RMNCH and EMTCT Primary Care Flowcharts

Antenatal Care
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3. Management of antenatal problems II: pre-eclampsia, eclampsia and hypertension in pregnancy
4. Management of antenatal problems III: vaginal discharge, urinary tract infection
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2. Additional Care for women living with HIV and their exposed infants
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4. Additional PNC tasks for syphilis sero-positive women and their exposed infants
5. Additional PNC tasks for eligible HBsAG-positive women and their exposed infants
Antenatal Care
### Antenatal Care

#### Trimester

<table>
<thead>
<tr>
<th>Trimester</th>
<th>T1: 1-3 months</th>
<th>T2: 4-6 months</th>
<th>T3: 7 months - delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestation</td>
<td>12 weeks</td>
<td>20 weeks</td>
<td>30 weeks</td>
</tr>
<tr>
<td>ANC contact</td>
<td>1st contact</td>
<td>1st contact</td>
<td>2nd contact</td>
</tr>
</tbody>
</table>

#### General care for all women

**Provide good quality care**

<table>
<thead>
<tr>
<th>Communication</th>
<th>Confidentiality</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Make the woman and her partner or companion feel welcome</td>
<td>• Ensure the space is private and you cannot be overheard</td>
<td>• Explain all procedures, tests and immunizations carefully and check for understanding</td>
</tr>
<tr>
<td>• Be friendly and respectful</td>
<td>• Do not discuss information with anyone else unless you have obtained permission from the woman to do so</td>
<td>• Give clear instructions on how to take medicines</td>
</tr>
<tr>
<td>• Use clear, simple language and check for understanding</td>
<td>• Obtain woman's consent/assent before discussing with her partner and family</td>
<td>• Explore barriers, explain side effects and discuss adherence</td>
</tr>
<tr>
<td>• Ask about concerns, feelings about the pregnancy, communication with baby</td>
<td>• Ensure records are kept confidential</td>
<td></td>
</tr>
<tr>
<td>• Ensure woman knows what to do and where to go in case of any problems</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Document all findings and actions in the mother’s book. Explain to the woman when she should come back for her next ANC contact and what to do in case of danger signs.

**Follow tasks for 1st ANC contact in T1**

**If the 1st ANC contact is in T2 or T3**

**Additional actions in T1**

**Additional actions in T2**

**Additional actions in T3**

#### Ask and check the records:

- Check for any danger signs, including vaginal bleeding, convulsions, high fever with weakness, severe headache or abdominal pain
- Take a detailed obstetric history of the present pregnancy including history of persistent cough, difficulty breathing, fever, weight loss or other symptoms
- Take a detailed past obstetric history, including eclampsia, diabetes, twins, abortion and/or miscarriage (check past records if available)
- Take a past medical history including renal disease, hypertension, HIV, syphilis and hepatitis status and any treatment received (check past records if available)
- Ask about foods eaten, medications currently being taken and any abnormal test results at previous visits (e.g. abnormal sugar test)
- Ask about smoking (including exposure to second-hand smoke or use of tobacco products), use of wood, charcoal or dung for cooking or heating
- Ask about use of alcohol or recreational drugs or caffeine
- Ask about burning when passing urine, excessive thirst or weight loss, or presence of vaginal discharge
- Screen for HIV infection risk and history of intimate partner violence where WHO minimum requirements can be met

#### Look and Listen:

- Measure the woman's temperature, weight, blood pressure, respiratory rate
- Palpate the abdomen or measure symphysis to fundal height to estimate the gestation

#### Arrange tests:

- Full blood count (FBC) for haemoglobin and haematocrit, WBC and platelet count depending on clinical condition and national guidelines; at least once in each trimester: 1st visit (12 weeks), 3rd visit (26 weeks) and 6th visit (36 weeks) are recommended. If FBC is not available, on-site haemoglobin testing with a haemoglobinometer is recommended over use of the haemoglobin colour scale.
- Blood typing and Rh testing
- Blood or rapid tests for HIV, syphilis, HBsAg and Hep C – including partner testing (consistent with national guidelines)
- TB screening (according to disease prevalence and consistent with national guidelines)
- Blood or rapid test for malaria (endemic areas, consistent with national guidelines)
- Mid-stream urine (MSU) culture for bacteriuria, at least once in each trimester: 1st visit (12 weeks), 3rd visit (26 weeks) and 5th visit (34 weeks) are recommended. If MSU culture is not available, MSU Gram staining is recommended over dipstick testing
- Swab of vaginal discharge (if present)

#### Manage problems: anaemia; positive HIV, syphilis, HBsAg tests; hypertension, pre-eclampsia, urinary tract infection, any other problems or concerns

**Give preventive measures:**

- Daily iron and folic acid supplementation with 30-60 mg of elemental iron and 400 µg (0.4 mg) of folic acid. Once weekly supplementation with 120 mg of elemental iron and 2800 µg (2.8 mg) of folic acid may be used if daily iron is not acceptable due to side effects
- Vitamin A (if woman has xerophthalmia or other signs of clinical deficiency or in areas where Vitamin A deficiency is a severe public health problem)
- Daily calcium 1.5-2.0 g oral elemental calcium (in populations with low dietary intake and for women with pre-eclampsia risk)
- Malaria bed nets and prophylaxis (endemic areas only, consistent with national guidelines)
- Consider pre-exposure prophylaxis (PrEP) for women at high risk of HIV infection as part of a combination prevention approach

**Ultrasound Examination:**

- Perform ultrasound examination once before 24 weeks gestation (in line with local protocol)

**Repeat tests:**

- FBC for haemoglobin
- MSU culture for bacteriuria

**Manage problems:**

- Tetanus toxoid containing vaccine (TTCV)

**Give preventive measures:**

- Give daily low-dose acetylsalicylic acid (aspirin, 75 mg/day)
- Start before 20 weeks of pregnancy in women at high risk of developing pre-eclampsia

**Tetanus Toxoid Containing Vaccine (TTCV)**

- No previous vaccine received or history unknown:
  - Give 2 doses; 1 month apart; 1st dose as early as possible in pregnancy; 2nd dose at least 2 weeks before the expected date of delivery
  - Follow up doses: give 3rd dose after 6 months and two more doses (total of 5 doses) after 1 and 2 years (or once in each of 2 subsequent pregnancies)

- 1-3 previous doses received:
  - Give two doses at least 1 month apart; and follow-up doses at least 1 year apart or in each subsequent pregnancy up to 6 doses

- 4 previous doses received:
  - Give 1 dose; follow-up dose at least 1 year later or at next pregnancy up to 6 doses

**Advise:**

- Self-care during pregnancy
  - Rest and avoid lifting heavy objects
  - Sleep under an insecticide impregnated bednet
  - Practice safer sex including use of condoms, if at risk for STI or HIV
  - Partner testing and counselling for HIV, HBV or syphilis positive women
  - Avoid alcohol and smoking during pregnancy
  - No medication unless prescribed at the health centre or hospital
# Management of Antenatal Problems I

## Anaemia (haemoglobin <11 g/dl)

**Ask, advise, document:**
- Check haemoglobin result, date of test and method of testing (e.g. full blood count).
- Assess clinical condition of woman: is she easily tired, breathless; does she have laboured breathing or oedema, a respiratory rate >30/minute, pale conjunctiva, nail beds and palms.
- Explain to the woman that anaemia must be treated to avoid problems for the infant and the mother.
- Document all findings in the mother’s book.

**Treat and advise:**
- All women with anaemia:
  - Treat the woman with 120 mg elemental iron and 400 µg (0.4 mg) folic acid daily throughout pregnancy and continue for 3 months postpartum.
  - Explain possible side effects and how to manage them.
  - Consider weekly supplementation with 120 mg of elemental iron and 2800 µg (2.8 mg) of folic acid if daily iron is not acceptable due to side effects.
  - Ensure understanding of the importance of adherence to medication.
  - Provide nutritional advice.
  - Check that preventive measures have been given: anti-helminthic in 2nd trimester; antimalarial prophylaxis in endemic areas.

