

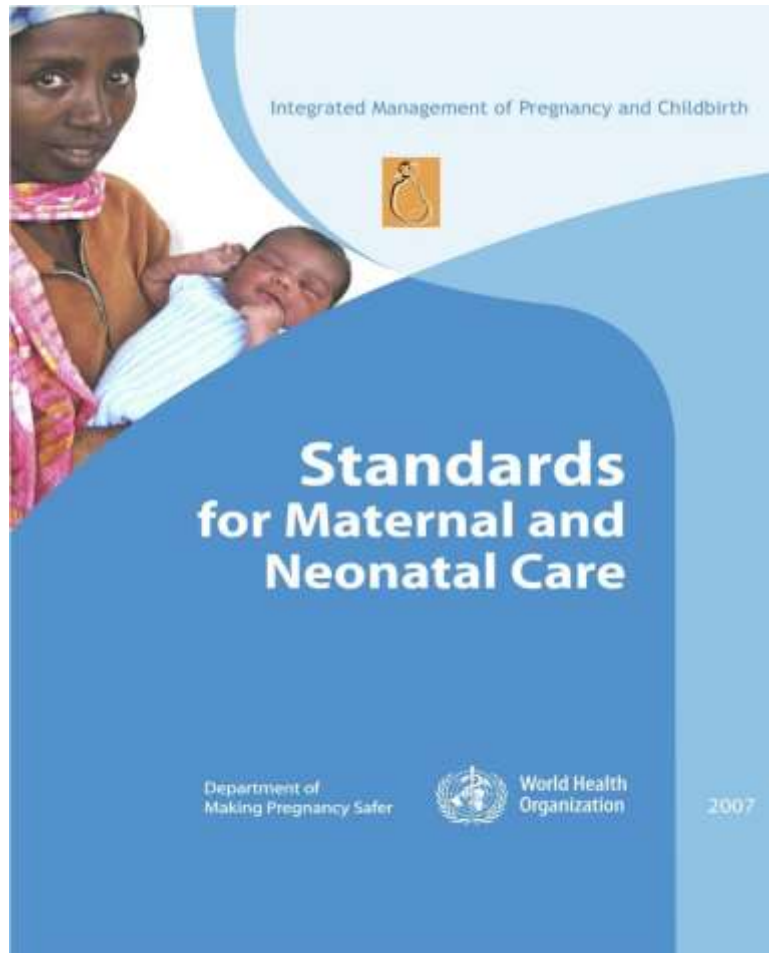
# Standards for Maternal and Neonatal Care



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**The key points of this presentation are adapted from the following WHO document.**



# What are the Standards for Maternal and Neonatal Care?

- Standards for Maternal and Neonatal care is WHO key recommendations for maternal and neonatal care, that is provided from the first level to higher levels of health facilities.
- Standards for Maternal and Neonatal Care is part of WHO Integrated Management of Pregnancy and Childbirth Care (IMPAC).
- It is a document that provides guidance to improve health of women and newborn during pregnancy, childbirth and postnatal period.

# What is the purpose of the Standards for Maternal and Neonatal Care?

The purpose of the Standards for Maternal and Neonatal Care is to assist programme managers and health care providers to:

- Develop evidence-based national and sub-national standards for maternal and neonatal health care.
- Introduce standards setting and a quality improvement process at facility level.
- Provide quality and effective maternal and neonatal health services.
- Use existing resources to achieve the optimal health care outcomes; and improve individuals', families' and community's satisfaction and utilization of maternal and neonatal health services.

# **Standards for Maternal and Neonatal Care**

## **Components**

# 1. Maternal Immunisation Against Tetanus

## Burden

- Worldwide, tetanus kills an estimated 180 000 neonates (1) (about 5% of all neonatal deaths (2002 data)) and up to 30 000 women (2) (about 5% of all maternal deaths) each year.
- If the mother is not immunized with the correct number of doses of tetanus toxoid vaccine, neither she nor her newborn infant is protected against tetanus at delivery.

