

# TABLE OF CONTENTS

<b>Infection Critical Care I</b> .....	1
<b>Infection Critical Care I Panel</b> .....	3

## Sepsis Management

*By Young Ran Lee, Pharm.D., BCPS, BCCCP;  
and Taryn B. Bainum, Pharm.D., BCPS*

Introduction .....	7
Patient Assessment and Monitoring .....	8
Hemodynamic Stabilization .....	14
Infection Management .....	21
Other Therapies .....	25
Supportive Management .....	25
Role of the Pharmacist .....	27
Conclusion .....	28
References .....	28

## CNS Infections

*By Leslie A. Hamilton, Pharm.D., FCCP, FCCM, BCPS, BCCCP*

Introduction .....	35
Diagnosis .....	36
CNS Devices .....	37
Community-Acquired Meningitis .....	38
IDSA Guidelines on Ventriculitis and Health Care– Associated Meningitis .....	39
Abscesses .....	42
Traumatic Injuries .....	43
Viral Encephalitis .....	43
Opportunistic Infections .....	44
Surgical Prophylaxis .....	47
Conclusion .....	47
References .....	47

<b>Infection Critical Care II</b> .....	53
<b>Infection Critical Care II Panel</b> .....	55

## Microbiome Dysbiosis

*By Divya Merry Daniel, Pharm.D., BCCCP*

Introduction .....	59
Microbiome Dysbiosis in Critical Illness .....	60
Probiotic Supplementation .....	66
Selective Bacterial Decontamination .....	72
Fecal Microbiota Transplantation .....	75
Conclusion .....	76
References .....	77
Self-Assessment Questions .....	84

## HIV-1 Infection in the Critically Ill Patient

*By Jomy M. George, Pharm.D., BCPS-AQ (ID);  
and Safia S. Kuriakose, Pharm.D., BCPS-AQ (ID)*

Introduction .....	87
HIV Testing and Disclosure in the ICU .....	88
General Approach to ART Initiation in PLWH .....	88
DHHS ARV Guidelines for Adults and Adolescents Living with HIV .....	89
ART Strategies in the ICU .....	89
Challenges in Managing HIV/AIDS in the Setting of Critical Illness .....	94
ART-Associated Serious Adverse Events Relevant to the ICU ..	102
Conclusion .....	104
References .....	105
Self-Assessment Questions .....	108

## Rapid Diagnostic Testing and Biomarkers

*Simon W. Lam, Pharm.D., MS, FCCM, BCCCP, BCPS;  
and Stephanie Bass, Pharm.D., BCCCP, BCPS*

Introduction .....	113
RDTs for Bacterial Infections .....	114
RDTs for <i>Candida</i> Infections .....	118
RDTs for Viral Pathogens .....	121
RDTs for <i>Clostridioides difficile</i> Infection .....	123
Use of Biomarkers for Infectious Diseases in Critically Ill Patients .....	126
Stewardship Efforts to Optimize Rapid Diagnostic and Biomarker Detection Tests .....	127
Conclusion .....	129
References .....	130
Self-Assessment Questions .....	134

<b>Infection Critical Care III</b> .....	139
<b>Infection Critical Care III Panel</b> .....	141

## Interactive Case: Antibiotic Dosing Issues

*By Paul M. Reynolds, Pharm.D., BCPS, BCCCP;  
and Scott W. Mueller, Pharm.D., FCCM, BCCCP*

Hyperlink to start activity .....	145
References .....	146
Self-Assessment Questions .....	149

## Interactive Case: Antimicrobial Stewardship in Critical Care

*By Michael P. Veve, Pharm.D., MPH;  
and Vasilios Athans, Pharm.D., BCPS, BCIDP*

Hyperlink to start activity .....	154
References .....	154
Self-Assessment Questions .....	159