



Algorithms in Critical Care Medicine

Editors

Srinivas Samavedam
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Contents

SECTION 1

SYNDROMIC APPROACH

Section Editors: *Reshu Gupta Khanikar, Manoj Y Singh*

Associate Editor: *Sultana Teslima Begum*

1. Hypoxia.....	3
2. Shock.....	6
3. Chest Pain	8
4. Shortness of Breath	11
5. Oliguria	12
6. Rhabdomyolysis.....	14
7. DIC	15
8. Altered Sensorium	16
9. Anaphylaxis	17

SECTION 2

SYSTEMWISE APPROACH

PART 1: RESPIRATORY

Editors: *Vikram Damaraju, Manoj K Singh*

Associate Editors: *Alpesh Parmar, Anusha Lakhinena, Avadh Vithlani, Jitendra G Kotadiya, Minesh V Patel, Neeta Bose, Parth Patel, Pradip Dabhi, Pujith Chandaluri, Ravirajsinh Gohil, Revathi Aiyer, Sri Lakshmi Tiruveedhula, Tushar Patel, Vipul P Parekh, Vitrag H Shah*

10. Type 2 Respiratory Failure.....	23
11. Pneumothorax	25
12. Acute Exacerbation of Asthma.....	28
13. Acute Exacerbation of Chronic Obstructive Pulmonary Disease	31
14. Acute Respiratory Distress Syndrome.....	33
15. Severe Community-acquired Pneumonia	36

16. Bronchopleural Fistula	38
17. Weaning.....	40
18. Ventilator-associated Pneumonia/Hospital-acquired Pneumonia/ Healthcare-associated Pneumonia	43
19. Massive Hemoptysis	51
20. Pneumonia in an Immunocompromised Host.....	53
21. Pleural Effusions in Intensive Care Unit	55
22. Algorithm for Dyspnea in ER: USG-based Approach.....	57

PART 2: **CARDIOVASCULAR/HEMODYNAMICS**

Editors: Natesh Prabu R, Jacob George Pulinilkunnathil

Associate Editors: M Srivatsa Nagachandan, Vaishnavi R, Rahul Baby Joseph, Mathew Antony, Nishanth Baliga, Sandhya S, Kandaswamy N, Divya Dinakar, Priyanka KJ, Hemalatha RV, Vadhan Prasanna S, Thomas Isaiah Sudarsan

23. ST-segment Elevation Myocardial Infarction	67
24. Non-ST-segment Elevation Myocardial Infarction	70
25. Algorithm for Acute Coronary Syndrome Evaluation and Unstable Angina	72
26. New-onset Atrial Fibrillation.....	75
27. New-onset Ventricular Arrhythmia	78
28. Symptomatic Bradyarrhythmias	84
29. Cardiac Tamponade	89
30. Pulmonary Thromboembolism.....	91
31. Cardiogenic Shock	94
32. Sudden Cardiac Death	102
33. Pulmonary Hypertension	105
34. Cardiac Failure.....	108
35. Right Heart Failure.....	112
36. Native Valve Infective Endocarditis.....	114
37. Prosthetic Valve Endocarditis	120
38. Hypertensive Crisis	127
39. Aortic Dissection	130
40. Acute Cardiogenic Pulmonary Edema.....	132

PART 3: CNS

Editors: *Swagata Tripathy, Pratheema Ramachandran*

Associate Editors: *Lakshmi Kanth Charan S, Sivakumar MN, Ajithkumar BR, Robert James Premkumar, Mahender Prasad, Kalavathy Swarna, Suresh Kumar Sundaramurthy, Kabilan Nallathambi, Dona Saha, Swapnabharati Moharana, Suma R Ahmad, Jyotirmaya Prakash Pati, Devi Prasad Mohapatra, Nivedita J Bodra*

41. Ischemic Stroke	137
42. Hemorrhagic Stroke.....	145
43. Subarachnoid Hemorrhage.....	150
44. Management of Severe and Nonsevere Traumatic Brain Injury	157
45. Traumatic Spinal Cord Injury	163
46. Acute Flaccid Paresis.....	169
47. Acute Inflammatory Demyelinating Polyneuropathy	175
48. Myasthenia Gravis	177
49. Status Epilepticus and Super-refractory Status Epilepticus.....	179
50. Delirium in Intensive Care Unit.....	184
51. Community-acquired Meningitis.....	188
52. Nosocomial Meningitis.....	193
53. Neurogenic Shock.....	196
54. New-onset Weakness in the Intensive Care Unit	199
55. Cerebral Venous Thrombosis	202

