

Product Performance Report
Cardiac Rhythm Management
OCTOBER 2006

Letter from St. Jude Medical

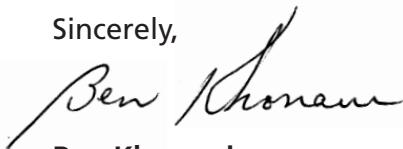
OCTOBER 2006

As world leaders in the development of state-of-the-art technology for cardiac rhythm management (CRM) devices, St. Jude Medical appreciates that our products are implanted in people whose health and well-being depend on their performance. From product design through patient follow-up, St. Jude Medical employees are dedicated to product quality and patient safety. In keeping with this commitment, we publish a product performance report semi-annually to keep the healthcare community and the patients it serves informed of the overall performance of our cardiac devices, which include implantable cardioverter defibrillators (ICDs), pacemakers and implantable pacing and defibrillation leads.

St. Jude Medical also recognizes the value of the industry working together to provide transparent and consistent information on the performance of CRM products. Following the 2005 Policy Conference on Pacemaker and ICD Device Performance, cardiac device companies have worked together through AdvaMed to establish a proposal for "Requirements for Uniform Reporting of Clinical Performance of Pulse Generators." This proposal, which St. Jude Medical has adopted, sets forth the definitions and requirements for product performance reports and seeks to provide physicians and their patients with a level of device performance information that is consistent across manufacturers. As a result of this cooperation with AdvaMed and other cardiac device companies, St. Jude Medical has further modified its product performance report as described on the following pages.

As we continually strive to provide transparent and consistent information on the performance of our products, we are pleased to release this product performance report with the latest performance information on our ICDs, pacemakers and lead systems.

Sincerely,



Ben Khosravi

Executive Vice President

Quality, Leads Development and Operations



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Introduction and Overview

Serving our mission

St. Jude Medical's mission is to make life better through excellence in medical device technology and services. Toward that effort, we maintain a rigorous approach to ensuring the quality of our products. The key elements of this effort include:

- Compliance with U.S. and international quality system standards, such as the U.S. FDA Quality Systems Regulation (21 CFR Part 820) and ISO 13485 (an international standard for the Quality Management System for medical devices);
- Thorough evaluation of product design, including extensive design verification and validation, as well as product qualification testing;
- Rigorous control of the design and manufacturing processes;
- Inspection and qualification of externally supplied components and materials;
- Timely analysis of returned products, including extensive malfunction investigation;
- Extensive internal auditing; and
- Continuous improvement programs.

What you'll find in this report

For all ICDs starting with Photon Micro and for all pacemakers starting with Affinity, you will find the analysis of data, according to the AdvaMed guidelines, collected through June 30, 2006, including:

- A graph of survival probability that reflects reasons for device removal (including normal battery depletion, malfunction with compromised therapy, and malfunction without compromised therapy). It includes non-returned devices removed from service for battery depletion with no associated complaint as normal battery depletions. This results in the inclusion of many more devices than would be included based only on the AdvaMed proposal.
- A graph of survival probability that excludes normal battery depletion in the analysis;
- A table that accompanies and summarizes the data in each graph; and
- An update to advisories starting in 2003.

Additional tables that aggregate and summarize the data in the report can be found on pages 17 (CRT ICDs), 34 (ICDs) and 74 (pulse generators).

For ICDs prior to Photon Micro, pacemakers prior to Affinity and all pacing and defibrillation leads, you will find analysis of the data collected through June 30, 2006, consistent with previous product performance reports.

Starting with this version of the St. Jude Medical product performance report, laboratory analysis of the most recently released cardiac resynchronization therapy (CRT) leads, defibrillation leads, and pacing leads returned from the U.S. market is summarized by model. The laboratory analysis results are categorized into one of the following three categories:

- Implant damage - obvious damage incurred at the time of attempted implant, including but not limited to insulation cuts and damage, helix overtorque, and stylet perforation.
- Electrical failure - a disruption in the insulation or conductors resulting in compromised electrical performance.
- Other - includes other sources of malfunction not attributed to damage incurred at the attempted implant and not resulting in compromised electrical failures. This category also includes any partial leads returned with an alleged malfunction.

We have also included a summary of the methods used for measuring product performance and a summary of the definitions for key terms used in preparing the report.

Methodology

For devices that are implanted in the body and have a service life of several years, measuring performance presents a number of considerations for medical device manufacturers. St. Jude Medical encourages that all products, once they are taken out of a patient for any reason, be returned for analysis. There are some situations where those devices are not always returned. These include, for example, pacing and defibrillation leads that are not routinely explanted due to the risk to patients of explanting these devices.

The industry standard method of evaluating product performance is survival analysis, which estimates the probability that a device will not malfunction during a specified period of time. This statistical method best represents device performance in general over a specified period of time.

How St. Jude Medical measures product performance

For ICDs, pacemakers and leads, we compile cumulative survival data based on the actuarial (or life-table) method of survival analysis. Product performance is plotted over a maximum of 20 years, with a minimum of 500 registered implants required for inclusion in the report, and a minimum sample size for each time period of 200 devices. The data for the analysis covers all documented implants in the United States, and includes the analysis of all domestically implanted pulse generators returned to St. Jude Medical. The analysis measures device performance to specification, and does not reflect medical complications such as infection, erosion, muscle stimulation or inhibition, or units implanted for fewer than 24 hours.

“Survival” refers to the proper function of the device, not the survival of the patient, and is intended to illustrate the calculated probability of device survival at a given point in time. A survival probability of 99% at five years, for example, indicates that at five years after implant, the system has a 1% risk of incurring a malfunction and/or normal battery depletion. All devices within each model family (except where noted) are included in the calculations.

St. Jude Medical lead analysis includes all leads returned to the company, as well as those registered as complaints but not returned. This method is used to ensure a conservative failure estimate for lead performance. At the time of this report, St. Jude Medical is not using data from leads registry studies.

Implanted cardiac leads are subjected to constant, complex flexural and torsional forces, interactions with other leads and/or the pulse generator device, plus other forces associated with cardiac contractions and patient physical activity, posture, and anatomical influences. As such, cardiac leads’ functional lifetimes are therefore limited and indeed, their functional longevity can not be predicted.

Because of the large size of the U.S. data pool, and because in general the same products are used both in the U.S. and internationally, we consider the data in this report to be accurately representative of each device’s performance, regardless of where in the world it was implanted.

Medical Advisory Board Review

Starting with this product performance report, we have asked our device and leads Medical Advisory Boards (MABs) to review in detail the performance data contained in this report prior to its release and publication on a semi-annual basis.

Returning Devices to St. Jude Medical

To maintain the continued accuracy of our performance reporting, we encourage physicians to notify our Patient Records department each time a device is removed from service as a result of device replacement or patient death. Our Patient Records department can be reached at 888-SJM-CRMD or 818-362-6822.

All explanted devices should be returned for evaluation. St. Jude Medical will provide upon request a Returned Products Kit comprised of a postage paid explant box with a shipping address label, a Removed Device Information (RDI) form, a biohazard bag, and biohazard labels to seal the explant box. This kit, ordering #N0004, can be ordered at no charge through St. Jude Medical Customer Service by any of the following means:

- Call SJM CRM Customer Service at 800-681-9293
- Fax SJM CRM Customer Service at 866-805-3405
- Email SJM CRM Customer Service at lit@sjm.com

In addition, we are always ready to respond to questions, comments or suggestions. You can reach us by phone at 888-SJM-CRMD, or on the web at www.sjm.com.

Definitions

The following definitions have been used in preparing this report. Where applicable, the asterisk denotes definitions taken verbatim or based on AdvaMed Proposal definitions.

Estimated Active Implants - The total number of registered implants of a device, adjusted to reduce the bias attributable to the potential underreporting of:

- Devices removed from service due to malfunction;
- Devices removed from service while in specification, such as devices removed due to changes in patient condition;
- Devices removed from service due to patient death; and
- Devices removed from service due to normal battery depletion.

Starting with this version of the St. Jude Medical product performance report, additional adjustments have been made to account for potential underreporting of patient deaths and devices removed from service due to battery depletion. For underreporting of devices removed from service due to battery depletion, in addition to returned product, we have also included product that has not been returned in the total count of normal battery depletion. By doing this, we see a steeper decline in the all cause survival probabilities in the latter years of the device life due to normal battery depletion. Also, we have revised our definition of normal battery depletion to 75% of projected longevity, consistent with the AdvaMed proposal and other product performance reports in our industry.

Malfunction - Having characteristics that are outside the performance limits established by the manufacturer while implanted and in service, as confirmed by laboratory analysis, except changes to characteristics due to normal battery depletion or induced malfunction. Device damage caused after or during explant is not considered a malfunction.*

Malfunction with Compromised Therapy - The condition when a device is found to have “malfunctioned,” as defined above, in a manner that compromised pacing or defibrillation therapy (including complete loss or partial degradation) while implanted and in service. Therapy is considered to have been compromised if no therapy is available or critical patient-protective pacing or defibrillation therapy is not available.* (A malfunction with compromised therapy does not imply that a patient has actually experienced a serious complication or death as a result of the malfunction although it does imply that the potential for a serious complication or death did exist during the period of the malfunction.)

Malfunction without Compromised Therapy - The condition when a device is found to have “malfunctioned,” as defined above, in a manner that did not compromise pacing or defibrillation therapy while implanted and in service, as confirmed by laboratory analysis. Therapy is not compromised as long as the critical patient-protective pacing and defibrillation therapies are available.

Changes in device setting that occur as intended by the design (for example, reversion to a designed Safe Mode or Power-On Reset [POR]) that do not result in loss of critical patient protective therapies but are the reported reasons for explant shall be categorized as a Malfunction without Compromised Therapy.*

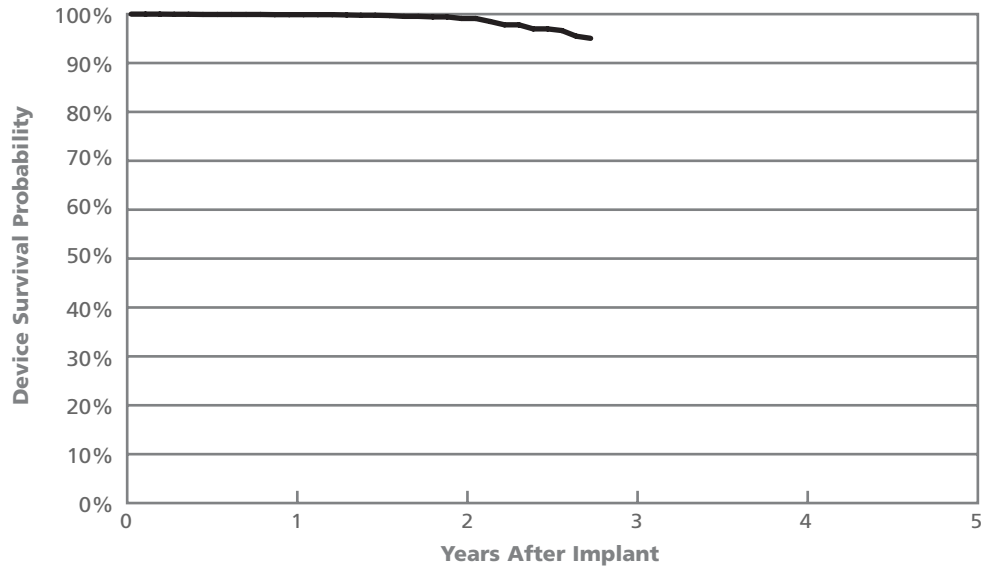
Normal Battery Depletion - The condition where a returned device met its electrical specification and reached its elective replacement indicator voltage:

- with implant duration meeting or exceeding the nominal predicted longevity at default shipped settings,* or
- with an implant duration exceeding 75% of its projected longevity, based on the longevity calculation tool using information from device usage and the actual device settings.* A device that does not exceed 75% of its projected longevity would be considered a malfunction (either with or without compromised therapy), provided that actual device setting information is available.

*AdvaMed Proposal - Requirements for Uniform Reporting of Clinical Performance of Pulse Generators.

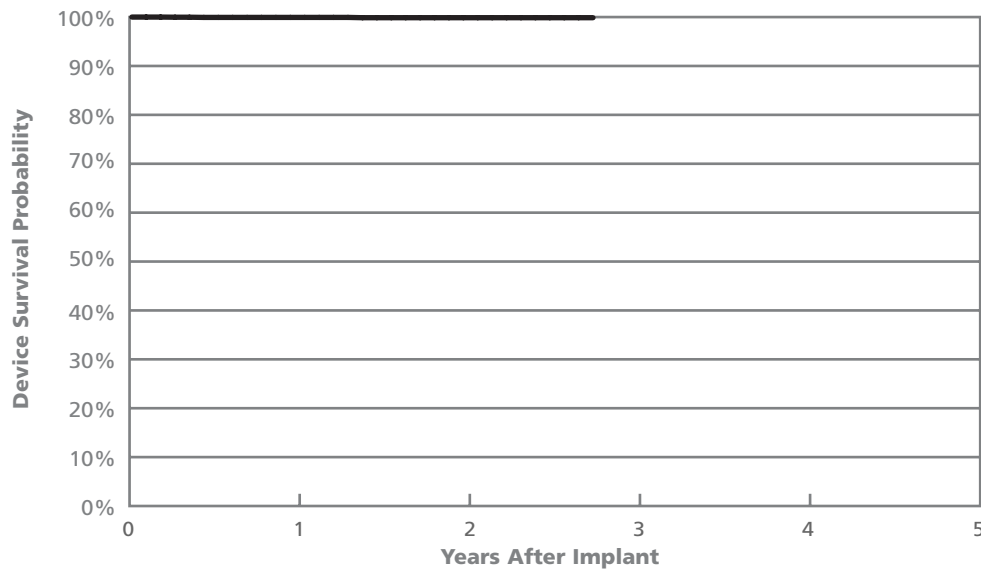
CRT ICDs Cardiac Resynchronization Therapy

Epic™ HF (Model V-338) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.89%	99.11%			
± 1 standard error	0.06%	0.20%			

Epic™ HF (Model V-338) Excluding Normal Battery Depletion



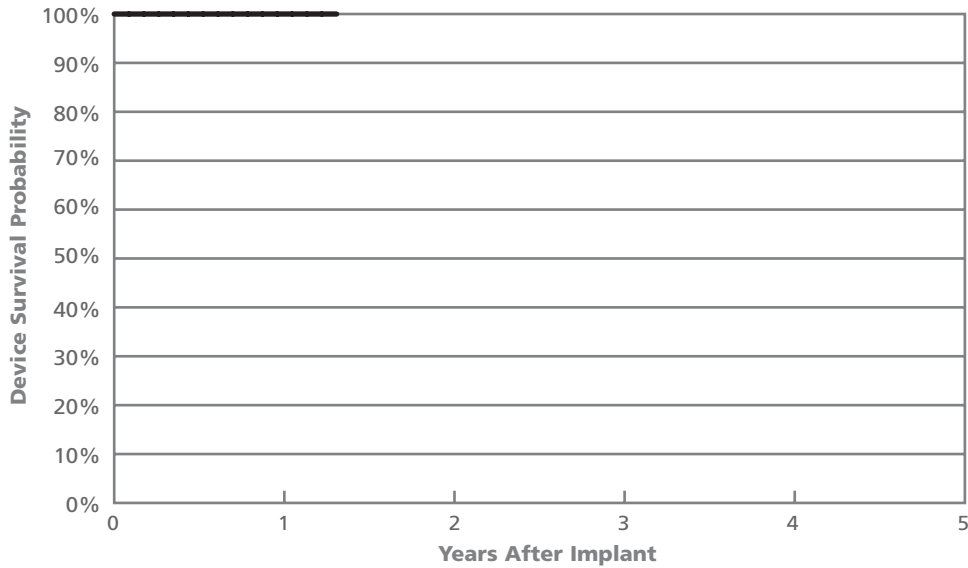
Year	1	2	3	4	5
Survival Probability	99.93%	99.87%			
± 1 standard error	0.05%	0.08%			

The Epic™ HF cardiac resynchronization therapy defibrillator was approved for use in June 2004.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
3,075 of these devices have been implanted.
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)



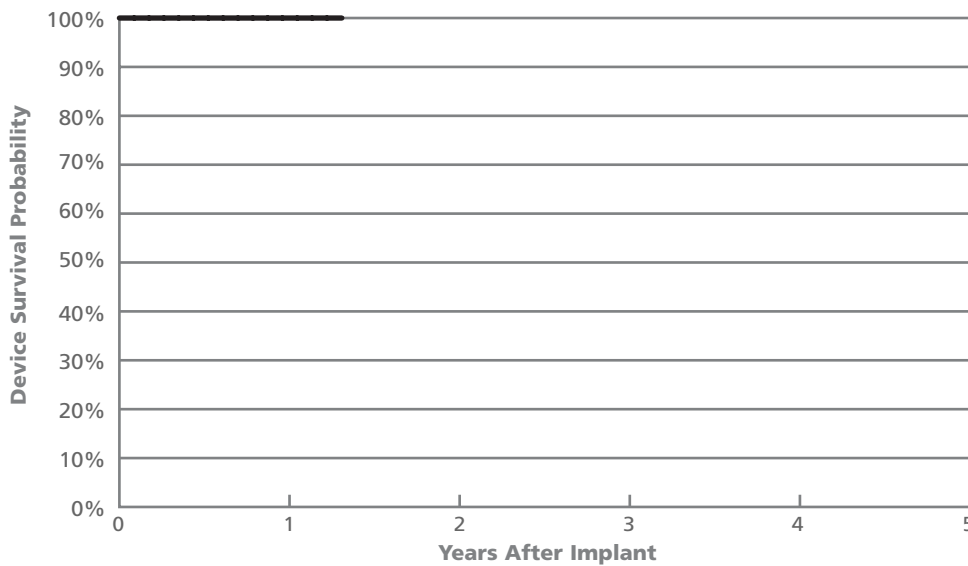
Cardiac Resynchronization Therapy CRT ICDs

Epic™ HF (Model V-337) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	100.00%				
± 1 standard error	0.00%				

Epic™ HF (Model V-337) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	100.00%				
± 1 standard error	0.00%				

The Epic™ HF cardiac resynchronization therapy defibrillator was approved for use in November 2004.

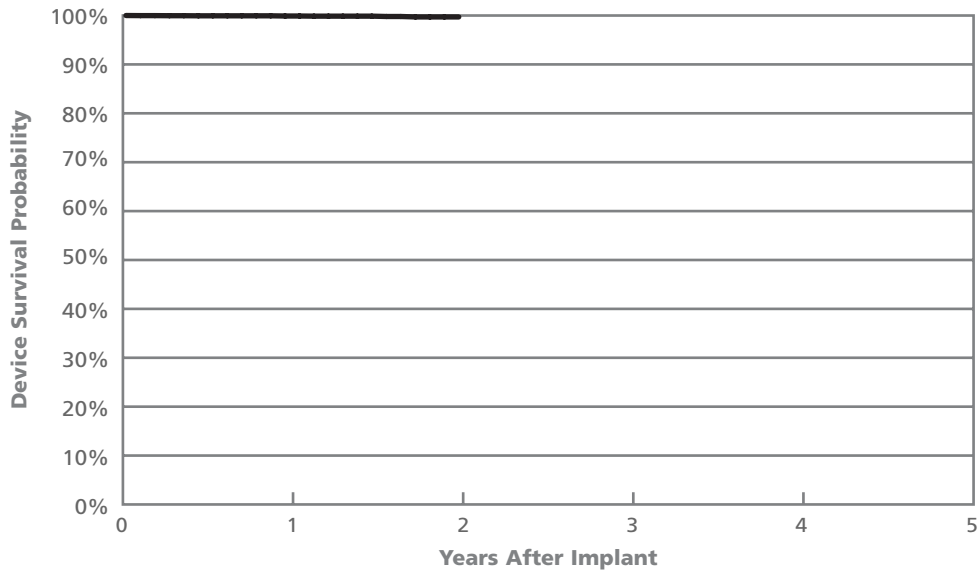
Survival probability (%) is based on returned product analysis as of June 30, 2006.

2,618 of these devices have been implanted.

(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

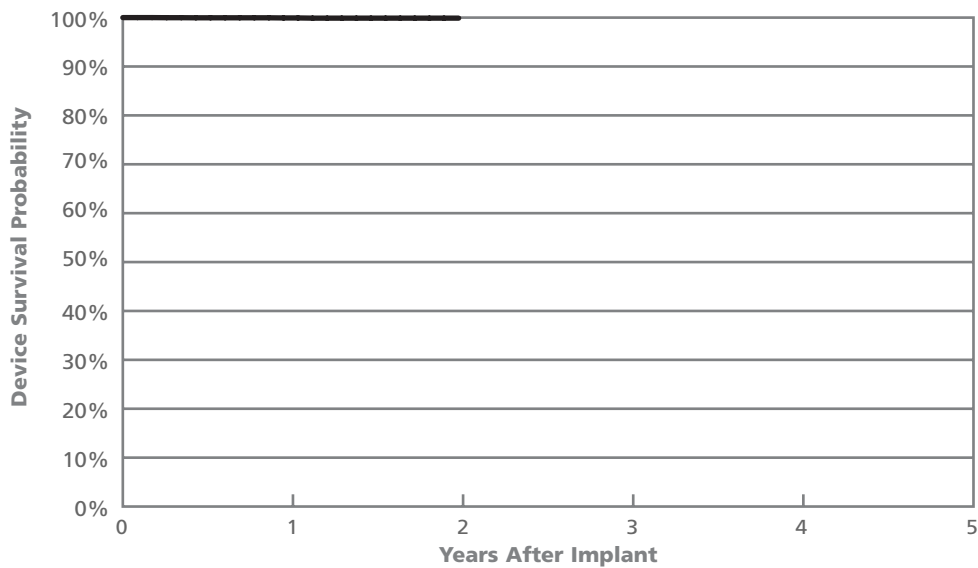
CRT ICDs Cardiac Resynchronization Therapy

Atlas®+ HF (Model V-340) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.90%	99.71%			
± 1 standard error	0.04%	0.13%			

Atlas®+ HF (Model V-340) Excluding Normal Battery Depletion

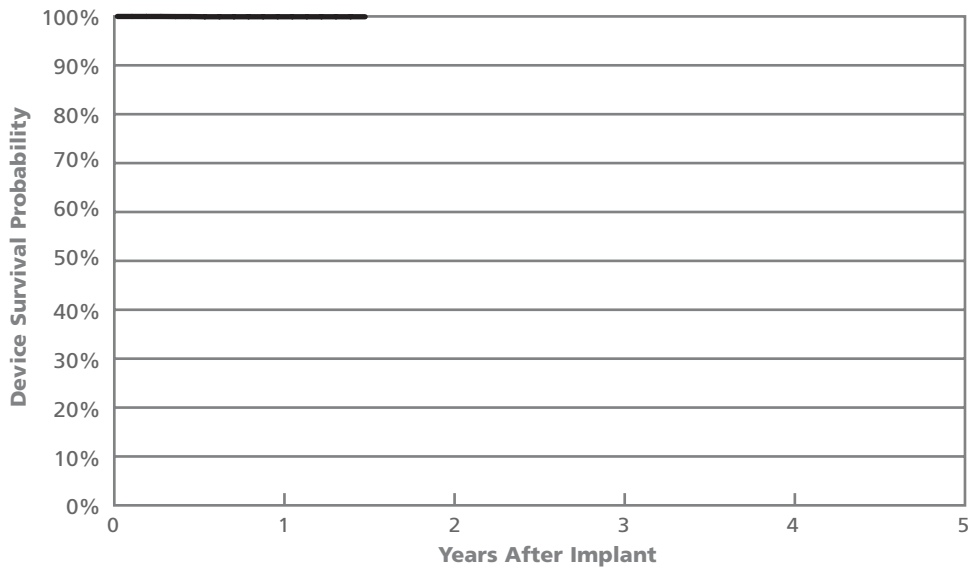


Year	1	2	3	4	5
Survival Probability	99.93%	99.86%			
± 1 standard error	0.03%	0.06%			

The Atlas®+ HF cardiac resynchronization therapy defibrillator was approved for use in June 2004.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
4,895 of these devices have been implanted.
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

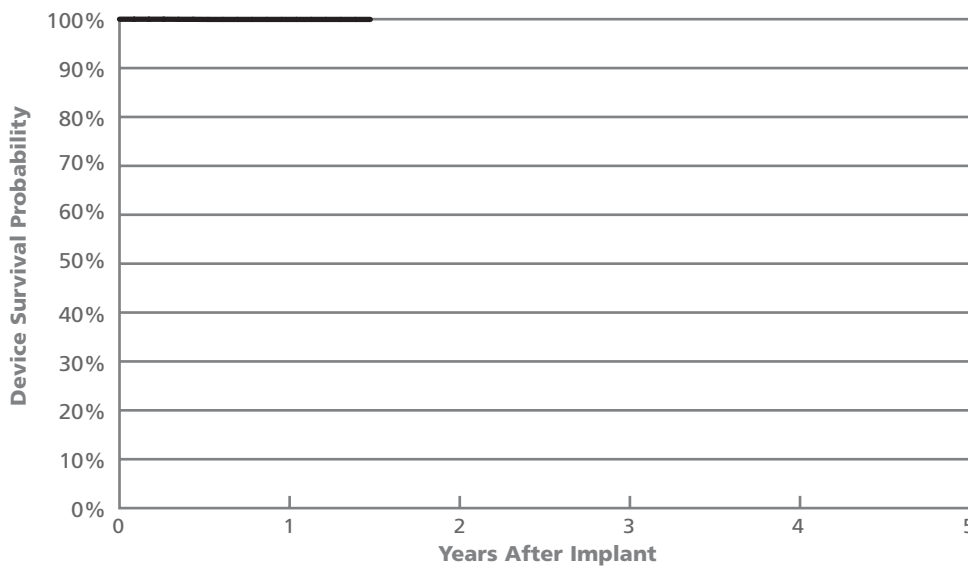
Cardiac Resynchronization Therapy CRT ICDs

Atlas®+ HF (Model V-343) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.93%				
± 1 standard error	0.04%				

Atlas®+ HF (Model V-343) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.95%				
± 1 standard error	0.03%				

The Atlas®+ HF cardiac resynchronization therapy defibrillator was approved for use in November 2004.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
10,506 of these devices have been implanted.
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

CRT ICDs Cardiac Resynchronization Therapy Summary Information*

Including Normal Battery Depletion

Model	Family	Market Release Date	Registered US implants	Estimated Active US implants	Malfunctions w/ Compromised Therapy (not under advisory)	Malfunctions w/o Compromised Therapy	Total Malfunctions	Total Normal Battery Depletion	Survival Probability	
									1 year	2 years
V-338	Epic HF	Jun-04	3075	2472	2	3	5	32	99.89%	99.11%
V-337	Epic HF	Nov-04	2618	2415	0	0	0	0	100.00%	
V-340	Atlas + HF	Jun-04	4895	4112	3	1	4	3	99.90%	99.71%
V-343	Atlas + HF	Nov-04	10506	9820	2	1	3	1	99.93%	

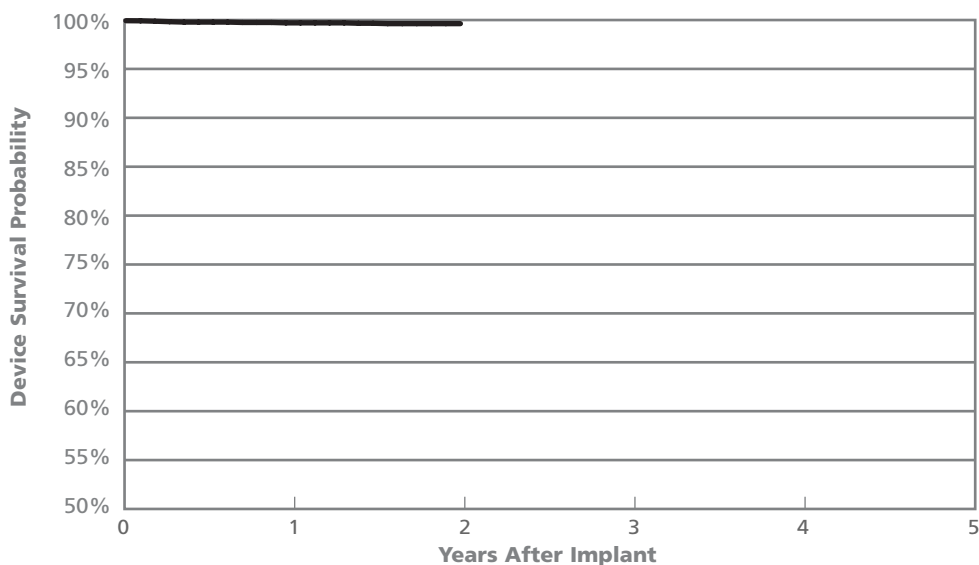
Excluding Normal Battery Depletion

Model	Family	Market Release Date	Registered US implants	Estimated Active US implants	Malfunctions w/ Compromised Therapy (not under advisory)	Malfunctions w/o Compromised Therapy	Total Malfunctions	Survival Probability	
								1 year	2 years
V-338	Epic HF	Jun-04	3075	2472	2	3	5	99.93%	99.87%
V-337	Epic HF	Nov-04	2618	2415	0	0	0	100.00%	
V-340	Atlas + HF	Jun-04	4895	4112	3	1	4	99.93%	99.86%
V-343	Atlas + HF	Nov-04	10506	9820	2	1	3	99.95%	

*Based on returned product analysis as of June 30, 2006.

Cardiac Resynchronization Therapy Left Heart Leads

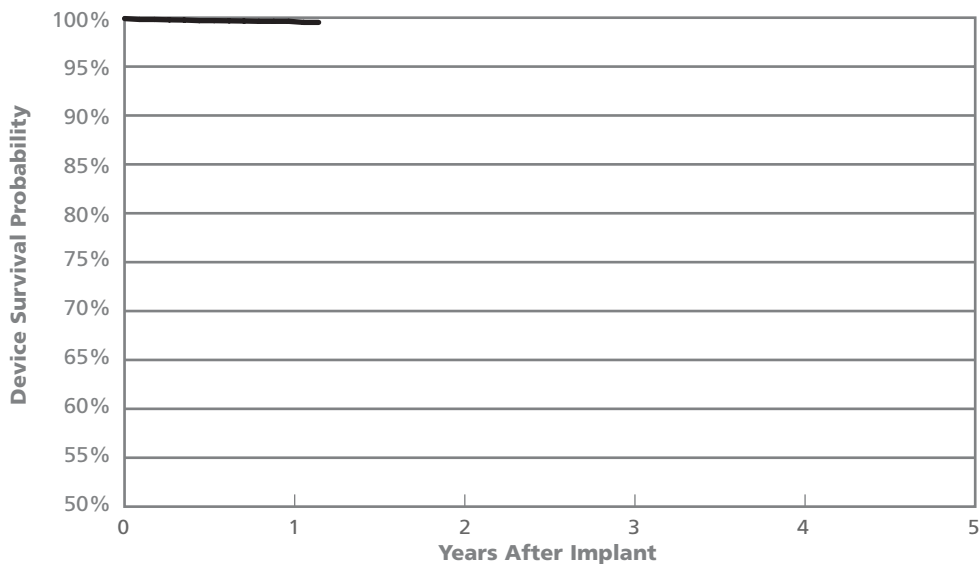
QuickSite® (Model 1056K) Unipolar Polyurethane/Silicone Left Heart Lead



Year	1	2	3	4	5
Survival Probability	99.71%	99.63%			
± 1 standard error	0.07%	0.09%			

Data is current as of June 30, 2006
6,009 of these leads have been implanted.
(Approval date: June 2004)

QuickSite® (Model 1056T) Bipolar Polyurethane/Silicone Left Heart Lead



Year	1	2	3	4	5
Survival Probability	99.63%				
± 1 standard error	0.07%				

Data is current as of June 30, 2006
12,749 of these leads have been implanted.
(Approval date: April 2005)

Left Heart Leads **Cardiac Resynchronization Therapy** Summary Information*

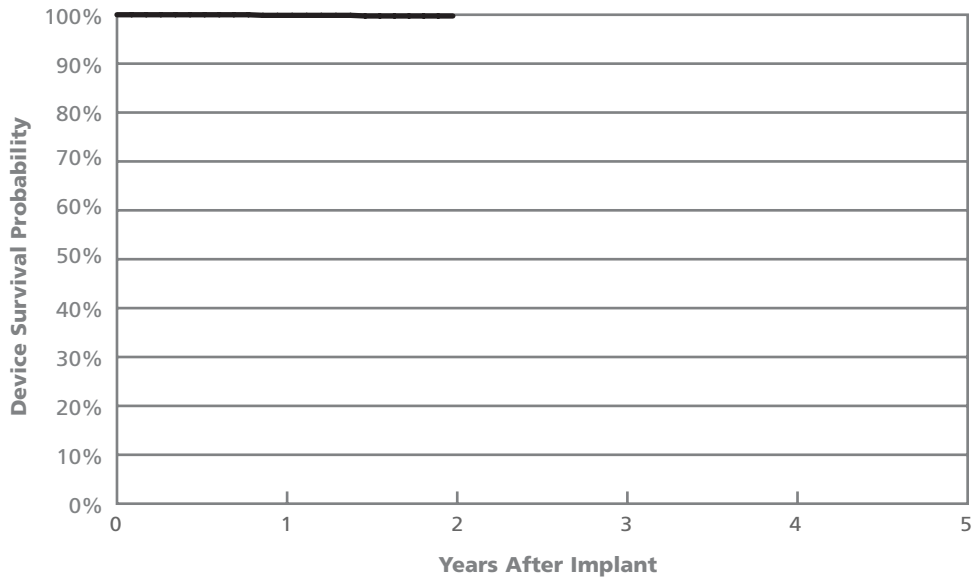
Laboratory analysis of all returned leads from the U.S. is summarized by model for the most recently market released cardiac resynchronization therapy (CRT) lead models included in this Product Performance Report. The Laboratory analysis results are categorized into one of the following three categories:

- **Implant Damage** - Obvious damage incurred at the time of implant, including but not limited to insulation cuts and damage, helix overtorque, and stylet perforation.
- **Electrical Failure** - A disruption in the insulation or conductors resulting in compromised electrical performance.
- **Other** - Includes other sources of malfunction not attributed to damage incurred at implant and not resulting in compromised electrical failures. This category also includes any partial leads returned with an alleged malfunction that could not be confirmed.

Model(s)	US Market Release Date	Registered US implants	Estimated Active US implants	Implant Damage	Electrical Failure	Other
1056K	Jun-04	6009	4918	75	2	63
1056T	April-05	12749	11765	49	0	112

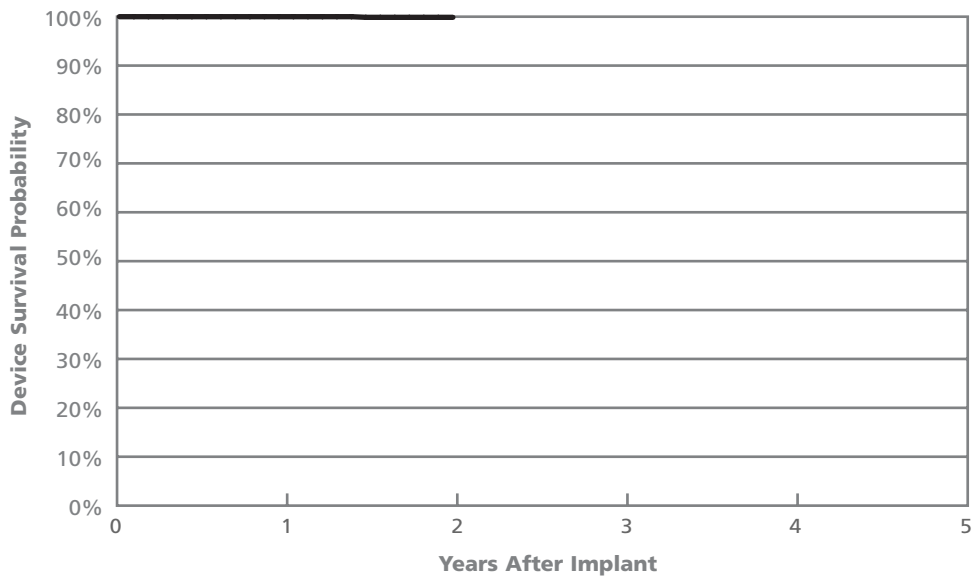
**Based on returned product analysis as of June 30, 2006.*

Atlas® DR (Model V-242) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.98%	99.75%			
± 1 standard error	0.08%	0.16%			

Atlas® DR (Model V-242) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	100.00%	99.87%			
± 1 standard error	0.00%	0.13%			

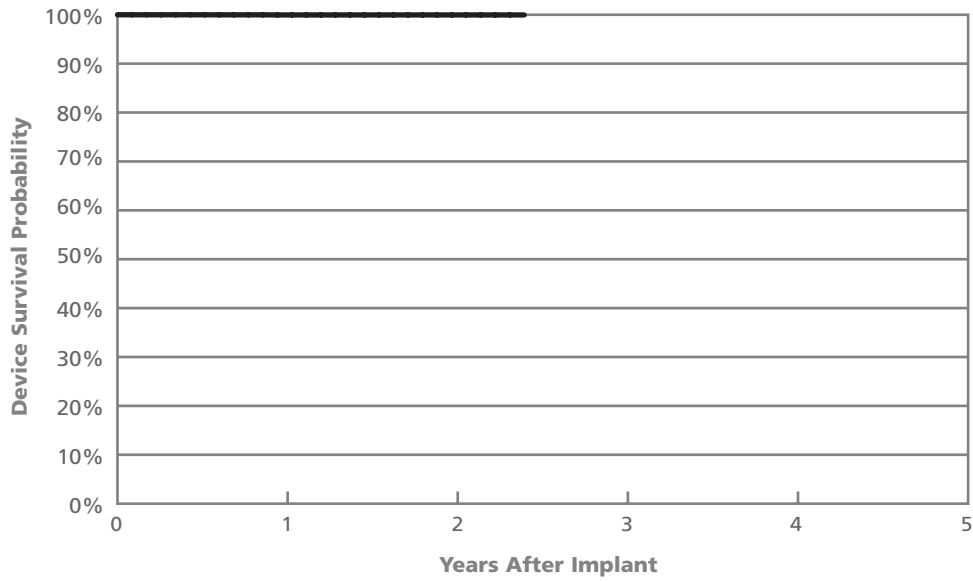
The Atlas®+ DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in October 2003.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

3,544 of these devices have been implanted.