1. Validation of neonatal tetanus elimination in Andhra Pradesh, India. *Weekly Epidemiological Record*, 2004, 79:292–297.

2. Fauveau V et al. Maternal tetanus: magnitude, epidemiology and potential control measures. *International Journal of Gynecology and Obstetrics*, 1993, 40:3–12.

# 1. Maternal Immunisation Against Tetanus

## The standard

- All women giving birth and their newborn babies should be protected against tetanus.

## Aim

- To prevent maternal and neonatal tetanus (MNT).
- Giving vaccine to pregnant women protects them from tetanus and protects their infants against Neonatal tetanus (NT)

# 1. Maternal Immunisation Against Tetanus

## Requirements

- National strategy to ensure high tetanus vaccination coverage among women.
- Strategies to implement “high-risk approach” in areas with high risk of maternal and neonatal tetanus, which includes vaccination of women of reproductive age.
- Vaccination of all pregnant women, who attend antenatal clinic or are visited by health staff in the community.
- Availability of vaccine, equipment and supplies required to conduct tetanus immunization in the health facilities, particularly ANC services.
- Effective monitoring system.
- Health education, community awareness activities and a national surveillance system for tetanus.



## **2. Prevention and management of sexually transmitted and reproductive tract infections**

### **Burden of STIs:**

- Worldwide 340 million new cases of curable STIs occur annually. A large proportion of them among women in the reproductive age(1).
- Most infection before conception and during pregnancy go ignored by many women, because the symptoms are mild or access to health care and drugs is limited.

### **Effective STI management:**

- Prevents the development of complications and sequelae.
- Reduces the spread of these diseases in the community.
- Offers opportunity for education on HIV prevention.

1. *Sexually transmitted and other reproductive tract infections. A guide to essential practice*. Geneva, World Health Organization, 2005 ([http://www.who.int/reproductive-health/pages\\_resources/listing\\_RTIs\\_STIs.html](http://www.who.int/reproductive-health/pages_resources/listing_RTIs_STIs.html), accessed 2 February 2006).

## **2. Prevention and management of sexually transmitted and reproductive tract infections**

### **The standard**

- All women should be assessed for Sexually Transmitted Infections and reproductive tract infections during pregnancy, childbirth and postnatal period and should receive effective treatment for themselves and in the case of STIs for their partners.
- They should also be given appropriate information on the prevention and recognition of sexually transmitted infections as well as reproductive tract infections.

### **Aim**

- To reduce maternal and perinatal morbidity and mortality and infertility caused by STIs/RTIs.

## **2. Prevention and management of sexually transmitted and reproductive tract infections**

### **Requirements**

- A national policy and locally adapted guidelines on the prevention and management of STIs/RTIs.
- Trained health care providers to inform women on the prevention of STIs/RTIs, diagnose and treatment of these infections.
- Essential equipment, supplies and drugs for the diagnosis and management of, and counselling on, STIs at all levels of care.
- STI health care services accessible and affordable to pregnant women and their partners.
- Health education activities to increase community awareness on the prevention and management of STIs/RTIs.

# 3. Prevention of mother-to-child transmission of syphilis

## Burden

- Although estimates vary, at least 50% of women with acute syphilis suffer adverse pregnancy outcomes such as stillbirth or spontaneous abortion, serious neonatal infection or low birth weight (1).
- Syphilis control in pregnant women through universal antenatal screening and treatment of positive cases are feasible and cost-effective intervention, because it prevents complications of syphilis in pregnancy (2,3).

1. Saloojee H et al. The prevention and management of congenital syphilis: an overview and recommendations. *Bulletin of the World Health Organization*, 2004, 82:424–430.
2. Berman SM. Maternal syphilis: pathophysiology and treatment. *Bulletin of the World Health Organization*, 2004, 82:433–438.
3. Connor N, Roberts J, Nicoll A. Strategic options for antenatal screening for syphilis in the United Kingdom: a cost effectiveness analysis. *Journal of Medical Screening*, 2000, 7:7–13.

