Road map for the provision of a maternal and child health package of care for the first 1000 days

health
Department:
Health
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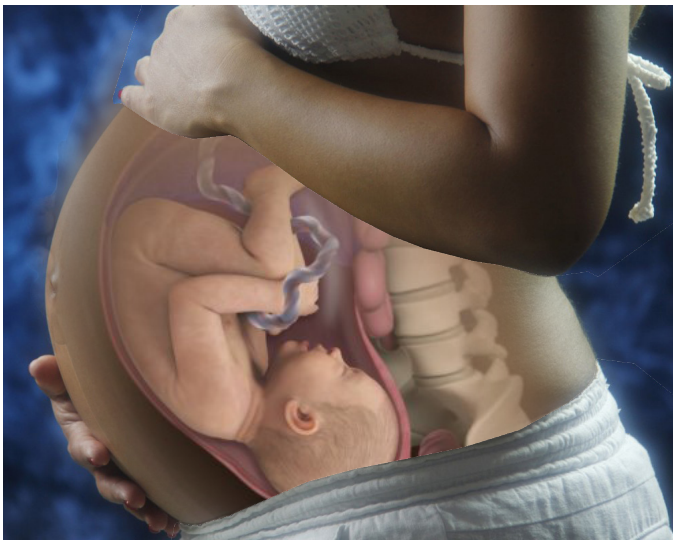
CONTENT

INTRODUCTION

THE FIRST 1000 DAYS



The first thousand days of life, from conception until the child is two years old, provide a unique opportunity to provide the foundation for childrens' optimal health and development. This period is critical for neurological development, with 1000 neural connections being formed every second. For healthy development during this period children need safe, secure and loving environment, with the right nutrition and stimulation from their parents or caregivers. In developing countries poverty, lack of stimulation, and malnutrition can lead to significant morbidity and mortality, so that many children fail to reach their neurodevelopmental potential.

THE ROADMAP

The Roadmap for the provision of a maternal and child health package for the first 1000 days has been developed to ***ensure*** all pregnant women and mothers with children below the age of 2 years (first 1000 days) are provided with ***all the services*** needed for health and development ***at every visit*** to the health facility.

All health workers, including doctors, registered nurses, enrolled nurses, enrolled nurse assistants, nutrition advisors, and other health workers providing services to mothers and children in primary health clinics, community health centres and district hospitals, should use this roadmap. This includes during antenatal and postnatal visits, and ongoing care from pre-conception, throughout pregnancy and until the child is 2 years of age. Health workers or partners working outside the DoH, could also use the roadmap as a resource.

The Roadmap is **not meant to replace existing policies or guidelines**, but rather to **provide a resource for health workers to use and integrate the many guidelines and policies.** The roadmap was developed with the existing policies and guidelines and where relevant, health workers are advised to return to these guidelines to manage uncommon or complex cases. Policies and guidelines used in the development are:

- Basic Antenatal Care Plus
- Guidelines for Maternity Care in South Africa (2016)
- Guideline for the Prevention of Mother to Child Transmission of HIV and other Transmittable Infections (2018)
- Cervical Cancer Prevention and Control Policy (date)
- Adherence Guidelines for HIV, TB and NCDs (February 2016)
- Infant and Young Child Feeding Policy (2013)
- Integrated Management of Childhood Illness guidelines (2014)
- National Contraception and Fertility Planning Policy and Service Delivery Guidelines (2012)
- National Tuberculosis Management Guidelines (2014)
- Integrated Management of Childhood Illness Chart Booklet (2014)
- Adult Primary Care (2016/2017)
- Protecting, Promoting and Supporting Exclusive and Continued Breastfeeding (2014)
- Vaccinator's Manual (2015)
- Road to Health Booklet

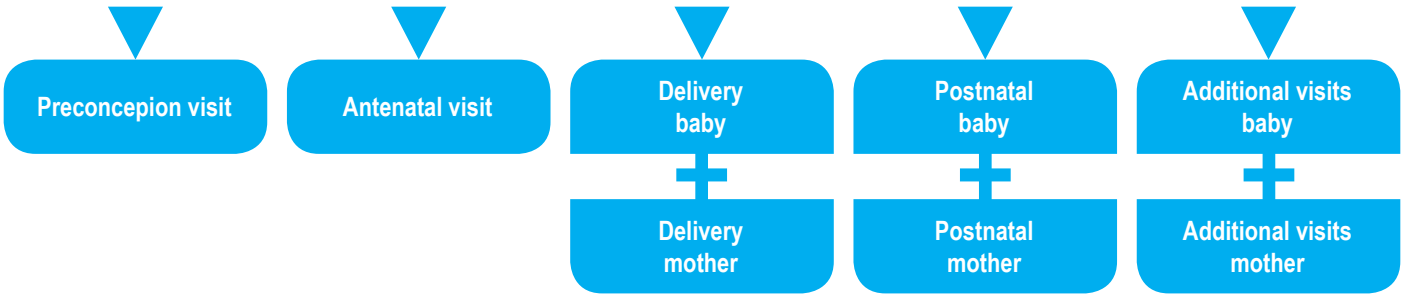
All guidelines in the roadmap are taken from these existing guidelines and protocols.

While the Roadmap is designed to deal with the routine schedule of visits, it is important to take into consideration that not all pregnant women, mothers and babies visit the health facility at the scheduled times. If this happens, health workers should choose the pages closest to when the visits occur. The roadmap is designed to include the most important visits where many specific services are required (e.g. first and second ANC visit) and follow up visits. In addition, the roadmap caters for extra visits (e.g. if the mother becomes unwell during the antenatal/postnatal period or when the child becomes ill). When a mother and child comes to the health facility, services need to be provided for both the mother and child at a single visit.

The purpose of this Roadmap is to outline all **the routine services for women, mothers and children starting at pre-conception, during pregnancy, during labour, postnatal and until the child is 2 years of age to be given at each visit.**

Additional information is provided to assist health workers to deal with more complex issue than that which could be provided within the roadmap, e.g. management of conditions. When this occurs you will be referred to information pages at the end of the document labeled INFO.

Start by selecting the service point at which the services are provided and turn to the page outlining these visits.



For **each service delivery point in the facility** the following components are **outlined and colour coded in line with the Road To Health Booklet:**

- BUILDING A RAPPORT
- LOVE, PLAY AND TALK
- ROUTINE CARE (GENERAL CARE, BANC)
- GROWTH AND NUTRITION
- HEALTH CARE (HIV CARE)
- PREVENTATIVE CARE
- EXTRA CARE (SPECIAL CARE AND ADVISE)
- GIVE THE NEXT APPOINTMENT

- Ask
- Check
- Manage
- Counsel
- Refer

ABBREVIATIONS

ANC	Antenatal care
ART	Anti-retroviral therapy
BANC	Basic Antenatal care
BMI	Body mass index
BP	Blood Pressure
CHW	Community health worker
C/S	Caesarean Section
EDD	Expected date of delivery
EN	Enrolled nurse
FBC	Full blood count
GTT	Glucose Tolerance Test
GXP	Gene Expert TB test
Hb	Haemoglobin
HIV	Human immunodeficiency virus
IMI	Intra muscular injection
IMCI	Integrated management of childhood illness
INFO	Information page
IUGR	Intra uterine growth retardation
MCH	Maternal and child health
MUAC	Mid upper arm circumference
NVP	Nevirapine
OSS	Operation Sukuma Sakhe
PAP	Papanicolaou test for cervical cancer
PHC	Primary health care
PN	Professional nurse
PMTCT	Prevention of mother to child transmission
RBS	Random blood sugar
RPR	Rapid plasma regain test for syphilis
SASSA	South Africa Social Security Agency
TB	Tuberculosis
TPT	TB Preventative Therapy
VL	Viral load

PRECONCEPTION VISIT

This visit helps the woman prepare for pregnancy.

DURING THE CONSULTATION

Build a rapport with the woman: Discuss the issues around wanting to conceive. Ideally engage both partners in a couples based approach to promote safe conception.

BASIC PRE-CONCEPTION MEDICAL HISTORY

Ask the woman: • *What is your age?*	Discuss the risk of having a baby with chromosomal abnormalities with increasing maternal age, especially after 37 years.
• *Do you have any medical conditions?* • *Are you taking any medications?*	Discuss the risk to the foetus of poorly controlled medical conditions during pregnancy including the risk when the mother takes teratogenic medications during pregnancy
• *Is there a family history of genetic conditions?* • *Are you and your partner closely related?*	Refer for genetic counselling if there is a history of genetic conditions. Discuss the increased risk of abnormality when the parents are closely related
• *Have you been pregnant before?* • *Tell me about your previous pregnancies and deliveries*	Take a full history
• *Are you exposed to any occupational / environmental chemicals*	Discuss the risk of mothers exposure to teratogenic chemicals in the work place
• *Do you drink any alcohol, smoke, or take any recreational drugs?*	Discuss the risk to the foetus of alcohol, smoking and recreational drugs by the mother
• *Have you ever had rubella (German measles)or been immunised against it?* • *Have you ever been diagnosed with syphilis?*	Discuss the risk to the foetus of maternal infections such as rubella or syphilis

NUTRITION

Measure height, weight and MUAC Ask the woman about her diet	Counselling about healthy eating and keeping physically active during pregnancy to stay healthy and to prevent excessive weight gain during pregnancy ▸ Provide folate for the prevention of neural tube defects (5mg daily for three months prior to conception and continuing during pregnancy) Advise about the value of calcium supplementation in prevention of hypertension ▸ Discourage eating harmful substances like soil, chalk, alcohol, smoking and recreational drugs during pregnancy

HIV CARE

Check HIV status of the patient ▸ If not previously tested or HIV negative on previous test	Test for HIV
Check HIV status of partner ▸ If partner HIV positive, check if he is on ART and virally suppressed. ▸ If not previously tested or HIV negative on previous test	Test partner for HIV
HIV positive	▸ Manage according to PMTCT guidelines for safe conception in HIV positive women (page10)
HIV negative	Counsel the woman to avoid the following sexual practices that could put her at risk for contracting HIV and other STIs: • The woman or her regular partner having new or multiple sexual partners • Unreliable use of condoms • Alcohol abuse

TUBERCULOSIS SCREENING

Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according to guidelines on (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care guidelines (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: ▸ In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, refer to available resources for further assessment or psychosocial counselling If the mother answers yes to the suicide question (without answering yes to any other question, refer for assessment

GIVE NEXT APPOINTMENT:

ANTENATAL CARE

The purpose of antenatal care is to improve the health of the mother and the survival of the baby. Antenatal care provides an opportunity to screen for, detect, prevent and treat many maternal complications during pregnancy which may affect the growth and health of the baby and to improve the outcome for the unborn baby.

The schedule for **antenatal care** includes **8 well-spaced visits** for all pregnant women.

1	First antenatal visit before 14 weeks of pregnancy
2	Second antenatal visit at 20 weeks of pregnancy
3	Third antenatal visit at 26 weeks of pregnancy
4	Fourth antenatal visit at 30 weeks of pregnancy
5	Fifth antenatal visit at 34 weeks of pregnancy
6	Sixth antenatal visit at 36 weeks of pregnancy
7	Seventh antenatal visit at 38 weeks of pregnancy
8	Eighth antenatal visit at 40 weeks of pregnancy

INSTRUCTIONS HOW TO USE THE DOCUMENT

The roadmap recognises that mothers do not attend exactly at the times in the schedule and can be adapted to the gestation when the mother attends the clinic as follows. **The first and second ANC visits pages should be used for the first and second visits, regardless of when they occur.** The pages for follow up visits can be used for all visits starting from the third ANC visit until the mother is 36 weeks pregnant. **Visits on and after 36 weeks should be followed according to the mothers gestation** (chose the visit closest to the mothers current gestation).

1	First antenatal visit regardless of the gestation
2	Second antenatal visit regardless of the gestation
3	Follow up antenatal visits regardless of the gestation
4	Follow up antenatal visits regardless of the gestation
5	Follow up antenatal visits regardless of the gestation
6	Antenatal visit at 36 weeks of pregnancy
7	Antenatal visit at 38 weeks of pregnancy
8	Antenatal visit at 40 weeks of pregnancy

RISK FACTORS REQUIRING REFERRAL OR HOSPITAL DELIVERY

PREVIOUS HISTORY OF:

- Stillbirth
- Neonatal death
- Low birth weight baby
- Admission for hypertension or re-eclampsia/eclampsia
- Caesarean delivery
- Myomectomy
- Cone biopsy
- Cervical cerciage

CURRENT PREGNANCY

- Diagnosed or suspected multiple pregnancy
- Age < 16 years or age > 37 years
- Rhesus isoimmunisation in previous or current pregnancy
- Vaginal bleeding
- Pelvic mass
- Systolic BP >140mmHG and or diastolic >90mmHg or sustained systolic >160mmHg

RISK FACTOR REQUIRING HOSPITAL DEVLIVERY

- Previous postpartum haemorrhage
- Parity > 5

GENERAL MEDICAL CONDITIONS

- Diabetes mellitus
- Cardiac disease
- Kidney disease
- Epilepsy
- Asthma on medication
- Active tuberculosis
- Known substance abuse including alcohol and tobacco
- Any severe medical condition

RISK FACTORS ARISING DURING ANTENATAL CARE

- Anaemia not responding to iron tablets
- Uterus large for dates (>90th centile for symphysis-fundal height)
- Uterus small for dates (<10th centile for symphysis-fundal height)
- Symphysis fundal height decreasing below 10th centile
- Breech or transverse lie at term
- Extensive vulval warts that may obstruct vaginal delivery
- Pregnancy beyond 41 weeks
- Abnormal glucose screening (GTT or Random blood sugars)
- Reduced foetal movements after 28 weeks

FIRST ANTENATAL VISIT (ANY GESTATION)

DURING THE CONSULTATION	If medical history indicates hypertension, heart or kidney disease, diabetes, epilepsy, asthma or TB refer to high risk clinic Build a rapport with the pregnant woman: ask her how she is feeling and how she is managing with her pregnancy. Be empathetic and address any concerns that the mother expresses

