

Contents

List of Contributors vii
Foreword xi

Part 1: The Role of Simulation

1 **Setting the Scene for Simulation-Based Education** 1
Debra Nestel, Kristen Moloney and Simon Hyde

2 **The Where of Simulation Training** 11
Al May

3 **Interprofessional *In Situ* Simulation** 16
Jonathan Hurst

4 **Debriefing and the Debrief** 22
Mark Murphy and Annemarie Brown

5 **Fidelity in Obstetric Simulation** 29
Shane O’Sullivan and Owen O’Sullivan

Part 2: The Impact of Human Factors in Clinical Practice

6 **Introduction to Human Factors and Ergonomics in Obstetric Simulation** 35
Mark Hellaby

7 **Situational Awareness, Bias and Decision-Making Styles in Obstetric Simulation** 37
Ian Parkinson and Andrew F. Smith

8 **Team-Working, Communication and Use of Communication Aids and Checklists in an Emergency** 45
Simon Mercer

Part 3: Clinical Scenarios

9 **Introduction to the Scenarios** 53
Kirsty MacLennan

Scenario Section 1: Obstetric

10 **Uterine Inversion** 57
Samantha Bonner

11 **Shoulder Dystocia Following Forceps Delivery for Fetal Bradycardia** 66
Samantha Cox and Samiksha Patel

12 **Umbilical Cord Prolapse** 73
Michelle MacKintosh

13 **Minimising Decision to Delivery Interval (DDI) in a Category 1 Caesarean Section – Pre-Theatre Phase** 79
Cliff Shelton and Sophie Bishop

Scenario Section 2: Maternal Collapse

14 **Amniotic Fluid Embolism** 87
Kim Macleod and Yara Mohammed

15 **Anaphylaxis in Labour** 95
Andrew Parkes and Shuayb Elkhailifa

16 **Acute Pulmonary Embolism in Pregnancy** 104
Louise Simcox and David Simcox

Scenario Section 3: Hypertensive Disorders of Pregnancy

17 **Eclampsia** 113
Stephanie Worton, Emma Shawkat and Jenny Myers

Contents

- 18 **HELLP Syndrome with Fetal Compromise Requiring an Emergency GA Caesarean Section** 121
Emma Shawkat, Stephanie Worton and Jenny Myers
- 19 **Microangiopathic Haemolytic Anaemia (MAHA) in Pregnancy Presenting in A&E** 133
Louise Simcox and Jo Gillham

Scenario Section 4: Neuraxial Analgesia

- 20 **Subdural Block in Labour** 143
Kathryn Wood and Lorna Howie
- 21 **Total Spinal Anaesthesia in Labour** 150
Katie Gott and Sophie Kimber-Craig
- 22 **Severe Local Anaesthetic Toxicity in Labour** 158
Charlotte Ash and Suna Monaghan

Scenario Section 5: Non-Neuraxial Analgesia

- 23 **Respiratory Arrest in a Woman Using Remifentanyl PCA for Labour** 169
Michael McGinlay and Susan Davies

Scenario Section 6: General Anaesthesia

- 24 **General Anaesthesia and Failed Intubation in a Category 1 Caesarean Section** 177
Richard McGuire and Sharon Smith

Scenario Section 7: Haemorrhage

- 25 **Antepartum Haemorrhage and Perimortem Caesarean Section** 193
Kenneth Ma
- 26 **Vasa Praevia** 202
Shimma Rehman
- 27 **Postpartum Haemorrhage** 208
Pavan Kochhar and Stuart Knowles

Scenario Section 8: Sepsis

- 28 **Group A Streptococcal Puerperal Sepsis** 219
Laura Coleman and Melissa Whitworth
- 29 **Pneumonia and Respiratory Failure in a Pregnant Woman** 227
James Hanison and Dougal Atkinson

Scenario Section 9: Cardiac

- 30 **Chest Pain in a Pregnant Patient** 239
Shahid Karim and Sarah Vause
- 31 **Peripartum Cardiomyopathy** 249
Omar Asghar and Sarah Vause
- 32 **Complete Heart Block in a Pregnant Patient** 257
Anita Macnab and Kirsty MacLennan
- 33 **Cardioversion in a Pregnant Patient with Corrected Tetralogy of Fallot** 266
Kailash Bhatia

Scenario Section 10: Endocrine

- 34 **Diabetic Ketoacidosis in Pregnancy** 277
Samantha Bonner and Jonathan Schofield

Scenario Section 11: Neurological

- 35 **Subarachnoid Haemorrhage in the Postpartum Patient** 287
Craig Carroll and Daniel Holsgrove

Scenario Section 12: Trauma

- 36 **Obstetric Trauma** 297
John Butler

Scenario Section 13: Neonatal

- 37 **Newborn Life Support (Preterm Delivery)** 305
Jonathan Hurst

Index 315