

Contents

1	Upper Urinary Tract (Kidney, Ureter and Adrenal Gland)	1
1.1	Patient Position for Kidney Surgery	2
	<i>Jens-Uwe Stolzenburg, Rowan Casey, Jens Mondry, Minh Do, Anja Dietel, Tim Haefner, Thilo Schwalenberg, Evangelos Liatsikos</i>	
1.2	Trocar Placement – Transperitoneal Access	7
1.2.1	Minilaparotomy	7
	<i>Rowan Casey, Minh Do, Ho Thi Phuc, Tim Haefner, Andreas Gonsior, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.2.2	Veress Needle Technique	10
	<i>Rowan Casey, Minh Do, Ho Thi Phuc, Andreas Gonsior, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.2.3	Versaport Technique	13
	<i>Rowan Casey, Minh Do, Ho Thi Phuc, Andreas Gonsior, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.2.4	Visiport Technique	16
	<i>Rowan Casey, Minh Do, Ho Thi Phuc, Andreas Gonsior, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.3	Trocar Placement: Retroperitoneal Access	20
	<i>Alexander Bachmann, Svetozar Subotic, Stephen Wyler</i>	
1.4	Set up of daVinci Robot for Kidney Surgery	24
1.4.1	Possible Trocar Positions for Robot-Assisted Kidney Surgery	24
	<i>Evangelos Liatsikos, Panagiotis Kallidonis, Ingolf Tuerk, Christopher Anderson, Harry Beerlage, Jens-Uwe Stolzenburg</i>	
1.4.2	Setup of da Vinci System for Kidney Surgery	32
	<i>Evangelos Liatsikos, Panagiotis Kallidonis, Ingolf Tuerk, Christopher Anderson, Harry Beerlage, Jens-Uwe Stolzenburg</i>	
1.5	Nephropexy	36
	<i>Minh Do, Panagiotis Kallidonis, Rowan Casey, Tony Riddek, Anja Dietel, Holger Till, Phuc Ho Thi, Tim Haefner, Ian Dunn, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.6	Laparoscopic Endoscopic Single-Site Surgery (LESS): Renal Cyst Deroofing	41
	<i>Minh Do, Rowan Casey, Robert Mills, Anja Dietel, Holger Till, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.7	Transperitoneal Laparoscopic Nephrectomy	46
1.7.1	Simple Laparoscopic Nephrectomy	46
	<i>Minh Do, Rowan Casey, Evangelos Liatsikos, Anja Dietel, Panagiotis Kallidonis, Phuc Ho Thi, Michael Truss, Alan Mc Neill, Holger Till, Jens-Uwe Stolzenburg</i>	

