
Contents

Part I Fundamentals of Systems and Safety Science

1 The Burning Platform: Improving Surgical Quality and Keeping Patients Safe	3
Juan A. Sanchez and Kevin W. Lobdell	
2 Risk Factors and Epidemiology of Surgical Safety	15
Oliver Groene	
3 Concepts and Models of Safety, Resilience, and Reliability	25
Jonathan Gao and Sidney Dekker	
4 Surgery Through a Human Factors and Ergonomics Lens	39
Ken Catchpole	
5 The Relationship Between Teamwork and Patient Safety	51
Sallie J. Weaver, Lauren E. Benishek, Ira Leeds, and Elizabeth C. Wick	
6 Enterprise Risk Management in Healthcare	67
James M. Levett, James M. Fasone, Anngail Levick Smith, Stanley S. Labovitz, Jennifer Labovitz, Susan Mellott, and Douglas B. Dotan	
7 The Patient Experience: An Essential Component of High-Value Care and Service.	87
Sara Shaunfield, Timothy Pearman, and Dave Cella	
8 Patients and Families as Coproducers of Safe and Reliable Outcomes	101
Helen Haskell and Tanya Lord	
9 Tools and Strategies for Continuous Quality Improvement and Patient Safety	121
Julie K. Johnson and Paul Barach	
10 The Future and Challenges of Surgical Technology Implementation and Patient Safety	133
Chandler D. Wilfong and Steven D. Schwaitzberg	

Part II Job and Organizational Design

- 11 **Organizational and Cultural Determinants of Surgical Safety** 145
Kathleen M. Sutcliffe
- 12 **The Role of Architecture and Physical Environment in Hospital Safety Design** 159
Charles D. Cadenhead, Laurie Tranchina Waggener, and Bhargav Goswami
- 13 **Building Surgical Expertise Through the Science of Continuous Learning and Training** 185
Peter Hani Cosman, Pramudith Sirimanna, and Paul Barach
- 14 **Promoting Occupational Wellness and Combating Professional Burnout in the Surgical Workforce** 205
Ross M. Ungerleider, Jamie Dickey Ungerleider, and Graham D. Ungerleider
- 15 **Executive Leadership and Surgical Quality: A Guide for Senior Hospital Leaders** 225
Susan Moffatt-Bruce and Robert S.D. Higgins
- 16 **Information Technology Infrastructure, Management, and Implementation: The Rise of the Emergent Clinical Information System and the Chief Medical Information Officer** 247
Jon David Patrick, Paul Barach, and Ali Besiso
- 17 **Redesigning Hospital Alarms for Reliable and Safe Care** 263
Paul Barach and Juan A. Sanchez
- 18 **Implementation Science: Translating Research into Practice for Sustained Impact** 277
Gregory A. Aarons, Marisa Sklar, and Nick Sevdalis

Part III Perioperative Quality and Patient Safety

- 19 **The Leadership Role: Designing Perioperative Surgical Services for Safety and Efficiency** 297
Victoria M. Steelman and Martha D. Stratton
- 20 **Operating Room Management, Measures of OR Efficiency, and Cost-Effectiveness** 313
Sanjana Vig, Bassam Kadry, and Alex Macario
- 21 **The Science of Delivering Safe and Reliable Anesthesia Care** 327
Maurice F. Joyce, Holly E. Careskey, Paul Barach, and Ruben J. Azocar
- 22 **Enhanced Recovery After Surgery: ERAS** 349
Jonas Nygren, Olle Ljungqvist, and Anders Thorell

