Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1: Origins of currently marketed ICD systems

Manufacturer	Device Model(s)	PMA Number (Supplement Number)	Supplement Type	Date Approved	Age of PMA at approval (years)
Leads					
Biotronik	Linox Smart	P980023 (S038)	180-Day	9/17/2010	11.9
Boston Scientific	Endotak Reliance G 0174/0175/0176/0177	P910073 (S041)	180-Day	11/4/2003	10.2
Boston Scientific	Endotak Reliance G/SG 0180-0187	P910073 (S043)	Real-Time	3/2/2004	10.5
Medtronic	Sprint Quattro 6944	P920015 (S017)	180-Day	12/15/2000	7.0
Medtronic	Sprint Quattro 6947	P920015 (S024)	Real-Time	11/2/2001	7.9
Medtronic	Sprint Quattro 6935	P920015 (S039)	Real-Time	4/29/2008	14.4
Medtronic	Sprint Quarto 6947M	P920015 (S055)	180-Day	1/9/2012	18.1
Medtronic	Sprint Quattro 6935M	P920015 (S091)	Real-Time	7/2/2012	18.6
St. Jude Medical	Durata 7120/7121/7122	P950022 (S040)	Real-Time	9/6/2007	11.3
St. Jude Medical	Durata 7170/7171	P950022 (S041)	Real-Time	10/16/2007	11.4
St. Jude Medical	Durata 7120Q/7121Q/7122Q	P950022 (S042)	180-Day	1/13/2009	12.7
St. Jude Medical	Durata 7170Q/7171Q	P950022 (S060)	Real-Time	7/10/2009	13.2
Pulse Generators					
Biotronik	Lumax 300/340	P000009 (S020)	180-Day	12/7/2006	6.2
Biotronik	Lumax 540	P000009 (S026)	180-Day	11/4/2008	8.1
Biotronik	Lumax 700/740	P000009 (S047)	180-Day	5/4/2012	11.6
Biotronik	Lumax 540 VR-T DX	P050023 (S029)	Real-Time	4/30/2010	3.7
Biotronik	Lumax 740 VR-T DX	P050023 (S048)	180-Day	5/4/2012	5.7
Boston Scientific	Teligen E102/E110	P960040 (S155)	180-Day	5/8/2008	10.8
Boston Scientific	Energen, Incepta, Punctua	P960040 (S235)	180-Day	11/17/2011	14.3
Medtronic	Secura	P980016 (S114)	180-Day	3/17/2008	9.4
Medtronic	Protecta, Protecta XT	P980016 (S211)	180-Day	3/25/2011	12.5
Sorin Group	Paradym 8250/8550	P980049 (S050)	180-Day	4/7/2010	10.6
Sorin Group	Paradym RF 9250/9550	P980049 (S065)	180-Day	4/10/2012	12.6
St. Jude	Current+ CD1211-36Q	P910023 (S201)	Real-Time	4/8/2009	15.9
St. Jude	Fortify	P910023 (S226)	180-Day	5/7/2010	17.0
St. Jude	Ellipse, Fortify Assura	P910023 (S279)	180-Day	5/7/2012	19.0

ICD = Implantable Cardioverter-Defibrillator; PMA = Pre-Market Approval

eTable 2: Mean number of supplements approved per original PMA, by manufacturer

Manufacturer*	Number of Original PMAs Approved	Mean number of approved supplements per original PMA (standard deviation)	Mean number of approved supplements per original PMA, excluding 30-day notice supplements (standard deviation)
Medtronic	22	114 (99)	49 (45)
Boston Scientific	18	70 (80)	36 (32)
St. Jude Medical	12	104 (89)	71 (53)
Biotronik	6	51 (28)	42 (23)
Sorin	5	40 (31)	22 (18)
Pacesetter	4	27 (32)	13 (14)
Telelectronics	3	12 (16)	11 (16)
Guidant	2	50 (46)	9 (8)
Cardiac Control Systems	2	14 (3)	14 (3)
Cameron Health	1	1	0
Angeion	1	4	4
Cook Pacemaker	1	10	10
All Manufacturers	**77**	**76 (82)**	**40 (40)**

*Each PMA is assigned to the manufacturer that submitted its most recent supplement. Many PMAs changed ownership over time as manufacturers merged (*e.g.*, Boston Scientific acquired Guidant), so the supplements for a given original PMA may have actually been submitted by several different manufacturers.