	3	0.4%	0.17	17	2.0%	0.14

GROUP=STS InterMACS

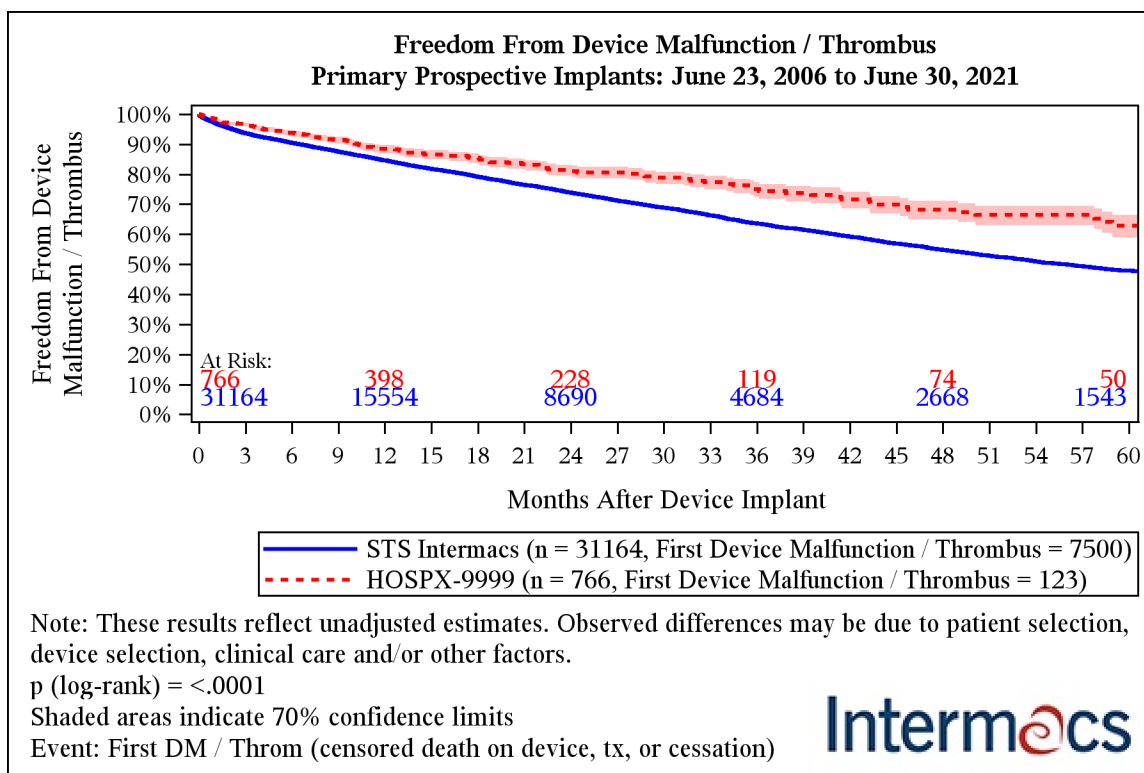
	STS InterMACS					
	Early (During the First Three Months)			Late (After the First Three Months)		
	Episodes	Patient %	Rate (per 100 pt month)	Episodes	Patient %	Rate (per 100 pt month)
CVA	1816	5.3%	2.68	3626	9.3%	0.73
Confusion	229	0.7%	0.34	475	1.3%	0.10
Encephalopathy	421	1.3%	0.62	402	1.1%	0.08
Seizure	241	0.8%	0.35	307	0.8%	0.06
TIA	301	0.9%	0.44	734	2.1%	0.15
Unspecified	.	.	.	1	0.0%	0.00

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

Exhibit 24a. Time to First Device Malfunction / Thrombus



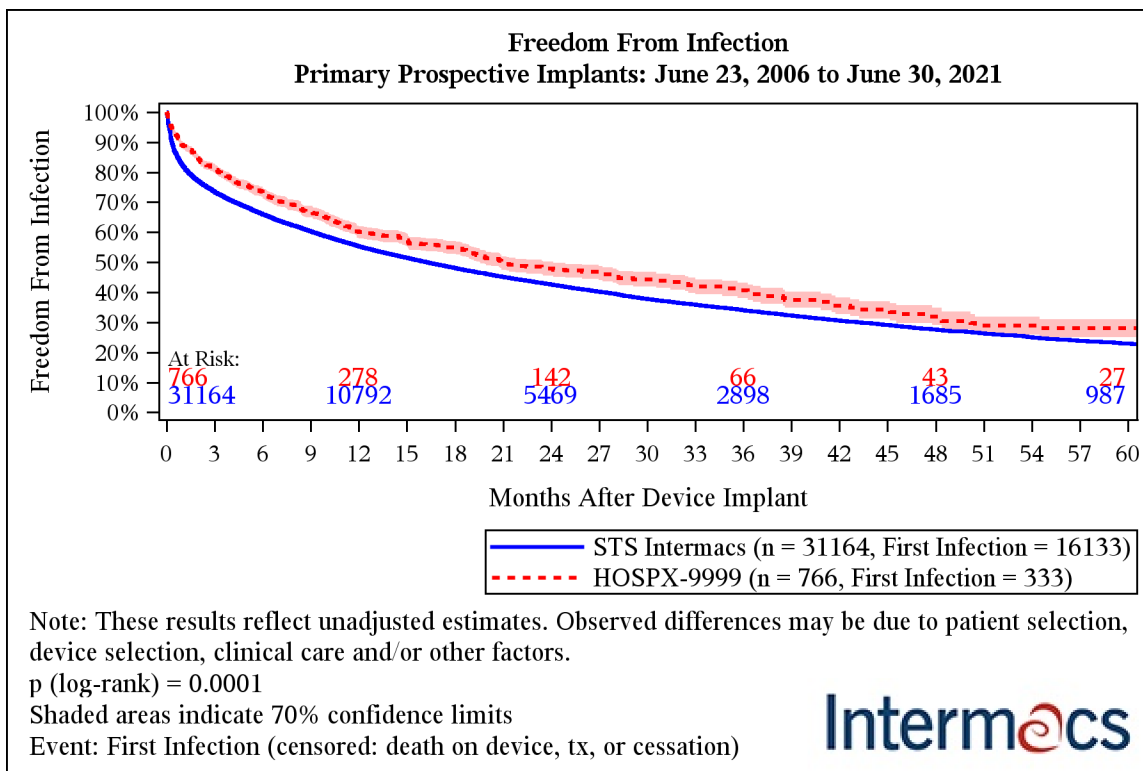
Months after Device Implant	STS Intermacs	HOSPX-9999
1	97.2% (97.1%-97.3%)	98.4% (97.8%-98.8%)
3	93.7% (93.5%-93.8%)	96.6% (95.9%-97.2%)
6	90.4% (90.3%-90.6%)	93.8% (92.8%-94.7%)
9	87.5% (87.3%-87.7%)	91.3% (90.1%-92.4%)
12	84.6% (84.4%-84.9%)	88.4% (87.0%-89.7%)
24	73.9% (73.5%-74.2%)	81.4% (79.4%-83.1%)
36	63.6% (63.2%-64.1%)	75.0% (72.5%-77.3%)
48	54.8% (54.3%-55.3%)	68.2% (65.0%-71.2%)
60	47.9% (47.3%-48.4%)	62.9% (59.1%-66.4%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

Exhibit 24b. Time to First Infection



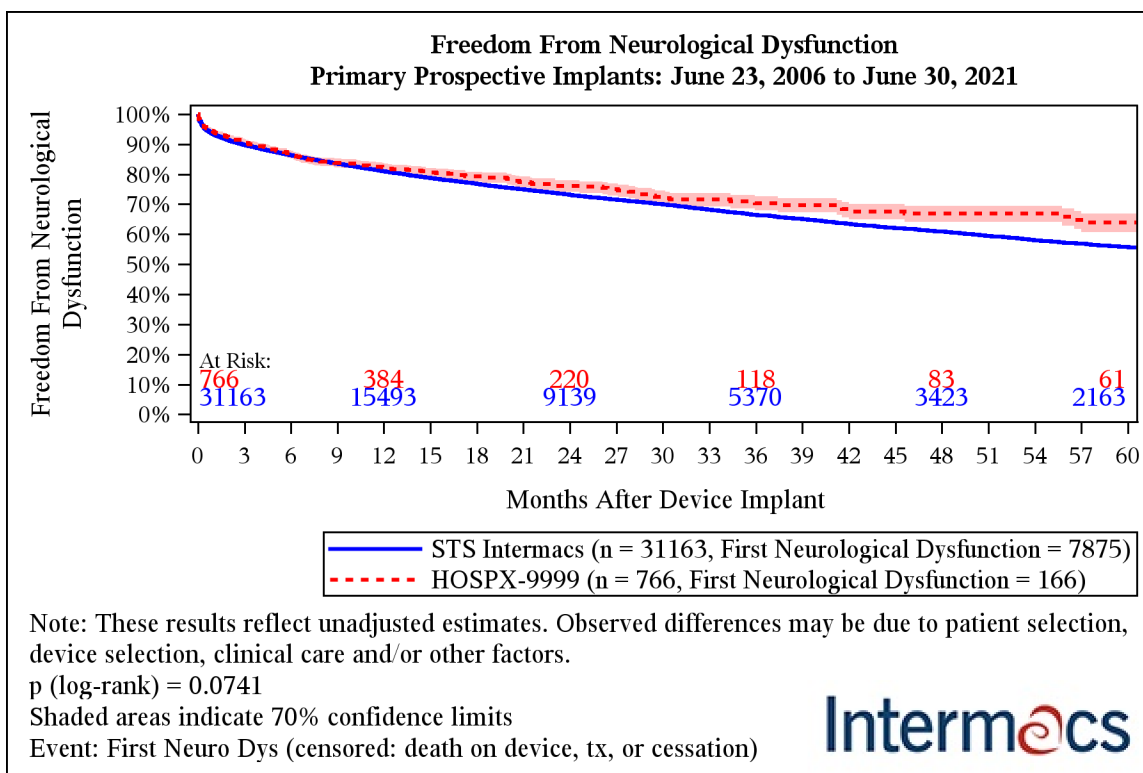
Months after Device Implant	STS Intermacs	HOSPX-9999
1	82.2% (82.0%-82.4%)	89.0% (87.8%-90.1%)
3	73.4% (73.2%-73.7%)	81.2% (79.7%-82.7%)
6	66.0% (65.7%-66.3%)	73.1% (71.4%-74.8%)
9	60.3% (60.0%-60.6%)	66.9% (65.0%-68.7%)
12	55.3% (55.0%-55.6%)	60.1% (58.0%-62.1%)
24	42.6% (42.2%-42.9%)	47.9% (45.5%-50.2%)
36	34.0% (33.7%-34.4%)	40.7% (38.1%-43.2%)
48	27.6% (27.2%-28.0%)	32.0% (29.1%-35.0%)
60	22.9% (22.4%-23.3%)	28.0% (25.0%-31.1%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	93.3% (93.2%-93.5%)	94.1% (93.2%-94.9%)
3	89.8% (89.6%-90.0%)	90.8% (89.6%-91.8%)
6	86.4% (86.1%-86.6%)	86.7% (85.3%-87.9%)
9	83.5% (83.3%-83.8%)	83.8% (82.3%-85.2%)
12	81.0% (80.7%-81.2%)	82.4% (80.8%-83.8%)
24	73.2% (72.9%-73.5%)	76.1% (74.2%-78.0%)
36	66.4% (66.0%-66.8%)	70.4% (67.9%-72.6%)
48	60.9% (60.5%-61.3%)	66.8% (64.0%-69.4%)
60	55.7% (55.2%-56.2%)	63.9% (60.7%-66.9%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	208	250	207	665	9231	9653	8316	27200
		Mean	28.17	24.66	28.79	27.05	27.27	25.27	26.24	26.25
		Std	48.99	19.14	23.94	32.66	33.28	26.15	26.61	28.91
		Median	18	18	21	19	20	19	20	20
		Min	8	7	8	7	0	0	0	0
		Max	581	154	179	581	1492	1131	916	1492
BiVAD		N	6	5	6	17	355	247	275	877
		Mean	60.33	35.40	64.83	54.59	55.11	47.49	45.67	50.00
		Std	32.14	21.03	57.13	40.25	43.98	39.93	39.77	41.75
		Median	49	24	44	42	42	37	37	39
		Min	32	19	29	19	0	2	0	0
		Max	113	67	179	179	400	433	396	433
LVAD		N	202	245	200	647	8788	9338	8015	26141
		Mean	27.22	24.44	27.37	26.21	25.33	24.41	25.47	25.05
		Std	49.13	19.08	21.12	32.06	28.27	25.06	25.53	26.33
		Median	18	18	21	19	19	19	19	19
		Min	8	7	8	7	0	0	0	0
		Max	581	154	141	581	1492	1131	916	1492
RVAD		N	8	4	2	14
		Mean	34.00	24.50	12.00	28.14
		Std	27.84	12.79	7.07	22.90
		Median	24	21	12	19
		Min	8	14	7	7
		Max	91	42	17	91
TAH		N	.	.	1	1	80	64	24	168
		Mean	.	.	98.00	98.00	115.61	64.44	62.63	88.55
		Std	141.28	43.60	62.61	106.63
		Median	.	.	98	98	66	53	53	57
		Min	.	.	98	98	25	18	16	16
		Max	.	.	98	98	916	212	331	916

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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										
	2006	2	0	0.0%	.	.	.	2	0	0.0%
	2007	2	1	50.0%	.	.	.	2	1	50.0%
	2008	16	4	25.0%	.	.	.	16	4	25.0%
	2009	20	1	5.0%	1	0	0.0%	21	1	4.8%
	2010	25	7	28.0%	2	1	50.0%	27	8	29.6%
	2011	28	9	32.1%	2	2	100.0%	30	11	36.7%
	2012	43	13	30.2%	1	1	100.0%	44	14	31.8%
	2013	61	18	29.5%	.	.	.	61	18	29.5%
	2014	57	17	29.8%	2	1	50.0%	59	18	30.5%
	2015	75	16	21.3%	.	.	.	75	16	21.3%
	2016	80	22	27.5%	1	1	100.0%	81	23	28.4%
	2017	32	11	34.4%	2	0	0.0%	34	11	32.4%
	2018	62	15	24.2%	1	1	100.0%	63	16	25.4%
	2019	84	18	21.4%	4	2	50.0%	88	20	22.7%
	2020	46	12	26.1%	.	.	.	46	12	26.1%
	2021	12	3	25.0%	1	0	0.0%	13	3	23.1%
TOTAL		645	167	25.9%	17	9	52.9%	662	176	26.6%

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	51	16	31.4%	.	.	.	3	1	33.3%
	2007	177	43	24.3%	2	2	100.0%	27	8	29.6%
	2008	525	134	25.5%	.	.	.	39	15	38.5%
	2009	772	178	23.1%	.	.	.	51	16	31.4%
	2010	1380	353	25.6%	2	0	0.0%	61	18	29.5%
	2011	1615	453	28.0%	1	1	100.0%	57	16	28.1%
	2012	1897	536	28.3%	1	1	100.0%	47	14	29.8%
	2013	2268	727	32.1%	1	0	0.0%	52	13	25.0%
	2014	2297	664	28.9%	.	.	.	72	18	25.0%
	2015	2548	753	29.6%	3	2	66.7%	56	16	28.6%
	2016	2392	691	28.9%	.	.	.	59	17	28.8%
	2017	1987	597	30.0%	.	.	.	48	20	41.7%
	2018	2383	663	27.8%	.	.	.	76	17	22.4%
	2019	2621	682	26.0%	.	.	.	88	33	37.5%
	2020	2222	551	24.8%	1	0	0.0%	81	22	27.2%
	2021	895	211	23.6%	.	.	.	40	9	22.5%
	TOTAL	26030	7252	27.9%	11	6	54.5%	857	253	29.5%

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	.	.	.	54	17	31.5%
	2007	2	0	0.0%	208	53	25.5%
	2008	1	0	0.0%	565	149	26.4%
	2009	.	.	.	823	194	23.6%
	2010	2	1	50.0%	1445	372	25.7%
	2011	14	3	21.4%	1687	473	28.0%
	2012	15	6	40.0%	1960	557	28.4%
	2013	16	4	25.0%	2337	744	31.8%
	2014	22	9	40.9%	2391	691	28.9%
	2015	16	5	31.3%	2623	776	29.6%
	2016	15	7	46.7%	2466	715	29.0%
	2017	12	5	41.7%	2047	622	30.4%
	2018	6	4	66.7%	2465	684	27.7%
	2019	12	3	25.0%	2721	718	26.4%
	2020	4	4	100.0%	2308	577	25.0%
	2021	2	1	50.0%	937	221	23.6%
	TOTAL	139	52	37.4%	27037	7563	28.0%

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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		Outlier		Complete						
		N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	766	313	40.9	314	41.0	.	.	139	18.1	760.2	333.9	750.0	0.0	1500.0
3 Month	589	291	49.4	50	8.5	1	0.2	247	41.9	962.6	361.6	1000.0	42.0	1850.0
6 Month	510	364	71.4	21	4.1	3	0.6	122	23.9	974.7	368.9	1020.0	50.0	2130.0
1 Year	379	289	76.3	11	2.9	.	.	79	20.8	1013.3	330.0	1050.0	335.0	1620.0
2 Year	211	164	77.7	4	1.9	.	.	43	20.4	979.2	362.1	1000.0	200.0	1700.0
3 Year	103	95	92.2	3	2.9	.	.	5	4.9	1216.0	255.9	1200.0	840.0	1500.0
4 Year	70	64	91.4	6	8.6	1022.8	223.9	1057.5	672.0	1300.0
5 Year	30	24	80.0	3	10.0	.	.	3	10.0	898.3	517.5	900.0	380.0	1415.0

