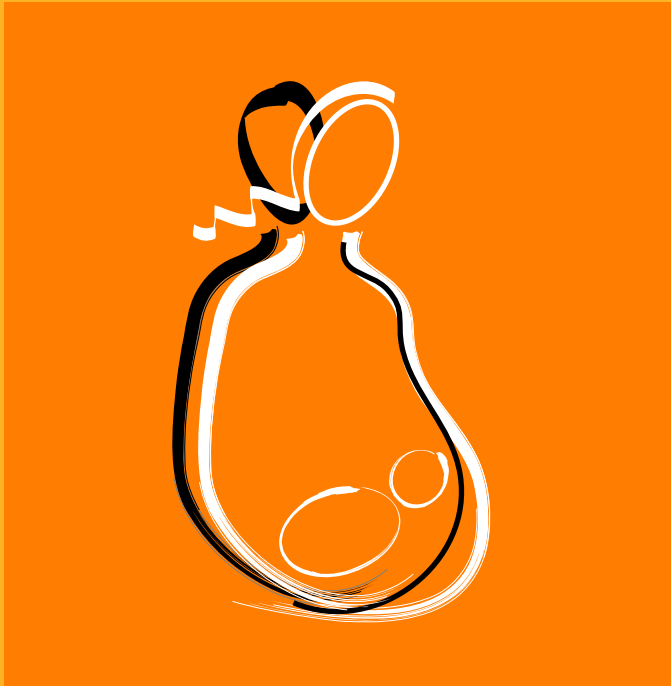


Integrated Management Of Pregnancy And Childbirth

Managing Complications in Pregnancy and Childbirth:

A guide for midwives and doctors



WHO



UNFPA



UNICEF



World Bank

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This guide represents a common understanding between WHO, UNFPA, UNICEF, and the World Bank of key elements of an approach to reducing maternal and perinatal mortality and morbidity. These agencies co-operate closely in efforts to reduce maternal and perinatal mortality and morbidity. The principles and policies of each agency are governed by the relevant decisions of each agency's governing body and each agency implements the interventions described in this document in accordance with these principles and policies and within the scope of its mandate.

The guide has also been reviewed and endorsed by the International Confederation of Midwives and the International Federation of Gynecology and Obstetrics.



International Federation of
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The manual, *Managing Complications in Pregnancy and Childbirth*, was officially launched at the Global Health Council conference *Healthy Women: Healthy World* in Washington, DC in May 2001. Since that time, the manual has been distributed to midwifery and medical schools, individuals and programmes in over 40 countries through the joint efforts of many organizations, including the World Health Organization, International Federation of Gynecology and Obstetrics, and the Maternal and Neonatal Health Program. The manual has also been translated into French, Laotian, Mandarin, Mongolian, Spanish and Vietnamese.

Due to the immediate and overwhelming need for additional copies of the manual, a second printing was necessary. Based on feedback from individuals and groups around the world, minor revisions, including clarification of wording and corrections (e.g. grammatical and typographical), have been made, and some figures have been slightly modified to make their meaning more clear. The manual will undergo more extensive revision for a second edition, based on new evidence and feedback from the field, in the future.

The first printing of the manual has proved to be hugely popular, so much so that it has already been translated into French, Spanish and Russian. Arabic and Chinese versions are also in preparation. The manual is available also on WHO's web site:
www.who.int/reproductive-health

A number of countries and professional organizations have adapted the manual to suit their own situations and this should improve the quality of care in a great number of services all over the world.

Users are encouraged to send comments and remarks to

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In support of the Safe Motherhood Initiative, the WHO Making Pregnancy Safer Strategy focuses on the Health Sector's contribution to reducing maternal and newborn deaths.

The Integrated Management of Pregnancy and Childbirth (IMPAC) is the technical component of the aforementioned strategy and mainly addresses the following:

- Improving the skills of health workers through locally adapted guidelines and standards for the management of pregnancy and childbirth at different levels of the health care system;
- Interventions to improve the health care system's response to the needs of pregnant women and their newborns, and to improve the district level management of health services, including the provision of adequate staffing, logistics, supplies and equipment;
- Health education and promotion of activities that improve family and community attitudes and practices in relation to pregnancy and childbirth.

This manual, and a similar one on the management of preterm and sick newborns, is written for midwives and doctors working in district hospitals. This manual complements and is consistent with the Essential Care Practice Guide for Pregnancy and Childbirth which is prepared mainly for the primary health care level. Together these manuals will provide guidance for health workers who are responsible for the care of pregnant women and newborns at all levels of care.