PART 4: GASTROENTEROLOGY/HEPATOLOGY

Editors: *Shrikanth Srinivasan, Lalita Gouri Mitra*

Associate Editors: *Krishna Murari Dhaker, Anuradha Pandey, Nitin Saluja, Priyanka Datta, Sunil Kumar Karhana, Nitin Jain, Vishal Khandelwal, Rishikant Birla, Raghvendra Kumar Giri, Ankit Sharma, Rajathadri Hosur Ravikumar*

56. Massive Upper Gastrointestinal Bleed	207
57. Acute Severe Pancreatitis.....	218
58. Dysmotile Gut in Critical Care Settings	222
59. Enteral and Parenteral Nutritional Support in Intensive Care Unit	225
60. Total Parenteral Nutrition	228
61. Fulminant Hepatic Failure	234

62. Enteral Nutrition	238
63. Decompensated Cirrhosis Management.....	243
64. Drug-induced Liver Injury	246
65. Spontaneous Bacterial Peritonitis.....	249
66. Diarrhea in Intensive Care Unit.....	252
67. Lower Gastrointestinal Bleeding	254

PART 5: RENAL

Editor: Kanwalpreet Sodhi

Associate Editor: Neeru Sahni

68. Acute Kidney Injury	259
69. Acute-on-Chronic Kidney Disease	263
70. Pyelonephritis	265
71. Urinary Tract Infection.....	267
72. Hematuria	270
73. Polyuria.....	272

PART 6: TRAUMA

Editors: Sunil Karanth, Niraj Tyagi

Associate Editors: Vinay K, S Maniraj, Srinivasan Muthusamy, Dileep N

74. Polytrauma	277
75. Chest Trauma	281
76. Penetrating Abdominal Trauma	283
77. Nonpenetrating Abdominal Trauma	285
78. Cervical Trauma.....	288
79. Pelvic Trauma	290
80. Vascular Injuries Management	295
81. Burns	298
82. Inhalational Injury	302
83. Drowning.....	306
84. Suicidal Hanging	310

PART 7: METABOLIC ISSUES

Editors: *Aklesh Tandekar, Ravindra Ghawat*

Associate Editors: *Suvadeep Sen, Rajan Bhupesh Pandya, Ashwini Ajay Yadav, Divya Rajasekaran, Jasmine Nathani, Shailesh Hiranman Chouksey, Subhra Sen*

85. Hyponatremia	315
86. Hypernatremia	318
87. Hypokalemia	321
88. Hyperkalemia	325
89. Hypocalcemia	330
90. Hypercalcemia	332
91. Hypophosphatemia	335
92. Hypomagnesemia	339
93. Hypermagnesemia	342
94. Hyperammonemia	345
95. Hyperchloremia	348
96. Hypothermia	351
97. Hyperthermia	354

PART 8: ENDOCRINE

Editor: *Jaicob Varghese*

Associate Editors: *Biji Thomas Philip, Melwin George, Nilanjan Umesh, Meenakshy Vijayakumar*

98. Diabetic Ketoacidosis Management Protocol	361
99. Hyperglycemic Hyperosmolar Nonketotic Syndrome	363
100. Myxedema Coma	364
101. Thyrotoxicosis	365
102. Adrenal Insufficiency	369

PART 9: BLOOD GAS ANALYSIS

Editors: *Pragyan Kumar Routray, Dharmajivan Samantaray*

103. Arterial Blood Gas	373
104. Metabolic Alkalosis	375
105. Respiratory Acidosis	376
106. Respiratory Alkalosis	377

PART 10: TOXICOLOGY

Editor: Binila Chacko

Associate Editors: Lovely Thomas, Manoj Job

107. Approach to Unknown Poisoning	381
108. Organophosphorus (OP) Poisoning	385
109. Hair Dye Poisoning: Super Vasmol Overdose	386
110. Zinc or Aluminum Phosphide Poisoning	388
111. Corrosive Poisoning	389
112. Calcium Channel Blocker/Beta-blocker Toxicity	391
113. Snake Envenomation	393
114. Paracetamol Poisoning	395
115. Paraquat Poisoning	398
116. Recreational Drug Overdose	400

PART 11: SKIN AND SOFT TISSUE

Editor: V Dedeepiya Devaprasad

Associate Editors: Sandeep Shyamsundar, A Karthick Ramalingam

117. Lupus Flare	403
118. Catastrophic Antiphospholipid Syndrome	407
119. TTP/HUS/MAHA	410
120. Stevens–Johnson Syndrome: Toxic Epidermal Necrolysis	416
121. Necrotizing Fasciitis	419
122. Generalized Rash and Purpura in Intensive Care Unit	422

