



Handbook of **OBSTETRICS**



Handbook of **BSTETRICS**

Shirley Aye

PENERBIT UNIVERSITI MALAYSIA SABAH

Kota Kinabalu • Sabah • Malaysia

<http://www.ums.edu.my>

2011

A Member of the Malaysian Scholarly Publishing Council (MAPIM)

All rights reserved. No part of this publication may be reproduced, distributed, stored in a database or retrieval system, or transmitted, in any form or by any means, electronic, mechanical, graphic, recording or otherwise, without the prior written permission of Penerbit Universiti Malaysia Sabah, except as permitted by Act 332, Malaysian Copyright Act of 1987. Permission of rights is subjected to royalty or honorarium payment.

Penerbit Universiti Malaysia Sabah makes no representation – express or implied, with regard to the accuracy of information contained in this book. Users of the information in this book need to verify it on their own before utilizing such information. Views expressed in this publication are those of the author(s) and do not necessarily reflect the opinion or policy of Universiti Malaysia Sabah. Penerbit Universiti Malaysia Sabah shall not be responsible or liable for any special, consequential, or exemplary problems or damages resulting in whole or part, from the reader's use of, or reliance upon, the contents of this book.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Handbook of obstetrics / editor Shirley Aye

Includes index

ISBN 978-967-5224-81-2

1. Obstetrics--Handbooks, manuals, etc.
2. Gynecology--Handbooks, manuals, etc. I. Shirley Aye.
618.2

Typeface for text: Swis721 Cn Bt

Text type and leading size: 11/14 points

Printed by: Gayawara Sdn. Bhd.

No. 2 Jalan Nountun, Kg. Bambangan, Inanam

Tkt. Bawah, Wisma Capital,

88450 Kota Kinabalu, Sabah

*I dedicate this book to
my beloved late husband
and my three sons*

| | |
|------------------|------|
| List of Figures | viii |
| List of Tables | x |
| Preface | xi |
| Acknowledgements | xii |

ANTENATAL

| | |
|---|----|
| Chapter 1 Conception..... | 3 |
| Chapter 2 Embryology..... | 7 |
| Chapter 3 Physiology..... | 9 |
| Chapter 4 History Taking..... | 13 |
| Chapter 5 Obstetric Examination..... | 17 |
| Chapter 6 Antenatal Care..... | 21 |
| Chapter 7 The Foetus..... | 25 |
| Chapter 8 Foetal Well-being..... | 29 |
| Chapter 9 Disorders of Placentation..... | 31 |
| Chapter 10 Medical Diseases in Pregnancy..... | 37 |

INTRANATAL

| | |
|--|----|
| Chapter 11 Miscarriage..... | 45 |
| Chapter 12 Ectopic Gestation..... | 49 |
| Chapter 13 Labour..... | 51 |
| Chapter 14 Abnormal Presentations..... | 63 |
| Chapter 15 Obstetric Emergencies..... | 73 |
| Chapter 16 Obstetric Operations..... | 77 |

POSTNATAL

| | |
|--|----|
| Chapter 17 Puerperium..... | 85 |
| Chapter 18 Maternal and Perinatal Mortality..... | 89 |

| | |
|-----------------|----|
| REFERENCES..... | 91 |
|-----------------|----|

| | |
|------------|----|
| INDEX..... | 93 |
|------------|----|

| | | |
|-------|--|----|
| 1.1 | Various stages of spermatogenesis. | 3 |
| 1.2 | Various stages of oogenesis. | 4 |
| 2.1 | Foetal development. | 8 |
| 3.1 | The tiny muscles (myoepithelial cells) around alveoli. | 10 |
| 4.1 | Sample of an obstetric history. | 15 |
| 5.1 | The abdominal markings of uterine growth related to the number of weeks after the last menstrual period. | 17 |
| 5.2 | First manoeuvre – fundal palpation. | 18 |
| 5.3 | Second manoeuvre – lateral palpation. | 18 |
| 5.4 | Pelvic manoeuvre | 19 |
| 5.5 | Pawlik's manoeuvre | 19 |
| 6.1 | Food pyramid | 23 |
| 7.1 | Foetal circulation | 27 |
| 9.1 | Abnormal placentas | 32 |
| 9.2 | Degrees of placenta praevia. | 35 |
| 11.1 | Threatened miscarriage | 45 |
| 11.2 | Inevitable miscarriage | 46 |
| 11.3 | Incomplete miscarriage | 46 |
| 11.4 | Missed miscarriage | 47 |
| 11.5 | Evacuation of miscarriage | 48 |
| 13.1 | Zones of pelvis. | 51 |
| 13.2 | The ideal pelvis – gynaecoid. | 51 |
| 13.3 | Platyeloid pelvis | 52 |
| 13.4 | Anthropoid pelvis | 52 |
| 13.5 | Formation of lower uterine segment. | 53 |
| 13.6 | Pelvic floor from above (composed of levator ani). | 54 |
| 13.7 | Perineal muscles from below. | 54 |
| 13.8 | Foetal skull | 55 |
| 13.9 | Caput succedaneum | 56 |
| 13.10 | Diameters of the foetal skull. | 56 |
| 13.11 | Position of the occiput at the onset of labour. | 59 |
| 13.12 | Effacement and dilatation of the cervix. | 59 |
| 13.13 | Second stage | 60 |
| 13.14 | Living tourniquet of uterine muscles. | 60 |