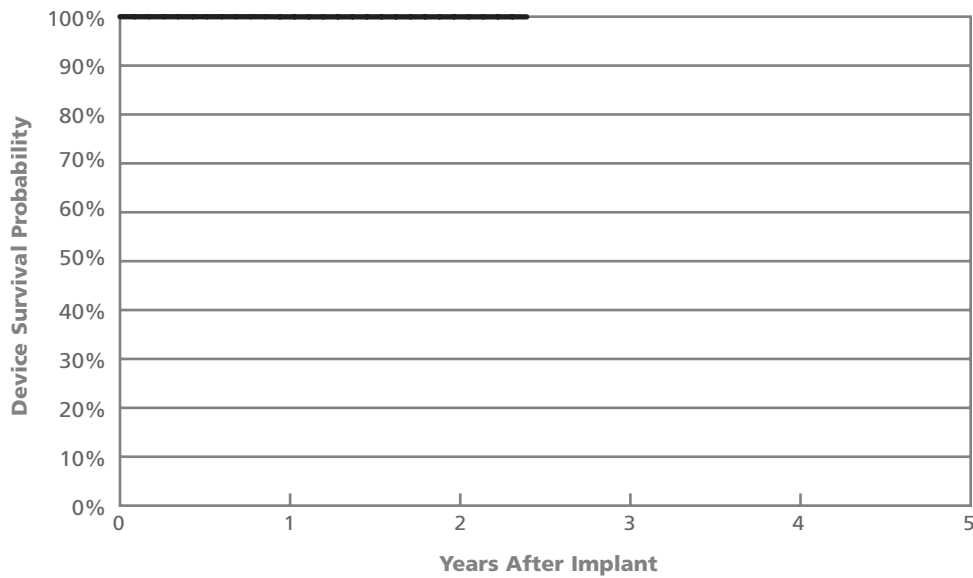
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

**Atlas® + DR
(Model V-243)
Including Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.96%	99.96%			
± 1 standard error	0.02%	0.03%			

**Atlas® + DR
(Model V-243)
Excluding Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.97%	99.97%			
± 1 standard error	0.01%	0.02%			

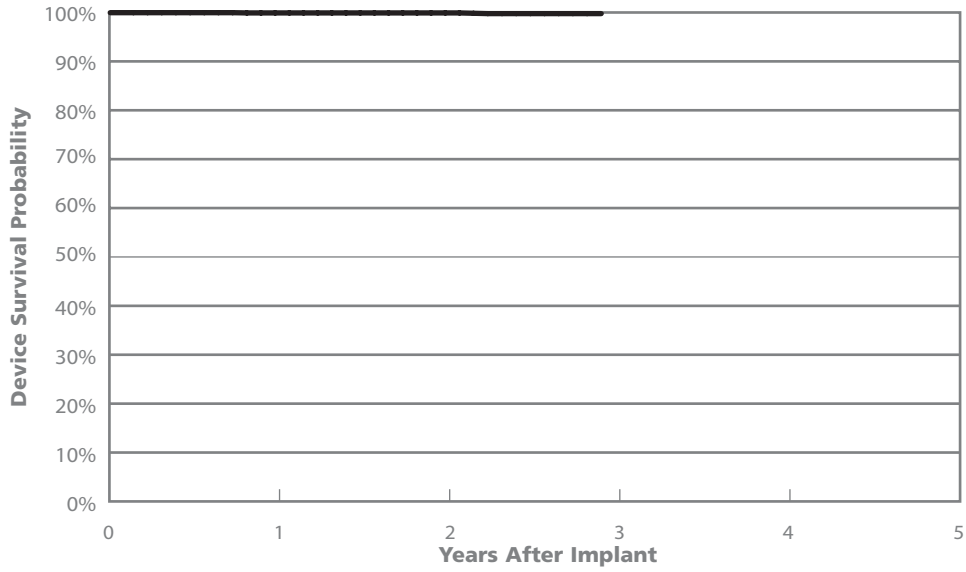
The Atlas®+ DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in October 2003.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

13,518 of these devices have been implanted.

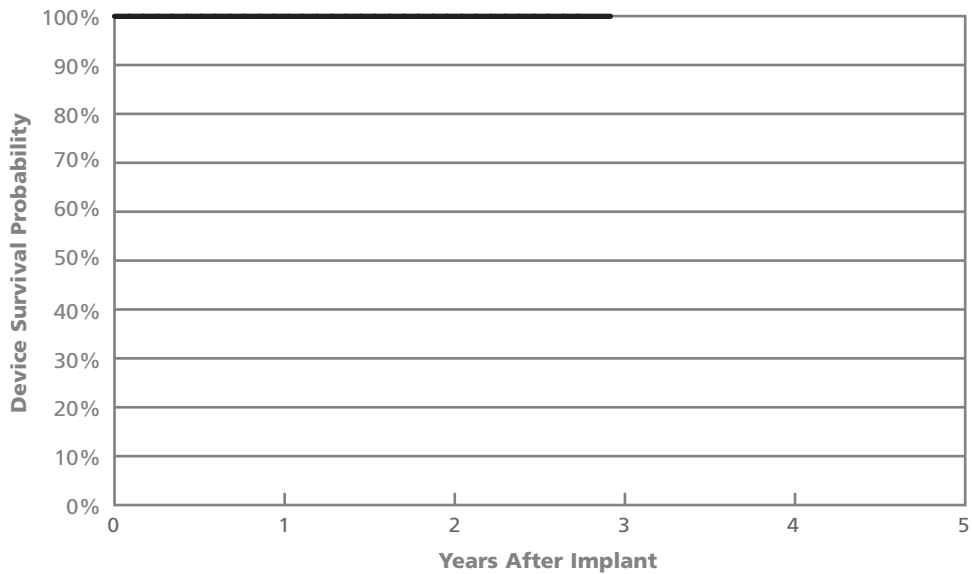
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

Epic™ + DR (Model V-236) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.91%	99.91%	99.91%	0%	0%
± 1 standard error	0.06%	0.06%	0.06%		

Epic™ + DR (Model V-236) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.96%	99.96%	99.96%	0%	0%
± 1 standard error	0.04%	0.04%	0.04%		

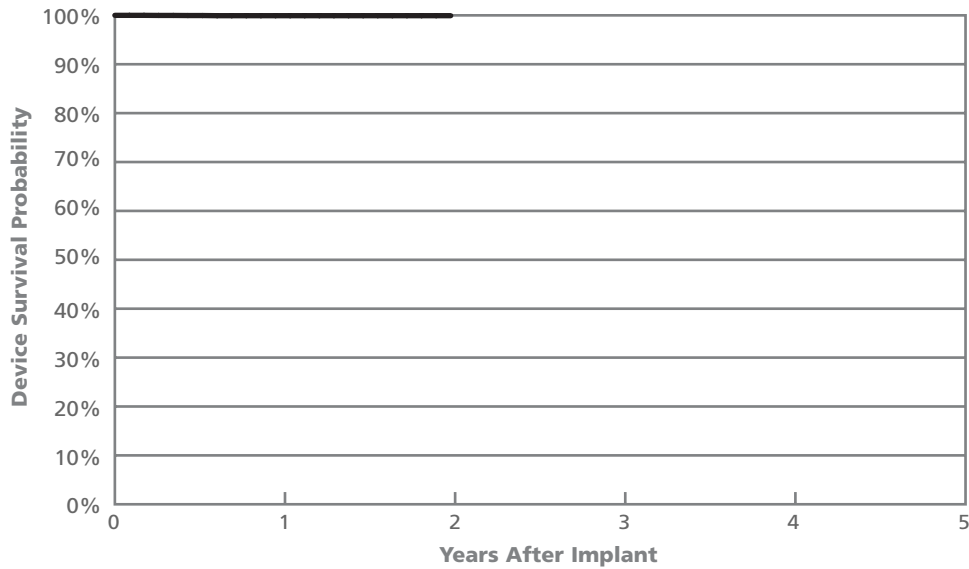
The Epic™ + DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in April 2003.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

2,331 of these devices have been implanted.

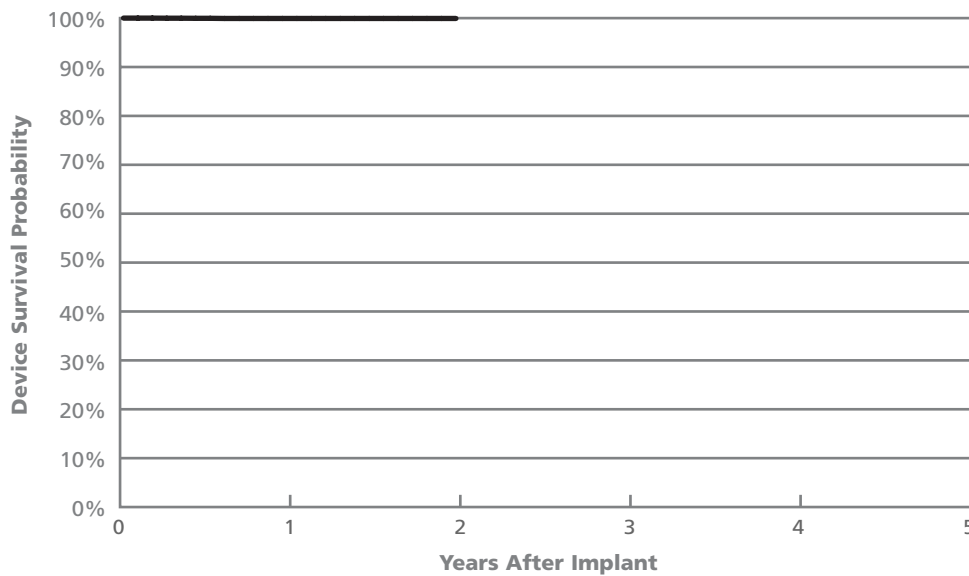
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

**Epic™ + DR
(Model V-239)
Including Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.93%	99.93%			
± 1 standard error	0.04%	0.04%			

**Epic™ + DR
(Model V-239)
Excluding Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.93%	99.93%			
± 1 standard error	0.04%	0.04%			

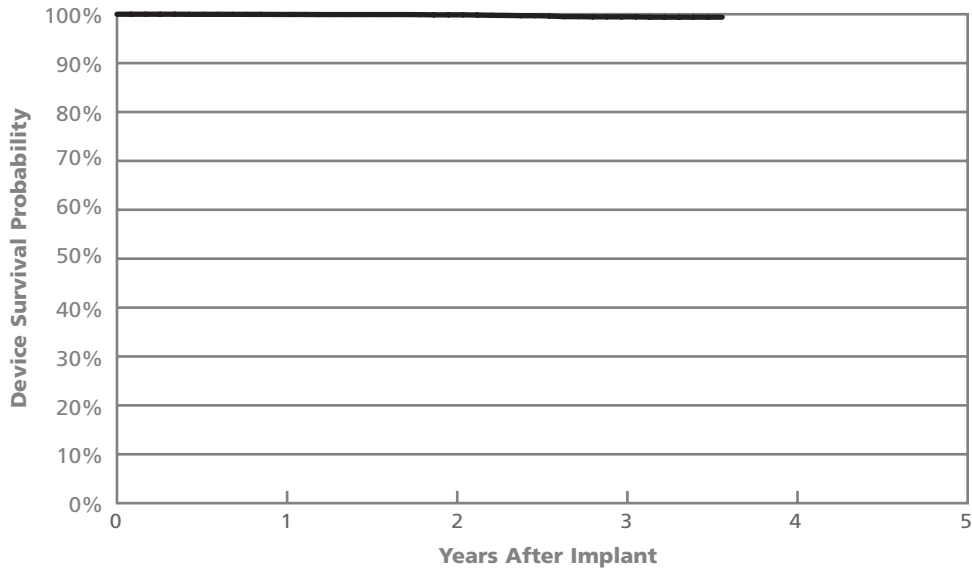
The Epic™ + DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in October 2003.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

6,051 of these devices have been implanted.

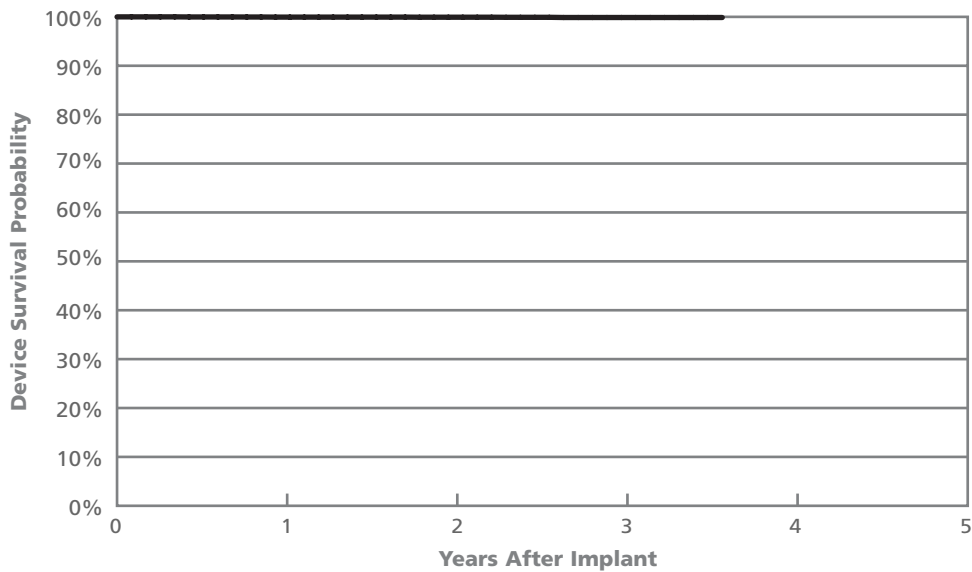
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

Epic™ DR (Model V-235) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.95%	99.87%	99.46%		
± 1 standard error	0.02%	0.05%	0.12%		

Epic™ DR (Model V-235) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.95%	99.93%	99.87%		
± 1 standard error	0.02%	0.03%	0.05%		

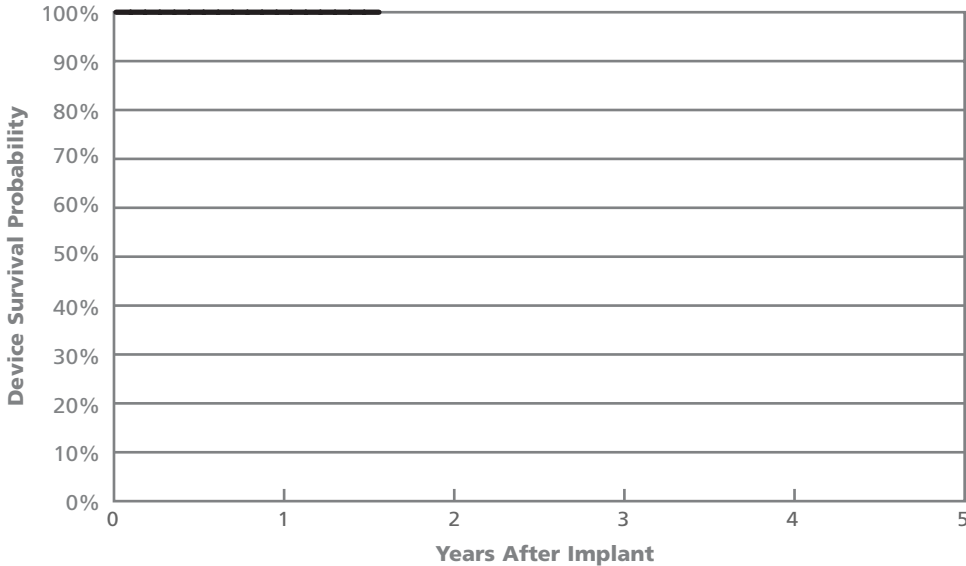
The Epic™ DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in July 2002.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

6,566 of these devices have been implanted.

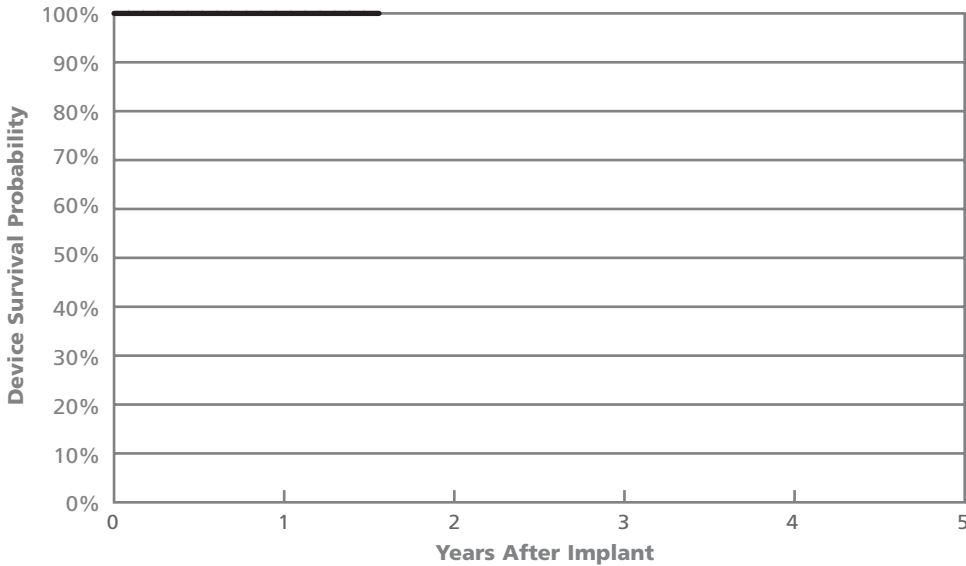
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

Epic™ DR
(Model V-233)
Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	100%				
± 1 standard error	0.00%				

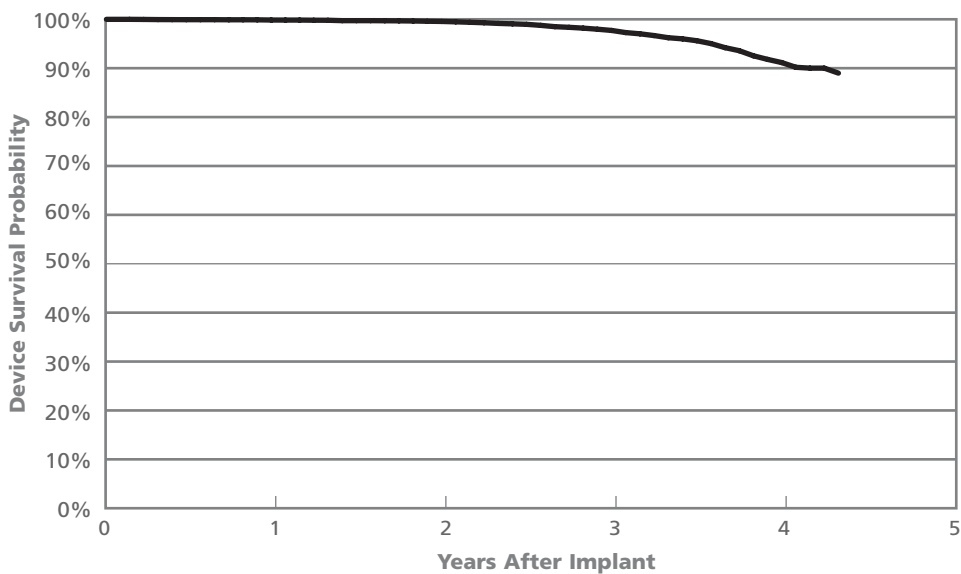
Epic™ DR
(Model V-233)
Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	100%				
± 1 standard error	0.00%				

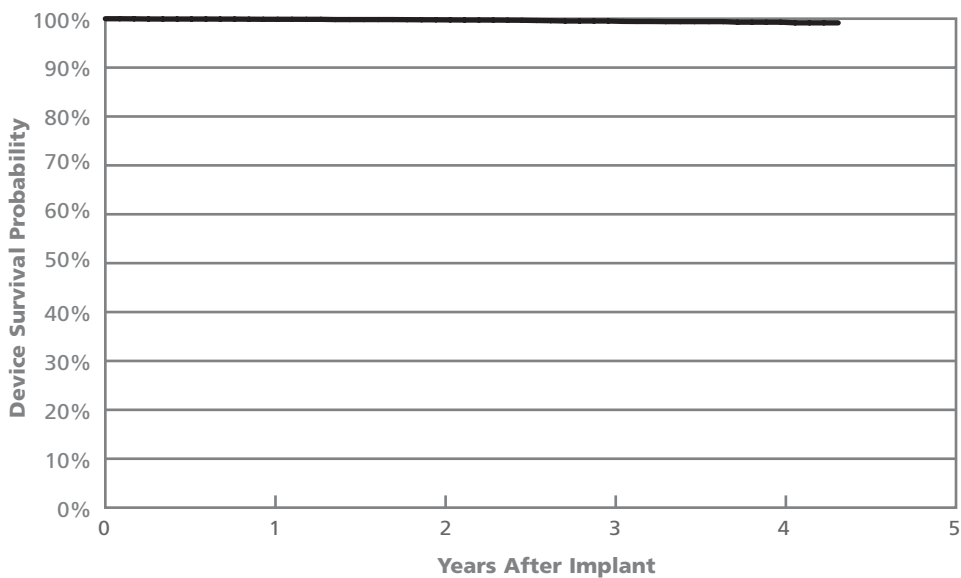
The Epic™ DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in October 2003.
 Survival probability (%) is based on returned product analysis as of June 30, 2006.
 1,460 of these devices have been implanted.
 (Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

Atlas® DR (Model V-240) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.85%	99.56%	97.72%	91.15%	
± 1 standard error	0.04%	0.07%	0.19%	0.54%	

Atlas® DR (Model V-240) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.88%	99.77%	99.53%	99.29%	
± 1 standard error	0.00%	0.00%	0.00%	0.00%	

The Atlas® DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in December 2001.

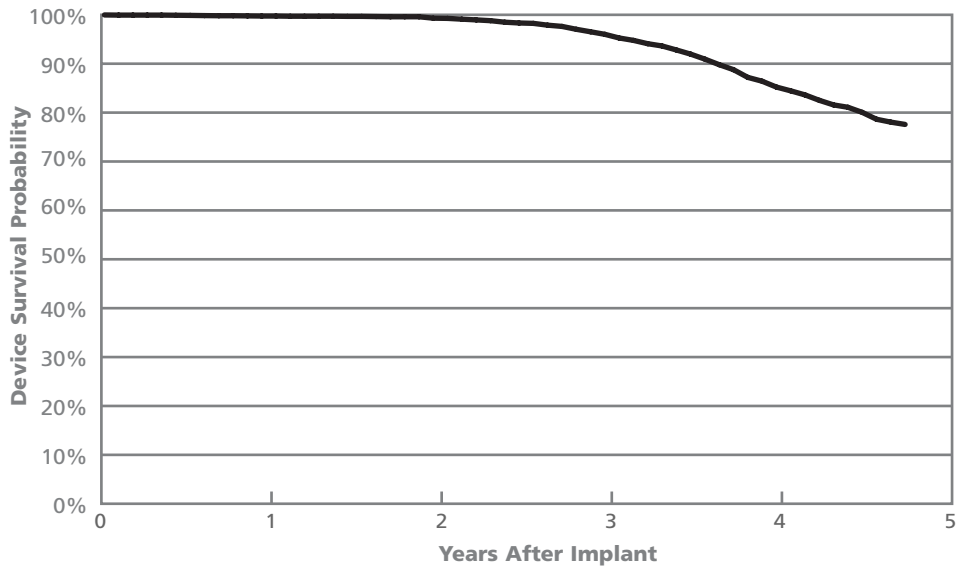
This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

8,818 of these devices have been implanted.

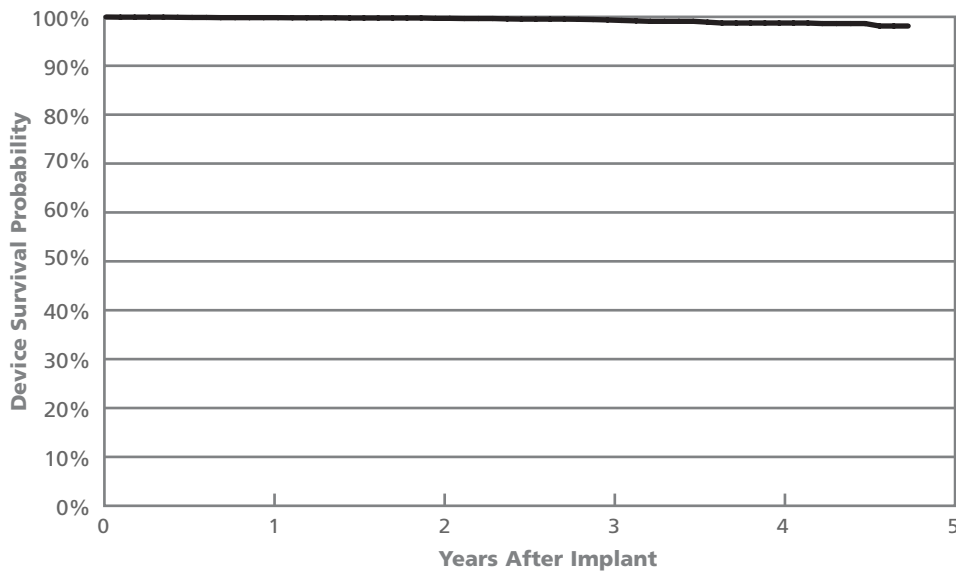
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

**Photon® μ DR
(Model V-232)
Including Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.75%	99.31%	96.01%	85.22%	
± 1 standard error	0.08%	0.12%	0.37%	0.77%	

**Photon® μ DR
(Model V-232)
Excluding Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.84%	99.70%	99.37%	98.74%	
± 1 standard error	0.07%	0.09%	0.14%	0.24%	

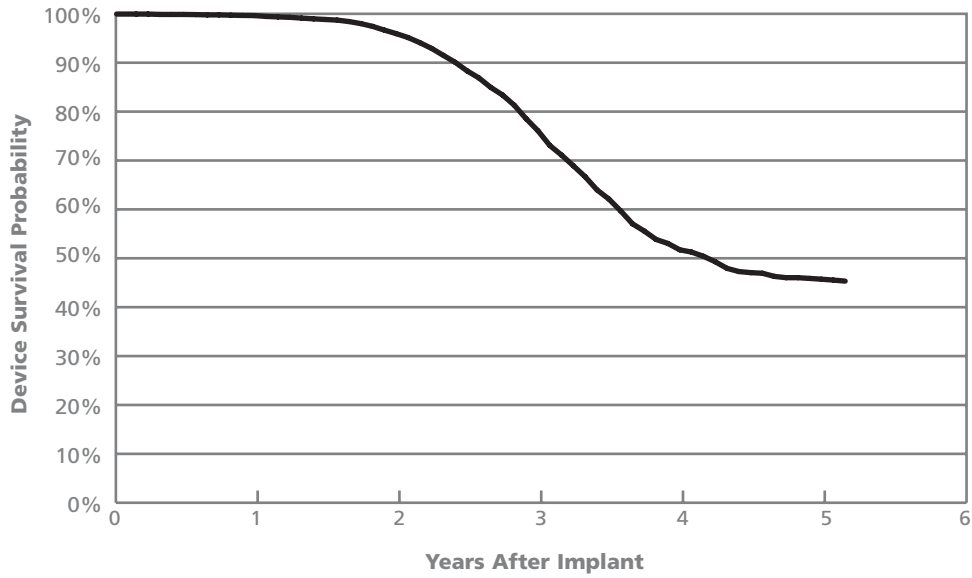
The Photon® μ DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in June 2001.

This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

3,402 of these devices have been implanted.

Photon® DR (Model V-230HV)



Year	1	2	3	4	5	6
Survival Probability	99.64%	95.95%	76.08%	51.73%	45.72%	
± 1 standard error	0.10%	0.32%	0.81%	1.17%	1.29%	

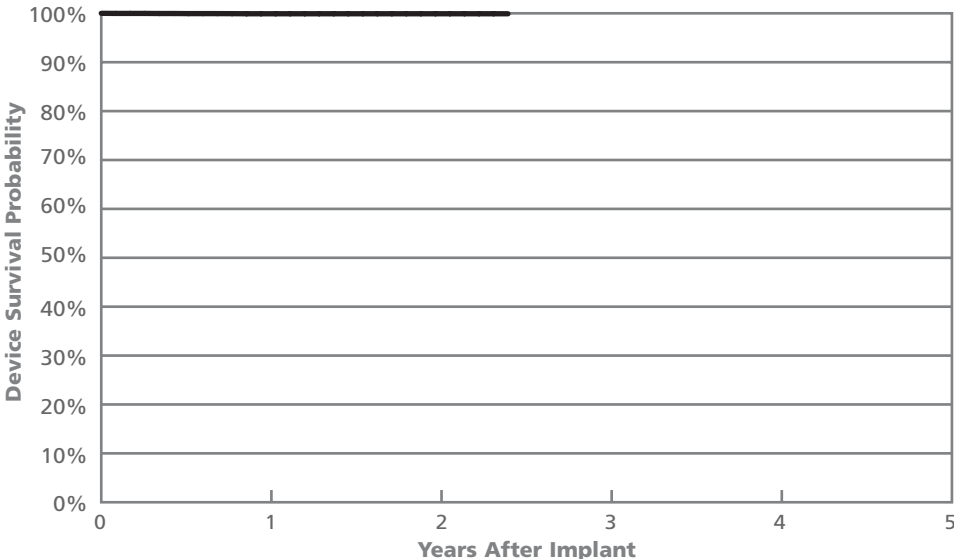
The Photon® DR dual-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in October 2000.

This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

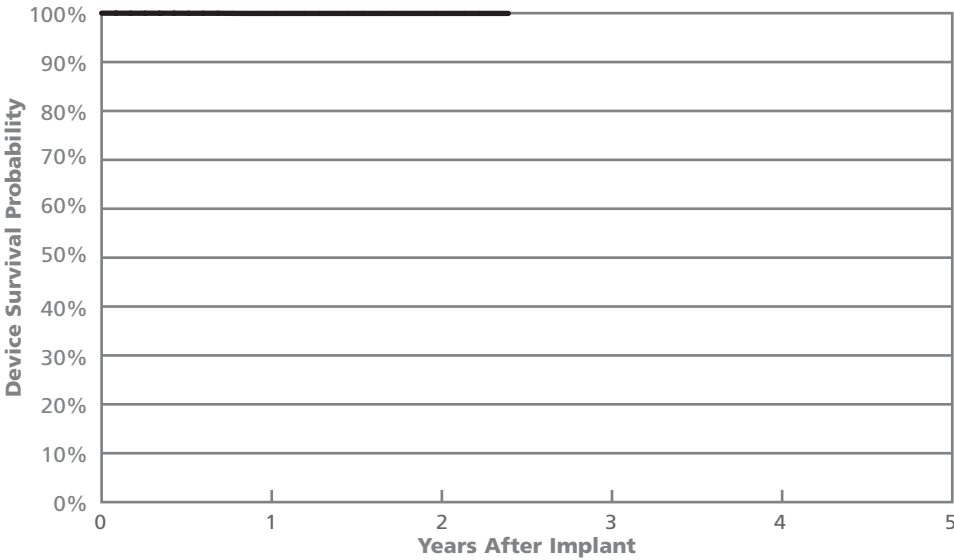
3,909 of these devices have been implanted.

**Atlas®+ VR
(Model V-193)
Including Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.91%	99.91%	99.91%	99.91%	99.91%
± 1 standard error	0.03%	0.03%	0.03%	0.03%	0.03%

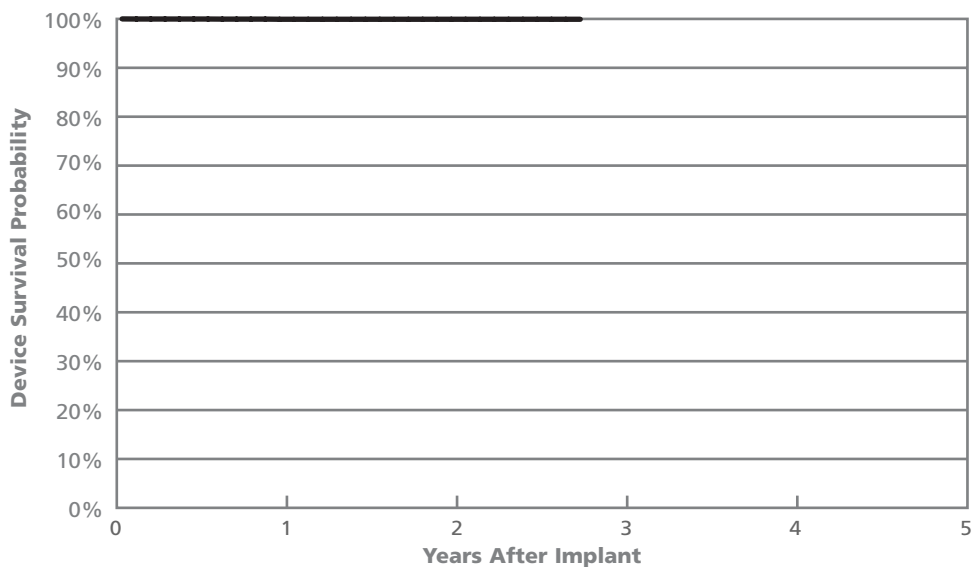
**Atlas®+ VR
(Model V-193)
Excluding Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.95%	99.95%	99.95%	99.95%	99.95%
± 1 standard error	0.03%	0.03%	0.03%	0.03%	0.03%

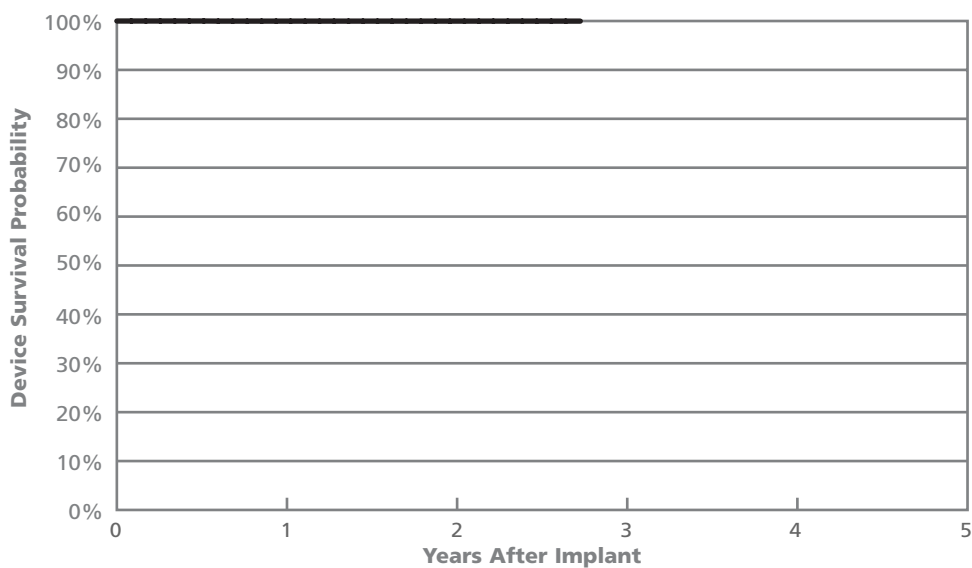
The Atlas®+ VR single-chamber-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in October 2003. Survival probability (%) is based on returned product analysis as of June 30, 2006. 13,604 of these devices have been implanted. (Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

Epic™+ VR (Model V-196) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.93%	99.93%			
± 1 standard error	0.03%	0.04%			

Epic™+ VR (Model V-196) Excluding Normal Battery Depletion



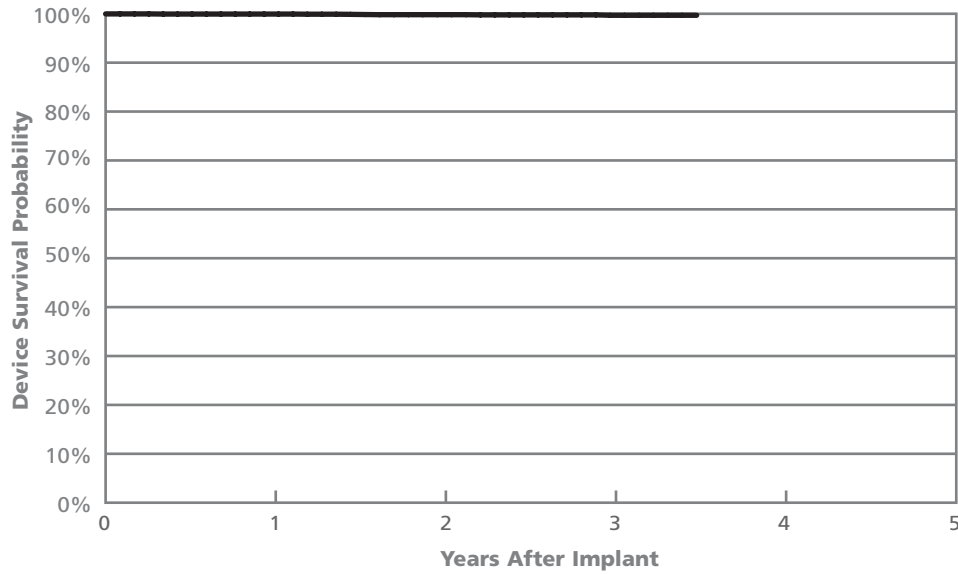
Year	1	2	3	4	5
Survival Probability	99.98%	99.98%			
± 1 standard error	0.02%	0.02%			

The Epic™+ VR single-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in April 2003. Survival probability (%) is based on returned product analysis as of June 30, 2006.

6,442 of these devices have been implanted.

