
The Global Advanced Wound Care Market to 2015

**Competition Intensifies as Healthcare
Spending Comes Under Pressure**

November 2010



World Leaders in Health Industry Analysis



The Global Advanced Wound Care Market to 2015

November 2010

ISBN: 978 1 85822 409 1

© Copyright 2010 Espicom Business Intelligence

All rights reserved. No part of this publication may be reproduced or used in any form or by any means graphic, electronic or mechanical, including photocopying, recording, taping or storage in information retrieval systems without the express permission of the publisher.

Every care has been taken to ensure that the information contained in this report is correct. The publisher accepts no liability for decisions made on the basis of information contained herein.

British Library Cataloguing in Publication Data.

A catalogue record for this report is available from the British Library.

CONTENTS

EXECUTIVE SUMMARY	1
OVERVIEW	2
Wound Care Products	2
<i>Fig.1: Global Wound Care Market by Product Type, 2009</i>	<i>3</i>
Advanced Wound Care Products	3
<i>Fig.2: Professional Wound Care Market by Product Type, 2009</i>	<i>4</i>
Complex Wounds: The Role of Advanced Wound Care	5
Diabetic Ulcers	6
Pressure Ulcers.....	6
Venous Stasis Ulcers.....	7
ADVANCED WOUND CARE MARKET COMPETITORS	8
<i>Select Manufacturers' Wound Care Sales, 2004-2009 (US\$ million).....</i>	<i>8</i>
<i>International Manufacturers' Wound Care Sales, 2005-2010 (million)</i>	<i>9</i>
<i>Fig.3: Advanced Wound Care Market Shares, 2009.....</i>	<i>9</i>
Changing Industry Landscape	9
<i>Advanced Wound Care Acquisitions, 2008-2010.....</i>	<i>11</i>
WOUND CARE MARKET DYNAMICS	12
<i>Professional Wound Care Market by Product Type, 2007-2009 (US\$ million).....</i>	<i>12</i>
<i>Professional Wound Care Market Forecast, 2010-2015 (US\$ million).....</i>	<i>12</i>
<i>Global Wound Care Market Growth by Product, 2008-2015E (%)</i>	<i>12</i>
Regional Perspective	14
<i>Advanced Wound Care Market by Region, 2008-2015E (US\$ million).....</i>	<i>14</i>
<i>Advanced Wound Care Market Growth by Region, 2009-2015E (%)</i>	<i>15</i>
<i>Fig.4: Advanced Wound Care Market by Region, 2009.....</i>	<i>15</i>
<i>Fig.5: North American Market by Major Product Type, 2009.....</i>	<i>15</i>
<i>Fig.6: European Market by Major Product Type, 2009.....</i>	<i>16</i>
<i>Fig.7: Rest of the World Market by Major Product Type, 2009.....</i>	<i>16</i>
ADVANCED WOUND CARE PRODUCTS & TECHNOLOGIES.....	17
<i>Fig.8: Advanced Wound Care Market by Product Type, 2009</i>	<i>17</i>
<i>Fig.9: Advanced Wound Care Market by Product Type, 2015.....</i>	<i>18</i>
DEVICE-BASED ADVANCED WOUND CARE	19
Negative Pressure Wound Therapy	19
Competitive Environment	19
<i>Current Challenges and Opportunities in the NPWT Market</i>	<i>21</i>
<i>Fig.10: NPWT Market by Region, 2009.....</i>	<i>21</i>
<i>Fig.11: NPWT Market, 2006-2015E (US\$ million)</i>	<i>22</i>
Safety and Effectiveness of NPWT	22
Kinetic Concepts' V.A.C. Therapy.....	23
Smith & Nephew's NPWT Systems.....	26
Boehringer Technologies' Engenex NPWT System	26
Genadyne Biotechnologies' A4 and XLR8 NPWT Systems	27
Getinge's WoundASSIST TNP System.....	27
Innovative Therapeutics' Svedman and Sved Systems.....	28
Kalypto Medical's NPD 1000 System	28
Medela's Invia NPWT Systems	28
Mölnlycke Health Care's Avance.....	29
Prospera's PRO NPWT Systems.....	29
Talley Group's Venturi Systems	29
Electrical Stimulation.....	30
BioElectronics' RecoveryRx.....	30
Biofisica's POSiFECT Bio-Electric Stimulation Therapy.....	30
Synapse Microcurrent's Accel-Heal.....	31