**Classify and manage:**

**Women with severe anaemia: Hb <7 g/dl (or haematocrit <20%)**
- and/or extreme pallor of conjunctiva, nail beds and palms.
- or with any pallor and easily tired or breathlessness at rest.
  - Refer immediately to hospital if woman is in the last month of pregnancy or has signs of respiratory distress or cardiac failure (laboured breathing or oedema).
  - Otherwise, reassess after 2 weeks: check clinical progress, repeat test and check adherence.
  - Refer to hospital if no improvement at follow-up.

**Women with mild and moderate anaemia: Hb 7-11 g/dl (or haematocrit 20-33%)**
- Reassess at next ANC visit: check clinical progress, repeat test and check adherence.
- Refer to hospital if no improvement at follow-up.

**Additional measures:**
- Where hookworms are endemic (prevalence 20-30% or more) give Albendazole 400 mg single dose; or Mebendazole 500 mg single dose or Mebendazole 100 mg twice daily for 3 days.
- Where urinary schistosomiasis is endemic, check urine for visible haematuria; if present, give Praziquantel 40 mg/kg, single dose.
- In areas with moderate to high transmission of *P. falciparum* malaria, give curative antimalarial treatment, followed by antimalarial prophylaxis, following national guidelines.

## Respiratory tract infection

**Ask, assess, document:**
- Ask the woman about the presence and duration of symptoms: fever, cough, difficulty breathing, chest pain, bloody sputum, history of smoking or exposure to smoke in the home.
- Ask about COVID-19 infection risk (in settings with community transmission).
- Ask the woman if she is taking (or has ever taken) drugs to treat tuberculosis:
  - If yes, ask when the treatment started.
  - Ask if the treatment includes streptomycin injection.
- Look and listen for breathlessness and wheezing, measure the woman’s temperature (and respiratory rate).
- Document all findings in the mother’s book.

**Classify and manage:**

**Possible pneumonia:**
- Fever ≥38°C, breathlessness, chest pain.
- Respiratory rate ≥20 breaths/minute.
  - PCR testing for COVID-19 (in settings with transmission risk, according to national guidelines).
  - Infection prevention and control measures for staff, patient and family (in settings with COVID-19 transmission risk).
  - Give 1st dose of appropriate IV/IM antibiotics if bacterial pneumonia suspected (see below).
  - Refer urgently to hospital.

**Possible chronic lung disease:**
- Cough >3 weeks.
- Difficulty breathing >3 weeks.
- Blood in sputum, wheezing, night sweats.
  - Assess severity of wheezing if present.
  - Refer to hospital.
  - Refer urgently if wheezing or breathlessness is severe.

**Upper respiratory tract infection:**
- Fever <38°C.
- Cough <3 weeks.
  - Give antipyretics for fever.
  - Suggest soothing, safe remedy for cough.
  - Counsel the woman to stop smoking and avoid exposure to smoke.
  - Review at the next ANC visit or sooner if symptoms persist or worsen.

**Women taking anti-tuberculosis drugs which include injection (streptomycin):**
- Refer the woman to hospital for review of treatment (streptomycin is ototoxic to the fetus).

**Women taking anti-tuberculosis drugs which do not include injection:**
- Refer the woman to hospital for review of treatment (streptomycin is ototoxic to the fetus).
- Reassure the woman that the TB treatment will not harm her baby.
- Explain that it is important for her to keep taking the drugs correctly to protect her health and her baby.

**All women taking anti-tuberculosis drugs:**
- If sputum is TB positive within 2 months of delivery, the baby needs Isoniazid (INH) prophylaxis after birth.
- Check that household members have been screened for TB and arrange if not yet done.

**Antibiotic options:** (follow national guidelines considering local resistance patterns and antimicrobial sensitivity testing where available)
- Amoxicillin 2g IV/IM, followed by 1g IV/IM every 6h.
- Cefazolin 1g IV/IM every 6h.
# Management of Antenatal Problems II

## Pre-eclampsia, eclampsia and hypertension in pregnancy

### Assess:
- Blood pressure and dipstick urine for proteinuria every ANC visit. If BP is raised, allow the woman to rest and measure the BP again after 1 hour
- Gestational age (raised BP before 20 weeks suggests chronic hypertension)
- Blood pressure at last visit (check the records)
- Predisposing factors:
  - Previous history of pre-eclampsia/eclampsia
  - Multiple pregnancy
  - Past medical history of hypertension, diabetes, renal disease, autoimmune disease

### Remember: pre-eclampsia and eclampsia can present without additional symptoms and can progress rapidly so monitor any pregnant woman with raised BP carefully

### Ask, advise, document:
- Check the BP measurements and ask the woman about any symptoms, especially headache, blurred vision, epigastric pain, nausea, vomiting, difficulty breathing, generalized seizures (convulsions)
- Check the woman has been given calcium and acetylsalicylic acid, as appropriate
- Explain to the mother that pre-eclampsia and eclampsia must be treated to avoid problems for the infant and the mother
- Document findings in the mother’s book

### Classify and manage:

#### Hypertension in pregnancy:
- Systolic BP ≥140 mmHg and/or diastolic BP ≥90 mmHg on 2 readings with no proteinuria, and no other symptoms

**Action:**
- Reassess at the next ANC visit, or after 1 week if >8 months pregnant
- Counselling on danger signs, need to reduce workload and rest
- If hypertension persists, refer to hospital

**Remember:** pre-eclampsia may develop in pregnant women with chronic hypertension: watch for proteinuria ≥2+ and/or symptoms and manage as below

#### Mild or moderate pre-eclampsia:
- Systolic BP 140-159 mmHg and/or diastolic BP 90-109 mmHg (woman ≥20 weeks pregnant)
- Proteinuria ≥2+ on dipstick testing (≥1g/L or 0.3 g/24 h)
- No other symptoms

**Action:**
- Refer to hospital

#### Severe pre-eclampsia:
- Systolic BP ≥160 mmHg and/or diastolic BP ≥110 mmHg with proteinuria ≥3+ or
- Systolic BP ≥140 mmHg and/or diastolic BP ≥90 mmHg on 2 occasions with proteinuria ≥2+ and any of headache, blurred vision or epigastric pain

**Action:**
- Give magnesium sulfate (full IM or IV regimen or loading dose), followed by an IV/IM maintenance dose of magnesium sulfate
- Give appropriate antihypertensive drugs
- Refer immediately to hospital (if transfer is delayed, give full regimen of magnesium sulfate)

#### Eclampsia:
- Severe pre-eclampsia plus generalized seizures (at any gestational age) not attributable to any other cause (e.g. epilepsy)

**Action:**
- Give magnesium sulfate (full IM or IV regimen or loading dose), followed by an IV/IM maintenance dose of magnesium sulfate
- Give appropriate antihypertensive drugs
- Refer immediately to hospital (if transfer is delayed, give full regimen of magnesium sulfate)
### Management of Antenatal Problems III

#### Vaginal discharge

**Ask, assess, document:**
- Ask the woman about the presence and duration of symptoms: abnormal vaginal discharge or odour, itching around the vulva, burning on passing urine, past history of testing, referral or treatment for STI
- Ask whether her partner has had any urinary symptoms
  - If her partner is present, ask him directly about urethral discharge or pus or burning on passing urine
  - If her partner is not there, explain to the woman the importance of assessing and treating all sexual contacts to avoid reinfection
- Examine the woman and look for vaginal discharge:
  - Part the woman’s labia and assess the colour, amount and smell of any visible discharge. If no discharge is seen, examine vagina with a gloved finger and assess any discharge seen on the glove.
  - Perform pH test, KOH test, wet mount microscopy, gram stain or rapid test on any discharge per national guidelines
  - If there is no abnormal discharge, counsel woman and her partner on safe sex
- Document all findings in the mother’s book