# 3. Prevention of mother-to-child transmission of syphilis

## The standard

- All pregnant women should be screened for syphilis at the first antenatal visit within the first trimester and again in late pregnancy.
- At delivery, women who for some reason do not have test results should be tested/retested.
- Women testing positive should be treated and informed of the importance of being tested for HIV infection. Their partners should also be treated and plans should be made to treat their infants at birth.

## Aim

- To reduce maternal morbidity, fetal loss and neonatal mortality and morbidity due to syphilis.

# **3. Prevention of mother-to-child transmission of syphilis**

## **Requirement**

- A national policy and locally adapted guidelines on syphilis prevention, management and care in pregnant women.
- Access to care during pregnancy, childbirth and the postpartum period.
- Trained health care providers in prevention, screening during pregnancy and management of syphilis in pregnant women, their partners and newborn.
- One on-site screening method in antenatal care (ANC) clinics and maternity wards.
- Health education activities to raise the awareness of individuals, families and communities of the importance of attending ANC clinics early in pregnancy for syphilis prevention and treatment.

## 4. Prevention of congenital rubella syndrome (CRS)

### Burden

- Rubella infection occurs worldwide. It is a mild, self-limiting infection in children and adults but its effects on the fetus can be devastating. Fetuses infected with rubella early in pregnancy are at greatest risk of intrauterine death, spontaneous abortion and congenital malformations of major organ systems (1).
- There is no specific therapy for maternal or congenital rubella infection. The primary means of preventing CRS is by rubella immunization, which is highly effective and in 95% of cases provides lifelong protection (2).

1. Cloherty JP, Stark A, Eichenwald E. *Manual of neonatal care*. Lippincott Williams & Wilkins, 1998.

2. Central Technical Co-ordinating Unit. Multicentric study of efficacy of periconceptional folic acid containing vitamin supplementation in prevention of open neural tube defects from India. *Indian Journal of Medical Research*, 2000, 112:206–211.

## **4. Prevention of congenital rubella syndrome (CRS)**

### **Standard**

- In countries where rubella vaccine is included in the national immunization programme, women should be immunized against rubella before they become pregnant.
- In all countries, pregnant women with suspected rubella or exposure to rubella should be followed up and reported.
- In all countries, infants with suspected congenital rubella syndrome (CRS) should be assessed and reported.

### **Aim**

- To prevent congenital rubella syndrome (CRS).



## **4. Prevention of congenital rubella syndrome (CRS)**

### **Requirements**

- Policy to provide vaccine for women of childbearing age according to locally adapted immunisation program.
- The vaccine, equipment and supplies needed to conduct rubella immunization in the health facilities.
- Trained Health personnel to determine when and how to vaccinate against rubella.
- A system to monitor rubella vaccine coverage in women of childbearing age.
- Surveillance system for rubella in all age groups.
- Investigation of rubella cases in pregnancy and rubella exposure during pregnancy.
- Health education activities to increase community awareness on the importance of preventing rubella and congenital rubella.

# 5. Malaria prevention and treatment

## Burden

- The harmful effects of malaria infection on maternal, fetal and infant health are mostly caused by *Plasmodium Falciparum*.
- In Africa, at least 25 million pregnancies are threatened by malaria each year, resulting in an estimated 2–15% of maternal anaemia (1).
- Maternal malaria infection accounts for almost 30% of all the causes of low birth weight that can be prevented during pregnancy. Maternal malaria infection is estimated to account for 3–8% of all infant deaths (1).

1. *A strategic framework for malaria prevention and control during pregnancy in the African region*. Harare, World Health Organization, Regional Office for Africa, 2004 (document AFR/MAL/04/01).

