

Contents

Part I Prehospital Care, Diagnostic Tools and Resuscitation Strategies

1	Prehospital Care of Penetrating Trauma	3
	David Carlbom and Eileen Bulger	
2	Airway Management in Penetrating Trauma.	11
	Andreas Grabinsky, David A. Baker, and Eileen M. Bulger	
3	Damage Control Resuscitation in Penetrating Trauma: Rules of the Game. . . .	23
	Hee Soo Jung, Ryan Schmocker, and Suresh Agarwal	
4	BLS Versus ALS	29
	Alasdair K.T. Conn	
5	Prehospital Care and Transport	35
	Michael A. Frakes, Vahe Ender, and Suzanne K. Wedel	
6	Prehospital Monitoring During Transport.	41
	Kazuhide Matsushima and Heidi Frankel	
7	Trauma Resuscitation.	47
	Heena P. Santry and Marc de Moya	
8	ABC Heuristics	53
	Pantelis Vassiliu, George Konstantoudakis, and Asad Mushtaq	
9	Pediatric Trauma Resuscitation.	61
	Elizabeth S. Soukup and Peter T. Masiakos	
10	Fluids, Blood Substitutes, and New Tools.	67
	Lara Senekjian and Ram Nirula	
11	Emergency Department Thoracotomy	75
	Austin Eagleton and Carlos V.R. Brown	
12	Intensive Care: Principles and Therapy	85
	Zachary M. Bauman and Terence O'Keeffe	
13	Ventilation in the Trauma Patient: A Practical Approach	93
	Guy A. Richards, Timothy C. Hardcastle, and Richard E. Hodgson	
14	Endpoints of Resuscitation.	101
	David J.J. Muckart	
15	Plain X-Rays for Penetrating Trauma	107
	Marko Bukur and Donald J. Green	
16	Computed Tomography in the Workup of Patients with Penetrating Trauma	115
	Mark E. Hamill	

17	Portable Ultrasound as an Adjunct in Penetrating Trauma	125
	Jim Connolly	
18	Laparoscopy and Penetrating Trauma	133
	Nicolas Melo and Daniel R. Margulies	
19	Angiography and Interventional Radiology	139
	Marc Kalinowski	
20	Imaging of Penetrating Urologic Trauma	145
	Beat Schnüriger and Donald J. Green	
21	Video-Assisted Thoracic Surgery in Penetrating Chest Trauma	149
	François Pons, Federico Gonzalez, Jean P. Arigon, and Guillaume Boddaert	
22	Diagnostic Peritoneal Lavage (DPL) Unplugged	157
	Keneeshia Williams and Terence O’Keeffe	
23	Mass Casualties and Triage in Military and Civilian Environment	165
	James M. Ryan, Dietrich Doll, and Christos Giannou	
24	Ballistics in Trauma	177
	Maeyane S. Moeng and Kenneth D. Boffard	
 Part II Surgical Strategies in Penetrating Trauma to Head, Face, and Neck		
25	Surgical Strategies in Trauma	187
	V.C. Nikolian, P.E. Georgoff, and H.B. Alam	
26	Surgical Strategies in Trauma to the Head, Face, and Neck	193
	Marta L. McCrum and Heather L. Evans	
27	Gunshot Injuries to the Head	203
	Ekkehard M. Kasper, Yosef Laviv, Martina Stippler, and Burkhard S. Kasper	
28	Penetrating Injuries of the Face	221
	Rizan Nashef and Thomas B. Dodson	
29	Operative Strategies in Penetrating Trauma to the Neck	233
	Marc de Moya	
30	Access to the Neck in Penetrating Trauma	239
	Jeffrey Ustin	
31	Penetrating Trauma to the Larynx and the Cervical Trachea	243
	Lisa M. Kodadek, Alicia Kieninger, and Elliott R. Haut	
32	Penetrating Injury to the Pharynx and Cervical Esophagus	249
	Angela L. Neville	
33	Carotid, Jugular and Vertebral Blood Vessel Injuries	257
	Dirk Le Roux, Martin Veller, and Ian Grant	
 Part III Surgical Strategies in Penetrating Trauma to the Chest		
34	Penetrating Trauma to the Subclavian Vessels	267
	Daniel F. Du Toit	
35	Penetrating Trauma to the Thoracic Oesophagus	279
	Elias Degiannis, Tugba H. Yilmaz, and Martin Mauser	
36	Pulmonary and Tracheobronchial Trauma	285
	Elias Zigiriadis, Vicky Jennings, and Nicholas Nicolaou	