**Classify and manage:**
- **Possible gonorrhoea or chlamydia infection:**
  - Woman has abnormal vaginal discharge and partner has urethral discharge or urinary symptoms
    - Explain that both the woman and her partner(s) need treatment
    - Give appropriate oral antibiotics to the woman and her partner (see below)
    - Ensure understanding of the importance of adherence to the medication
    - Counsel on practicing safer sex including the use of condoms to prevent reinfection
    - Reassess at the next ANC visit or sooner if symptoms persist or worsen

- **Possible candida (thrush) infection:**
  - Whitish, curd-like discharge
  - Intense vulval itching
    - Give clotrimazole cream or pessaries (following local protocol)
    - Counsel on practicing safer sex including the use of condoms to prevent reinfection
    - Reassess at the next ANC visit or sooner if symptoms persist or worsen

- **Possible bacterial or Trichomonas infection:**
  - Abnormal vaginal discharge
    - Give metronidazole (following local protocol) and adherence counselling if appropriate
    - Counsel on safer sex including the use of condoms
    - Reassess at the next ANC visit or sooner if symptoms persist or worsen

**Treatment options:** follow national guidelines taking into account local resistance patterns and antimicrobial sensitivity testing where available

- **Gonorrhoea:**
  - Woman: Ceftriaxone 250 mg IM single dose PLUS azithromycin 1g orally single dose or Ceftriaxone 250 mg IM single dose
  - Partner: Ciprofloxacin tablets 500 mg single dose

- **Chlamydia:**
  - Woman: Erythromycin tablets 500 mg every 6 hours for 7 days
  - Partner: Tetracycline tablets 500 mg every 6 hours for 7 days or Doxycycline tablets 100 mg every 12 hours for 7 days

- **Candida:**
  - Clotrimazole pessary 200 mg every night for 3 nights or 500 mg pessary once only

- **Trichomonas infection:**
  - Metronidazole tablets 2 g single dose or 500 mg every 12 hours for 7 days (do not use in the 1st trimester)

#### Urinary tract infection

**Ask, advise, document:**
- Check urine result and method of urine testing and ask the woman about symptoms: cloudy urine, dysuria, frequency, urgency, abdominal or suprapubic pain, fever
- Explain to the woman that any urinary tract infection must be treated to avoid problems for the mother and infant
- Document all findings in the mother’s book

**Classify and manage:**
- **Upper urinary tract infection:**
  - Fever ≥38 °C
  - Dysuria and/or flank pain with significant bacteriuria
    - Start appropriate IV/IM antibiotics
    - Refer urgently to hospital

- **Lower urinary tract infection (cystitis/urethritis):**
  - Burning on urination with bacterial colony counts (≥10^3 to 10^4 CFU/ml) and fever <38 °C
    - Treat with appropriate oral antibiotics for 7 days
    - Repeat urine test at next ANC visit
    - If urine test still shows infection, refer woman to hospital

- **Asymptomatic bacteriuria (ASB):**
  - No fever, no burning on urination, but significant bacterial monoculture (≥10^2 CFU/ml). Repeat culture after 1 week to confirm (if possible)
    - Treat with appropriate oral antibiotics for 7 days
    - Repeat urine test at next ANC visit
    - If urine test still shows infection, refer woman to hospital

**Antibiotic options:** follow national guidelines taking into account local resistance patterns and antimicrobial sensitivity testing where available

- **Upper urinary tract infection:**
  - Ampicillin 2 g IV/IM then 1g, every 6 hours
  - Gentamicin 80mg IM, every 8 hours
  - Cefazolin 1g IV/IM every 6 hours
  - Clindamycin 150 mg IV/IM/PO, every 6-8 hours

- **Lower urinary tract infection and ASB:**
  - Amoxicillin 1 tablet (500mg) every 8 hours for 7 days
  - Trimethoprim 80 mg + sulphamethoxazole 400 mg: two tablets every 12 hours for 7 days (but avoid in late pregnancy and two weeks after delivery when breastfeeding)
## Raised blood sugar or glycosuria

### Screening for diabetes mellitus in pregnancy and gestational diabetes mellitus:
- Screening strategies in pregnancy should follow local guidelines taking into account local disease burden, resources and priorities
- Consider performing a 2-h 75g oral glucose tolerance test between 24 and 28 weeks gestation if the pregnant woman is symptomatic or has risk factors or glycosuria on dipstick testing of her urine (≥2+ on one occasion, or 1+ on two or more occasions)

### Ask, assess, document:
- Ask the woman about symptoms of excessive thirst, frequent urination, unintended weight loss
- Predisposing factors:
  - Previous history of gestational diabetes mellitus or fetal macrosomia
  - Family history of diabetes mellitus
  - Body mass index (BMI) ≥30 kg/m²
- Perform a urine dipstick for glucose
- Document all findings in the mother’s book

### Classify:

#### Diabetes mellitus in pregnancy:
- Fasting plasma glucose: 7.0 mmol/l (126 mg/dl)
- 2-h post 75g oral glucose load: 11.1 mmol/l (200 mg/dl)
- Random plasma glucose: 11.1 mmol/l (200 mg/dl) in the presence of diabetes symptoms

#### Gestational diabetes mellitus:
- Fasting plasma glucose: 5.1-6.9 mmol/l (92-125 mg/dl)
- 1-h post 75g oral glucose load: 10.0 mmol/l (180 mg/dl)*
- 2-h post 75g oral glucose load: 8.5-11.0 mmol/l (153-199 mg/dl)

*Note: there are no established criteria for the diagnosis of diabetes based on the 1-hour post-load value

