

Contents

Part I Prehospital Care, Diagnostic Tools and Resuscitation Strategies

1	Prehospital Care in Penetrating Trauma	3
	David Carlbom and Eileen M. Bulger	
2	Airway Management in Penetrating Trauma	11
	David A. Baker and Eileen M. Bulger	
3	Hypotensive Resuscitation in Penetrating Trauma: Rules of the Game	23
	Suresh Agarwal, Lejla Hadzikadic, and Peter Burke	
4	BCLS Versus ACLS	29
	Alasdair K.T. Conn	
5	Prehospital Care and Transport	35
	Michael A. Frakes, Heather A. Waden, and Suzanne K. Wedel	
6	Prehospital Monitoring During Transport	41
	Heidi Frankel and Clinton J. Pace	
7	Trauma Resuscitation	47
	Heena P. Santry and Marc de Moya	
8	ABC Heuristics	53
	Pantelis Vassiliu	
9	Pediatric Trauma Resuscitation	61
	Elizabeth S. Soukup and Peter T. Masiakos	
10	Fluids, Blood Substitutes, and New Tools	67
	David C. Griffin and Raminder Nirula	
11	Emergency Department Thoracotomy	75
	Carlos V.R. Brown and D.J. Green	
12	Intensive Care: Principles and Therapy	85
	Terence O’Keeffe	
13	Plain X-Rays for Penetrating Trauma	93
	Marko Bukur and Donald J. Green	
14	Computed Tomography in the Workup of Patients with Penetrating Trauma	101
	Mark E. Hamill	

15	Portable Ultrasound as an Adjunct in Penetrating Trauma	111
	Jim Connolly	
16	Laparoscopy and Penetrating Trauma	119
	Megan Wolthuis Grunander and Daniel R. Margulies	
17	Angiography and Interventional Radiology	125
	Marc Kalinowski	
18	Imaging of Penetrating Urologic Trauma	131
	Beat Schnüriger and Donald J. Green	
19	Video-Assisted Thoracic Surgery in Penetrating Chest Trauma	135
	François Pons, Federico Gonzalez, and Jean Philippe Arigon	
20	Diagnostic Peritoneal Lavage (DPL) Unplugged	143
	Terence O’Keeffe	
21	Mass Casualties and Triage	151
	James M. Ryan and Dietrich Doll	
 Part II Surgical Strategies in Penetrating Trauma to Head, Face, and Neck		
22	Surgical Strategies in Trauma	163
	Hasan B. Alam	
23	Surgical Strategies in Trauma to the Head, Face and Neck	169
	Heather L. Evans and Eileen Bulger	
24	Gunshot Injuries to the Head	179
	Ekkehard M. Kasper, Markus M. Luedi, and Burkhard S. Kasper	
25	Penetrating Injuries of the Face	191
	Rizan Nashef and Thomas B. Dodson	
26	Operative Strategies in Penetrating Trauma to the Neck	203
	Marc de Moya	
27	Access to the Neck in Penetrating Trauma	209
	Jeffrey Ustin	
28	Penetrating Trauma to the Larynx and the Cervical Trachea	215
	Alicia Kieninger and Elliott R. Haut	
29	Penetrating Injury to the Pharynx and Cervical Esophagus	221
	Angela L. Neville and Timothy L. VanNatta	
30	Carotid, Jugular and Vertebral Blood Vessel Injuries	229
	Dirk Le Roux and Martin Veller	
 Part III Surgical Strategies in Penetrating Trauma to the Chest		
31	Penetrating Trauma to the Subclavian Vessels	239
	Daniel Francois Du Toit	
32	Penetrating Trauma to the Thoracic Oesophagus	253
	Elias Degiannis, Tugba H. Yilmaz, and Lisa A. Burnell	