BANC	
History and full clinical examination including checking height of fundus Estimate EDD based on date of last menstrual period Check blood pressure Test urine for protein and glucose	If first, second or third pregnancy give tetanus toxoid If BP > 140/90 manage according to Maternity guidelines (INFO 1). If the woman has any protein in her urine without hypertension, send a clean catch urine sample to laboratory to exclude urinary tract infection If woman has 1+ glucose in her urine on more than one occasion, Screen all women for risk factors for gestational diabetes and manage according to guidelines (INFO 24).
Check RPR (rapidtest)	If RPR positive and mother is not allergic to penicillin, initiate benzathine pencillin 2.4 million units IMI weekly for 3 doses
Do rapid Rhesus test	If Rhesus negative send Coombs test or refer
Compile a problem list of all problems identified and document in ANC chart	Manage all problems according BANC Plus guidelines
MATERNAL NUTRITION	
Measure height, weight and MUAC	Advise on healthy eating in pregnancy using the healthy eating guide. Advise restricting daily caffeine intake during pregnancy to reduce the risk of pregnancy loss and low birth weight neonates (not more than 2 cups of coffee)
If MUAC < 23cm, manage according to nutrition guidelines Provide fortified food supplements for undernourished pregnant women	If MUAC >33cm, manage according to nutrition guidelines Provide iron and folate supplement to all women Provide calcium supplement to all women If MUAC >33cm, is at increased risk of pre-eclampsia and maternal diabetes.
Do Haemoglobin test	If Hb <10g/dl manage according to BANC Plus guidelines (INFO 2)
PMTCT	
Testing for HIV Check HIV status If not previously tested or HIV negative on previous test	Test for HIV today
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT
Ask mother about other children, if they have been tested	**Advise testing other children for HIV**
Treatment for HIV **NEWLY DIAGNOSED HIV POSITIVE:** Exclude ART contraindications, ask the mother: • *Have you ever had any kidney problems?* • *Have you ever had any psychiatric problems?* *Check if the mother has any TB symptoms with danger signs* Take blood for creatinine, CD4, FBC and check urine dipstix Do WHO clinical staging for HIV positive mothers (INFO 6) Screen for TB (as below) AND do a GXP	If no contraindications, **initiate ART** today according to PMTCT guidelines (INFO 3) If there is a history of renal or psychiatric problems manage according to PMTCT guidelines (INFO 3) Provide key adherence messages according to PMTCT guidelines (INFO 5) Ask mother to return in 1 week for results – manage according to PMTCT guideline (INFO 3) If Stage 2,3, or 4, or CD4 < 200 – start Cotrimoxazole prophylaxis Manage results as per PMTCT guidelines (INFO 4)
KNOWN HIV POSITIVE:	
Currently taking ART	Do HIV viral load and manage according to PMTCT guidelines (INFO 7)
Not currently on ART	Start ART (as described above) and do viral load. Manage according to PMTCT (INFO 7)
CERVICAL SCREENING	If newly diagnosed as HIV positive and gestation is below 20 weeks, do a PAP smear today
TUBERCULOSIS SCREENING	
Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)
SEXUALLY TRANSMITTED INFECTION SCREENING	
Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to protocol (INFO 15 & INFO 16)
MENTAL HEALTH SCREENING	
We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.	
Ask the mother: • *In the last 2 weeks have you on some or most days* • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling If the mother answers yes to the suicide question (without answering yes to any other question, **refer URGENTLY for assessment (INFO 14)**
ADVISE AND DISCUSS	
Practice safe sex during pregnancy and breastfeeding. Avoid alcohol, tabacco and recreational drugs during pregnancy. Do not eat charcoal, ash, ice or soil during pregnancy.	Discuss infant feeding and importance of breastfeeding – record infant feeding choice. Advise about danger signs during pregnancy – what to do in an emergency **Link to MOM CONNECT**
GIVE NEXT APPOINTMENT:	Next appointment according to **BANC** schedule

SECOND ANTENATAL VISIT (ANY GESTATION)

DURING THE CONSULTATION — Build a rapport with the pregnant woman: ask her how she is feeling and how she is managing with her pregnancy. Be empathetic and address any concerns that the mother expresses

BANC

- Check blood pressure
  - If BP > 140/90 manage according to Maternity guidelines (INFO 1)
- Test urine for protein and glucose
  - If the woman has any protein in her urine without hypertension, send a clean catch urine sample to laboratory to exclude urinary tract infection
  - If woman has 1+ glucose in her urine on more than one occasion, screen for gestational diabetes (INFO 24).
- Ask mother if she is feeling foetal movements
  - Foetal movements are generally felt between 18-22 weeks of pregnancy
  - If mother has felt foetal movements and they have now stopped, refer for further management.
  - If hypertensive or mother reports decreased foetal movements, monitor foetal movements using foetal movement chart in maternity case record (INFO 26)
- Measure uterus for growth and plot on the ANC chart
  - If suspected twins or IUGR refer
  - If the uterus does not correlate to the estimated gestational age, refer for sonar
- Check all blood results from previous visit
  - If RPR positive and mother is not allergic to penicillin, give benzathine pencillin 2.4 million units IMI weekly for 3 doses
  - If Hb <10g/dl manageme according to BANC Plus guidelines (INFO 2)
  - If rhesus negative take blood for coombs test and/or refer
  - If first pregnancy give second dose of tetanus toxoid
- Compile a problem list of all problems identified and document in ANC chart
- Manage all problems according BANC Plus guidelines

NUTRITION

- Weigh the woman.
- Monitor weight gain
- Ask the woman:
  - *Are you experiencing any nausea, vomiting, heartburn or constipation?*
- Advise on diet and lifestyle during pregnancy, especially if experiencing symptoms
  - Avoid large fatty meals (heartburn or nausea)
  - Raise the head of the bed to sleep (heartburn)
  - Do not take antacids within two hour of taking iron and folic acid supplements
  - Increase dietary fibre from fruit and vegetables and drink adequate amounts of water to reduce constipation
- If MUAC below <23 provide fortified food supplements
- Check for anaemia – palmar pallor and conjunctivae
  - Provide iron and folate supplement
  - Provide calcium supplement
- If pale, check Hb and manage according to page BANC Plus guidelines (INFO 2)

PMTCT

- Check HIV status
  - If not previously tested or HIV negative on previous test
- Test for HIV – if positive today manage according to PMTCT guidelines for newly diagnosed HIV

Known HIV positive

- Check adherence to ART.
- Ask:
  - *Have you been able to take all the tablets this month?*
  - *If no, how many doses have you missed?*
  - *What makes it difficult for you to take your treatment?*
- Provide ART for next month
  - If good adherence, praise the mother
  - If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support according to PMTCT guidelines (INFO 5)

Review result of last VL

- IF VL < 400 c/ml continue with ART
- If VL > 400 c/ml follow management according to PMTCT guidelines (INFO 7)

Review latest CD4 result

- If CD4 < 200 initiate or continue cotrimoxazole prophylaxis
- Provide Cotrimoxazole for next month

Screen for TB (see below)
If newly diagnosed HIV positive do TB screening

- Manage results and TPT according to PMTCT guidelines (INFO 4)

- Check HIV status of partner / husband
- Advise partner to test for HIV and manage according to PMTCT
- ASK mother about other children and if they have been tested
- Advise testing other children for HIV

CERVICAL SCREENING

- *Do you have any genital sores?*
- If newly diagnosed as HIV positive and gestation is below 20 weeks, do a PAP smear today

TUBERCULOSIS SCREENING

- Ask the mother:
  - *Have you been coughing?*
  - *Do you have fevers?*
  - *Do you experience any night sweat?*
  - *Have you lost a lot of weight recently?*
- If mother answers yes to any of these questions, manage according to guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

- Ask the mother:
  - *Do you have any vaginal discharge?*
  - *Do you have any genital sores?*
- Manage according to protocol (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

- Ask the mother:
  - *In the last 2 weeks have you on some or most days*
  - *Felt unable to stop worrying or thinking too much?*
  - *Felt down, depressed or hopeless?*
  - *Had thoughts AND plans to harm yourself or commit suicide?*
- If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling (INFO 14)
- If the mother answers yes to the suicide question (without answering yes to any other question) **refer URGENTLY for assessment (INFO 14)**

ADVISE AND DISCUSS

Practice safe sex during pregnancy and breastfeeding
Avoid alcohol, tobacco and recreational drugs during pregnancy.
Do not eat charcoal, ash, ice or soil during pregnancy.

- Discuss infant feeding and importance of breastfeeding using antenatal checklist on infant feeding counselling – record infant feeding choice.
  - Advise about danger signs during pregnancy What to do in an emergency
- **Link to MomConnect**

GIVE NEXT APPOINTMENT: next appointment according to **BANC** schedule

FOLLOW-UP ANTENATAL VISIT (THIRD & SUBSEQUENT VISITS UNTIL 36 WEEKS)

DURING THE CONSULTATION	Build a rapport with the pregnant woman: ask her how she is feeling and how she is managing with her pregnancy. Be empathetic and address any concerns that the mother expresses

BANC

Check blood pressure	If BP > 140/90 manage according to Maternity guidelines (INFO 1)
Test urine for protein and glucose	If the woman has any protein in her urine without hypertension, send a clean catch urine sample to laboratory to exclude urinary tract infection If woman has 1+ glucose in her urine on more than one occasion, screen for gestational diabetes. Check all women for risk factors for gestational diabetes and manage according to guidelines (INFO 24)
Ask mother if she is feeling foetal movements	If movements have been poor, refer the same day to hospital according to BANC Plus
Measure uterus for growth and plot on ANC chart	If suspected twins or IUGR refer
If 34 weeks, retest for RPR	If RPR positive and mother is not allergic to penicillin, give benzathine pencillin 2.4 million units IMI weekly for 3 doses
Compile a problem list of all problems identified and document in ANC chart	Manage all problems according BANC Plus guidelines

MATERNAL NUTRITION

Weigh the mother	Monitor weight gain
Ask the mother: • *Are you experiencing any nausea, vomiting, heartburn or constipation*	Advise on diet and lifestyle during pregnancy, especially if experiencing symptoms Avoid large fatty meals (heartburn or nausea) Raise the head of the bed to sleep (heartburn) Do not take antacids within two hour of taking iron and folic acid supplements Increase dietary fibre from fruit and vegetables and drink adequate amounts of water to reduce constipation
	If MUAC below <23 provide fortified food supplements
Check for anaemia (palmar pallor and conjunctivae)	If pale manage according to BANC Plus guidelines (INFO 2)
If 30 weeks check Hb	Provide iron and folate supplement Provide calcium supplement
	If Hb <10g/dl manage according to BANC Plus guidelines (INFO 2)

PMTCT

Check HIV status If not previously tested or HIV negative on previous test	Test for HIV – If HIV positive manage according to PMTCT guidelines for newly diagnosed HIV
HIV positive Check adherence to ART: Ask the mother • *Have you been able to take all the tablets this month?* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Provide ART for next month If good adherence, praise the mother If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support according to PMTCT guidelines (INFO 5)
Monitor VL. Ask the mother: • *Have you had a VL test before?* • *If no, when did you start ART ?* • *If yes, review result of last VL*	If VL more than 3 months ago, do a VL test **Review most recent VL result:** If VL < 400 c/ml continue with ART If VL > 400 c/ml manage according to PMTCT guidelines (INFO 7)
Review latest CD4 result	If CD4 < 200 initiate or continue co-trimoxazole prophylaxis Provide co-trimoxazole for next month
Screen for TB (see below) If newly diagnosed HIV positive do TB screening	Manage results and TPT according to PMTCT guidelines (INFO 4)
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT guidelines
ASK mother about other children and if they have been tested	Advise testing other children for HIV

TUBERCULOSIS SCREENING

Ask the mother:	• *Have you been coughing?* • *Do you have fevers?*	• *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother:	• *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care protocol (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother:	In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling If the mother answers yes to the suicide question, **refer URGENTLY for assessment (INFO 14)**

ADVISE AND DISCUSS

Discuss safe sex during pregnancy and breastfeeding to protect against STIs and HIV

Advise the mother to avoid alcohol, tobacco and recreational drugs during pregnancy. Do not eat charcoal, ash, ice or soil during pregnancy.

GIVE NEXT APPOINTMENT:	Next appointment according to BANC schedule

ANTENATAL VISIT – 36 WEEKS

DURING THE CONSULTATION	Build a rapport with the pregnant woman: ask her how she is feeling and how she is managing with her pregnancy. Be empathetic and address any concerns that the mother expresses

BANC	
Check blood pressure	If BP > 140/90 manage according to Maternity guidelines (INFO 1)
Test urine test for protein and glucose	If the woman has any protein in her urine without hypertension, send a clean catch urine sample to laboratory to exclude urinary tract infection If woman has 1+ glucose in her urine on more than one occasion, screen for gestational diabetes (INFO 24).
Measure uterus for growth and plot on the ANC chart	If suspected twins or IUGR – refer If reduced symphysis fundal height suggest intra uterine growth retardation counsel on nutrition, reduce workload, smoking, alcohol, foetal movement chart and review in one week. (BANC Plus)
Palpate lie and position of foetus	
Ask mother if she is feeling foetal movements	If movements have been poor, refer the same day to hospital (BANC plus)
Compile a problem list of all problems identified and document in ANC chart	Manage all problems according BANC Plus guidelines
NUTRITION	
Weigh the mother	Monitor weight gain and advise accordingly on healthy eating in pregnancy. If MUAC below <23 provide fortified food supplements
Check for anaemia (palmar pallor and conjunctivae)	Provide iron and folate supplement Provide calcium supplement
PMTCT	
Check HIV status If not previously tested or HIV negative on previous test	Test for HIV – If HIV positive manage according to PMTCT guidelines for newly diagnosed HIV
HIV positive Check adherence to ART: Ask the mother • *Have you been able to take all the tablets this months* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Provide ART for next month If good adherence, praise the mother If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support (INFO 5)
Ask: have you had a VL test before If no, when did you start ART If yes, review result of last VL	If VL more than 3 months ago, do a VL test IF VL < 400 c/ml continue with ART If VL > 400 c/ml follow management page (INFO 7)
Review latest CD4 result	If CD4 < 200 initiate or continue Cotrimoxazole prophylaxis Provide Cotrimoxazole for next month
Screen for TB (see below) If newly diagnosed HIV positive do TB screening	Manage results and TPT according to PMTCT guidelines (INFO 4)
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT guidelines
ASK mother about other children and if they have been tested	Advise testing other children for HIV
TUBERCULOSIS SCREENING	
Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according PMTCT guidelines (INFO 4)
SEXUALLY TRANSMITTED INFECTION SCREENING	
Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care protocol (INFO 15 & INFO 16)
MENTAL HEALTH SCREENING	
We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.	
Ask the mother: In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling If the mother answers yes to the suicide question, **refer URGENTLY for assessment (INFO 14)**
ADVISE AND DISCUSS	
Confirm how mother is planning to get to the hospital for delivery (transport instructions)	Discuss infant feeding and importance of breastfeeding using antenatal checklist on infant feeding counselling – record infant feeding choice. Discuss contraception and options for contraception after delivery Advise mother to bring antenatal record to hospital when in labour Advise the mother to bring her ID with her to the hospital so the birth can be registered, and if the father is to be named on the baby's birth certificate, to bring his ID as well. **Link to MomConnect**
GIVE NEXT APPOINTMENT:	Next appointment at 38 weeks.

ANTENATAL VISIT – 38 WEEKS

DURING THE CONSULTATION

Build a rapport with the pregnant woman: ask her how she is feeling and how she is managing with her pregnancy.
Be empathetic and address any concerns that the mother expresses

BANC

Check blood pressure	If BP > 140/90 manage according to Maternity guidelines (INFO 1)
Test urine test for protein and glucose	If the woman has any protein in her urine without hypertension, send a clean catch urine sample to laboratory to exclude urinary tract infection If woman has 1+ glucose in her urine on more than one occasion, screen for gestational diabetes.
Measure uterus for growth and plot on the ANC chart	If suspected twins or IUGR – refer If reduced symphysis fundal height suggest intra uterine growth retardation counsel on nutrition, reduce workload, smoking, alcohol, foetal movement chart and review in one week. (BANC Plus)
Palpate lie and position of foetus	
Ask mother if she is feeling foetal movements	If movements have been poor, refer the same day to hospital (BANC plus)
Compile a problem list of all problems identified and document in ANC chart	Manage all problems according BANC Plus guidelines

MATERNAL NUTRITION

Weigh the mother	Monitor weight gain If MUAC below <23 provide fortified food supplements
Do Haemoglobin	If Hb <10g/dl manage according to BANC Plus guidelines (INFO 2) Provide iron and folate supplement Provide calcium supplement

PMTCT

Check HIV status If not previously tested or HIV negative on previous (monthly)		Test for HIV – if positive manage according to PMTCT guidelines for newly diagnosed HIV
HIV positive	*Have you been able to take all the tablets this months* *If no, how many doses have you missed?* *What makes it difficult for you to take your treatment?*	Provide ART for next month If good adherence, praise the mother If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support (INFO 5)
Monitor VL	Ask the mother: *Have you had a VL test before?* *If no, when did you start ART* *If yes, review result of last VL*	If started 3 months ago, do a VL test If VL < 400 c/ml continue with ART If VL > 400 c/ml manage according to PMTCT guidelines (INFO 7)
Review latest CD4 result		If CD4 < 200 initiate or continue co-trimoxazole prophylaxis Provide co-trimoxazole for next month
Screen for TB (see below) If newly diagnosed HIV positive do TB screening		Manage results and TPT according to PMTCT guidelines (INFO 4)
Check HIV status of partner / husband		Advise partner to test for HIV and manage according to PMTCT
ASK mother about other children and if they have been tested		Advise testing other children for HIV

TUBERCULOSIS SCREENING

Ask the mother:	*Have you been coughing?* *Do you have fevers?* *Do you experience any night sweat?* *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother:	*Do you have any vaginal discharge?* *Do you have any genital sores?*	Manage according to Adult Primary Care protocol (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: In the last 2 weeks have you on some or most days *Felt unable to stop worrying or thinking too much?* *Felt down, depressed or hopeless?* *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling If the mother answers yes to the suicide question, **refer URGENTLY for assessment (INFO 14)**

ADVISE AND DISCUSS

Confirm how mother is planning to get to the hospital for delivery (transport instructions)	Discuss infant feeding and importance of breastfeeding using antenatal checklist on infant feeding counselling – record infant feeding choice. Provide advice about contraception options Advise mother to bring antenatal record to hospital when in labour Advise the mother to bring her ID with her to the hospital to register the birth, and if the father is named to bring his ID as well. **Link to MomConnect**
GIVE NEXT APPOINTMENT:	Next appointment at 40weeks.

