

# Contents

<b>1</b>	<b>Home Care Services Delivery: Equity Versus Efficiency in Optimization Models</b>	<b>1</b>
	Paola Cappanera, Maria Grazia Scutellà, and Filippo Visintin	
<b>2</b>	<b>Redesigning Organ Allocation Boundaries for Liver Transplantation in the United States</b>	<b>15</b>
	Naoru Koizumi, Rajesh Ganesan, Monica Gentili, Chun-Hung Chen, Nigel Waters, Debasree DasGupta, Dennis Nicholas, Amit Patel, Divya Srinivasan, and Keith Melancon	
<b>3</b>	<b>A Routing Problem for Medical Test Sample Collection in Home Health Care Services</b>	<b>29</b>
	Y. Kergosien, A. Ruiz, and P. Soriano	
<b>4</b>	<b>A Two-Stage Approach for Solving Assignment and Routing Problems in Home Health Care Services</b>	<b>47</b>
	Semih Yalçındağ, Andrea Matta, Evren Şahin, and J. George Shanthikumar	
<b>5</b>	<b>Applying the Cardinality–Constrained Approach in Health Care Systems: The Home Care Example</b>	<b>61</b>
	Ettore Lanzarone and Giuliana Carello	
<b>6</b>	<b>Synchronization Between Human Resources in Home Health Care Context</b>	<b>73</b>
	Maria Di Mascolo, Marie-Laure Espinouse, and Can Erdem Ozkan	
<b>7</b>	<b>Simulation-Based Analysis of Patient Flow in Elective Surgery</b>	<b>87</b>
	Dario Antonelli, Giulia Bruno, and Teresa Taurino	

<b>8</b>	<b>Optimizing Efficiency and Operations at a Large California Safety-Net Endoscopy Center: A Modeling and Simulation Approach</b> .....	99
	Lukejohn W. Day, David Belson, Maged Dessouky, Caitlin Hawkins, and Michael Hogan	
<b>9</b>	<b>Analysis of Gastroenterology (GI) Clinic: A Systems Approach</b> .....	113
	Xiang Zhong, Jie Song, Jingshan Li, Susan M. Ertl, and Lauren Fiedler	
<b>10</b>	<b>Operating Room Joint Planning and Scheduling</b> .....	127
	Niccolò Bulgarini, David Di Lorenzo, Alessandro Lori, Daniela Matarrese, and Fabio Schoen	
<b>11</b>	<b>Risk-Aware Scheduling of Elective Surgeries</b> .....	139
	Gabriella Dellino, Carlo Meloni, and Marco Pranzo	
<b>12</b>	<b>Investigating the Relationship Between Resources Balancing and Robustness in Master Surgical Scheduling</b> .....	149
	Carlo Banditori, Paola Cappanera, and Filippo Visintin	
<b>13</b>	<b>Expert's Evaluation of Innovative Surgical Instrument and Operative Procedure Using Haptic Interface in Virtual Reality</b> .	163
	G. Thomann, D.M. Pan Nguyen, and J. Tonetti	
<b>14</b>	<b>A Robust Optimization Approach for the Operating Room Planning Problem with Uncertain Surgery Duration</b> .....	175
	Bernardetta Addis, Giuliana Carello, and Elena Tanfani	
<b>15</b>	<b>The Methodological Approach to Process Analysis for Robotic Surgical Procedures: The Experience of SAFROS and I-SUR Projects</b> .....	191
	Riccardo Dodi, Elettra Oleari, and Alberto Sanna	
<b>16</b>	<b>A Whole-System Approach to Identify the Sources of Variation in Patient Flow</b> .....	203
	Nasim Arbabzadeh, Mohsen A. Jafari, and Kian Seyed	
<b>17</b>	<b>A Broader View on Health Care System Design and Modelling</b> .....	215
	Catherine Decouttere and Nico Vandaele	
<b>18</b>	<b>Epidemic State Estimation with Syndromic Surveillance and ILI Data Using Particle Filter</b> .....	227
	Taesik Lee and Hayong Shin	
<b>19</b>	<b>A Decision-Making Approach Supporting Hospital Drug Logistics</b> ..	241
	Anna Corinna Cagliano, Sabrina Grimaldi, and Carlo Rafele	
<b>20</b>	<b>Analyzing the Impact of Lean Approach in Pharmaceutical Supply Chain</b> .....	253
	Alberto Portioli Staudacher and Alice Bush	

**21   Portable Optokinetic Stimulator for Vestibular Rehabilitation ..... 265**  
Cândida Malça, Fernando Moita, and Inês Araújo

**22   Modeling and Simulation of a French Extended White  
Plan: A Hospital Evacuation Before a Forecasted Flood ..... 277**  
Wanying Chen, Alain Guinet, and Angel Ruiz

**23   Using Simulation to Analyze Patient Flows in a Hospital  
Emergency Department in Hong Kong ..... 289**  
Omar Rado, Benedetta Lupia, Janny M.Y. Leung, Yong-Hong  
Kuo, and Colin A. Graham

**24   Managing a Fleet of Ambulances to Respond  
to Emergency and Transfer Patient Transportation Demands ..... 303**  
Y. Kergosien, M. Gendreau, A. Ruiz, and P. Soriano

**Erratum ..... E-1**

Proceedings of the International Conference on Health  
Care Systems Engineering

Matta, A.; Li, J.; Sahin, E.; Lanzaone, E.; Fowler, J. (Eds.)

2014, IX, 315 p. 61 illus., 39 illus. in color., Hardcover

ISBN: 978-3-319-01847-8