### Manage:
- Explain to the woman that raised blood sugar in pregnancy requires treatment to protect the health of both the mother and the baby
- Explain that she will need nutritional and exercise counselling and may need medication
- Explain that she will need increased monitoring of her health and of her pregnancy
- Refer the woman to hospital
<table>
<thead>
<tr>
<th>No fetal movement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask, assess, document:</strong></td>
</tr>
<tr>
<td>• Ask the woman when she last felt the baby move</td>
</tr>
<tr>
<td>• If the woman has not felt the baby move, ask her to move around for some time and then ask her again if she has felt the baby move</td>
</tr>
<tr>
<td>• Examine the woman to feel for fetal movements</td>
</tr>
<tr>
<td>• Listen for the fetal heart beat if &gt;6 months gestation; count the number of beats in 1 minute</td>
</tr>
<tr>
<td>• If the fetal heart rate is &lt;100 or &gt;180 beats per minute, turn the woman on her left side and count again</td>
</tr>
<tr>
<td>• If no fetal heart beat is heard, wait one hour and then listen again</td>
</tr>
<tr>
<td>• Document all findings in the mother’s book</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Probable intrauterine death:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No fetal movements and no fetal heart beat</td>
</tr>
<tr>
<td>➢ Explain to the woman (and her partner or companion) that the baby may have died in the uterus</td>
</tr>
<tr>
<td>➢ Refer (urgently) to hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Well baby:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fetal movements not felt</td>
</tr>
<tr>
<td>• Fetal heart heard; heart rate between 100 and 180 beats per minute</td>
</tr>
<tr>
<td>➢ Reassure the woman that her baby is likely to be well</td>
</tr>
<tr>
<td>➢ Ask the woman to return if the symptoms persist or worsen</td>
</tr>
<tr>
<td>➢ Reassess at the next ANC visit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Possible distressed baby:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fetal movements decreased or not felt</td>
</tr>
<tr>
<td>• Fetal heart heard; heart rate below 100 or above 180 beats per minute</td>
</tr>
<tr>
<td>➢ Explain to the woman (and her partner or companion) that the baby may be distressed in the uterus</td>
</tr>
<tr>
<td>➢ Refer (urgently) to hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ruptured membranes with no contractions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask, assess, document:</strong></td>
</tr>
<tr>
<td>• Ask when the membranes ruptured</td>
</tr>
<tr>
<td>• Assess the gestational age and ask about any other symptoms including fever, abdominal pain</td>
</tr>
<tr>
<td>• Examine the woman:</td>
</tr>
<tr>
<td>• Look at her underwear or pad for evidence of amniotic fluid of vaginal discharge</td>
</tr>
<tr>
<td>• If there is no fluid/discharge, give her a pad to wear and reassess in 1 hour</td>
</tr>
<tr>
<td>• Measure her temperature, check the fetal heart beat if &gt;6 months gestation</td>
</tr>
<tr>
<td>• Explain to the woman that ruptured membranes with no contractions must be treated to avoid problems for the mother and infant</td>
</tr>
<tr>
<td>• Document all findings in the mother’s book</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classify:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uterine and fetal infection:</strong></td>
</tr>
<tr>
<td>• Fever ≥38 °C</td>
</tr>
<tr>
<td>• Foul-smelling vaginal discharge</td>
</tr>
<tr>
<td>➢ Give 1st dose of appropriate IV/IM antibiotics (see below)</td>
</tr>
<tr>
<td>➢ Refer urgently to hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Premature rupture of membranes, risk of uterine and fetal infection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ruptured membranes before 8 months of pregnancy</td>
</tr>
<tr>
<td>• Refer to EENC clinical pocket guide (<a href="https://iris.wpro.who.int/handle/10665.1/10798">https://iris.wpro.who.int/handle/10665.1/10798</a>)</td>
</tr>
<tr>
<td>➢ Give corticosteroid therapy: either Dexamethasone 6 mg IM, 4 doses 12 hours apart or Betamethasone 12 mg IM, two doses 24 hours apart, if:</td>
</tr>
<tr>
<td>• gestational age is accurate and is between 24 weeks and 34 weeks</td>
</tr>
<tr>
<td>• preterm birth is considered imminent</td>
</tr>
<tr>
<td>• there is no clinical evidence of maternal infection, including fever or foul-smelling vaginal discharge</td>
</tr>
<tr>
<td>• adequate childbirth care is available to safely manage a preterm birth</td>
</tr>
<tr>
<td>• the preterm newborn can receive adequate care if needed, including resuscitation, thermal care, feeding support, treatment of infection and safe oxygen use</td>
</tr>
<tr>
<td>➢ Give Erythromycin as the antibiotic of choice</td>
</tr>
<tr>
<td>➢ Refer urgently to hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rupture of membranes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ruptured membranes after 8 months of pregnancy</td>
</tr>
<tr>
<td>➢ Manage as a woman in childbirth (refer to EENC clinical pocket guide)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Antibiotic options:</th>
</tr>
</thead>
<tbody>
<tr>
<td>follow national guidelines taking into account local resistance patterns and antimicrobial sensitivity testing where available</td>
</tr>
<tr>
<td>• Amoxicillin 2g IV/IM, followed by 1g IV/IM every 6h</td>
</tr>
<tr>
<td>• Cefazolin 1g IV/IM every 6h</td>
</tr>
<tr>
<td>• Erythromycin tablets 250 mg every 6 h for 10 days or until birth</td>
</tr>
</tbody>
</table>
### Additional ANC tasks for women with a reactive HIV test

<table>
<thead>
<tr>
<th>1st ANC Visit with HIV test result reactive</th>
<th>Subsequent ANC Visits or women already known to be HIV-infected</th>
<th>Women with infants at High Risk of HIV infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Check that the woman has also been screened for hepatitis B, syphilis, hepatitis C and TB</td>
<td>➢ Check that the woman has also been screened for hepatitis B and syphilis</td>
<td>Infants of HIV-infected women who were infected in pregnancy and/or received ART during pregnancy for &lt;4 weeks are at HIGH RISK of HIV infection</td>
</tr>
</tbody>
</table>

#### Counsel and document:
- Explain the reactive HIV test result and check understanding
- Provide emotional support
- Arrange confirmatory HIV testing (2 tests before treatment)
- Document the result in the mother’s book

#### Antiretroviral Treatment (ART):
- Explain the importance of starting lifelong ART as soon as possible both for the mother’s health and to protect the baby
- Give at routine ANC contacts where possible; or refer to HIV services to start ART and receive regular follow-up
- Explain that the risk of MTCT of HIV can be minimised by starting ART as soon as possible and by ensuring that the infant receives ARV prophylaxis starting soon after birth
- Where appropriate, explain that the infant will be at increased risk of HIV infection if the mother does not start ART in the first trimester of pregnancy

#### Prevention:
- Explain how HIV is transmitted, prevention of transmission (including to a discordant spouse), safer sex including the use of condoms, the need to screen for other STIs
- Encourage and arrange partner testing, explain its importance

#### Planning:
- Discuss infant feeding options and plans in the context of HIV
- Plan for delivery at a specific health facility where ART is available for the infant
- Discuss family planning options for after delivery in the context of HIV
- Explain when and where the woman should attend for her next ANC visit
- Explain what to do if the woman goes into labour before her next scheduled visit

#### ART:
- Ensure that if the woman is diagnosed within 4 weeks of her expected date of delivery (using local testing protocol), she is started on ART as soon as possible and is being followed up
- Check adherence and explain its importance
- Ask about side effects and concerns

#### Planning for birth and postnatal care:
- Ensure understanding of the importance of ARV prophylaxis for the infant starting soon after birth
- Explain the importance of delivery in a health facility
- Plan for delivery at a specific health facility where ART is available for the mother and her infant
- Discuss and confirm plans for infant feeding
- Discuss family planning options for after delivery in the context of HIV
- Explain when and where the woman should attend for her next ANC visit
- Explain what to do if the woman goes into labour before her next scheduled visit
### Additional ANC tasks for women with a positive syphilis test

#### 1st ANC Visit with Syphilis test result reactive
- Check that the woman has also been screened for HIV and hepatitis B

**Counsel and document:**
- Explain the positive syphilis test result to the woman
- Document the result in the mother’s book

**Treatment:**
- Ask if the woman is allergic to penicillin
- **Treat woman immediately** according to national guidelines
- Explain that the infant is at increased risk of congenital syphilis infection if the woman’s treatment is not completed 30 days before giving birth
- Explain that the risk of MTCT of syphilis can be minimised by treating the woman as soon as possible and by ensuring that the infant receives treatment soon after birth, close follow-up and monitoring

**Prevention:**
- Explain how syphilis is transmitted, prevention of transmission
- Explain the need to screen for other STIs
- Explain how to avoid reinfection by promoting condom use and partner screening
- Explain the importance of partner testing and arrange
- Ensure that any partner is treated if the result is positive

**Planning:**
- Plan for delivery at a specific health facility
- Discuss infant feeding plans
- Discuss family planning options for after delivery

**Explain when and where the woman should attend for her next ANC visit**
**Explain what to do if the woman goes into labour before her next scheduled visit**

#### Subsequent ANC Visits
- Check that the woman has also been screened for HIV and hepatitis B

**Counsel and document:**
- Check that the woman understands her syphilis test result and that the result has been documented

**Treatment:**
- Check and document that the woman has been treated correctly
- **Treat woman immediately** according to national guidelines if woman has not been treated or documentation is missing
- Address any concerns

**Planning for birth and postnatal care:**
- Explain that the infant is at increased risk of congenital syphilis
- Explain that the infant will require evaluation and treatment soon after birth, close follow-up and monitoring
- Explain the importance of delivery in a health facility which can manage, treat and monitor the infant
- Plan for delivery at a specific health facility
- Discuss and confirm plans for infant feeding
- Discuss family planning options for after delivery

**Explain when and where the woman should attend for her next ANC visit**
**Explain what to do if the woman goes into labour before her next scheduled visit**