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	31164	10865	34.9	14424	46.3	14	0.0	5861	18.8	800.9	373.5	800.0	0.0	2388.0
3 Month	25133	14289	56.9	2413	9.6	18	0.1	8413	33.5	1034.3	368.4	1063.0	1.0	2400.0
6 Month	21891	12225	55.8	1613	7.4	35	0.2	8018	36.6	1101.2	374.8	1133.5	1.0	2400.0
1 Year	16169	9248	57.2	1070	6.6	20	0.1	5831	36.1	1110.4	379.1	1150.0	1.0	2400.0
2 Year	9221	5510	59.8	657	7.1	8	0.1	3046	33.0	1094.6	371.8	1129.0	14.0	2400.0
3 Year	5257	3295	62.7	408	7.8	2	0.0	1552	29.5	1091.3	373.2	1105.5	15.0	2359.0
4 Year	3089	2020	65.4	246	8.0	2	0.1	821	26.6	1064.8	381.8	1100.0	5.0	2320.0
5 Year	1830	1220	66.7	146	8.0	3	0.2	461	25.2	1024.7	408.7	1050.0	0.0	2145.0

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

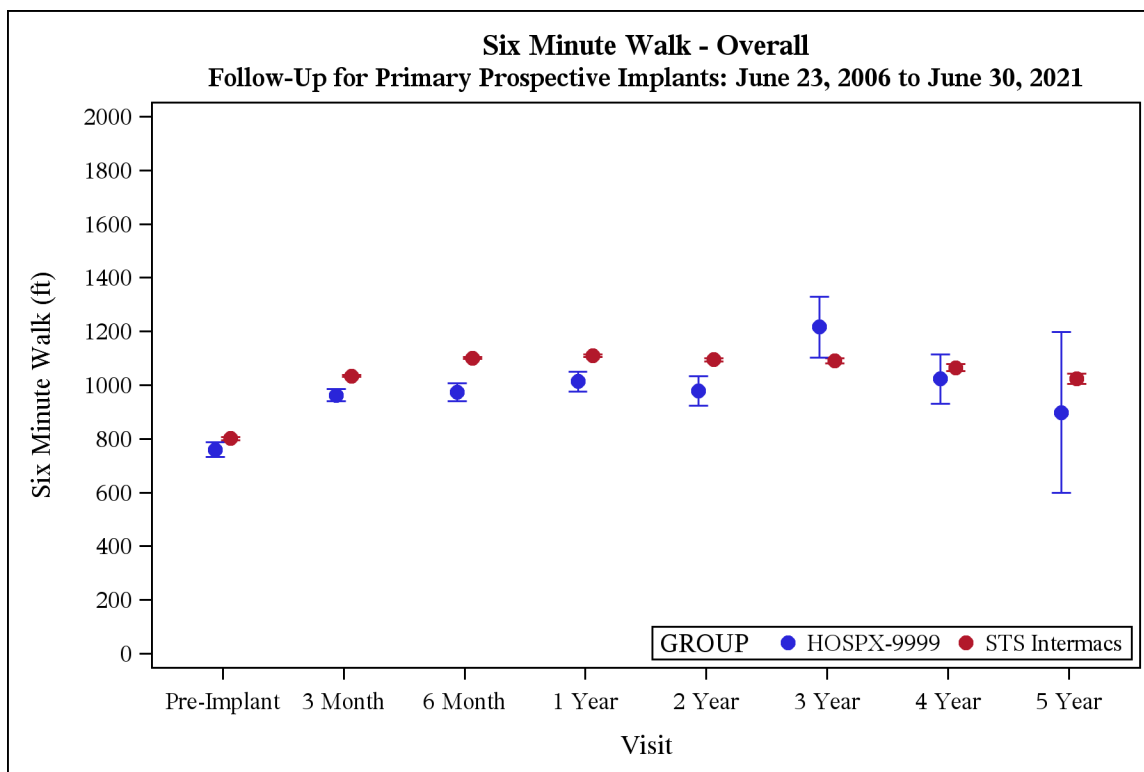
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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		Outlier		Complete						
		N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	731	302	41.3	290	39.7	.	.	139	19.0	760.2	333.9	750.0	0.0	1500.0
3 Month	568	282	49.6	45	7.9	1	0.2	240	42.3	971.4	357.2	1000.0	42.0	1850.0
6 Month	495	359	72.5	18	3.6	3	0.6	115	23.2	988.3	360.1	1035.0	80.0	2130.0
1 Year	367	284	77.4	10	2.7	.	.	73	19.9	1018.9	319.1	1060.0	335.0	1620.0
2 Year	203	161	79.3	4	2.0	.	.	38	18.7	998.1	328.9	1000.0	200.0	1700.0
3 Year	102	94	92.2	3	2.9	.	.	5	4.9	1216.0	255.9	1200.0	840.0	1500.0
4 Year	69	63	91.3	6	8.7	1022.8	223.9	1057.5	672.0	1300.0
5 Year	29	23	79.3	3	10.3	.	.	3	10.3	898.3	517.5	900.0	380.0	1415.0

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	29137	10448	35.9	12977	44.5	14	0.0	5698	19.6	802.7	373.9	800.0	0.0	2388.0
3 Month	23986	13698	57.1	2152	9.0	17	0.1	8119	33.8	1038.0	367.6	1070.0	1.0	2400.0
6 Month	21115	11813	55.9	1503	7.1	35	0.2	7764	36.8	1104.0	373.4	1136.0	1.0	2400.0
1 Year	15688	8969	57.2	1036	6.6	20	0.1	5663	36.1	1110.7	379.3	1150.0	1.0	2400.0
2 Year	9010	5385	59.8	639	7.1	8	0.1	2978	33.1	1095.3	371.9	1129.5	14.0	2400.0
3 Year	5155	3232	62.7	402	7.8	2	0.0	1519	29.5	1090.9	372.0	1105.0	15.0	2359.0
4 Year	3039	1990	65.5	245	8.1	2	0.1	802	26.4	1063.9	382.0	1100.0	5.0	2320.0
5 Year	1794	1199	66.8	144	8.0	3	0.2	448	25.0	1025.5	410.0	1049.5	0.0	2145.0

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

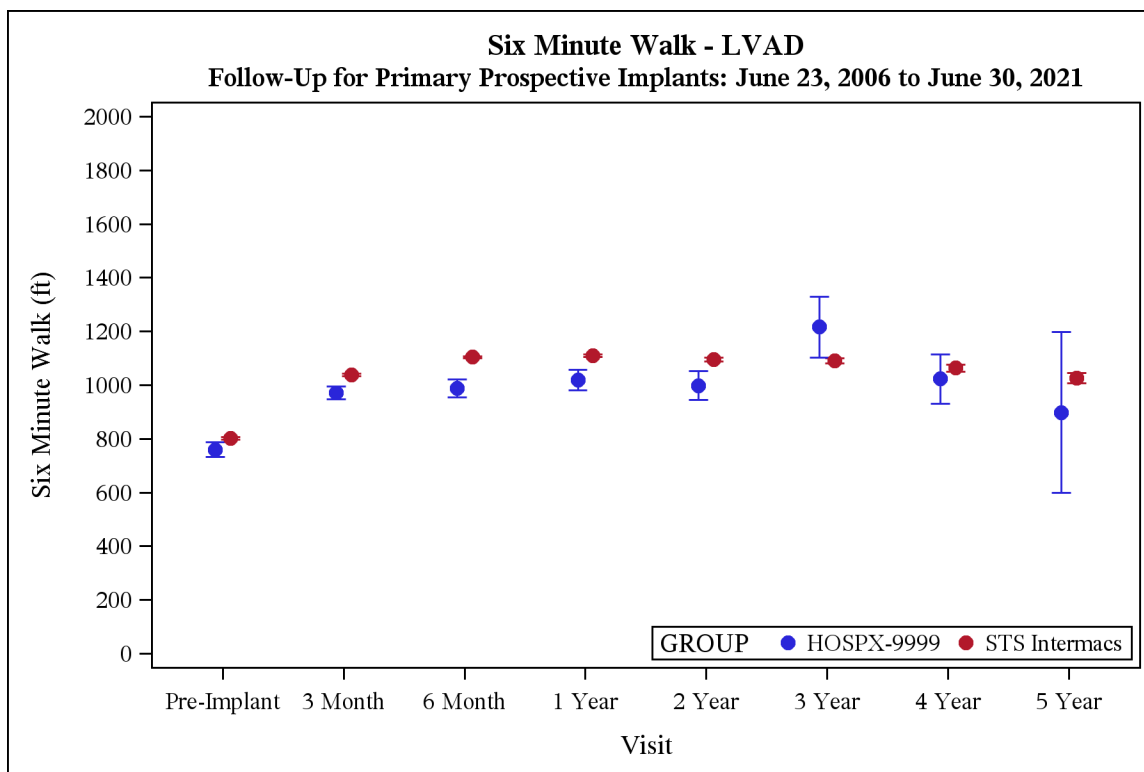
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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	30	10	33.3	20	66.7
3 Month	18	8	44.4	3	16.7	7	38.9	662.7	416.3	825.0	175.0	1103.0
6 Month	14	5	35.7	2	14.3	7	50.0	752.1	468.6	750.0	50.0	1450.0
1 Year	12	5	41.7	1	8.3	6	50.0	945.5	475.8	907.5	373.0	1600.0
2 Year	8	3	37.5	.	.	5	62.5	835.0	588.9	825.0	200.0	1450.0
3 Year	1	1	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	1521	337	22.2	1061	69.8	.	.	123	8.1	694.9	334.5	660.0	100.0	1660.0
3 Month	860	459	53.4	187	21.7	1	0.1	213	24.8	903.4	367.8	915.0	15.0	2283.0
6 Month	623	335	53.8	92	14.8	.	.	196	31.5	994.0	406.6	1045.0	3.0	1871.0
1 Year	407	243	59.7	29	7.1	.	.	135	33.2	1071.2	382.9	1110.0	15.0	1951.0
2 Year	193	115	59.6	16	8.3	.	.	62	32.1	1064.1	378.0	1107.5	150.0	1738.0
3 Year	95	58	61.1	5	5.3	.	.	32	33.7	1114.1	439.5	1140.0	220.0	1774.0
4 Year	47	27	57.4	1	2.1	.	.	19	40.4	1101.9	378.4	1176.0	370.0	1721.0
5 Year	35	20	57.1	2	5.7	.	.	13	37.1	996.4	375.2	1087.0	336.0	1570.0

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

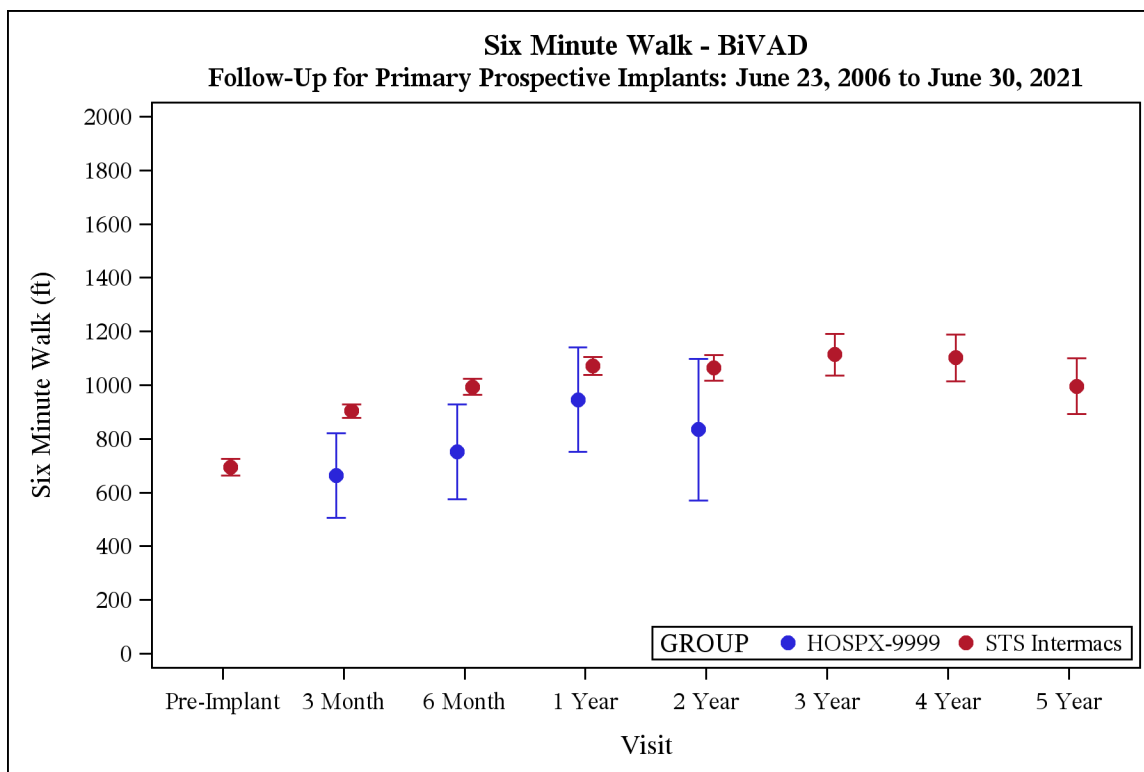
COVERAGE: June 23, 2006 - June 30, 2021

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.



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

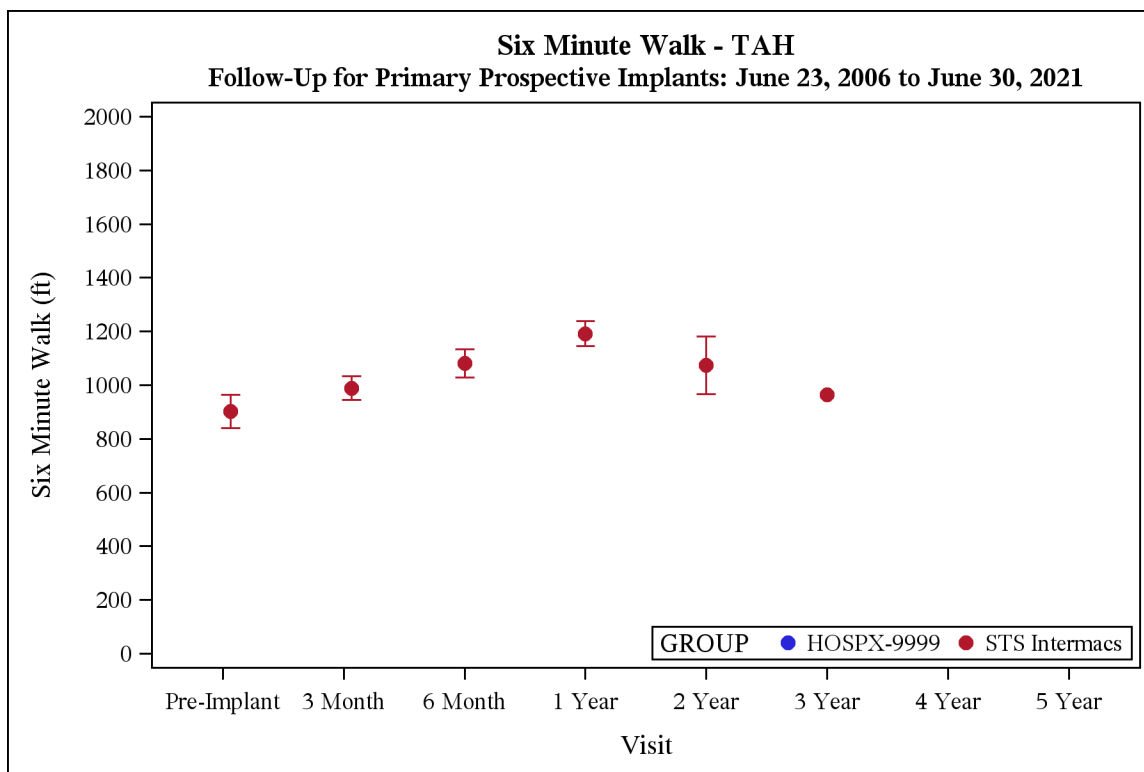
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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 tables summarize VO2 Max 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	766	527	68.8	222	29.0	17	2.2	11.8	6.6	10.5	4.0	35.0	
3 Month	589	556	94.4	32	5.4	1	0.2	10.0	.	10.0	10.0	10.0	
6 Month	510	489	95.9	19	3.7	2	0.4	10.5	2.1	10.5	9.0	12.0	
1 Year	379	370	97.6	8	2.1	1	0.3	9.0	.	9.0	9.0	9.0	
2 Year	211	208	98.6	3	1.4	
3 Year	103	101	98.1	2	1.9	
4 Year	70	70	100.0	
5 Year	30	28	93.3	2	6.7	

GROUP=STS Intermacs

VISIT	Patients (n)	COMPLETION STATUS								VO2 Max (mL/kg/min)					
		Not Done: Other/Unknown		Not Done: Too Sick		Outlier		Complete							
		N	%	N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	31164	16653	53.4	11766	37.8	31	0.1	2714	8.7	11.5	5.0	11.0	0.0	73.0	
3 Month	25133	23159	92.1	1737	6.9	29	0.1	208	0.8	13.1	4.9	12.9	1.1	43.0	
6 Month	21891	20522	93.7	1103	5.0	28	0.1	238	1.1	13.7	6.1	13.0	1.0	63.0	
1 Year	16169	15319	94.7	691	4.3	21	0.1	138	0.9	13.5	6.1	13.0	3.0	53.0	
2 Year	9221	8762	95.0	386	4.2	7	0.1	66	0.7	15.1	9.4	13.1	0.8	58.0	
3 Year	5257	5018	95.5	215	4.1	5	0.1	19	0.4	12.1	4.8	11.2	5.7	24.5	
4 Year	3089	2959	95.8	115	3.7	5	0.2	10	0.3	9.3	4.9	9.8	0.9	17.0	
5 Year	1830	1746	95.4	74	4.0	3	0.2	7	0.4	10.2	5.2	11.6	0.0	17.0	