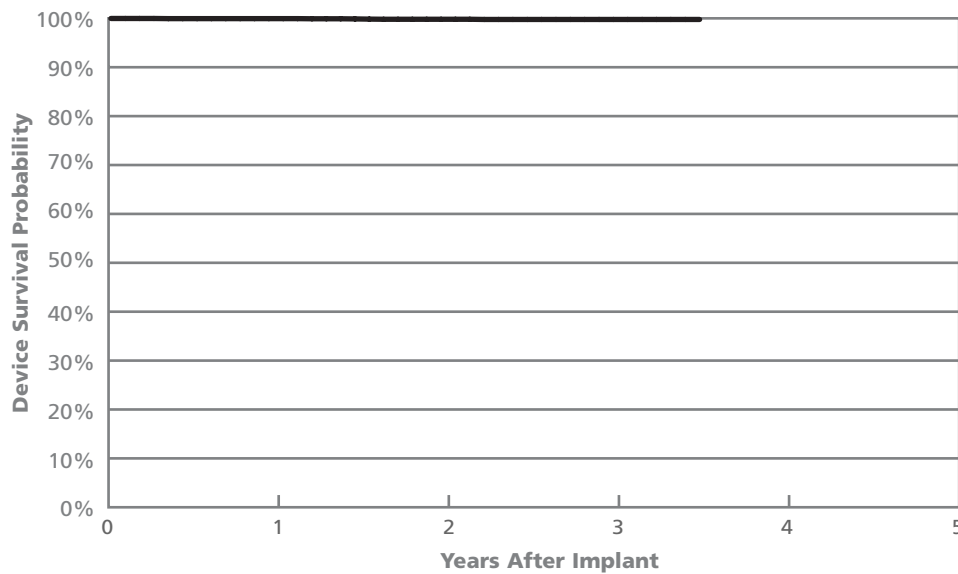
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

**Epic™ VR
(Model V-197)
Including Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.94%	99.81%	99.69%		
± 1 standard error	0.04%	0.08%	0.09%		

**Epic™ VR
(Model V-197)
Excluding Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.94%	99.81%	99.77%		
± 1 standard error	0.04%	0.08%	0.09%		

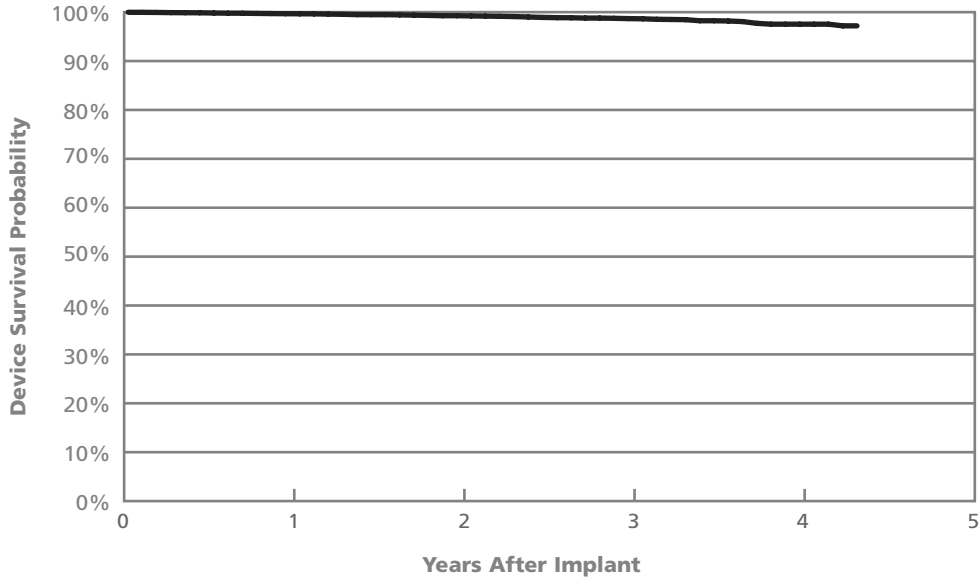
The Epic™ VR single-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in July 2002.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

3,657 of these devices have been implanted.

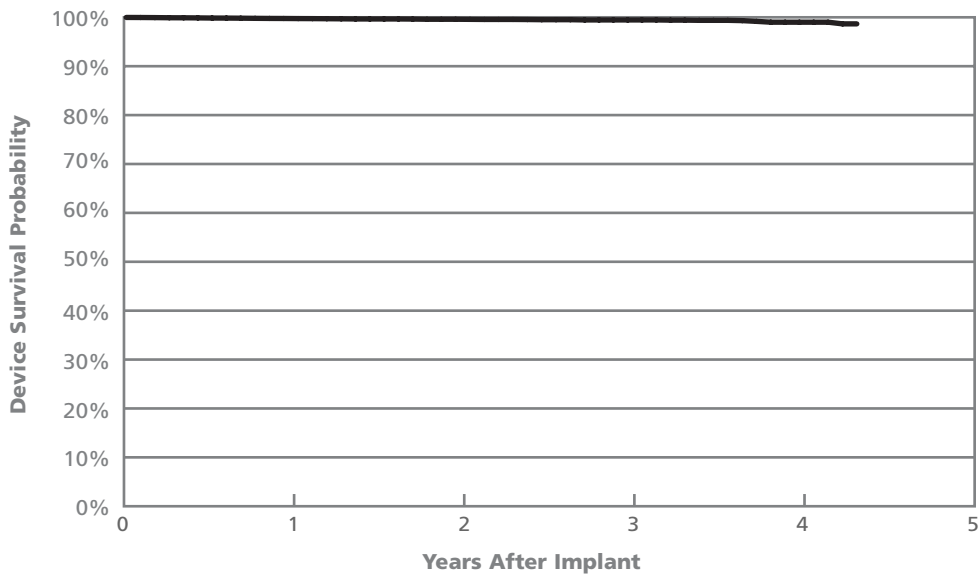
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

Atlas® VR (Model V-199) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.68%	99.27%	98.68%	97.54%	
± 1 standard error	0.07%	0.11%	0.16%	0.30%	

Atlas® VR (Model V-199) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.76%	99.60%	99.46%	99.00%	
± 1 standard error	0.06%	0.08%	0.10%	0.20%	

The Atlas® VR single-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in December 2001.

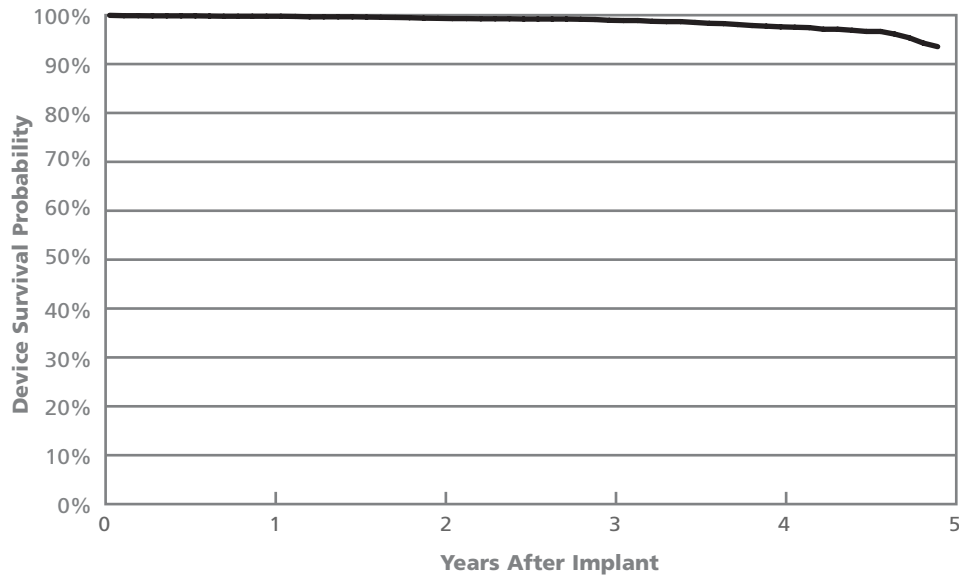
This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

7,076 of these devices have been implanted.

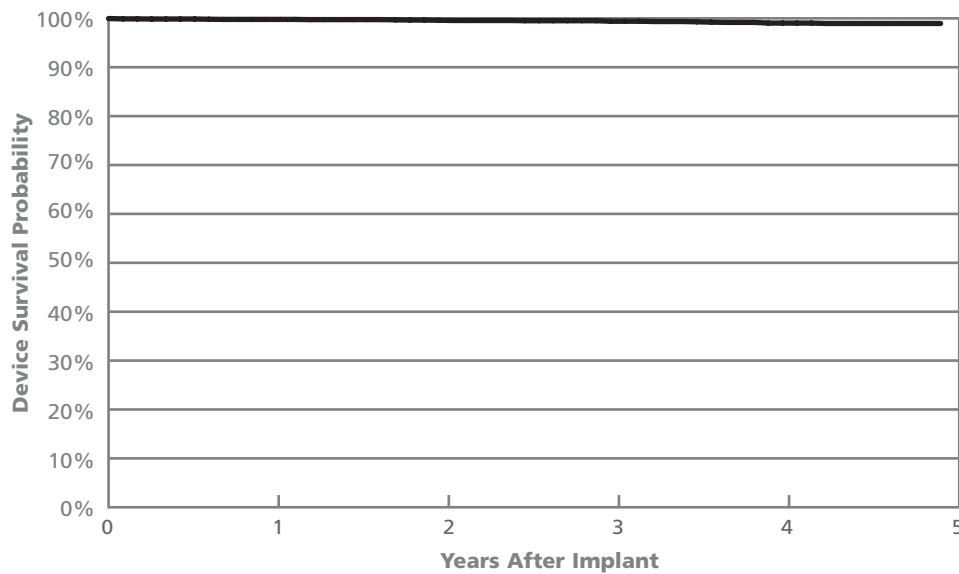
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

**Photon® μ VR
(Model V-194)
Including Normal Battery Depletion**



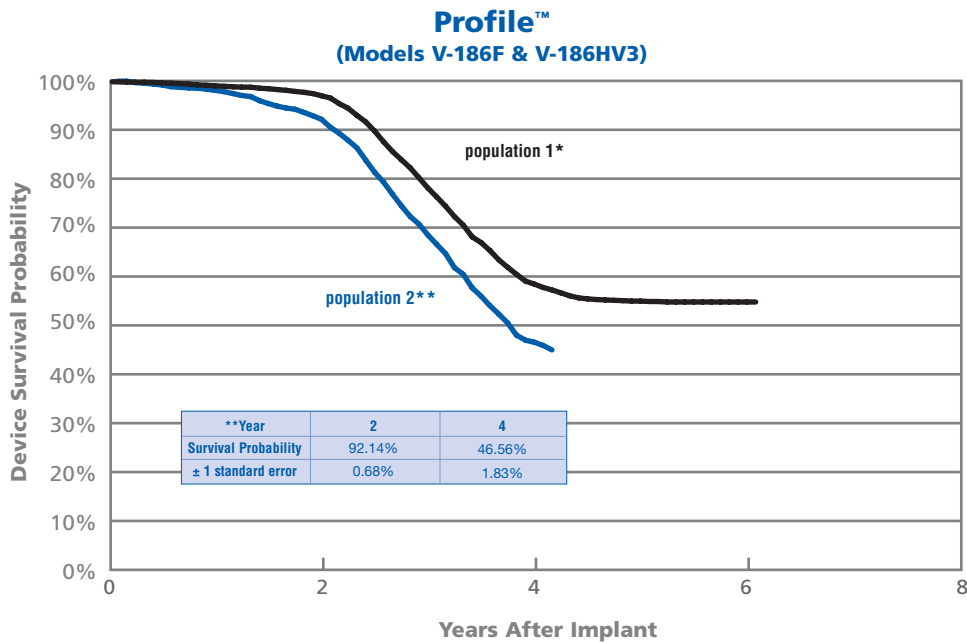
Year	1	2	3	4	5
Survival Probability	99.78%	99.36%	98.95%	97.61%	
± 1 standard error	0.09%	0.16%	0.20%	0.34%	

**Photon® μ VR
(Model V-194)
Excluding Normal Battery Depletion**



Year	1	2	3	4	5
Survival Probability	99.78%	99.61%	99.41%	99.03%	
± 1 standard error	0.09%	0.12%	0.14%	0.22%	

The Photon® μ VR single-chamber, rate-responsive implantable cardioverter defibrillator was approved for use in June 2001. This model is no longer being manufactured. Survival probability (%) is based on returned product analysis as of June 30, 2006. 2,832 of these devices have been implanted.



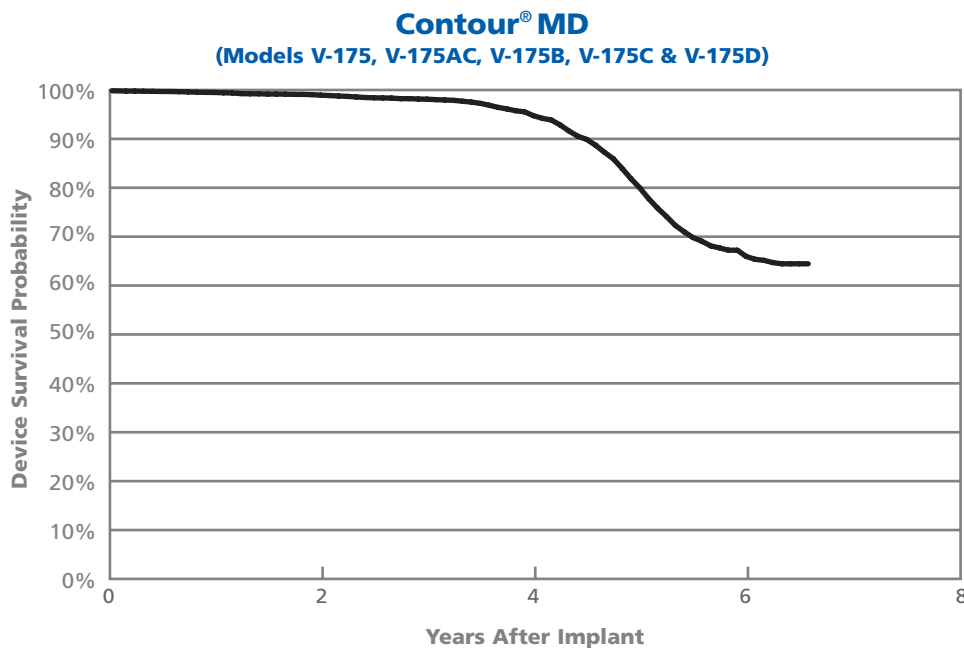
Year	2	4	6	8
Survival Probability	96.96%	58.45%	54.78%	
± 1 standard error	0.26%	1.00%	1.07%	

The Profile™ series of single-chamber implantable cardioverter defibrillators was approved for use in November 1998. These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

*These devices are not under advisory. 4,235 of these devices were implanted.

**This group of devices is subject to an advisory. See pp. 84-87 for more information. 1,773 of these devices were implanted.



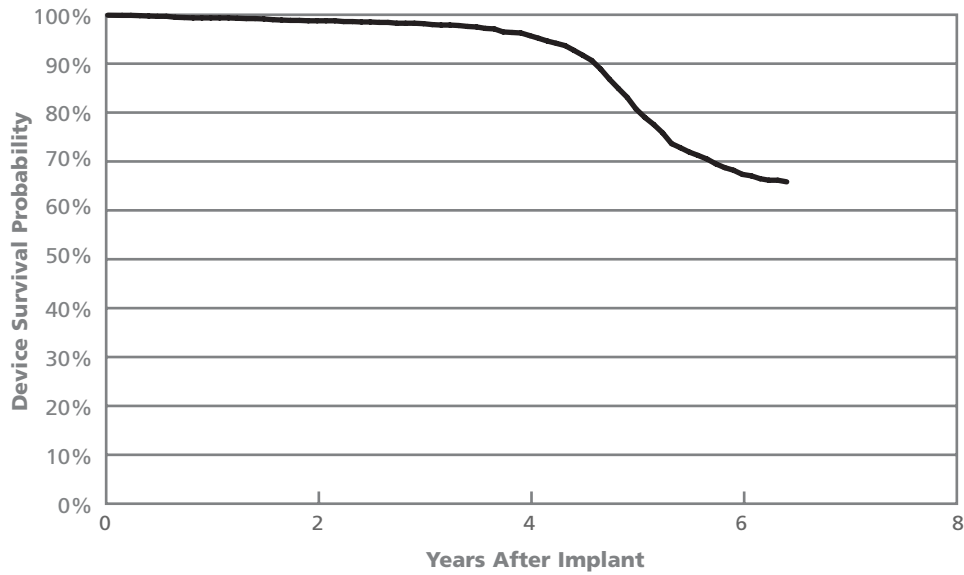
Year	2	4	6	8
Survival Probability	98.94%	94.74%	65.96%	
± 1 standard error	0.15%	0.38%	1.33%	

The Contour® MD series of single-chamber implantable cardioverter defibrillators was approved for use in October 1998.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

4,952 of these devices have been implanted.

Contour® II
(Models V-185, V-185AC, V-185B, V-185C & V-185D)



Year	2	4	6	8
Survival Probability	98.77%	95.74%	67.35%	
± 1 standard error	0.29%	0.56%	1.92%	

The Contour® II series was approved for use in February 1998.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
1,672 of these devices have been implanted.

ICDs Summary Information*

Including Normal Battery Depletion

Model	Family	Market Release Date	Registered US implants	Estimated Active US implants	Malfunctions w/ Compromised Therapy (not under advisory)	Malfunctions w/ Compromised Therapy (under advisory**)	Malfunctions w/o Compromised Therapy	Total Malfunctions	Normal Battery Depletion	Survival Probability			
										1 year	2 years	3 years	4 years
V-242	Atlas DR	Oct-03	3544	3202	0	0	1	1	2	99.88%	99.75%		
V-243	Atlas + DR	Oct-03	13518	12417	1	0	1	2	1	99.96%	99.96%		
V-236	Epic + DR	Apr-03	2331	1801	0	0	1	1	3	99.91%	99.91%		
V-239	Epic + DR	Oct-03	6051	5528	3	0	0	3	0	99.93%	99.93%		
V-235	Epic DR	Jul-02	6566	4918	3	0	3	6	16	99.95%	99.87%	99.46%	
V-233	Epic DR	Oct-03	1460	1326	0	0	0	0	0	100.00%			
V-240	Atlas DR	Dec-01	8818	4717	8	16	15	39	256	99.85%	99.56%	97.72%	91.15%
V-232	Photon μ DR	Jun-01	3402	1176	6	9	17	32	331	99.75%	99.31%	96.01%	85.22%
V-193	Atlas + VR	Oct-03	13604	12531	3	0	1	4	4	99.91%	99.91%		
V-196	Epic + VR	Apr-03	6442	5668	1	0	0	1	2	99.93%	99.93%		
V-197	Epic VR	Jul-02	3657	2705	5	0	2	7	1	99.94%	99.81%	99.69%	
V-199	Atlas VR	Dec-01	7076	4378	7	19	13	39	52	99.68%	99.27%	98.68%	97.54%
V-194	Photon μ VR	Jun-01	2832	1388	7	5	9	21	45	99.78%	99.36%	98.95%	97.61%

Excluding Normal Battery Depletion

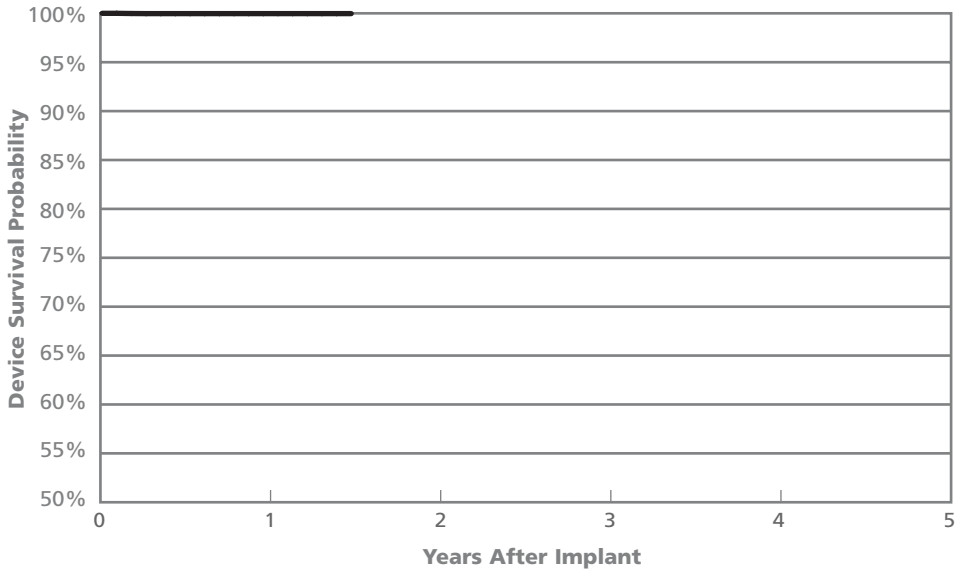
Model	Family	Market Release Date	Registered US implants	Estimated Active US implants	Malfunctions w/ Compromised Therapy (not under advisory)	Malfunctions w/ Compromised Therapy (under advisory**)	Malfunctions w/o Compromised Therapy	Total Malfunctions	Survival Probability			
									1 year	2 years	3 years	4 years
V-242	Atlas DR	Oct-03	3544	3202	0	0	1	1	100.00%	99.87%		
V-243	Atlas + DR	Oct-03	13518	12417	1	0	1	2	99.97%	99.97%		
V-236	Epic + DR	Apr-03	2331	1801	0	0	1	1	99.96%	99.96%		
V-239	Epic + DR	Oct-03	6051	5528	3	0	0	3	99.93%	99.93%		
V-235	Epic DR	Jul-02	6566	4918	3	0	3	6	99.95%	99.93%	99.87%	
V-233	Epic DR	Oct-03	1460	1326	0	0	0	0	100.00%			
V-240	Atlas DR	Dec-01	8818	4717	8	16	15	39	99.88%	99.77%	99.53%	99.29%
V-232	Photon μ DR	Jun-01	3402	1176	6	9	17	32	99.84%	99.70%	99.37%	98.74%
V-193	Atlas + VR	Oct-03	13604	12531	3	0	1	4	99.95%	99.95%		
V-196	Epic + VR	Apr-03	6442	5668	1	0	0	1	99.98%	99.98%		
V-197	Epic VR	Jul-02	3657	2705	5	0	2	7	99.94%	99.81%	99.77%	
V-199	Atlas VR	Dec-01	7076	4378	7	19	13	39	99.76%	99.60%	99.46%	99.00%
V-194	Photon μ VR	Jun-01	2832	1388	7	5	9	21	99.78%	99.61%	99.41%	99.03%

*Based on returned product analysis as of June 30, 2006.

**St. Jude Medical. ICD Memory Chip Component Anomaly (advisory). October 7, 2005.

Defibrillation Leads

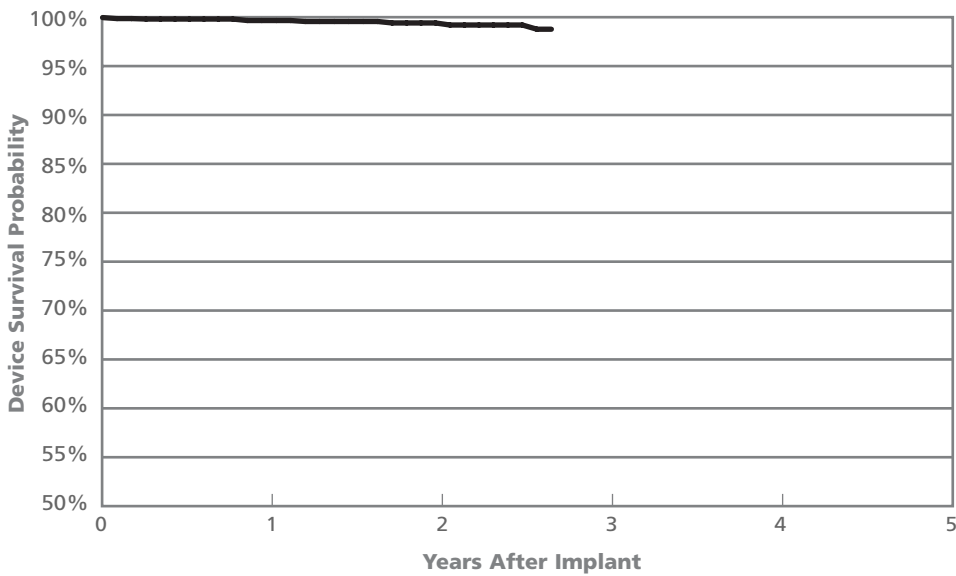
Riata® i (Model 1590 & 1591) Active Fixation Dual-Coil ICD Lead



Year	1	2	3	4	5
Survival Probability	99.97%				
± 1 standard error	0.02%				

Data is current as of June 30, 2006
7,481 of these leads have been implanted.
(Approval date: April 2004)

Riata® (Model 1582) Active Fixation Single-Coil ICD Lead

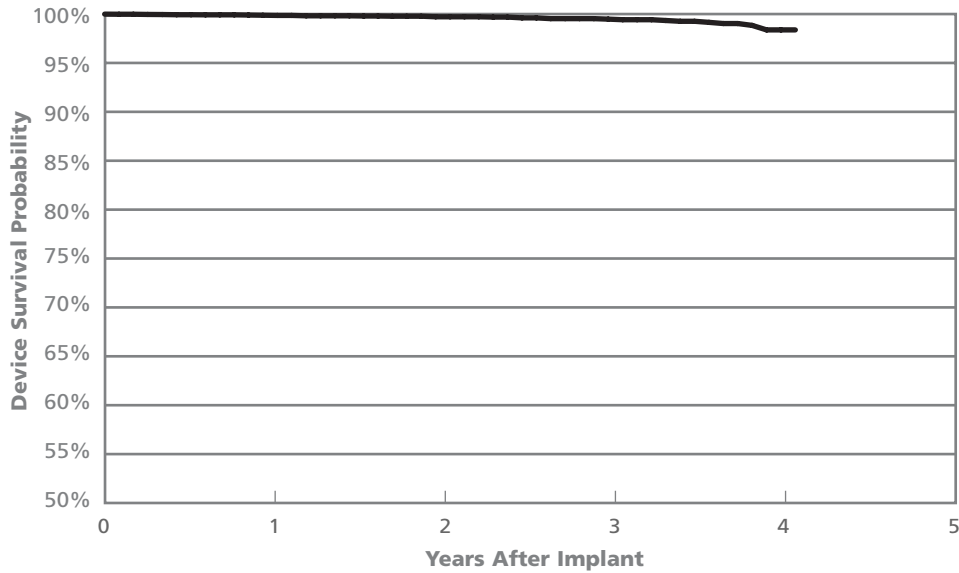


Year	1	2	3	4	5
Survival Probability	99.66%	99.41%			
± 1 standard error	0.14%	0.23%			

Data is current as of June 30, 2006.
2,334 of these leads have been implanted.
(Approval date: March 2003)

Defibrillation Leads

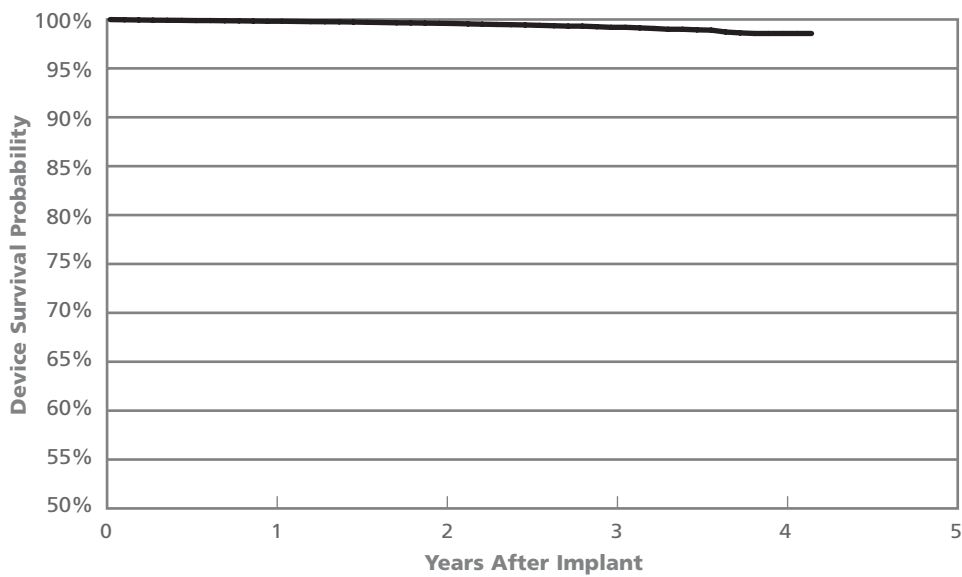
Riata® (Models 1570 & 1571) Passive Fixation Dual-Coil ICD Leads



Year	1	2	3	4	5
Survival Probability	99.88%	99.72%	99.48%	98.38%	
± 1 standard error	0.04%	0.06%	0.11%	0.44%	

Data is current as of June 30, 2006.
8,084 of these leads have been implanted.
(Approval date: March 2002)

Riata® (Model 1580 & 1581) Active Fixation Dual-Coil ICD Leads

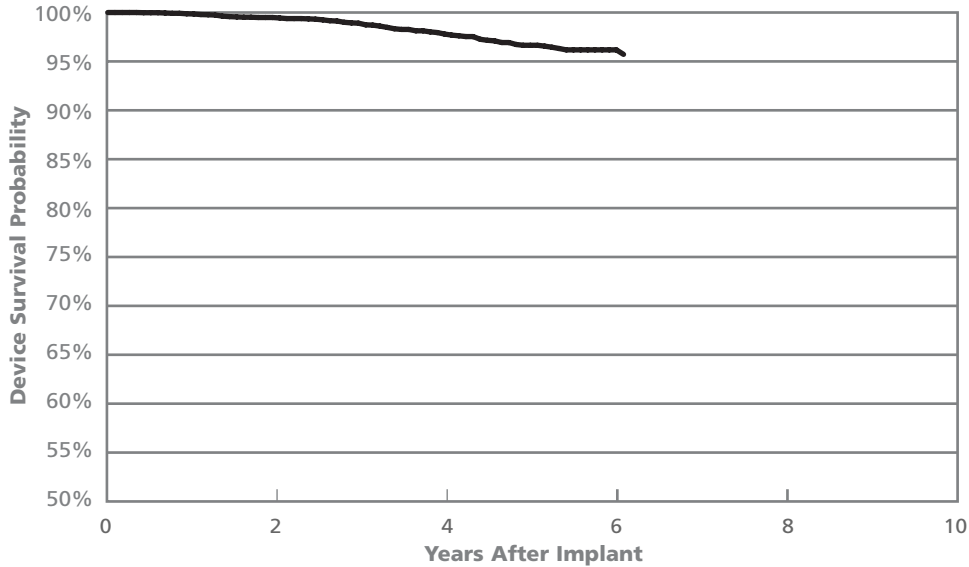


Year	1	2	3	4	5
Survival Probability	99.82%	99.61%	99.20%	98.57%	
± 1 standard error	0.02%	0.04%	0.07%	0.16%	

Data is current as of June 30, 2006.
56,443 of these leads have been implanted.
(Approval date: March 2002)

Defibrillation Leads

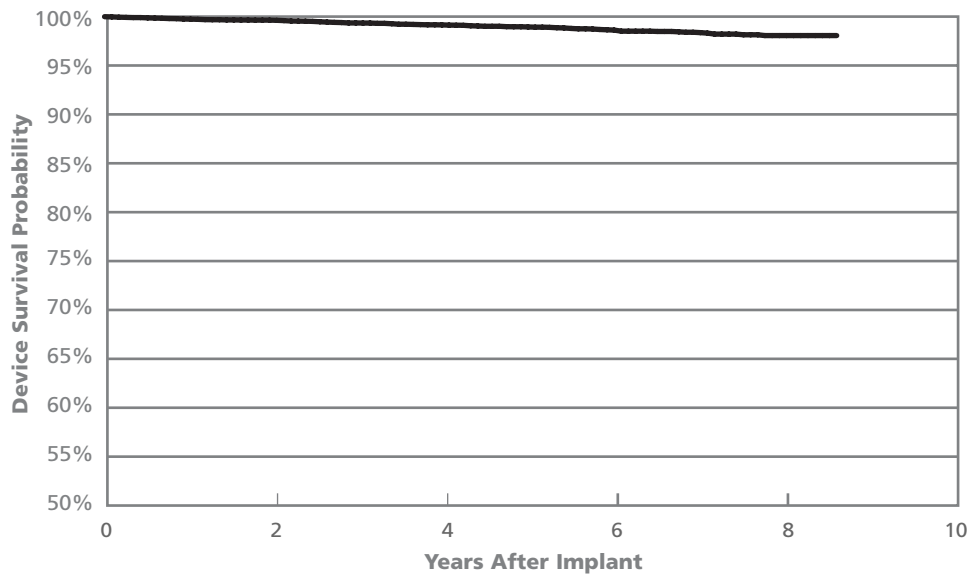
TVL[®]-ADX (Model 1559) Active Fixation Single-Coil ICD Lead



Year	2	4	6	8	10
Survival Probability	99.49%	97.80%	96.18%		
± 1 standard error	0.12%	0.25%	0.43%		

Data is current as of June 30, 2006.
This lead model is no longer being manufactured.
4,451 of these leads have been implanted.
(Approval date: November 1999)

SPL[®] (Models SP01, SP02, SP03 & SP04) Passive Fixation Dual-Coil ICD Leads

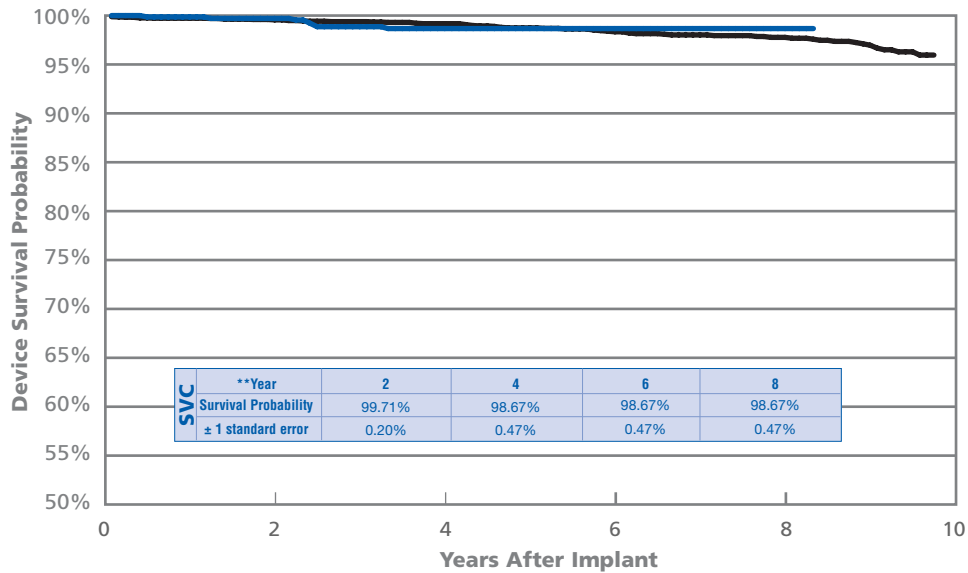


Year	2	4	6	8	10
Survival Probability	99.64%	99.15%	98.62%	98.06%	
± 1 standard error	0.06%	0.09%	0.14%	0.22%	

Data is current as of June 30, 2006.
These lead models are no longer being manufactured.
11,946 of these leads have been implanted.
(Approval date: September 1997)

Defibrillation Leads

TVL® RV (Models RV01, RV02, RV03, RV06 & RV07) TVL® SVC (Models SV01, SV02 & SV03) Passive Fixation Single-Coil ICD Leads



RV	Year	2	4	6	8	10
Survival Probability		99.56%	99.17%	98.34%	97.77%	
± 1 standard error		0.11%	0.17%	0.26%	0.33%	

Data is current as of June 30, 2006.

These lead models are no longer being manufactured.

3,480 TVL® RV leads have been implanted, and 800 TVL® SVC leads have been implanted.

(Approval dates: RV01, RV02, SV01, SV02, SV03–May 1996; RV03–April 1997; RV06, RV07–July 2000)

Defibrillation Leads Summary Information*

Laboratory analysis of all returned leads from the U.S. is summarized by model for the most recently market released defibrillation lead models included in this Product Performance Report. The Laboratory analysis results are categorized into one of the following three categories:

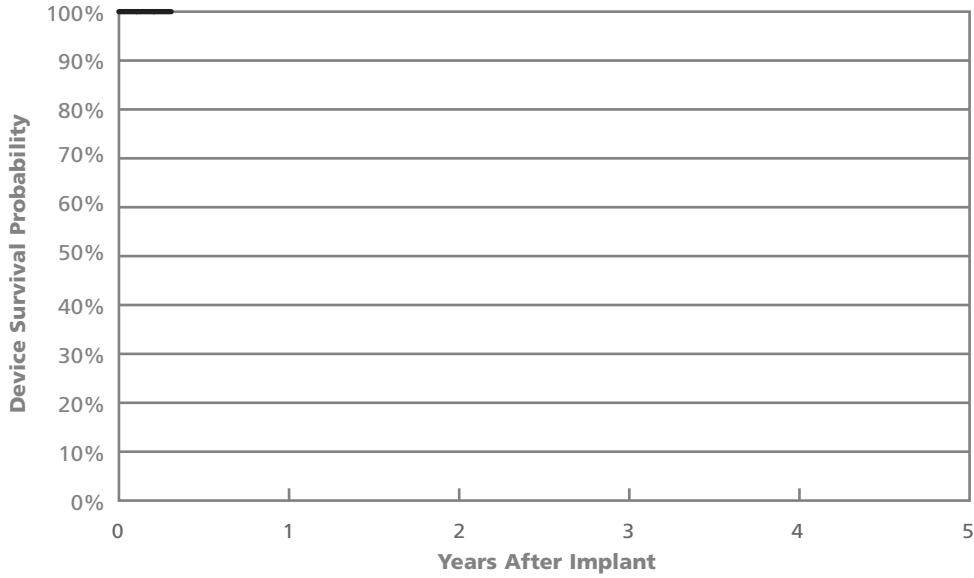
- Implant Damage - Obvious damage incurred at the time of implant, including but not limited to insulation cuts and damage, helix overtorque, and stylet perforation.
- Electrical Failure - A disruption in the insulation or conductors resulting in compromised electrical performance.
- Other - Includes other sources of malfunction not attributed to damage incurred at implant and not resulting in compromised electrical failures. This category also includes any partial leads returned with an alleged malfunction that could not be confirmed.

Model(s)	US Market Release Date	Registered US implants	Estimated Active US implants	Implant Damage	Electrical Failure	Other
1590/1591	April-04	7481	6978	18	2	2
1582	March-03	2334	2007	8	3	4
1570/1571	March-02	8084	6676	30	10	21
1580/1581	March-02	56443	48062	208	56	162

*Based on returned product analysis as of June 30, 2006.