#### Women with infants at High Risk of congenital syphilis

**Infants of syphilis-infected women who did not complete treatment within 30 days of delivery are at HIGH RISK of syphilis infection**

**Treatment:**
- Check and document that woman has been treated correctly
- **Treat woman immediately** according to national guidelines if woman has not been treated or documentation is missing
- Address any concerns

**Planning:**
- Explain when and where woman should attend for her next ANC visit
- Explain what to do if the woman goes into labour before her next scheduled visit

**Explain when and where the woman should attend for her next ANC visit**
**Explain what to do if the woman goes into labour before her next scheduled visit**
# Additional ANC tasks for women with a positive HBsAg test

## 1st ANC Visit with HBsAg test result reactive
- Check that the woman has also been screened for HIV and syphilis

### Counsel and document:
- Explain the positive HBsAg test result to the woman
- Document the result in the mother’s book

### Protect the infant:
- Explain the importance of hepatitis B immunization for the infant including a timely hepatitis B vaccine birth dose (HepB-BD, given within 24 hours of birth) and HBIG if available (given within 12 hours of birth)
- Plan for delivery, preferably in a health facility, considering where HBIG is available

### Prevention:
- Arrange hepatitis B testing of sexual partner(s), children, other family members and close household contacts
- Explain how hepatitis B is transmitted, prevention of transmission, the need to screen for other STIs

### Care and treatment:
- Refer woman for clinical assessment, care and treatment (if eligible)
- Clinical assessment may include:
  - Assessment of stage of liver disease
  - Decision whether woman needs treatment for her own health
  - Testing for HBeAg and/or HBV DNA viral load
  - Evaluation of need for antiviral prophylaxis in third trimester to prevent MTCT of hepatitis B if HBsAg/HBV viral load is high

### Plan for after delivery:
- Discuss infant feeding plans
- Discuss family planning options for after delivery
- Explain when and where woman should attend for her next ANC visit
- Explain what to do if the woman goes into labour before her next scheduled visit

## Subsequent ANC Visits
- Check that the woman has also been screened for HIV and syphilis

### Counsel and document:
- Check that the woman understands her HBsAg test result and that the result has been documented

### Care and treatment:
- Check and document whether woman attended for clinical assessment and care
- Discuss any concerns and liaise with clinical staff if necessary

### Protect the infant:
- Review and confirm plans for delivery in a health facility providing HepB-BD (and HBIG if available)
- Review the importance and timing of infant immunization, including 2-3 further doses of hepatitis B vaccine at intervals of no less than 4 weeks to complete the primary series

### Plan for after delivery:
- Discuss and confirm plans for infant feeding
- Discuss family planning options for after delivery
- Explain when and where woman should attend for her next ANC visit
- Explain what to do if the woman goes into labour before her next scheduled visit

## Women with infants at higher risk of MTCT of hepatitis B
- Women with more severe disease and a high viral load are at higher risk of transmitting hepatitis B to their newborn infant

### Antiviral treatment:
- Antiviral drugs may be started in women with high viral loads (from 28 weeks of gestation), following national policy
- If woman is receiving antiviral drugs, ask about side effects and concerns
- Liaise with clinical staff if necessary to address concerns

### Planning for birth and postnatal care:
- Plan for delivery in a facility with HepB-BD (and HBIG if available)
- Explain the importance of ensuring the newborn receives hepatitis B vaccine within 24 hours of delivery and HBIG within 12 hours of delivery (if available)
- Discuss and confirm plans for infant feeding
- Discuss family planning options for after delivery
- Explain when and where woman should attend for her next ANC visit
- Explain what to do if the woman goes into labour before her next scheduled visit
Labour Ward
For general care of all women in labour and newborn infants, refer to the Early Essential Newborn Care: Clinical Practice Pocket Guide

https://iris.wpro.who.int/handle/10665.1/10798

An updated second edition of the EENC pocket guide is being finalised.
### Additional Care for HIV-infected women and their infants

- **If the pregnant woman is known to be HIV-infected or is found to have a reactive HIV test during labour, childbirth or immediately postpartum**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Counsel on implications of the HIV result</strong></td>
<td>All newly identified women living with HIV (and previously known cases where appropriate):</td>
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<tr>
<td></td>
<td>• Discuss the test result with the woman in private or in the presence of a chosen companion</td>
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<td></td>
<td>• Assure the woman that her test result is confidential and will not be shared with anyone else unless she gives permission</td>
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<td></td>
<td>• Ensure understanding that the HIV test result is reactive and that this means the woman is likely to be infected with the HIV virus</td>
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<td></td>
<td>• Allow time for the woman to absorb the information and express emotion</td>
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<td></td>
<td>• Ensure the woman understands the need for treatment to help to keep her healthy and to reduce transmission risk to her baby</td>
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<td></td>
<td>• Explain that the infant will also need to take medicine to reduce the risk of infection</td>
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<tr>
<td></td>
<td>• Explain that the infant is at higher risk of HIV infection because the mother’s infection was diagnosed late in pregnancy (or in labour)</td>
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<tr>
<td></td>
<td>• Discuss disclosure, encourage and arrange partner testing (as appropriate)</td>
</tr>
</tbody>
</table>

- **HIV confirmatory testing** (all newly HIV-reactive cases)

|  | • Take blood for confirmatory HIV testing |
|  | • Perform second rapid test or send blood to laboratory for testing (according to local protocol) |

- **Maternal antiretroviral therapy (ART)**

|  | **Newly identified cases:** Begin ART as soon as possible in the labour ward; do not wait for the result of confirmatory testing |
|  | **Previously known cases:** Check HIV treatment history and adherence |
|  | • Continue ART as indicated throughout labour, delivery and postpartum. Record all treatment in mother’s book |
|  | • Refer the woman to HIV services (as appropriate) for continuation of lifelong ART, care, support and follow-up |

- **Childbirth**

|  | • Adhere to standard practice for labour and childbirth (Refer to EENC clinical pocket guide [https://iris.wpro.who.int/handle/10665.1/10798] ) |
|  | • Note that elective caesarean section should not be routinely recommended to HIV-infected women, but should be offered when indicated for other medical or obstetric reasons |

- **Further counselling (decide when it is appropriate to conduct further counselling based on the stage of labour)**

|  | • Discuss side effects of medication and provide ART adherence counselling |
|  | • Provide counselling on infant feeding choices |
|  | • If mother plans to/is breastfeeding, encourage exclusive breastfeeding |
|  | • If exclusive breastfeeding is not possible, breastfeeding should still be encouraged, ensure woman is fully supported for continuing ART |
|  | • if the mother chooses replacement feeding, counsel her on safe formula feeding |
|  | • Counsel woman on family planning options |
|  | • Provide emotional support |

- **Infant ART prophylaxis**

|  | • If the mother received at least 4 weeks of ART |
|  | • Start daily Nevirapine within 6-12 hours of birth (according to local protocol) |
|  | • Continue until 6 weeks of age |
|  | • If the mother was diagnosed late in pregnancy and received <4 weeks of ART or is not virally suppressed or was diagnosed during labour, delivery or immediately postpartum the infant is at HIGH RISK of HIV infection |
|  | • Start daily Nevirapine and twice daily AZT within 6-12 hours of birth (according to local protocol) |
|  | • Continue until 6 weeks of age (until 12 weeks if breastfeeding, AZT can be stopped after 6 weeks) |

**Dose of Infant Nevirapine:**

- Birth weight 2000-2499 g: 10 mg = 1 ml Nevirapine syrup once daily |
- Birth weight ≥2500 g: 15 mg = 1.5 ml Nevirapine syrup once daily |

**Dose of Infant AZT:**

- Birth weight 2000-2499 g: 10 mg = 1 ml AZT syrup twice daily |
- Birth weight ≥2500 g: 15 mg = 1.5 ml AZT syrup twice daily |

