## Contents

**Dedication**  ix  
Sidney L. Bourgeois Jr  

**Preface: Adjuncts for Care of the Surgical Patient**  xi  
Sidney L. Bourgeois Jr  

**Erratum**  xiii  

**Open Tracheostomy Procedure**  117  
Christine B. Taylor and Randal A. Otto  

> Video of a tracheostomy demonstration accompanies this article  

- Introduction: nature of the problem  
- Surgical technique  
- Immediate postoperative care  
- Clinical results in the literature  

**Percutaneous Dilatational Tracheostomy**  125  
Lillian F. Liao and John G. Myers  

- Introduction  
- Surgical technique  
- Surgical approach: supine position  
- Summary  

**Focused Assessment with Sonography for Trauma: Focused Assessment with Sonography for Abdominal Trauma Evaluation**  131  
James S. Gregory  

- Introduction  
- Surgical technique  
- Clinical results in the literature  
- Summary  

**Central Venous Access Techniques**  137  
Sidney L. Bourgeois Jr  

- Introduction  
- Equipment  
- Complications and prevention  
- Central venous catheter maintenance  
- Removal of catheters  
- Evolving technology  
- Summary
# Contents

## Intracranial Pressure Monitors
Margaret Riordan and Lawrence Chin

- Introduction 147
- Surgical technique 148
- Rehabilitation and recovery 149
- Summary 149

## Tube Thoracostomy
Paul B. McBeth and Stephanie A. Savage

- Introduction 151
- Surgical technique 151
- Rehabilitation and recovery 156
- Clinical results in the literature 156
- Summary 156

## Radial and Femoral Artery Catheterization Techniques
Shylaja Maini

- Introduction 159
- Radial artery catheterization 159
- Femoral artery catheterization 160

## Percutaneous Endoscopic Gastrostomy and Open Gastrostomy
Lisa Lai and S. Fahd Ali

- Introduction 165
- Surgical technique 165
- Immediate postoperative care 166
- Complications 167
- Rehabilitation and recovery 167
- Open gastrostomy 167
- Open gastrostomy procedure 167
- Postoperative care 168

## Lumbar Puncture Technique and Lumbar Drains
John H. Sladky and Stephen E. Piwinski

- Lumbar puncture 169
- Anatomy 170
- Indications 171
- Contraindications 171
- Needle selection 171
- Procedure 171
- Advanced imaging 173
- Complications of lumbar puncture 173
- Lumbar drains 175
Percutaneous Bladder Catheterization (Suprapubic Bladder Catheterization)  177

Henry T. Okafor and Imad S. Nsouli

Introduction  177
Anatomy  177
Preprocedure planning  177
Indications  178
Contraindications  178
Patient preparation  178
Technique  179
Complications  180
Management  180
Summary  181