PART 12: HEMATOLOGY

Editor: Raymond Dominic Savio

Associate Editors: Suresh Kumar Sundaramurthy, Naveen Chandra Chinni

123. Pancytopenia	429
124. Hemophagocytic Lymphohistiocytosis	431
125. Thrombocytopenia	433
126. Anemia	436
127. Deranged Prothrombin Time/Activated Partial Thromboplastin Time	438

128. Hemolytic Crisis	440
129. Tumor Lysis Syndrome	444
130. Mismatched Blood Transfusion	446

PART 13: INFECTIONS

Editors: Saswati Sinha, Vaishali Solao

Associate Editor: Mohit Kharbanda

131. Approach to a Patient with Fever and Thrombocytopenia	451
132. Fever with Jaundice	453
133. Fever in an Immunocompromised Host	455
134. Patient with Fever and Rash in the ICU	460
135. Fever with Altered Sensorium	464
136. Fever of Unknown Origin in Neutropenia	466
137. Pyrexia of Unknown Origin	468
138. MDR/XDR Infections	470
139. Septic Shock	472
140. New-onset Fever in Intensive Care Unit	474

PART 14: AIRWAY

Editors: Vikrant Shamrao Pawar, Ketan Kargirwar

Associate Editor: Dnyanesh Kashikar

141. Postextubation Stridor	477
142. Difficult Airway Management	479
143. Emergency Airway Access	481

PART 15: OBSTETRICS

Editors: Gunchan Paul, Leena Patil

Associate Editor: Basjinder Kaur

144. Jaundice in Pregnancy	485
145. Thrombocytopenia in Pregnancy	494
146. Hypertension in Pregnancy	495
147. Trauma Management of Pregnant Patient	500

148. Shock during Pregnancy	503
149. Cardiac Arrest in Pregnancy.....	505
150. Ovarian Hyperstimulation Syndrome	511
151. Pregnancy-related Acute Kidney Injury	514
152. Peripartum Cardiomyopathy	516
153. Postpartum Hemorrhage	521

PART 16: CHECKLISTS

Editors: Sachin Gupta, Deeksha Singh Tomar

154. Intra-hospital Transport of Critically Ill	525
155. Intubation.....	526
156. Extubation	527
157. Bedside Percutaneous Tracheostomy	528
158. Intercostal Drainage	529
159. Proning	530
160. Central Venous Line Cannulation	531
161. Arterial Cannulation	532
162. Brain Death Declaration	533
163. Ends-of-Life	534
164. Venovenous Extracorporeal Membrane Oxygenation	535
165. High Peak Pressure on Ventilator	536
166. Low Minute Ventilation	537
167. High Membrane Pressure on RRT	538
<i>Index</i>	539

■ DEFINITION

Shock is defined as a state of cellular and tissue hypoxia due to either reduced oxygen delivery, increased oxygen consumption, inadequate oxygen utilization, or a combination of these processes.¹

“Undifferentiated shock” refers to the situation where shock is recognized but the cause is unclear.²