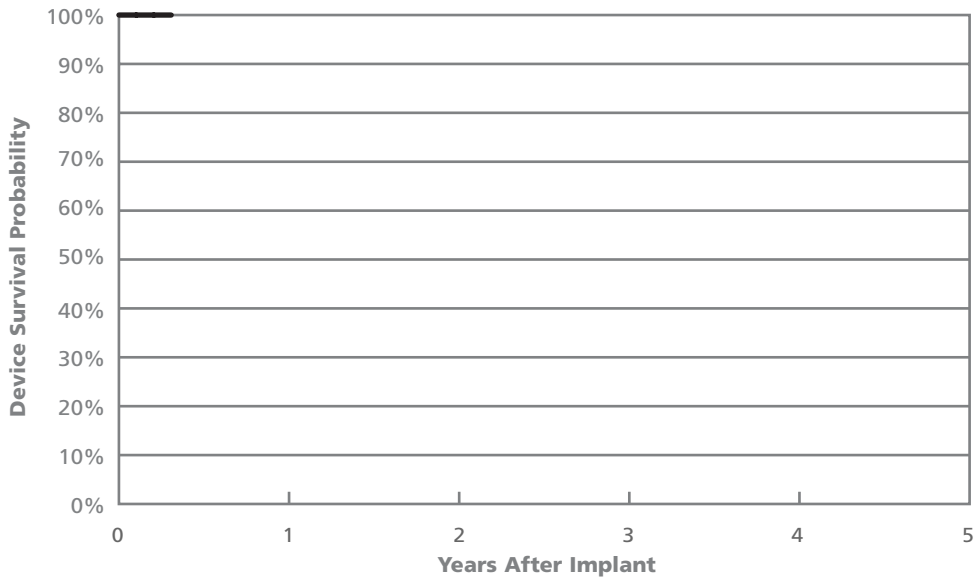
Pulse Generators dual-chamber

Victory® DR (Model 5810) Victory® XL (Model 5816) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability					
± 1 standard error					

Victory® DR (Model 5810) Victory® XL (Model 5816) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability					
± 1 standard error					

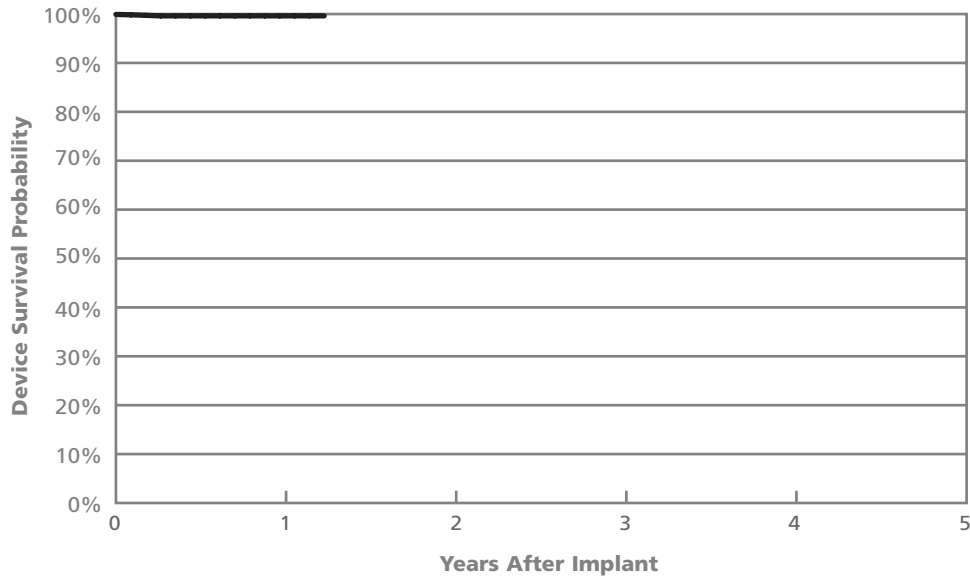
The Victory® DR dual-chamber, rate-responsive pulse generator and the Victory XL DR dual-chamber rate-responsive pulse generator were approved for use in December 2005. Survival probability (%) is based on returned product analysis as of June 30, 2006.

4,860 of these devices have been implanted.

*No survival probability is stated at 1 year due to the device not meeting the required minimum sample size of 200 U.S. implants with 12 consecutive months of data.

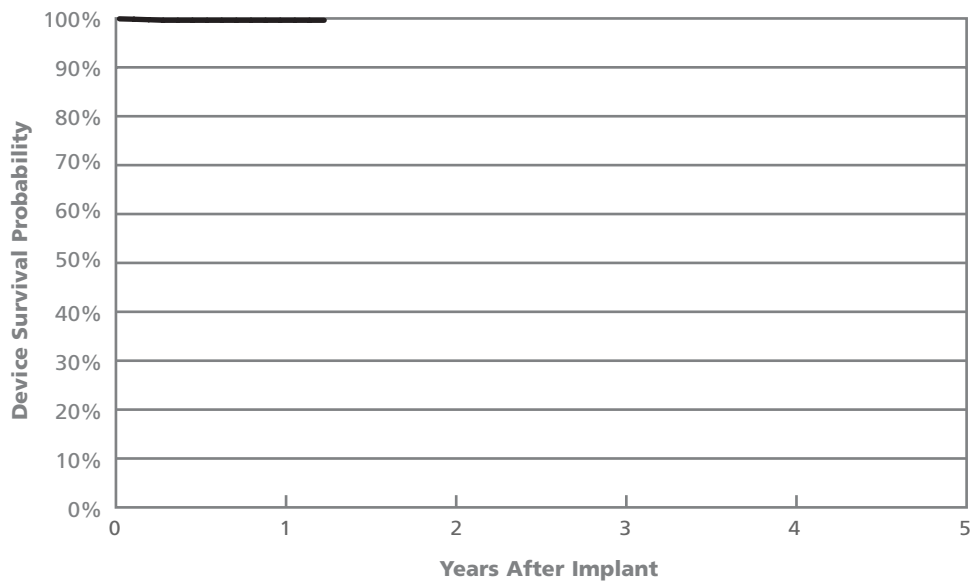
dual-chamber Pulse Generators

Frontier™ II (Model 5586) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability*	99.63%				
± 1 standard error	0.19%				

Frontier™ II (Model 5586) Excluding Normal Battery Depletion

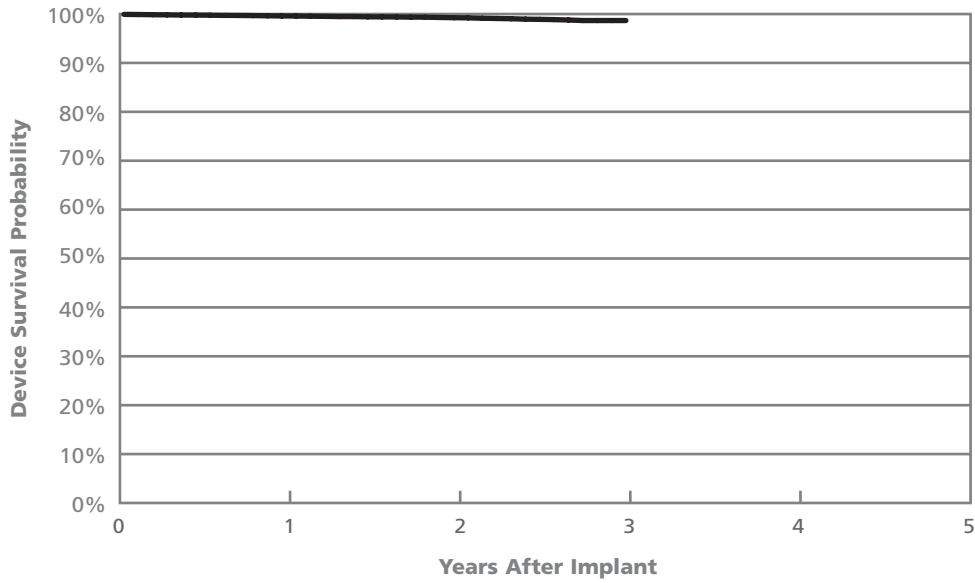


Year	1	2	3	4	5
Survival Probability*	99.63%				
± 1 standard error	0.19%				

The Frontier™ dual-chamber, rate-responsive pulse generator was approved for use in August 2004.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
1,324 of these devices have been implanted.

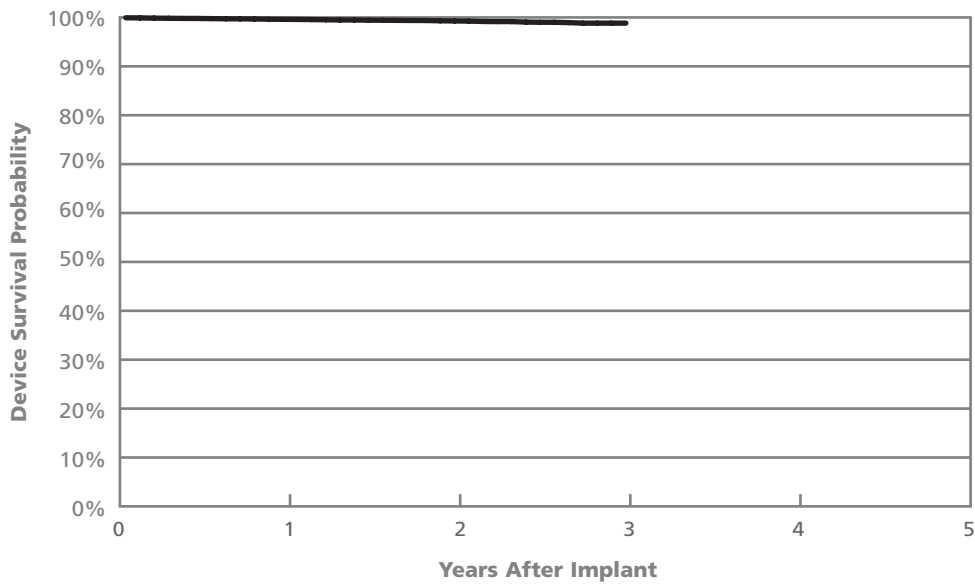
Pulse Generators dual-chamber

Identity® ADx DR (Model 5380) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.61%	99.25%	98.67%		
± 1 standard error	0.03%	0.06%	0.18%		

Identity® ADx DR (Model 5380) Excluding Normal Battery Depletion

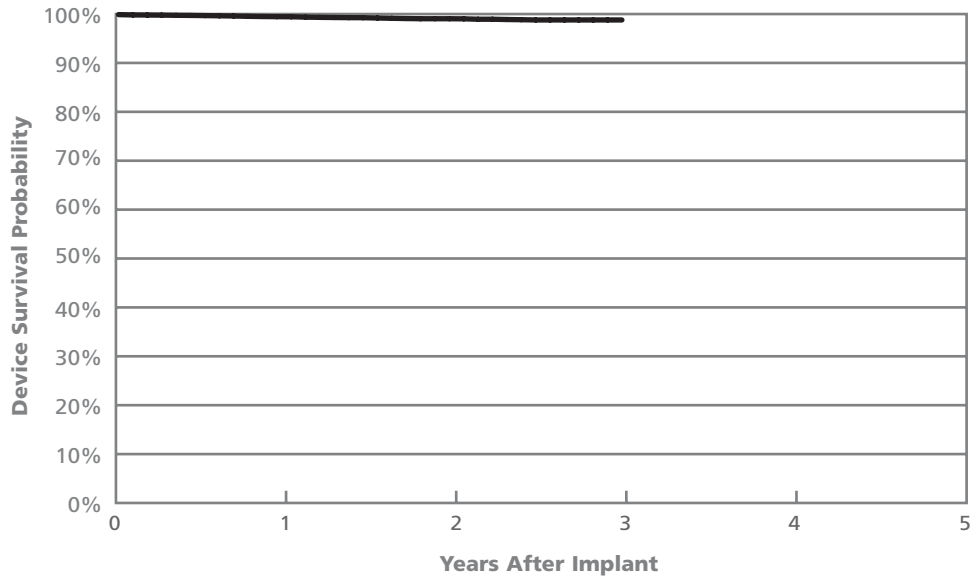


Year	1	2	3	4	5
Survival Probability	99.61%	99.28%	98.83%		
± 1 standard error	0.03%	0.06%	0.17%		

The Identity® ADx DR dual-chamber, rate-responsive pulse generator was approved for use in March 2003.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
41,693 of these devices have been implanted.

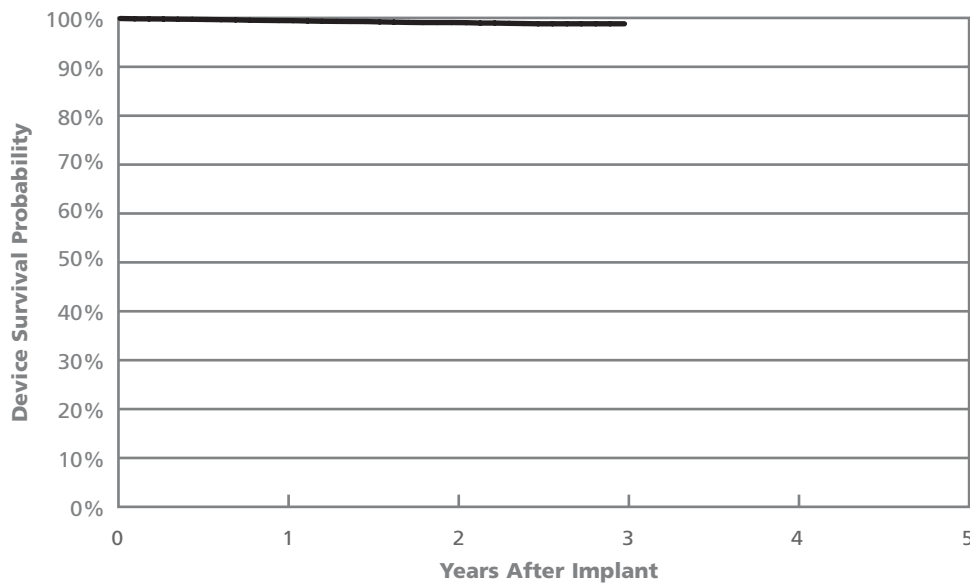
dual-chamber Pulse Generators

Identity® ADx XL DR (Model 5386) Identity® ADx XL DC (Model 5286) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.46%	99.04%	98.79%		
± 1 standard error	0.04%	0.07%	0.11%		

Identity® ADx XL DR (Model 5386) Identity® ADx XL DC (Model 5286) Excluding Normal Battery Depletion

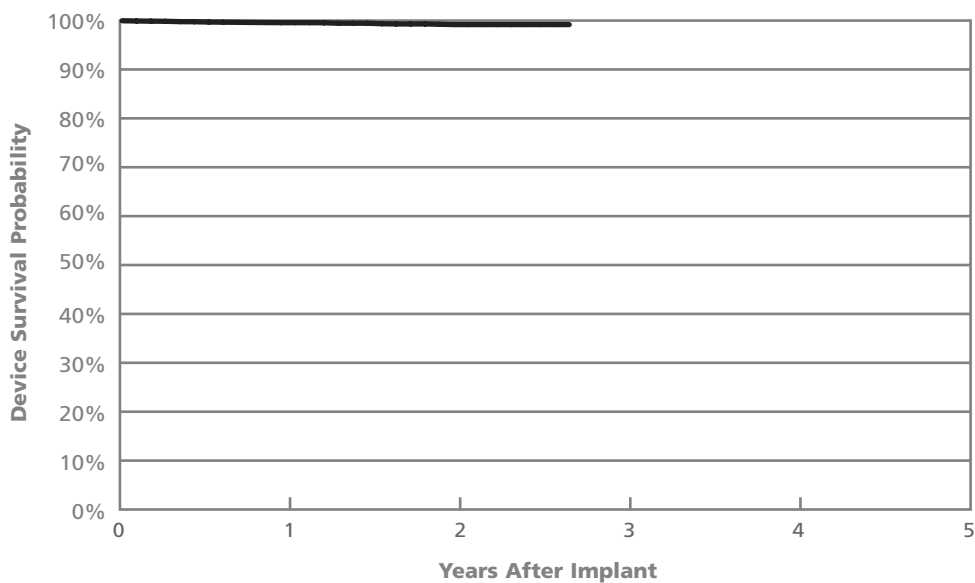


Year	1	2	3	4	5
Survival Probability	99.46%	99.05%	98.80%		
± 1 standard error	0.04%	0.07%	0.11%		

The Identity® ADx XL DR dual-chamber, rate-responsive pulse generator and the Identity® ADx XL DC dual-chamber pulse generator were approved for use in March 2003. Survival probability (%) is based on returned product analysis as of June 30, 2006. 42,138 of these devices have been implanted.

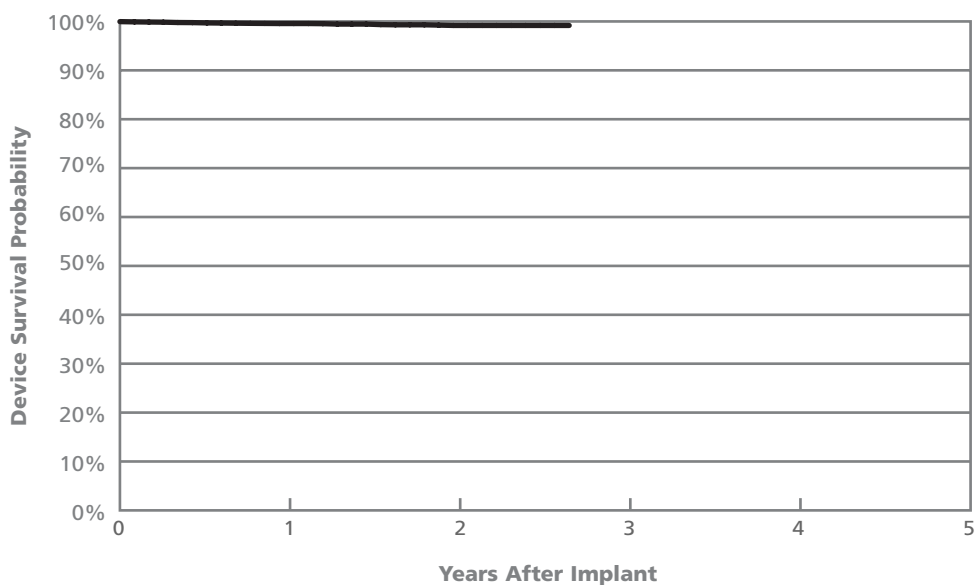
Pulse Generators dual-chamber

Integrity® ADx DR (Models 5360 & 5366) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.57%	99.18%			
± 1 standard error	0.08%	0.13%			

Integrity® ADx DR (Models 5360 & 5366) Excluding Normal Battery Depletion

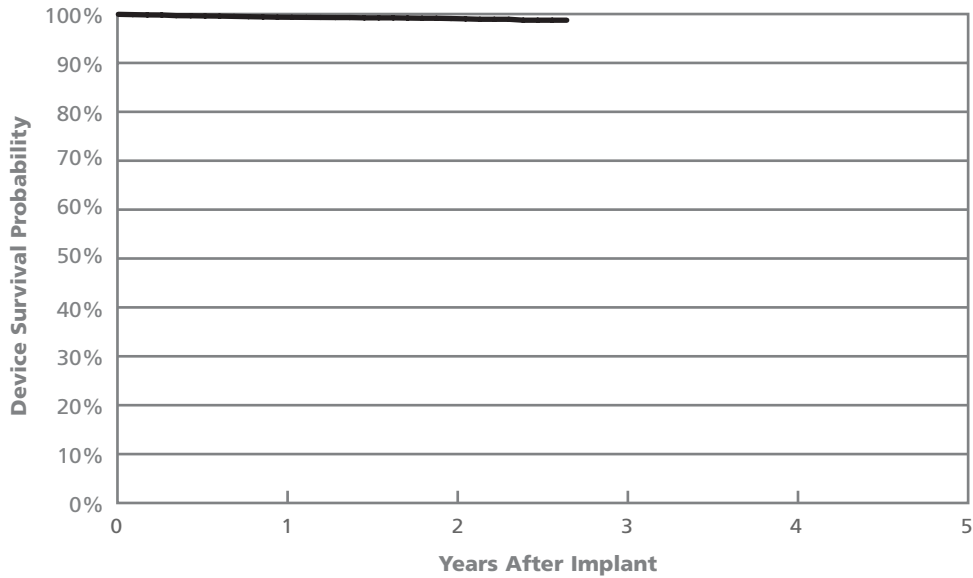


Year	1	2	3	4	5
Survival Probability	99.57%	99.18%			
± 1 standard error	0.08%	0.13%			

The Integrity® ADx DR dual-chamber, rate-responsive pulse generator was approved for use in May 2003.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
9,119 of these devices have been implanted.

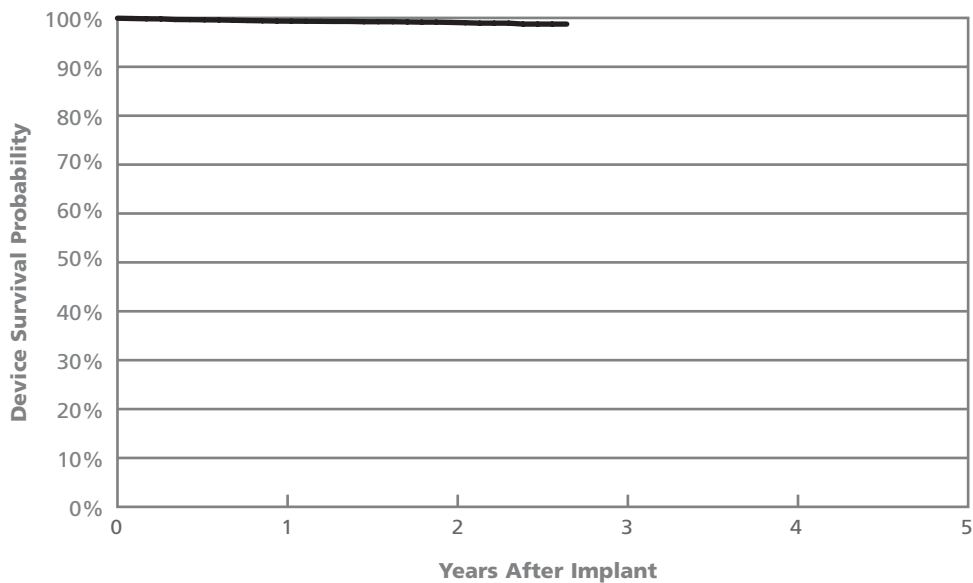
dual-chamber Pulse Generators

Verity® ADx XL DR (Model 5356) Verity® ADx XL DR M/S (Model 5357M/S); Verity® ADx XL DC (Model 5256) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.36%	99.08%			
± 1 standard error	0.09%	0.12%			

Verity® ADx XL DR (Model 5356) Verity® ADx XL DR M/S (Model 5357M/S); Verity® ADx XL DC (Model 5256) Excluding Normal Battery Depletion

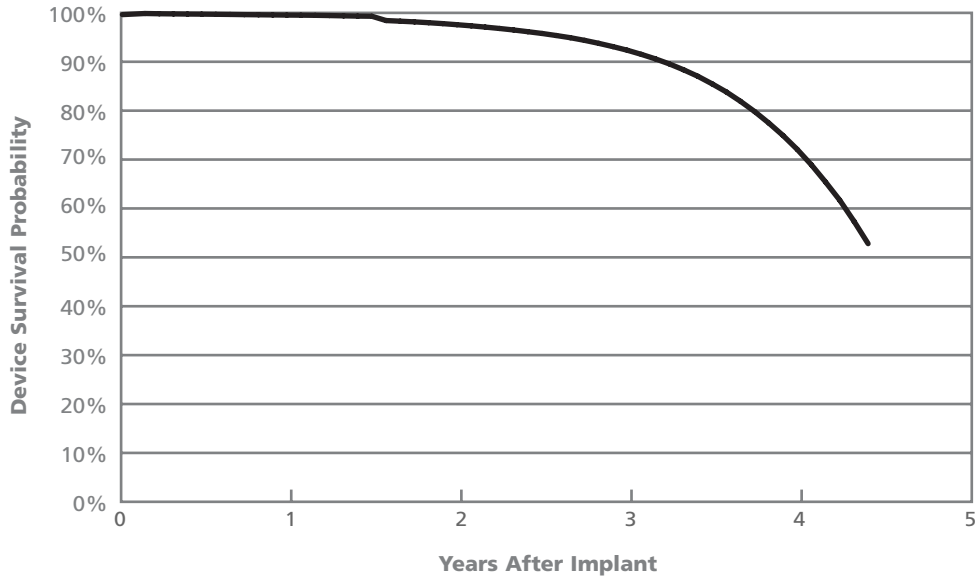


Year	1	2	3	4	5
Survival Probability	99.36%	99.08%			
± 1 standard error	0.09%	0.12%			

The Verity® ADx XL DR and the Verity® ADx XL DR M/S dual-chamber, rate-responsive pulse generators and the Verity® ADx XL DC dual-chamber pulse generator were approved for use in May 2003. Survival probability (%) is based on returned product analysis as of June 30, 2006. 10,369 of these devices have been implanted.

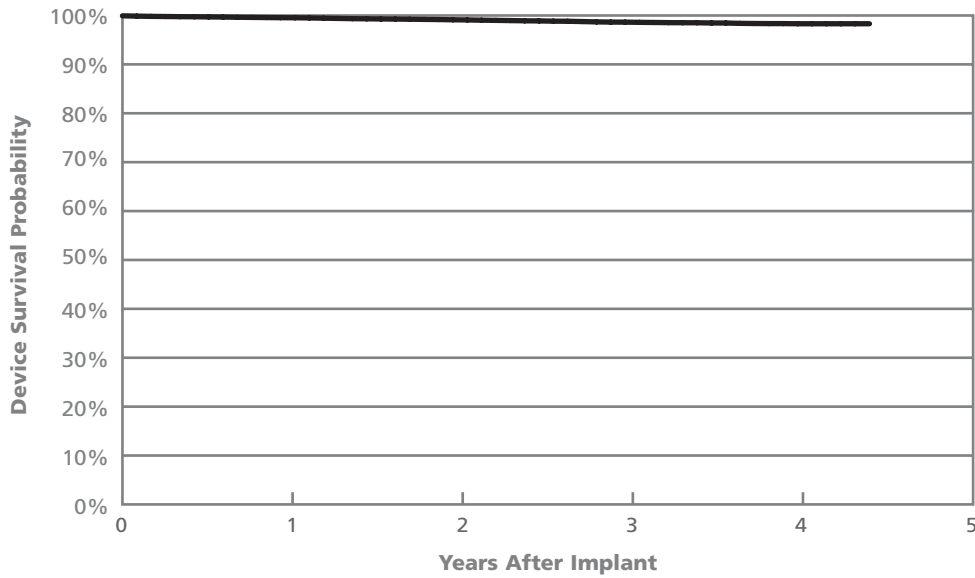
Pulse Generators dual-chamber

Identity® (Model 5370) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.55%	97.58%	92.37%	72.08%	
± 1 standard error	0.03%	0.04%	0.07%	0.18%	

Identity® (Model 5370) Excluding Normal Battery Depletion

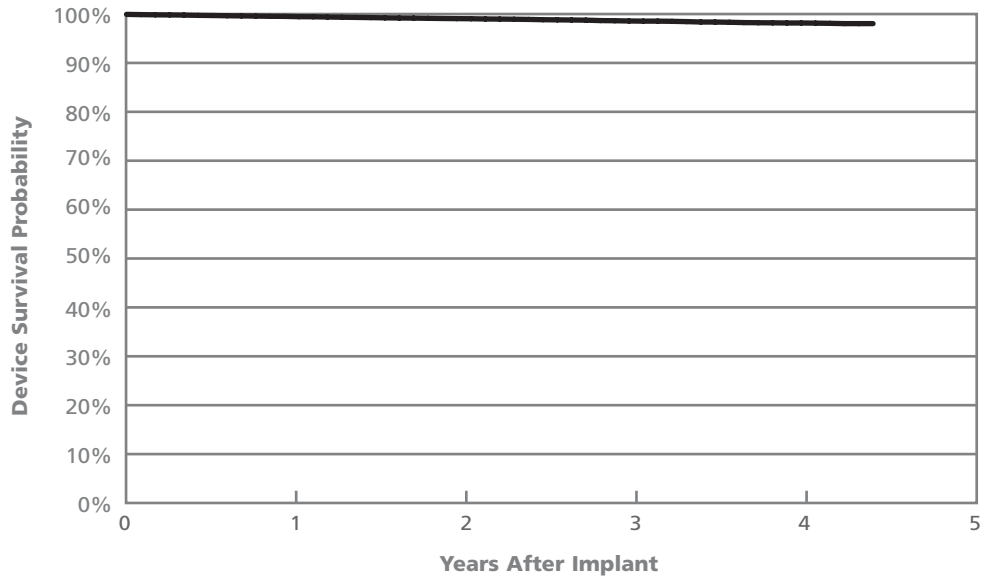


Year	1	2	3	4	5
Survival Probability	99.55%	99.12%	98.64%	98.31%	
± 1 standard error	0.03%	0.04%	0.06%	0.08%	

The Identity® dual-chamber, rate-responsive pulse generator was approved for use in November 2001.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
55,420 of these devices have been implanted.

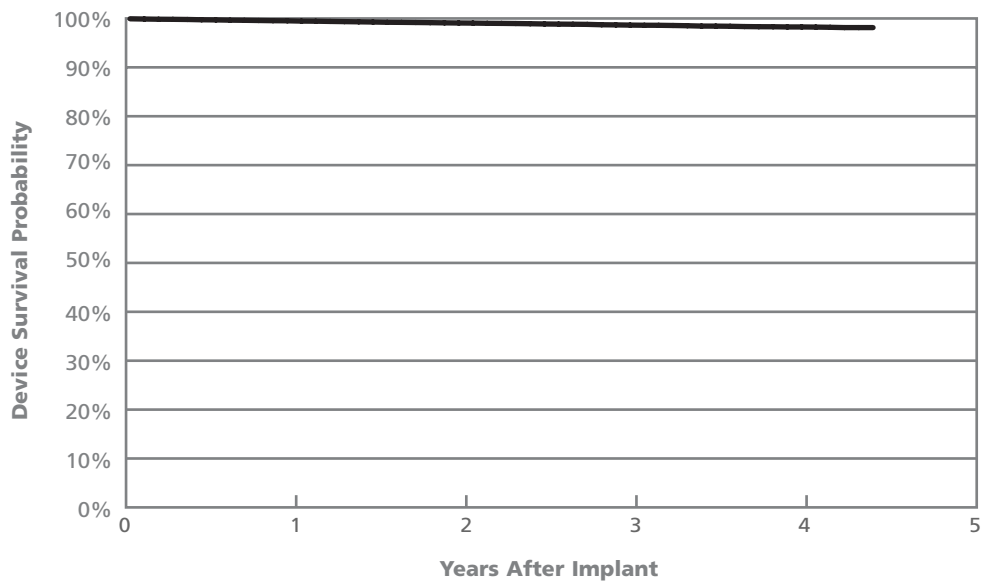
dual-chamber Pulse Generators

Identity® XL (Model 5376) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.52%	99.06%	98.58%	98.17%	
± 1 standard error	0.03%	0.05%	0.06%	0.09%	

Identity® XL (Model 5376) Excluding Normal Battery Depletion

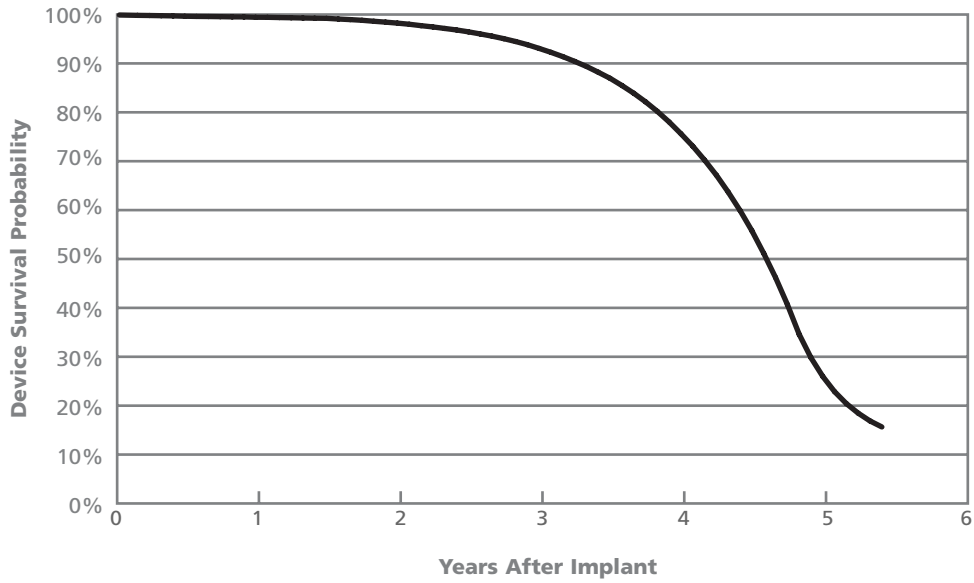


Year	1	2	3	4	5
Survival Probability	99.52%	99.07%	98.64%	98.26%	
± 1 standard error	0.03%	0.05%	0.06%	0.09%	

The Identity® XL dual-chamber, rate-responsive pulse generator was approved for use in November 2001.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
47,797 of these devices have been implanted.

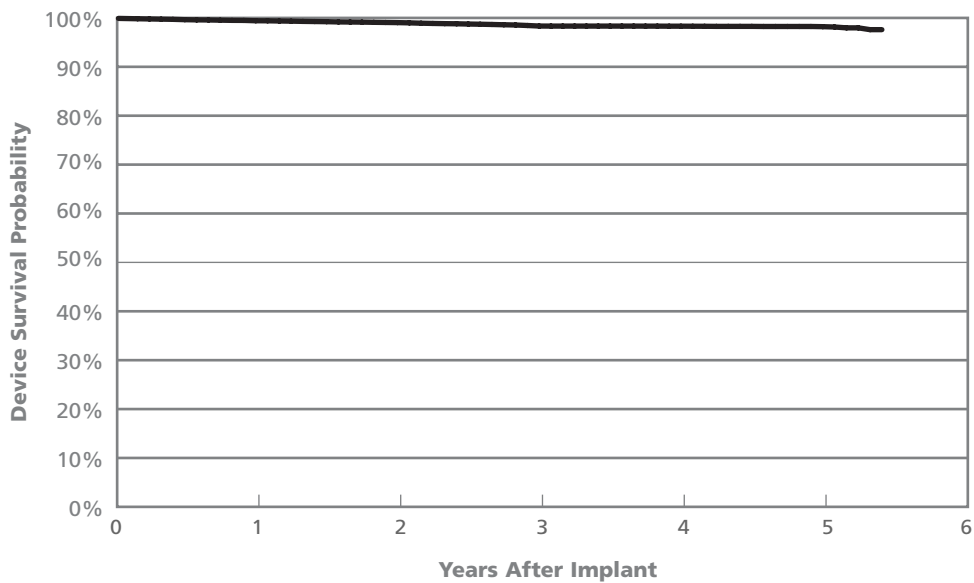
Pulse Generators dual-chamber

Integrity® μ DR (Model 5336) Including Normal Battery Depletion



Year	1	2	3	4	5	6
Survival Probability	99.44%	98.24%	93.06%	75.60%	25.97%	
± 1 standard error	0.04%	0.06%	0.09%	0.17%	0.32%	

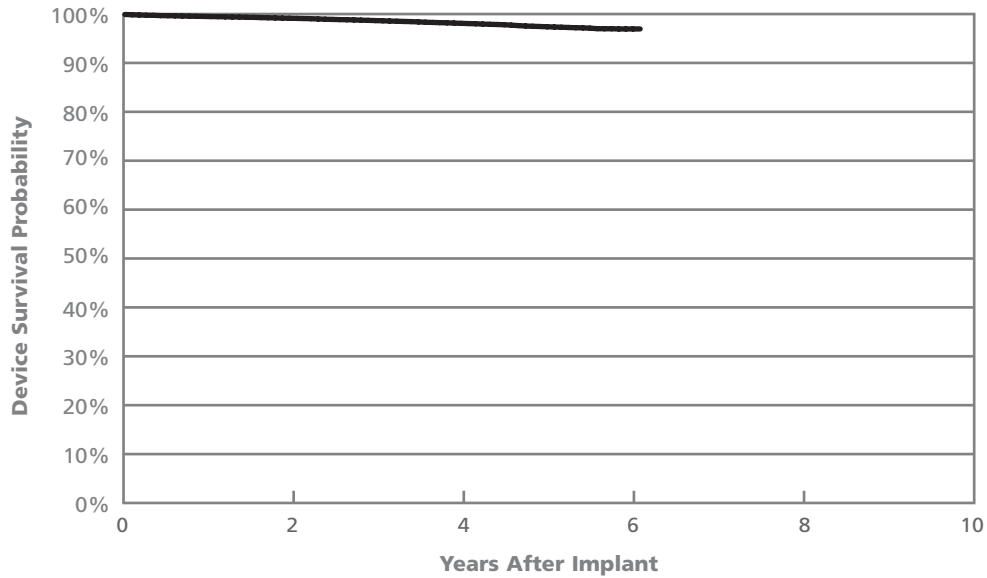
Integrity® μ DR (Model 5336) Excluding Normal Battery Depletion



Year	1	2	3	4	5	6
Survival Probability	99.42%	99.04%	98.34%	98.31%	98.21%	
± 1 standard error	0.04%	0.06%	0.08%	0.09%	0.09%	

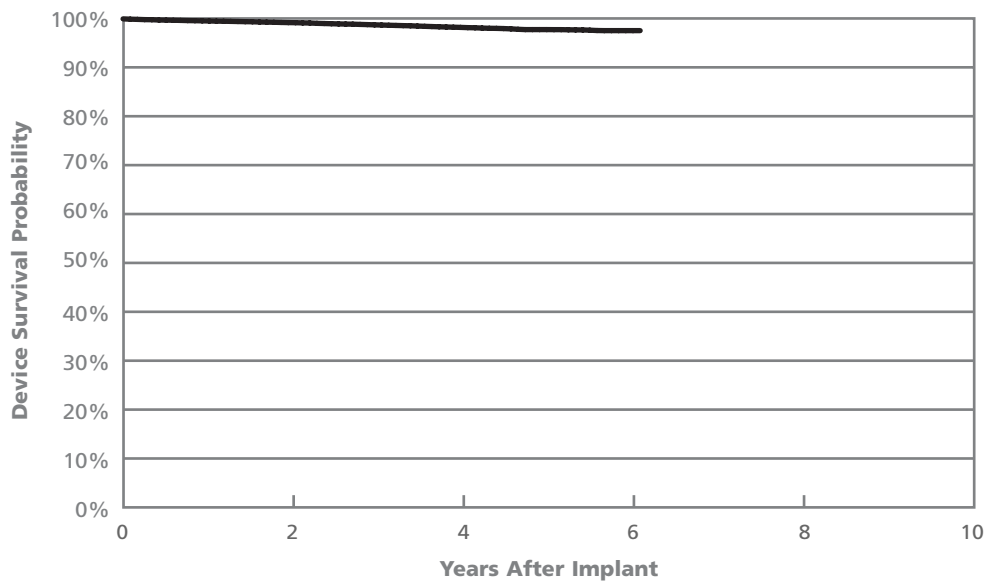
The Integrity® μ DR dual-chamber, rate-responsive pulse generator was approved for use in December 2000. Survival probability (%) is based on returned product analysis as of June 30, 2006. 28,340 of these devices have been implanted.

