

# **Table of contents**

Contributors, vii

ACVS Foreword, ix

ACVIM Foreword, xi

## **Section I: Diagnostics and Planning**

1 Neurosurgical Instrumentation, 3

*Michelle Oblak and Brigitte A. Brisson*

2 Orthopedic Implants in Neurosurgery, 11

*Noel M.M. Moens*

3 Minimum Database for Intracranial Surgery, 21

*Theresa E. Pancotto*

4 Advanced Imaging: Intracranial Surgery, 29

*Simon Platt and J. Fraser McConnell*

5 Cisternal Cerebrospinal Fluid Taps, 55

*Nora Ortinau*

6 Minimum Database: Spinal Surgery, 59

*Luis Gaitero and Brigitte A. Brisson*

7 Advanced Imaging: Spinal Surgery, 71

*Stephanie Nykamp*

8 Lumbar Cerebrospinal Fluid Taps, 85

*Luis Gaitero*

9 Muscle and Nerve Biopsy, 93

*Michaela Beasley*

## **Section II: Intracranial Procedures**

10 Transfrontal Craniotomy, 99

*Ane Uriarte and Rodolfo Cappello*

11 Lateral (Rostrotentorial) Craniotomy/Craniectomy, 109

*Andy Shores*

12 Suboccipital Craniectomy/Foramen Magnum Decompression, 115

*Erin Y. Akin and Andy Shores*

13 Surgical Treatment of Skull Tumors, 121

*Michelle Oblak and Andy Shores*

14 Shunt Placement and Marsupialization in Treatment of Hydrocephalus and  
Quadrigeminal Diverticula, 129

*William Thomas and Jill Narak*

### **Section III: Spinal Procedures**

15 Atlantoaxial Subluxation, 141

*Fred Wininger*

16 Dorsal Cervical Decompression (Laminectomy/ Hemilaminectomy and  
Laminotomy), 149

*James M. Fingerroth*

17 Ventral Cervical Decompression, 157

*Ronaldo C. da Costa*

18 Lateral Cervical Approach, 163

*Amy Fauber and Robert Bergman*

19 Cervical Distraction and Stabilization, 169

*Bianca Hettlich*

20 Thoracolumbar Hemilaminectomy, 179

*Andy Shores*

21 Pediclectomy/Mini-Hemilaminectomy, 183

*Brigitte A. Brisson*

22 Intervertebral Disc Fenestration, 191

*Brigitte A. Brisson*

23 Thoracolumbar Lateral Corpectomy, 199

*Pierre Moissonnier*

24 Dorsal Laminectomy in the Thoracolumbar Region, 205

*Cory Fisher and Andy Shores*

25 Vertebral Fracture and Luxation Repair, 209

*Bianca Hettlich*

26 Lumbosacral Decompression and Foraminotomy, 223

*Trevor Bebchuk*

27 Surgical Management of Spinal Neoplasia, 235

*Mark S. Levy*

#### **Section IV: Postoperative Care and Rehabilitation**

28 Guidelines for Postoperative Medical Care of the Neurosurgical Patient, 245

*Debbie Reynolds and Brigitte A. Brisson*

29 Physical Rehabilitation of the Neurological Patient, 257

*María Pérez Hernández and Ruby Lynn Carter*

Index, 269