Vomaris' PROCELLERA	31
Ultrasound	31
Arobella Medical's Qoustic Wound Therapy System	31
Celleration's MIST Therapy System	32
Misonix' SonicOne Ultrasonic Wound Debridement System	32
NanoVibronix' PainShield and WoundShield	33
Söring's Sonoca Systems.....	33
Extracorporeal Shock Wave Therapy.....	33
SANUWAVE's dermaPACE	33
Tissue Regeneration Technologies' DermaGold	35
Other Wound Care Devices	36
Regenesis Biomedical's Provant Wound Therapy System	36
SanoMed's Photizo Light Therapy	36
Vibrant Medical Vibration Therapy.....	36
Advanced Oxygen Therapy's Topical Wound Oxygen Therapy	37
MOIST WOUND CARE PRODUCTS	38
Fig.12: Moist Wound Care Market, 2007-2015E (US\$ million).....	39
Fig.13: Moist Wound Care Market, 2007-2015E (US\$ million).....	39
Moist Wound Care Market, 2008-2015E (US\$ million)	39
Moist Wound Care Market Growth, 2008-2015E (%).....	40
Fig.14: Moist Wound Care Market by Region, 2009	40
Hydrogels	40
Key Hydrogel Products and Manufacturers.....	41
New Hydrogel Technologies	41
Hydrocolloid Dressings.....	44
Key Hydrocolloid Products and Manufacturers	44
New Hydrocolloid Technologies.....	45
Alginates	45
Key Alginate Products and Manufacturers	46
Foam Dressings	46
Key Foam Products and Manufacturers	47
New Foam Technologies.....	47
Composite Dressings.....	50
Key Composite Products and Manufacturers.....	51
3M Tegaderm Matrix Dressing with PHI technology.....	51
ConvaTec's AQUACEL Hydrofiber Dressings	51
Derma Sciences' Xtrasorb Super Absorbent Dressings.....	52
First Water's Pro-ionic Matrix	53
URGO's Lipido-Colloid Technology Dressings	53
Activated Charcoal Dressings.....	54
Key Charcoal Products and Manufacturers.....	54
Transparent Film Dressings	54
Key Transparent Film Products and Manufacturers	55
Mölnlycke's Mepitel One.....	55
Antimicrobial Dressings	55
Fig.15: Antimicrobial Wound Care Market, 2007-2015E (US\$ million).....	56
Silver Dressings.....	56
Key Silver Products and Manufacturers	58
Honey Dressings.....	64
Iodine-based Dressings	67
PHMB Antimicrobial Dressings.....	69
Other Antimicrobial Dressings	69
Other Products In Development	72
BIOLOGICS	74
Fig.16: Wound Care Biologics Market, 2007-2015E (US\$ million).....	75