37	Penetrating Injuries to the Mediastinal Vessels	293
	Agneta Geldenhuys	
38	Penetrating Cardiac Trauma	303
	Elias Degiannis, Denzel P. Mogabe, and Dietrich Doll	
39	Penetrating Injuries to the Diaphragm	313
	Elmin Steyn	
40	Thoracoabdominal Injury	317
	Elias Degiannis, Thorsten Hauer, and Dietrich Doll	
41	Loss of the Chest Wall	319
	John C. Mayberry	

Part IV Surgical Strategies in Penetrating Trauma to the Abdomen and Pelvis

42	Access to the Abdomen: Emergency Laparotomy	327
	George C. Velmahos	
43	Damage Control Surgery	331
	Riaan Pretorius, Frank Plani, and Kenneth D. Boffard	
44	Beyond Damage Control Surgery: Abdominal Wall Reconstruction and Complex Hernia Repair	341
	Rifat Latifi	
45	Abdominal Esophagus and Stomach	351
	Clay C. Burlew and Ernest E. Moore	
46	Duodenum	357
	George C. Velmahos	
47	Penetrating Trauma to the Pancreas	365
	Martin D. Smith, Dietrich Doll, and Elias Degiannis	
48	Liver and Extrahepatic Bile Ducts	373
	Frederick Millham	
49	Large and Small Bowel	379
	Kareem R. AbdelFattah and Herb A. Phelan	
50	Injury of the Kidney, Ureter, and Bladder	387
	Charles Acher and Suresh Agarwal	
51	Lower Genitourinary Injuries	397
	Donald Hannoun and Charles D. Best	
52	Major Abdominal Veins	405
	Peep Talving and Kenji Inaba	
53	Major Abdominal Arteries	415
	Lydia Lam and Kenji Inaba	
54	Spleen	423
	Heena P. Santry	
55	Penetrating Rectal Injuries	429
	Andrew J. Nicol and Pradeep Navsaria	
56	Abdominal Compartment Syndrome	433
	Zsolt J. Balogh, Osamu Yoshino, and Michael Sugrue	

57	SNOM: Conservative Management of Solid Viscera	439
	Pradeep H. Navsaria	
58	Bleeding in the Pelvis	443
	Edward Kelly	
Part V Surgical Strategies in Penetrating Trauma and Orthopedic Injuries		
59	Introduction to Orthopedic Injuries	449
	Thomas Scalea	
60	Extremity Fractures	453
	Jeffrey Ustin	
61	Compartment Syndrome of the Extremities	457
	Mark W. Bowyer	
62	Anterior Exposure of the Thoracic and Lumbar Spine	467
	Hani Seoudi	
63	Penetrating Trauma: Amputations	473
	Cyrus E. Taghavi, Nelson F. SooHoo, and Areti Tillou	
Part VI Peripheral Arterial Injuries		
64	Peripheral Arterial Injuries from Penetrating Trauma	485
	Matthew J. Martin and Ali Salim	
65	Axillary and Brachial Vessels	487
	Ali Salim, Olubode Olufajo, and Matthew J. Martin	
66	Femoral Vessels	493
	David R. King	
67	Popliteal Vessels	499
	Matthew J. Martin, John M. McClellan, and Ali Salim	
Part VII Other Topics		
68	Management of Penetrating Soft Tissue Injuries	513
	Christos Ladas	
69	Burns and Inhalational Injury	521
	Jennifer Mooney and Herb A. Phelan	
70	Crush Injuries	531
	Herb A. Phelan	
71	Blast Injuries	541
	Joe DuBose, David S. Plurad, and Peter M. Rhee	
72	The Elderly Patient	549
	Thomas Lustenberger and Kenji Inaba	
73	The Pediatric Patient	557
	Graeme Pitcher	
74	The Pregnant Patient	565
	Andreas Larentzakis and Dimitrios Theodorou	
75	Anticoagulation in Penetrating Trauma	571
	David R. King	

76	Care Under Austere Conditions: Unlimited Restraints.	573
	Matthew B. Singer and Terence O’Keeffe	
77	The Impact of Trauma on the Psyche	581
	Fatima Y. Jeenah and Mahomed Y. Moosa	
78	Early Neurotrauma Rehabilitation	589
	Sara E. Cartwright, Kate E. Delaney, and Ronald E. Hirschberg	
79	Rehabilitation	597
	Amy H. Phelan	
80	“Rehabilitation Matters!”: Physical Rehabilitation as an Essential Process	
	Post-acute Trauma Care.	601
	Virginia S. Wilson	
81	Penetrating Injury Prevention	605
	Devon S. Callahan and David S. Plurad	
82	Forensic Pathology and Trauma	609
	Shirley F.A.P. Moeng and Maeyane S. Moeng	
83	The Economics of Trauma Care	617
	Frederick Millham	
84	Organ Donation.	623
	Eric J. Ley and Ali Salim	
	Index.	629