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**Early infant diagnosis**

Arrange NAT testing of HIV-exposed infants at birth, according to national guidelines.
### Additional Care for syphilis-infected women and their infants

- If the pregnant woman is known to be infected with syphilis or is found to have a positive syphilis test during labour, childbirth or immediately postpartum

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Action</th>
</tr>
</thead>
</table>
| **Counsel on implications of the syphilis test result** | Newly identified syphilis-infected women (and previously known cases where appropriate):  
- Discuss the test result with the woman in private or in the presence of a chosen companion  
- Assure the woman that her test result is confidential and will not be shared with anyone else unless she gives permission  
- Explain that the syphilis test result is positive  
- Ensure that the test result is documented in the woman’s record  
- Ensure understanding that the woman needs treatment to help to keep her healthy and also to reduce the risk of transmission of the infection to her baby  
- Explain that the infant is at higher risk of syphilis infection if the mother’s infection was diagnosed late in pregnancy (or in childbirth) and that the infant will require evaluation, treatment, close follow-up and monitoring  
- Explain how to avoid reinfection by promoting condom use and safe sex  
- Discuss disclosure, encourage and arrange partner testing (as appropriate) |

| **Maternal treatment** | Newly identified cases: Ask whether woman has a history of allergy to penicillin; treat the woman immediately according to national guidelines  
Previously known cases: Check treatment history; treat woman immediately according to national guidelines if treatment history is missing or incomplete  
- Document the test result and treatment in the woman’s record |

| **Childbirth** | Adhere to standard practice for labour and childbirth (Refer to EENC clinical pocket guide [https://iris.wpro.who.int/handle/10665.1/10798](https://iris.wpro.who.int/handle/10665.1/10798)) |

| **Management of syphilis-exposed infant** | Arrange clinical examination of infant for signs of congenital syphilis  
- Treat infant immediately according to national guidelines if infant has signs of congenital syphilis or is at HIGH RISK of congenital syphilis (mother’s infection diagnosed late in pregnancy or during labour, delivery or immediately postpartum)  
- Dosage for treatment of congenital syphilis:  
  - Aqueous benzyl penicillin 100 000–150 000 U/kg/day intravenously for 10–15 days or  
  - Procaine penicillin 50 000 U/kg/day single dose intramuscularly for 10–15 days  
- Refer the infant (as appropriate) for follow-up and management of complications of congenital syphilis |

<p>| <strong>STILLBORN &amp; PREMATURE INFANTS</strong> | If the infant is stillborn or premature, it is especially important to check the mother’s syphilis screening and treatment status |</p>
<table>
<thead>
<tr>
<th>Intervention</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Counsel on implications of the HBsAg test result</em></td>
<td>◦ Explain that the HBsAg test result is positive if the result is a new finding</td>
</tr>
<tr>
<td></td>
<td>◦ Ensure that the test result is documented in the woman’s record</td>
</tr>
<tr>
<td></td>
<td>◦ Explain that there is a risk of MTCT of hepatitis B infection but that the risk can be reduced by:</td>
</tr>
<tr>
<td></td>
<td>➢ a timely birth dose of hepatitis B vaccine (HepB-BD) given to the infant between 90 minutes and 24 hours of birth (with the dose given after at least 90 minutes of uninterrupted skin-to-skin contact and completion of the first breastfeed) (Refer to the EENC clinical pocket guide)</td>
</tr>
<tr>
<td></td>
<td>➢ HBIG given within 12 hours of birth, if available</td>
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<tr>
<td></td>
<td>➢ 2 to 3 additional doses of HepB vaccine given at least 4 weeks apart to complete the series as part of routine immunizations</td>
</tr>
<tr>
<td></td>
<td>◦ Discuss disclosure and ensure hepatitis B testing of sexual partners, children, other family members and close household contacts</td>
</tr>
<tr>
<td><em>Childbirth</em></td>
<td>◦ Adhere to standard practice for labour and childbirth (Refer to EENC clinical pocket guide (<a href="https://iris.wpro.who.int/handle/10665.1/10798">https://iris.wpro.who.int/handle/10665.1/10798</a>))</td>
</tr>
<tr>
<td><em>Maternal clinical assessment for care and treatment</em></td>
<td><strong>Newly identified cases:</strong> Refer the woman for clinical assessment for care and treatment after childbirth</td>
</tr>
<tr>
<td></td>
<td><strong>Previously known cases:</strong> Check history of care and treatment for hepatitis B</td>
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<tr>
<td></td>
<td>◦ Ensure continuing care and treatment for hepatitis B infection after delivery</td>
</tr>
<tr>
<td><em>Management of hepatitis B-exposed infant</em></td>
<td>◦ Give timely birth dose of hepatitis B vaccine, between 90 minutes and 24 hours of birth (with the dose given after at least 90 minutes of uninterrupted skin-to-skin contact and completion of the first breastfeed)</td>
</tr>
<tr>
<td></td>
<td>◦ Give HBIG within 12 hours of birth, if available</td>
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<td></td>
<td>◦ Ensure that the mother knows where and when to bring the infant for immunization – including completion of the series of hepatitis B immunizations</td>
</tr>
</tbody>
</table>
Postnatal Care
### Well-Child Clinic Visits – Action steps for infants between birth and 9 months of age

#### Health Check

**Assess, classify and treat**
- Immediate assessment at birth
- Full examination 1 hour after birth and before discharge

<table>
<thead>
<tr>
<th>Health Check</th>
<th>All infants birth – 9 months</th>
<th>Birth-14 days</th>
<th>6 weeks</th>
<th>10 weeks</th>
<th>14 weeks</th>
<th>6 months</th>
<th>9 months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assess, classify and treat</strong></td>
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<tr>
<td>• Danger signs <em>(if identified at home, seek health care immediately/early)</em> If the child is 0–2 months of age: poor feeding; movement only when stimulated/no movement; fast breathing (&gt;60 breaths/min), severe chest indrawing; low temperature (&lt;35.5) or high temperature (≥38); convulsions; any jaundice (in 1st 24 hours), yellow palms and soles (any age) If the child is 2-59 months of age: inability to drink/breastfeed; lethargy/unconsciousness; vomiting everything; convulsions</td>
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<td>• Cough/difficulty breathing, diarrhea, fever, ear problems</td>
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<td>• Signs of anemia (pallor, fast heartbeat, irritability)</td>
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<td>• Weight for age, height for age, weight for height</td>
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<td>• Breastfeeding:</td>
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<td>▪ Counsel and provide support for exclusive breastfeeding until 6 months</td>
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<td>▪ Check feeding position and attachment</td>
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<td>▪ Ask about any breastfeeding difficulties or concerns: sore/cracked nipples, leaking, engorgement, frequency of feeding, diet</td>
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<tr>
<td>• HIV, hepatitis B and syphilis status:</td>
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<td>▪ Check the test results or perform if not done during pregnancy</td>
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<td>• Developmental milestones, motor and sensory function</td>
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<td>• Injuries, signs of neglect or abuse</td>
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<td>• Urination</td>
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<td>• Defecation, stool color</td>
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<td>• Congenital malformations: e.g. club foot, cleft palate</td>
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<td>• Periumbilical redness</td>
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<td>• Surprise at loud sounds</td>
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<td>• Abduction of hips in flexion</td>
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<td>• 24-hour food recall</td>
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<td>• Sitting without support</td>
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</table>

#### Immunizations

<table>
<thead>
<tr>
<th>Micronutrients</th>
<th>Promote and ensure all routine immunizations are given at required times and Vitamin A after 6 months (where indicated) - following national guidelines</th>
<th>BCG, hepatitis B birth dose, OPV birth dose, Vitamin K, if not yet given</th>
<th>bOPV or IPV/ Pentavalent</th>
<th>bOPV or IPV/ Pentavalent</th>
<th>bOPV or IPV/ Pentavalent</th>
<th>Vitamin A 100 000 IU</th>
<th>MMR</th>
</tr>
</thead>
</table>