23	The Next Frontier: Ambulatory and Outpatient Surgical Safety and Quality	363
	Beverly A. Kirchner	
24	Human Factors and Operating Room Design Challenges	373
	Dirk F. de Korne, Huey Peng Loh, and Shanqing Yin	
25	Diagnostic Error in Surgery and Surgical Services	397
	Mark L. Graber, Juan A. Sanchez, and Paul Barach	
26	Preventing Perioperative ‘Never Events’	413
	Patricia C. Seifert, Paula R. Graling, and Juan A. Sanchez	
27	Healthcare-Associated Infections in Surgical Practice	449
	Scott J. Ellner and Affan Umer	
28	Safer Medication Administration Through Design and Ergonomics	461
	Sheldon S. Sones and Paul Barach	
29	Preventing Venous Thromboembolism Across the Surgical Care Continuum	479
	Lisa M. Kodadek and Elliott R. Haut	
30	Preventing Perioperative Positioning and Equipment Injuries	493
	Lisa Spruce	
31	Challenges in Preventing Electrical, Thermal, and Radiation Injuries	519
	Mark E. Bruley	
32	Improving Clinical Performance by Analyzing Surgical Skills and Operative Errors	555
	Katherine L. Forsyth, Anne-Lise D’Angelo, Elaine M. Cohen, and Carla M. Pugh	
Part IV Approaches to Managing Risks		
33	Perioperative Risk and Management of Surgical Patients	571
	James M. Levett, Susan Mellott, Anngail Levick Smith, James M. Fasone, Stanley S. Labovitz, Jennifer Labovitz, and Douglas B. Dotan	
34	Managing the Complex High-Risk Surgical Patient	589
	Kevin W. Lobdell, B. Todd Heniford, and Juan A. Sanchez	
35	Geriatric Surgical Quality and Wellness	613
	Daniel J. Galante, JoAnn Coleman, and Mark R. Katlic	
36	Patient Transitions and Handovers Across the Continuum of Surgical Care	623
	Donna M. Woods and Lisa M. McElroy	

37	Failure to Rescue and Failure to Perceive Patients in Crisis . .	635
	Christian Peter Subbe and Paul Barach	
38	A Quiet Revolution: Communicating and Resolving Patient Harm	649
	William M. Sage, Madelene J. Ottosen, and Ben Coopwood	
39	It's My Fault: Understanding the Role of Personal Accountability, Mental Models and Systems in Managing Sentinel Events	665
	Elizabeth A. Duthie	
40	Capturing, Reporting, and Learning from Adverse Events . . .	683
	Juan A. Sanchez and Paul Barach	
41	How Not to Run an Incident Investigation.	695
	Bryce R. Cassin and Paul Barach	
42	Multi-institutional Learning and Collaboration to Improve Quality and Safety.	715
	Julie K. Johnson, Christina A. Minami, Allison R. Dahlke, and Karl Y. Bilimoria	
43	Lessons Learned from Anesthesia Registries About Surgical Safety and Reliability.	723
	Richard P. Dutton	
44	Use of Data from Surgical Registries to Improve Outcomes . .	737
	Jeffrey P. Jacobs	
Part V Regulation, Policy, and the Future of Surgical Care		
45	How Regulators Assess and Accredite Safety and Quality in Surgical Services.	755
	Stephen Leyshon, Tita Listyowarodojo Bach, Eva Turk, Aileen Orr, Bobbie N. Ray-Sannerud, and Paul Barach	
46	The Perioperative Surgical Home: The New Frontier	785
	Juhan Paiste, Daniel I. Chu, and Thomas R. Vetter	
47	Surgical Graduate Medical Education Program Accreditation and the Clinical Learning Environment: Patient Safety and Health Care Quality	799
	John R. Potts III, Constance K. Haan, and Kevin B. Weiss	
48	Affordable Care Act, Public Legislation, and Professional Self-Regulation: Implications for Public Policy	817
	Stephen J. Lahey	
49	Surgical Quality and Patient Safety in Rural Settings	827
	Amy L. Halverson and Julie K. Johnson	

50	Global Surgery: Progress and Challenges in Surgical Quality and Patient Safety	837
	Christopher Pettengell, Stephen Williams, and Ara Darzi	
51	International Perspectives on Safety, Quality, and Reliability of Surgical Care.	849
	Sertaç Çiçek and Hişam Alahdab	
52	Surgical Safety in Developing Countries: Middle East, North Africa, and Gulf Countries.	859
	Abdulelah Alhawsawi and Paul Barach	
53	Future Directions of Surgical Safety	869
	Timothy D. Browder and Paul M. Maggio	
	Epilogue	881
	Index.	885

Surgical Patient Care

Improving Safety, Quality and Value

Sanchez, J.A.; Barach, P.; Johnson, J.; Jacobs, J.P. (Eds.)

2017, XLVII, 909 p. 169 illus., 156 illus. in color.,

Hardcover

ISBN: 978-3-319-44008-8