33 Pulmonary and Bronchotracheal Trauma	259
Elias Zigiriadis, Peter Loogna, and Tugba H. Yilmaz	
34 Mediastinal Vessels	267
Philip R. Calderbank, Nigel R.M. Tai, and Douglas M. Bowley	
35 Penetrating Cardiac Trauma	277
Elias Degiannis, Tugba H. Yilmaz, and Dietrich Doll	
36 Penetrating Injuries to the Diaphragm	287
Elmin Steyn	
37 Thoracoabdominal Injury	291
Elias Degiannis, Tugba H. Yilmaz, and Dietrich Doll	
38 Loss of the Chest Wall	293
John C. Mayberry	
 Part IV Surgical Strategies in Penetrating Trauma to the Abdomen and Pelvis	
39 Access to the Abdomen: Emergency Laparotomy	301
George C. Velmahos	
40 Damage Control Surgery	307
Frank Plani and Riaan Pretorius	
41 Abdominal Esophagus and Stomach	319
Clay Cothren Burlew and Ernest E. Moore	
42 Duodenum	325
George C. Velmahos	
43 Penetrating Trauma to the Pancreas	335
Martin D. Smith and Elias Degiannis	
44 Liver and Extrahepatic Bile Ducts	341
Frederick Millham	
45 Large and Small Bowel	347
Herb A. Phelan	
46 Injury of the Kidney, Ureter, and Bladder	353
Dorothy W. Bird and Suresh Agarwal	
47 Lower Genitourinary Injuries	361
Donald Hannoun and Charles D. Best	
48 Major Abdominal Veins	371
Peep Talving and Kenji Inaba	
49 Major Abdominal Arteries	381
Lydia Lam and Kenji Inaba	
50 Spleen	391
Heena P. Santry	
51 Penetrating Rectal Injuries	397
Andrew John Nicol and Pradeep Navsaria	

52	Abdominal Compartment Syndrome	401
	Zsolt J. Balogh, Osamu Yoshino, and Michael Sugrue	
53	SNOM: Conservative Management of Solid Viscera	407
	Pradeep H. Navsaria	
54	Bleeding in the Pelvis	413
	Edward Kelly	
Part V Surgical Strategies in Penetrating Trauma and Orthopedic Injuries		
55	Introduction to Orthopedic Injuries	419
	Thomas Scalea	
56	Extremity Fractures	423
	Jeffrey Ustin	
57	Compartment Syndrome of the Extremities	427
	Mark W. Bowyer	
58	Anterior Exposure of the Thoracic and Lumbar Spine	437
	Hani Seoudi	
59	Penetrating Trauma: Amputations	445
	Cyrus E. Taghavi, Nelson F. Soohoo, and Areti Tillou	
Part VI Peripheral Arterial Injuries		
60	Peripheral Arterial Injuries from Penetrating Trauma	457
	Matthew J. Martin and Ali Salim	
61	Axillary and Brachial Vessels	459
	Ali Salim and Matthew J. Martin	
62	Femoral Vessels	465
	David R. King	
63	Popliteal Vessels	471
	Matthew J. Martin and Ali Salim	
Part VII Other Topics		
64	Burns and Inhalational Injury	483
	Jennifer Lang and Herb A. Phelan	
65	Crush Injuries	493
	Herb A. Phelan	
66	Blast Injuries	503
	Joe DuBose, David S. Plurad, and Peter M. Rhee	
67	The Elderly Patient	511
	Thomas Lustenberger and Kenji Inaba	
68	The Pediatric Patient	521
	Graeme Pitcher	

69	The Pregnant Patient	529
	Dimitrios Theodorou and Andreas Larentzakis	
70	Anticoagulation in Penetrating Trauma	537
	David R. King	
71	Care Under Austere Conditions: Unlimited Restraints	541
	Terence O’Keeffe	
72	The Impact of Trauma on the Psyche	549
	F.Y. Jeenah and M.Y.H. Moosa	
73	Early Neurotrauma Rehabilitation	557
	Ronald E. Hirschberg	
74	Rehabilitation	567
	Amy H. Phelan	
75	Penetrating Injury Prevention	571
	David S. Plurad	
76	The Economics of Trauma Care	575
	Frederick Millham	
77	Organ Donation	581
	Eric J. Ley and Ali Salim	
	Index	587