ANTENATAL VISIT – 40 WEEKS

DURING THE CONSULTATION

Build a rapport with the pregnant woman: ask her how she is feeling and how she is managing with her pregnancy.
Be empathetic and address any concerns that the mother expresses

BANC

Check blood pressure	If BP > 140/90 manage according to Maternity guidelines (INFO 1)
Test urine test for protein and glucose	If the woman has any protein in her urine without hypertension, send a clean catch urine sample to laboratory to exclude urinary tract infection If woman has 1+ glucose in her urine on more than one occasion, screen for gestational diabetes.
Measure uterus for growth and plot on the ANC chart	If suspected twins or IUGR – refer If reduced symphysis fundal height suggest intra uterine growth retardation counsel on nutrition, reduce workload, smoking, alcohol, foetal movement chart and review in one week. (BANC Plus)
Palpate lie and position of foetus	If abnormal lie, refer
Ask mother if she is feeling foetal movements	If movements have been poor, refer the same day to hospital (BANC plus)
Compile a problem list of all problems identified and document in ANC chart	Manage all problems according BANC Plus guidelines

MATERNAL NUTRITION

Weigh the mother Review Haemoglobin results	If Hb <10g/dl see further management (INFO 2) Provide iron and folate supplement Provide calcium supplement

PMTCT

Check HIV status If not previously tested or HIV negative on previous (monthly)	Test for HIV – if positive manage according to PMTCT guidelines for newly diagnosed HIV
HIV positive Check adherence to ART: • *Have you been able to take all the tablets this months* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Provide ART for next month If good adherence, praise the mother If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support (INFO 5)
Monitor VL Ask the mother: • *Have you had a VL test before?* • *If no, when did you start ART* • *If yes, review result of last VL*	If started 3 months ago, do a VL test If VL < 400 c/ml continue with ART If VL > 400 c/ml manage according to PMTCT guidelines (INFO 7)
Review latest CD4 result	If CD4 < 200 initiate or continue co-trimoxazole prophylaxis Provide co-trimoxazole for next month
Screen for TB (see below) If newly diagnosed HIV positive do TB screening	Manage results and TPT according to PMTCT guidelines (INFO 4)
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT
ASK mother about other children and if they have been tested	Advise testing other children for HIV

TUBERCULOSIS SCREENING

Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care protocol (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling If the mother answers yes to the suicide question, **refer URGENTLY for assessment (INFO 14)**

ADVISE AND DISCUSS

Confirm how mother is planning to get to the hospital for delivery (transport instructions)	Discuss infant feeding and importance of breastfeeding using antenatal checklist on infant feeding counselling – record infant feeding choice. Provide advice about contraception options Advise mother to bring antenatal record to hospital when in labour Advise the mother to bring her ID with her to the hospital to register the birth, and if the father is named to bring his ID as well. **Link to MomConnect**
GIVE NEXT APPOINTMENT:	Next appointment at 40weeks.

ROUTINE CARE FOR THE BABY AFTER DELIVERY

ROUTINE CARE FOR THE BABY AFTER DELIVERY

- Rapidly assess baby immediately after birth and respond according to Routine Care at Birth and Management of the Sick and Small Newborn guidelines
- Record the weight and length in RTHB – if low birth weight (<2 kg) manage and refer according to Routine Care at Birth and Management of the Sick and Small Newborn guidelines
- If any priority signs or major abnormalities present manage and refer according to Routine Care at Birth and Management of the Sick and Small Newborn guidelines
- Undertake a first examination of the neonate as recorded in the maternity case records
- Complete the antenatal birth and newborn history in RTHB
- Give the mother her baby's RTHB
- Advise the mother about obtaining a birth certificate and child support grant

NUTRITION

- Observe the mother breastfeeding
- Observe if the mother looks comfortable and there are signs of bonding with the baby
- Observe that breasts look healthy

Signs of good positioning:

- *Baby's head and body are in line*
- *Baby is held close to the mothers body*
- *Baby's whole body is supported*
- *Baby approaches the breast, nose to nipple*

Signs of good attachment

- *More areola seen above the baby's top lip*
- *Baby's mouth is wide open*
- *Lower lip is turned outwards*
- *Baby's chin touches the breast*

Signs of effective suckling

- *Baby takes slow, deep sucks with pauses*
- *Cheeks round when sucking*
- *Baby releases the breast when finished*
- *Mother notices signs of oxytocin reflex*

Counsel mothers on the disadvantages of feeding bottles, teats and pacifiers

PMTCT

Do a PCR test on all HIV exposed infants at birth

To decide what infant prophylaxis the baby should receive, classify the infant as high-risk or low-risk based on the mother's VL and when she started ART.

Ask the mother:

- *When did you start ART?*
- *Review the mothers most recent VL result in the last 2 weeks*

High risk:

- Mother on ART for less than 12 weeks before delivery
- Maternal VL > 400c/ml in the last 12 weeks
- No VL result in last 12 weeks

High-risk infants should receive:

- NVP once daily for a minimum of 12 weeks from birth, and ongoing until the mother's VL is confirmed to be suppressed.
- AZT twice daily for 6 weeks

Low-risk infants should receive:

- NVP once daily for 6 weeks from birth
- The result of the delivery VL will, in most cases, not be available at the time of discharge from labour ward.
- The delivery VL barcode sticker must be placed in the postnatal stationery and the RTHB so that the result can be checked at the 3-6-day postnatal visit. Based on the VL result, infant prophylaxis can be adjusted if necessary.

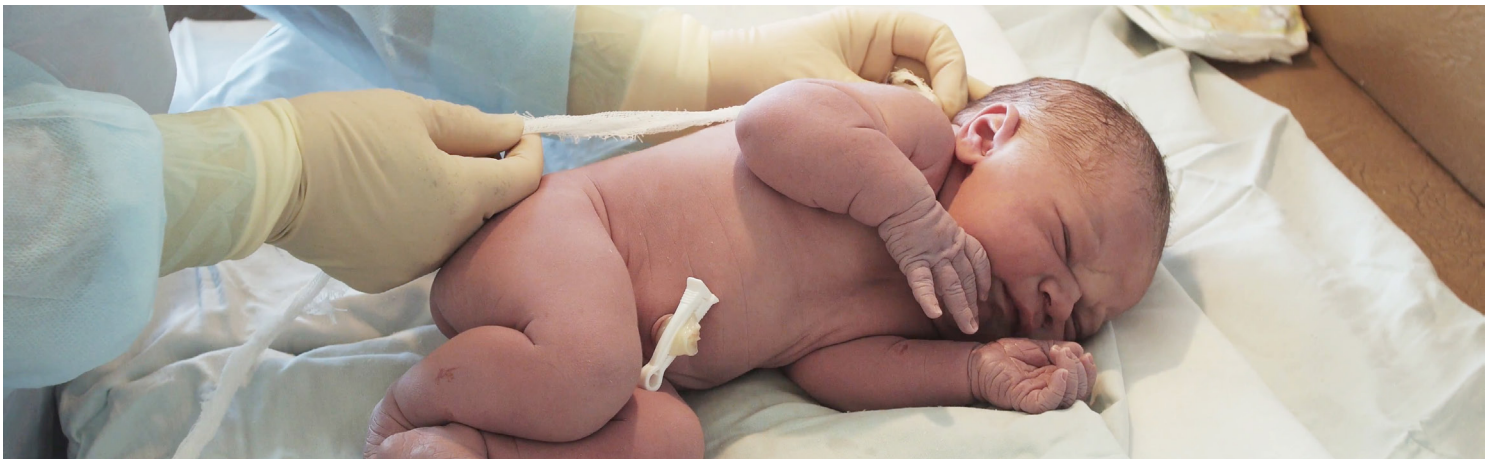
If birth PCR result is available before discharge and the result is positive, refer to an HIV clinician

IMMUNISATION

Ask mother if she is taking IPT or TB treatment

- Give OPV 0 orally
- Give BCG intradermal right arm

If the mother answers yes to one of these (IPT or TB treatment) do not give BCG. Manage according to PMTCT guidelines



MATERNAL CARE DURING AND AFTER DELIVERY

RESPECT, PRIVACY AND COMPANIONSHIP

Treat women with respect and courtesy addressing them by name. Ensure privacy especially while performing intimate examinations.
Allow companionship during labour. Food and liquids should be offered during labour and the mother should be allowed to move around, as her medical condition allows.

ROUTINE CARE DURING DELIVERY AND LABOUR

- Manage according to Maternity Guideline for SA including safe delivery techniques for HIV positive mothers
  - Prior to discharge, check all mothers for danger signs and manage according to maternity case records, assess vaginal bleeding, repeat vital signs, and check mother has passed urine.
  - If the baby was born before the mother reached the health facility, provide routine management on admission

MATERNAL NUTRITION

Immediately after delivery	Routine skin-to-skin contact with baby and initiate breastfeeding within 1 hour of delivery. Offer support with correct positioning and attachment Do not provide breastfed newborns with any food or fluids (water, glucose water, formula) other than breastmilk, unless medically indicated. If born outside the health facility (BBA) start skin-to-skin contact with baby and initiate breastfeeding on admission
Breastfeeding	Inform the mother about: The importance of colostrum, The need to breastfeed as often and for as long as the baby wants When to expect the milk to come into the breasts, and The importance of exclusive breastfeeding- do not give other food or fluids not even water. Feed the baby at least 8 times in 24 hours. Wake the baby for feeding after 3hours, if the baby has not woken

PMTCT

HIV negative or who do not know their status	Test for HIV
Newly diagnosed HIV positive	If mother tests HIV positive during labour give single dose NVP and AZT 300mg 3 hourly in labour according to PMTCT guidelines Initiate ART the following day Do adherence counselling – explain importance of adherence in relation to breastfeeding
HIV positive Check adherence to ART: Ask the mother • *Have you been able to take all the tablets this month?* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	**Do a VL test at delivery** Provide ART supply for 2 months for mother on discharge If good adherence, praise the mother If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support (INFO 5) **Explain importance of adherence in relation to breastfeeding**
Review latest CD4 result	If CD4 < 200 initiate or continue Cotrimoxazole prophylaxis Provide Cotrimoxazole for next two months
Screen for TB (see below) If newly diagnosed HIV positive do TB screening	Manage results and TPT according to PMTCT guidelines (INFO 4)

TUBERCULOSIS SCREENING

Check if the mother has TB and taking TB treatment If no, ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If the mother has be diagnosed with TB and taking TB treatment, manage the infant according to IMCI guidelines Do not give BCG Start TPT (INH) If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)

CONTRACEPTION

Ask mother which contraception she has considered and counsel about available options	Provide contraception Advise mother to use condoms during breastfeeding to protect herself and her baby against HIV and STIs Give mother a supply of condoms

ADVISE AND DISCUSS

Self-care for episiotomy or caesarean section wound	Manage according to guidelines for Maternity care in South Africa (INFO 17)
Ensure mother has a named CHW if available / if possible	Link mother to already assigned CHW if available / if possible by notifying CHW about the delivery If mother does not have an already assigned CHW then give mother the name and contact details of the CHW in her area, and notify CHW of the delivery of a new mother.
Check if mother has been linked to **MomConnect**	If not, link to **MomConnect**
GIVE NEXT APPOINTMENT:	Give next appointment: Next appointment at the clinic when the baby is 3-6days old

ROADMAP FOR POSTNATAL VISITS

ROUTINE MATERNAL AND CHILD HEALTH MANAGEMENT AT EVERY VISIT

CHILD HEALTH

- Monitor growth and development
- Provide feeding counselling and support
- Provide advice how to love, play and talk to the child
- Provide routine immunisations, Vitamin A and deworming
- Manage and treat acute illness or problems according to IMCI guidelines
- Provide extra care in special circumstances

MATERNAL HEALTH

- Provide nutrition advice
- Ask about mother's health, HIV status, and ART adherence. Review viral load.
- Screen for cervical cancer, tuberculosis, sexually transmitted infections, mental health and manage accordingly
- Review family planning method and provide accordingly
- Ask about other chronic conditions and manage accordingly

ROUTINE MANAGEMENT FOR HIV EXPOSED INFANT

- Ongoing interventions to prevent HIV transmission through breastfeeding
- All routine HIV tests as indicated in the guidelines for HIV exposed infants

MANAGEMENT FOR HIGH RISK HIV EXPOSED INFANTS

- Always check for symptoms of anaemia
- At risk of poor birth outcomes
- At risk of impaired growth and / or neurodevelopment
- May have a history of hospitalisation

BE AWARE OF THE ICONS.

This **RED ICON** indicates a ***high risk infant***. Pay special attention to the **growth and development** of this infant, especially **low birth weight or premature infants**.

This **BLUE ICON** indicates a ***sick child***.
All children coming into the health facility, **assess for danger signs as they come in**, according to IMCI guidelines

Ask the mother:

- *Is the child able to drink or breastfeed?*
- *Does the child vomit everything?*
- *Has the child had convulsions during this illness?*

Look at the child.

Is the child lethargic or unconscious?
Is the child having a convulsion now?
If **yes** to any of these questions, the child has a **danger sign and needs urgent management and referral**.
Check for illness in all children that come for well child services.
Teach all mothers and caregivers how to recognise and respond to illness in children.

HOW TO USE THE DOCUMENT:

Turn to the pages which correlates closest to the child's age.
Manage the child and the mother at each visit.

PRIORITY POST DELIVERY VISITS

	3-6 day visit	Check the health of the mother and baby Identify and manage any post-delivery complications Assist and support exclusive breastfeeding. If the mother and/or baby are still in hospital at this stage, the activities of the postnatal visit should be done during the hospital stay.
	6 weeks	Full postnatal check-up for the mother and baby Check that all maternal health services, including PMTCT, are up to date and provide those that are not. Check that all child health services, including growth monitoring, infant feeding support and immunisation, are up-to-date and provide those that are not.
	10 weeks	Check that all maternal health services, including PMTCT, are up to date and provide those that are not. Check that all child health services, including growth monitoring, infant feeding support and immunisation, are up-to-date and provide those that are not
	14 weeks	Check that all maternal health services, including PMTCT, are up to date and provide those that are not. Check that all child health services, including growth monitoring, infant feeding support and immunisation, are up-to-date and provide those that are not
	Follow-up visits between 14 weeks and 11 months Mother/baby pairs should visit the health facility **monthly** during this time or more often when necessary.	Check that all maternal health services, including PMTCT, are up to date and provide those that are not. Check that all child health services, including growth monitoring, infant feeding support (complementary feeding and continued breastfeeding support) according to age appropriate guidance on the RTHB and immunisation, are up-to-date and provide those that are not
	Follow-up visits from 12-24 months Mother/baby pairs should visit the health facility **every two months** during this time or more often when necessary. **HIV-infected and HIV-exposed babies should attend monthly.**	Check that all maternal health services, including PMTCT, are up to date and provide those that are not. Check that all child health services, including growth monitoring, infant feeding support and immunisation, are up-to-date and provide those that are not

Mother-infant pairs should receive care together, but if this is not possible for any reason, the separate care for the mother or the baby should be provided as applicable.