| | | |
|-------|--|----|
| 13.15 | Pudental block – transvaginal. | 61 |
| 13.16 | Perineal infiltration | 61 |
| 13.17 | Episiotomy types | 61 |
| 13.18 | Types of suturing. | 62 |
| 14.1 | Possible rotation of OP. | 63 |
| 14.2 | Types of breech. | 64 |
| 14.3 | Sacroanterior | 65 |
| 14.4 | External cephalic version. | 65 |
| 14.5 | After episiotomy, buttocks born by groin traction in delivery of an extended breech. | 65 |
| 14.6 | Posterior buttock appears. | 66 |
| 14.7 | Both buttocks born. | 66 |
| 14.8 | Born to umbilicus. | 66 |
| 14.9 | Forceps after coming head. | 66 |
| 14.10 | Burns Marshall technique. | 67 |
| 14.11 | Face presentation; mento lateral | 68 |
| 14.12 | Face engagement | 68 |
| 14.13 | Multiple pregnancy | 69 |
| 15.1 | Manual removal of placenta. | 75 |
| 15.2 | Bimanual compression of the uterus. | 75 |
| 16.1 | Bishops score – effacement and dilatation. | 77 |
| 16.2 | Position of patient for forceps delivery. | 79 |
| 16.3 | Forceps applications | 79 |
| 16.4 | Direction of traction in forceps delivery. | 80 |
| 16.5 | Wrigleys forceps | 80 |
| 16.6 | Simpsons forceps | 80 |
| 16.7 | Kiellands forceps – for rotation and traction. | 80 |
| 16.8 | Peritoneum cut | 81 |
| 16.9 | Peritoneum pushed down. | 81 |
| 16.10 | Lower uterine segment incised down. | 82 |
| 16.11 | Head delivered | 82 |
| 16.12 | Uterus sutured | 82 |
| 17.1 | Prolactin reflex | 86 |
| 17.2 | Milk-ejection reflex | 86 |

| Table | | Page |
|--------------|---|-------------|
| 7.1 | Foetal growth and development. | 25 |
| 11.1 | Indications for therapeutic miscarriage. | 48 |
| 13.1 | Apgar scoring method for evaluating the infant. | 59 |
| 16.1 | Bishops scoring. | 77 |
| 16.2 | Indication of Caesarean section. | 82 |

Obstetrics is the most exciting of all medical specialties, dealing with problems of early human development, general medicine, surgery and emergency care. This book is intended to address the need of medical students in the School of Medicine, Universiti Malaysia Sabah. It seeks its audience, also amongst other obstetricians, when the need for knowledge arises.

In planning the book, I have recalled those subjects which I myself found difficult to master, or on which I had searched far and long for information. I have not hesitated to give my own views. The opinions are mine and are based on literature and discussions. Without intended disrespect, mention by name of authors and workers I have avoided. I have attempted to reach conclusions which satisfy me as being rational and, as present knowledge allows.

The steps required for forceps delivery or Caesarean section are not really needed for students, but these topics have been included in illustrations, for those needing information. It is my hope that this little handbook will meet the needs of today's medical students and encourage self-learning skills, whilst providing essential information in readable manner. This book is meant to add to, rather than replace clinical and tutorial instructions. In a medical curriculum I believe there will be a mixture of teacher-centred information transfer and self-divided problem-based learning. This handbook should serve as a source for both approaches, supplemented by literature searches.

In offering this book to students I remember with affection and gratitude my beloved teachers, from my own country and from Belfast, Northern Ireland. Not only did they teach me obstetrics, but also to think and provide me the stimulus to obtain experience in this field of medicine.

In conclusion, I hope this book will convey my continuing love for this exciting specialty and that it will enthuse a new generation of obstetricians to make pregnancy and childbirth an even safer and more fulfilling experience for parents in many generations to come.

Shirley Aye

Associate Professor
School of Medicine
Universiti Malaysia Sabah
Kota Kinabalu, Sabah, Malaysia
2011

A C K N O W L E D G E M E N T

I would like to express my thanks to Professor Dr Osman Ali, the former Dean of the School of Medicine, Universiti Malaysia Sabah who graciously reviewed the manuscript and provided constructive suggestions. Special thanks to Francisca Mosilinus for her cheerful acceptance of unacceptable demands. Without her participation, this project would not have been completed. To Mohd Zulfadhlee Bin Abdul Nasyir for his final touch-ups of my pictures. Also to Fauziah Jafrih who has helped me in the final arrangements.