1.7.2	Radical Nephrectomy	52
	<i>Jens-Uwe Stolzenburg, Minh Do, Rowan Casey, Anja Dietel, Alan Mc Neill, Evangelos Liatsikos, Mathias Winkler, Panagiotis Kallidonis, Holger Till</i>	
1.8	Retroperitoneal Nephrectomy	67
	<i>Ben G. Thomas, Tony Riddick, Jens-Uwe Stolzenburg, Minh Do, Alan McNeill</i>	
1.9	Nephroureterectomy (Ureter and Bladder Cuff)	73
	<i>Jens Rassweiler, Ali Serdar Gözen, Levent Gürkan, Jan Thorsten Klein, Giovannalberto Pini, Michael Schulze, Dogu Teber</i>	
1.10	Transperitoneal Partial Nephrectomy	79
1.10.1	Laparoscopic Transperitoneal Partial Nephrectomy	79
	<i>Günter Janetschek, Reinhold Zimmermann</i>	
1.10.2	Robot-Assisted Transperitoneal Partial Nephrectomy	86
	<i>Ingolf A. Tuerk, Rowan Casey, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.11	Retroperitoneal Partial Nephrectomy	95
	<i>Jens-Uwe Stolzenburg, Christopher Anderson, Rowan Casey, Minh Do, Anja Dietel, Andreas Gonsior, Evangelos Liatsikos</i>	
1.12	Donor Nephrectomy	100
1.12.1	Retroperitoneal Donor Nephrectomy	100
	<i>Alexander Bachmann, Stephen Wyler, Svetozar Subotic</i>	
1.12.2	Transperitoneal Donor Nephrectomy	108
	<i>Serdar Deger</i>	
1.12.3	LESS: Donor Nephrectomy	114
	<i>Mihir Desai, Pascal Zehnder, Ricardo Brandina, Inderbir S. Gill</i>	
1.12.4	Robot-Assisted Donor Nephrectomy	121
	<i>Alberto Breda</i>	
1.13	Recommended Incisions for Kidney Removal	127
	<i>Jens-Uwe Stolzenburg, Rowan Casey, Minh Do, Anja Dietel, Ho Thi Phuc, Andreas Gonsior, Thilo Schwalenberg, Evangelos Liatsikos</i>	
1.14	Transperitoneal Pyeloplasty	130
1.14.1	Laparoscopic Pyeloplasty	130
	<i>Niklas Kreutzer, Sherif Abulsorour, Rowan Casey, Jens-Uwe Stolzenburg, Michael C. Truß</i>	
1.14.2	Robot-Assisted Pyeloplasty	135
	<i>H. P. Beerlage, Rowan Casey, Panagiotis Kallidonis, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	
1.15	Retroperitoneal Pyeloplasty (Conventional Laparoscopy and SMART Technique)	143
	<i>Jens Rassweiler, Marcel Hruza, Ali Serdar Gozen, Giovannalberto Pini, Dogu Teber</i>	
1.16	Transperitoneal Left Adrenalectomy	150
	<i>Evangelos Liatsikos, Panagiotis Kallidonis, Minh Do, Jens-Uwe Stolzenburg</i>	
1.17	Retroperitoneal Right Adrenalectomy	156
	<i>Jens-Uwe Stolzenburg, Panagiotis Kallidonis, Minh Do, Rowan Casey, Anja Dietel, Andreas Gonsior, Evangelos Liatsikos</i>	
1.18	Retroperitoneal Ureterolithotomy	163
	<i>Minh Do, Peter Tenke, Rowan Casey, Evangelos Liatsikos, Phuc Ho Thi, Andreas Gonsior, Ian Dunn, Jens-Uwe Stolzenburg</i>	

2	Lymphadenectomy	169
2.1	Retroperitoneal Lymph Node Dissection <i>Ingolf A. Tuerk, Rowan Casey, Jens-Uwe Stolzenburg</i>	170
2.2	Transperitoneal Pelvic Lymph Node Dissection <i>Jens-Uwe Stolzenburg, Rowan Casey, Panagiotis Kallidonis, Minh Do, Anja Dietel, Matthias Winkler, Miguel Backhaus, Evangelos Liatsikos</i>	175
2.3	Extraperitoneal Pelvic Lymph Node Dissection <i>Jens-Uwe Stolzenburg, Panagiotis Kallidonis, Minh Do, Rowan Casey, Anja Dietel, Phuc Ho Thi, Alan Mc Neill, Matthias Winkler, Evangelos Liatsikos</i>	181
3	Urinary Bladder and Prostate	187
3.1	Anatomical Considerations for Nerve-Sparing Pelvic Surgery <i>Thilo Schwalenberg, Jochen Neuhaus, Panagiotis Kallidonis, Evangelos N. Liatsikos, Jens-Uwe Stolzenburg</i>	188
3.2	Patient Position for Pelvic Surgery <i>Jens-Uwe Stolzenburg, Rowan Casey, Jens Mondry, Minh Do, Anja Dietel, Tim Haefner, Thilo Schwalenberg, Evangelos Liatsikos</i>	198
3.3	Setup of da Vinci Robot for Pelvic Surgery <i>Jens-Uwe Stolzenburg, Ingolf Tuerk, Panagiotis Kallidonis, Christopher Anderson, Harry Beerlage, Evangelos Liatsikos</i>	203
3.4	Extraperitoneal Access and Trocar Placement for Pelvic Surgery <i>Jens-Uwe Stolzenburg, Minh Do, Anja Dietel, Alan McNeill, Roman Ganzer, Matthias Winkler, Evangelos Liatsikos</i>	208
3.5	Bladder Diverticulectomy (Laparoscopic and LESS) <i>Jens-Uwe Stolzenburg, Minh Do, Rob Mills, Holger Till, Rowan Casey, Anja Dietel, Panagiotis Kallidonis, Evangelos Liatsikos</i>	214
3.6	Ureteral Reimplantation (Ureteroneocystostomy)	223
3.6.1	Robot-Assisted Psoas Hitch <i>Alexandre M. Mottrie, Vincenzo Ficarra, Nazareno Suardi, Geert Denaeyer</i>	223
3.6.2	Robot-Assisted Boari Flap <i>Ingolf A. Tuerk, Rowan Casey, Evangelos Liatsikos, Jens-Uwe Stolzenburg</i>	229
3.7	Radical Cystoprostatectomy	237
3.7.1	Laparoscopic Radical Cystoprostatectomy <i>Jens-Uwe Stolzenburg, Tony Riddick, Thilo Schwalenberg, Anja Dietel, Minh Do, Rowan Casey, Evangelos Liatsikos</i>	237
3.7.2	Robot-Assisted Radical Cystoprostatectomy <i>Stefan Siemer, Jörn Kamradt, Michael Stöckle</i>	248
3.8	Robot-Assisted Radical Cystectomy in Female Patients <i>Stefan Siemer, Jörn Kamradt, Michael Stöckle</i>	256
3.9	Urinary Diversion	266
3.9.1	Extracorporal Ileal Conduit <i>Stephan Siemer, Jörn Kamradt, Michael Stöckle</i>	266
3.9.2	Neobladder <i>Thilo Schwalenberg, Evangelos Liatsikos, Jens-Uwe Stolzenburg, N. Peter Wiklund, Abolfazl Hosseini, Martin C. Schumacher, Martin N. Jonsson</i>	272
3.10	Prostatic Adenomectomy	285
3.10.1	Laparoscopic Adenomectomy <i>René Sotelo Noguera, Camilo Mejia Buendia</i>	285
3.10.2	LESS Adenomectomy <i>René Sotelo, Camilo Giedelman, Mihir Desai</i>	293