POSTNATAL VISIT: BABY: 3-6 DAYS

DURING THE CONSULTATION

- ASK THE MOTHER: how she is managing with looking after her baby, ask about any concerns about caring for or feeding of the baby, and address these concerns.
- ASK FOR THE ROAD TO HEALTH BOOKLET

ROUTINE POSTNATAL CARE

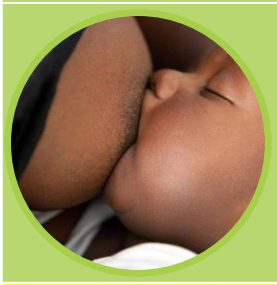
Check the mothers RPR – page 38 of RTHB	Manage the baby according to the IMCI guidelines (birth – 2 months) ▸ If positive, review what treatment she received – manage as per treatment guidelines
Undress the child: • *Check the skin* • *Check the umbilical cord*	If any abnormalities detected, manage according to IMCI guidelines
▸ Look to see child is alert ▸ Look to see if child in a normal flexed position	↗ If abnormal, refer according to IMCI guidelines

GROWTH MONITORING

Ask the mother: • *How much did the baby weigh?* • *Was the baby admitted to hospital? If so, for how long?*	Manage the baby according to the IMCI guidelines (birth – 2 months)
Weigh the child	▸ If the child has lost more weight than is expected (>10% of birth weight) review again after 2 day. ↗ If no weight gain after 2 days – refer
Check the mouth for thrush or ulcers	If present, give nystatin 1ml after feeds for seven days and check the mother's nipples for thrush (treat as applicable according to IMCI guidelines)

NUTRITION TO GROW AND BE HEALTHY

Assess feeding • *How is feeding going?* • *How many times do you breastfeed in the day and night?* • *Does your baby get any other food or fluids other than breastmilk?* • *If yes, why are you giving other food or fluids?*	Assist with any challenges the mother is experiencing ▸ Breast conditions according to IMCI guidelines (INFO 10) ▸ Insufficient milk according to IMCI guidelines (INFO 11) Advise mother to BF as often and as much as baby wants, day or night Advise mother to go back to exclusive BF for 6 months. If mother not breastfeeding manage ▸ If mother is planning to go back to work, advise mothers about breastmilk expression and storage of breastmilk. It is important for mothers who plan to return to work to express and store (freeze) breastmilk to build up a reserve of breastmilk that will assist them when they start working.



- ▸ Observe the mother breastfeeding (INFO 8)
- ▸ Observe if the mother looks comfortable and there are signs of bonding with the baby
- ▸ Observe that breasts look healthy

Signs of good positioning:
- ▸ Baby's head and body are in line
- ▸ Baby is held close to the mother's body
- ▸ Baby's whole body is supported
- ▸ Baby approaches the breast, nose to nipple

Signs of good attachment
- ▸ More areola seen above the baby's top lip
- ▸ Baby's mouth is wide open
- ▸ Lower lip is turned outwards
- ▸ Baby's chin touches the breast

Signs of effective suckling
- ▸ Baby takes slow, deep sucks with pauses
- ▸ Cheeks round when sucking
- ▸ Baby releases the breast when finished
- ▸ Mother notices signs of oxytocin reflex

LOVE, PLAY AND TALK

Keep your baby close to you to bond in the first few weeks of life. You are the most important person in your child's life	This will help your baby sleep, grow and feed well. Hold, hug, sing and talk to your baby especially during feeding, bathing and changing.

PMTCT

Check the mothers HIV status	
HIV positive mothers Check the baby's Birth PCR result	↗ If birth PCR positive refer to HIV clinician
Check the mother's delivery VL and adjust the infant prophylaxis accordingly Ask mother if she has enough medication to last until the 6 weeks check-up Ask the mother how she is administering the medication	If mother's delivery VL < 400 c/ml check mother is giving NVP If mother's delivery VL > 400 c/ml check if the mother is giving NVP once daily and AZT twice daily to the baby. ▸ If not, provide medication
Check if the mother is on TB treatment Check if the baby is on TPT ▸ If yes, ask the mother if she has enough medication to last until the 6 weeks check-up	Manage according to IMCI guidelines If baby is on TPT, check if mother is giving INH. If not provide medication.

IMMUNISATIONS

Check BCG and OPV 0 was given at delivery	If not and not contra-indicated, give today

POSTNATAL VISIT: MOTHER: 3-6 DAYS

DURING THE CONSULTATION

Build a rapport with the mother: ask her how she is feeling. Be empathetic and address any concerns that the mother expresses

ROUTINE POSTNATAL CARE

Temperature, heart rate, respiratory rate Palpate the abdomen and uterus for tenderness Palpate legs for thrombosis Check vaginal discharge (bleeding and offensive discharge) If mother had a caesarean section or episiotomy check the wound	If any abnormality found, refer Manage episiotomy wound care according to Maternity Guidelines (INFO 17)

MATERNAL NUTRITION

Ask mother about the foods she is eating	Give mother advice about a healthy diet using guidelines for health eating Advice against the use of alcohol, smoking and recreational drugs.

PMTCT

Check all mothers HIV status from delivery If not tested at delivery	Test mother for HIV today – if HIV positive manage according to PMTCT guidelines (INFO 3)
HIV negative	Advise mother to use condoms throughout the breastfeeding period
HIV positive Check mother's adherence to ART Ask the mother • *Have you been able to take all the tablets this months* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Check mother has enough ART till 6-week check-up If yes, praise the mother If no, help the mother find ways to overcome difficulties mentioned
Check mother's delivery VL	IF VL < 400 c/ml continue with ART If VL > 400 c/ml follow PMTCT guidelines and adjust infant prophylaxis accordingly
Review mother's latest CD4 result	If CD4 < 200 initiate or continue Cotrimoxazole prophylaxis Provide Cotrimoxazole for next month
Screen for TB (see below) If already on TB treatment, check adherence to treatment (Same questions as checking for ART adherence) If newly diagnosed HIV positive do TB screening	Check that the baby is receiving TPT if applicable according to IMCI guidelines. Manage results and TPT according to PMTCT guidelines (INFO 4)
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT
ASK mother about other children and if they have been tested	Advise testing other children for HIV

TUBERCULOSIS SCREENING

Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If the mother answers yes to any of these questions, manage according to guidelines (INFO 4)

CONTRACEPTION

Ask the mother: • *Were you given any contraception after delivery*	If not, and mother agrees, counsel the mother on available options and provide contraception Give next appointment to coincide with well child visit

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If the mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling (INFO 14) If the mother answers yes to only the suicide question (without answering yes to any other question), **refer URGENTLY for assessment (INFO 14)**

HEALTH CARE

Ask the mother about other chronic conditions e.g. asthma	Manage according to Adult Primary Care guidelines

EXTRA CARE

Ask the mother if she has been visited by a CHW if available	If not inform CHW about the mother Give the mother the name of her CHW and advise her how to contact her CHW.

GIVE NEXT APPOINTMENT:	Give appointment date for the 6 weeks immunisation. Tell mother to return to the clinic if mother/baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

POSTNATAL VISIT: BABY: 6 WEEKS

DURING THE CONSULTATION

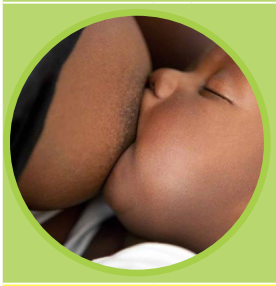
- ASK THE MOTHER: how she is managing with looking after her baby, ask about any concerns about caring for or feeding of the baby, and address these concerns.
- ASK FOR THE ROAD TO HEALTH BOOKLET

GROWTH MONITORING

Ask the mother: • *How much did the baby weigh at birth* • *Was the baby admitted to hospital? If yes, for how many days?*	Manage the baby according to the IMCI guidelines (birth – 2 months)
Measure the child's weight and length ▸ Plot the weight and length (how to measure length (INFO 12) on the RTHB to determine the weight for age, length for age and weight for height.	▸ If weight for length is less than -3 refer urgently according to IMCI guidelines (INFO 20). ▸ If the weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 20) ▸ Follow up in 7 days if weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 20)

NUTRITION TO GROW AND BE HEALTHY

Assess feeding • *How is feeding going?* • *How many times do you breastfeed in the day and night?* • *Does your baby get any other food or fluids other than breastmilk?* • *If yes, why are you giving other food or fluids?* • *Observe a breastfeed to check attachment and positioning*	Assist with any challenges ▸ Breast conditions according to IMCI guidelines (INFO 10) ▸ Insufficient milk according to IMCI guidelines (INFO 11) Advise mother to BF as often and as much as baby wants, day or night Advise mother to go back to exclusive BF for 6 months if not exclusively breastfeeding



- Observe the mother breastfeeding
- Observe if the mother looks comfortable and there are signs of bonding with the baby
- Observe that breasts look healthy

Signs of good positioning:
- Baby's head and body are in line
- Baby is held close to the mothers body
- Baby's whole body is supported
- Baby approaches the breast, nose to nipple

Signs of good attachment
- More areola seen above the baby's top lip
- Baby's mouth is wide open
- Lower lip is turned outwards
- Baby's chin touches the breast

Signs of effective suckling
- Baby takes slow, deep sucks with pauses
- Cheeks round when sucking
- Baby releases the breast when finished

DEVELOPMENT

Ask mother if she has any concerns about how her baby hears, sees, behaves, and uses his/her arms, legs and body	Address any concerns the mother raises and refer if necessary

LOVE, PLAY AND TALK

Advise the mother to pay attention to her child's interests, emotions, likes and dislikes.	▸ This will help her to meet her child's needs.
Ask mother about how she is managing with the baby.	Encourage mother to talk, sing and show love to her baby.

PMTCT

HIV positive mothers ▸ Determine if the mothers VL was > 400 c/ml	▸ If mothers VL was >400 c/ml stop AZT at 6 weeks ▸ Provide mother with NVP for another 6 weeks
Ask the mother how she is administering the medication	▸ If mothers VL was < 400 c/ml stop NVP
Initiate cotrimoxazole on all HIV exposed infants	Provide Cotrimoxazole for next month

IMMUNISATION

Give 6 weeks immunisation according to schedule	Give immunisations as per immunisation schedule

HEALTH CARE

Ask the mother if the child is ill today	▸ If yes, manage according to IMCI guidelines
Ask the mother if baby has been ill since the last clinic visit	▸ If yes, review clinical notes in RTHB (RTHB) and manage according to IMCI guidelines

EXTRA CARE

Check whether mother has a birth certificate for the baby Ask the mother if she has applied for a child support grant	Give advice about how to apply for a birth certificate ▸ Give advice about how to apply for a child support grant
Ask the mother if she has been visited by a CHW if available	If not inform CHW about the mother. Give the mother the name of her CHW, and advise her how to contact her CHW
Advice against the use of alcohol, smoking and recreational drugs.	Refer to a social worker if there is abuse in the home

POSTNATAL VISIT: MOTHER: 6 WEEKS

DURING THE CONSULTATION

Build a rapport with the mother: ask her how she is feeling. Be empathetic and address any concerns that the mother expresses

NUTRITION

Weigh the mother and measure height ▸ Do MUAC and check for wasting and oedema ▸ Assess food security (INFO 22)	Determine BMI on all lactating mothers – management (INFO 23) ▸ MUAC < 21 sever acute malnutrition; 21-23 Moderate acute malnutrition – manage according to protocol (INFO 23) ▸ Give mother advice about a healthy diet using guidelines for health eating

PMTCT

Check all mother's HIV status. ▸ If negative or never tested and still breastfeeding	Test for HIV today ▸ If result is HIV positive today manage according PMTCT guidelines for new diagnosis after delivery (INFO 3)
HIV negative	Advise mother to use condoms during breastfeeding
HIV positive Check mother's adherence to ART, ask • *Have you been able to take all the tablets this months* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Provide ART for next month and confirm where mother will be receiving her ongoing ART care. ▸ If good adherence, praise the mother ▸ If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support according to PMTCT guidelines (INFO 5)
Check, record and act on any earlier VL result results ▸ Do mother's VL test today if delivery VL is >1000 c/ml	▸ IF mother's VL < 400 c/ml continue with ART ▸ If mother's VL > 400 c/ml manage according to PMTCT guidelines (INFO 7)
Review mother's latest CD4 result	▸ If mother's CD4 < 200 initiate or if already taking Cotrimoxazole, continue Cotrimoxazole prophylaxis ▸ Provide Cotrimoxazole for next month
Screen for TB (see below) ▸ If already on TB treatment, check adherence to treatment (Same questions as checking for ART adherence) ▸ If newly diagnosed HIV positive do TB screening	Check that the baby is receiving TPT if applicable according to IMCI guidelines. Manage results and TPT according to PMTCT guidelines (INFO 4)
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT
ASK mother about other children and if they have been tested	Advise testing other children for HIV

CERVICAL SCREENING

Ask every mother • *Have you ever had a PAP smear?* • *If yes, when was your last PAP smear done?* • *Review HIV status* • *How old are you?*	DO A PAP SMEAR TODAY if the mother ▸ Never had a PAP smear ▸ HIV positive and never had / last done more than 3 years ago ▸ HIV negative and mother more than30 years old and never had or last done more than 10 years ago

TUBERCULOSIS SCREENING

Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	▸ If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care guidelines (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: ▸ In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	↗ If mother answers yes to 2 or 3 of the questions, refer to available resources for further assessment or psychosocial counselling (INFO 14) ↗ If the mother answers yes to the suicide question only (without answering yes to any other question, refer URGENTLY for assessment (INFO 14)

PROTECTION / CONTRACEPTION

Ask the mother: • *Are you using any contraception?* • *What contraceptive are you using?* • *What date is your next contraception due?*	▸ If not using contraception, counsel about contraction options and give today ▸ If due today or any time within the next 2 weeks – GIVE TODAY

HEALTH CARE

Ask mother about other chronic conditions	Manage according to protocols

GIVE NEXT APPOINTMENT:	Give appointment date for 10 weeks immunisation Tell mother to return to the clinic if mother or baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

POSTNATAL VISIT: BABY: 10 WEEKS

DURING THE CONSULTATION

- ASK THE MOTHER: how she is managing with looking after her baby, ask about any concerns about caring for or feeding of the baby, and address these concerns.
- ASK FOR THE ROAD TO HEALTH BOOKLET

GROWTH MONTORING

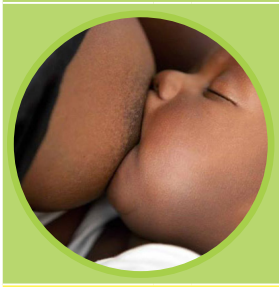
- Weigh and measure the child's weight and length
  - Plot the weight and length (how to measure length page INFO 12) on the RTHB to determine the weight for age, length for age and weight for height.