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

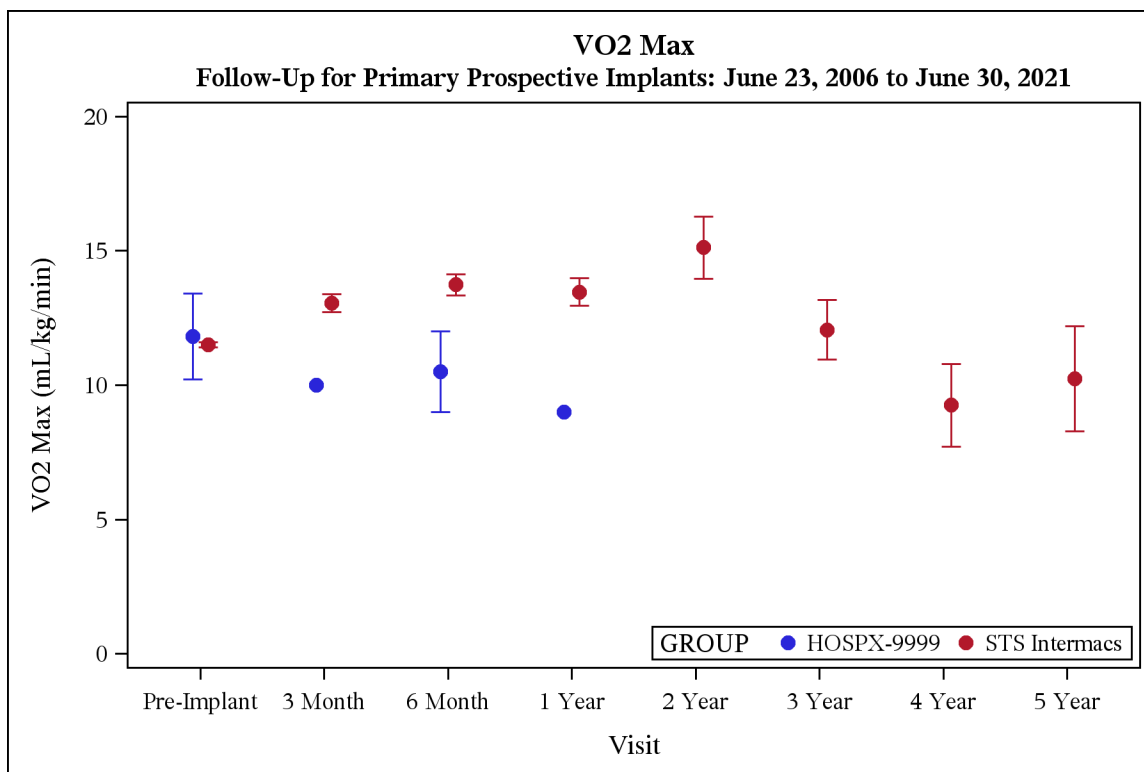
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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 tables summarize Peak R 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						Peak R (%)					
		Not Done: Other/Unknown		Outlier		Complete							
	N	N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	766	752	98.2	3	0.4	11	1.4	1.1	0.1	1.1	1.0	1.3	
3 Month	589	588	99.8	.	.	1	0.2	1.1	.	1.1	1.1	1.1	
6 Month	510	508	99.6	.	.	2	0.4	1.2	0.0	1.2	1.2	1.2	
1 Year	379	379	100.0	
2 Year	211	211	100.0	
3 Year	103	103	100.0	
4 Year	70	70	100.0	
5 Year	30	30	100.0	

GROUP=STS InterMACs

VISIT	Patients (n)	COMPLETION STATUS						Peak R (%)				
		Not Done: Other/Unknown		Outlier		Complete						
	N	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	31164	29493	94.6	185	0.6	1486	4.8	1.1	0.2	1.1	0.7	3.4
3 Month	25133	24982	99.4	9	0.0	142	0.6	1.1	0.1	1.1	0.8	1.4
6 Month	21891	21720	99.2	7	0.0	164	0.7	1.1	0.2	1.1	0.2	1.5
1 Year	16169	16057	99.3	9	0.1	103	0.6	1.1	0.2	1.1	0.0	1.4
2 Year	9221	9166	99.4	7	0.1	48	0.5	1.1	0.1	1.1	0.8	1.5
3 Year	5257	5239	99.7	1	0.0	17	0.3	1.1	0.1	1.1	0.9	1.4
4 Year	3089	3082	99.8	.	.	7	0.2	1.1	0.1	1.1	1.0	1.2
5 Year	1830	1823	99.6	.	.	7	0.4	0.9	0.4	1.1	0.0	1.2

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

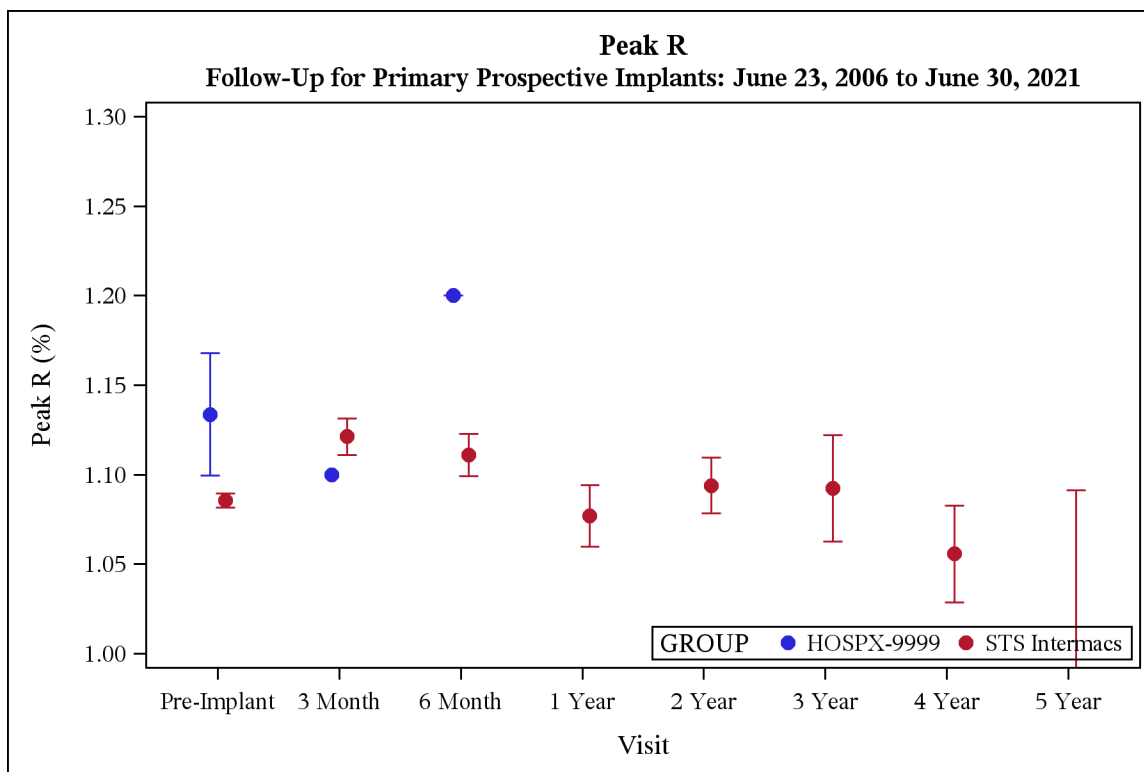
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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	%	Mean	Std	Median	Min	Max	
Pre-Implant	766	546	71.3	196	25.6	24	3.1	2.0	0.6	2.1	0.7	3.0	
3 Month	589	477	81.0	39	6.6	73	12.4	3.8	1.5	3.8	1.0	7.9	
6 Month	510	422	82.7	16	3.1	72	14.1	3.8	1.5	3.7	1.5	9.9	
1 Year	379	322	85.0	11	2.9	46	12.1	4.0	1.5	3.9	1.5	8.0	
2 Year	211	174	82.5	5	2.4	32	15.2	4.0	1.4	4.1	0.8	6.8	
3 Year	103	97	94.2	2	1.9	4	3.9	3.8	2.3	2.8	2.5	7.1	
4 Year	70	63	90.0	1	1.4	6	8.6	3.5	0.8	3.4	2.5	4.8	
5 Year	30	23	76.7	3	10.0	4	13.3	3.1	1.1	3.4	1.5	3.8	

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	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	31164	18676	59.9	10359	33.2	31	0.1	2098	6.7	2.6	1.3	2.5	0.0	10.0	
3 Month	25133	18925	75.3	1886	7.5	19	0.1	4303	17.1	3.3	1.3	3.2	0.0	10.0	
6 Month	21891	16345	74.7	1275	5.8	15	0.1	4256	19.4	3.6	1.4	3.5	0.0	10.0	
1 Year	16169	12046	74.5	876	5.4	14	0.1	3233	20.0	3.6	1.4	3.6	0.0	10.0	
2 Year	9221	6799	73.7	578	6.3	13	0.1	1831	19.9	3.6	1.3	3.5	0.0	9.6	
3 Year	5257	3915	74.5	363	6.9	3	0.1	976	18.6	3.5	1.3	3.5	0.0	9.4	
4 Year	3089	2343	75.8	215	7.0	1	0.0	530	17.2	3.5	1.2	3.5	0.0	8.3	
5 Year	1830	1423	77.8	127	6.9	2	0.1	278	15.2	3.4	1.1	3.3	0.3	8.3	

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

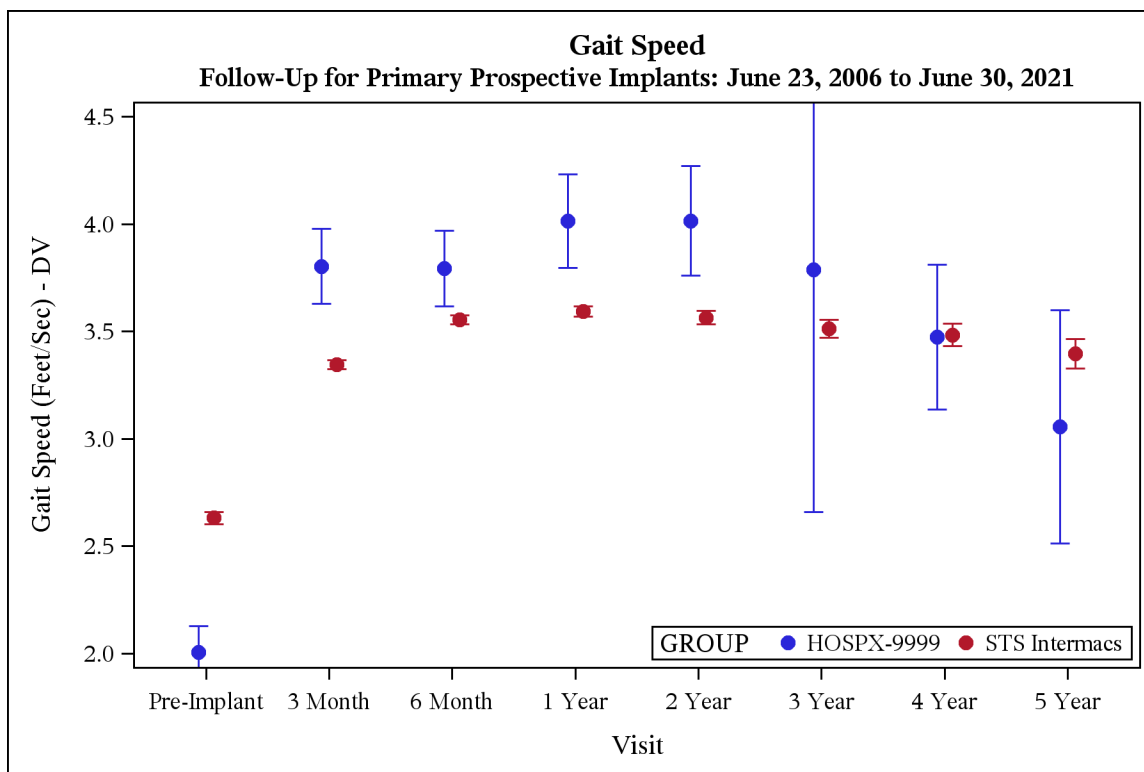
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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	766	519	67.8	247	32.2	155.6	84.7	132.0	3.0	560.0
3 Month	589	247	41.9	342	58.1	139.6	100.5	115.5	30.0	840.0
6 Month	510	226	44.3	284	55.7	128.4	77.2	111.0	30.0	640.0
1 Year	379	179	47.2	200	52.8	119.1	64.7	109.0	25.0	417.0
2 Year	211	94	44.5	117	55.5	122.9	81.9	104.0	42.0	584.0
3 Year	103	54	52.4	49	47.6	135.0	87.5	109.0	36.0	506.0
4 Year	70	51	72.9	19	27.1	115.0	50.7	110.0	43.0	250.0
5 Year	30	20	66.7	10	33.3	101.4	40.8	91.0	57.0	169.0

GROUP=STS InterMACS

VISIT	Patients (n)	COMPLETION STATUS				Trailmaking Time (sec)				
		Incomplete		Complete						
	N	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	31164	20150	64.7	11014	35.3	143.4	116.6	120.0	1.0	3600.0
3 Month	25133	15127	60.2	10006	39.8	118.9	91.2	100.0	1.0	3479.0
6 Month	21891	12527	57.2	9364	42.8	112.7	70.0	95.0	1.0	1360.0
1 Year	16169	9258	57.3	6911	42.7	113.1	74.1	95.0	5.0	2134.0
2 Year	9221	5526	59.9	3695	40.1	112.5	66.5	96.0	2.0	919.0
3 Year	5257	3332	63.4	1925	36.6	114.7	70.7	97.0	1.0	960.0
4 Year	3089	2051	66.4	1038	33.6	113.7	82.8	96.0	3.0	1848.0
5 Year	1830	1276	69.7	554	30.3	112.9	69.4	96.0	20.0	680.0

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

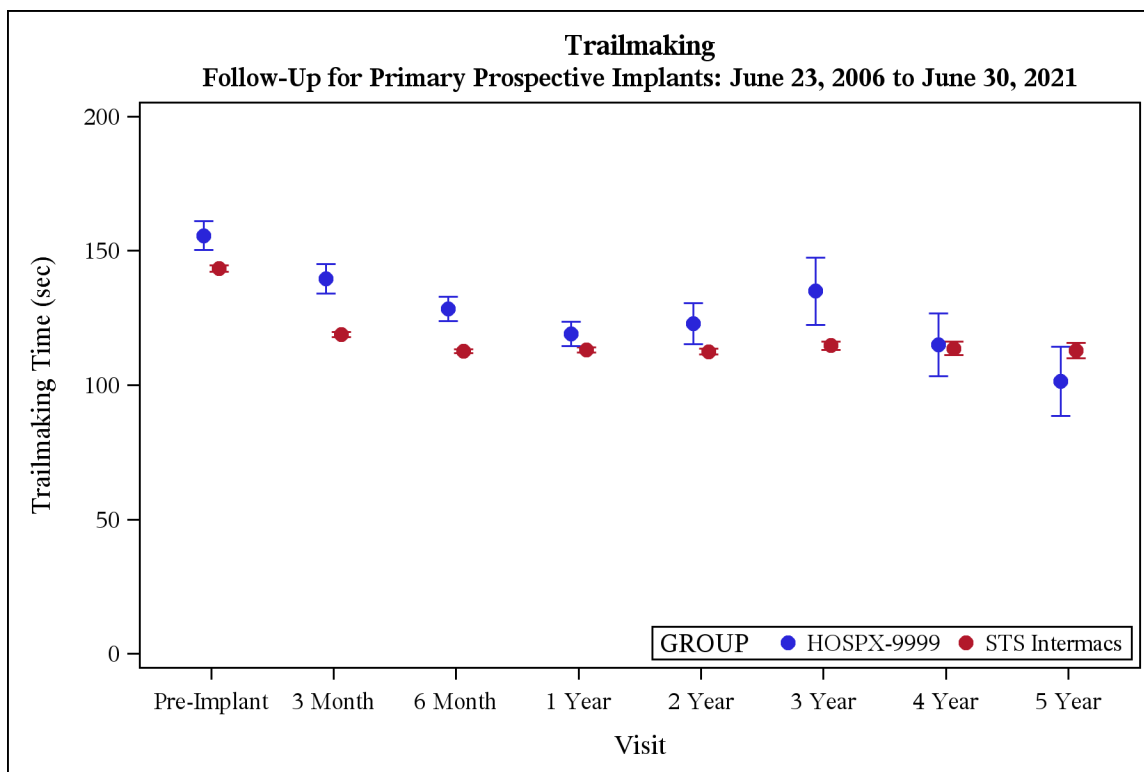
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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	766	46	6.0	720	94.0	3.8	0.4	4.0	2.0	4.0
3 Month	589	66	11.2	523	88.8	2.2	1.0	2.0	1.0	4.0
6 Month	510	66	12.9	444	87.1	2.0	0.9	2.0	1.0	4.0
1 Year	379	46	12.1	333	87.9	1.8	0.8	2.0	1.0	4.0
2 Year	211	30	14.2	181	85.8	1.8	0.8	2.0	1.0	4.0
3 Year	103	9	8.7	94	91.3	1.9	0.8	2.0	1.0	4.0
4 Year	70	8	11.4	62	88.6	1.9	0.8	2.0	1.0	4.0
5 Year	30	2	6.7	28	93.3	2.0	0.9	2.0	1.0	4.0

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	31164	2318	7.4	28846	92.6	3.8	0.4	4.0	1.0	4.0
3 Month	25133	4724	18.8	20409	81.2	2.2	0.8	2.0	1.0	4.0
6 Month	21891	3689	16.9	18202	83.1	2.1	0.8	2.0	1.0	4.0
1 Year	16169	2516	15.6	13653	84.4	2.0	0.8	2.0	1.0	4.0
2 Year	9221	1367	14.8	7854	85.2	2.0	0.8	2.0	1.0	4.0
3 Year	5257	789	15.0	4468	85.0	2.0	0.8	2.0	1.0	4.0
4 Year	3089	444	14.4	2645	85.6	2.1	0.8	2.0	1.0	4.0
5 Year	1830	263	14.4	1567	85.6	2.1	0.8	2.0	1.0	4.0