Integrity® AFx DR
 (Models 5342 & 5346)
 Including Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	99.14%	98.10%	96.95%		
± 1 standard error	0.04%	0.07%	0.13%		

Integrity® AFx DR
 (Models 5342 & 5346)
 Excluding Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	99.15%	98.17%	97.15%		
± 1 standard error	0.04%	0.07%	0.10%		

The Integrity® AFx DR model 5342 dual-chamber, rate-responsive pulse generator was approved for use in April 2000.

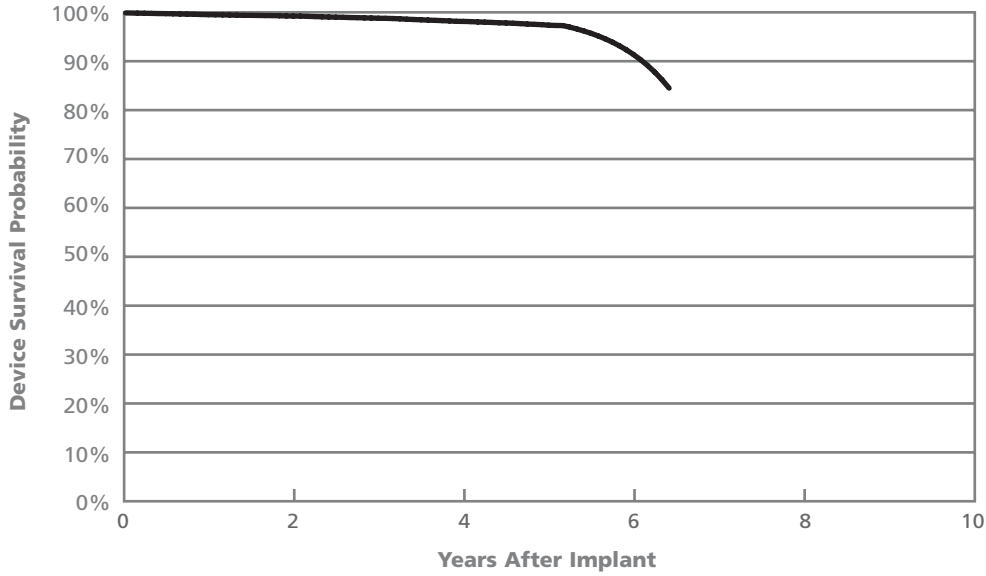
The Integrity® AFx DR model 5346 dual-chamber, rate-responsive pulse generator was approved for use in July 2001.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

47,101 of these devices have been implanted.

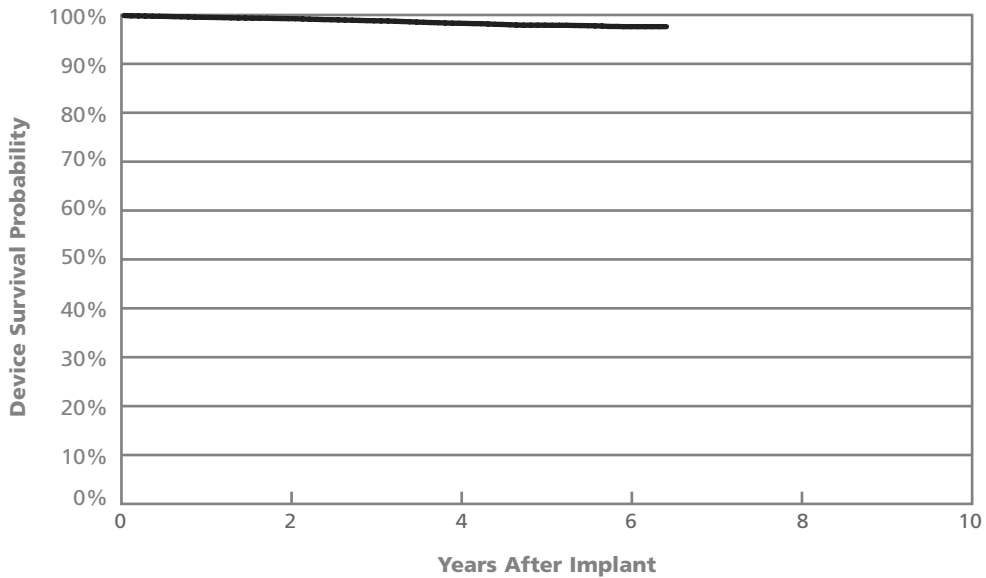
Pulse Generators dual-chamber

Entity® DR (Model 5326) Entity® DC (Model 5226) Including Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	99.24%	98.14%	91.35%		
± 1 standard error	0.06%	0.11%	0.19%		

Entity® DR (Model 5326) Entity® DC (Model 5226) Excluding Normal Battery Depletion

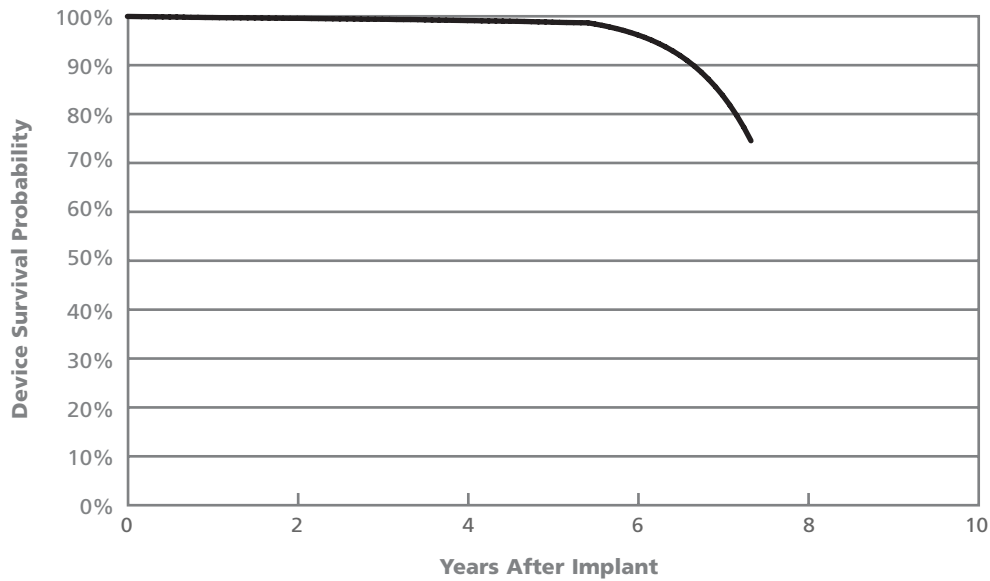


Year	2	4	6	8	10
Survival Probability	99.25%	98.30%	97.61%		
± 1 standard error	0.06%	0.10%	0.15%		

The Entity® DR dual-chamber, rate-responsive pulse generator and the Entity® DC dual-chamber, pulse generator were approved for use in June 1999. Survival probability (%) is based on returned product analysis as of June 30, 2006. 21,764 of these devices have been implanted.

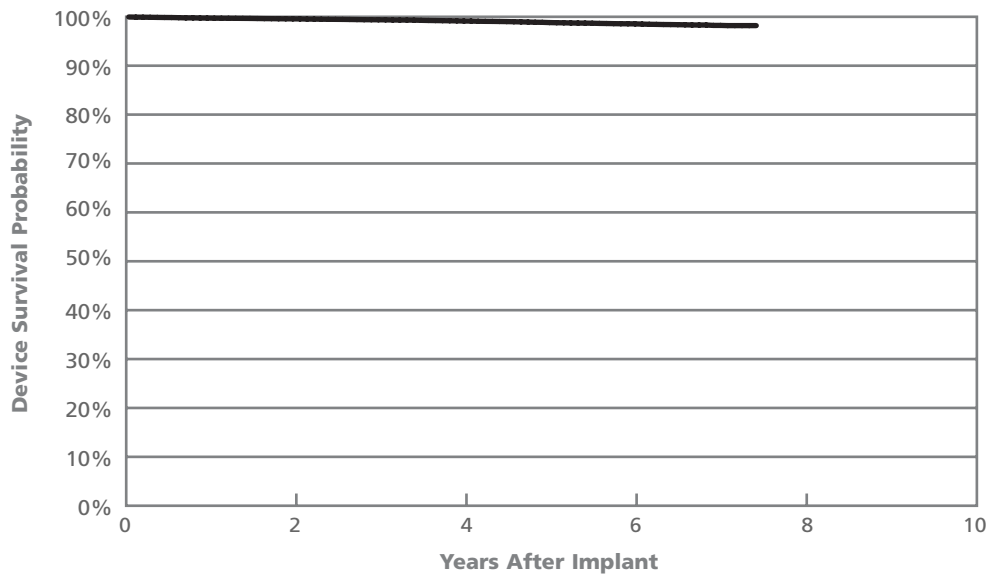
dual-chamber Pulse Generators

Affinity® DR (Models 5330 & 5331) Affinity® DC (Model 5230) Including Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	99.58%	99.12%	96.21%		
± 1 standard error	0.03%	0.04%	0.24%		

Affinity® DR (Models 5330 & 5331) Affinity® DC (Model 5230) Excluding Normal Battery Depletion

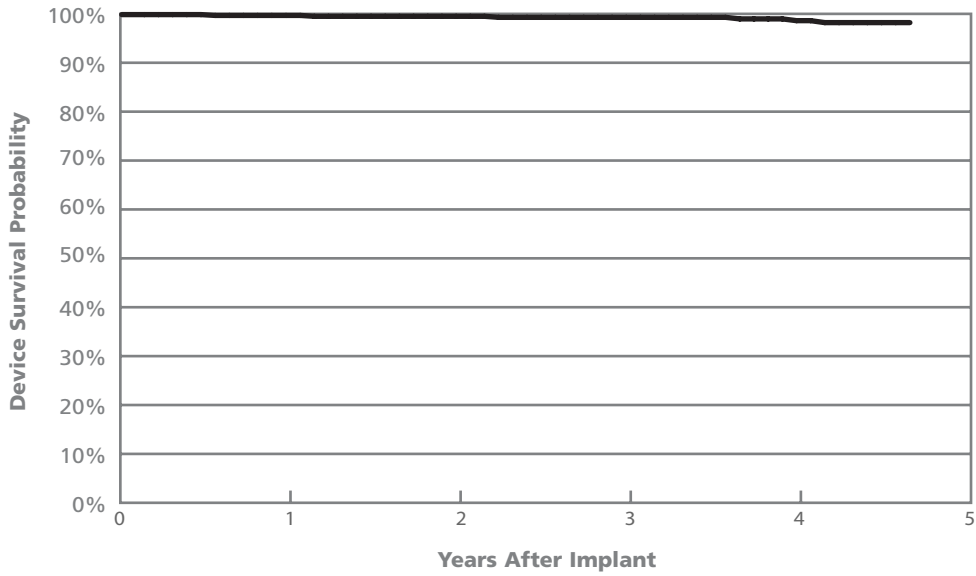


Year	2	4	6	8	10
Survival Probability	99.58%	99.14%	98.55%		
± 1 standard error	0.03%	0.04%	0.06%		

The Affinity® DR model 5330 dual-chamber, rate-responsive pulse generator was approved for use in January 1999. The Affinity® DC model 5230 dual-chamber pulse generator and the Affinity® DR model 5331 dual-chamber, rate-responsive pulse generator were approved for use in June 1999. Survival probability (%) is based on returned product analysis as of June 30, 2006. 65,354 of these devices have been implanted.
(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

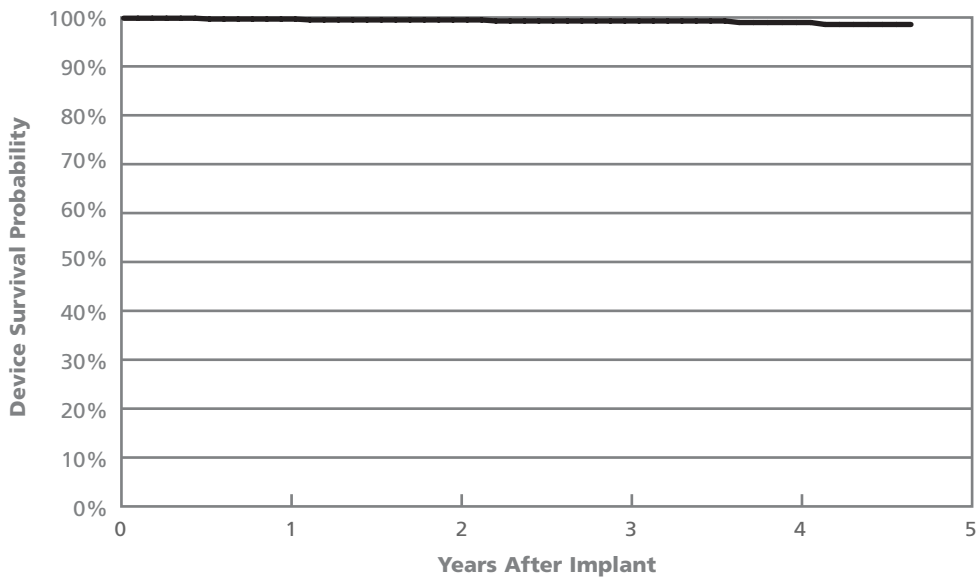
Pulse Generators dual-chamber

Affinity® VDR (Models 5430) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.68%	99.50%	99.29%	98.61%	
± 1 standard error	0.23%	0.29%	0.36%	0.48%	

Affinity® VDR (Models 5430) Excluding Normal Battery Depletion

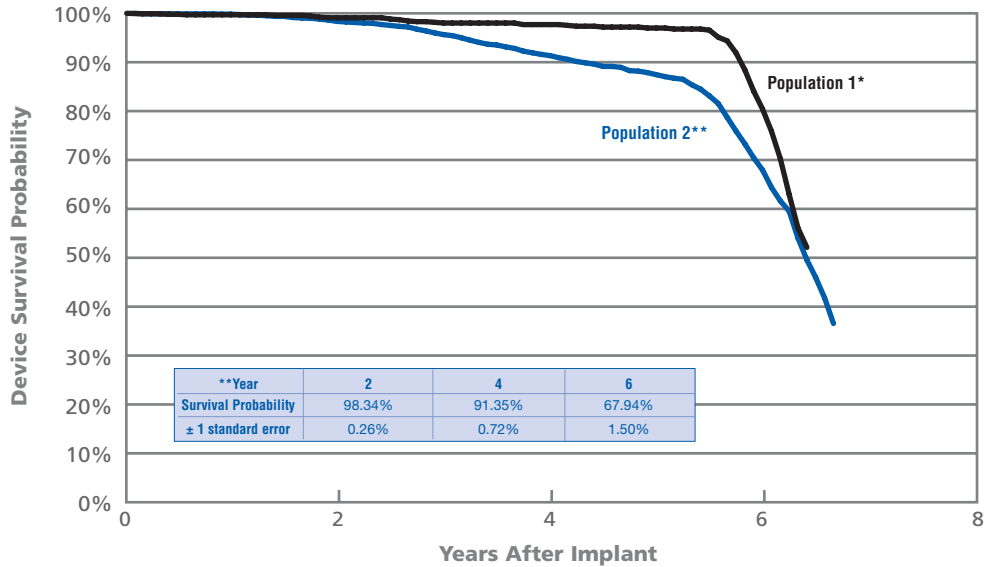


Year	1	2	3	4	5
Survival Probability	99.68%	99.50%	99.29%	98.97%	
± 1 standard error	0.23%	0.29%	0.36%	0.48%	

The Affinity® VDR single-lead, dual-chamber, rate-responsive pulse generator was approved for use in April 2000.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
664 of these devices have been implanted.

dual-chamber Pulse Generators

Meta™ DDDR (Model 1256D) Tempo® D (Model 2902); Tempo® DR (Model 2102)



Year	2	4	6	8
Survival Probability	99.09%	97.69%	80.40%	
± 1 standard error	0.32%	0.54%	1.76%	

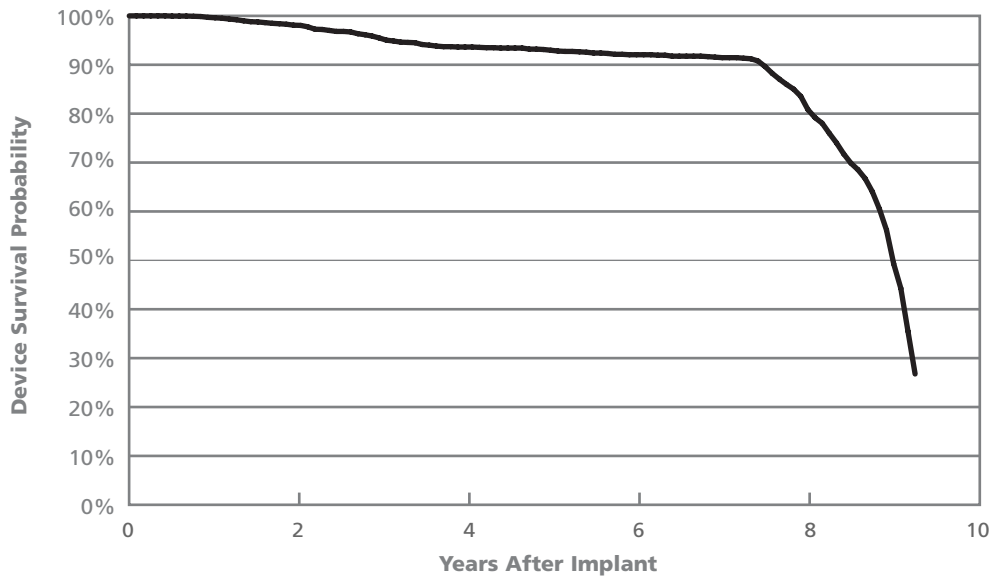
The Tempo® D series of dual-chamber pulse generators and the Tempo® DR series of dual-chamber, rate-responsive pulse generators were approved for use in August 1997. The Meta™ DDDR pulse generator was approved for use in April 1997. These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

*This group of devices is not under advisory. 1,035 of these devices were implanted.

**This group of devices is subject to an advisory. See pp. 84-87 for more information. 2,577 of these devices were implanted.

Meta™ DDDR (Model 1256)



Year	2	4	6	8	10
Survival Probability	98.10%	93.63%	92.05%	80.81%	
± 1 standard error	0.28%	0.56%	0.65%	1.12%	

The Meta™ DDDR dual-chamber, rate-responsive pulse generator was approved for use in April 1997.

This model is no longer being manufactured.

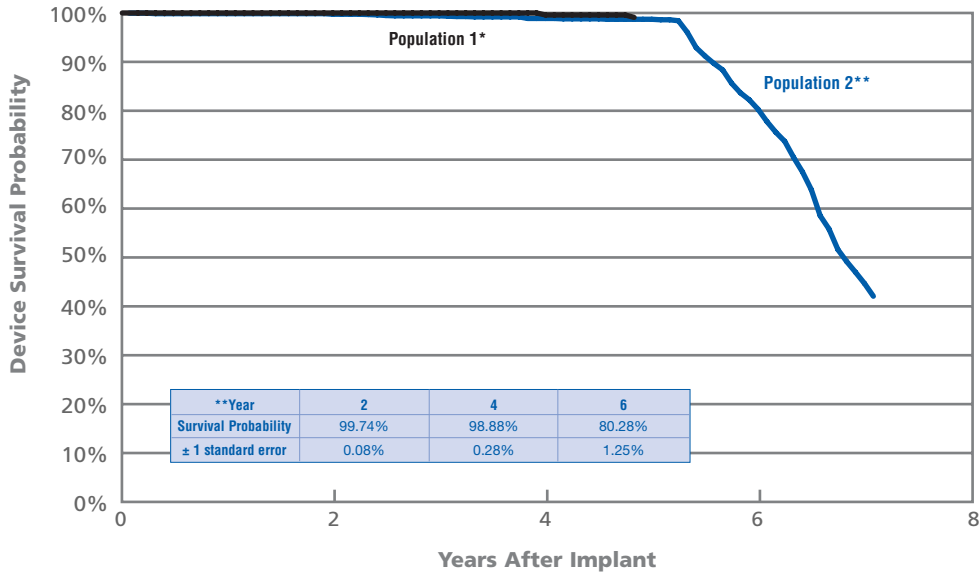
Survival probability (%) is based on returned product analysis as of June 30, 2006.

2,625 of these devices have been implanted.

(Note: These devices are subject to an advisory. See pp. 84-87 for more information.)

Pulse Generators dual-chamber

Trilogy® DC+ (Model 2318)



Year	2	4	6	8
Survival Probability	100%	99.59%		
± 1 standard error	0.00%	0.00%		

The Trilogy® DC+ series of dual-chamber pulse generators was approved for use in January 1997.

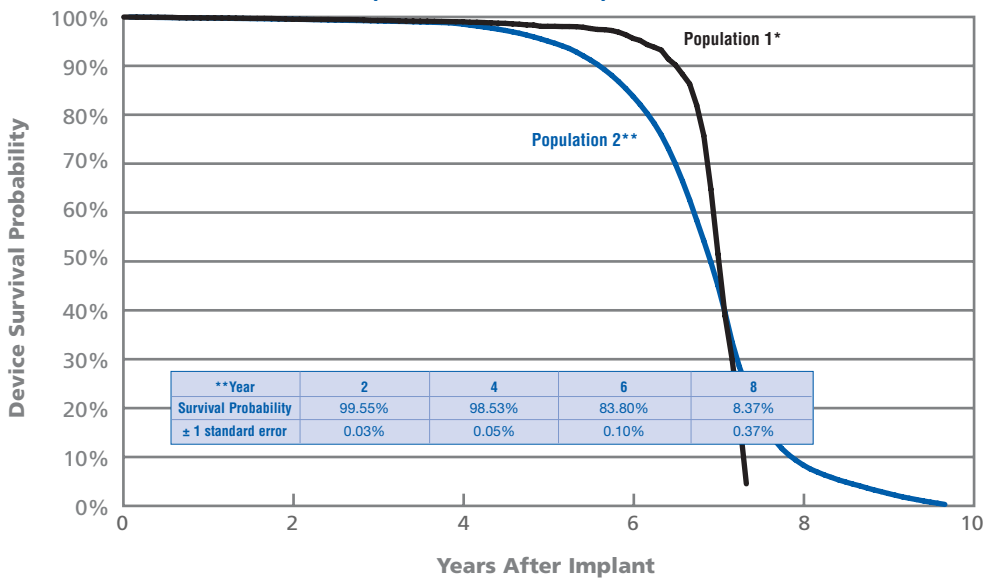
This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

*This group of devices is not under advisory. 434 of these devices were implanted.

**This group of devices is subject to an advisory. See pp. 84-87 for more information. 2,290 of these devices were implanted.

Trilogy® DR+ (Models 2360 & 2364)



*Year	2	4	6	8	10
Survival Probability	99.54%	99.02%	95.62%		
± 1 standard error	0.10%	0.16%	0.36%		

The Trilogy® DR+ series of dual-chamber, rate-responsive pulse generators was approved for use in September 1996.

These models are no longer being manufactured.

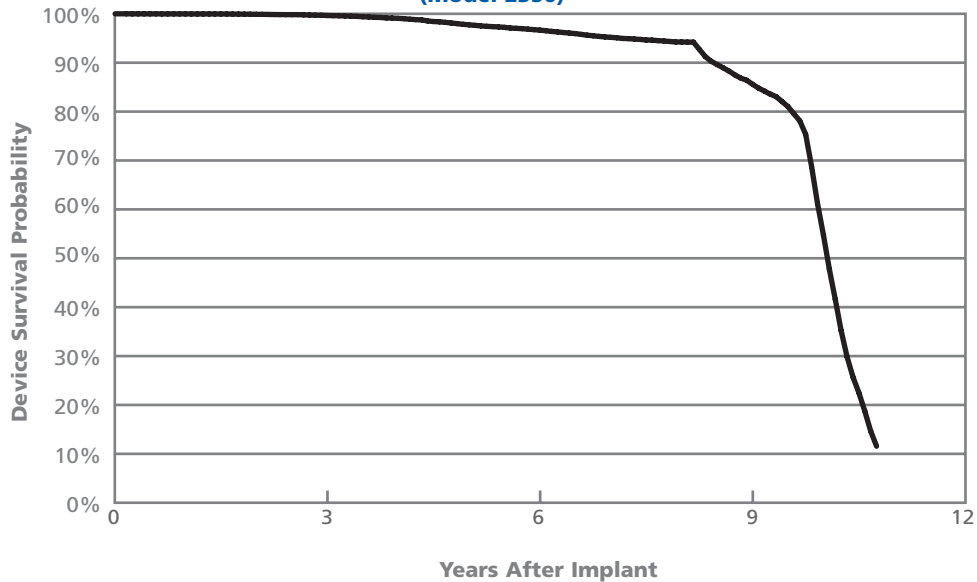
Survival probability (%) is based on returned product analysis as of June 30, 2006.

*These devices are not under advisory. 4,974 of these devices were implanted.

**These devices are subject to an advisory. See pp. 84-87 for more information. 63,102 of these devices were implanted.

dual-chamber Pulse Generators

Trilogy® DR (Model 2350)



Year	3	6	9	12
Survival Probability	99.65%	96.66%	85.59%	
± 1 standard error	0.04%	0.17%	0.55%	

The Trilogy® DR dual-chamber, rate-responsive pulse generator was approved for use in June 1995.

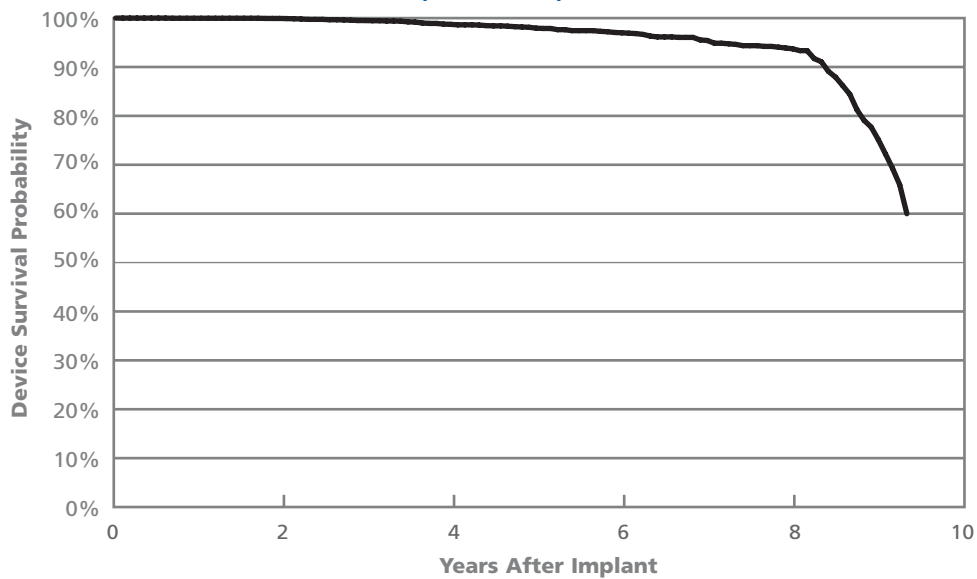
This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

18,726 of these devices have been implanted.

(Note: These devices are subject to an advisory. See pp. 84-87 for more information.)

Trilogy® DC (Model 2308)



Year	2	4	6	8	10
Survival Probability	99.93%	98.72%	96.99%	93.71%	
± 1 standard error	0.05%	0.23%	0.39%	0.70%	

The Trilogy® DC dual-chamber pulse generator was approved for use in June 1995.

This model is no longer being manufactured.

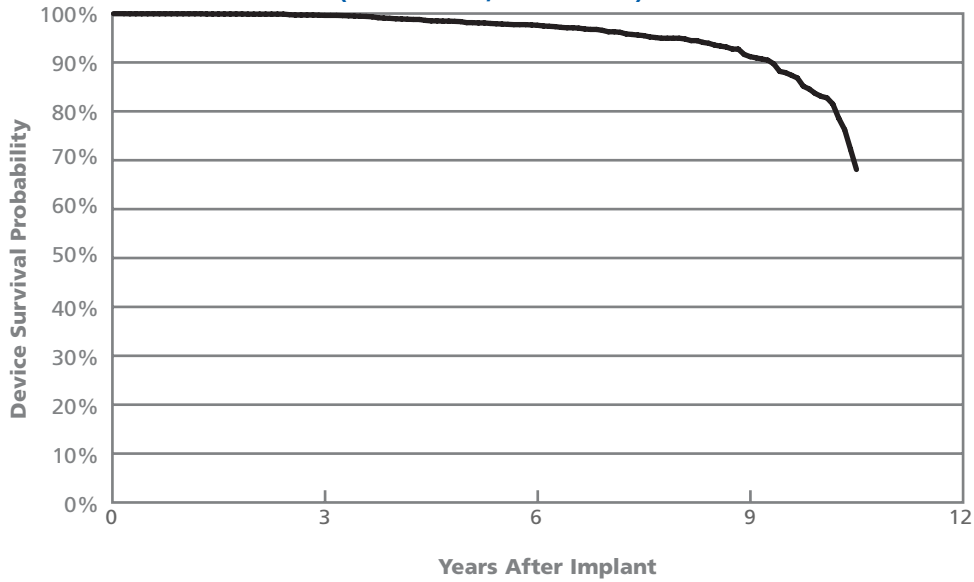
Survival probability (%) is based on returned product analysis as of June 30, 2006.

3,560 of these devices have been implanted.

(Note: These devices are subject to an advisory. See pp. 84-87 for more information.)

Pulse Generators dual-chamber

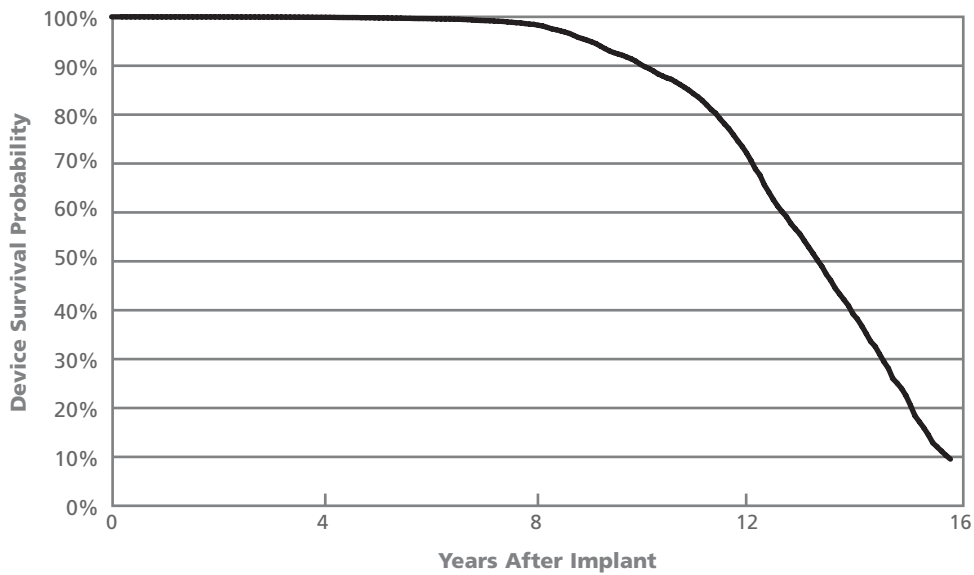
Paragon™ III (Models 2304, 2314 & 2315)



Year	3	6	9	12
Survival Probability	99.62%	97.60%	91.18%	
± 1 standard error	0.11%	0.33%	0.99%	

The Paragon™ III series of dual-chamber pulse generators was introduced in October 1994.
 These models are no longer being manufactured.
 Survival probability (%) is based on returned product analysis as of June 30, 2006.
 3,827 of these devices have been implanted.

Paragon™ II (Model 2016)

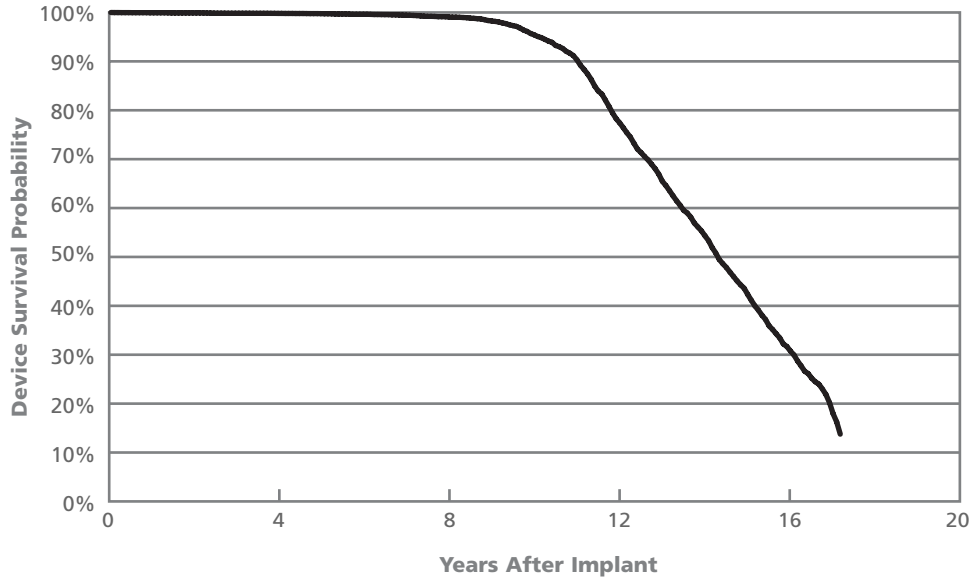


Year	4	8	12	16
Survival Probability	99.91%	98.27%	70.60%	
± 1 standard error	0.02%	0.11%	0.65%	

The Paragon™ II series of dual-chamber pulse generators was introduced in April 1989.
 This model is no longer being manufactured.
 Survival probability (%) is based on returned product analysis as of June 30, 2006.
 29,064 of these devices have been implanted.

dual-chamber Pulse Generators

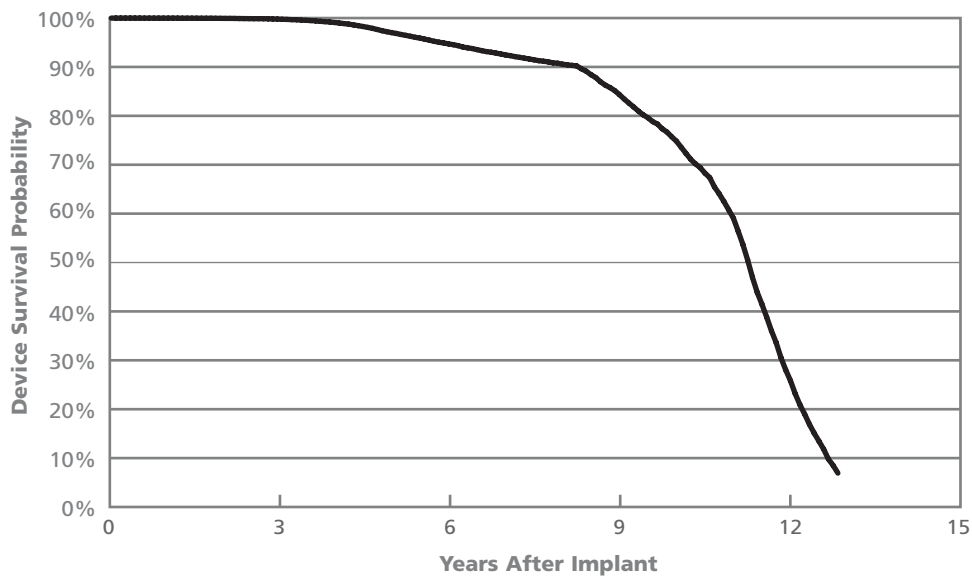
Paragon™ (Models 2010, 2011 & 2012)



Year	4	8	12	16	20
Survival Probability	99.81%	99.07%	77.43%	30.75%	
± 1 standard error	0.04%	0.10%	0.71%	1.06%	

The Paragon™ series of dual-chamber pulse generators was introduced in September 1988. These models are no longer being manufactured. Survival probability (%) is based on returned product analysis as of June 30, 2006. 16,671 of these devices have been implanted.

Synchrony® III (Models 2028 & 2029)

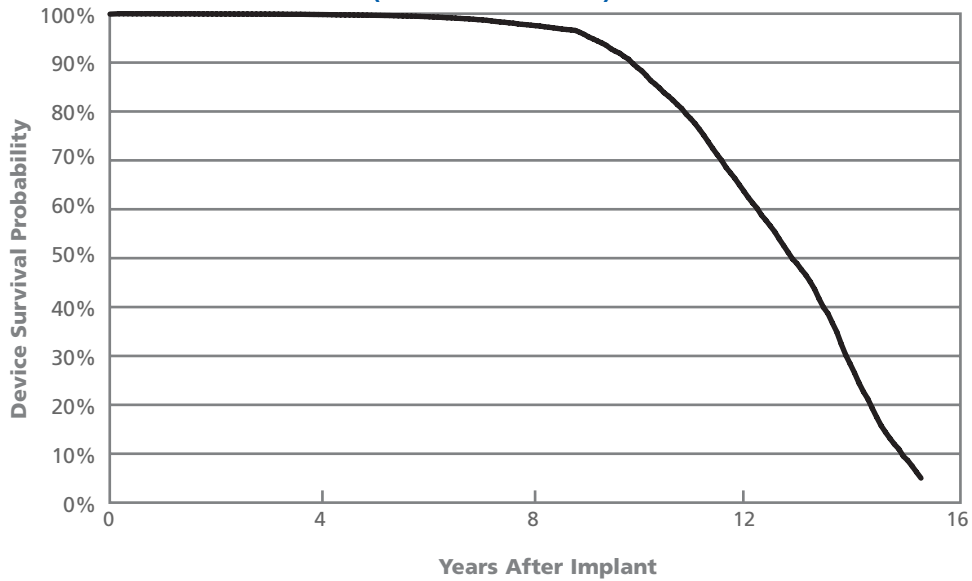


Year	3	6	9	12	15
Survival Probability	99.79%	94.72%	84.34%	25.86%	
± 1 standard error	0.02%	0.14%	0.39%	0.83%	

The Synchrony® III series of dual-chamber, rate-responsive pulse generators was released in February 1993. These models are no longer being manufactured. Survival probability (%) is based on returned product analysis as of June 30, 2006. 43,406 of these devices have been implanted.