Regulatory Environment	75
Collagen-Based Wound Care Products	76
Human BioSciences' Kollagen	76
Collagen Matrix' Matrix Collagen Dressing	77
Covalon Technologies' Biostep and ColActive	77
Dr Suwelack Skin & Health Care's Puracol Plus	78
Eucare Pharmaceuticals	78
Hartmann's CollaSorb	78
Innocoll's CollaRx Technology	78
Lescarden's Catrx Wound Dressing	79
Synovis Life Technologies' Unite Biomatrix	80
Systagenix Wound Management's Collagen-Based Dressings	80
Wound Management Technologies' CellerateRx	80
Products in Development	81
Skin Substitutes	84
ACell/Medline's MatriStem Extracellular Matrix Wound Sheet	84
Advanced BioHealing's Dermagraft	84
Cook Biotech's Oasis Wound Matrix	85
Dr Suwelack Skin & Health Care's Matriderm	85
Fidia Advanced Biopolymers' HYAFF	85
Genzyme's Epicel Cultured Epidermal Autografts	86
Integra LifeSciences' Collagen-Glycosaminoglycan Matrix	86
LifeCell's AlloDerm	87
Medestea Internazionale's Veloderm	87
Mölnlycke's Xelma	87
Organogenesis' Apligraf	87
Promethean LifeSciences' GammaGraft	88
UDL Laboratories/S&N's Biobrane	88
LifeCell/Wright Medical Group's Graftjacket	88
Products in Development	89
Growth Factors	90
Systagenix Wound Management's Regranex (becaplermin) Gel 0.01%	90
Autologous Growth Factor Products	92
Cell-Based Therapies	95
Avita Medical's ReCell	95
Tissue Genesis' Cell Isolation System	95
Products in Development	96
Garnet BioTherapeutics' GBT 009	98
Other Biologic Products	101
Brennen Medical's Oat Beta-Glucan	101
Polyheal's Microsphere-Based Technology	101
Products in Development	101
Enzymatic Debriding Agents	103
Healthpoint's Collagenase Santyl Ointment	103
Products in Development	104
OTHER PRODUCTS	106
Oxygen-Based Wound Dressings	106
AcryMed's OxygeneSys Dissolved Oxygen Dressing	106
Archimed's Oxyzyme	106
Oxygen Biotherapeutics' Wundecyte	107
Sangui BioTech's HemoSpray	107
Chitosan Dressings	107
HemCon Medical Technologies	108
Marine Polymer Technologies	108
Sangui BioTech's Chitoskin	109

MANUFACTURERS.....	110
THE MARKET LEADERS.....	110
3M Health Care	110
<i>Recent Key Events.....</i>	<i>110</i>
Current Alliances	111
Financial Performance	111
<i>3M Health Care - Operating Results, 2007-2009 (US\$ million).....</i>	<i>111</i>
Coloplast	113
Current Alliances	113
Financial Performance	113
<i>Coloplast - Operating Results, 2006-2010 (DKr million).....</i>	<i>114</i>
<i>Coloplast - Revenue by Product Line, 2007-2010 (DKr million).....</i>	<i>114</i>
<i>Fig.17: Coloplast: Percentage of Revenue by Product Line, 2010.....</i>	<i>115</i>
<i>Fig.18: Coloplast - Wound & Skin Care Revenue, 2003-2010 (DKr million).....</i>	<i>115</i>
ConvaTec.....	116
<i>Recent Key Events.....</i>	<i>116</i>
Current Alliances	117
Covidien.....	118
Financial Performance	118
<i>Fig.19: Covidien - Revenue by Division, 2010.....</i>	<i>119</i>
Hartmann Group	120
Current Alliances	120
Financial Performance	121
<i>Hartmann - Operating Results, 2005-2009 (EUR million).....</i>	<i>121</i>
<i>Hartmann Wound Management Results, 2007-2009 (EUR million).....</i>	<i>121</i>
<i>Fig.20: Hartmann - Revenue by Division, 2009.....</i>	<i>122</i>
<i>Fig.21: Hartmann Wound Management - Revenue by Geographic Region, 2009.....</i>	<i>122</i>
Latest Results	122
Kinetic Concepts	123
V.A.C. Therapy.....	123
LifeCell Products.....	124
<i>Recent Key Events.....</i>	<i>125</i>
Current Alliances	125
Litigation.....	126
Financial Performance	128
<i>KCI - Operating Results, 2005-2009 (US\$ million).....</i>	<i>129</i>
<i>KCI - Revenue by Product Type, 2005-2009 (US\$ million).....</i>	<i>130</i>
<i>KCI - AHS Revenue, 2005-2009 (US\$ million).....</i>	<i>130</i>
<i>KCI - AHS Revenue by Region, 2006-2009 (US\$ million).....</i>	<i>130</i>
<i>Fig.22: KCI - Percentage of AHS Revenue by Region, 2009.....</i>	<i>130</i>
<i>Fig.23: KCI - Percentage of AHS Revenue by Type, 2009.....</i>	<i>131</i>
Medline Industries	133
Current Alliances	133
Mölnlycke Health Care	135
<i>Recent Key Events.....</i>	<i>135</i>
Current Alliances	136
Litigation.....	136
Financial Performance	136
<i>Mölnlycke - Operating Results, 2006-2009 (EUR million).....</i>	<i>136</i>
<i>Fig.24: Mölnlycke - Percentage of Revenue by Product Type, 2009*.....</i>	<i>137</i>
<i>Fig.25: Mölnlycke - Percentage of Revenue by Region, 2009*.....</i>	<i>137</i>
Smith & Nephew	138
<i>Recent Key Events.....</i>	<i>139</i>
Current Alliances	139
Litigation	140