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

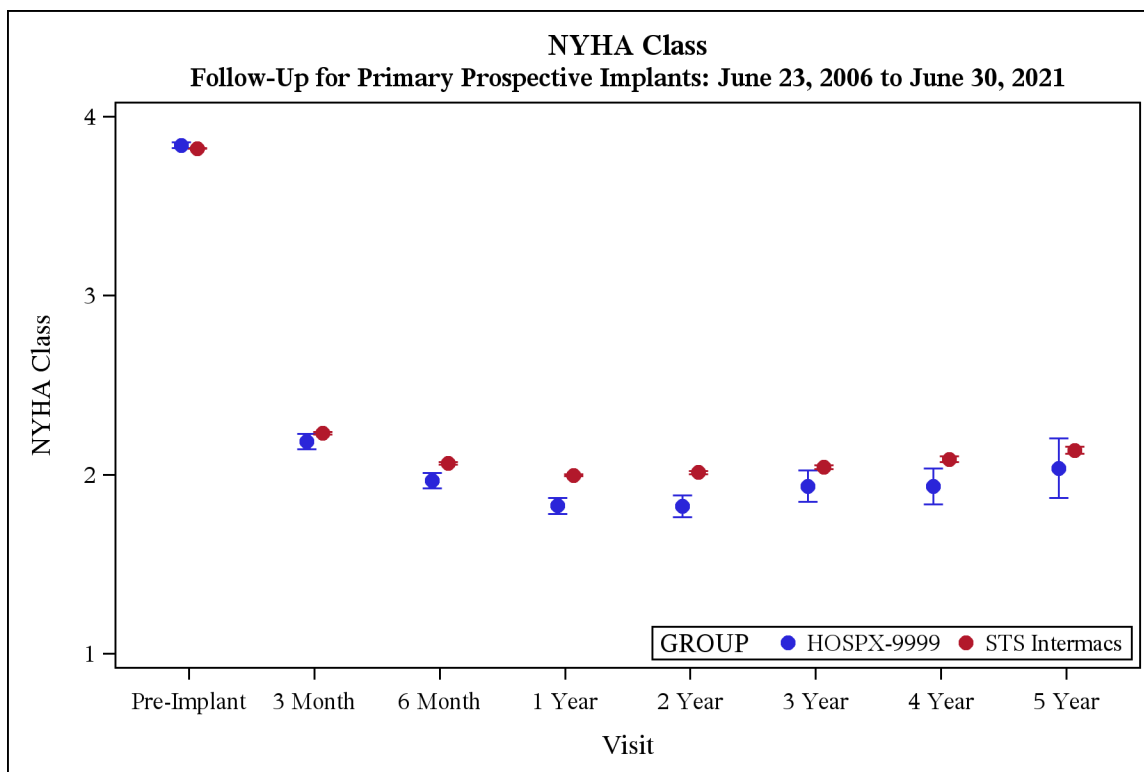
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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
Pre-Implant	766	239	31.2	163	21.3	364	47.5	0.6	0.3	0.7	-0.1	1.0	
3 Month	589	146	24.8	24	4.1	419	71.1	0.8	0.2	0.8	0.1	1.0	
6 Month	510	134	26.3	11	2.2	365	71.6	0.8	0.2	0.8	-0.1	1.0	
1 Year	379	122	32.2	3	0.8	254	67.0	0.8	0.2	0.8	-0.0	1.0	
2 Year	211	60	28.4	1	0.5	150	71.1	0.8	0.2	0.8	0.2	1.0	
3 Year	103	41	39.8	2	1.9	60	58.3	0.8	0.2	0.8	0.3	1.0	
4 Year	70	38	54.3	.	.	32	45.7	0.8	0.1	0.8	0.5	1.0	
5 Year	30	15	50.0	2	6.7	13	43.3	0.8	0.2	0.8	0.3	1.0	

GROUP=STS InterMACS

VISIT	Patients (n)	COMPLETION STATUS						EQ-5D Index					
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
		N	N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	31164	10721	34.4	5473	17.6	14970	48.0	0.6	0.3	0.7	-0.1	1.0	
3 Month	25133	11376	45.3	937	3.7	12820	51.0	0.8	0.2	0.8	-0.1	1.0	
6 Month	21891	9292	42.4	474	2.2	12125	55.4	0.8	0.2	0.8	-0.1	1.0	
1 Year	16169	6807	42.1	289	1.8	9073	56.1	0.8	0.2	0.8	-0.1	1.0	
2 Year	9221	4059	44.0	145	1.6	5017	54.4	0.8	0.2	0.8	-0.1	1.0	
3 Year	5257	2472	47.0	95	1.8	2690	51.2	0.8	0.2	0.8	-0.0	1.0	
4 Year	3089	1531	49.6	46	1.5	1512	48.9	0.8	0.2	0.8	-0.1	1.0	
5 Year	1830	984	53.8	32	1.7	814	44.5	0.8	0.2	0.8	-0.0	1.0	

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

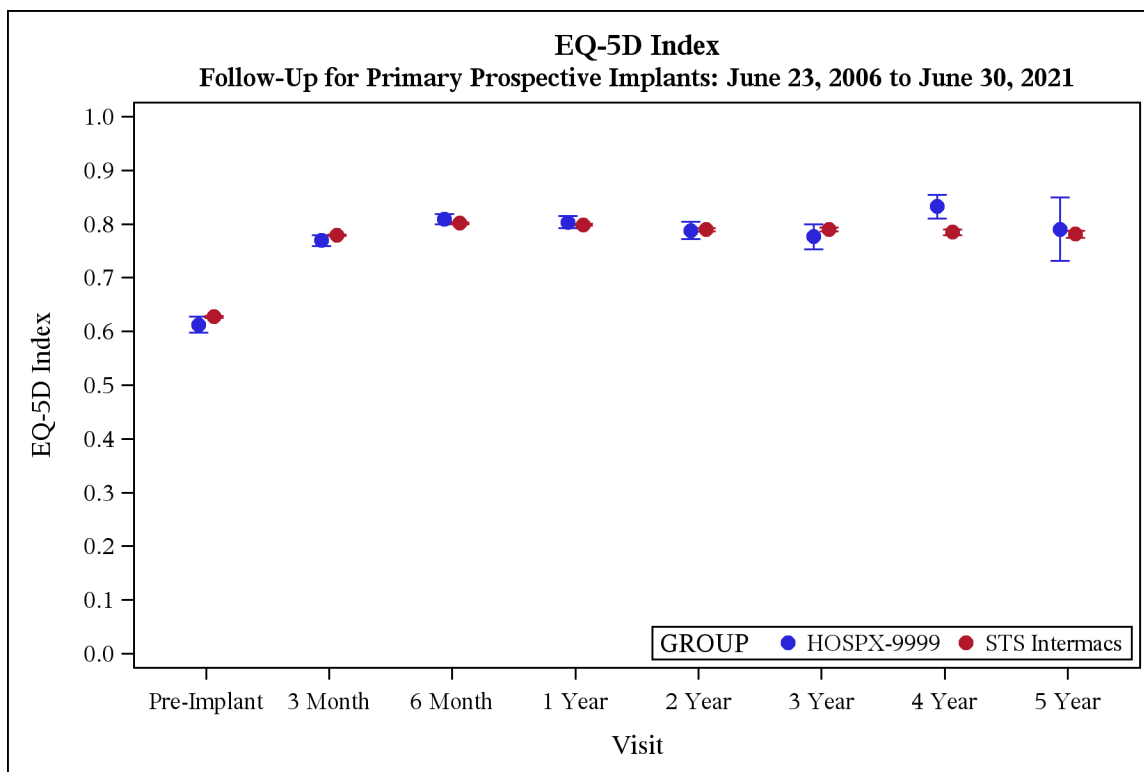
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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	Patients (n)	COMPLETION STATUS						VAS: Own Health State				
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
	N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	766	243	31.7	163	21.3	360	47.0	44.7	26.9	45.0	0.0	100.0
3 Month	589	139	23.6	24	4.1	426	72.3	71.7	22.4	80.0	3.0	100.0
6 Month	510	136	26.7	11	2.2	363	71.2	75.8	18.9	80.0	0.0	100.0
1 Year	379	117	30.9	3	0.8	259	68.3	76.2	18.5	80.0	10.0	100.0
2 Year	211	60	28.4	1	0.5	150	71.1	74.4	19.9	80.0	10.0	100.0
3 Year	103	40	38.8	2	1.9	61	59.2	70.3	20.7	80.0	10.0	100.0
4 Year	70	40	57.1	.	.	30	42.9	72.7	18.9	72.5	20.0	100.0
5 Year	30	15	50.0	2	6.7	13	43.3	72.6	27.6	80.0	0.0	100.0

GROUP=STS InterMACS

VISIT	Patients (n)	COMPLETION STATUS										
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
		N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	31164	10764	34.5	5473	17.6	14927	47.9	45.8	24.2	45.0	0.0	100.0
3 Month	25133	11451	45.6	937	3.7	12745	50.7	71.0	20.0	75.0	0.0	100.0
6 Month	21891	9417	43.0	474	2.2	12000	54.8	73.2	19.5	75.0	0.0	100.0
1 Year	16169	6947	43.0	289	1.8	8933	55.2	73.5	19.1	78.0	0.0	100.0
2 Year	9221	4133	44.8	145	1.6	4943	53.6	72.7	19.9	75.0	0.0	100.0
3 Year	5257	2510	47.7	95	1.8	2652	50.4	72.9	19.5	75.0	0.0	100.0
4 Year	3089	1526	49.4	46	1.5	1517	49.1	72.9	19.3	75.0	0.0	100.0
5 Year	1830	989	54.0	32	1.7	809	44.2	73.6	19.1	80.0	0.0	100.0

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

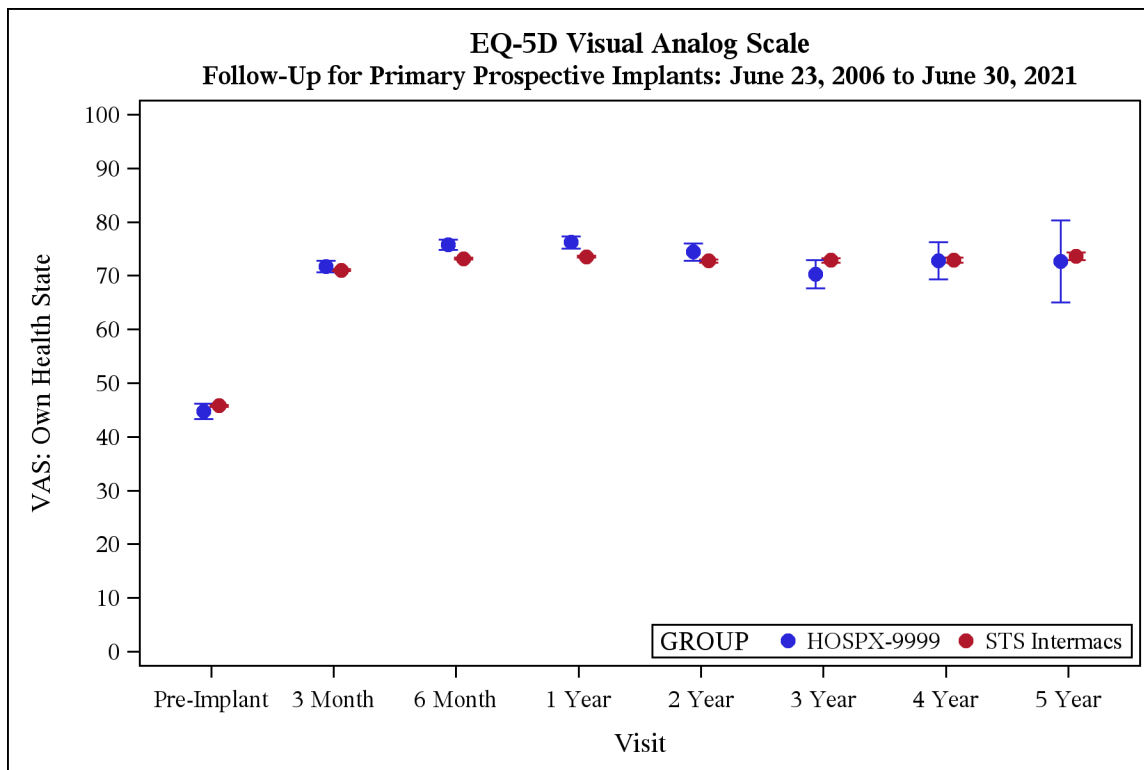
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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										
		Not Done: Other/Unknown		Not Done: Too Sick		Complete						
		N	%	N	%	N	%	Mean	Std	Median	Min	Max
Pre-Implant	766	313	40.9	143	18.7	310	40.5	35.9	21.6	33.9	0.0	100.0
3 Month	589	213	36.2	20	3.4	356	60.4	62.4	21.6	66.1	0.0	100.0
6 Month	510	186	36.5	10	2.0	314	61.6	66.9	20.9	69.6	4.2	100.0
1 Year	379	144	38.0	3	0.8	232	61.2	66.6	21.3	69.3	10.4	100.0
2 Year	211	73	34.6	.	.	138	65.4	64.0	22.4	67.2	4.9	100.0
3 Year	103	40	38.8	2	1.9	61	59.2	62.0	23.1	66.1	9.4	100.0
4 Year	70	37	52.9	.	.	33	47.1	67.2	21.2	71.9	22.4	100.0
5 Year	30	15	50.0	2	6.7	13	43.3	65.4	28.2	74.0	6.3	100.0

GROUP=STS InterMACS

VISIT	Patients (n)	COMPLETION STATUS											
		Not Done: Other/Unknown		Not Done: Too Sick		Complete							
		N	%	N	%	N	%	Mean	Std	Median	Min	Max	
Pre-Implant	31164	14458	46.4	4296	13.8	12410	39.8	34.4	21.5	31.3	0.0	100.0	
3 Month	25133	13102	52.1	771	3.1	11260	44.8	62.6	20.6	64.6	0.0	100.0	
6 Month	21891	10461	47.8	392	1.8	11038	50.4	66.0	20.5	68.8	0.0	100.0	
1 Year	16169	7454	46.1	251	1.6	8464	52.3	66.2	20.9	68.8	0.0	100.0	
2 Year	9221	4031	43.7	137	1.5	5053	54.8	65.5	21.0	67.7	0.0	100.0	
3 Year	5257	2367	45.0	95	1.8	2795	53.2	65.4	21.2	67.7	0.0	100.0	
4 Year	3089	1413	45.7	48	1.6	1628	52.7	65.5	21.3	68.2	0.0	100.0	
5 Year	1830	920	50.3	34	1.9	876	47.9	66.3	21.2	68.8	6.3	100.0	

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

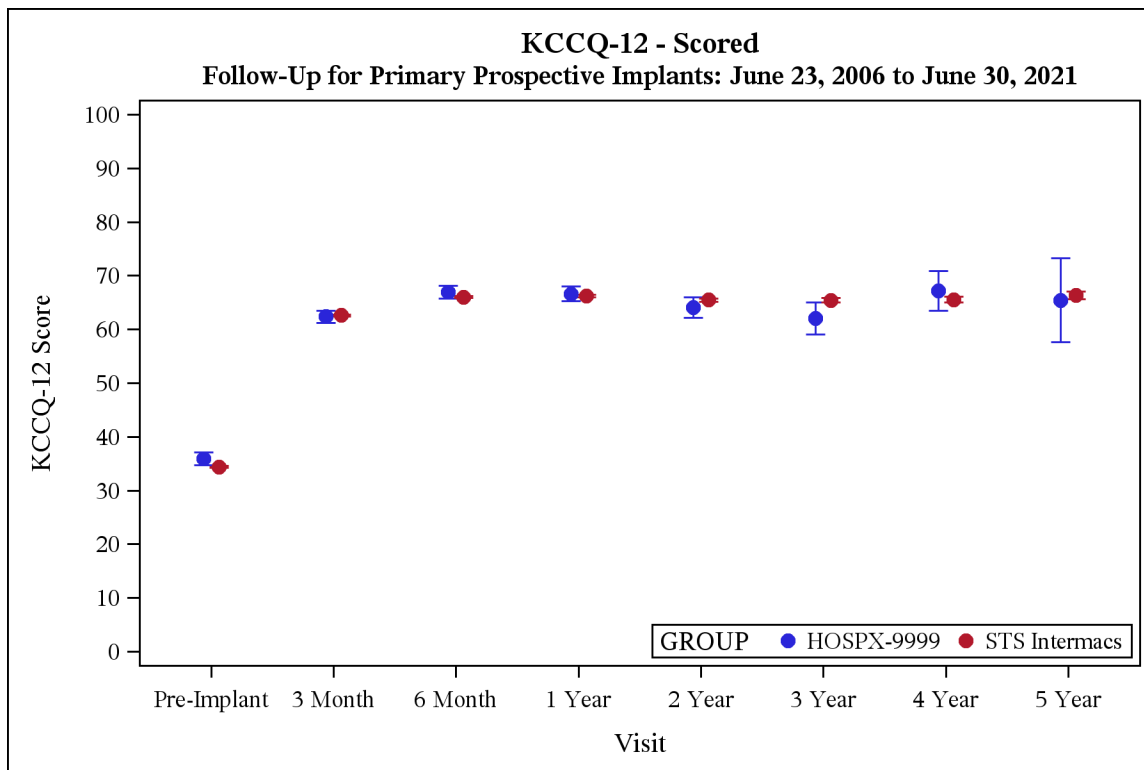
COVERAGE: June 23, 2006 - June 30, 2021

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 - Primary 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.