Pulse Generators dual-chamber

Synchrony® II (Models 2022 & 2023)

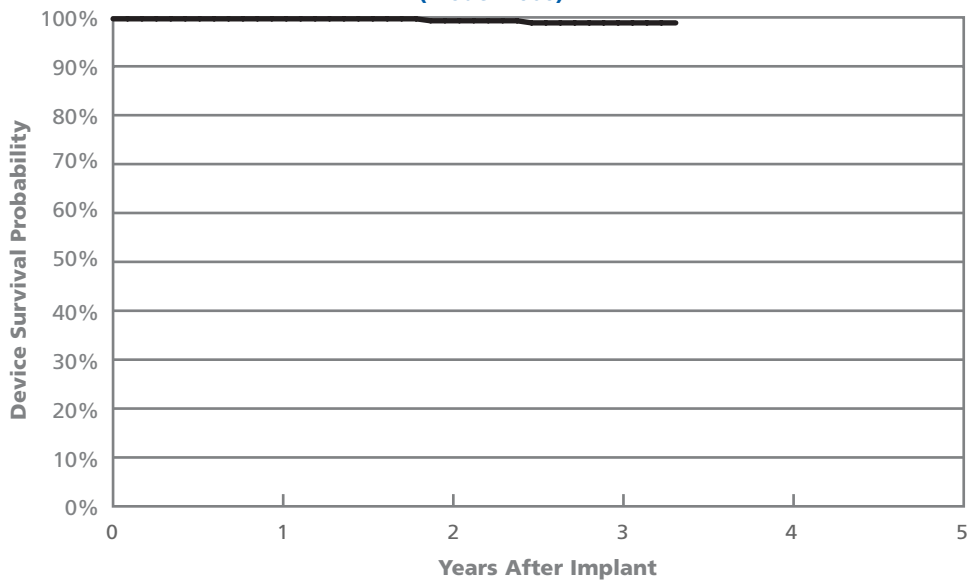


Year	4	8	12	16
Survival Probability	99.82%	97.55%	62.43%	
± 1 standard error	0.02%	0.10%	0.52%	

The Synchrony® II series of dual-chamber, rate-responsive pulse generators was released in June 1990. These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006. 47,190 of these devices have been implanted.

AddVent® (Model 2060)



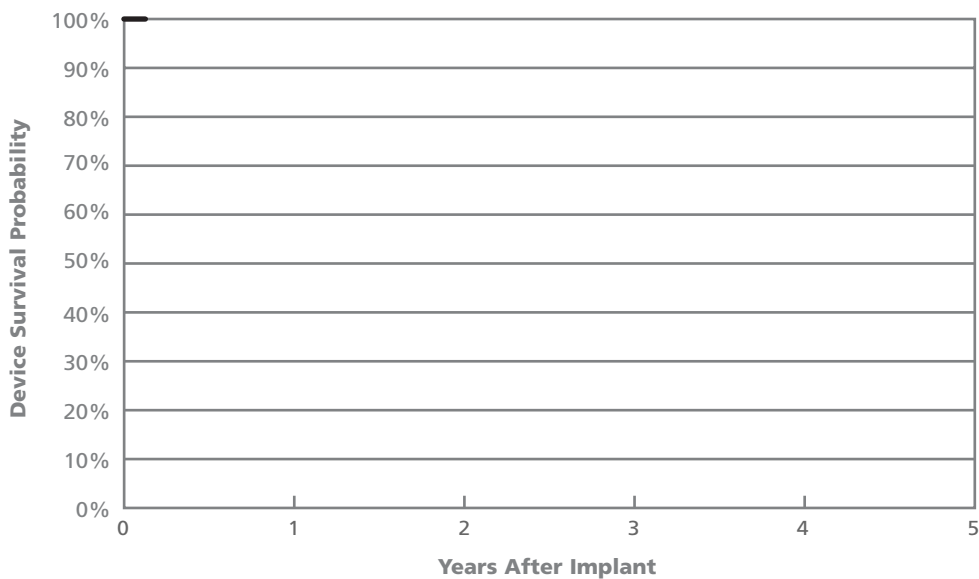
Year	1	2	3	4	5
Survival Probability	99.71%	99.31%	98.88%		
± 1 standard error	0.29%	0.49%	0.66%		

The AddVent® single-lead, dual-chamber pulse generator was approved for use in May 1999. This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006. 352 of these devices have been implanted.

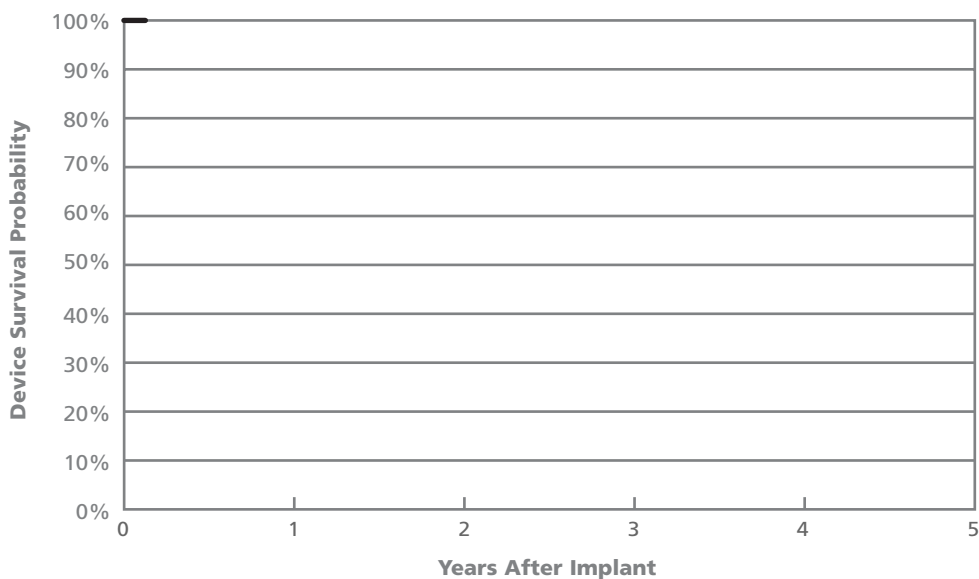
single-chamber **Pulse Generators**

Victory® SR (Model 5610) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability					
± 1 standard error					

Victory® SR (Model 5610) Excluding Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability					
± 1 standard error					

The Victory® SR single-chamber, rate-responsive pulse generator was approved for use in December 2005.

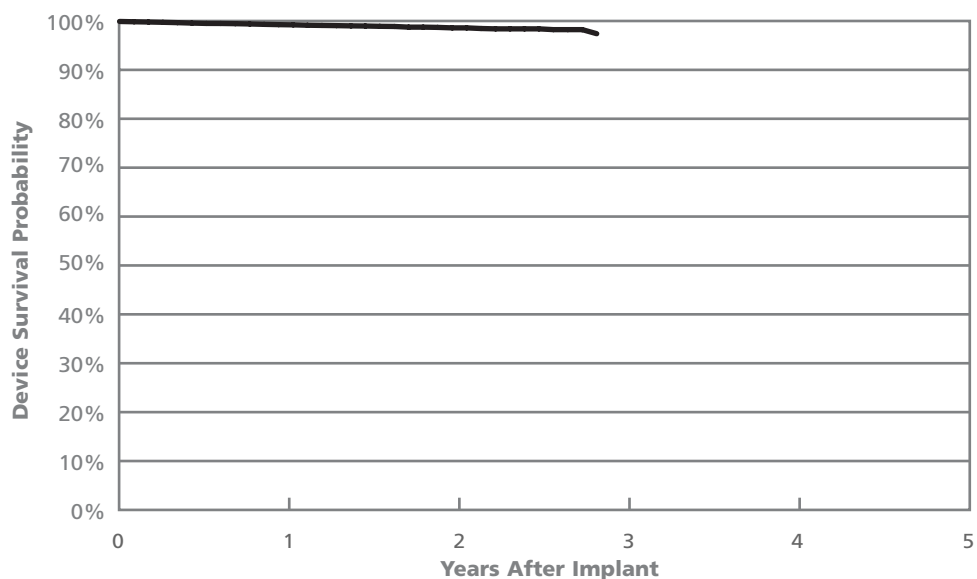
Survival probability (%) is based on returned product analysis as of June 30, 2006.

644 of these devices have been implanted.

*No survival probability is stated at 1 year due to the device not meeting the required minimum sample size of 200 U.S. implants with 12 consecutive months of data.

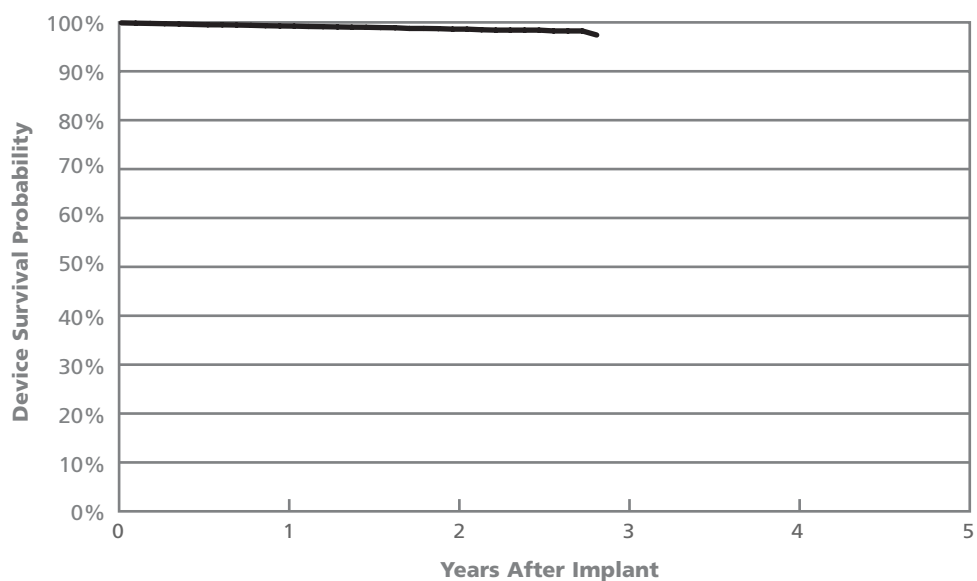
Pulse Generators single-chamber

Identity® ADx SR (Model 5180) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.25%	98.59%			
± 1 standard error	0.09%	0.16%			

Identity® ADx SR (Model 5180) Excluding Normal Battery Depletion

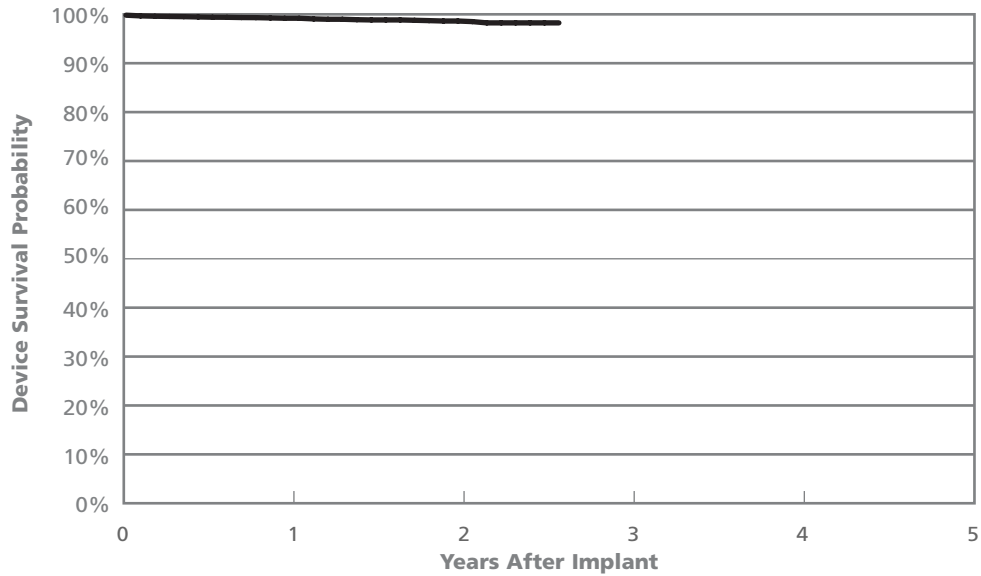


Year	1	2	3	4	5
Survival Probability	99.27%	98.62%			
± 1 standard error	0.09%	0.15%			

The Identity® ADx SR single-chamber, rate-responsive pulse generator was approved for use in May 2003. Survival probability (%) is based on returned product analysis as of June 30, 2006. 13,056 of these devices have been implanted.

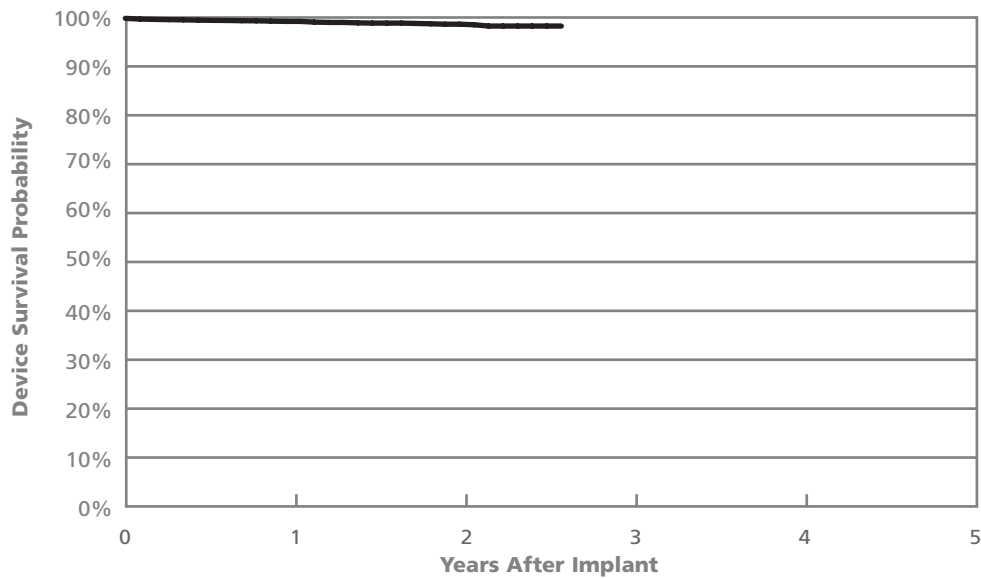
single-chamber Pulse Generators

Verity® ADx XL SR (Model 5156) Verity® ADx XL SR M/S (Model 5157M/S); Verity® ADx XL SC (Model 5056) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.20%	98.63%			
± 1 standard error	0.12%	0.22%			

Verity® ADx XL SR (Model 5156) Verity® ADx XL SR M/S (Model 5157M/S); Verity® ADx XL SC (Model 5056) Excluding Normal Battery Depletion

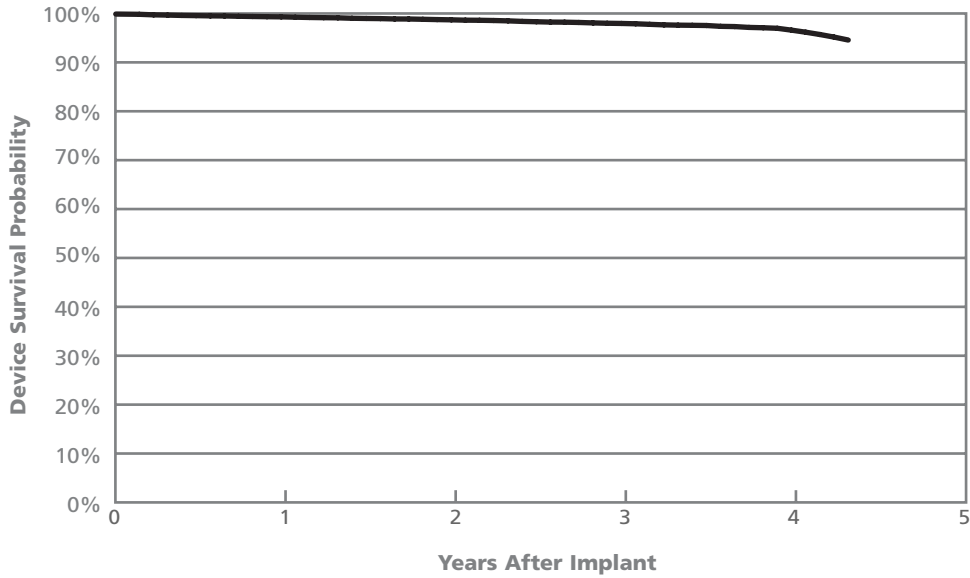


Year	1	2	3	4	5
Survival Probability	99.20%	98.63%			
± 1 standard error	0.22%	0.22%			

The Verity® ADx XL SR and Verity® ADx XL SR M/S single-chamber, rate-responsive pulse generators and the Verity® ADx XL SC single-chamber pulse generator were approved for use in May 2003. Survival probability (%) is based on returned product analysis as of June 30, 2006. 6,882 of these devices have been implanted.

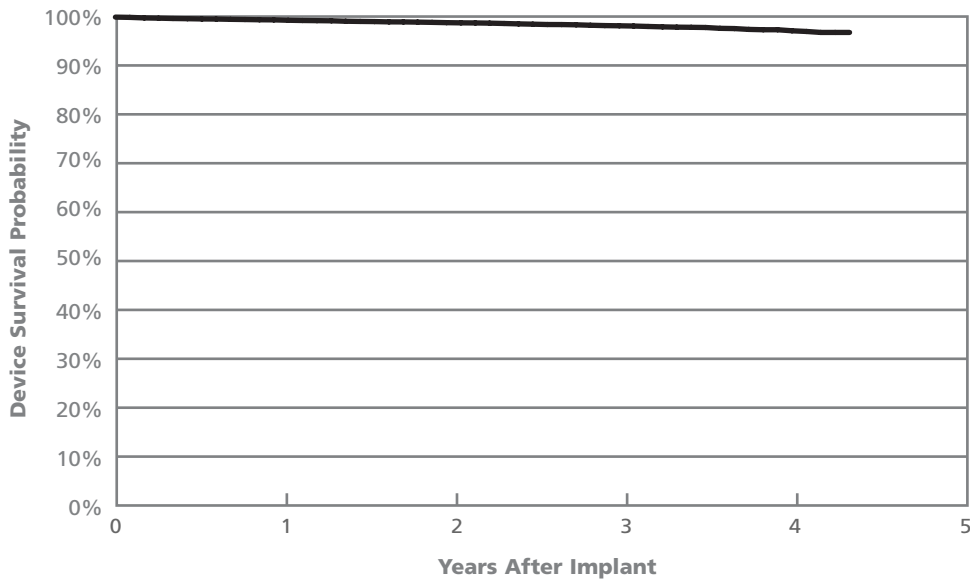
Pulse Generators single-chamber

Identity® SR (Model 5172) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.31%	98.70%	97.96%	96.59%	
± 1 standard error	0.06%	0.09%	0.14%	0.23%	

Identity® SR (Model 5172) Excluding Normal Battery Depletion

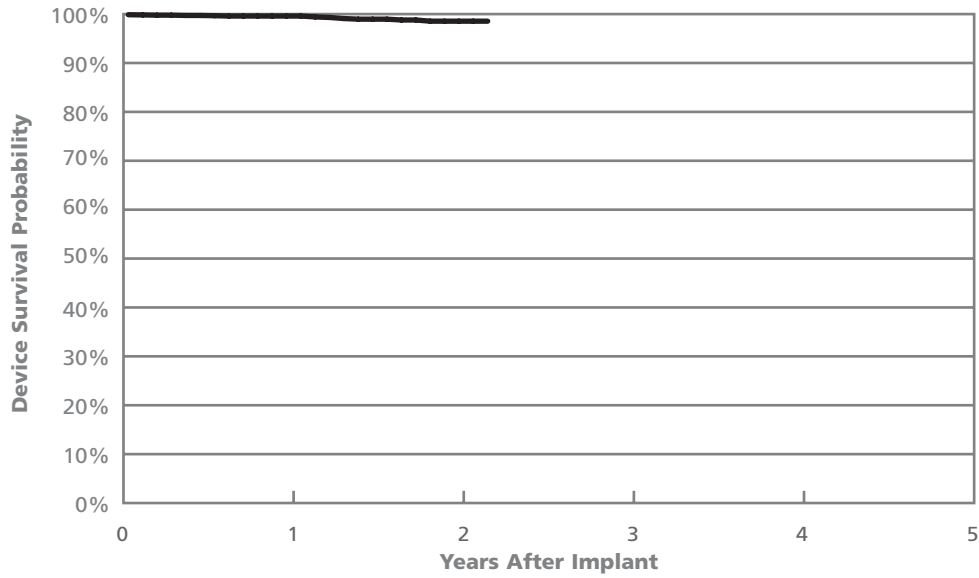


Year	1	2	3	4	5
Survival Probability	99.32%	98.75%	98.11%	97.09%	
± 1 standard error	0.06%	0.09%	0.13%	0.23%	

The Identity® SR single-chamber, rate-responsive pulse generator was approved for use in November 2001.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
19,977 of these devices have been implanted.

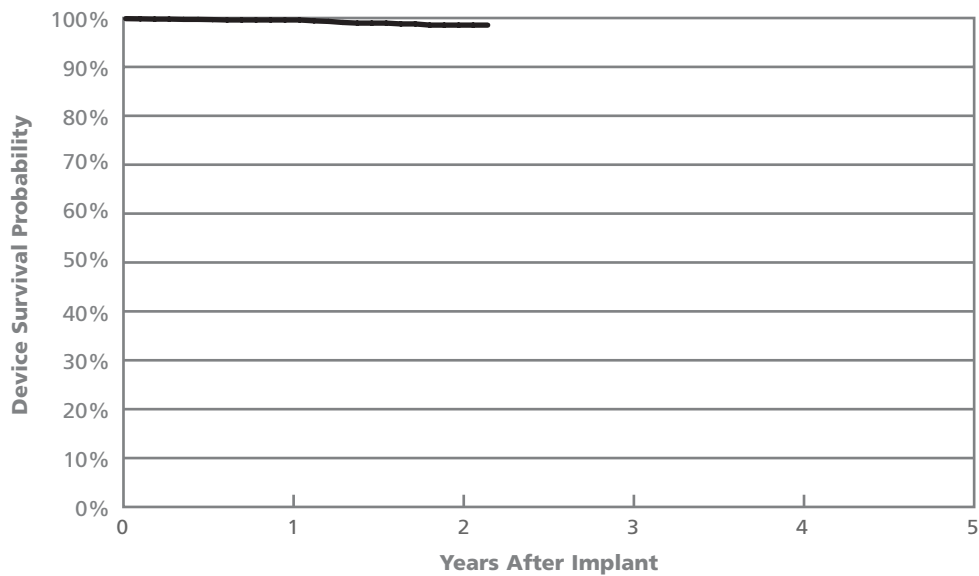
single-chamber **Pulse Generators**

Integrity® ADx SR (Model 5160) Including Normal Battery Depletion



Year	1	2	3	4	5
Survival Probability	99.60%	98.55%			
± 1 standard error	0.14%	0.42%			

Integrity® ADx SR (Model 5160) Excluding Normal Battery Depletion

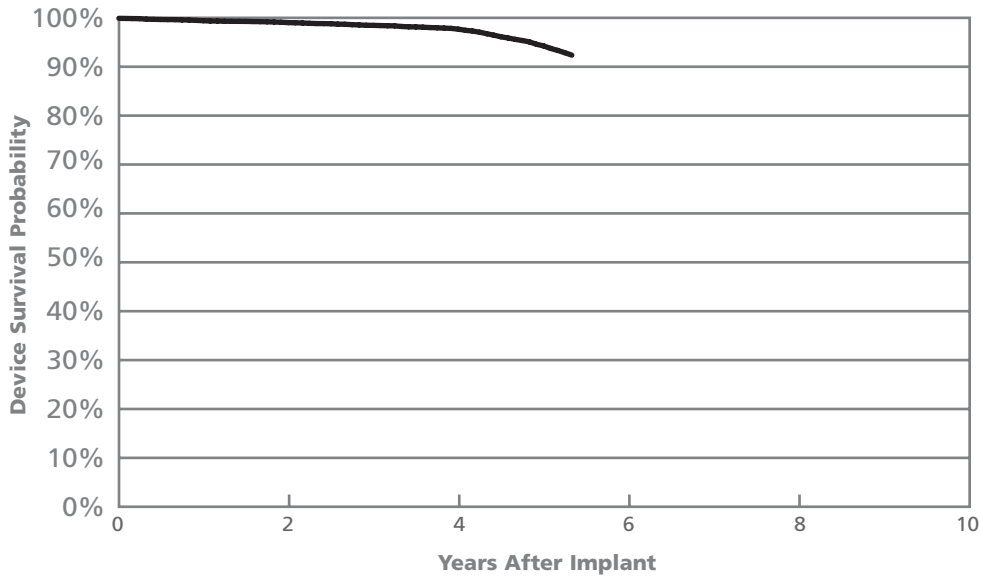


Year	1	2	3	4	5
Survival Probability	99.60%	98.55%			
± 1 standard error	0.14%	0.42%			

The Integrity® ADx SR single-chamber, rate-responsive pulse generator was approved for use in May 2003.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
2,399 of these devices have been implanted.

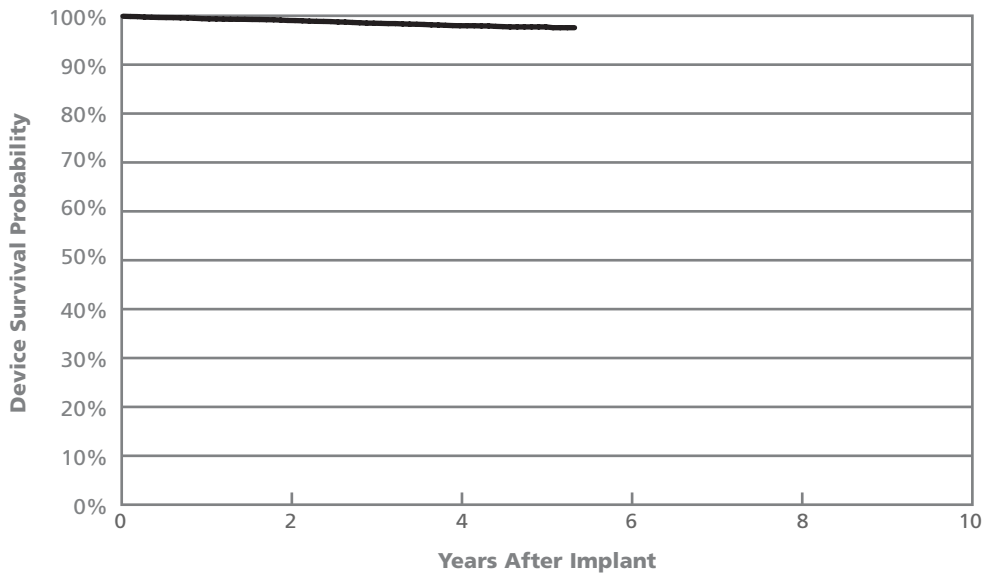
Pulse Generators single-chamber

Integrity® μ SR (Model 5136) Including Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	99.02%	97.68%			
± 1 standard error	0.10%	0.19%			

Integrity® μ SR (Model 5136) Excluding Normal Battery Depletion

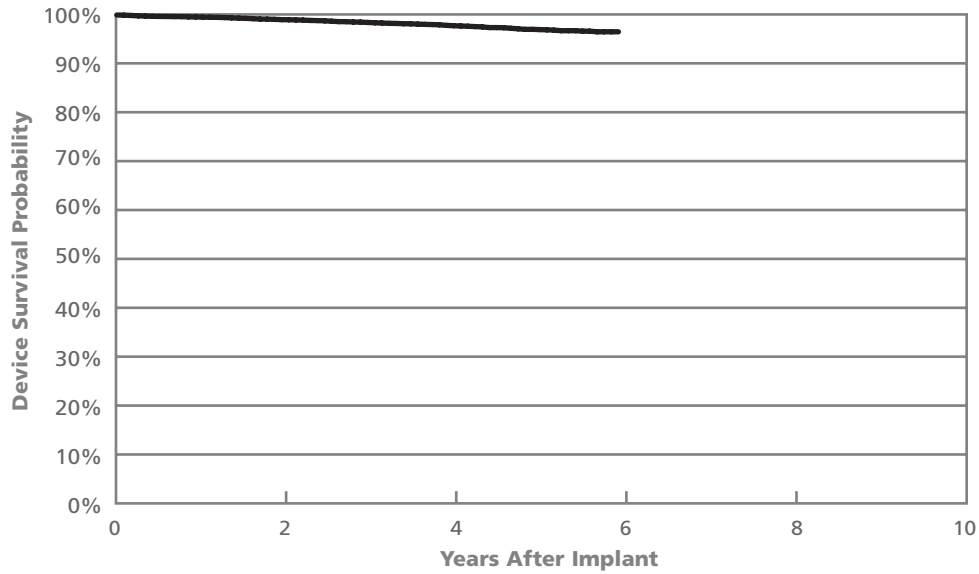


Year	2	4	6	8	10
Survival Probability	99.04%	97.96%			
± 1 standard error	0.10%	0.18%			

The Integrity® μ SR single-chamber, rate-responsive pulse generator was approved for use in December 2000. Survival probability (%) is based on returned product analysis as of June 30, 2006. 11,830 of these devices have been implanted.

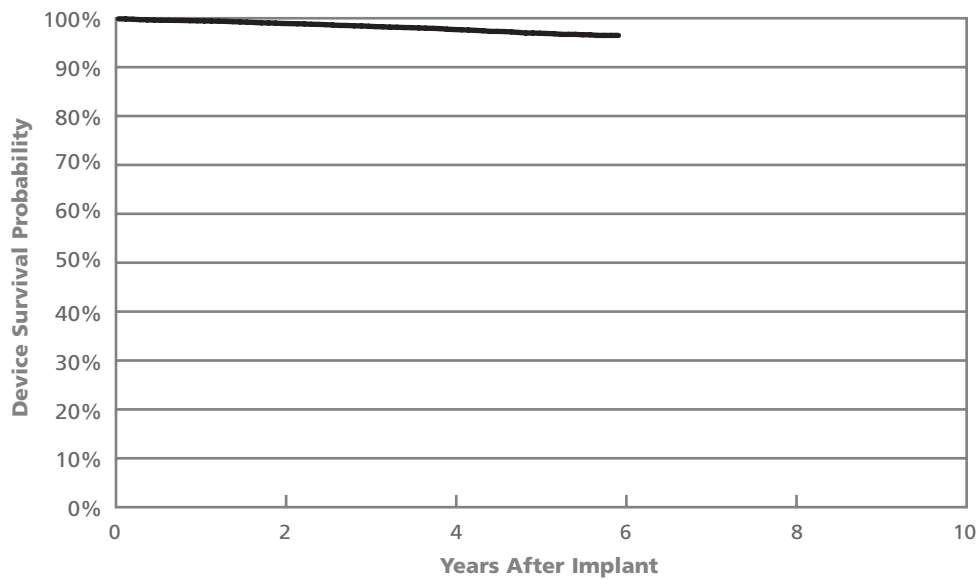
single-chamber **Pulse Generators**

Integrity® SR (Model 5142) Including Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	98.93%	97.69%			
± 1 standard error	0.11%	0.18%			

Integrity® SR (Model 5142) Excluding Normal Battery Depletion

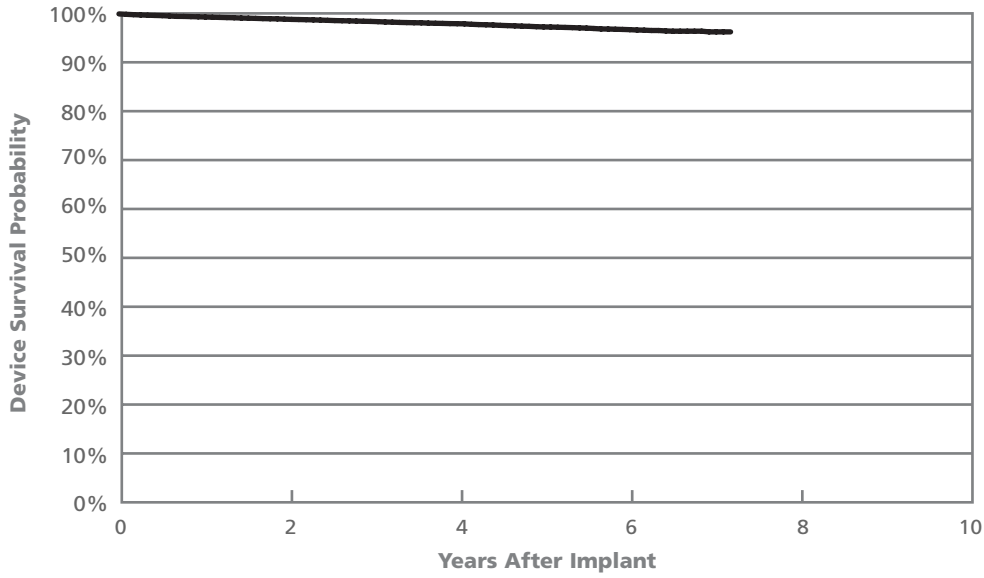


Year	2	4	6	8	10
Survival Probability	98.93%	97.69%			
± 1 standard error	0.11%	0.18%			

*The Integrity® SR single-chamber, rate-responsive pulse generator was approved for use in April 2000.
Survival probability (%) is based on returned product analysis as of June 30, 2006.
10,456 of these devices have been implanted.*

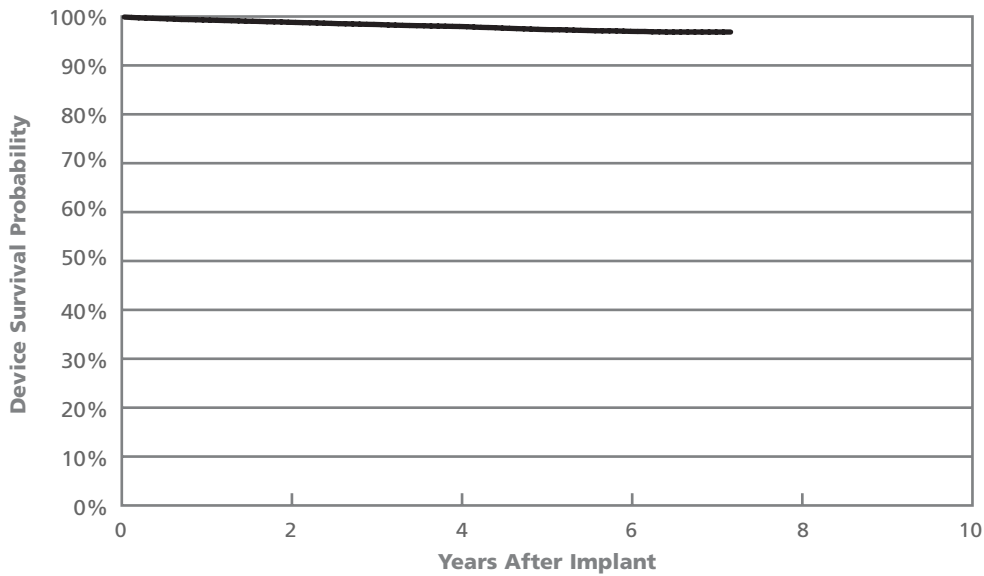
Pulse Generators single-chamber

Affinity® SR (Models 5130 & 5131) Including Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	98.82%	97.89%	96.67%		
± 1 standard error	0.07%	0.10%	0.16%		

Affinity® SR (Models 5130 & 5131) Excluding Normal Battery Depletion



Year	2	4	6	8	10
Survival Probability	98.83%	97.96%	96.96%		
± 1 standard error	0.07%	0.10%	0.15%		

The Affinity® SR model 5130 single-chamber, rate-responsive pulse generator was approved for use in January 1999.

The Affinity® SR model 5131 single-chamber, rate-responsive pulse generator was approved for use in June 1999.

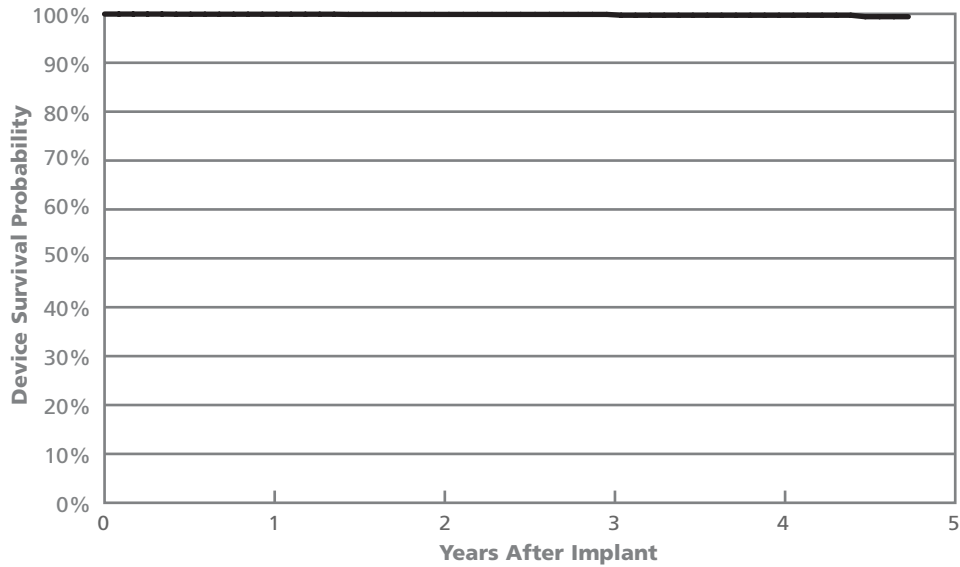
Survival probability (%) is based on returned product analysis as of June 30, 2006.

28,598 of these devices have been implanted.