Financial Performance	141
<i>S&N - Operating Results, 2005-2009 (US\$ million)</i>	142
<i>S&N Advanced Wound Management Results, 2005-2009 (US\$ million)</i>	142
<i>Fig.26: S&N Advanced Wound Management Sales by Region, 2009</i>	143
<i>Fig.27: S&N Advanced Wound Management Sales by Product Type, 2009</i>	143
Latest Results	143
<i>Fig.28: S&N Advanced Wound Care Sales by Region, Q3 2010</i>	144
Systagenix Wound Management	145
OTHER COMPANIES	146
ACell	146
AcryMed (Kimberly-Clark)	146
Financial Performance	147
<i>I-Flow Operating Results by Segment, 2008 (US\$ thousand)</i>	147
<i>Fig.29: I-Flow - Revenue by Segment, 2008</i>	147
Advanced BioHealing	148
Advanced Medical Solutions	148
<i>Recent Key Events</i>	149
Current Agreements	149
Financial Performance	150
<i>AMS Advanced Wound Care Division- Operating Results, 2005-2009 (£ thousand)</i>	150
<i>Fig.30: AMS - Revenue by Division, 2009</i>	150
Latest Results	150
Advancis Medical	151
Agennix	151
AGT Sciences	152
R&D Projects	152
Angioblast Systems	153
AOTI	154
Archimed	154
Argentum Medical LLC	155
Ark Therapeutics	155
Current Agreements	156
Financial Performance	156
<i>Ark Therapeutics - Operating Results, 2005-2009 (£ thousand)</i>	157
Arobella Medical	157
Aspen Surgical Products	158
Avita Medical	158
Financial Performance	159
<i>Avita Medical/C3 - Operating Results, 2006-2010 (A\$ thousand)</i>	159
<i>Avita Medical/C3 - Regenerative Medicine Results, 2007-2009 (A\$ thousand)</i>	160
B. Braun	160
Financial Performance	160
<i>B Braun - Operating Results, 2005-2009 (EUR million)</i>	161
<i>Fig.31: B Braun - Revenue by Division, 2009</i>	161
BioCure	161
BioElectronics	162
Biofisica	162
Biotec Pharmacon	163
Boehringer Laboratories	163
Brennen Medical	164
Cardium Therapeutics	164
Celleration	165
Collagen Matrix	166
Comvita	166
Financial Performance	167

<i>Comvita - Operating Results, 2005-2010 (NZ\$ million)</i>	167
<i>Fig.32: Comvita - Revenue by Division, 2010</i>	168
<i>Fig.33: Comvita - Revenue by Region, 2010</i>	168
Concept Health/Gentell	168
Covalon Technologies	169
Financial Performance	169
<i>Covalon Technologies - Operating Results, 2005-2009 (C\$ million)</i>	170
<i>Fig.34: Covalon Technologies: Collagen Dressing Revenue, 2006-2009 (C\$)</i>	170
curasan	171
Cytomedix	171
Financial Performance	172
<i>Cytomedix - Operating Results, 2005-2009 (US\$ thousand)</i>	172
DermaRite Industries	173
Derma Sciences	173
<i>Recent Key Events</i>	174
Current Alliances and Licensing Agreements	175
Financial Performance	176
<i>Derma Sciences - Operating Results, 2005-2009 (US\$ million)</i>	176
<i>Derma Sciences - Wound Care Division Results, 2006-2009 (US\$ million)</i>	177
<i>Derma Sciences - Advanced Wound Care Results by Product, 2008-H1 2010 (US\$ million)</i>	177
<i>Fig.34: Derma Sciences - Net Sales by Division, 2009</i>	177
<i>Fig.35: Derma Sciences - Net Sales by Region, 2009</i>	178
<i>Fig.36: Derma Sciences - Advanced Wound Care Sales by Product, 2009</i>	178
DeRoyal	179
Diapulse Corporation of America	179
Dr Suwelack Skin & Health Care	179
Euicare Pharmaceuticals	180
Ferris	180
FibroGen	181
Fidia Advanced Biopolymers (Anika Therapeutics)	181
First Water	182
Garnet BioTherapeutics	183
Genadyne Biotechnologies	183
Genzyme Biosurgery	184
Getinge	184
Greystone Pharmaceuticals	185
HealOr	185
Healthpoint Ltd.	186
<i>Recent Key Events</i>	187
HemCon Medical Technologies	188
<i>Recent Key Events</i>	189
Current Alliances	189
Hollister Wound Care	190
Human BioSciences	190
Hydrofera	191
Innocoll	191
Innovative Therapies	192
Integra LifeSciences Holdings	192
<i>Integra LifeSciences - Operating Results, 2005-2009 (US\$ million)</i>	193
IR BioSciences (ImmuneRegen BioSciences)	193
IYIA Technologies	194
Kalypto Medical	194
Kikgel	194
Kuros Biosurgery	195
Laboratoires Brothier	196