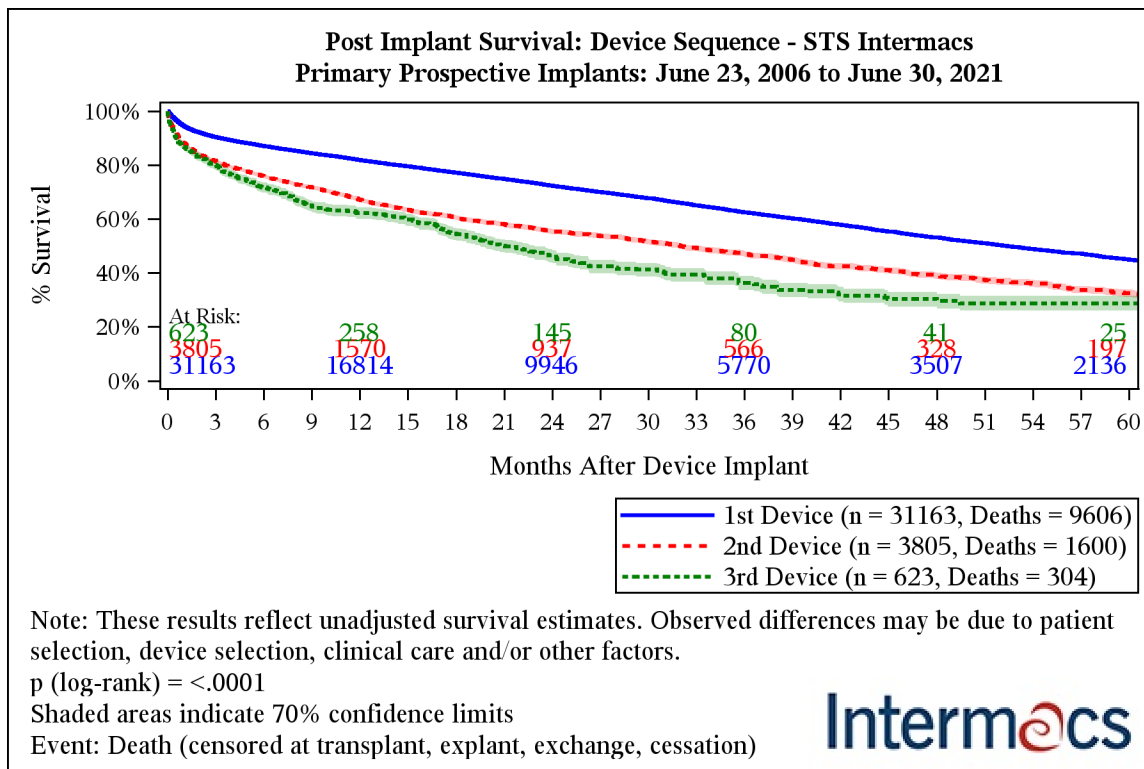
STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary VAD Patients

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	94.6% (94.5%-94.7%)	88.2% (87.7%-88.7%)	87.3% (85.8%-88.6%)
3	90.4% (90.2%-90.6%)	81.5% (80.8%-82.2%)	79.9% (78.2%-81.5%)
6	87.0% (86.8%-87.2%)	75.9% (75.1%-76.6%)	71.7% (69.8%-73.6%)
9	84.4% (84.2%-84.6%)	71.8% (71.0%-72.6%)	64.9% (62.8%-67.0%)
12	81.8% (81.6%-82.1%)	67.2% (66.3%-68.0%)	62.2% (60.0%-64.3%)
24	72.3% (72.0%-72.6%)	55.3% (54.3%-56.3%)	46.4% (43.9%-48.8%)
36	62.5% (62.1%-62.9%)	47.1% (46.0%-48.2%)	36.2% (33.6%-38.8%)
48	53.1% (52.7%-53.6%)	38.8% (37.6%-40.1%)	30.3% (27.6%-33.0%)
60	44.9% (44.4%-45.5%)	32.4% (31.1%-33.8%)	28.8% (26.0%-31.6%)

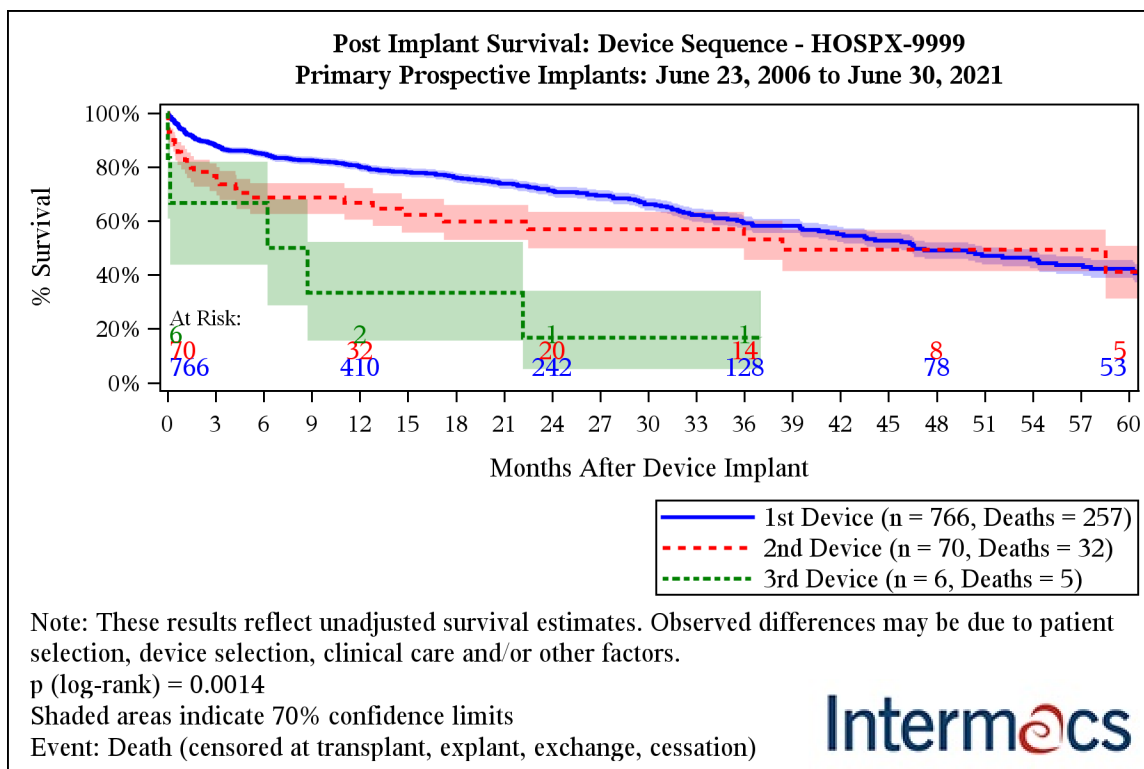
STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary VAD Patients

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.



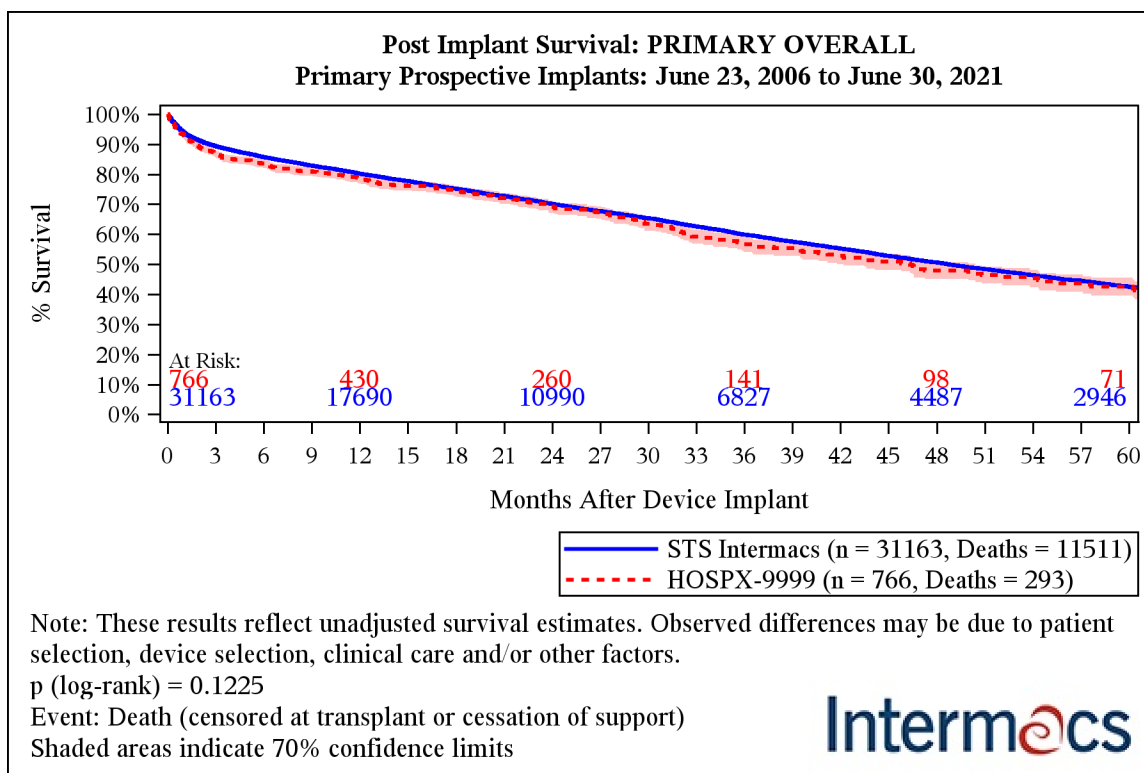
Months after Device Implant	1st Device	2nd Device	3rd Device
1	93.9% (93.0%-94.7%)	84.1% (79.1%-88.0%)	66.7% (43.8%-82.0%)
3	87.9% (86.7%-89.1%)	76.7% (71.1%-81.3%)	66.7% (43.8%-82.0%)
6	84.8% (83.4%-86.1%)	68.7% (62.6%-74.0%)	66.7% (43.8%-82.0%)
9	82.5% (81.0%-83.9%)	68.7% (62.6%-74.0%)	33.3% (15.6%-52.2%)
12	80.1% (78.5%-81.6%)	66.7% (60.5%-72.2%)	33.3% (15.6%-52.2%)
24	71.3% (69.2%-73.2%)	56.9% (49.9%-63.4%)	16.7% (5.1%-34.1%)
36	59.1% (56.5%-61.6%)	53.1% (45.6%-60.1%)	16.7% (5.1%-34.1%)
48	49.0% (45.9%-52.0%)	49.3% (41.4%-56.8%)	
60	42.2% (38.9%-45.5%)	41.1% (31.2%-50.7%)	

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

Exhibit 35. Post Implant Survival - PRIMARY OVERALL



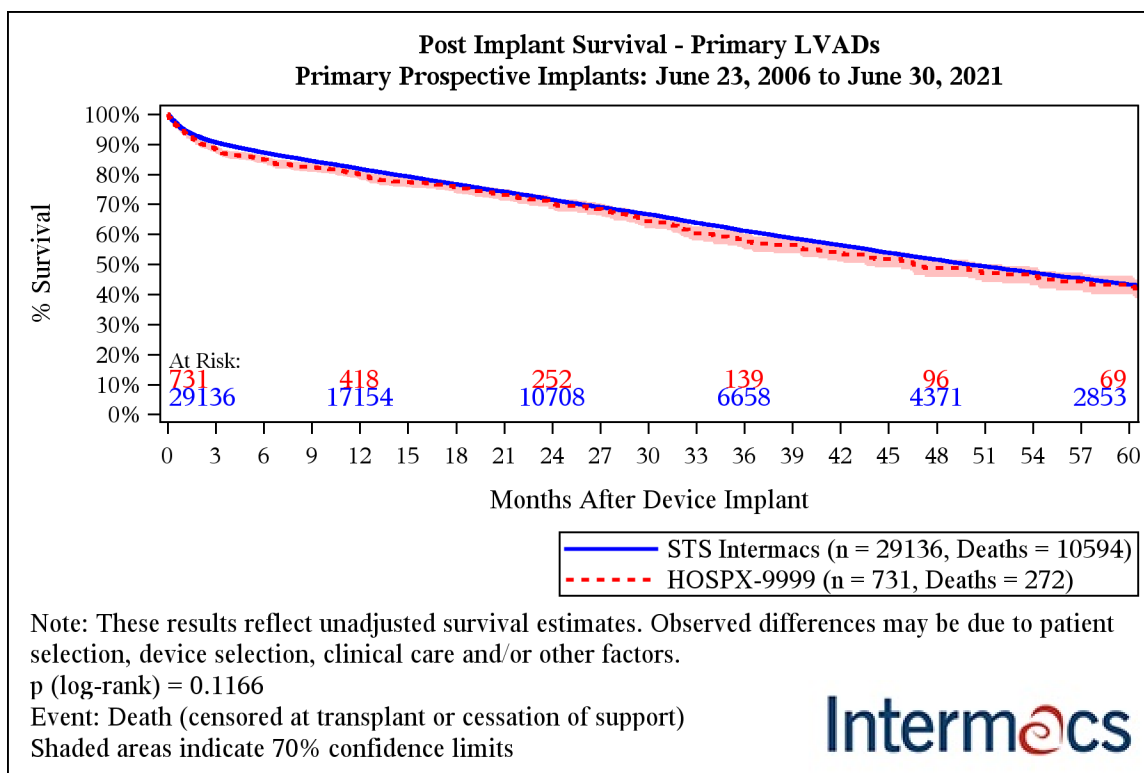
Months after Device Implant	STS Intermacs	HOSPX-9999
1	94.0% (93.8%-94.1%)	93.3% (92.3%-94.2%)
3	89.3% (89.1%-89.5%)	86.8% (85.5%-87.9%)
6	85.7% (85.5%-85.9%)	83.5% (82.1%-84.8%)
9	82.8% (82.6%-83.1%)	80.9% (79.4%-82.3%)
12	80.2% (79.9%-80.4%)	78.5% (76.8%-80.0%)
24	70.1% (69.8%-70.4%)	69.2% (67.2%-71.1%)
36	59.9% (59.5%-60.3%)	56.6% (54.1%-59.0%)
48	50.6% (50.2%-51.0%)	47.9% (45.1%-50.7%)
60	42.5% (42.0%-43.0%)	42.6% (39.6%-45.5%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

Exhibit 36. Post Implant Survival - Primary LVADs



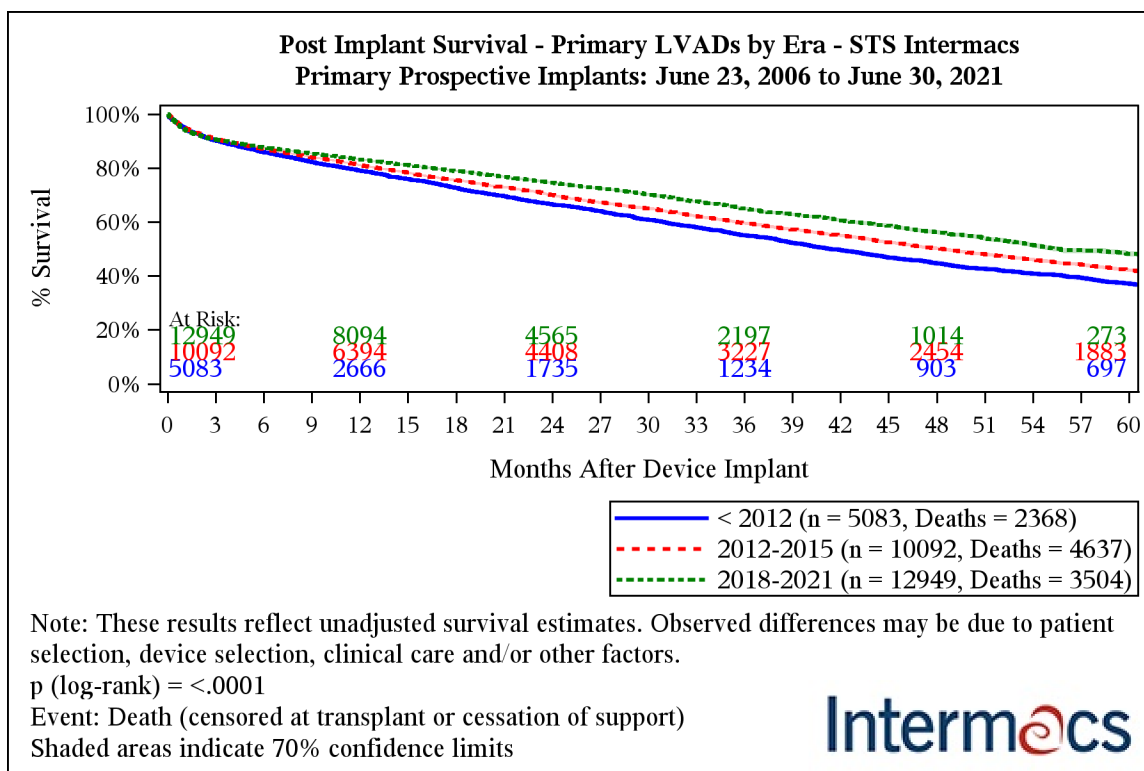
Months after Device Implant	STS Intermacs	HOSPX-9999
1	94.8% (94.7%-95.0%)	94.5% (93.6%-95.3%)
3	90.6% (90.4%-90.8%)	88.2% (86.9%-89.3%)
6	87.2% (87.0%-87.4%)	84.9% (83.5%-86.2%)
9	84.4% (84.2%-84.6%)	82.4% (80.9%-83.8%)
12	81.7% (81.5%-82.0%)	79.8% (78.2%-81.3%)
24	71.5% (71.2%-71.8%)	70.4% (68.4%-72.3%)
36	61.1% (60.8%-61.5%)	57.6% (55.0%-60.1%)
48	51.6% (51.1%-52.0%)	48.7% (45.8%-51.5%)
60	43.2% (42.8%-43.7%)	43.1% (40.1%-46.1%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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