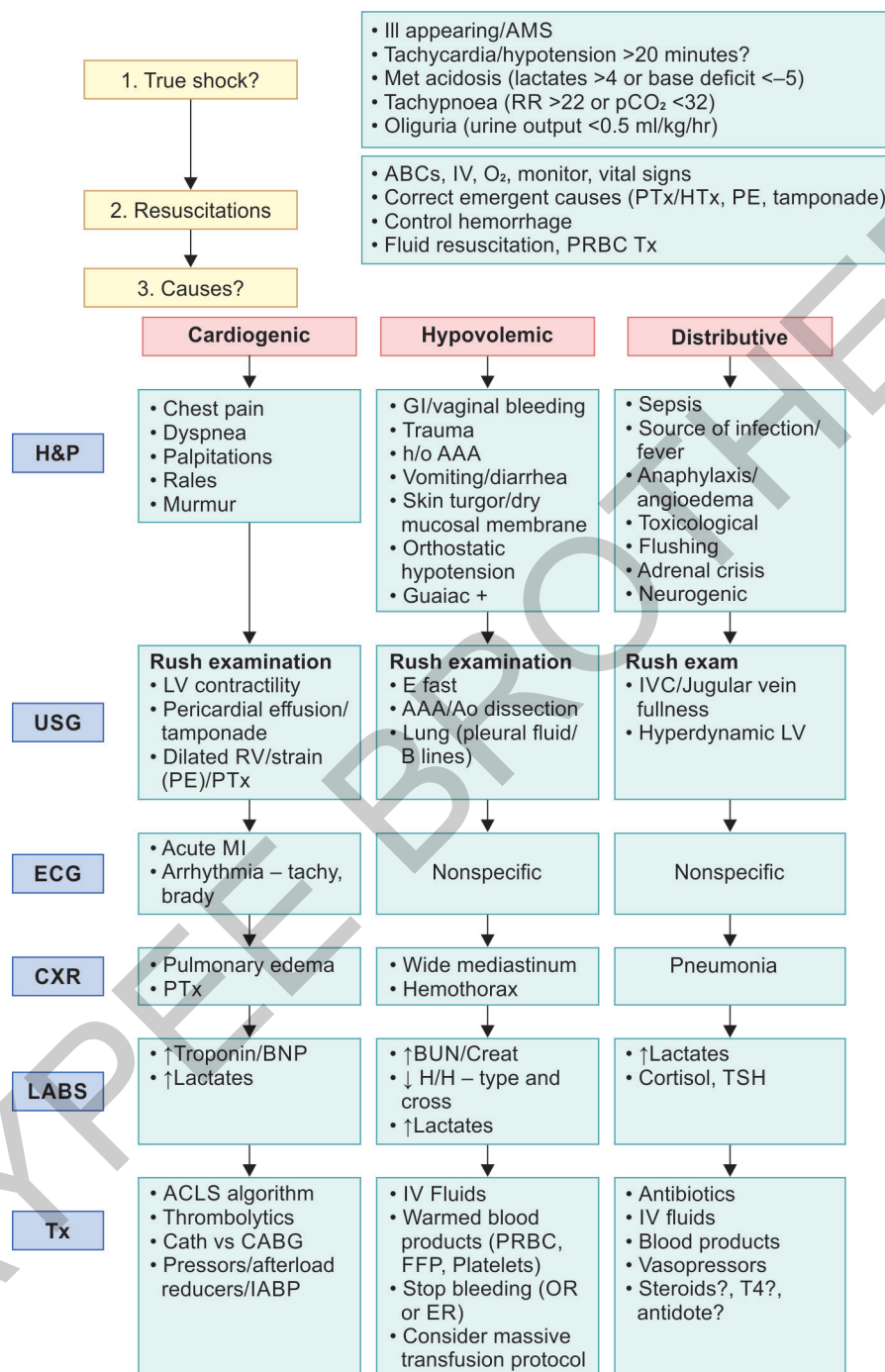
Classification¹

Shock is a critical medical condition. It can result from various causes and is broadly categorized into four types:

1. Hypovolemic shock
2. Cardiogenic shock
3. Distributive shock
4. Obstructive shock

Types of shock	Clinical presentation	Hemodynamics	Examples
1. Hypovolemic shock	Hypotension, Tachycardia, weak thready pulse, cool, pale moist skin, urine output (U/O) decreased	• Decreased Cardiac Output (CO) • Increased Systemic Vascular Resistance (SVR)	Severe bleeding (hemorrhagic shock), dehydration, or burns
2. Cardiogenic shock	Hypotension, Tachycardia, weak thready pulse, cool, pale moist skin, U/O <30 mL/h, crackles, tachypnea	• Decreased CO • Increased SVR	Severe myocardial infarction, heart failure, or other cardiac conditions
3. Distributive shock			
Neurogenic shock	Hypotension, bradycardia, warm dry skin	• Decreased CO • Venous and arterial vasodilatation • Loss of sympathetic tone	
Anaphylactic shock	Hypotension, Tachycardia, cough, dyspnea, pruritus, urticaria, restlessness, decreased LOC	• Decreased CO • Decreased SVR	
Septic shock	Hypotension, tachycardia, full bounding pulse, tachypnea, pink warm flushed skin, decreased U/O, fever	• Decreased CO • Decreased SVR	
4. Obstructive shock	• Unusual • Hypotension • Tachycardia • Altered consciousness • Decreased U/O • Cool, clammy skin • Subcutaneous emphysema (air under your skin) • Chest or abdominal pain	• Decreased cardiac output • Increased SVR	Pulmonary embolism, cardiac tamponade, or tension pneumothorax

Shock Algorithm



(AAA: abdominal aorta aneurysm; HTx: hypertension; PE: pulmonary embolism; PTx: pneumothorax)

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Algorithms in Critical Care Medicine

The Hyderabad Intensive Care Symposium (HICS) team has been at the forefront of critical care academics for close to 18 years. The team has always focused on sharing information and bringing latest thoughts and concepts to the keen learners of intensive care. This book has been the long-cherished dream of the academic directors of the HICS team.

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