The interventions described in these manuals are based on the latest available scientific evidence. Given that evidence-based medicine is the standard on which to base clinical practice, it is planned to update the manual as new information is acquired.

It is hoped that this manual will be used at the side of the patient, and be readily available whenever a midwife or doctor is confronted with an obstetric emergency.

While most pregnancies and births are uneventful, all pregnancies are at risk. Around 15% of all pregnant women develop a potentially life-threatening complication that calls for skilled care and some will require a major obstetrical intervention to survive. This manual is written for midwives and doctors at the district hospital who are responsible for the care of women with complications of pregnancy, childbirth or the immediate postpartum period, including immediate problems of the newborn.

In addition to the care midwives and doctors provide women in facilities, they also have a unique role and relationship with:

- the community of health care providers within the district health system, including auxiliary and multipurpose health workers;
- family members of patients;
- community leaders;
- populations with special needs (e.g. adolescents, women with HIV/AIDS).

Midwives and doctors:

- support activities for the improvement of all district health services;
- strive for efficient and reliable referral systems;
- monitor the quality of health care services;
- advocate for community participation in health related matters.

A district hospital is defined as a facility that is capable of providing quality services, including operative delivery and blood transfusion. Although many of the procedures in this manual require specialized equipment and the expertise of specially trained providers, it should be noted that many of the life-saving procedures described can also be performed at health centres.

A woman presenting with a life-threatening obstetric complication is in an emergency situation requiring immediate diagnosis and management. Therefore, the main text of the manual is arranged by **symptom** (e.g. vaginal bleeding in early pregnancy). Because this symptom-based approach is different than most medical texts which are arranged by disease, a list of diagnoses with the page number of the corresponding diagnosis table is provided.

The emphasis of the manual is on rapid assessment and decision making. The clinical action steps are based on clinical assessment with limited reliance on laboratory or other tests and most are possible in a variety of clinical settings (e.g. district hospital or health centre).

Section 1 outlines the **clinical principles** of managing complications in pregnancy and childbirth and begins with a table that the health care worker can use to rapidly assess the woman's condition and initiate appropriate treatment. This section includes the general principles of emergency, general and operative care, including infection prevention, the use of blood and replacement fluids, antibiotics and anaesthesia and analgesia. A description of normal labour and childbirth, including use of the partograph and active management of the third stage, is included in this section in order to provide the health care worker the information needed to differentiate between the normal process and a complication. Guidance on the initial care of the normal newborn is also provided. Section 1 also includes information on providing emotional support to the woman and her family and outlines the linkage between the providers and their community.

Section 2 describes the **symptoms** by which women with complications of pregnancy and childbirth present. The symptoms reflect the major causes of mortality and morbidity. For each symptom there is a statement of general, initial management. Diagnosis tables then lead to identifying the diagnosis which is causing the symptom. Simplified management protocols for these specific diagnoses then follow. Where there are several choices of therapy, the most effective and inexpensive is chosen. Also in this section is information on management for immediate (within the first 24 hours) conditions or problems of the newborn.

Section 3 describes the **procedures** that may be necessary in the management of the condition. These procedures are not intended to be detailed "how-to" instructions but rather a summary of the main steps associated with each procedure. Because general operative care principles are summarized in Section 1, these are not repeated for each procedure, unless there is care required specific to the procedure (e.g.

post-procedure care for ketamine anaesthesia). Clear guidance is provided on drugs and dosages, a wide variety of anaesthesia options (e.g. safe caesarean section under local anaesthesia) and safe, effective and lower cost techniques (e.g. single layer closure of the uterus).

Section 4 contains a list of **essential drugs** and an **index**. The index is organized so that it can be used in an emergency situation to find relevant material quickly. The most critical information including diagnosis, management and steps for a procedure are listed first in bold. Other relevant entries follow in alphabetical order. Only the pages containing critical or relevant information are included, rather than listing every page that contains the word or phrase.

ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
APH	Antepartum haemorrhage
BP	Blood pressure
HIV	Human immunodeficiency virus
IM	Intramuscular
IP	Infection prevention
IUD	Intrauterine device
IV	Intravenous
PID	Pelvic inflammatory disease
PPH	Postpartum haemorrhage
STI	Sexually transmitted infection
dL	decilitre
g	gram
kg	kilogram
L	litre
mcg	microgram
mg	milligram
mL	millilitre

LIST OF DIAGNOSES

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