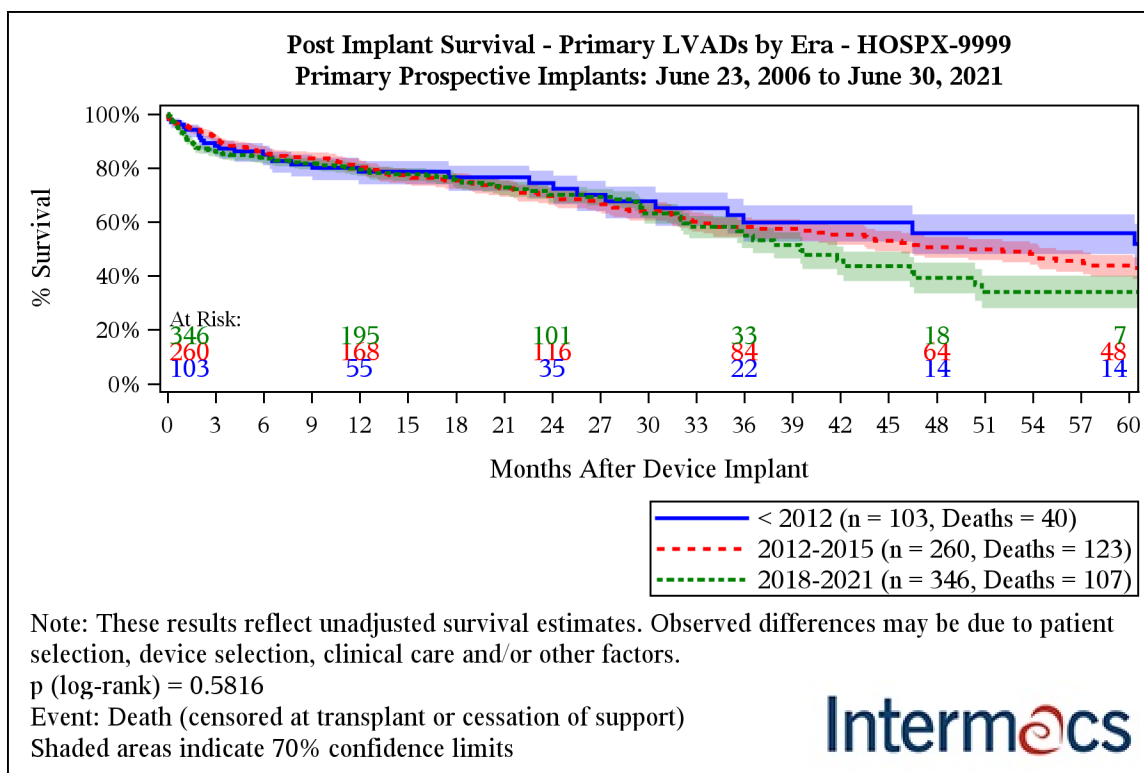
Months after Device Implant	< 2012	2012-2015	2018-2021
1	95.0% (94.7%-95.3%)	95.1% (94.9%-95.3%)	94.6% (94.4%-94.8%)
3	90.2% (89.8%-90.6%)	90.8% (90.5%-91.1%)	90.6% (90.3%-90.8%)
6	85.8% (85.3%-86.3%)	87.1% (86.8%-87.4%)	87.7% (87.4%-87.9%)
9	82.3% (81.7%-82.8%)	84.0% (83.7%-84.4%)	85.4% (85.1%-85.7%)
12	79.1% (78.5%-79.7%)	81.1% (80.6%-81.5%)	83.2% (82.8%-83.5%)
24	66.5% (65.7%-67.3%)	70.0% (69.5%-70.5%)	74.6% (74.1%-75.0%)
36	55.1% (54.2%-56.0%)	59.6% (59.0%-60.2%)	65.0% (64.4%-65.5%)
48	44.7% (43.7%-45.7%)	50.3% (49.6%-50.9%)	56.3% (55.6%-57.1%)
60	37.1% (36.1%-38.1%)	42.1% (41.5%-42.8%)	48.1% (47.1%-49.1%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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



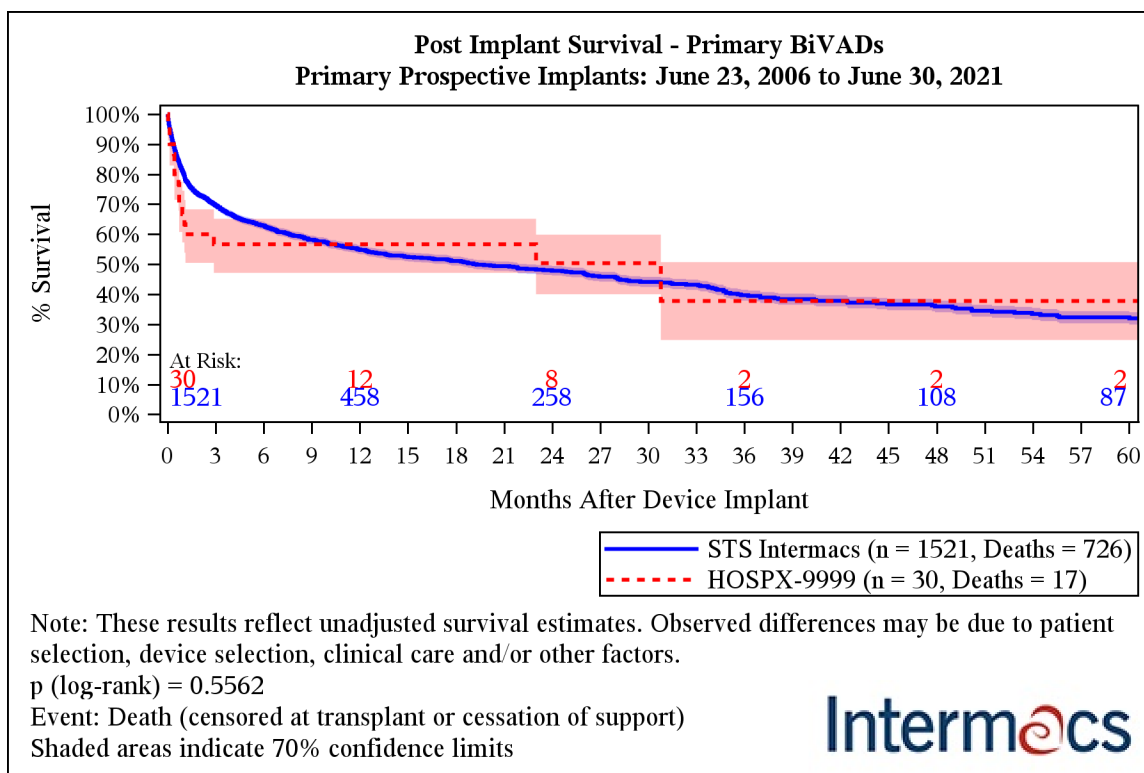
Months after Device Implant	< 2012	2012-2015	2018-2021
1	96.1% (93.7%-97.6%)	95.8% (94.3%-96.9%)	93.0% (91.5%-94.3%)
3	88.2% (84.6%-91.1%)	91.0% (89.1%-92.7%)	86.0% (84.0%-87.8%)
6	85.0% (81.0%-88.2%)	86.2% (83.8%-88.2%)	83.8% (81.7%-85.7%)
9	81.3% (76.9%-85.0%)	83.6% (81.0%-85.8%)	81.7% (79.5%-83.7%)
12	78.6% (73.9%-82.6%)	80.7% (78.0%-83.1%)	79.4% (77.0%-81.6%)
24	74.4% (69.0%-79.0%)	69.6% (66.3%-72.6%)	70.1% (67.0%-72.9%)
36	59.8% (52.7%-66.2%)	58.1% (54.4%-61.7%)	54.9% (50.3%-59.3%)
48	55.8% (48.1%-62.8%)	50.6% (46.7%-54.4%)	39.2% (33.5%-44.9%)
60	55.8% (48.1%-62.8%)	43.8% (39.7%-47.8%)	34.0% (28.0%-40.1%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

Exhibit 38. Post Implant Survival - Primary BiVADs



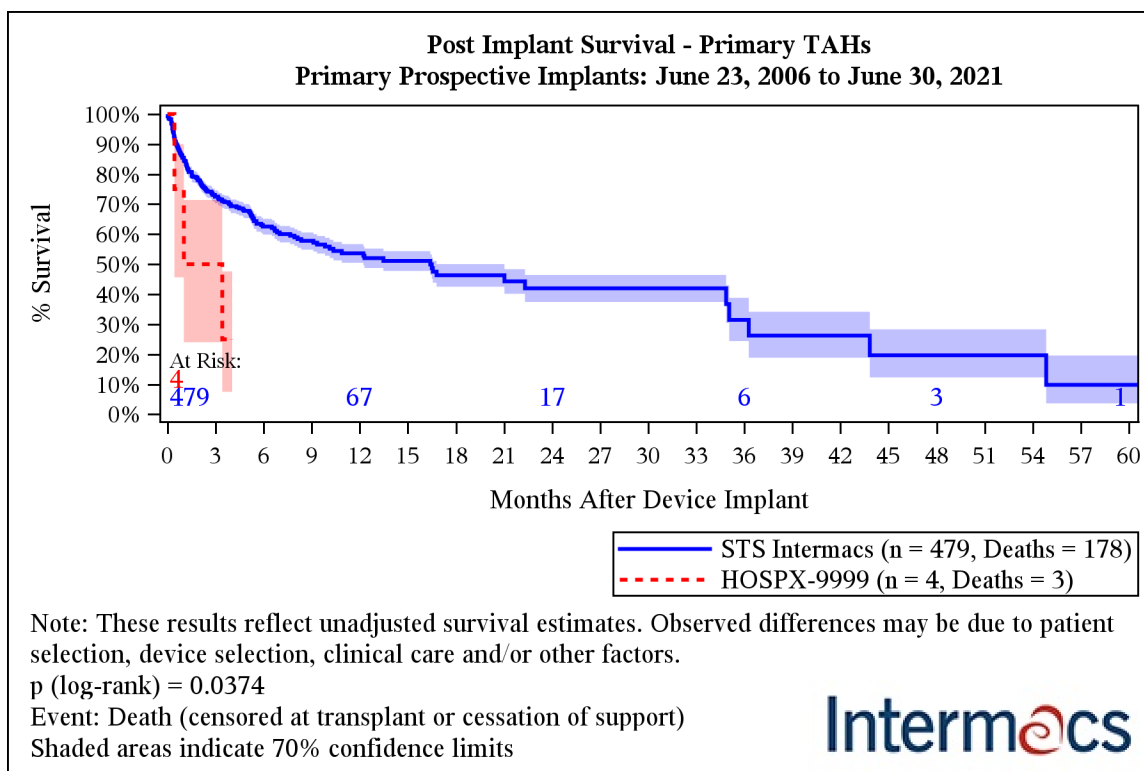
Months after Device Implant	STS Intermacs	HOSPX-9999
1	80.2% (79.2%-81.2%)	66.7% (57.3%-74.5%)
3	69.6% (68.3%-70.8%)	56.7% (47.1%-65.1%)
6	62.9% (61.6%-64.2%)	56.7% (47.1%-65.1%)
9	58.2% (56.8%-59.5%)	56.7% (47.1%-65.1%)
12	54.9% (53.4%-56.3%)	56.7% (47.1%-65.1%)
24	47.8% (46.2%-49.4%)	50.4% (40.0%-59.8%)
36	39.7% (37.9%-41.5%)	37.8% (24.8%-50.7%)
48	35.9% (34.0%-37.8%)	37.8% (24.8%-50.7%)
60	32.3% (30.3%-34.4%)	37.8% (24.8%-50.7%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

Exhibit 39. Post Implant Survival - Primary TAHs



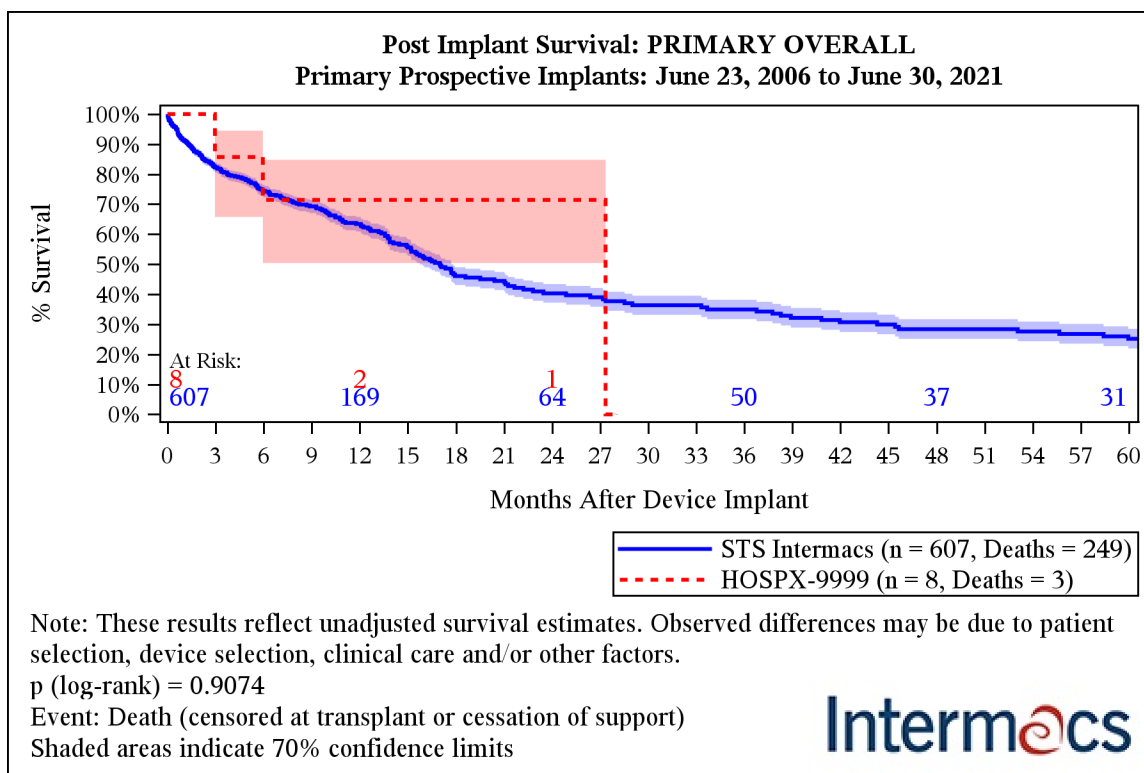
Months after Device Implant	STS Intermacs	HOSPX-9999
1	85.5% (83.8%-87.0%)	75.0% (45.6%-90.0%)
3	72.5% (70.3%-74.6%)	50.0% (24.0%-71.4%)
6	62.6% (59.9%-65.1%)	
9	57.8% (54.9%-60.6%)	
12	53.7% (50.5%-56.7%)	
24	42.0% (37.5%-46.4%)	
36	31.5% (24.4%-38.8%)	
48	19.7% (12.3%-28.3%)	
60	9.8% (3.7%-19.6%)	

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

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



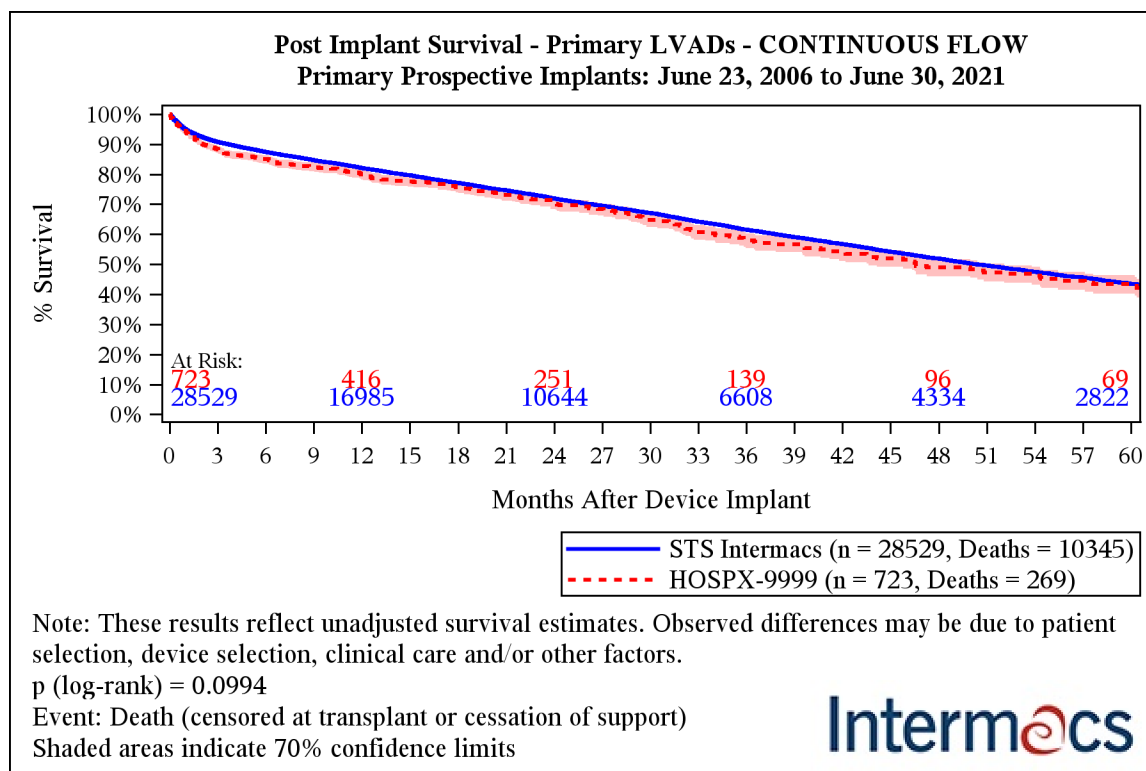
Months after Device Implant	STS Intermacs	HOSPX-9999
1	91.5% (90.2%-92.5%)	100.0% (100.0%-100.0%)
3	82.3% (80.6%-83.8%)	85.7% (65.7%-94.5%)
6	74.4% (72.4%-76.3%)	71.4% (50.4%-84.8%)
9	69.3% (67.0%-71.4%)	71.4% (50.4%-84.8%)
12	63.4% (60.9%-65.7%)	71.4% (50.4%-84.8%)
24	40.3% (37.2%-43.4%)	71.4% (50.4%-84.8%)
36	34.9% (31.7%-38.2%)	
48	28.4% (25.2%-31.7%)	
60	25.2% (21.9%-28.5%)	