- If weight for length is less than -3 refer urgently according to IMCI guidelines
- If the weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21)
- Follow up in 7 days if weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21)

NUTRITION TO GROW AND BE HEALTHY

- Assess feeding
  - *How is feeding going?*
  - *How many times do you breastfeed in the day and night?*
  - *Does your baby get any other food or fluids other than breastmilk?*
  - *If yes, why are you giving other food or fluids?*
- Observe a breastfeed to check attachment and positioning

- Assist with any challenges
  - Breast conditions according to IMCI guidelines (INFO 10)
  - Insufficient milk according to IMCI guidelines (INFO 11)
- Advise mother to BF as often and as much as baby wants, day or night
- Advise mother to go back to exclusive BF for 6 months if mother not exclusively breastfeeding



Observe the mother breastfeeding

- Observe if the mother looks comfortable and there are signs of bonding with the baby
- Observe that breasts look healthy

Signs of good positioning:

- Baby's head and body are in line
- Baby is held close to the mothers body
- Baby's whole body is supported
- Baby approaches the breast, nose to nipple

Signs of good attachment

- More areola seen above the baby's top lip
- Baby's mouth is wide open
- Lower lip is turned outwards
- Baby's chin touches the breast

Signs of effective suckling

- Baby takes slow, deep sucks with pauses
- Cheeks round when sucking
- Baby releases the breast when finished

DEVELOPMENT

- Ask mother if she has any concerns about how her baby hears, sees, behaves, and uses his/her arms, legs and body

- Address any concerns the mother raises and refer if necessary

LOVE, PLAY AND TALK

- Advise the mother to pay attention to her child's interests, emotions, likes and dislikes.

- This will help her to meet her child's needs.

- Advice mothers their children learn through playing, exploring and interacting with others

- Ensure a safe space to play with clean household objects or toys. Tell stories and read to your child.

PMTCT

HIV-exposed infants

Do HIV-PCR today

- Review mothers latest VL

- If mothers VL was >400 c/ml at delivery, continue with NVP for a minimum of 12 weeks or until mothers VL is suppressed

- Continue cotrimoxazole

- Provide Cotrimoxazole for next month

PROTECTION / IMMUNISATION

Check if immunisations are up to date
Give 10 weeks immunisation according to schedule

- If not, give catch up immunisations according to schedule IP19

HEALTH CARE

- Ask the mother if they child is ill today

- If yes, manage according to IMCI guidelines

- Ask the mother if baby has been ill since the last clinic visit

- If yes, review clinical notes in RTHB and manage according to IMCI guidelines

GIVE NEXT APPOINTMENT

Give appointment date for 14 weeks immunisation.
Tell mother to return to the clinic if mother or baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

POSTNATAL VISIT: MOTHER: 10 WEEKS

DURING THE CONSULTATION

Build a rapport with the mother: ask her how she is feeling. Be empathetic and address any concerns that the mother expresses

NUTRITION

- Weigh the mother and measure height
  - Do MUAC and check for wasting and oedema
  - Assess food security (INFO 22) and dietary intake
  - Determine BMI on all lactating mothers – management (INFO 23)
  - MUAC < 21 sever acute malnutrition; 21-23 Moderate acute malnutrition – manage according to protocol (INFO 23)
- Give mother advice about a healthy diet using guidelines for health eating

PMTCT

- Check all mothers HIV status.
  - If negative or never tested and still breastfeeding
- Test the HIV negative mother for HIV today
  - If result is HIV positive today manage according to PMTCT guidelines for new diagnosis after delivery page (INFO 3)

HIV negative

- Advise mother to use condoms during breastfeeding

HIV positive

- Check mother's adherence to ART, ask
  - *Have you been able to take all the tablets this months*
  - *If no, how many doses have you missed?*
  - *What makes it difficult for you to take your treatment?*
- Provide ART for next month and confirm where she will mother will be receiving her ongoing ART care
  - If good adherence, praise the mother
  - If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support according to PMTCT guidelines (INFO 5)

Check, record and act on any earlier VL results

- IF mother's VL < 400 c/ml continue with ART
- If mother's VL > 400 c/ml follow management page (INFO 7)

Review mother's latest CD4 result

- If mother's CD4 < 350 initiate or if already taking Cotrimoxazole continue Cotrimoxazole prophylaxis
- Provide Cotrimoxazole for next month

Screen for TB (see below)

- If already on TB treatment, check adherence to treatment (Same questions as checking for ART adherence)
- If mother is newly diagnosed HIV positive do TB screening

- Check that the baby is receiving TPT if applicable according to IMCI guidelines.
- Manage results and TPT according to PMTCT guidelines (INFO 4)

- Check mother's HIV status of partner / husband
- Advise partner to test for HIV and manage according to PMTCT

- ASK mother about other children and if they have been tested
- Advise testing other children for HIV

CERVICAL SCREENING

- Ask every mother
  - *Have you ever had a PAP smear?*
  - *If yes, when was your last PAP smear done?*
  - *Review HIV status*
  - *How old are you?*
- DO A PAP SMEAR TODAY if the mother
  - Never had a PAP smear
  - HIV positive and never had / last done more than 3 years ago
  - HIV negative and mother more than30 years old and never had or last done more than 10 years ago

TUBERCULOSIS SCREENING

- Ask the mother:
  - *Have you been coughing?*
  - *Do you have fevers?*
  - *Do you experience any night sweat?*
  - *Have you lost a lot of weight recently?*
- If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

- Ask the mother:
  - *Do you have any vaginal discharge?*
  - *Do you have any genital sores?*
- Manage according to Adult Primary Care guidelines (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

- Ask the mother:
  - In the last 2 weeks have you on some or most days
    - *Felt unable to stop worrying or thinking too much?*
    - *Felt down, depressed or hopeless?*
    - *Had thoughts AND plans to harm yourself or commit suicide?*
- If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling (INFO 14)
- If the mother answers yes to the suicide question only (without answering yes to any other question, **refer URGENTLY for assessment (INFO 14)**

CONTRACEPTION

- Ask the mother
  - *Are you using any contraception?*
  - *What contraceptive are you using?*
  - *What date is your next contraception due?*
- If not using contraception, counsel about contraction options and give today
- If due today or any time within the next 2 weeks – GIVE TODAY

HEALTH CARE

- Ask mother about other chronic conditions
- Manage according to Adult Primary Care guidelines

GIVE NEXT APPOINTMENT:

Give appointment date for 14 weeks immunisation.
Tell mother to return to the clinic if mother or baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

POSTNATAL VISIT: BABY: 14 WEEKS

DURING THE CONSULTATION

- ASK THE MOTHER: how she is managing with looking after her baby, ask about any concerns about caring for or feeding of the baby, and address these concerns.
- ASK FOR THE ROAD TO HEALTH BOOKLET

GROWTH MONTORING

Weigh and measure the child's weight and length Plot the weight and length (how to measure length INFO 12) on the RTHB to determine the weight for age, length for age and weight for height. Measure head circumference Make sure mother has a named CHW if available	If weight for length is less than - 3 refer urgently according to IMCI guidelines If the weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21) Follow up in 7 days if weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21) If head circumference larger 43 cm or smaller than 38 refer

NUTRITION TO GROW AND BE HEALTHY

Assess feeding Ask the mother • *How is feeding going?* • *How many times do you breastfeed in the day and night?* • *Does your baby get any other food or fluids other than breastmilk?* • *If yes, why are you giving other food or fluids?* Observe a breastfeed to check attachment and positioning	Assist with any challenges Breast conditions according to IMCI guidelines (INFO 10) Insufficient milk/baby crying a lot or hungry according to IMCI guidelines (INFO 11) Advise mother to BF as often and as much as baby wants, day or night Advise mother to go back to exclusive BF for 6 months if possible Show mother how to express breastmilk to be given to the baby when she is not with her baby

DEVELOPMENT

Ask mother if she has any concerns about how her baby hears, sees, behaves, and uses his/her arms, legs and body Do developmental screening as per RTHB	If baby has not reached milestones as described in RTHB (INFO 25), refer to doctor / physiotherapist / speech therapist / occupational therapist

LOVE, PLAY AND TALK

Advise the mother to pay attention to her child's interests, emotions, likes and dislikes.	This will help her to meet her child's needs.
Advice mothers their children learn through playing, exploring and interacting with others	Ensure a safe space to play with clean household objects or toys. Tell stories and read to your child.

PMTCT

Check the HIV status of all mothers	
Review mothers latest VL Ask the mother how she is administering the medication	If mothers VL is not suppressed (>400 c/ml) continue with NVP until VL suppressed Provide NVP
Cotrimoxazole prophylaxis	Provide Cotrimoxazole for next month If baby is formula fed (no breastfeeding for last 6 weeks) and 10-week HIV-PCR is negative, stop Cotrimoxazole

IMMUNISATION

Check if immunisations are up to date Give 14 weeks immunisation according to schedule	If not, give catch up immunisations according to DoH guidelines (INFO 19)

HEALTH CARE

Ask the mother if the child is ill today	**If yes, manage according to IMCI protocol**
Ask the mother has been ill since the last clinic visit	If yes, review clinical notes (RTHB) and manage according to IMCI guidelines

EXTRA CARE

Review age of mother to see if she is a teenager	Teenagers may need extra support, liaise with CHW if available
Ask the mother if she is having any problems at home, school or work.	
Advice against the use of alcohol, smoking and recreational drugs.	Refer to a social worker if there is violence or abuse in the home
Ask the mother if she has been visited by a CHW if available	If not, give the mother the name of the CHW and advise how she can contact the CHW

POSTNATAL VISIT: MOTHER: 14 WEEKS

DURING THE CONSULTATION

Build a rapport with the mother: ask her how she is feeling. Be empathetic and address any concerns that the mother expresses

NUTRITION

Weigh the mother and measure height ▸ Do MUAC and check for wasting and oedema ▸ Assess food security (IP 22) and dietary intake	Determine BMI on all lactating mothers – management (INFO 23) ▸ MUAC < 21 sever acute malnutrition; 21-23 Moderate acute malnutrition – manage according to protocol (INFO 23) Give mother advice about a healthy diet using guidelines for health eating

PMTCT

Check all mothers HIV status. ▸ If negative or never tested and still breastfeeding	Test the HIV negative mother for HIV today ▸ If result is HIV positive today manage according to PMTCT guidelines for new diagnosis after delivery page (INFO 3)
HIV negative	Advise mother to use condoms during breastfeeding
HIV positive Check mother's adherence to ART, ask • *Have you been able to take all the tablets this months* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Provide ART for next month ▸ If good adherence, praise the mother ▸ If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support according to PMTCT guidelines (INFO 5)
Check, record and act on any earlier VL results	▸ If mother's VL < 400 c/ml continue with ART ▸ If mother's VL > 400 c/ml follow management page (INFO 7)
Review latest CD4 result	▸ If mother's CD4 < 350 initiate or if already taking Cotrimoxazole continue Cotrimoxazole prophylaxis Provide Cotrimoxazole for next month
Screen for TB (see below) ▸ If already on TB treatment, check adherence to treatment (Same questions as checking for ART adherence) ▸ If mother is newly diagnosed HIV positive do TB screening	Check that the baby is receiving TPT if applicable according to IMCI guidelines. Manage results and TPT according to PMTCT guidelines (INFO 4) ▸ If already taking TPT, provide according to PMTCT guidelines
Check HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT
ASK mother about other children and if they have been tested	Advise testing other children for HIV

CERVICAL SCREENING

Ask every mother • *Have you ever had a PAP smear?* • *If yes, when was your last PAP smear done?* • *Review HIV status* • *How old are you?*	DO A PAP SMEAR TODAY if the mother ▸ Never had a PAP smear ▸ HIV positive and never had / last done more than 3 years ago ▸ HIV negative and mother more than 30 years old and never had or last done more than 10 years ago

TUBERCULOSIS SCREENING

Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care guidelines (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling (INFO 14) If the mother answers yes to the suicide question only (without answering yes to any other question, **refer URGENTLY for assessment (INFO 14)**

CONTRACEPTION

Ask the mother: • *Are you using any contraception?* • *What contraceptive are you using?* • *What date is your next contraception due?*	▸ If not using contraception, counsel about contraction options and give today ▸ If due today or any time within the next 2 weeks – GIVE TODAY

HEALTH CARE

Ask mother about other chronic conditions	Manage according to Adult Primary Care guidelines

GIVE NEXT APPOINTMENT:	Give appointment date for 14 weeks immunisation. Tell mother to return to the clinic if mother or baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

FOLLOW-UP VISIT BABY (BETWEEN 5 AND 11 MONTHS)

DURING THE CONSULTATION

- ASK THE MOTHER: how she is managing with looking after her baby, ask about any concerns about caring for or feeding of the baby, and address these concerns.
- ASK FOR THE ROAD TO HEALTH BOOKLET

GROWTH MONTORING

Weigh and measure the child's weight and length ▸ Plot the weight and length (how to measure length INFO 12) on the RTHB to determine the weight for age, length for age and weight for height. ▸ Measure MUAC from 6 months and above	▸ If weight for length is < -3 refer urgently according to IMCI guidelines ▸ If the weight for length is< -2, or losing weight, not gaining weight, manage according to IMCI guidelines (INFO 21) Follow up in 7 days if weight for length (WLZ) is < -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21)
▸ Make sure mother has a named CHW if available	Manage according to IMCI guidelines

NUTRITION TO GROW AND BE HEALTHY

Assess feeding • *How is feeding going?* • *Is the baby having any breastmilk or other milk products*	Assist with any challenges ▸ Breast conditions according to IMCI guidelines (INFO 10) ▸ Insufficient milk/baby crying or hungry according to IMCI guidelines (INFO 11) Advise mother to BF as often and as much as baby wants, day or night, and to go back to exclusive BF for 6 months if possible Advise mother to continue breastfeeding for two years and beyond.
Ask mother • *Are you giving the baby any other food or fluids* • *If baby is 6 months or older, what complementary foods is the baby having?*	Advise mother about complementary feeding from RTHB.

DEVELOPMENT

If infant has not reached milestones as described in RTHB (INFO 25), refer to doctor / physiotherapist / speech therapist / occupational therapist	Address any concerns the mother raises and refer if necessary

LOVE, PLAY AND TALK

Advise the mother to pay attention to her child's interests, emotions, likes and dislikes.	▸ This will help her to meet her child's needs.
Advice mothers their children learn through playing, exploring and interacting with others	▸ Ensure a safe space to play with clean household objects or toys. Tell stories and read to your child.

PMTCT

Check the HIV status of all mothers	
<u>HIV positive mothers</u> Check if the baby's HIV-**PCR has been done at 6 months** If positive: Ask the mother: • *Has the baby been started on ART?*	▸ If the baby has not had an HIV-PCR done at 6 months, do PCR ▸ If already on ART, provide for 1 month ▸ If not on ART, stop NVP, initiate ART and do confirmatory HIV PCR
<u>Review mothers VL at 6 months after delivery</u>	▸ If mothers VL is not suppressed (>400 c/ml) continue/restart NVP until VL suppressed. Provide NVP
▸ Continue cotrimoxazole	Provide Cotrimoxazole for next month

IMMUNISATION

Check if immunisations are up to date ▸ **Measles due at 6 months, PCV 3 at 9 months and Measles 2 at 12 months**	▸ If not, give catch up immunisations according to DoH schedule (INFO 19)

Vitamin A

Check if Vitamin A is up to date ▸ **Give Vitamin A when due or as catch up dose.**	Check if Vitamin A is up to date

HEALTH CARE

Ask the mother if they child is ill today	▸ If yes, manage according to IMCI protocol
Ask the mother has been ill since the last clinic visit	▸ If yes, review clinical notes (RTHB) and manage according to IMCI protocol

EXTRA CARE

Review age of mother to see if she is a teenager	▸ Teenagers may need extra support, liaise with CHW if available and community organisations
Ask mother if she is having any problems at home, school or work. Advice against the use of alcohol, smoking and recreational drugs.	Refer to a social worker if there is violence or abuse in the home

FOLLOW UP VISIT MOTHER (BETWEEN 5 TO 11 MONTHS)

DURING THE CONSULTATION

Build a rapport with the mother: ask her how she is feeling. Be empathetic and address any concerns that the mother expresses

NUTRITION

- Weigh the mother and measure her height
  - Do MUAC and check for wasting and oedema
  - Assess food security (INFO 22) and dietary intake
- Determine BMI on all lactating mothers – management (INFO 23)
  - MUAC < 21 sever acute malnutrition; 21-23 Moderate acute malnutrition – manage according to protocol (INFO 23)
- Give mother advice about a healthy diet using guidelines for health eating

PMTCT

HIV negative

- Check when last the mother was tested – **retest all HIV negative mothers 3 monthly if breastfeeding**
- Advise mother to use condoms during breastfeeding
  - If HIV positive newly diagnosed, manage according to PMTCT guidelines (INFO 3)

HIV positive

- Check mother's adherence to ART, ask
  - Have you been able to take all the tablets this months
  - If no, how many doses have you missed?
  - What makes it difficult for you to take your treatment?
- Check all mothers HIV status.
  - Provide ART for next month
  - If good adherence, praise the mother
  - If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support (INFO 5)

- Check, record and act on any earlier VL result results
- Do mother's viral load at 6 months.
  - If mother's VL < 400 c/ml continue with ART
  - If mother's VL > 400 c/ml manage according to PMTCT guidelines (INFO 7)

- Review mother's latest CD4 result
  - If mother's CD4 < 200 initiate or if already taking Cotrimoxazole, continue Cotrimoxazole prophylaxis. Provide Cotrimoxazole for next month

- Check mother's other blood results
  - If mother on TDF do
- **Do Creatinine at 6 and 12 months**
- Manage results according to PMTCT guidelines.

