
CONTENTS

List of Contributors xi

Foreword xiii

Preface xv

Acknowledgments xix

About the Companion Website xxi

Section I: Basics of Ultrasound and Imaging 1

1 POCUS: Introduction 3

Gregory R. Lisciandro

2 POCUS: Basic Ultrasound Physics 11

Robert M. Fulton

3 POCUS: Basic Ultrasound Artifacts 15

Robert M. Fulton

4 POCUS: Basic Ultrasound Scanning 25

Robert M. Fulton

5 POCUS: Top Ultrasound Mistakes During Global FAST 39

Gregory R. Lisciandro

Section II: Abdomen 55

6 POCUS: AFAST – Introduction and Image Acquisition 57

Gregory R. Lisciandro

7 POCUS: AFAST – Clinical Integration 111

Gregory R. Lisciandro

- 8 POCUS: Liver and Gallbladder 149
Stephanie C. Lisciandro, Jennifer M. Gambino, and Sarah Young
- 9 POCUS: Spleen 173
Stephanie C. Lisciandro and Sarah Young
- 10 POCUS: Kidney 189
Stephanie C. Lisciandro and Sarah Young
- 11 POCUS: Urinary Bladder 211
Stephanie C. Lisciandro and Sarah Young
- 12 POCUS: Gastrointestinal Tract and Pancreas 225
Søren R. Boysen and Jennifer M. Gambino
- Section III: Reproductive and Pediatric 245**
- 13 POCUS: Reproductive – Male 247
Robert M. Fulton
- 14 POCUS: Reproductive – Female 255
Robert M. Fulton
- 15 POCUS: Dystocia 265
Robert M. Fulton
- 16 POCUS: Pediatrics 271
Autumn P. Davidson and Tomas W. Baker
- Section IV: Thorax 295**
- 17 POCUS: TFAST – Introduction and Image Acquisition 297
Gregory R. Lisciandro
- 18 POCUS: TFAST – Clinical Integration 337
Gregory R. Lisciandro
- 19 POCUS: Heart – Introduction and Image Acquisition 389
Teresa DeFrancesco
- 20 POCUS: Heart - Abnormalities of Valves, Myocardium, and Great Vessels 403
Teresa DeFrancesco
- 21 POCUS: Heart – Pericardial Effusion and Pericardiocentesis 417
Teresa DeFrancesco
- 22 POCUS: Vet BLUE – Introduction and Image Acquisition 425
Gregory R. Lisciandro and Stephanie C. Lisciandro

- 23 POCUS: Vet BLUE – Clinical Integration 459
Gregory R. Lisciandro and Stephanie C. Lisciandro

Section V: Vascular 509

- 24 POCUS: Central Venous and Arterial Catheterization 511
Scott Chamberlin
- 25 POCUS: Vascular – Veins and Arteries 529
Gregory R. Lisciandro
- 26 POCUS: Caudal Vena Cava 541
Kris Gommeren, Elodie Darnis, and Anne-Christine Merveille

Section VI: Ocular, Neurological, and Musculoskeletal 551

- 27 POCUS: Eye 553
Jane Cho
- 28 POCUS: Brain – Image Acquisition 579
Cibele F. Carvalho
- 29 POCUS: Brain – Clinical Integration 595
Cibele F. Carvalho
- 30 POCUS: Nerve Blocks – Forelimb 609
Pablo E. Otero and Diego A. Portela
- 31 POCUS: Nerve Blocks – Pelvic Limb 619
Pablo E. Otero and Diego A. Portela
- 32 POCUS: Nerve Blocks – Trunk 629
Pablo E. Otero and Diego A. Portela
- 33 POCUS: Nerve Blocks – Neuroaxial 637
Pablo E. Otero and Diego A. Portela
- 34 POCUS: Musculoskeletal – Soft Tissue 647
Susanne M. Stieger-Vanegas
- 35 POCUS: Musculoskeletal – Bones and Joints 663
Susanne M. Stieger-Vanegas

Section VII: Monitoring and Surveillance 683

- 36 POCUS: Global FAST – Patient Monitoring and Staging 685
Gregory R. Lisciandro

- 37 POCUS: Global FAST – Rapidly Detecting Treatable Forms of Shock, Advanced Life Support, and Cardiopulmonary Resuscitation 729
Gregory R. Lisciandro

- 38 POCUS: VetFAST-ABCDE 757
Andrea Armenise

Section VIII: Felines and Exotic Species 775

- 39 POCUS: Feline Differences – Abdomen and Thorax 777
Daniel Rodriguez and Gregory R. Lisciandro
- 40 POCUS: Exotic Companion Mammals 815
Sara Gardhouse and Hugues Beaufrère
- 41 POCUS: Marine Mammals 829
Gregory R. Lisciandro, Jennifer M. Gambino, Debra P. Moore, and Enrique Yarto
- 42 POCUS: Birds and Reptiles 863
Sara Gardhouse and Hugues Beaufrère

Section IX: Ultrasound-Guided Procedures 883

- 43 POCUS: Ultrasound-Guided Procedures – Abdominocentesis, Thoracocentesis, and Pericardiocentesis 885
Søren R. Boysen
- 44 POCUS: Ultrasound-Guided Lung and Thoracic Sampling 907
Daniel Rodriguez

Section X: Management 919

- 45 POCUS: Setting Up Successful POCUS and FAST Ultrasound Programs 921
Gregory R. Lisciandro

Appendices 933

- I Goal-Directed Templates for Medical Records 933
- II Abbreviations, Terminology and Glossary 943
- III Quick References of Normal Values and Rules of Thumb 949

- Index 971