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

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



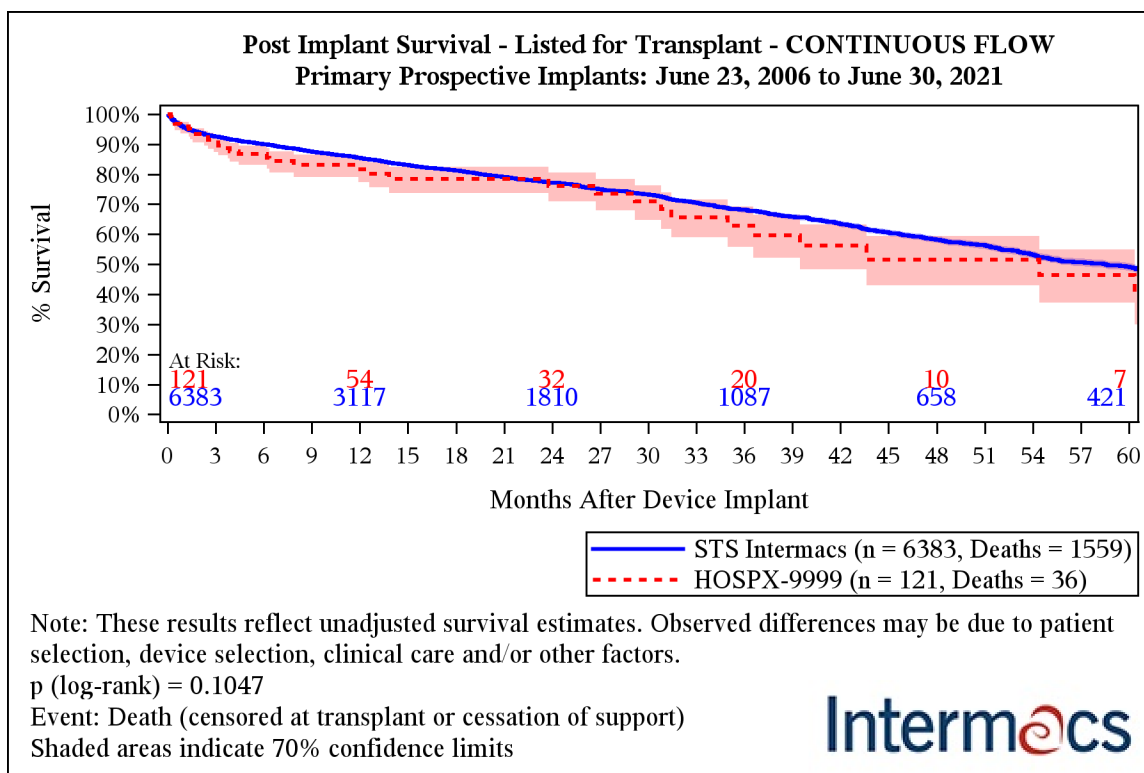
Months after Device Implant	STS Intermacs	HOSPX-9999
1	94.9% (94.8%-95.0%)	94.4% (93.5%-95.2%)
3	90.8% (90.6%-90.9%)	88.2% (86.9%-89.4%)
6	87.4% (87.2%-87.6%)	85.0% (83.6%-86.3%)
9	84.7% (84.4%-84.9%)	82.5% (81.0%-83.9%)
12	82.0% (81.8%-82.3%)	79.9% (78.3%-81.4%)
24	71.9% (71.6%-72.2%)	70.4% (68.4%-72.4%)
36	61.5% (61.1%-61.9%)	57.9% (55.4%-60.4%)
48	51.9% (51.5%-52.3%)	48.9% (46.0%-51.7%)
60	43.5% (43.0%-44.0%)	43.4% (40.3%-46.4%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

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



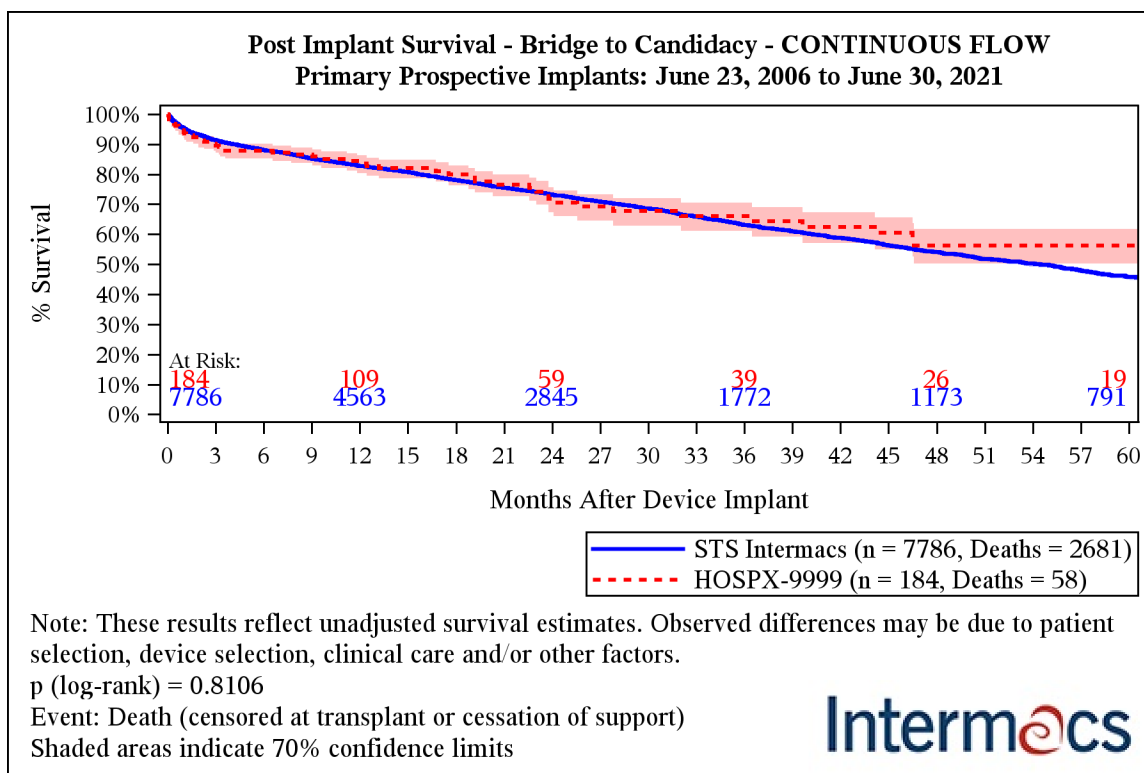
Months after Device Implant	STS Intermacs	HOSPX-9999
1	95.6% (95.4%-95.9%)	95.8% (93.6%-97.3%)
3	92.5% (92.2%-92.9%)	90.5% (87.4%-92.9%)
6	90.0% (89.6%-90.4%)	86.7% (83.1%-89.6%)
9	87.5% (87.1%-87.9%)	83.2% (79.1%-86.5%)
12	85.4% (84.9%-85.9%)	81.6% (77.4%-85.2%)
24	77.2% (76.5%-77.9%)	76.1% (70.9%-80.6%)
36	68.1% (67.2%-69.0%)	62.8% (55.7%-69.1%)
48	58.2% (57.1%-59.3%)	51.5% (43.0%-59.3%)
60	49.3% (48.0%-50.6%)	46.4% (37.3%-54.9%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

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



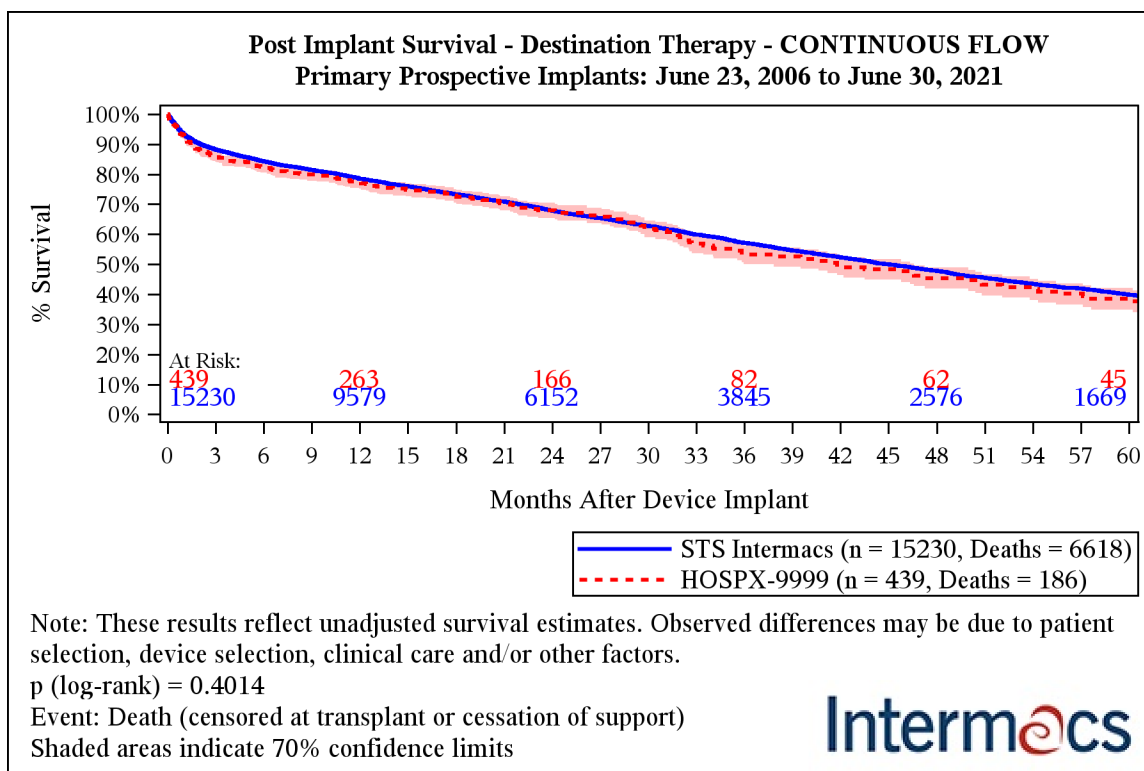
Months after Device Implant	STS Intermacs	HOSPX-9999
1	95.3% (95.0%-95.5%)	94.6% (92.6%-96.0%)
3	91.3% (90.9%-91.6%)	89.6% (87.1%-91.7%)
6	88.1% (87.7%-88.4%)	87.9% (85.2%-90.1%)
9	85.2% (84.7%-85.6%)	86.5% (83.7%-88.9%)
12	82.8% (82.3%-83.2%)	83.6% (80.4%-86.2%)
24	73.2% (72.6%-73.8%)	71.7% (67.3%-75.6%)
36	63.1% (62.4%-63.8%)	66.1% (61.2%-70.6%)
48	54.0% (53.2%-54.9%)	56.2% (50.2%-61.7%)
60	45.8% (44.8%-46.7%)	56.2% (50.2%-61.7%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

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



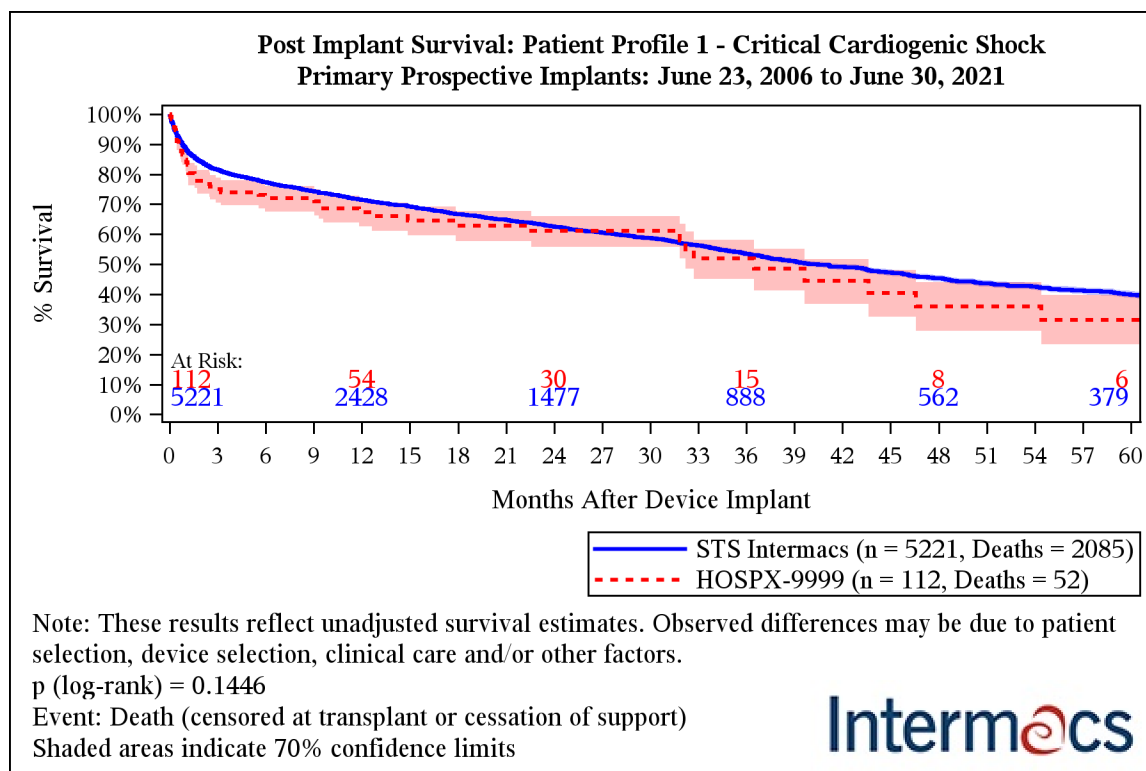
Months after Device Implant	STS Intermacs	HOSPX-9999
1	93.4% (93.2%-93.6%)	93.1% (91.8%-94.2%)
3	88.3% (88.0%-88.5%)	85.9% (84.2%-87.5%)
6	84.3% (84.0%-84.6%)	82.5% (80.6%-84.3%)
9	81.4% (81.1%-81.7%)	79.9% (77.8%-81.7%)
12	78.5% (78.2%-78.9%)	77.3% (75.1%-79.3%)
24	67.9% (67.5%-68.3%)	68.0% (65.5%-70.4%)
36	57.2% (56.7%-57.7%)	53.2% (49.9%-56.3%)
48	47.8% (47.3%-48.4%)	45.4% (41.9%-48.9%)
60	39.9% (39.3%-40.5%)	38.5% (34.9%-42.2%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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



Intermacs

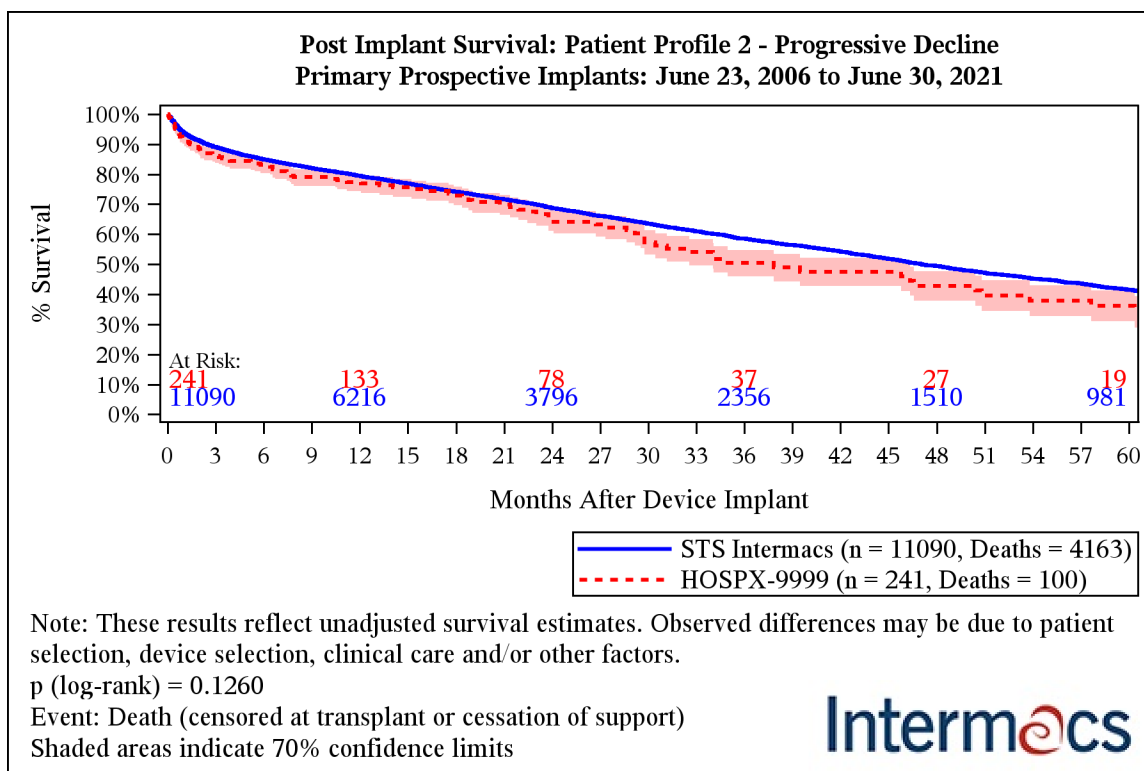
Months after Device Implant	STS Intermacs	HOSPX-9999
1	88.6% (88.2%-89.1%)	86.6% (83.0%-89.5%)
3	81.5% (80.9%-82.0%)	75.0% (70.6%-78.8%)
6	77.4% (76.8%-77.9%)	72.1% (67.5%-76.1%)
9	74.3% (73.7%-74.9%)	72.1% (67.5%-76.1%)
12	71.5% (70.8%-72.1%)	67.4% (62.6%-71.7%)
24	62.6% (61.8%-63.4%)	61.1% (55.7%-66.0%)
36	53.5% (52.6%-54.4%)	51.9% (45.2%-58.2%)
48	45.4% (44.3%-46.4%)	35.9% (27.9%-44.0%)
60	39.9% (38.7%-41.0%)	31.4% (23.4%-39.7%)