- Screen for TB (see below)
  - If already on TB treatment, check adherence to treatment (Same questions as checking for ART adherence)
  - If mother is newly diagnosed HIV positive do TB screening
- Check that the baby is receiving TPT if applicable according to IMCI guidelines.
- Manage results and TPT according to PMTCT guidelines (INFO 4)
  - If already taking TPT, provide according to PMTCT guidelines

- Check HIV status of partner / husband
- Advise partner to test for HIV and manage according to PMTCT

- ASK mother about other children and if they have been tested
- Advise testing other children for HIV

CERVICAL SCREENING

- Ask every mother
  - *Have you ever had a PAP smear?*
  - *If yes, when was your last PAP smear done?*
  - *Review HIV status*
  - *How old are you?*
- DO A PAP SMEAR TODAY if the mother
  - Never had a PAP smear
  - HIV positive and never had / last done more than 3 years ago
  - HIV negative and mother more than30 years old and never had or last done more than 10 years ago

TUBERCULOSIS SCREENING

- Ask the mother:
  - *Have you been coughing?*
  - *Do you have fevers?*
  - *Do you experience any night sweat?*
  - *Have you lost a lot of weight recently?*
- If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

- Ask the mother:
  - *Do you have any vaginal discharge?*
  - *Do you have any genital sores?*
- Manage according to Adult Primary Care guidelines (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

- Ask the mother:
  - In the last 2 weeks have you on some or most days
  - *Felt unable to stop worrying or thinking too much?*
  - *Felt down, depressed or hopeless?*
  - *Had thoughts AND plans to harm yourself or commit suicide?*
- If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling (INFO 14)
- If the mother answers yes to the suicide question only (without answering yes to any other question, **refer URGENTLY for assessment (INFO 14)**

CONTRACEPTION

- Ask mother:
  - *Are you using any contraception?*
  - *What contraceptive are you using?*
  - *What date is your next contraception due?*
- If not using contraception, counsel about contraction options and give today
  - If due today or any time within the next 2 weeks – GIVE TODAY

HEALTH CARE

- Ask mother about other chronic conditions
- Manage according to protocols

GIVE NEXT APPOINTMENT:

Give appointment date for one month from this visit

Tell mother to return to the clinic if mother or baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

FOLLOW-UP VISIT BABY (BETWEEN 12 AND 24 MONTHS)

DURING THE CONSULTATION

- ASK THE MOTHER: how she is managing with looking after her baby, ask about any concerns about caring for or feeding of the baby, and address these concerns.
- ASK FOR THE ROAD TO HEALTH BOOKLET

GROWTH MONITORING

Weigh and measure the child's weight and length ▸ Plot the weight and length (how to measure length page INFO 12) on the RTHB to determine the weight for age, length for age and weight for height.	▸ If weight for length is less than -3 refer urgently according to IMCI guidelines ▸ If the weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21) ▸ Follow up in 7 days if weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21) ▸ If head circumference larger 43 cm or smaller than 38 refer
Measure MUAC Check for oedema of both feet	▸ If MUAC < 11.5 cm – refer urgently according to IMCI guidelines ▸ If pedal oedema present in both feet refer urgently according to IMCI guidelines ▸ If the weight for length is less than -2, or MUAC between 11.5-12.5, or losing weight, or not gaining weight manage according to IMCI guidelines (INFO 21) ▸ Follow up in 7 days if weight for length is less than -2, or losing weight, not gaining weight manage according to IMCI guidelines (INFO 21)
Make sure mother has a named CHW if available	
Measure head circumference	▸ If head circumference is larger than 48.5 cm or smaller than 43.5 cm refer

MATERNAL NUTRITION

Assess feeding Ask mother how she is feeding the baby?	Advise mother to continue nutritious complementary foods breastfeeding first according to RTHB Encourage mother to continue breastfeeding for 2 years and beyond if possible ▸ If mother is no longer breastfeeding, child can be given full cream cows milk.

DEVELOPMENT

Ask mother if she has any concerns about how her baby is developing Check developmental screening is up to date as per RTHB ▸ **Developmental screening is due at 12 and 18 months** (INFO 25)	▸ If infant has not reached milestones as described in RTHB (INFO 25), refer to doctor / physiotherapist / speech therapist / occupational therapist
Do oral health check according to RTHB	

LOVE, PLAY AND TALK

Advise the mother to pay attention to her child's interests, emotions, likes and dislikes.	▸ This will help her to meet her child's needs.
Advice mother their children learn through playing, exploring and interacting with others	▸ Ensure a safe space to play with clean appropriate toys or household objects. Make sure there are no objects that the child can swallow

PMTCT

Check the HIV status of all mothers	**ALL BABIES TO HAVE HIV RAPID TEST AT 18 MONTHS**
HIV positive mothers Check the baby's latest PCR result If positive, ask: • *Has the baby started taking ART?*	▸ If already taking ART, provide for 1 month ▸ If not taking ART, stop NVP, initiate ART and do confirmatory HIV PCR
Review mothers latest VL	▸ Co-trimoxazole prophylaxis

IMMUNISATION

Check if immunisations are up to date ▸ **Give 12 and 18 month immunisation according to schedule**	▸ If not, give catch up immunisations according to DoH schedule (INFO 19)

VITAMIN A

Check if Vitamin A is up to date ▸ **Vitamin A due at 12, 18 and 24 months**	Give Vitamin A according to schedule

DEWORMING

Check if deworming is up to date at 12, 18 and 24 months	Give mebendazole 100 mg bd for 3 days

HEALTH CARE

Ask the mother if they child is ill today	▸ If yes, manage according to IMCI protocol

EXTRA CARE

Review age of mother to see if she is a teenager	▸ Teenagers may need extra support, liaise with CHW if available and community structures if available
Ask mother if she is having any problems at home, school or work. Advice against the use of alcohol, smoking and recreational drugs.	▸ Refer to a social worker if there is violence or abuse in the home

FOLLOW-UP VISIT MOTHER (BETWEEN 12 TO 24 MONTHS)

DURING THE CONSULTATION

Build a rapport with the mother: ask her how she is feeling. Be empathetic and address any concerns that the mother expresses

NUTRITION

Weigh the mother and measure her height ▸ Do MUAC and check for wasting and oedema ▸ Assess food security (INFO 22) and dietary intake	Determine BMI on all lactating mothers – management (INFO 23) ▸ MUAC < 21 sever acute malnutrition; 21-23 Moderate acute malnutrition – manage according current guidelines ▸ Give mother advice about a healthy diet using guidelines for health eating

PMTCT

Check all mothers HIV status. ▸ If negative or never tested and still breastfeeding	**Test for HIV every three months while breastfeeding** ▸ If result is HIV positive today manage according to new diagnosis after delivery according to PMTCT guidelines
HIV negative	Advise mother to use condoms during breastfeeding
HIV positive Check mother's adherence to ART, ask • *Have you been able to take all the tablets this months* • *If no, how many doses have you missed?* • *What makes it difficult for you to take your treatment?*	Provide ART for next month ▸ If good adherence, praise the mother ▸ If poor adherence, help the mother find ways to overcome difficulties mentioned and provide adherence support according to PMTCT guidelines (INFO 5)
Check, record and act on any earlier VL results ▸ **Do a VL test 6-monthly at 12, 18 and 24 months whilst breastfeeding**	▸ If mother's VL < 400 c/ml continue with ART ▸ If mother's VL > 400 c/ml follow management (INFO 7)
Review mother's latest CD4 result ▸ **CD4 bloods done at 12 months and annually if clinically indicated**	▸ If mother's CD4 < 350 initiate or if already taking Cotrimoxazole continue Cotrimoxazole prophylaxis Provide Cotrimoxazole for next month
Screen for TB (see below) ▸ If already on TB treatment, check adherence to treatment (Same questions as checking for ART adherence) ▸ If mother is newly diagnosed HIV positive do TB screening	Check that the baby is receiving TPT if applicable according to IMCI guidelines. Manage results and TPT according to PMTCT guidelines (INFO 4) ▸ If already taking TPT, provide according to PMTCT guidelines
Check mother's HIV status of partner / husband	Advise partner to test for HIV and manage according to PMTCT
ASK mother about other children and if they have been tested	Advise testing other children for HIV

CERVICAL SCREENING

Ask every mother • *Have you ever had a PAP smear?* • *If yes, when was your last PAP smear done?* • *Review HIV status* • *How old are you?*	DO A PAP SMEAR TODAY if the mother ▸ Never had a PAP smear ▸ HIV positive and never had / last done more than 3 years ago ▸ HIV negative and mother more than30 years old and never had or last done more than 10 years ago

TUBERCULOSIS SCREENING

Ask the mother: • *Have you been coughing?* • *Do you have fevers?* • *Do you experience any night sweat?* • *Have you lost a lot of weight recently?*	If mother answers yes to any of these questions, manage according to PMTCT guidelines (INFO 4)

SEXUALLY TRANSMITTED INFECTION SCREENING

Ask the mother: • *Do you have any vaginal discharge?* • *Do you have any genital sores?*	Manage according to Adult Primary Care guidelines (INFO 15 & INFO 16)

MENTAL HEALTH SCREENING

We would like to know about all the women who come here how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally. Please answer "yes" or "no" to each question.

Ask the mother: ▸ In the last 2 weeks have you on some or most days • *Felt unable to stop worrying or thinking too much?* • *Felt down, depressed or hopeless?* • *Had thoughts AND plans to harm yourself or commit suicide?*	If mother answers yes to 2 or 3 of the questions, **refer to available resources** for further assessment or psychosocial counselling (INFO 14) ▸ If the mother answers yes to the suicide question only (without answering yes to any other question, **refer URGENTLY for assessment (INFO 14)**

CONTRACEPTION

Ask the mother • *Are you using any contraception?* • *What contraceptive are you using?* • *What date is your next contraception due?*	▸ If not using contraception, counsel about contraction options and give today ▸ If due today or any time within the next 2 weeks – GIVE TODAY

HEALTH CARE

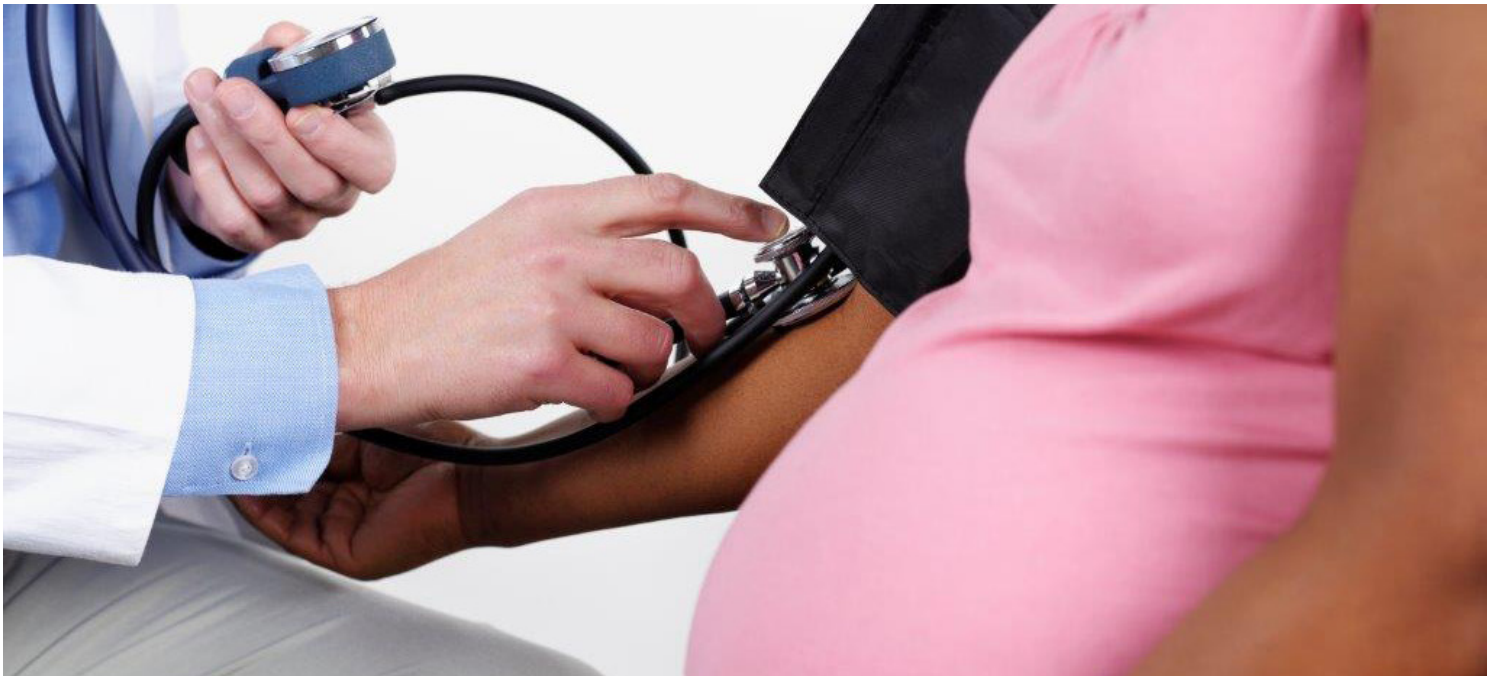
Ask mother about other chronic conditions	Manage according to Adult Primary Care guidelines

GIVE NEXT APPOINTMENT: Give appointment date for one month from this visit if mother is HIV positive, two months from this visit if HIV negative
Tell mother to return to the clinic if mother or baby is sick, if the mother needs support with breastfeeding, or if they mother has any concerns.