## **5. Malaria prevention and treatment**

### **Standard**

- In malarious areas, all pregnant women should sleep under an Insecticide Treated bednet (ITN).
- In areas of stable transmission of falciparum malaria, all pregnant women should be given Intermittent Preventive Treatment (IPT).
- Pregnant women suspected of having malaria should be assessed and treated according to national protocols.
- In the postnatal period, both the mother and the baby should sleep under an Insecticide Treated Bednet.

### **Aim**

- To reduce the incidence of negative outcomes in women and their babies due to malaria during pregnancy.

## **5. Malaria prevention and treatment**

### **Requirements**

- National policy and guidelines on prevention, diagnosis and treatment of malaria in pregnancy.
- Trained health providers on malaria-related risks during pregnancy, administration of IPT, advising on the use of ITNs, and diagnosis and treatment of malaria during pregnancy, delivery and the postpartum period.
- Access to maternity care particularly in the antenatal period.
- Availability and affordability of antimalarials for IPT and treatment of symptomatic malaria and ITNs
- Health education activities to increase community awareness of malaria prevention and treatment.

## 6. Iron and folate supplementation

- Pregnant and postpartum women and children aged 6–24 months are usually the most affected groups (1).
- It is highly prevalent in less developed countries, where, in addition to poor nutrition, parasitic and bacterial infections can contribute to depletion of iron reserves (2).
- Anaemia in pregnancy is defined as haemoglobin <11g/dl or haematocrit <33% (1).
- It aggravates the effects of maternal blood loss and infections at childbirth, and is associated with increased maternal and perinatal mortality and morbidity (3).
- Where anaemia is prevalent, iron deficiency is usually the most common cause (1).

1. Stolfus RJ, Dreyfuss ML. *Guidelines for the use of iron supplements to prevent and treat iron deficiency anemia*. Washington, DC, ILSI Press, 1998 [http://inacg.ilsig.org/file/b2\\_VUHUQ8AK.pdf](http://inacg.ilsig.org/file/b2_VUHUQ8AK.pdf), accessed 7 January 2005).

2. *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice*. Geneva, World Health Organization, 2003 (<http://whqlibdoc.who.int/publications/2003/924159084X.pdf>, accessed 7 December 2004).

3. *Postpartum care of the mother and newborn: a practical guide*. Report of a technical working group. Geneva, World Health Organization, 1998 (document WHO/RHT/MSM/98.3) ([http://whqlibdoc.who.int/hq/1998/WHO\\_RHT\\_MSM\\_98.3.pdf](http://whqlibdoc.who.int/hq/1998/WHO_RHT_MSM_98.3.pdf), accessed 7 December 2004).

## **6. Iron and folate supplementation**

### **Standard**

- All pregnant women in areas of high prevalence of malnutrition should routinely receive iron and folate supplements, together with appropriate dietary advice, to prevent anaemia.
- Where the prevalence of anaemia in pregnant women is high (40% or more), supplementation should continue for three months in the postpartum period.

### **Aim**

- To prevent and treat iron deficiency anaemia in women during pregnancy and in the postpartum period in order to improve maternal and perinatal health.

## **6. Iron and folate supplementation**

### **Requirements**

- A national policy and locally adapted guidelines on iron and folate supplementation.
- Trained health care providers of maternal and neonatal care.
- Availability of Iron and folate supplements at all levels of care.
- A functioning referral system that ensures timely referral of pregnant women for monitoring and treatment, especially in the case of severe anaemia.
- A mechanism for recording cases and care of anaemia.
- Health education activities to increase awareness among women and in the community on the importance of iron and folate supplementation in pregnancy.

## 7. Provision of effective antenatal care

- Many maternal and perinatal deaths occur in women who have received no ANC.
- Globally true progress has been made in terms of increasing access and use of ANC. A recent study on antenatal care estimated that worldwide only 70% of women ever receive any ANC, whereas in industrialized countries more than 95% of pregnant women receive ANC (1).
- There are still disparities in the proportion of antenatal coverage between developing and developed countries.
- Epidemiological studies have demonstrated the benefits of ANC in reducing maternal and perinatal complications, although the exact components and timing of such ANC has been difficult to demonstrate (1).