#### Advise

<table>
<thead>
<tr>
<th>Advise</th>
<th>Come to health facility immediately if child has any danger signs*</th>
<th>Exclusively breastfeed at least 8 times in 24 h; give no other foods, water or other fluids, other than prescribed medication</th>
<th>Head support</th>
<th>Keep sharp, small objects and poisons out of reach</th>
<th>Use child’s name and encourage response</th>
<th>Breastfeeding</th>
<th>Complementary feeding of nutrient dense foods 2-3x a day</th>
<th>Safe food preparation/safe water</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Child safety and well-being:</td>
<td>• Never leave infant unattended on high or hot surfaces</td>
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<td>• Ensure blankets are away from infant’s mouth and nose to avoid suffocation</td>
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<tr>
<td>• Avoid soft mattresses, put infant to sleep on its back</td>
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<tr>
<td>• Sleep under impregnated bet nets (malaria endemic areas)</td>
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<tr>
<td>• Safety around bathing and water</td>
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<td>• Ensure good hygiene</td>
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<tr>
<td>• Communicate and play with the infant</td>
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<tr>
<td>• Stimulate infant: smile, touch, talk, sing and laugh</td>
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<tr>
<td>• Imitate infant’s movements so child is in control</td>
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<tr>
<td>• Counsel for parental smoking/indoor air pollution</td>
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<tr>
<td>• Cord care</td>
<td>• Clean, dry cord care</td>
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<tr>
<td>• Daily chlorhexidine in 1st week (if born at home in setting with high neonatal mortality &gt; 30/1000)</td>
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<tr>
<td>• Dress appropriately for the ambient temperature (1-2 layers more than an adult, use hat/cap)</td>
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<tr>
<td>• Limited abduction of hips in flexion</td>
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</tbody>
</table>

#### Refer

<table>
<thead>
<tr>
<th>Refer</th>
<th>Any danger signs*</th>
<th>Abdominal distension</th>
<th>No excretion</th>
<th>White stools</th>
<th>Periumbilical redness, swelling or tenderness</th>
<th>Malformations</th>
<th>Problems with sitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>• SAM / Failure to thrive (weight gain&lt;100g/week to 6 months)</td>
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<td>• Suspicion of abuse (e.g. excessive crying when touched)</td>
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<tr>
<td>• Any hearing, eye, vision or developmental problems</td>
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<tr>
<td>• Mother known or found to be infected with HIV, hepatitis B or syphilis – see care of HIV-, hepatitis B- or syphilis-exposed infant</td>
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<tr>
<td>• Abdominal distension</td>
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<tr>
<td>• No excretion</td>
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<td></td>
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<tr>
<td>• White stools</td>
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<tr>
<td>• Periumbilical redness, swelling or tenderness</td>
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<tr>
<td>• Malformations</td>
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<tr>
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<tr>
<td>• Problems with sitting</td>
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</tbody>
</table>
# Well-Child Clinic Visits – Action steps for infants aged 12 - 36 months of age

## Health Check

<table>
<thead>
<tr>
<th>All children 12 months – 36 months</th>
<th>12 months</th>
<th>15 months</th>
<th>18 months</th>
<th>24 months</th>
<th>30 months</th>
<th>36 months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assess, classify and treat</strong></td>
<td></td>
<td></td>
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<tr>
<td>• Danger signs <em>(if identified at home, seek health care immediately/early)</em></td>
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<tr>
<td>ability to drink/breastfeed; lethargy/unconsciousness; vomiting everything; convulsions</td>
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<tr>
<td>• Cough/difficulty breathing, diarrhoea, fever, ear problems</td>
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<tr>
<td>• Weight for age / MUAC, height for age, weight for height</td>
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<tr>
<td>• Signs of anemia (pallor, fast heartbeat, irritability)</td>
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<tr>
<td>• 24-hour food recall</td>
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<tr>
<td>• Developmental milestones: Crawling, [12 months] Standing alone, [15 months] Walking alone [18 months]; note any delayed development compared with other children</td>
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<tr>
<td>• Weakness or stiffness in limbs</td>
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<tr>
<td>• Injuries, signs of neglect or abuse</td>
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<tr>
<td><strong>Immunizations</strong></td>
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</tr>
<tr>
<td><strong>Micronutrients</strong></td>
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<tr>
<td><strong>Deworming</strong></td>
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<tr>
<td><strong>Advise</strong></td>
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<tr>
<td>• Come to health facility immediately if child has any danger signs*</td>
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<tr>
<td>• Cut food up small enough for a child’s mouth. Do not give hard food (such as nuts)</td>
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<tr>
<td>• Encourage and assist the child with eating, be aware of signs of satiety</td>
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<tr>
<td>• Talk to child with eye contact and encourage them to sit still during a meal</td>
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<tr>
<td>• Play interactively with child</td>
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<tr>
<td>• Observe child at all times, near water, fire, stairs, windows, vehicles, and animals</td>
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<tr>
<td>• Keep away from dangerous items (sharp or small items, long strings and poisons)</td>
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<tr>
<td>• Sleep under impregnated net (malaria endemic areas)</td>
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<tr>
<td>• Counsel for parental smoking/ indoor air pollution</td>
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<tr>
<td><strong>Refer</strong></td>
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<td></td>
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<tr>
<td>• Any danger signs*</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>• Failure to thrive / SAM</td>
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<td></td>
<td></td>
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<tr>
<td>• Suspicion of abuse (excessive crying when touched)</td>
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<td>• Developmental delay compared with other children</td>
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<td>• Weakness or stiffness in limbs</td>
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</tbody>
</table>

## Immunizations

- Promote and ensure all routine immunizations are given at required times and Vitamin A after 6 months (where indicated) - following national guidelines

<table>
<thead>
<tr>
<th>2nd MMR</th>
<th>DPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Vitamin A 200 000 IU</td>
<td>• Vitamin A 200 000 IU</td>
</tr>
<tr>
<td>• Deworming if needed</td>
<td>• Deworming if needed</td>
</tr>
</tbody>
</table>

## Micronutrients

- Vitamin A 200 000 IU
- Deworming if needed

## Deworming

- Vitamin A 200 000 IU
- Deworming if needed

## Advise

- Breastfeeding on demand and Complementary food 3-4 times daily with additional nutritious snacks
- Nutrition: advise on providing a wide variety of foods, including energy-rich food, meat, fish, eggs, vegetables and fruits
- Well-being: provide guidance on and support for a healthy diet, sufficient sleep and physical activity to prevent obesity
- Interaction: promote counting or comparing things; teaching child stories, songs and games; talking about pictures or books
- Promote play: Find safe places to play (do not allow child to play on the road)

## Refer

- Problem with continued crawling
- Not able to say single words such as “mama” or “dada”
- Not able to walk up steps
- Learning to talk later than other children, or having trouble speaking
- Not able to jump up
- Not playing with other children or with toys
### Postnatal Care

<table>
<thead>
<tr>
<th>Timing</th>
<th>1st day: &lt;24 hours</th>
<th>Day 3: 48-72 hours</th>
<th>Days 7-14</th>
<th>6 weeks</th>
<th>Further Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit</td>
<td>1st visit</td>
<td>2nd visit</td>
<td>3rd visit</td>
<td>6 weeks</td>
<td>Further Care</td>
</tr>
</tbody>
</table>