INFO 1

MANAGEMENT OF HIGH BLOOD PRESSURE DURING PREGNANCY

HYPERTENSION	A diastolic blood pressure ≥90 mmHg but ≤ 110 mmHg on two occasions, taken at least 2 hours apart, or a single diastolic measurement of ≥110 mmHg **AND/OR:** A systolic blood pressure ≥140 mmHg but ≤ 160 mmHg on two occasions, taken at least 2 hours apart, or a single systolic measurement of ≥160 mmHg. A raised systolic pressure is indicative of hypertension, even in the absence of a raised diastolic blood pressure
ACUTE SEVERE HYPERTENSION	A medical emergency and is defined as a systolic BP ≥ 160 mmHg and/or diastolic ≥ 110 mmHg
SIGNIFICANT PROTEINURIA	The presence of 1+ or more proteinuria on a test strip (dipstick) in a clean catch urine specimen on 2 occasions, at least 2 hours apart. Test for proteinuria in all antenatal patients using bedside tests.
CHRONIC HYPERTENSION	Hypertension that is present before 20 weeks of gestation or if the woman was already taking antihypertensive medication before the pregnancy
GESTATIONAL HYPERTENSION	New onset of hypertension presenting only after 20 weeks gestation without significant proteinuria.
PRE-ECLAMPSIA	Can also be superimposed on chronic hypertension, evidenced by the new onset of persistent proteinuria in a women who had an initial diagnosis of chronic hypertension.
MILD TO MODERATE PRE-ECLAMPSIA	A diastolic BP of 90-109 mmHg and or a systolic BP of 140-159 mmHg with ≥1+ proteinuria and no organ dysfunction
SEVERE PRE-ECLAMPSIA	Acute severe hypertension (diastolic BP ≥110 mmHg and/or systolic BP ≥160 mmHg) with ≥1+ proteinuria and no organ dysfunction **OR:** Hypertension and/or proteinuria (any degree) with signs of organ dysfunction (platelets <100 000/µl; creatinine or liver enzymes (ALT) more than double the normal values; or neurological signs like a persistent headache, visual disturbances and dizziness)
UNCLASSIFIED HYPERTENSION	Can be any of the above but in a patient who only booked after 20 weeks so accurate classification is difficult.
SIGNIFICANT PROTEINURIA WITHOUT HYPERTENSION	Can be chronic (prior – or HIV related kidney problems) or new (which may be the first sign of developing pre-eclampsia)
IMMINENT ECLAMPSIA	Symptoms and signs that characterise sever pre-eclamptic women, i.e. sever persistent headache, visual disturbances, epigastric pain, hyper-reflexia, clonus, dizziness and fainting or vomiting.
ECLAMPSIA	Generalised tonic-clonic seizures after 20 weeks of pregnancy and within 7 days after delivery, associated with hypertension and proteinuria.
HELLP SYNDROME	The presence of haemolysis, elevated liver enzymes and low platelets, almost always in association with hypertension and proteinuria.



HOW TO MANAGE HYPERTENSION IN PREGNANCY

GESTATIONAL HYPERTENSION

If gestational hypertension is diagnosed at a community clinic, **the advice of an experienced doctor should be obtained to establish if any immediate treatment and investigations are required and as to the timing of the referral.**

- Check for proteinuria, oedema and increased weight gain
- Ask about family history of hypertension, history of hypertension in previous pregnancy, previous stillbirths, neonatal deaths, bleeding in previous or index pregnancy and any symptoms of persistent headache
- Take a dietary history and advise appropriately
- Such patients should be **referred to a district hospital within three to five days**

At district hospital all patients should be re-assed to confirm the diagnosis of gestational hypertension (NO proteinuria), or to see if pre-eclampsia had developed in the meantime. If the diagnosis of gestational hypertension is confirmed. **Refer to maternity guidelines for management.**

Blood pressure in pregnancy should be controlled at values of 135-140 mmHg systolic and 85-90 mmHg diastolic. Lowering the blood pressure further than this may compromise the baby. The patient may require antihypertensive therapy but this should be based on the individual case. **Refer to maternity guidelines for management.**

MILD TO MODERATE PRE-ECLAMPSIA

- Once labelled as stable mild to moderate pre-eclampsia. **Refer to maternity guidelines for management**

SEVERE PRE-ECLAMPSIA OR IMMINENT ECLAMPSIA

- **Patient should be stabilised and have immediate priority transfer to a specialist hospital. Refer to maternity guidelines for management.**

Management of **pre-eclampsia /imminent eclampsia** in a district hospital

- **All efforts should be made to transfer to specialist care immediately**, as the mother or baby may need high care or ICU during the course of the disease. If transfer is not possible (e.g. mother very close to delivery) **refer to maternity guidelines for management**.
- Foetal movement counting is indicated for high risk pregnancies including for women with pre-eclampsia.

Reference: *Guidelines for maternity care in South Africa*

INFO 2

MANAGEMENT OF ANAEMIA DURING PREGNANCY

In all cases, look for an underlying cause and address the cause where possible.

REFERRAL CRITERIA: Refer from a primary health clinic / community health centre as follows:

Hb <6.0 g/dL	Urgent referral to hospital the same day
Hb 6.0 – 7.9 g/dL	Urgent transfer to a hospital if symptomatic (dizziness, tachycardia, shortness of breath at rest). If not symptomatic, refer to the next high-risk clinic within one month
Hb 8.0 – 9.9 g/dL	Transfer to a high-risk clinic if no improvement after one month treatment
Hb <10 g/dL at 36 weeks gestation or more	Transfer to hospital for further antenatal care and delivery

MANAGEMENT

Management of **mild anaemia** (haemoglobin 8-9.9 g/dL)

- Increase ferrous sulphate 200 mg to orally 3 times daily and continue with folic acid 5 mg orally daily
- Follow up all women <36weeks pregnant with mild anaemia with a repeat HB after four weeks
- If there is no response to oral iron/folate treatment, or if ≥36 weeks, refer to the district hospital for further investigations
- If no response to oral iron treatment or if ≥36 weeks, and if iron deficiency confirmed (minimum investigation full blood count), consider intravenous iron therapy (in hospital only). Intravenous iron will raise the Hb faster than oral iron.
- Avoid blood transfusion if there are no other complications

Management of **moderate to severe anaemia** (Hb ≤7.9 g/dL)

Investigate the anaemia at the hospital / high risk clinic and look for underlying causes:

- Take a full blood count (FBC): the mean cell volume (MCV) indicates the probable cause of anaemia:
  - A below-normal MCV suggests anaemia of chronic disease (microcytic)
  - A normal MCV suggests anaemia of chronic disease (normocytic)
  - An above-normal MCV suggests folate or vitamin B12 deficiency anaemia (macrocytic)
  - If the FBC shows a microcytic picture, it is reasonable to initially treat as iron-deficiency anaemia
  - If the FBC shows a normocytic or macrocytic picture, do further tests: iron studies, red cell folate and vitamin B12 levels to identify the cause
- Send urine away for microscopy and culture, and a stool sample for occult blood and parasites
- Do a malaria smear; where relevant
- Start treatment for anaemia with ferrous sulphate 200mg orally 3 times daily and continue with folic acid 5 mg oral daily
- If the Hb is <6.0 g/dL or if the patient is symptomatic (dizziness, tachycardia, shortness of breath at rest), the she must be admitted to hospital
- Avoid overloading with intravenous fluids
- Only transfuse if symptomatic
- Give one unit at a time over four to six hours
- Review need for further transfusion after each unit transfused, based on symptoms, rather than Hb level. give furosemide 20 mg intravenously after each unit transfused.

I there is a failure to respond to oral iron therapy, compliance with supplements should be check and the results of iron studies, red cell folate and vitamin B12 levels should be checked and treated accordingly. If there is no response to oral iron treatment or if ≥36 weeks, and if iron deficiency confirmed, consider administering parenteral iron therapy (in hospitals only).

Reference: *Guidelines for Maternity Care in South Africa (2016 pg 96-97)*

ART INITIATION ALGORITHM

Any pregnant or breastfeeding women with a new HIV diagnosis, or any known positive woman (not yet on ART) with a new pregnancy diagnosis

! Timing of ART initiation in pregnancy is critical. Every week a mother is on ART further decreases her risk of MTCT[10]

Take a history and do a clinical examination:

Exclude contra-indications to starting ART on the same day. Ask about TB symptoms, a history of renal disease, or current psychiatric symptoms. Determine the client's WHO Clinical Stage. Start cotrimoxazole (CPT) if eligible.

Do the following tests on ALL HIV positive pregnant women, regardless of symptoms or history: **CD4 count, s-Creatinine, sputum for TB Gene Expert (GXP), and urine dipstix**

* When available, DTG 50 mg OD may replace EFV/NVP in the 3-drug ART regimen. A woman will be eligible for DTG if ART is started from the 2nd trimester onwards and the woman has been counselled appropriately.

DTG requires boosting with TB treatment to 50 mg twice daily.

Only switch an existing, stable client from EFV to DTG if her VL is <1000c/ml, and she is no longer in the 1st trimester. A switch to DTG needs to be preceded by appropriate counseling on the risk for NTDs for subsequent pregnancies, post-partum contraception, and the new side effects that may be experienced when switching to a new drug

See **DTG in pregnancy** on page 17.

TB Symptoms with danger signs:

If the woman appears very ill with any of the following signs, **discuss with a doctor or refer for further assessment. Do not start ART until TB is excluded/diagnosed as these women may be at a higher risk of developing IRIS:** weight loss > 5%, difficulty breathing, respiratory rate >30/min, temperature > 38°C, pulse > 100min, BP < 90/60, coughing up blood, confusion, agitation, or unable to walk unaided.

TB Symptoms without danger signs

History of renal disease

Active psychiatric symptoms

If no abnormal history

Initiate ART same day: TDF, 3TC/FTC, and EFV*

If TDF-contra-indicated due to history of/suspected renal disease replace TDF with ABC.

If EFV contraindicated due to active psychiatric symptoms, replace EFV with either NVP or LPV/r$

Review results in 3-7 days

Ensure a thorough evaluation for TB

TB GXP negative, but still TB symptoms

TB GXP positive

Investigate with CXR, 2nd sputum for culture/line probe assay (LPA) +/- antibiotics as per National TB Guidelines. If CD4 <100, do a urine LAM.

TB Diagnosis confirmed → **Initiate TB Rx**

Review in 2 weeks. If stable and tolerating TB Rx, initiate ART (if not already initiated). If TB symptoms worsen after ART initiation, consider TB IRIS and refer/discuss with the HIV hotline. If TB meningitis, defer ART for 4 to 6 weeks.

TB GXP negative (or unable to produce sputum), AND no TB symptoms

Continue ART: TDF, 3TC/FTC, EFV*

CD 4 < 100

Do CrAG

CrAG neg

CrAG pos

Initiate TPT for 12 months, if client tolerating ART

Ensure TB GXP and urinary LAM negative.

Exclude other contra indications to TPT.

No TST necessary.

(Go to **TB Screening and TPT algorithm** on page 26)

Refer Urgently for LP

Creatinine > 85 umol/L

Continue/adjust ART to **ABC**, 3TC and EFV.

Adjust dose of 3TC (and any other drugs) as needed. Discuss with an expert/HIV-hotline re further investigations and management.

No abnormal results and CD4 more than 100

Continue ART

Defer TPT until 12 weeks after delivery

$ART Options in clients with active psychiatric symptoms:

If CD4 < 250, initiate TDF +3TC/FTC + NVP*

If CD4 > 250, initiate TDF +3TC/FTC + LPV/r*,

or consult the HIV-hotline for an alternative regimen

For a **Summary of 1st line ART Regimens** go to page 19

INFO 4

TB SCREENING AND IPT DURING PREGNANCY, LABOUR, AND THE BREASTFEEDING PERIOD

ALL women should be screened for TB at every visit

IPT is now known as **TPT** (TB Preventive Therapy)
TPT treats Latent TB Infection (LTBI)

At 1st / Booking visit in ANC

All pregnant women with a new HIV diagnosis, or
All known HIV positive woman with new pregnancy diagnosis (whether on ART or not on ART)

Assess TB symptoms and clinical condition:
If TB symptoms without danger signs, or no TB symptoms present, **initiate ART**.
If the woman appears very ill with any of the following signs, **discuss with a doctor or refer for further assessment. Do not start ART until TB is excluded/diagnosed as these women may be at a higher risk of developing IRIS:** weight loss > 5%, difficulty breathing, respiratory rate >30/min, temperature > 38°C, pulse > 100min, BP < 90/60, coughing up blood, confusion or agitation, or unable to walk unaided.

Do a TB GXP for all women at 1st visit in ANC, due to the lower sensitivity of the symptom screen in pregnant women.

- GXP neg, but TB symptoms still present
  - Additional investigations as per National TB Guidelines If CD4 < 100, do a urine LAM
    - TB diagnosis confirmed → Initiate TB Rx
- GXP positive → Initiate TB Rx
- TB GXP negative (or unable to produce sputum) AND no TB symptoms
  - Initiate/continue ART
    - CD4 more than 100 → Defer IPT until 12 weeks after delivery
    - CD4 100 or less → Initiate TPT after contra-indications have been excluded*

Review in 2 weeks: If stable and tolerating TB Rx, continue TB Rx and initiate/continue ART: TDF, 3TC/FTC, EFV$
If TB meningitis, defer ART for 4 to 6 weeks

At Follow-up visits

HIV positive woman currently on TPT

Check:
1. Adherence to TPT, ART and CPT
2. Side effects of TPT
3. TB symptoms

- 1 or more TB symptoms present → Investigate as per National TB Guideline → If TB diagnosed, stop TPT, initiate full TB Rx and send a sputum sample for LPA, or culture and drug sensitivity test (DST)
- No TB symptoms present → Continue TPT for a total of 12 months

All HIV positive women from 12 weeks after birth who had TPT deferred in pregnancy (CD4 count above 100 during antenatal care)

TB symptom screen

- No TB symptoms present → Initiate TPT for 12 months (after excluding other contra-indications to TPT *) Record start date of TPT
- 1 or more TB symptoms present → Investigate as per **National TB Guideline (2014)** page 28

***Contra-indications to TPT**
- Positive TB symptom screen
- Peripheral neuropathy
- Alcohol abuse
- Liver disease
- Known hypersensitivity to INH

TPT dosage: Isoniazid (INH) 300 mg daily PO, and Pyridoxine 25 mg OD PO x 12 months

The **APPRISE** randomised control trial found a higher incidence of adverse pregnancy outcomes in mothers who used TPT in pregnancy

$When available, DTG 50 mg OD may replace EFV/NVP within the standard 1st line combination ART regimen. DTG requires boosting with TB treatment.
See **DTG in pregnancy** on page 17

INFO 5

KEY ADHERENCE MESSAGES
(NATIONAL ADHERENCE GUIDELINE, 2015)[11]

Step 1 Education about HIV

- What does HIV do to your body?
- How taking ART can help you?
- The importance of VL suppressions for mother and baby.
- Risks of poor adherence.
- Side effects of ART.

Step 2 Identify Life Goals

- What are the things that make you want to stay healthy and alive?

Step 3 Identify Support Systems

- Who could support you in taking your treatment?
- Would you agree to have a CHW visit you at home?

Step 4 Coming to your appointments

- What will you do if something prevents you from coming to your appointment (such as no money for transport, raining when you usually walk, taxi strike or a sick child, or any other reason)?
- Go to the clinic as soon as possible if you do miss an appointment or run out of ART
- Always take your medication with you to your clinic appointments to enable the HCW to better assist you

Step 5 Assess readiness to start ART

- Do you feel ready to start treatment as soon as possible?

If not, stay supportive. Invite patient to express their beliefs or concerns.Correct misconceptions (avoiding judgments).

Step 6 Medication schedule

- According to your schedule, what would be the best time for you to take your treatment?

Step 7 Reminders

- What could you use to remind you to take your medication? (e.g. alarm, someone to remind them, when “Generations” is starting on TV, etc.)

Step 8 Missed Doses

- What will you do if you miss a dose?

Advise them to take the treatment as soon as they remember.

Step 9 Storing your medication and extra doses

- Do you worry about people seeing or stealing your treatment?
- Which safe place could you identify to store your treatment? Check that it is outside the reach of children.
- In case you don’t have access to your treatment at the time you are supposed to take it, how can you always carry 1 or 2 doses with you?

Step 10 Managing Side Effects

- Side effects such as dizziness, nausea, headache or diarrhea can happen when starting treatment. Most side effects go away after a few weeks. If you vomit up to one hour after taking the medication, take your treatment again. Severe side effects are rare. If you don’t feel well, it is important you don’t stop your treatment and come to the clinic.