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

COVERAGE: June 23, 2006 - June 30, 2021

SITE: HOSPX - DEMO SITE REPORT

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



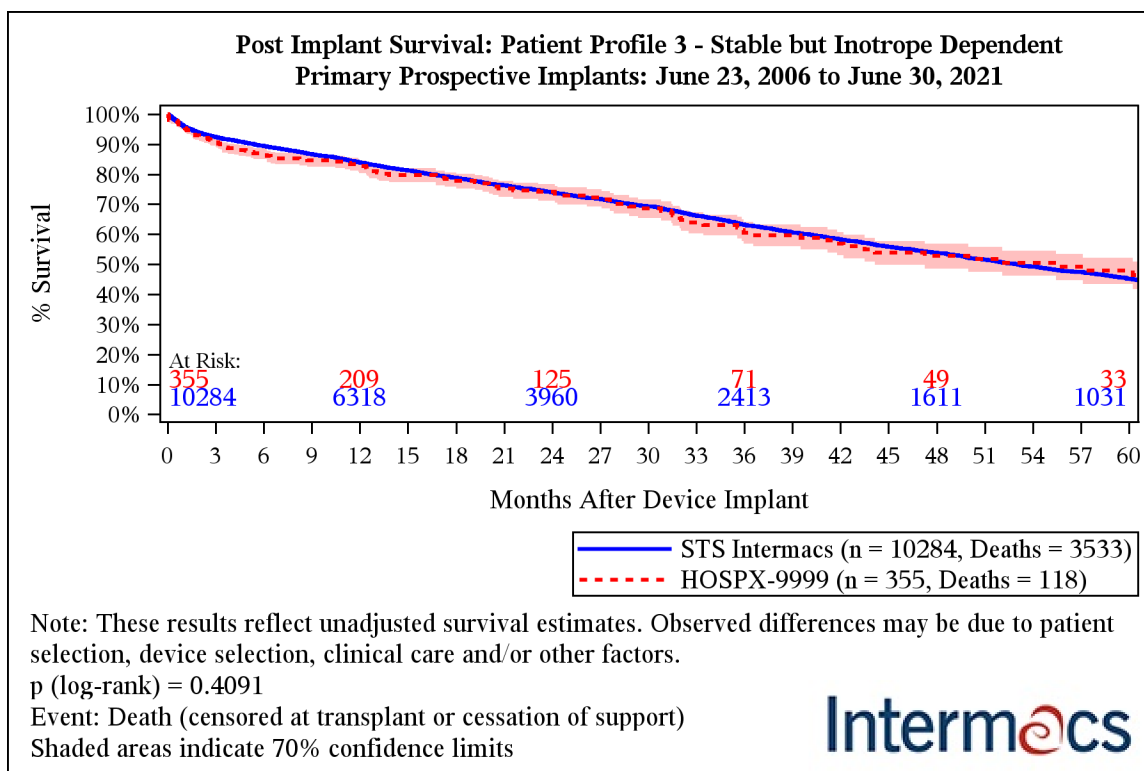
Months after Device Implant	STS Intermacs	HOSPX-9999
1	93.9% (93.7%-94.1%)	92.1% (90.2%-93.7%)
3	89.0% (88.7%-89.3%)	86.2% (83.8%-88.3%)
6	84.9% (84.6%-85.3%)	83.0% (80.4%-85.3%)
9	82.0% (81.6%-82.4%)	79.0% (76.2%-81.6%)
12	79.4% (79.0%-79.8%)	77.4% (74.4%-80.1%)
24	68.8% (68.3%-69.3%)	64.9% (61.2%-68.5%)
36	58.5% (57.9%-59.1%)	50.5% (45.9%-54.8%)
48	49.4% (48.7%-50.1%)	42.8% (37.8%-47.7%)
60	41.5% (40.7%-42.3%)	36.1% (31.0%-41.3%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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



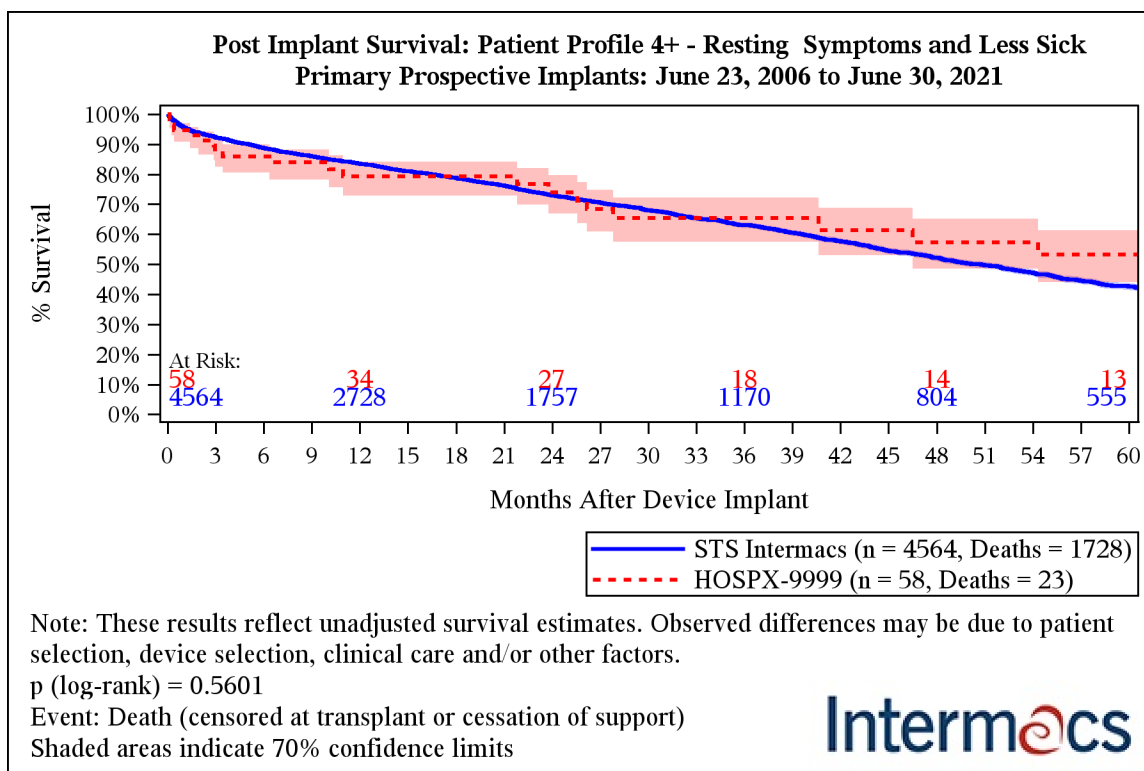
Months after Device Implant	STS Intermacs	HOSPX-9999
1	96.0% (95.8%-96.2%)	96.0% (94.9%-97.0%)
3	92.3% (92.1%-92.6%)	90.8% (89.1%-92.2%)
6	89.4% (89.1%-89.7%)	87.0% (85.1%-88.8%)
9	86.7% (86.3%-87.0%)	84.6% (82.5%-86.5%)
12	83.9% (83.5%-84.3%)	82.6% (80.4%-84.7%)
24	74.0% (73.5%-74.5%)	74.1% (71.2%-76.7%)
36	63.2% (62.5%-63.8%)	60.6% (56.8%-64.1%)
48	53.8% (53.1%-54.5%)	52.8% (48.6%-56.8%)
60	45.2% (44.3%-46.0%)	47.8% (43.4%-52.2%)

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	95.6% (95.3%-95.9%)	94.7% (90.8%-97.0%)
3	92.3% (91.8%-92.6%)	87.7% (82.5%-91.4%)
6	88.6% (88.2%-89.1%)	85.9% (80.5%-89.9%)
9	85.9% (85.4%-86.5%)	83.9% (78.2%-88.2%)
12	83.5% (82.9%-84.0%)	79.3% (72.9%-84.3%)
24	73.0% (72.2%-73.7%)	73.9% (66.8%-79.7%)
36	63.0% (62.1%-63.9%)	65.4% (57.6%-72.2%)
48	52.2% (51.1%-53.3%)	57.3% (48.4%-65.1%)
60	42.6% (41.5%-43.8%)	53.2% (44.1%-61.4%)

Competing Outcomes - Primary LVADs - CONTINUOUS FLOW - STS InterMACs (n = 28530)
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 = 28530) 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).

The four outcomes tracked are:

- Alive (device still in place):** Represented by a solid green line, showing a steady decline from 100% at month 0 to approximately 22% at month 60.
- Transplant:** Represented by a dashed blue line, showing an increase from 0% at month 0 to approximately 34% at month 60.
- Death (before transplant):** Represented by a dashed red line, showing an increase from 0% at month 0 to approximately 41% at month 60.
- Cessation of support:** Represented by a dashed purple line, showing a very low percentage, remaining below 5% throughout the 60-month period.

The graph demonstrates that the majority of patients who remain alive with their device still in place experience a significant decline in survival over time. The rates of transplant and death before transplant are relatively low but show a steady increase over the 60-month period. The rate of cessation of support is the lowest among the four outcomes.

[illegible]

Competing Outcomes - Primary LVADs - CONTINUOUS FLOW- HOSPX-9999 (n = 723)
Primary Prospective Implants: June 23, 2006 to June 30, 2021

The graph illustrates the competing outcomes for patients with Primary LVADs - CONTINUOUS FLOW- HOSPX-9999 (n = 723) from June 23, 2006 to June 30, 2021. The Y-axis represents Patient % (0% to 100%), and the X-axis represents 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 30% mark around month 36, and ending at approximately 18% at month 60.
- Transplant:** Represented by a dashed blue line. It starts at 0% at month 0 and increases steadily, crossing the 30% mark around month 36, and ending at approximately 38% at month 60.
- Death (before transplant):** Represented by a dashed red line. It starts at 0% at month 0 and increases steadily, crossing the 30% mark around month 36, and ending at approximately 40% at month 60.
- Cessation of support:** Represented by a dashed purple line. It remains very low throughout the period, starting at 0% and ending at approximately 2% 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	75%	10%	15%	1%
12	60%	20%	20%	1%
18	50%	25%	22%	1%
24	45%	28%	25%	1%
30	38%	32%	28%	1%
36	30%	35%	32%	1%
42	25%	38%	35%	1%
48	22%	38%	38%	1%
54	20%	38%	40%	1%
60	18%	38%	40%	2%

[illegible]

Competing Outcomes - Primary TAHs - STS Intermacs (n = 479)
Primary Prospective Implants: June 23, 2006 to June 30, 2021

Legend:

- Alive (device still in place)
- Transplant
- Death (before transplant)

Months After Device Implant	Alive (device still in place) (%)	Transplant (%)	Death (before transplant) (%)
0	100	0	0
6	35	40	30
12	15	52	34
18	8	57	35
24	4	60	36
30	3	61	36
36	2	61	37
42	1	61	37
48	1	61	37
54	1	61	37
60	1	61	38

[illegible]

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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 - Primary 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 - Primary 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	Unable to Evaluate		Condition Evaluated	
		N	%	N	%
3 Month	368	.	.	368	100.00
6 Month	323	2	0.62	321	99.38
1 Year	238	1	0.42	237	99.58
2 Year	123	2	1.63	121	98.37

GROUP=STS Intermacs

Follow-up Visit	Hemolysis Evaluation				
	All	Unable to Evaluate		Condition Evaluated	
		N	%	N	%
3 Month	15675	789	5.03	14886	94.97
6 Month	13758	706	5.13	13052	94.87
1 Year	10185	410	4.03	9775	95.97
2 Year	5546	209	3.77	5337	96.23

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	368	15	4.08	59	16.03	294	79.89
6 Month	321	9	2.80	37	11.53	275	85.67
1 Year	237	8	3.38	29	12.24	200	84.39
2 Year	121	5	4.13	19	15.70	97	80.17
3 Year	46	2	4.35	6	13.04	38	82.61
4 Year	35	1	2.86	9	25.71	25	71.43
5 Year	13	2	15.38	3	23.08	8	61.54

GROUP=STS Intermacs

Follow-up Visit	Hemolysis Condition						
	All		Major		Minor		No
	N	N	%	N	%	N	%
3 Month	14886	541	3.63	2504	16.82	11841	79.54
6 Month	13052	360	2.76	2086	15.98	10606	81.26
1 Year	9775	349	3.57	1749	17.89	7677	78.54
2 Year	5337	188	3.52	891	16.69	4258	79.78
3 Year	2751	112	4.07	496	18.03	2143	77.90
4 Year	1416	64	4.52	253	17.87	1099	77.61
5 Year	698	29	4.15	130	18.62	539	77.22

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	Hypertension Evaluation					
	All	Unable to Evaluate			Condition Evaluated	
		N	N	%	N	%
3 Month	368	159	43.21		209	56.79
6 Month	323	132	40.87		191	59.13
1 Year	238	112	47.06		126	52.94
2 Year	123	75	60.98		48	39.02

GROUP=STS Intermacs

Follow-up Visit	Hypertension Evaluation					
	All	Unable to Evaluate			Condition Evaluated	
		N	N	%	N	%
3 Month	15675	3927	25.05		11748	74.95
6 Month	13758	3369	24.49		10389	75.51
1 Year	10185	2484	24.39		7701	75.61
2 Year	5546	1423	25.66		4123	74.34

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	209	8	3.83	201	96.17
6 Month	191	11	5.76	180	94.24
1 Year	126	8	6.35	118	93.65
2 Year	48	10	20.83	38	79.17
3 Year	21	.	.	21	100.00
4 Year	17	5	29.41	12	70.59
5 Year	3	1	33.33	2	66.67

GROUP=STS Intermacs

Follow-up Visit	All	Hypertension Condition			
		HTN		No HTN	
		N	%	N	%
3 Month	11748	575	4.89	11173	95.11
6 Month	10389	563	5.42	9826	94.58
1 Year	7701	424	5.51	7277	94.49
2 Year	4123	254	6.16	3869	93.84
3 Year	2130	106	4.98	2024	95.02
4 Year	1101	70	6.36	1031	93.64
5 Year	507	25	4.93	482	95.07

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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	All	RHF Evaluation			
		Unable to Evaluate		Condition Evaluated	
		N	%	N	%
3 Month	368	12	3.26	356	96.74
6 Month	323	7	2.17	316	97.83
1 Year	238	6	2.52	232	97.48
2 Year	123	4	3.25	119	96.75

GROUP=STS InterMACs

Follow-up Visit	All	RHF Evaluation			
		Unable to Evaluate		Condition Evaluated	
		N	%	N	%
3 Month	15675	604	3.85	15071	96.15
6 Month	13758	440	3.20	13318	96.80
1 Year	10185	292	2.87	9893	97.13
2 Year	5546	119	2.15	5427	97.85

STS INTERMACS - Quarterly Quality Assurance Report (2021 Q2) - Cumulative - Primary 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									
				3. RHF (Mild)		4. RHF (Inotropic Support)		5. RHF (RVAD Support)			
		All	1. No RHF								
		N	N	%	N	%	N	%	N	%	N
3 Month	356	336	94.38	9	2.53	10	2.81	1	0.28		
6 Month	316	306	96.84	6	1.90	3	0.95	1	0.32		
1 Year	232	223	96.12	8	3.45	1	0.43				
2 Year	119	118	99.16	1	0.84						
3 Year	46	45	97.83	1	2.17						
4 Year	35	35	100.00								
5 Year	13	12	92.31			1	7.69				

GROUP=STS Intermacs

Follow-up Visit	All	RHF Condition									
		1. No RHF			3. RHF (Mild)		4. RHF (Inotropic Support)		5. RHF (RVAD Support)		
		N	N	%	N	%	N	%	N	%	
3 Month	15071	13407	88.96	768	5.10	861	5.71	35	0.23		
6 Month	13318	12174	91.41	642	4.82	491	3.69	11	0.08		
1 Year	9893	8972	90.69	569	5.75	348	3.52	4	0.04		
2 Year	5427	4977	91.71	274	5.05	170	3.13	6	0.11		
3 Year	2813	2598	92.36	129	4.59	85	3.02	1	0.04		
4 Year	1456	1326	91.07	80	5.49	49	3.37	1	0.07		
5 Year	708	646	91.24	31	4.38	31	4.38	.			

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

COVERAGE: June 23, 2006 - June 30, 2021

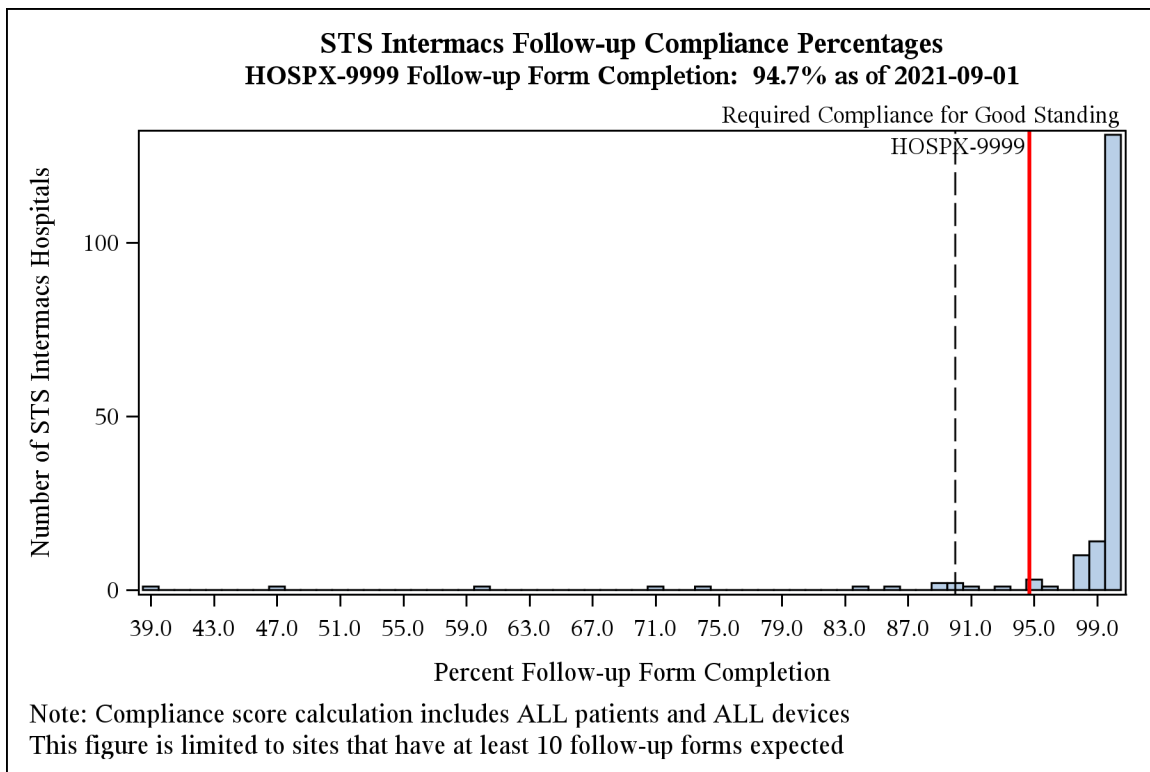
SITE: HOSPX - DEMO SITE REPORT

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