#### Additional PNC tasks for HIV-infected women and their HIV-exposed infants

### HIV-infected mother – all postnatal visits

- Check and document mother’s HIV treatment history
- Discuss adherence and side effects; address any concerns and refer mother to ART clinic if appropriate
- Check that partner testing has been explained and offered
- Discuss infant feeding in the context of HIV: mothers living with HIV should exclusively breastfeeding their infants for 6 months, introduce appropriate complementary foods thereafter and continue breastfeeding for at least 12 months, and may continue breastfeeding for up to 24 months or longer while being fully supported for ART adherence
  - If mother plans to/is breastfeeding, encourage exclusive breastfeeding
  - If exclusive breastfeeding is not possible, breastfeeding should still be encouraged; ensure woman is fully supported for continuing ART
  - Discuss family planning options in the context of HIV
  - Counsel on nutrition, exercise, indoor air quality, use of alcohol and recreational drugs

### HIV-exposed infant

#### Before 6 weeks of age:

- Confirmatory birth testing according to local guidelines (including nucleic acid testing (NAT) at point of care (POC)
- Check infant is taking daily Nevirapine syrup (and daily AZT if at high risk of HIV infection)
- Ensure that infant has received the timely birth dose of hepatitis B vaccine and give if not yet received

#### At 6 weeks of age:

- Stop Nevirapine (and AZT for those infants receiving dual prophylaxis) when for low risk infants after completing 6 weeks of ARV prophylaxis
- Arrange for early infant diagnosis (EID) according to local protocol; explain the result to the mother and document it in the mother’s book and infant record. Point-of-care nucleic acid testing (NAT) should be used to diagnose HIV among infants and children younger than 18 months of age. Start ART without delay if the result is positive. Perform repeat testing of indeterminate results and confirmatory testing of a positive NAT result.
- Ensure that co-trimoxazole prophylaxis is started; continue until HIV infection has been excluded by an age-appropriate HIV test to establish final diagnosis after complete cessation of breastfeeding

#### Beyond 6 weeks of age:

- High-risk infants who are breastfeeding should continue Nevirapine until 12 weeks and then stop (AZT may be stopped at 6 weeks)
- Continue to encourage and support breastfeeding as appropriate
- Check that infant has received all required immunizations (following national guidelines); give if not yet received
- Ensure that HIV antibody testing is carried out at 9 months and 18 months or 3 months after cessation of breastfeeding, whichever is later, explain the result to the mother and document it in the women’s book and infant record

### HIV-infected infant (EID test reactive)

- Ensure that confirmatory testing is conducted and the result is documented in the mother’s book and infant record
- Refer infant to HIV services to start ARVs as soon as possible; ensure that all infants found to be HIV-infected are linked to HIV services and are receiving care, treatment and regular follow-up
- Ask the mother about infant adherence to ART and co-trimoxazole and about any side effects or concerns. Liaise with paediatric HIV clinic if necessary
- Encourage mother to breastfeed exclusively for 6 months and continue breastfeeding up to two years and beyond
  - If exclusive breastfeeding is not possible up to 6 months, breastfeeding should still be encouraged
  - If the mother chooses replacement feeding, counsel her on safe formula feeding
### Timing

<table>
<thead>
<tr>
<th>Postnatal Care</th>
<th>First day: &lt;24 hours</th>
<th>Day 3: 48-72 hours</th>
<th>Days 7-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit</td>
<td>1st visit</td>
<td>2nd visit</td>
<td>3rd visit</td>
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</tbody>
</table>

### Further Care

6 weeks

### Additional PNC tasks for syphilis-infected women and their syphilis-exposed infants

#### Syphilis-infected mother – all postnatal visits
- Check that the mother’s syphilis treatment history has been fully documented
- Treat the mother following national guidelines if treatment history is missing or incomplete
- Explain how to avoid reinfection by promoting condom use and safe sex
- Explain the importance of partner testing and treatment and ensure that this has been done (as appropriate)
- Counsel on how to manage any impacts of congenital syphilis on the baby
- Discuss family planning
- Continue to encourage and support breastfeeding as appropriate

#### Syphilis-exposed infant – all postnatal visits
- Ensure clinical examination of infant for signs of congenital syphilis has been conducted and arrange if not yet done
- Treat infant immediately according to national guidelines if infant has signs of congenital syphilis or is at HIGH RISK of congenital syphilis and has not yet been treated or if treatment status is unknown
- Dosage for treatment of congenital syphilis:
  - Aqueous benzyl penicillin 100 000–150 000 U/kg/day intravenously for 10–15 days or
  - Procaine penicillin 50 000 U/kg/day single dose intramuscularly for 10–15 days
- Refer the infant (as appropriate) for follow-up and management of complications of congenital syphilis according to national guidelines
- Ensure that all findings and treatment have been fully documented
- Check that infant has received all required immunizations (following national guidelines); give if not yet received
<table>
<thead>
<tr>
<th>Timing</th>
<th>1st day: &lt;24 hours</th>
<th>Day 3: 48-72 hours</th>
<th>Days 7-14</th>
<th>6 weeks</th>
<th>Further Care</th>
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</thead>
<tbody>
<tr>
<td>Visit</td>
<td>1st visit</td>
<td>2nd visit</td>
<td>3rd visit</td>
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</table>

### Postnatal Care

### Additional PNC tasks for hepatitis B-infected women and their hepatitis B-exposed infants

#### Hepatitis B-infected mother – all postnatal visits
- Check and document mother’s hepatitis B treatment history or refer for clinical assessment for care and treatment if not yet done
- Discuss adherence to treatment and side effects
  - Consider discontinuing antiviral treatment approximately 2 months after birth if mother does not require treatment for her own disease
  - Monitor closely for signs of hepatic flare (raised ALT 3-5 times baseline and/or clinical symptoms e.g. nausea or vomiting) if antivirals were not received during pregnancy or were discontinued during pregnancy or early after delivery
- Address any concerns and refer mother to clinical care if appropriate
- Ensure that hepatitis B testing of sexual partners, children, other family members and close household contacts has been explained and conducted
- Discuss family planning
- Continue to encourage and support breastfeeding as appropriate

#### Hepatitis B-exposed infant – all postnatal visits
- Check if the infant received
  - **timely birth dose of hepatitis B vaccine.** Administer and document if not yet given
  - **HBIG within 12 hours of birth,** if indicated and available
- Ensure additional doses of hepatitis B vaccine are given at 6, 10 and 14 weeks (or following local protocol) and document
- Arrange for HBsAg and anti-HBs testing 4-8 weeks after last dose of hepatitis B vaccine, following local protocol
- Ensure that infant has received all other required immunizations (following national guidelines); give if not yet administered
WHO and WPRO webpages

1. WHO Maternal health webpage https://www.who.int/health-topics/maternal-health#tab=tab_1
2. WHO Child Health and Development Unit webpage https://www.who.int/teams/maternal-newborn-child-adolescent-health-and-ageing/child-health
5. WPRO Maternal Health webpage: https://www.who.int/westernpacific/health-topics/maternal-health
6. WPRO Child Health webpage: https://www.who.int/westernpacific/health-topics/child-health
7. WPRO HIV, hepatitis, STI Unit. EMTCT webpage: https://www.who.int/westernpacific/activities/eliminating-mother-to-child-transmission-of-hiv-hepatitis-syphilis
4. WHO recommendation: Elective C-section should not be routinely recommended to women living with HIV 2018 [https://apps.who.int/iris/bitstream/handle/10665/272454/WHO-RHR-18.08-eng.pdf?ua=1](https://apps.who.int/iris/bitstream/handle/10665/272454/WHO-RHR-18.08-eng.pdf?ua=1)
EMTCT of HIV, hepatitis B and syphilis and other-related resources

1. Regional framework for the triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Asia and the Pacific, 2018-2030 https://iris.wpro.who.int/handle/10665.1/14193
3. Consolidated guidelines on HIV testing services for a changing epidemic 2019 https://www.who.int/publications-detail/consolidated-guidelines-on-hiv-testing-services-for-a-changing-epidemic
4. Update on antiretroviral regimens for treating and preventing HIV infection and update on early infant diagnosis of HIV: Policy brief 2018 https://apps.who.int/iris/handle/10665/273129