(Note: Some of these devices are subject to an advisory. See pp. 84-87 for more information.)

single-chamber Pulse Generators

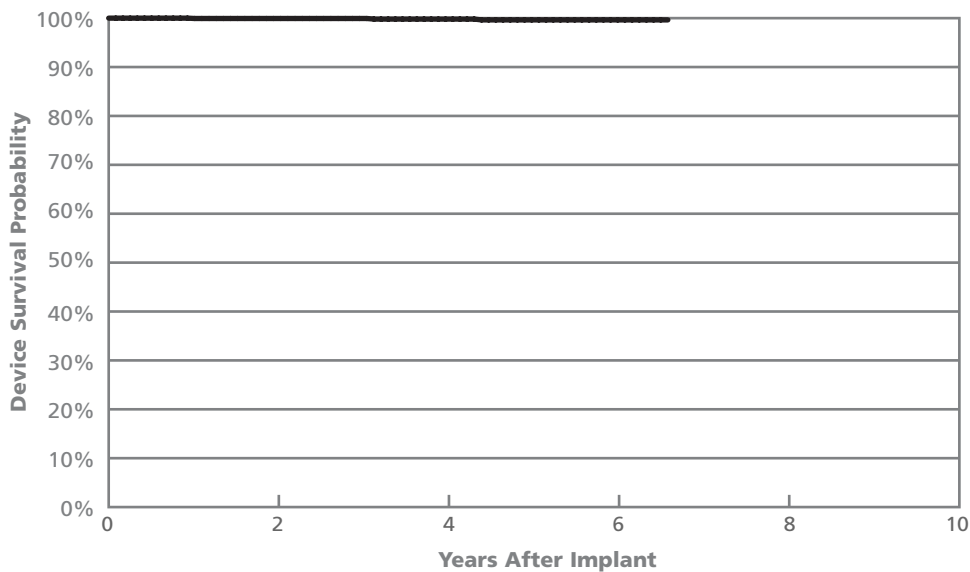
Microny® (Models 2425T, 2525T & 2535K)



Year	1	2	3	4	5
Survival Probability	99.93%	99.89%	99.89%	99.72%	
± 1 standard error	0.04%	0.06%	0.06%	0.13%	

The Microny® model 2425T single-chamber, rate-responsive pulse generator was approved for use in December 2000. The Microny® models 2525T and 2535K single-chamber, rate-responsive pulse generators were approved for use in April 2001. Survival probability (%) is based on returned product analysis as of June 30, 2006. 4,624 of these devices have been implanted.

Regency® SC+ (Models 2400L & 2402L)

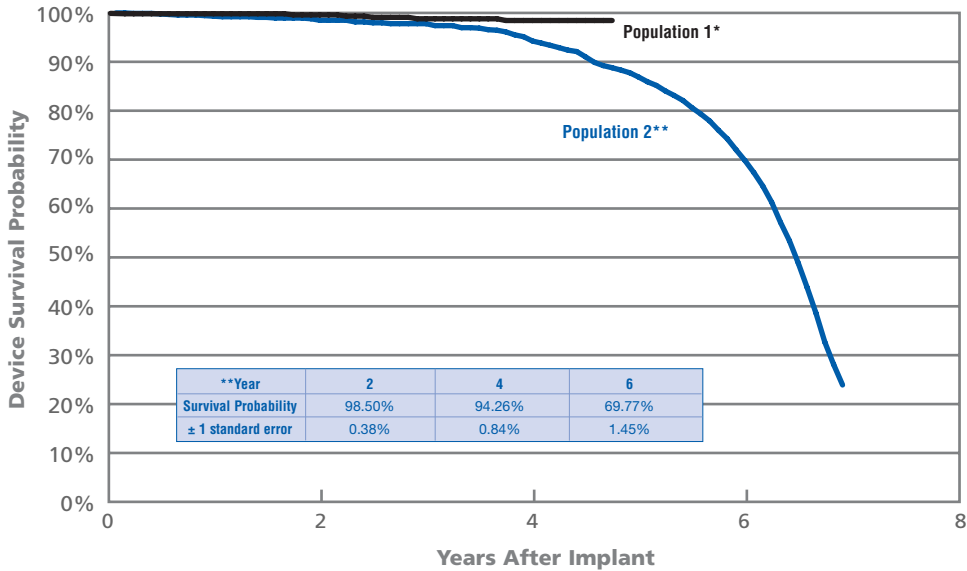


Year	2	4	6	8	10
Survival Probability	99.93%	99.81%	99.64%		
± 1 standard error	0.07%	0.14%	0.22%		

The Regency® SC+ series of single-chamber pulse generators was approved for use in May 1998. Survival probability (%) is based on returned product analysis as of June 30, 2006. 2,058 of these devices have been implanted.

Pulse Generators single-chamber

Tempo® V (Model 1102) Tempo® VR (Model 1902)



Year	2	4	6	8
Survival Probability	99.60%	98.45%		
± 1 standard error	0.29%	0.64%		

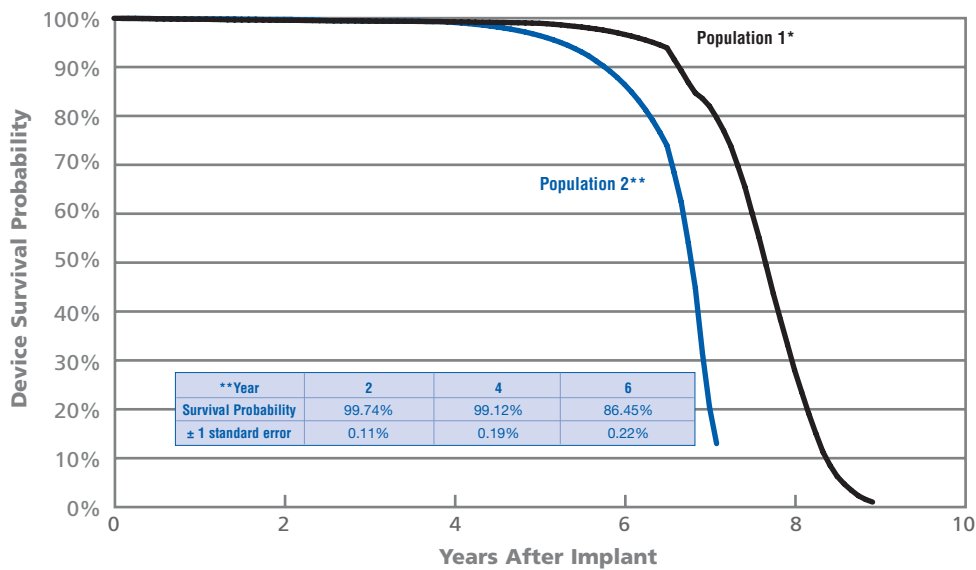
The Tempo® V single-chamber pulse generator and the Tempo® VR single-chamber, rate-responsive pulse generator were approved for use in August 1997. These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

*This group of devices is not under advisory. 604 of these devices were implanted.

**This group of devices is subject to an advisory. See pp. 84-87 for more information. 1,061 of these devices were implanted.

Trilogy® SR+ (Models 2260 & 2264)



*Year	2	4	6	8	10
Survival Probability	99.56%	99.24%	96.66%	28.01%	
± 1 standard error	0.06%	0.08%	0.12%	0.84%	

The Trilogy® SR+ series of single-chamber, rate-responsive pulse generators was approved for use in March 1997.

These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

*This group of devices is not under advisory. 15,310 of these devices were implanted.

**This group of devices is subject to an advisory. See pp. 84-87 for more information. 2,772 of these devices were implanted.

single-chamber Pulse Generators

Trilogy® SR (Models 2250)



Year	3	6	9	12
Survival Probability	99.72%	99.25%	84.16%	
± 1 standard error	0.05%	0.11%	0.68%	

The Trilogy® SR single-chamber, rate-responsive pulse generator was approved for use in June 1995.

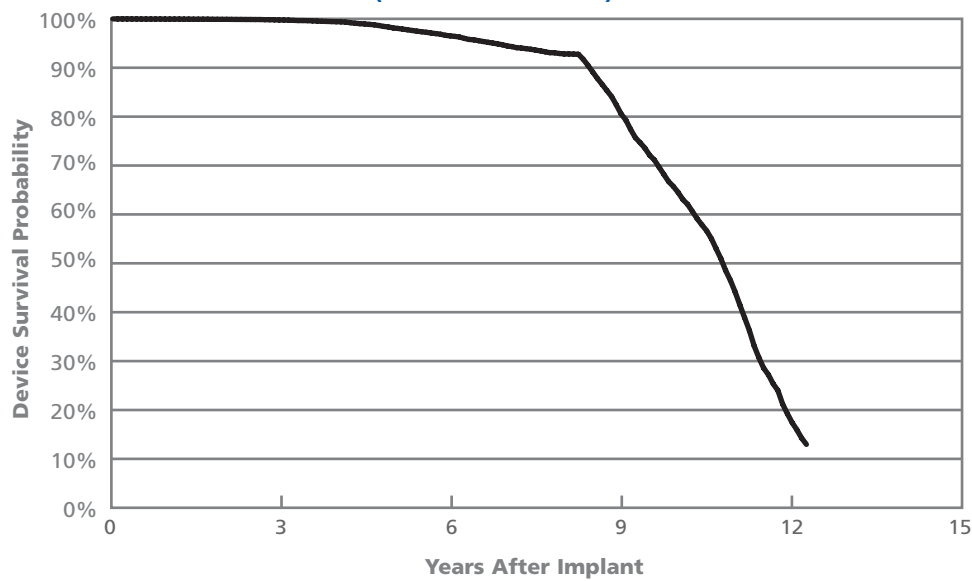
This model is no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

12,450 of these devices have been implanted.

(Note: These devices are subject to an advisory. See pp. 84-87 for more information.)

Solus® II (Models 2006 & 2007)



Year	3	6	9	12	15
Survival Probability	99.77%	96.52%	80.54%	17.42%	
± 1 standard error	0.03%	0.16%	0.66%	1.00%	

The Solus® II series of single-chamber, rate-responsive pulse generators was introduced in February 1993.

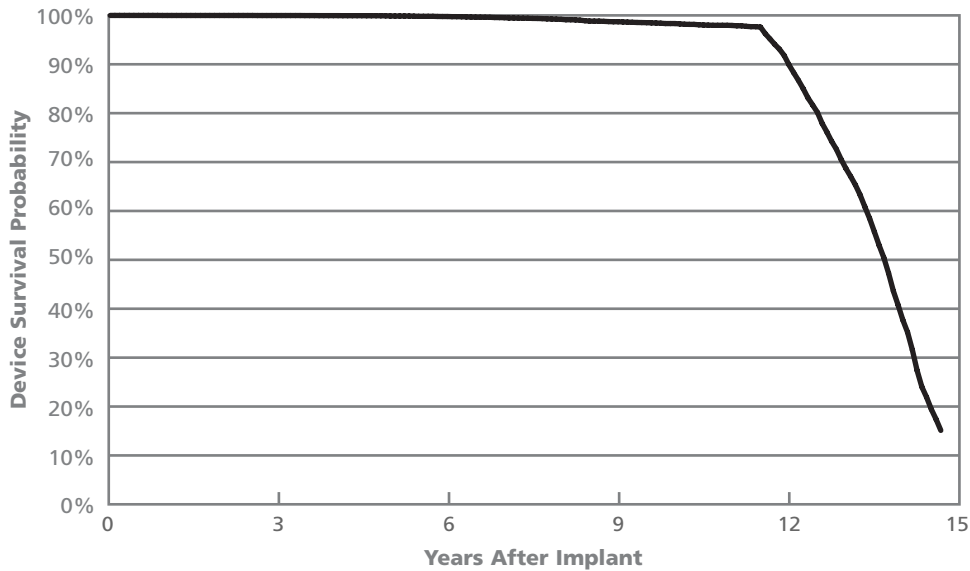
These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

32,281 of these devices have been implanted.

Pulse Generators single-chamber

Solus® (Models 2002 & 2003)



Year	3	6	9	12	15
Survival Probability	99.97%	99.77%	98.70%	89.90%	
± 1 standard error	0.01%	0.04%	0.13%	0.52%	

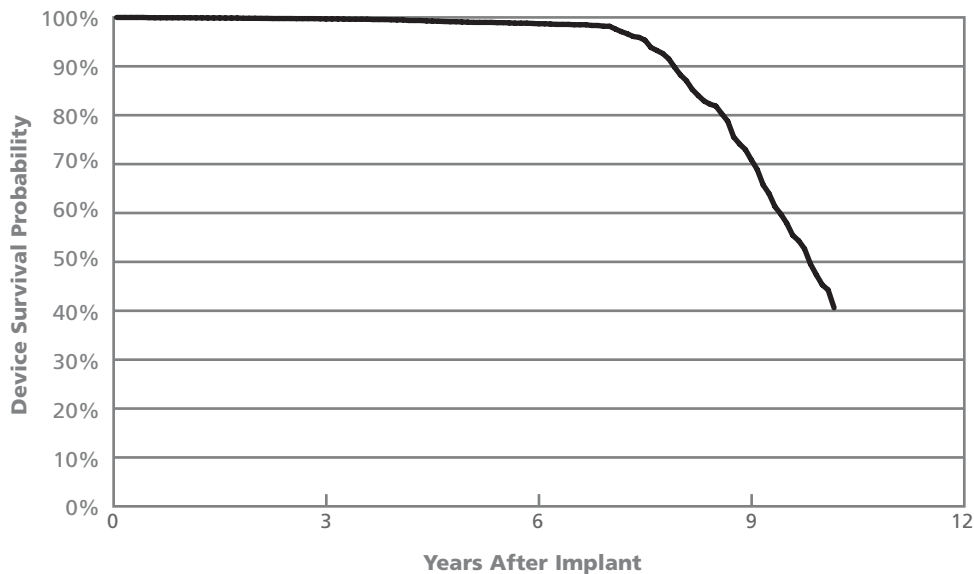
The Solus® series of single-chamber, rate-responsive pulse generators was introduced in June 1990.

These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

23,850 of these devices have been implanted.

Phoenix® III (Models 2204 & 2205)



Year	3	6	9	12
Survival Probability	99.69%	98.70%	70.86%	
± 1 standard error	0.08%	0.22%	1.54%	

The Phoenix® III series of single-chamber pulse generators was introduced in October 1994.

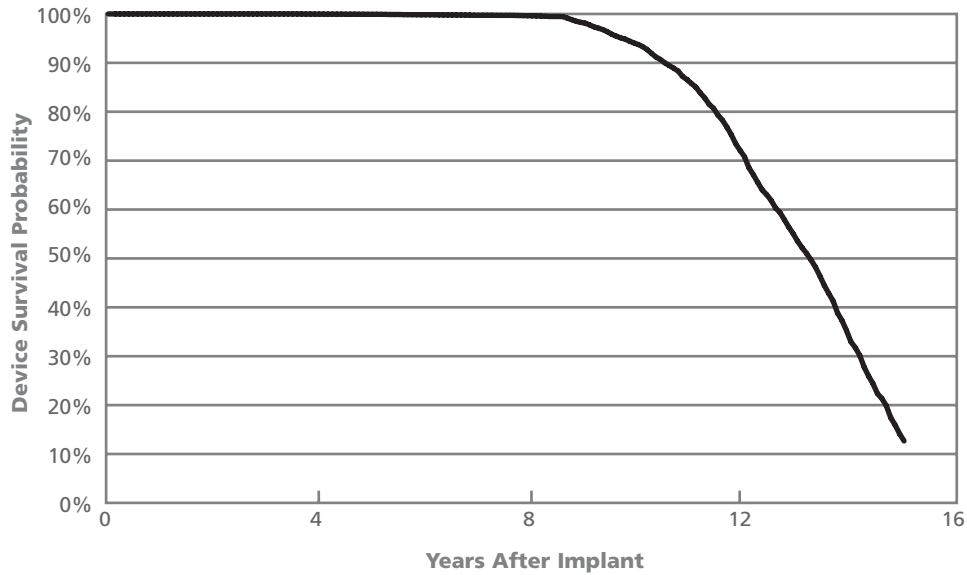
These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

6,744 of these devices have been implanted.

single-chamber Pulse Generators

Phoenix[®] 2 (Models 2005, 2008 & 2009)



Year	4	8	12	16
Survival Probability	99.97%	99.62%	70.78%	
± 1 standard error	0.01%	0.07%	0.87%	

The Phoenix[®] 2 series of single-chamber pulse generators was introduced in July 1990.

These models are no longer being manufactured.

Survival probability (%) is based on returned product analysis as of June 30, 2006.

26,746 of these devices have been implanted.

Pulse Generators Summary Information*

Including Normal Battery Depletion

Model	Family	Market Release Date	Registered US implants	Estimated Active US implants	Malfunctions w/ Compromised Therapy (not under advisory)	Malfunctions w/o Compromised Therapy (under advisory**)	Malfunctions w/o Compromised Therapy	Total Malfunctions	Normal Battery Depletion
5810/5816	Victory DR/XL	Dec-05	8531	4860	0	0	0	0	0
5586	Frontier II	Aug-04	1432	1324	0	0	0	0	0
5380	Identity ADx DR	Mar-03	43712	41693	0	0	10	10	7
5386/5286	Identity ADx XL DR/DC	Mar-03	48574	42138	1	0	9	10	1
5360/5366	Integrity ADx DR	May-03	11208	9119	0	0	3	3	0
5356/5357/5256	Verity ADx XL DR/ DR(M/S) / DC	May-03	12705	10369	0	0	5	5	0
5370	Identity	Nov-01	56739	55420	5	0	54	59	300
5376	Identity XL	Nov-01	51443	47797	6	0	28	34	18
5336	Integrity µ DR	Dec-00	29554	28340	6	0	53	59	751
5342/5346	Integrity AFx DR	Apr-00/Jul-01	49090	47101	5	0	47	52	90
5326/5226	Entity DR/DC	Jun-99	24196	21764	3	0	19	22	77
5330/5331/5230	Affinity DR/DC	Jan-99/Jun-99	71472	65354	14	64	104	182	453
5430	Affinity VDR	Apr-00	1194	664	0	0	0	0	1
5610	Victory SR	Dec-05	1187	644	0	0	0	0	0
5180	Integrity ADx SR	May-03	15736	13056	0	0	2	2	2
5156/5157/5056	Verity ADx XL SR/ SR(M/S) / SC	May-03	9743	6882	0	0	2	2	0
5172	Identity SR	Nov-01	21853	19977	1	0	9	10	18
5160	Integrity ADx SR	May-03	2899	2399	0	0	0	0	0
5136	Integrity µ SR	Dec-00	12133	11830	0	0	3	3	26
5142	Integrity SR	Apr-00	11229	10456	1	0	3	4	1
5130/5131	Affinity SR	Jan-99/Jun-99	32097	28598	4	17	31	52	32

Excluding Normal Battery Depletion

Model	Family	Market Release Date	Registered US implants	Estimated Active US implants	Malfunctions w/ Compromised Therapy (not under advisory)	Malfunctions w/o Compromised Therapy (under advisory**)	Malfunctions w/o Compromised Therapy	Total Malfunctions
5810/5816	Victory DR/XL	Dec-05	8531	4860	0	0	0	0
5586	Frontier II	Aug-04	1432	1324	0	0	0	0
5380	Identity ADx DR	Mar-03	43712	41693	0	0	10	10
5386/5286	Identity ADx XL DR/DC	Mar-03	48574	42138	1	0	9	10
5360/5366	Integrity ADx DR	May-03	11208	9119	0	0	3	3
5356/5357/5256	Verity ADx XL DR/ DR(M/S) / DC	May-03	12705	10369	0	0	5	5
5370	Identity	Nov-01	56739	55420	5	0	54	59
5376	Identity XL	Nov-01	51443	47797	6	0	28	34
5336	Integrity µ DR	Dec-00	29554	28340	6	0	53	59
5342/5346	Integrity AFx DR	Apr-00/Jul-01	49090	47101	5	0	47	52
5326/5226	Entity DR/DC	Jun-99	24196	21764	3	0	19	22
5330/5331/5230	Affinity DR/DC	Jan-99/Jun-99	71472	65354	14	64	104	182
5430	Affinity VDR	Apr-00	1194	664	0	0	0	0
5610	Victory SR	Dec-05	1187	644	0	0	0	0
5180	Integrity ADx SR	May-03	15736	13056	0	0	2	2
5156/5157/5056	Verity ADx XL SR/ SR(M/S) / SC	May-03	9743	6882	0	0	2	2
5172	Identity SR	Nov-01	21853	19977	1	0	9	10
5160	Integrity ADx SR	May-03	2899	2399	0	0	0	0
5136	Integrity µ SR	Dec-00	12133	11830	0	0	3	3
5142	Integrity SR	Apr-00	11229	10456	1	0	3	4
5130/5131	Affinity SR	Jan-99/Jun-99	32097	28598	4	17	31	52

Pulse Generators Summary Information*

Including Normal Battery Depletion

Model	Family	Survival Probability							
		1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years
5810/5816	Victory DR/XL†								
5586	Frontier II	99.63%							
5380	Identity ADx DR	99.61%	99.25%	98.67%					
5386/5286	Identity ADx XL DR/DC	99.46%	99.04%	98.79%					
5360/5366	Integrity ADx DR	99.57%	99.18%						
5356/5357/5256	Verity ADx XL DR/DR(M/S) / DC	99.36%	99.08%						
5370	Identity	99.55%	97.58%	92.37%	72.08%				
5376	Identity XL	99.52%	99.06%	98.58%	98.17%				
5336	Integrity μ DR	99.44%	98.24%	93.06%	75.60%	25.97%			
5342/5346	Integrity AFx DR	99.51%	99.14%	98.66%	98.10%	97.39%	96.95%		
5326/5226	Entity DR/DC	99.52%	99.24%	98.79%	98.14%	97.37%	91.35%		
5330/5331/5230	Affinity DR/DC	99.74%	99.58%	99.39%	99.12%	98.79%	96.21%	83.82%	
5430	Affinity VDR	99.68%	99.50%	99.29%	98.61%				
5610	Victory SR†								
5180	Integrity ADx SR	99.25%	98.59%						
5156/5157/5056	Verity ADx XL SR/SR(M/S) / SC	99.20%	98.63%						
5172	Identity SR	99.31%	98.70%	97.96%	96.59%				
5160	Integrity ADx SR	99.60%	98.55%						
5136	Integrity μ SR	99.41%	99.02%	98.46%	97.68%	94.27%			
5142	Integrity SR	99.48%	98.93%	98.36%	97.69%	96.90%			
5130/5131	Affinity SR	99.30%	98.82%	98.36%	97.89%	97.23%	96.67%	96.22%	

Excluding Normal Battery Depletion

Model	Family	Survival Probability							
		1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years
5810/5816	Victory DR/XL†								
5586	Frontier II	99.63%							
5380	Identity ADx DR	99.61%	99.28%	98.83%					
5386/5286	Identity ADx XL DR/DC	99.46%	99.05%	98.80%					
5360/5366	Integrity ADx DR	99.57%	99.18%						
5356/5357/5256	Verity ADx XL DR/DR(M/S) / DC	99.36%	99.08%						
5370	Identity	99.55%	99.12%	98.64%	98.31%				
5376	Identity XL	99.52%	99.07%	98.64%	98.26%				
5336	Integrity μ DR	99.42%	99.04%	98.34%	98.31%	98.21%			
5342/5346	Integrity AFx DR	99.51%	99.15%	98.69%	98.17%	97.72%	97.51%		
5326/5226	Entity DR/DC	99.52%	99.25%	98.81%	98.30%	97.91%	97.61%		
5330/5331/5230	Affinity DR/DC	99.74%	99.58%	99.39%	99.14%	98.82%	98.55%	98.24%	
5430	Affinity VDR	99.68%	99.50%	99.29%	98.97%				
5610	Victory SR†								
5180	Integrity ADx SR	99.27%	98.62%						
5156/5157/5056	Verity ADx XL SR/SR(M/S) / SC	99.20%	98.63%						
5172	Identity SR	99.32%	98.75%	98.11%	97.09%				
5160	Integrity ADx SR	99.60%	98.55%						
5136	Integrity μ SR	99.41%	99.04%	98.48%	97.96%	97.72%			
5142	Integrity SR	99.48%	98.93%	98.36%	97.69%	96.93%			
5130/5131	Affinity SR	99.30%	98.83%	98.38%	97.96%	97.33%	96.96%	96.83%	

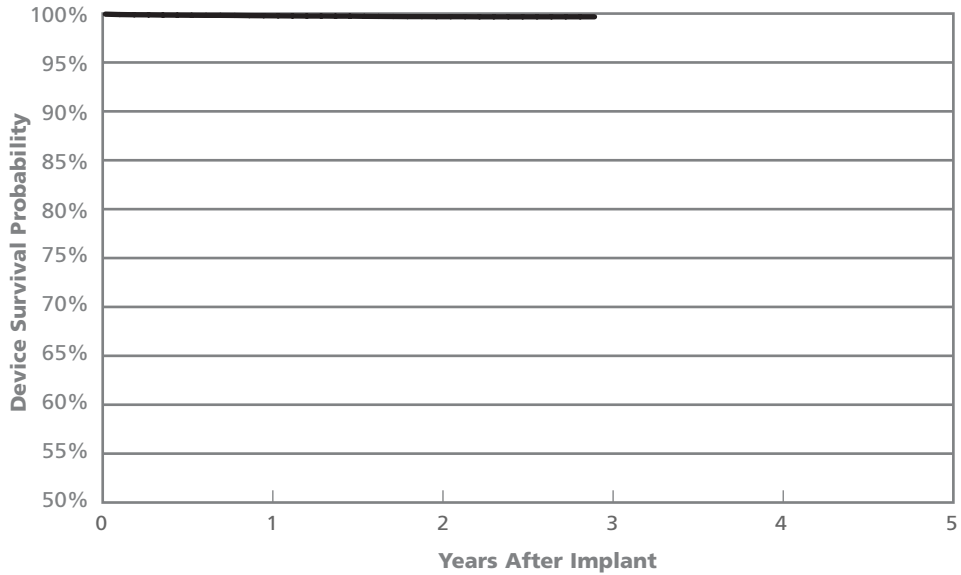
*Based on returned product analysis as of June 30, 2006.

**St. Jude Medical. Affinity unsecured resistor connection (advisory). February 2000.

†No survival probability is stated at 1 year due to the device not meeting the required minimum sample size of 200 U.S. implants with 12 consecutive months of data. Please refer to the individual device graphs for data up to one year.

Pacing Leads bipolar active fixation

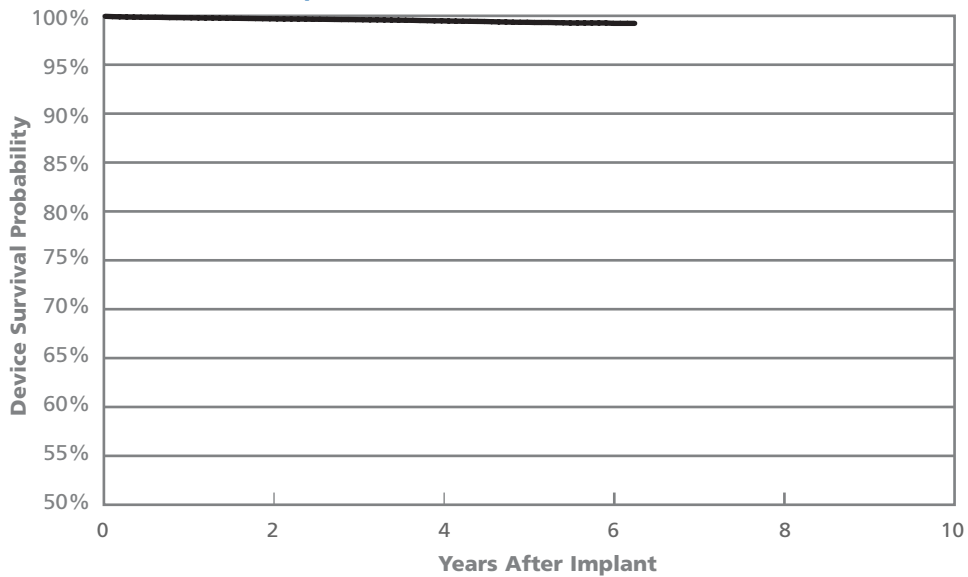
Tendril® SDX (Model 1688T) Bipolar Active Fixation Silicone Lead



Year	1	2	3	4	5
Survival Probability	99.78%	99.68%			
± 1 standard error	0.01%	0.02%			

Data is current as of June 30, 2006.
156,524 of these leads have been implanted.
(Approval date: June 2003)

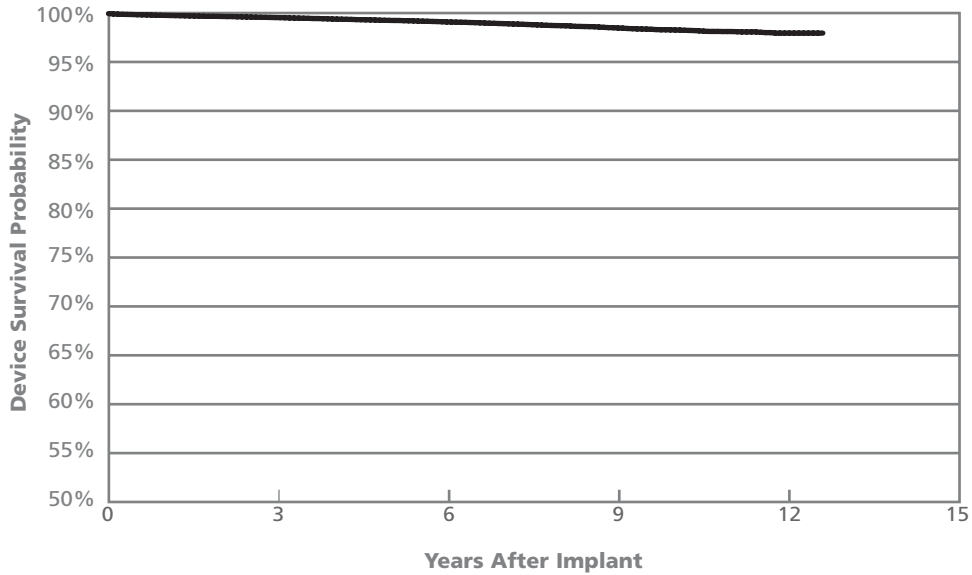
Tendril® SDX (Models 1488T & 1488TC) Bipolar Active Fixation Silicone Leads



Year	2	4	6	8	10
Survival Probability	99.70%	99.49%	99.23%		
± 1 standard error	0.01%	0.02%	0.04%		

Data is current as of June 30, 2006.
255,322 of these leads have been implanted.
(Approval date: March 2000)

Tendril® (Models 1148 & 1188T); Tendril® DX (Models 1388T & 1388TC) Bipolar Active Fixation Silicone Leads



Year	3	6	9	12	15
Survival Probability	99.54%	99.09%	98.47%	97.95%	
± 1 standard error	0.01%	0.02%	0.04%	0.10%	

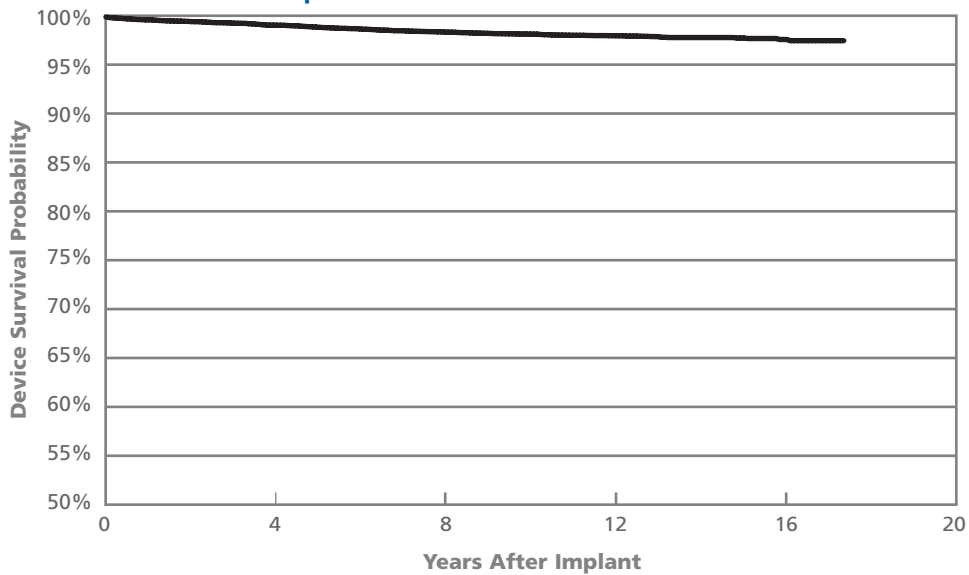
Data is current as of June 30, 2006.

The Tendril® lead models 1148 and 1188T are no longer being manufactured.

302,095 of these leads have been implanted.

(Approval dates: 1148–June 1993; 1188T–June 1994; 1388T–June 1997; 1388TC–March 1998)

Fast-Pass® (Models 1018T & 1028T) Bipolar Active Fixation Silicone Leads



Year	4	8	12	16	20
Survival Probability	99.04%	98.33%	97.95%	97.57%	
± 1 standard error	0.06%	0.09%	0.11%	0.17%	

Data is current as of June 30, 2006.

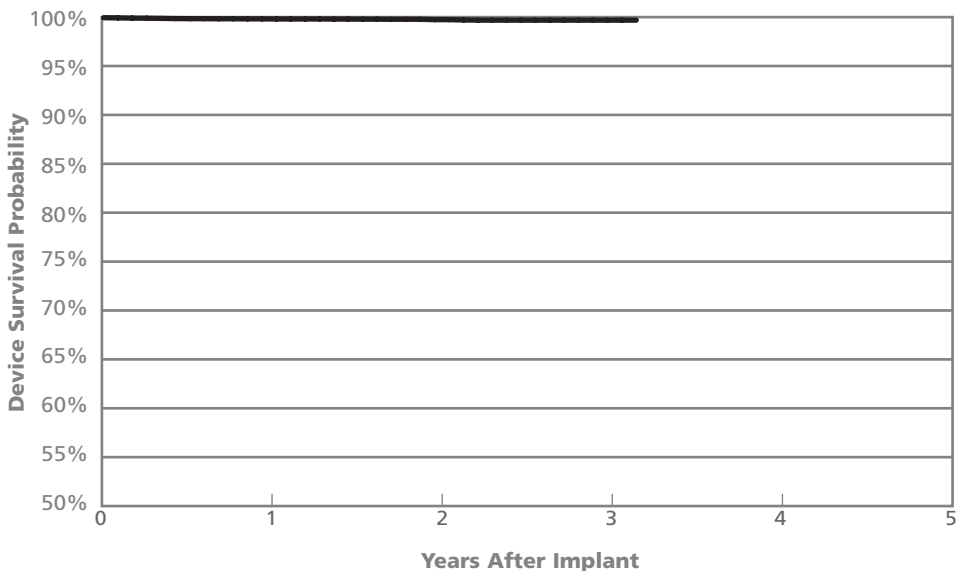
These lead models are no longer being manufactured.

28,035 of these leads have been implanted.