1. Antenatal care in developing countries. Promises, achievements and missed opportunities. An analysis of trends, levels and differentials, 1990-2001. Geneva, World Health Organization, 2003.



# 7. Provision of effective antenatal care

## Standard

- All pregnant women should have at least four antenatal care (ANC) assessments by or under the supervision of a skilled attendant.
- These should, as a minimum, include all the interventions outlined in the new WHO antenatal care model and be spaced at regular intervals throughout pregnancy, commencing as early as possible in the first trimester.

## Aim

- To prevent, alleviate or treat/manage health problems/diseases (including those directly related to pregnancy) that are known to have an unfavourable outcome on pregnancy.
- To provide women and their families/partners with appropriate information and advice for a healthy pregnancy, childbirth and postnatal recovery, including care of the newborn, promotion of early exclusive breastfeeding and assistance with deciding on future pregnancies in order to improve pregnancy outcomes.

# 7. Provision of effective antenatal care

## Requirements

- A national policy and locally adapted guidelines that protect the rights of all women, regardless of their socioeconomic status or place of residence, to access good quality ANC services.
- National evidence-based guidelines detailing the essential minimum components of ANC, in line with the country epidemiological profile and country priorities and based on WHO guidelines and recommendations.
- Availability of sufficient number of skilled attendants to provide all women with good quality ANC.
- The necessary equipment and drugs to provide essential ANC.
- The system for referral of any pregnant woman to a facility capable of managing obstetrical and neonatal complications.
- National or locally-adapted evidence-based protocols and/or guidelines for the management of pregnancy-related complications.

## **8. Birth and emergency preparedness in antenatal care**

Key elements to reduce maternal morbidity and mortality during labour, birth and the period immediately afterwards:

- Delivery by skilled health professionals.
- Timely management of complications that may arise during labour.
- Provision of appropriate information on how to ensure a safe birth and to seek timely skilled care in emergencies to woman and her family.
- Interventions to reduce the other barriers to seeking care, such as transport costs, perceptions of poor quality of care and cultural differences.

## **8. Birth and emergency preparedness in antenatal care**

A birth plan/emergency preparedness plan includes identification of  
The following elements:

- The desired place of birth.
- The preferred birth attendant.
- The location of the closest appropriate care facility.
- Funds for birth-related and emergency expenses.
- A birth companion.
- Support in looking after the home and children while the woman is away;
- Transport to a health facility for the birth.
- Transport in the case of an obstetric emergency.
- Identification of compatible blood donors in case of emergency.

## **8. Birth and emergency preparedness in antenatal care**

### **The standard**

- All pregnant women should have a written plan for birth and for dealing with unexpected adverse events, such as complications or emergencies, that may occur during pregnancy, childbirth or the immediate postnatal period, and should discuss and review this plan with a skilled attendant at each antenatal assessment and at least one month prior to the expected date of birth.

### **Aim**

- To assist women and their partners and families to be adequately prepared for childbirth by making plans on how to respond if complications or unexpected adverse events occur to the woman and/or the baby at any time during pregnancy, childbirth or the early postnatal period.

# **8. Birth and emergency preparedness in antenatal care**

## **Requirements**

- National and local policies to support access of all pregnant women to maternal and neonatal health care, including referral care.
- Skilled health care providers to support the woman in preparing the birth and emergency plan, to discuss it with pregnant women.
- National and local health education activities to promote the need for all women to access maternal and neonatal health care, and for all pregnant women to make a birth and emergency plan during pregnancy.
- National and local activities to facilitate community action to participate in, or where necessary mobilize, local efforts to ensure the timely transfer of women and babies with pregnancy- and birth-related complications, especially emergencies, to a facility that has the capacity to manage such complications or emergencies.

# Reference Document

## **Title:**

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## **Authors:**

World Health Organisation, Department of Making Pregnancy Safer and Department of Reproductive Health and Research.

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