Creasy and Resnik's Maternal-Fetal Medicine: Principles and Practice Sixth edition

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Maternal-fetal medicine (MFM) is an expanding subspecialty in obstetrics worldwide. With publications in this field emerging day by day, it is important to keep up to date with the evidence-based practice. *Creasy and Resnik's Maternal-Fetal Medicine: Principles and Practice, sixth edition* has included an overview of all the issues related to this subspecialty in a textbook. I enjoyed reading this textbook as the contents of this book are very relevant to my practice.

Creasy and Resnik's Maternal-Fetal Medicine, first published in 1984, has been well received over the world by the practitioners and trainees in the subspecialty of MFM. With each subsequent edition, the editors have ensured that the book is updated with the developments in MFM. The sixth edition has got a welcome addition of two new editors, Dr C J Lockwood and Dr T R Moore. The chapters have been written by various eminent experts in the field of maternal and fetal medicine, mainly from the USA, a few from Europe and the rest of the world. The latest edition, i.e. the sixth edition, also has the added advantage of being available online through Expert Consultant website.

This book is laid out in five parts reflecting the maternal-placental-fetal interaction and fetal-neonatal transition, which forms the basis of subspecialty of MFM.

- (1) Scientific basis of perinatal biology (16 chapters)
- (2) Fetal disorders: diagnosis and therapy (11 chapters)
- (3) Disorders at the maternal-fetal interface (8 chapters)
- (4) Maternal complications (22 chapters)
- (5) The neonate (1 chapter)

The first part, scientific basis, extensively covers the basic physiological principles involved in all fields such as maternal physiological and immunological adaptation, placental and amniotic fluid dynamics, stages of early development with special reference to multiple gestations, fetal cardiovascular, respiratory and neurological development, and the existing and evolving theories of parturition. By extensively covering the basics, the editors have yet again proved the point that understanding the basic principles is vital for the practice of MFM.

All the chapters have been well written. Some chapters in Part I are worth special mention. Chapter 1, *Basic genetics and patterns of inheritance*, covers all aspects of genetics relevant to clinical practice including the topics of current interest such as mitochondrial inheritance, imprinting, high-resolution comparative genomic hybridization (HR-CGH). In Chapter 11, *Developmental origins of health and disease*, the authors discuss

the intrauterine programming of postnatal health in interesting and simple language and also outline the increasing public health problems of maternal obesity. Chapter 16, *Evidence based practice in perinatal medicine*, provides guidance to understanding the basic research methods commonly used in clinical practice. This information will be extremely helpful to a novice trainee in interpreting results published in the literature in this specialty and also in employing the appropriate methods in their own research.

Part II, *Fetal disorders: Diagnosis and therapy*, covers the practical aspects of prenatal diagnosis with chapters on imaging, fetal cardiac conditions, teratogenesis, antepartum and intrapartum surveillance, multiple pregnancy, non-immune hydrops and haemolytic disease of the fetus and the newborn. Chapter 17, *Prenatal diagnosis of congenital disorders*, is excellent, covering all screening and diagnostic methods currently in use including preimplantation genetic diagnosis, non-invasive testing, etc. Ultrasound screening has only been outlined, as it has been covered in detail in the next chapter, thus ensuring no duplication. In Chapter 18, all system abnormalities have been mentioned. At the beginning of each system, there is a brief description of relevant embryology. However, the information on common anomalies (except fetal cardiac) is superficial. An in-depth analysis of all common abnormalities may be a useful addition to future editions. There is a chapter on '3D in obstetrics', which is available only online. There is a chapter exclusively on assessment and induction of fetal pulmonary maturity. In the chapter *Hemolytic disease of the fetus and newborn*, there is a good description of pathophysiology and management of the condition. In-utero treatment options for pregnancy at risk of neonatal alloimmune thrombocytopenia are covered elsewhere under maternal coagulation disorders. There was a minor typo error in the table 21.11 on page 386 (pH is written as 3.398 instead of 7.398).

Part III, *Disorders at the maternal-fetal interface*, include chapters on the pathogenesis and clinical aspects of preterm labour, post-term pregnancy, intrauterine growth restriction and hypertensive disorders of pregnancy. An entire chapter has been devoted to cervical insufficiency to reflect the increasing emphasis on predicting and preventing preterm labour due to cervical insufficiency. While evidence on prevention of preeclampsia is described, prediction of preeclampsia has not been discussed in detail. Placental complications are discussed elsewhere (in Part IV - *Maternal complications*). A few aspects in the pathogenesis of preterm labour and monitoring in IUGR sections are repetitive as these topics have also been covered elsewhere in the basic sciences and antepartum assessment.

Part IV, *Maternal complications*, encompasses the entire range of maternal medical disorders complicating pregnancy as well as intrapartum complications. This part also includes infective conditions, anaesthetic aspects, critical care of the sick pregnant patient, gynaecological conditions in pregnancy, etc. *Maternal and fetal infections* completely covers all the common infections a clinician would encounter in the ante-, intra- and postpartum period including episiotomy wound infection and puerperal endometritis. The chapter on maternal cardiac diseases includes care of pregnant women with both corrected and uncorrected congenital and acquired heart diseases, issues related to cardiac surgery in pregnancy, thromboprophylaxis in those patients with mechanical heart valve disease. Anaesthetic

management has been discussed elsewhere (Chapter 57, *Anaesthetic considerations for complicated pregnancies*). Haematological diseases are explained in three chapters (*Coagulation disorders*, *Thromboembolic diseases* and *Anemia in pregnancy*) reflecting the high prevalence of haematological problems in pregnancy. No common topic in maternal medicine has been left uncovered.

The only chapter in Part V gives an overview of the neonatal outcome in complicated pregnancies, common problems and their management. This knowledge is essential for the MFM trainee/fellow and practitioner.

The purchasers of this textbook also have online access to the complete contents, images, tables, downloadable illustrations (copyright rules apply) and quarterly updates. Updates are added from time to time as important papers and guidelines related to the topics are published. For example, an update on depression and psychosis was added in September 2010 following the publication of a working report from the American Psychiatric Association and American College of Obstetricians and Gynaecologists in 2009. The features of online resources include two online-only chapters (*Clinical application of 3D in obstetrics*, *Patient safety in obstetrics*) and Chapter 24 (*Invasive fetal therapy*) appears as an extended version online.

Activation of online access is explained in simple steps on the inside front cover. Online resource is very helpful for reference as it can be accessed anywhere and also saves the inconvenience of carrying this heavy book. But the keen users of

Apple products such as iPad, iPhone, etc. may be disappointed as Apple restricts the use of Adobe flash player and hence some contents cannot be accessed online.

Overall, this book captures the essence of principles and evidence-based practice of MFM. Chapters have been written in a concise manner. Where relevant and available, literature has been appraised appropriately. The book has the following strengths – experience and expertise of the editors and the authors in their field; inclusion of excellent illustrations, tables, etc., which make the reading interesting; extensive review of literature and updates (online) as new evidence emerges; and eye-catching lay-out and appropriate subheadings, etc. A few suggestions for the future edition would be to extend the chapter on common anomalies and reshuffle a few chapters under different sections (for example, Chapter 36 and Chapter 37 may be regrouped under Part III), which would give the reader a smoother flow of topics during study.

This book is an invaluable reference source for a maternal-fetal medicine practitioner and an essential read for every MFM trainee in the developed world.

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