(Approval dates: 1018T–February 1988; 1028T–July 1990)

Pacing Leads bipolar passive fixation

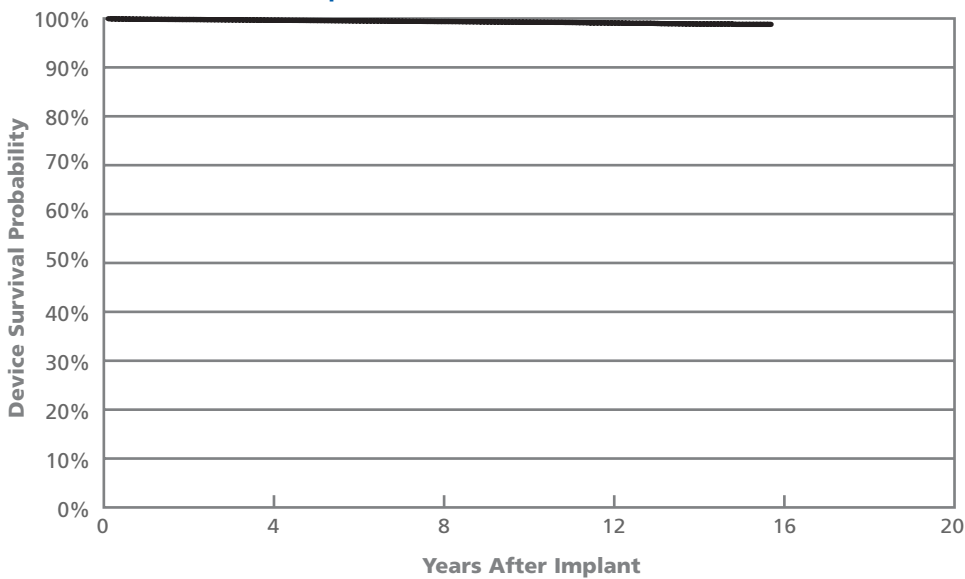
IsoFlex® S (Models 1642T & 1646T) Bipolar Passive Fixation Silicone Leads



Year	1	2	3	4	5
Survival Probability	99.82%	99.74%	99.69%		
± 1 standard error	0.02%	0.02%	0.03%		

Data is current as of June 30, 2006.
66,977 of these leads have been implanted.
(Approval date: April 2003)

Passive Plus® (Models 1136T, 1142T, 1146T, 1222T, 1226T, 1236T, 1242T & 1246T) Passive Plus® DX (Models 1336T, 1342T & 1346T) Bipolar Passive Fixation Silicone Leads

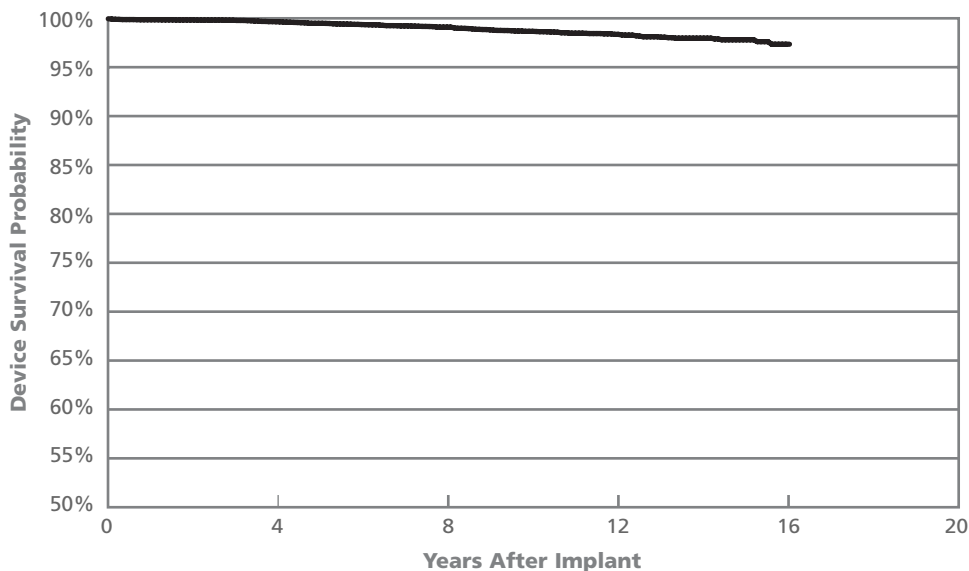


Year	4	8	12	16	20
Survival Probability	99.65%	99.38%	98.08%		
± 1 standard error	0.01%	0.02%	0.04%		

Data is current as of June 30, 2006.
The Passive Plus® lead models 1136T, 1142T, 1146T, 1222T, 1226T, 1236T, 1242T and 1246T are no longer being manufactured.
367,315 of these leads have been implanted.
(Approval dates: 1136T, 1142T, 1146T–June 1994; 1222T, 1226T, 1236T, 1242T, 1246T–April 1990; 1336T–August 1999;
1342T, 1346T–January 1998)

bipolar passive fixation and unipolar active fixation **Pacing Leads**

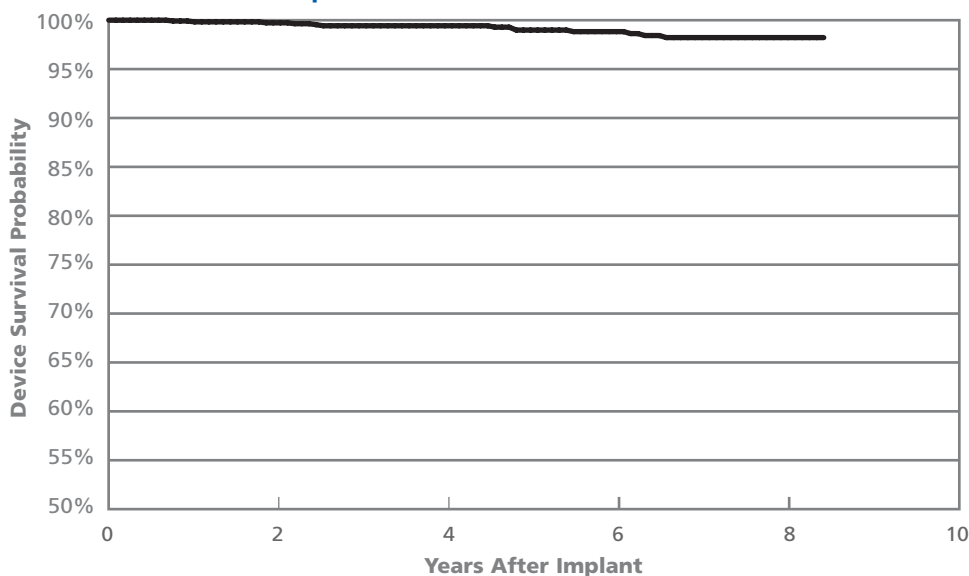
Permathane® ACE (Models 1036T & 1038T) Bipolar Passive Fixation Polyurethane Leads



Year	4	8	12	16	20
Survival Probability	99.65%	99.10%	98.36%	97.35%	
± 1 standard error	0.05%	0.09%	0.14%	0.39%	

Data is current as of June 30, 2006.
These lead models are no longer being manufactured.
19,684 of these leads have been implanted.
(Approval date: June 1989)

Tendril® (Model 1188K); Tendril® DX (Model 1388K) Unipolar Active Fixation Silicone Leads

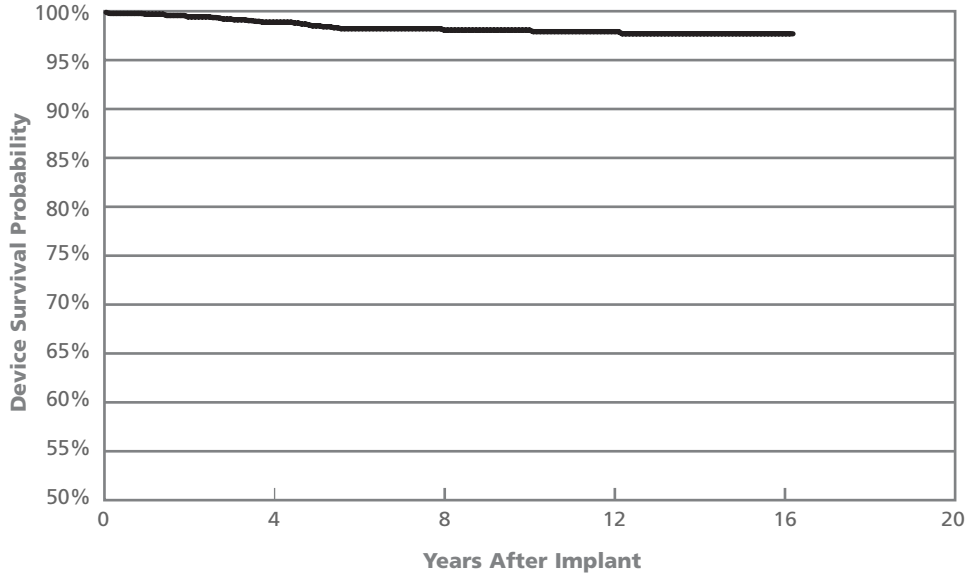


Year	2	4	6	8	10
Survival Probability	99.73%	99.43%	98.83%	98.22%	
± 1 standard error	0.15%	0.23%	0.38%	0.52%	

Data is current as of June 30, 2006.
The Tendril® lead model 1188K is no longer being manufactured.
1,330 of these leads have been implanted.
(Approval dates: 1188K–June 1995; 1388K–June 1997)

Pacing Leads unipolar active fixation and unipolar passive fixation

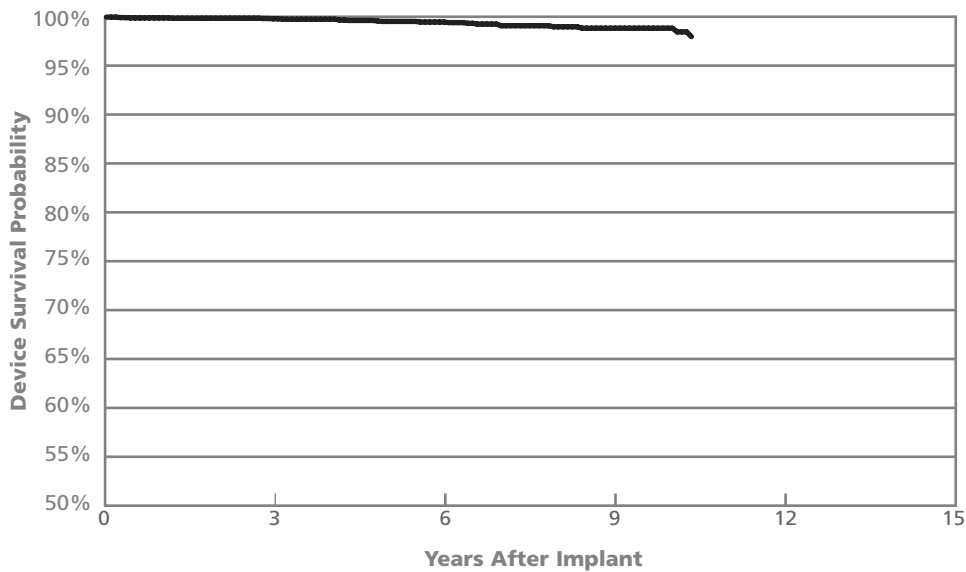
Fast-Pass® (Model 1007) Unipolar Active Fixation Silicone Lead



Year	4	8	12	16	20
Survival Probability	98.85%	98.07%	97.91%	97.69%	
± 1 standard error	0.28%	0.38%	0.43%	0.48%	

Data is current as of June 30, 2006.
This lead model is no longer being manufactured.
1,738 of these leads have been implanted.
(Approval date: June 1987)

Passive Plus® (Models 1135K, 1143K, 1145K, 1235K, 1243K & 1245K) Passive Plus® DX (Models 1343K & 1345K) Unipolar Passive Fixation Silicone Leads

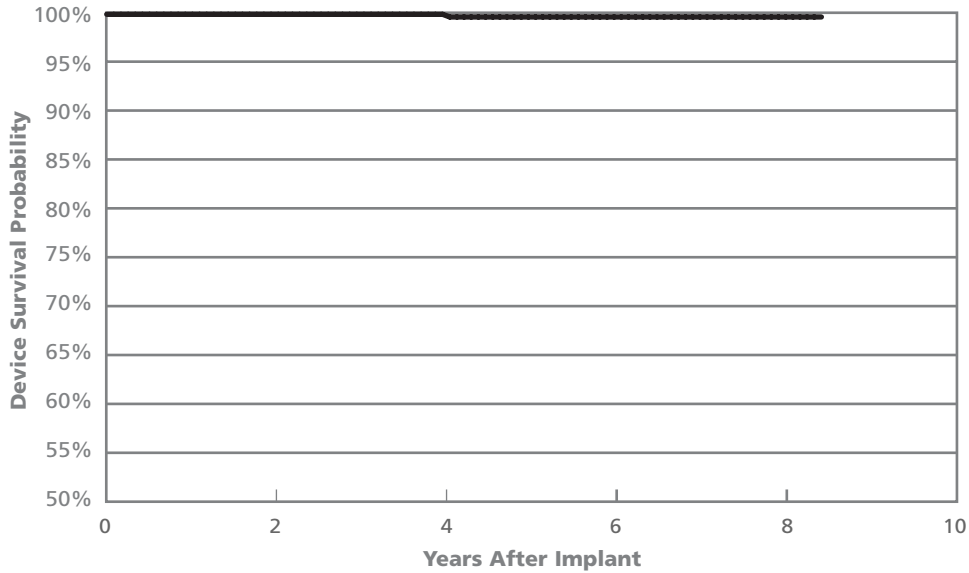


Year	3	6	9	12	15
Survival Probability	99.79%	99.46%	98.83%		
± 1 standard error	0.07%	0.15%	0.29%		

Data is current as of June 30, 2006.
The Passive Plus® lead models 1135K, 1143K, 1145K, 1235K, 1243K and 1245K are no longer being manufactured.
4,476 of these leads have been implanted.
(Approval dates: 1135K, 1143K, 1145K–July 1994; 1235K, 1243K, 1245K–August 1995;
1343K, 1345K–June 1998)

unipolar passive fixation **Pacing Leads**

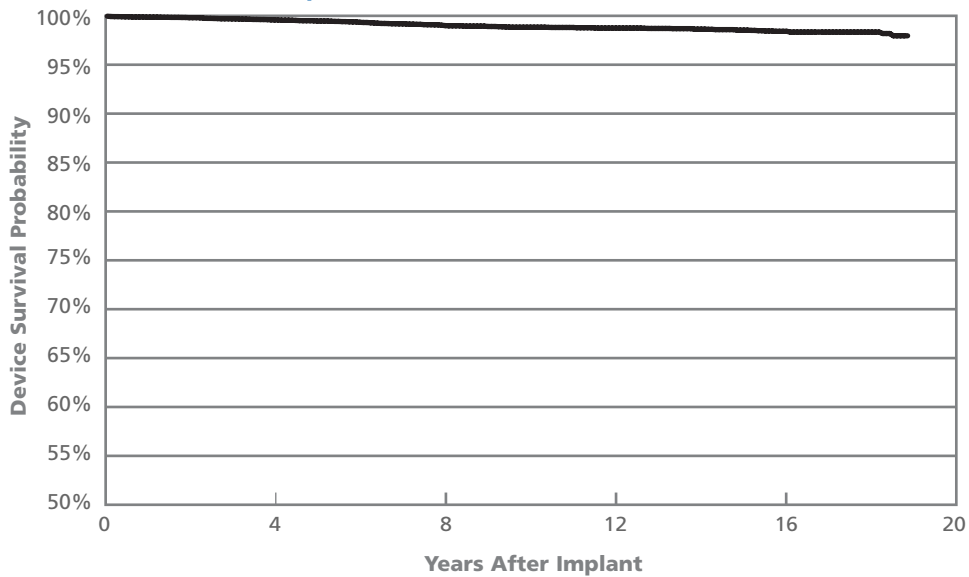
Permathane® ACE (Model 1035M) Unipolar Passive Fixation Polyurethane Lead



Year	2	4	6	8	10
Survival Probability	99.84%	99.84%	99.57%	99.57%	
± 1 standard error	0.16%	0.16%	0.31%	0.31%	

Data is current as of June 30, 2006.
This lead is no longer being manufactured.
655 of these leads have been implanted.
(Approval date: March 1987)

ACE (Models 1015M & 1025M) Unipolar Passive Fixation Silicone Leads



Year	4	8	12	16	20
Survival Probability	99.58%	99.00%	98.75%	98.42%	
± 1 standard error	0.05%	0.08%	0.10%	0.14%	

Data is current as of June 30, 2006.
These lead models are no longer being manufactured.
23,482 of these leads have been implanted.
(Approval dates: 1015M–August 1991; 1025M–August 1982)

Pacing Leads unipolar active fixation and unipolar passive fixation Summary Information*

Laboratory analysis of all returned leads from the U.S. is summarized by model for the most recently market released pacing lead models included in this Product Performance Report.

The Laboratory analysis results are categorized into one of the following three categories:

- **Implant Damage** - Obvious damage incurred at the time of implant, including but not limited to insulation cuts and damage, helix overtorque, and stylet perforation.
- **Electrical Failure** - A disruption in the insulation or conductors resulting in compromised electrical performance.
- **Other** - Includes other sources of malfunction not attributed to damage incurred at implant and not resulting in compromised electrical failures. This category also includes any partial leads returned with an alleged malfunction that could not be confirmed.

Model(s)	US Market Release Date	Registered US implants	Estimated Active US implants	Implant Damage	Electrical Failure	Other
1488T/TC	March-00	255322	182605	759	149	140
1642T/1646T	April-03	66977	54866	78	8	17
1688T	June-03	156524	139606	288	38	68

*Based on returned product analysis as of June 30, 2006.

Advisories and Safety Alerts

The following table summarizes recalls, advisories and safety alerts regarding St. Jude Medical devices. These advisories have been previously communicated to physicians. For more information please contact St. Jude Medical Technical Services at 1-800-722-3774.

Model Identification	Advisory	Follow-up Recommendations at Time of Advisory
<p>Photon DR (V-230HV) (certain serial numbers), Photon Micro VR/DR (Models V-194/V-232), Atlas VR/DR (Models V-199/V-240)</p>	<p>10/7/05 Class II A particular vendor-supplied memory chip can be affected at a low frequency rate by background levels of atmospheric ionizing cosmic radiation ("background cosmic radiation"). The anomaly can trigger a temporary loss of pacing function and permanent loss of defibrillation support.</p>	<p>In the unlikely event that a device chip is affected by background cosmic radiation, the high current drain condition will deplete the battery voltage rapidly. This can result in loss of output for a period up to approximately 48 hours. During this period, the patient would be without pacing or defibrillation therapy. After this initial period, the battery will reach a voltage level at which the device will enter its "Hardware Reset Mode." This safety mode is designed to preserve the device's ability to provide VVI pacing support. A device that has been reset to the Hardware Reset Mode will operate in the VVI mode at 60 ppm, but will not be capable of providing tachycardia detection or therapy. This will be noted by a warning message on the programmer screen upon device interrogation.</p> <p>To assist in your patient care and following discussions with our independent Medical Advisory Board, St. Jude Medical recommends:</p> <ul style="list-style-type: none"> • If it is not already your current practice, physicians should perform routine device monitoring every three months for patients with the affected models listed above. • In determining whether additional patient management or follow up may be needed, consider the low failure rate for the anomaly and the unique medical needs and situation of each individual patient, including whether the patient is pacemaker dependent or at high risk for life-threatening arrhythmias. • If a patient's device is found in the Hardware Reset Mode, you should arrange for device replacement as soon as possible. • You should continue to provide patients with the usual admonitions to keep scheduled appointments and to report all changes in symptoms. <p>Current Status (June 30, 2006): At the time of the advisory, there were 60 worldwide (38 U.S.) devices confirmed to have been affected by this issue. As of June 30, 2006, there were an additional 20 worldwide (16 U.S.) devices confirmed with this issue. This is within the 95% confidence interval prediction made at the time of the advisory. There have been no reports of serious injury or death.</p>
<p>Epic DR/HF (V-233/V-337/V-338), Epic Plus DR/VR/HF (V-236/V-239/V-196/V-239T/V-196T/V-350), Atlas DR (V-242), and Atlas Plus DR/VR/HF (V-243/V-193/V-193C/V-340/V-341/V-343).</p>	<p>6/13/05 Class II Two anomalies have been identified:</p> <ol style="list-style-type: none"> 1. Due to a device software anomaly, it is possible that when the device's battery is nearing its elective replacement indicator (ERI), a charging cycle may be skipped. 2. After a capacitor charge, if a rate responsive pacing mode (e.g., DDDR, VVIR, etc.) is programmed "On", this "noise" may be interpreted by the device's accelerometer (activity sensor) as physical activity, causing a temporary increase in the pacing rate that may persist after charging is completed. 	<p>Two anomalies were discovered during routine product monitoring. Neither of these anomalies presents a significant clinical risk to your patients, and no clinical complications have been reported to St. Jude Medical. Both are easily corrected by performing a simple, automated software download to the device. This potentially affects approximately 30,000 implanted ICDs in the United States and includes the following model numbers:</p> <p>Epic DR/HF (V-233/V-337/V-338), Epic Plus DR/VR/HF (V-236/V-239/V-196/V-239T/V-196T/V-350), Atlas DR (V-242), and Atlas Plus DR/VR/HF (V-243/V-193/V-193C/V-340/V-341/V-343). The first anomaly can occur when one of the affected devices attempts to deliver multiple shocks in rapid succession. Due to a device software anomaly, it is possible that when the device's battery is nearing its elective replacement indicator (ERI), a charging cycle may be skipped. If this were to occur, the first shock will always be delivered as programmed and, if needed, the next shock in the programmed sequence would be delivered after a delay of only two to four seconds. A skipped charge would result in less than the full number of programmed shocks being available for delivery during that episode, but all delivered shocks would be at their programmed energy. This behavior was discovered as an incidental finding during analysis of one returned device that had delivered a large number of high voltage shocks over a short time period.</p> <p>A second anomaly is caused by electrical "noise" generated as a result of the charging of the device's high voltage capacitors. After a capacitor charge, if a rate responsive pacing mode (e.g., DDDR, VVIR, etc.) is programmed "On", this "noise" may be interpreted by the device's accelerometer (activity sensor) as physical activity, causing a temporary increase in the pacing rate that may persist after charging is completed. The degree and duration of the rate increase will depend on a variety of factors, but the rate will never exceed the programmed Maximum Sensor Rate, and the device will gradually return to the appropriate rate. The anomalous behavior, which has been observed during the performance of manual capacitor maintenance, has been traced back to a component supplied to St. Jude Medical by one vendor; therefore, only the subset of the device models listed above that were manufactured with the affected component (device serial numbers below 141000 for any model) will exhibit this behavior.</p> <p>St. Jude Medical has developed programmer software that will automatically detect the affected ICDs and download device software that will correct the "skipped charge" anomaly and mitigate the response to electrical noise. Once the upgrade is performed, the potential for a skipped charge will be eliminated. Additionally, once the upgrade is performed if a rate responsive mode is programmed "On", devices with serial numbers below 141000 will have their rate response functions suspended for the time period during which the electrical noise could be present (i.e., while significant residual voltage remains on the high voltage capacitors); non-rate responsive pacing at the programmed base rate will continue to be provided as appropriate. This period during which rate response is suspended may last anywhere from a few minutes up to approximately 90 minutes. If rate responsive pacing was ongoing prior to charging, the pacing rate will gradually decrease to the base pacing rate according to the normal rate response recovery algorithm and will remain there while rate responsive pacing is suspended. The rate response behavior for devices with serial numbers greater than 141000 will not be affected by the software download.</p> <p>The software download for potentially affected devices will automatically be initiated the next time the patient's device is interrogated with the v4.8.5 programmer software. Since a skipped charge is more likely to occur in devices that are closer to their elective replacement indicator (ERI), St. Jude Medical recommends that if the next patient follow-up is not scheduled to occur within the next six months that the patient be seen within this time period.</p> <p>In addition, if devices are programmed to pacing settings that result in high current consumption, such as high output bi-ventricular pacing, consideration should be given to scheduling the patient for a follow-up visit within three months if it is not scheduled to occur within that time period. As always, St. Jude Medical defers to your clinical judgment on any decisions regarding the management of your patients.</p> <p>Current Status (June 30, 2006): There have been no implanted devices confirmed to have been affected by this issue since the time of the advisory.</p>

Advisories and Safety Alerts

Model Identification	Advisory	Follow-up Recommendations at Time of Advisory
<p>Epic (V-197, V-235), Epic+ (V-196, V-236), Epic HF (V-338), Epic+ HF (V-250), Atlas+ (V-193, V-243), Atlas+ HF (V-340), or Atlas (model V-242) ICDs</p>	<p>3/10/05 Class II</p> <p>A software parameter that affects the sensitivity of the reed switch in the listed devices was being set to an incorrect value which could prevent these devices from entering the magnet mode to inhibit tachy therapy when an external magnet is applied.</p>	<p>During routine product evaluation, St. Jude Medical Quality Assurance identified that a software parameter that affects the sensitivity of the reed switch in the listed devices was being set to an incorrect value during manufacturing beginning in late November of last year. This has the effect of preventing these devices from entering the magnet mode to inhibit tachy therapy when an external magnet is applied. This is a software controlled parameter that can be easily corrected via the programmer. All other bradycardia pacing and tachyarrhythmia detection and therapy features are not affected in devices subject to this notification. Until the magnet sensitivity parameter is corrected via the programmer, tachy therapy may not be properly inhibited as is customary with placement of an external magnet, but can be inhibited by using the programmer to program the device to Defib Off, and then back On as needed.</p> <p>The affected devices were manufactured during a three month period beginning November 22, 2004. To date, there have been no field reports of any magnet mode failures, nor have there been any clinical complications reported associated with this issue. Magnet mode application is usually used to inhibit tachycardia therapy such as when a patient is subjected to electrocautery during a surgical procedure. In order to remedy this situation, in addition to this notification, St. Jude Medical Sales Representatives and Field Clinical Engineers have been provided with a simple software tool that can be used to set, via the programmer, the reed switch's magnet sensitivity to the proper value. You may contact them to schedule this reprogramming at the patient's next scheduled follow-up visit or at your discretion.</p> <p>Current Status (June 30, 2006): There have been no implanted devices confirmed to have been affected by this issue since the time of the advisory.</p>
<p>Identity ADx DR Models 5286, 5380, 5386 and 5480</p>	<p>07/31/03 Class II</p> <p>An anomaly in the pacemaker code, which under a certain set of programmed settings and specific event timing circumstances could deliver a short coupled pacing interval of 300 ms (200 ppm). Consecutive (up to a maximum of 12) shorter than anticipated pacing intervals could be experienced.</p>	<p>St. Jude Medical's software engineering department has identified an anomaly in the pacemaker code, which under a certain set of programmed settings and specific event timing circumstances has a potential to deliver a short coupled pacing interval of approximately 300 milliseconds (200 ppm). It is also possible, however unlikely, that a patient could experience consecutive (up to a maximum of 12) shorter than anticipated pacing intervals. To date, the only clinical observation has been the delivery of a single short interval. There have been no reports of patient injury as a result of the shortened pacing interval.</p> <p>In order for the above mentioned shortened pacing interval to potentially occur, the programmed settings of the dual chamber device would have to satisfy both of the following conditions:</p> <ul style="list-style-type: none"> • Base rate, rate hysteresis or rest rate programmed to 55 ppm or lower • Autocapture programmed ON <p>Additionally, it should be noted that even with the following settings, the shortened pacing interval will not occur unless specific internal timing and other conditions are met. If the device is programmed to any other combination of settings (e.g. base rate, hysteresis rate and rest rate all at 60 ppm or above, or Autocapture programmed OFF), the scenario described above cannot occur.</p> <p>St. Jude Medical recommends that physicians review their records to identify which, if any, of their patients implanted with a subject device have programmed settings as described above. For these patients, they should schedule a pacemaker programming session as soon as possible to temporarily program Autocapture OFF or adjust the base rate, rate hysteresis and rest rate to 60 ppm or above. The root cause of potentially delivering the short pacing interval has been identified and a downloadable firmware correction has been developed to prevent any future occurrence. The revised firmware will be made available to the physicians via a new programmer software version immediately following FDA approval. The revised code will be downloaded automatically during pacer interrogation and will take approximately six seconds. At the time of the FDA approval, all newly manufactured and distributed products will also have the new pacemaker code.</p> <p>There is no need to consider replacement of the devices as the temporary programming outlined above and the forthcoming device firmware update will eliminate the potential for the described phenomenon from occurring in the future.</p> <p>Current Status (June 30, 2006): There have been no implanted devices confirmed to have been affected by this issue since the time of the advisory.</p>
<p>Tempo 2102 and Meta 1256D</p>	<p>11/04/02</p> <p>Dendritic growth at the battery/hybrid connection could cause a short circuit, which in turn could result in premature battery depletion.</p>	<p>Decreased reliability has been observed in a group of these devices. The devices in the advisory population were manufactured at the Teletronics' manufacturing facility between the second quarter of 1996 and the second quarter of 1997. Premature battery depletion resulting from bridging between adjacent connectors has resulted in no output or no telemetry in 1% of this population of devices to date.</p> <p>The following recommendations are made:</p> <p>Physicians are advised to review patients who have 1256D/2102 pacemakers at an early date to evaluate pacemaker function.</p> <p>For patients who are pacemaker dependent, the physician should give consideration to explantation and replacement as soon as practicable.</p> <p>For patients who are not considered pacemaker dependent, the physician should consider replacement only if any abnormal function is identified (such as no output, telemetry loss, telemetry abnormality or premature end of life indication). All remaining non-pacemaker dependent patients with 1256D/2102 pacemakers should subsequently be reviewed at least every six months.</p>

Advisories and Safety Alerts

Model Identification	Advisory	Follow-up Recommendations at Time of Advisory
Tempo 1102, 1902, 2102, 2902 and Meta 1256D	11/04/02 Class II Dendritic growth at the battery/hybrid connection could cause a short circuit, which in turn could result in premature battery depletion.	This Advisory applies to a well-defined group of Tempo and Meta 1256D pulse generators which have been observed to exhibit premature battery depletion. This is an extension of a previous Tempo/Meta advisory dated 6/6/00. The following recommendations are made: For patients who are significantly pacemaker dependent. The decision as to whether or not to replace a pulse generator prophylactically remains one of clinical judgment. We therefore recommend that you strongly consider replacing these pulse generators on a prophylactic basis for all patients who are significantly pacemaker dependent, unless pulse generator replacement is medically contraindicated. For patients who are not considered pacemaker dependent. Again, this is a matter of clinical judgment. In the event a device is not replaced, continued routine monitoring is advised.
Profile V-186	7/13/01 Class II Failure of a ceramic capacitor could lead to sensing anomalies/early battery depletion	This Advisory applies to a well-defined group of Profile MD (Model V-186HV3) implantable cardioverter-defibrillators (ICDs) which have been observed to exhibit decreased reliability. These devices had specific modules (subcircuits) manufactured during a five-month period during the first half of 1999. Those potentially affected devices that have not exhibited any anomalous behavior within 24 months of manufacture are not at increased risk of failure at a later date. These failures were caused by a component anomaly that is limited to a specific, traceable lot (group) of capacitors. If these capacitors fail, two different clinical manifestations may be observed, depending on the location of the failed capacitors: Low Voltage Module: The devices may exhibit sudden loss of sensing or oversensing of internally generated interference (noise) resulting in aborted or delivered shocks. Due to the potential for sudden loss of sensing, which would prevent the ICD from detecting ventricular tachyarrhythmias, device replacement should be considered for patients with devices incorporating the suspect capacitors in this location. In making this decision, you should weigh the likelihood that your patient will have one of the few additional devices expected to fail against the risk associated with the replacement procedure. For patients who do not have their devices replaced, St. Jude Medical recommends monthly monitoring for the remaining months during which additional failures are expected to occur and every three months thereafter. High Voltage Module: The devices may exhibit premature battery depletion with no other clinical manifestations. While the battery voltage may drop rapidly to a value near or below the device's ERI, it stabilizes for several months at a value at which the device continues to detect arrhythmias and deliver therapy appropriately. In addition, some of these devices may exhibit oversensing of internally generated electrical interference (noise), which may result in false detection of tachyarrhythmias. However, during charging, the interference abates, and the therapy is usually aborted without the delivery of inappropriate shocks to the patient. Because these devices generally continue to respond appropriately to spontaneous tachyarrhythmias, and because the battery voltage stabilizes for several months at a level that does not compromise device function, St. Jude Medical recommends that patients with devices incorporating suspect capacitors in this location be monitored monthly for the remaining months during which additional failures are expected to occur and every three months thereafter.
Meta DDDR 1256	6/6/00 Class II Integrated circuit failure due to electrostatic discharge during manufacturing resulting in no output or sensing anomalies.	This Advisory applies to a well-defined group of Meta 1256 pulse generators, which have been observed to exhibit decreased reliability. The following recommendations are made: For patients who are significantly pacemaker dependent. The decision as to whether or not to replace a pulse generator prophylactically remains one of clinical judgment. We therefore recommend that you strongly consider replacing these pulse generators on a prophylactic basis for all patients who are significantly pacemaker dependent, unless pulse generator replacement is medically contraindicated. For patients who are not considered pacemaker dependent. Again, this is a matter of clinical judgment. In the event a device is not replaced, continued routine monitoring is advised.
Tempo 1102, 1902, 2102, 2902, and Meta 1256D	6/6/00 Class II Dendritic growth at the battery/hybrid connection could cause a short circuit, which in turn could result in premature battery depletion.	This Advisory applies to a well-defined group of Tempo and Meta 1256D pulse generators, which have been observed to exhibit premature battery depletion. The following recommendations are made: For patients who are significantly pacemaker dependent. The decision as to whether or not to replace a pulse generator prophylactically remains one of clinical judgment. We therefore recommend that you strongly consider replacing these pulse generators on a prophylactic basis for all patients who are significantly pacemaker dependent, unless pulse generator replacement is medically contraindicated. For patients who are not considered pacemaker dependent. Again, this is a matter of clinical judgment. In the event a device is not replaced, continued routine monitoring is advised.

Advisories and Safety Alerts

Model Identification	Advisory	Follow-up Recommendations at Time of Advisory
<p>Trilogy 2250L, 2260L, 2264L, 2308L, 2318L, 2350L, 2360L, 2364L</p>	<p>3/10/00 Class II Risk of malfunction due to an anomaly of the pacemaker's microprocessor. Typical manifestations of this anomaly are dashes observed on the programmer screen, unexpected rate variation, abnormally high battery current drain, and mode change.</p>	<p>Continued monitoring of Trilogy devices affected by an Advisory issued in July 1999 has revealed an additional low level of adverse events. A sub-population of the above models, principally those manufactured before January 1999, is potentially affected by a risk of malfunction due to an anomaly of the pacemaker's microprocessor. To date this has been reported in only 0.11% of the implanted population. Typical manifestations of this anomaly are:</p> <ul style="list-style-type: none"> • Interrogation/programming difficulties, including the presence of dashes (—) on the programmer screen for some parameter values after interrogation • Unexpected rate variations • Abnormally high battery current drain • Mode change <p>The presence of dashes on the programmer screen is typically caused by partial programming of one or more of the programmed parameters and may be corrected by reprogramming. In the event that observed dashes (—) cannot be resolved by reprogramming, please contact your St. Jude Medical representative, as it may be possible to resolve the situation non-invasively via special programming and may not be indicative of a microprocessor anomaly. Considering the low level of incidence of this anomaly, the following steps are recommended:</p> <ol style="list-style-type: none"> 1. Assess the patient population, relative to the potential for an inappropriate mode change to single-chamber atrial pacing, to determine which patients are pacemaker-dependent and have an inadequate ventricular escape rhythm. 2. Replacement of a device always remains a matter of clinical judgement, including balancing the clinical risk associated with pacemaker replacement against the risk of device malfunction. 3. Almost all microprocessor malfunctions described in this notification were found during routine follow-up. This reinforces the importance that pacemaker patients should be followed regularly in accordance with best prevailing medical practices.
<p>Affinity 5130L, 5130R, 5330L, 5330R, 5230L, 5230R</p>	<p>2/14/00 Class II An unsecured resistor connection to the hybrid circuit might cause abnormal measured data, false RRT indication, backup VVI mode, or intermittent loss of output.</p>	<p>This advisory applies to a very specific, well-defined group of Affinity devices that have been implanted worldwide. The device may exhibit any or all of the following output anomalies:</p> <ul style="list-style-type: none"> • Abnormal measured battery data, • A false recommended replacement (RRT) indication, • Reversion to back-up VVI mode, • Intermittent loss of output. One marker of an affected device that may be apparent during a routine follow-up interrogation is an abnormally high reading for battery current (taking into consideration the device's programmed output parameters). If this or an early indication of RRT or reversion to back-up VVI mode is observed, please contact your local St. Jude Medical representative or Technical Services. Although the time course is variable, these behavioral anomalies will occur before there is any affect on device output.
<p>Trilogy 2250L, 2260L, 2264L, 2308L, 2318L, 2350L, 2360L, 2364L</p>	<p>7/19/99 Class II Premature battery depletion caused by a current leakage path that could be created during the laser welding process to attach the battery to the device hybrid</p>	<p>Analysis of the clinical data associated with the failed devices has shown that an early increase in battery impedance could be observed at one or more previous routine follow-up visits prior to reaching RRT. The observed rise in battery impedance is an earlier and more reliable indicator than the reported battery voltage. The battery depletion, although accelerated, does not occur abruptly and patients can be monitored using the measured data telemetry in the pacemaker. The following follow-up schedule and device monitoring is advised.</p> <ol style="list-style-type: none"> 1. For patients who have had a follow-up visit at least 12 months after their device was implanted, check the measured data printout from the last follow-up evaluation. If a battery impedance of "< 1 kOhm" was recorded, continue to monitor the battery impedance with your routine follow-up schedule for that patient (6-month intervals recommended). If follow-up visits every 6 months is not your routine schedule, then an additional visit at 18 months should be performed. 2. For patients who have not yet had a follow-up visit at least 12 months after their device was implanted, the following is recommended: <ul style="list-style-type: none"> • If the patient has had their device implanted for less than two months or has not had a device interrogation with measured data within the last three months, an evaluation of the battery impedance is recommended as soon as possible. This should be printed and a copy retained in the patient's pacemaker or office chart. • Otherwise, if the battery impedance from the most recent evaluation is "< 1 kOhm," begin an every 3-month follow-up schedule with respect to measured data telemetry until that value has been recorded at least 12 months post-implant. Thereafter, continue to monitor the battery impedance with your routine follow-up schedule for that patient (6-month intervals recommended). If follow-up visits every six months is not your routine schedule, then an additional visit at 18 months should be performed. <p>If the battery impedance reading is 1 kOhm or higher and the pulse generator has been implanted for less than two years, it is likely that the system is demonstrating accelerated battery depletion. Please contact your local Field Representative or Technical Services.</p>

Cardiac Resynchronization Therapy

Atlas[®] + HF (V-340)
 Atlas[®] + HF (V-343)
 Epic[™] HF (V-338)
 Epic[™] HF (V-337)
 QuickSite[®] (1056K, 1056T)

ICDs

Atlas[®] + DR (V-243)
 Atlas[®] DR (V-240)
 Atlas[®] DR (V-242)
 Atlas[®] + VR (V-193)
 Atlas[®] VR (V-199)
 Contour[®] MD (V-175, V-175AC, V-175B,
 V-175C, V-175D)
 Contour[®] II (V-185, V-185AC, V-185B,
 V-185C, V-185D)
 Epic[™]+ DR (V-236)
 Epic[™]+ DR (V-239)
 Epic[™] DR (V-235)
 Epic[™] DR (V-233)
 Epic[™]+ VR (V-196)
 Epic[™] VR (V-197)
 Photon[®] DR (V-230HV)
 Photon[®] μ DR (V-232)
 Photon[®] μ VR (V-194)
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Riata[®] *i* (1590, 1591)
 Riata[®] (1582)
 Riata[®] (1570, 1571)
 Riata[®] (1580, 1581)
 SPL[®] (SP01, SP02, SP03, SP04)
 TVL[®] RV (RV01, RV02, RV03, RV06, RV07)
 TVL[®] SVC (SV01, SV02, SV03)
 TVL[®] -ADX (1559)

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AddVent[®] (2060)
 Affinity[®] DC (5230)
 Affinity[®] DR (5330, 5331)
 Affinity[®] SR (5130, 5131)
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 Identity[®] ADx XL DR (5386)
 Identity[®] ADx XL DC (5286)
 Identity[®] (5370)
 Identity[®] XL (5376)
 Identity[®] SR (5172)
 Identity[®] ADx SR (5180)
 Integrity[®] ADx DR (5360)
 Integrity[®] AFx DR (5342, 5346)

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13 Integrity[®] μ DR (5336)
 14 Integrity[®] SR (5142)
 11 Integrity[®] ADx SR (5160)
 12 Integrity[®] μ SR (5136)
 16 Meta[™] DDDR (1256D)
 Meta[™] DDDR (1256)
 Microny[®] (2425T, 2525T, 2535K)
 19 Paragon[™] (2010, 2011, 2012)
 Paragon[™] II (2016)
 24 Paragon[™] III (2304, 2314, 2315)
 18 Phoenix[®] 2 (2005, 2008, 2009)
 27 Phoenix[®] III (2204, 2205)
 30 Regency[®] SC+ (2400L, 2402L)
 Solus[®] (2002, 2003)
 32 Solus[®] II (2006, 2007)
 Synchrony[®] II (2022, 2023)
 Synchrony[®] III (2028, 2029)
 20 Tempo[®] D (2902)
 21 Tempo[®] DR (2102)
 22 Tempo[®] V (1102)
 23 Tempo[®] VR (1902)
 28 Trilogy[®] DC (2308)
 29 Trilogy[®] DC+ (2318)
 26 Trilogy[®] DR (2350)
 25 Trilogy[®] DR+ (2360, 2364)
 31 Trilogy[®] SR (2250)
 32 Trilogy[®] SR+ (2260, 2264)
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 Verity[®] ADx XL DR M/S (5357M/S)
 36 Verity[®] ADx XL DC (5256)
 36 Verity[®] ADx XL SR (5156)
 37 Verity[®] ADx XL SR M/S (5157M/S)
 37 Verity[®] ADx XL SC (5056)
 38 Victory[®] DR (5810)
 39 Victory[®] XL DR (5816)
 39 Victory[®] SR (5610)
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