Lescarden	196
Financial Performance	197
<i>Lescarden - Operating Results, 2006-2010 (US\$ thousand)</i>	<i>197</i>
LM Farma	198
Lohmann & Rauscher	198
Marine Polymer Technologies	199
Medela	199
Medestea Internazionale	200
MediWound	200
Milliken Chemical	202
Misonix	202
Nanotherapeutics	203
NanoVibronix	203
Noble Biomaterials	204
Oculus Innovative Sciences	204
Financial Performance	205
<i>Oculus Innovative Sciences - Operating Results, 2006-2010 (US\$ thousand)</i>	<i>205</i>
<i>Oculus Innovative Sciences - Product Sales by Region, 2008-2010 (US\$ thousand)</i>	<i>205</i>
Organogenesis	206
Armed Forces Institute of Regenerative Medicine	207
Osiris Therapeutics	207
Osteotech	208
Oxygen Biotherapeutics	208
Synovis Life Technologies	209
Polyheal	209
PolyNovo Biomaterials	211
NovoSkin	211
Promethean LifeSciences	212
Prospera	212
Quick-Med Technologies	212
<i>Recent Key Events</i>	<i>214</i>
Licensing and Development Agreements	214
Financial Performance	215
<i>Quick-Med Technologies - Operating Results, 2006-2010 (US\$ thousand)</i>	<i>216</i>
RegeneRx Biopharmaceuticals	216
Relationship with Sigma-Tau	217
Financial Performance	217
<i>RegeneRx - Operating Results, 2005-2009 (US\$ million)</i>	<i>218</i>
Regenesis Biomedical	218
SafeBlood Technologies	219
Sangui BioTech International	219
Financial Performance	219
<i>Sangui BioTech - Operating Results, 2004-2008 (US\$ thousand)</i>	<i>220</i>
SanoMed Manufacturing	220
SANUWAVE Health	220
Financial Performance	221
<i>SANUWAVE Health - Operating Results, 2008-2009 (US\$ thousand)</i>	<i>222</i>
Söring	222
Southwest Technologies	223
Synapse Microcurrent	223
Talley Group	224
Tissue Genesis	224
Tissue Regeneration Technologies	225
Triticum	225
UDL Laboratories	226

ULURU	226
<i>Recent Key Events</i>	227
Financial Performance	227
<i>ULURU - Operating Results, 2006-2009 (US\$ million)</i>	228
URGO	228
Financial Performance	229
<i>URGO - Operating Results, 2005-2009 (EUR million)</i>	229
<i>Fig.37: URGO - Revenue by Product Line, 2009</i>	230
Vibrant Medical	230
Vomaris	231
Wound Management Technologies	231
Financial Performance	232
<i>Wound Management Technologies - Operating Results, 2005-2009 (US\$ thousand)</i>	232
ZooBiotic	233
APPENDICES	234
APPENDIX 1 - LIST OF ABBREVIATIONS	234
APPENDIX 2 - REPORT METHODOLOGY	235
Secondary Sources	235
Primary Sources	236
Market forecasts	236