3.11	Transperitoneal Radical Prostatectomy	299
3.11.1	Transperitoneal Laparoscopic Radical Prostatectomy (Wide Excision and Nerve Sparing)	299
	<i>Bertrand Guillonneau, Heidi Rayala</i>	
3.11.2	Robot-Assisted Transperitoneal Radical Prostatectomy	307
	<i>Alexander Motttrie, Nazareno Suardi, Jamil Rehman, Mattia Sangalli</i>	
3.12	Endoscopic Extraperitoneal Radical Prostatectomy (EERPE)	319
3.12.1	EERPE – Conventional Endoscopic Technique	319
	<i>Jens-Uwe Stolzenburg, Minh Do, Anja Dietel, Alan Mc Neil, Rowan Casey, Mathias Winkler, Christopher Anderson, Michael Truss, Kevin Turner, Ian Dunn, Evangelos N. Liatsikos, Thilo Schwalenberg, Panagiotis Kallidonis</i>	
3.12.2	Robot-Assisted Extraperitoneal Radical Prostatectomy	334
	<i>Ingolf A. Tuerk, Evangelos Liatsikos, Panagiotis Kallidonis, Christopher Anderson, Jens-Uwe Stolzenburg</i>	
4	Paediatric Urology	349
4.1	Pyeloplasty	350
	<i>Holger Till, Jens-Uwe Stolzenburg</i>	
4.2	Laparoscopic Treatment of Impalpable Undescended Testis	355
	<i>Holger Till, Ulrike Waldschmidt</i>	
4.3	Varicocoelectomy	359
	<i>Holger Till, Jens-Uwe Stolzenburg</i>	
5	Miscellaneous	363
5.1	Extraperitoneal Hernia Repair with Mesh Placement	364
	<i>Jens-Uwe Stolzenburg, Evangelos N. Liatsikos, Thilo Schwalenberg, Tim Häfner, Minh Do</i>	
5.2	Extraperitoneal Colposuspension	369
	<i>Stefan Orth, Florian Wissing, Orietta Dalpiaz, Christoph Guball, Michael C. Truss</i>	
5.3	Fistula Repair	373
5.3.1	Rectourinary Fistula Repair	373
	<i>René Sotelo Noguera, Juan Carlos Astigueta, Eudo Herrera Morillo</i>	
5.3.2	Vesicovaginal Fistula Repair	381
	<i>René Sotelo Noguera, Roberto Garza Cortés</i>	