INFO 6

CLINICAL STAGING OF HIV

CLINICAL STAGE	CLINICAL CONDITIONS OR SYMPTOMS (ADOLESCENTS AND ADULTS)	CLINICAL CONDITIONS OR SYMPTOMS (CHILDREN)
PRIMARY HIV INFECTION	• Asymptomatic • Acute retroviral syndrome	
CLINICAL STAGE 1	• Asymptomatic • Persistent generalized lymphadenopathy	• Asymptomatic • Persistent generalized lymphadenopathy
CLINICAL STAGE 2	• Moderate unexplained weight loss (<10% of presumed or measured body weight) • Recurrent respiratory infections (sinusitis, tonsillitis, otitis media, and pharyngitis) • Herpes zoster • Angular cheilitis • Recurrent oral ulceration • Papular pruritic eruptions • Seborrheic dermatitis • Fungal nail infections	• Unexplained persistent weight loss • Hepatosplenomegaly • Papular pruritic eruptions • Extensive wart virus infection • Extensive molluscum contagiosum • Fungal nail infections • Recurrent oral ulcerations • Unexplained persistent parotid enlargement • Lineal gingival erythema • Herpes zoster • Recurrent or chronic upper respiratory tract infections (otitis media, otorrhoea, sinusitis or tonsillitis)
CLINICAL STAGE 3	• Unexplained severe weight loss (>10% of presumed or measured body weight) • Unexplained chronic diarrhoea for >1 month • Unexplained persistent fever for >1 month (>37.6°C, intermittent or constant) • Persistent oral candidiasis (thrush) • Oral hairy leukoplakia • Pulmonary tuberculosis (current) • Severe presumed bacterial infections (e.g. pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia) • Acute necrotizing ulcerative stomatitis, gingivitis, or periodontitis • Unexplained anaemia(haemoglobin<8 g/dL) • Neutropenia (neutrophils <500 cells/µL) • Chronic thrombocytopenia (platelets <50,000 cells/µL)	• Unexplained moderate malnutrition not adequately responding to standard therapy • Unexplained persistent diarrhoea (14 days or more) • Unexplained persistent fever (above 37.5°C intermittent or constant for longer than one month) • Persistent oral candidiasis (after first 6-8 weeks of life) • Oral hairy leukoplakia • Acute necrotizing ulcerative gingivitis or periodontitis • Lymph node tuberculosis • Pulmonary tuberculosis • Severe recurrent bacterial pneumonia • Symptomatic lymphoid interstitial pneumonitis • Chronic HIV-associated lung disease including bronchiectasis • Unexplained anaemia (<8 g/dL), neutropenia (< 0.5 × 109 per litre) • And/or chronic thrombocytopenia (<50 × 109 per litre)
CLINICAL STAGE 4	• HIV wasting syndrome, as defined by the CDC (see Table 1, above) • Pneumocystis pneumonia • Recurrent severe bacterial pneumonia • Chronic herpes simplex infection (orolabial, genital, or anorectal site for >1 month orvisceral herpes at any site) • Oesophageal candidiasis (or candidiasis of trachea, bronchi, or lungs) • Extra pulmonary tuberculosis • Kaposi sarcoma • Cytomegalovirus infection (retinitis or infection of other organs) • Central nervous system toxoplasmosis • HIV encephalopathy • Cryptococcosis, extra pulmonary (including meningitis) • Disseminated non-Tuberculosis mycobacteria infection • Progressive multifocal leukoencephalopathy • Candida of the trachea, bronchi, or lungs • Chronic cryptosporidiosis (with diarrhoea) • Chronic isosporiasis • Disseminated mycosis (e.g., histoplasmosis, coccidioidomycosis, penicilliosis) • Recurrent non-typhoidal Salmonella bacteraemia • Lymphoma (cerebral or B-cell non-Hodgkin) • Invasive cervical carcinoma • Atypical disseminated leishmaniasis • Symptomatic HIV-associated nephropathy • Symptomatic HIV-associated cardiomyopathy • Reactivation of American trypanosomiasis (meningoencephalitis or myocarditis)	• Unexplained severe wasting, stunting or severe malnutrition not responding to standard therapy • Pneumocystis pneumonia • Recurrent severe bacterial infections (such as empyema, pyomyositis, bone or joint infection or meningitis but excluding pneumonia) • Chronic herpes simplex infection (orolabial or cutaneous of more than one month's duration or visceral at any site) • Extra pulmonary tuberculosis • Kaposi sarcoma • Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs) • Central nervous system toxoplasmosis (after one month of life) • HIV encephalopathy • Cytomegalovirus infection: retinitis or cytomegalovirus infection affecting another organ, with onset at age older than one month • Extra pulmonary cryptococcosis (including meningitis) • Disseminated endemic mycosis (extra pulmonary histoplasmosis, coccidiomycosis) • Chronic cryptosporidiosis • Chronic isosporiasis • Disseminated non-tuberculous mycobacterial infection • Cerebral or B-cell non-Hodgkin lymphoma • Progressive multifocal leukoencephalopathy • Symptomatic HIV-associated nephropathy or HIV-associated cardiomyopathy • HIV-associated rectovaginal fistula

VIRAL LOAD MONITORING SCHEDULE

NSA refers to the **VL Non-Suppression Algorithm** on the next page

Remember to put the PMTCT code: **C#PMTCT** in the EGK code field of the lab form for each VL done to ensure the electronic gatekeeping rules (EGK) do not lead to sample rejection

START HERE

Select a category for the woman starting ART from the pink blocks below:

Months on ART in ANC/Postpartum		Newly initiating ART or re-initiating ART on a DTG-based regimen* (before 28 weeks gestation)	Already on ART at Pregnancy Diagnosis	Late presenter in ANC after 28 weeks, or at dellivery
Antenatal VL Monitoring	Baseline	ART initiated at 1st ANC visit	VL at ANC 1st visit	ART initiated after 28 weeks or at delivery
	1 months		VL<50 / VL≥50 → NSA	
	2 months			
	3 months	1st VL at 3 months on ART		
	(4 months)	VL<50 / VL≥50 → NSA		
	(5 months)			
Delivery		All women get a VL at delivery (results must be checked at postnatal visit before 6 days)		1st VL at delivery
Postnatal VL Monitoring	10-12 weeks PP	! Ensure that the results of any VL test are checked within 1 week. If VL ≥ 50c/ml: - Recall the mother-infant pair to the facility. - If the VL is ≥ 1000 c/ml, restart / extend infant prophylaxis if mother is still breastfeeding. Go to **Management of a High Maternal VL after Delivery** on Page 25. If in doubt about when to take, or how to interpret, a VL result, call the HIV hotline **0800 212 506**	VL<50 / VL≥50 → NSA	VL at 10-12 weeks on ART VL<50 / VL≥50 → NSA
	4 months PP			
	5 months PP			
	6 months PP	VL at 6 months postpartum		
	6-monthly	VL 6 monthly during breastfeeding		

* If a women who is previously ART exposed chooses to re-initiate EFV rather than DTG, do a VL before re-starting ART. Repeat the VL in one month. If more than one log drop in VL is achieved, continue current regimen and repeat VL in two months. If VL < 50 c/ml, repeat VL at delivery. If the repeat VL is ≥ 50 c/ml, manage according to the **VL non-suppression algorithm** on page 21

INFO 8

HOW TO ASSESS A BREAST FEED

- The key principles of successful breastfeeding are an optimum positioning of mother and optimum position of the infant when attaching to the breast.
- To assess a breastfeed approach the mother respectfully and listen to what the mother has to say, including allowing her to express her concerns. Always use positive language and avoid any judgemental words (wrong, bad).
- Observe the following

SIGNS THAT BREASTFEEDING IS GOING WELL	SIGNS OF POSSIBLY DIFFICULTY WITH BREASTFEEDING
General ● Mother looks healthy ● Mother is relaxed and comfortable ● There are signs of bonding between mother and baby	**General** ● Mother looks ill or depressed ● Mother looks tense or uncomfortable ● There is no mother/baby eye contact
Baby ● Baby looks healthy ● Baby is calm and relaxed ● Baby reaches or roots for the breast if hungry	**Baby** ● Baby looks sleepy or ill ● Baby is restless or crying ● Baby does not reach or root
Breasts ● Breasts look healthy ● There is no pain or discomfort ● Breast is well supported with fingers away from the nipple ● Nipples are protractile	**Breasts** ● Breasts look red, swollen or sore ● Breast or nipple are painful ● Breast held with fingers on areola ● Nipples flat and not protractile
Baby's position ● Baby's head and body are in line ● Baby is held close to the mothers body ● Baby's whole body is supported ● Baby approaches the breast, nose to nipple	**Baby's attachment** ● Baby's neck and head is twisted to feed ● Baby is not held close ● Baby is supported by head and neck only ● Baby approaches the breast, lower lip/chin to nipple
Baby's attachment ● More areola seen above the baby's top lip ● Baby's mouth is wide open ● Lower lip is turned outwards ● Baby's chin touches the breast	**Baby's attachment** ● More areola is seen below the bottom lip ● Baby's mouth is not wide open ● Lips are pointing forward or turned inwards ● Baby's chin is not touching the breast
Sucking ● Baby takes slow, deep sucks with pauses ● Cheeks round when sucking ● Baby releases the breast when finished ● Mother notices signs of oxytocin refles	**Sucking** ● Baby takes rapid shallow sucks ● Cheeks are pulled in when sucking ● Mother takes baby off the breast ● There are no signs of oxytocin reflex noticed

Reference: *Protecting, promoting and supporting exclusive and continued breastfeeding: a breastfeeding course for health care providers. Department of Health 2014 (pg 115)*

INFO 9

SUPPORT FOR NON-BREASTFEEDING MOTHERS

Mothers who have decided not to breastfeed after counselling and education should be given information on age specific types of infant formula to purchase and shown how to prepare and use formula safely. Counsel women who have decided to formula feed their infants to **exclusively formula feed** for 6 months and reinforce how to prepare and use formula feeds accurately and safely. This should be done individually (not group counselling) only for those mothers who have decided to formula feed to avoid spill-over to breastfeeding mothers. Discuss the amount of formula required by infants at each clinic visit.

Instructions for the safe preparation of infant formula

- Always wash hand with warm soapy water before making a feed with formula
- Dry hands on a clean cloth
- Wash all utensils for the feed in cold water immediately after use concentrating on the corners (use a soft brush to reach the corners)
- Wash again with hot soapy water and rinse well with clean fresh water.
- To sterilise utensils, fill large pot with clean water and put all feeding utensils in pot (everything must be covered with water and there must be no air bubbles trapped)
- Bring to a fast boil making sure the pot does not boil dry.
- Store all utensils in the covered pot until needed for the next feed.

To make up the feed

- Boil enough clean fresh water for the feed (must boil for at least 3 minutes)
- Cover and allow to cool slightly but water must still be hot when you mix the feed
- Pour the measured amount of water needed in the cup
- Add the measured amount of formula powder (use the scoop supplied with the formula). Fill scoop and level with a sterilised knife.
- Replace scoop in the tin and replace the lid tightly.
- Make sure you follow the manufacturers recommendations for the correct amount of water to the correct amount of infant formula.

NB. IT IS IMPORTANT THAT MOTHERS DO NOT DILUTE THE FEEDS BY USING THE CORRECT AMOUNT OF INFANT FORMULA TO THE CORRECT AMOUNT OF WATER

- Mix well
- Cool till body temperature is reached and feed the baby
- Only make enough formula for one feed at a time

Reference: *Protecting, promoting and supporting exclusive and continued breastfeeding: a breastfeeding course for health care providers. Department of Health 2014 (pg 205-207)*

INFO 10

BREAST CONDITIONS

CONDITION	SYMPTOMS	MANAGEMENT
Breast engorgement and full breasts Full breasts is when the breasts start producing mature milk. There is more blood supply to the breast as well as more milk. Breasts become hot but not painful and the milk is flowing Breast engorgement is when the milk is not removed from the breast.	Fullness of the breasts usually from day 3-5 postpartum Breasts may appear very tight, shinny and may be painful and tender to touch. Milk from may be hampered due to pressure on the milk ducts Nipple may be pulled flat Infant may struggle to attach well Maternal pyrexia occurs	Support and reassure the mother that this is common Explain how to manage engorgement Symptomatic relief includes ▸ Warm compress applied before feeds to stimulate milk ejection reflex ▸ Gentle hand expressing to soften areola to facilitate good attachment ▸ Express in between feeds until she is comfortable ▸ Cool compress (facecloth or cabbage leaves) to breasts after feeds to decrease inflammation and provide relief ▸ Pain relief e.g. paracetamol
Nipple conditions Painful nipples that may be grazed, fissured (cracked) and sometimes bleeding	Painful nipples ranging from tenderness to stabbing, burning, itching, sharp, dull or server pain Pain may occur before and during an attachment or feed and continues between feeds. Usually occurs during first few days of breastfeeding but if not managed correctly can continue indefinitely Grazed, scabbed nipples. Bleeding or weeping nipples,. Cracked nipples.	Early intervention breastfeeding support Assessment of a breastfeed and infants mouth to ensure correct position and attachment. Softening of the nipple to facilitate good attachment (see engorgement) Show mother empathy as painful nipples can be distressing Continue breastfeeding as temporarily stopping may lead to other issues such as engorgement Support and reassurance with accurate information to resolve problems. Gently hand express a small amount of breastmilk and rub into the nipples and expose them to the air after a feed.
Nipple or oral thrush Fungal infection that is co-infected by mother to infant	Inflamed nipples Mother complains of itchy painful nipples during and after a breastfeed even when position and attachment is correct. White spots on infants tongue, inside lips, cheeks or palate surrounded by redness and is irremovable Infant may also have nappy rash which may require assessment	Mother and infant require assessment by health care provider to provide anti-fungal treatment for nipples and infants mouth Continue breastfeeding. Support and reassurance Good hygiene. Hand washing after changing nappies and using the toilet. Change clothes and breast pads when moist. Discourage use of dummies. Air drying the nipples in sunlight after each breastfeed if possible
Blocked ducts When milk collects and pools in the ducts to create an obstruction which prevents milk flow	Localised pain and tenderness to a specific area of the breast or nipple A palpable lump behind the blockage May lead to mastitis if left unmanaged	Provide support, reassurance and accurate information. Symptomatic relief ▸ Breastfeed frequently to ensure milk flow and clear the blockage ▸ Massage the breast before a feed to stimulate milk flow ▸ Use warm compresses and massage area beind the blockage to aid relief and facilitate milk flow while mother is breastfeeding
Mastitis Painful infection of the breast tissue that may be caused by a bacterial infection	Flu like symptoms including a high fever (38C). Breast pain and tenderness Localised inflammation in the specific section of the breast Hardness and swelling of the breast Hot to touch	Correct diagnosis by a health care provider and prescription of antibiotic Continue breastfeeding / drainage of breastmilk from the affected breast Support and reassurance with accurate information Adequate pain relief and rest Warm compress to sooth the area Gently hand express to enable drainage of the breast.

Reference: *Protecting, promoting and supporting exclusive and continued breastfeeding: a breastfeeding course for health care providers. Department of Health 2014 (pg 120-128)*

INFO 11

COMMON CHALLENGES ASSOCIATED WITH BREASTFEEDING

CHALLENGE	POSSIBLE CAUSES	MANAGEMENT
Infant refusing a breastfeed: perceived or real	▸ The infant may not be hungry at this time ▸ Mother may be moving the breast or the infant, which makes attachment difficult ▸ Mothers breast may be full and hard making attachment difficult ▸ Milk may be flowing too fast causing the infant to choke. ▸ Delay in "let down" reflex which delays the milk supply which results in frustration for the infant ▸ Nipples may be flat or inverted ▸ Infant may have a sore mouth (thrush), ear ache or a blocked nose ▸ Possible nipple confusion if a "teat" has been introduced ▸ Beauty products on nipples causing a taste difference ▸ Preference by infant for one breast ▸ Separation from the mother (mother gone back to school or work)	▸ Remove or treat the cause ▸ If baby is crying, try to settle him/her first by giving some expressed breastmilk with a teaspoon/cup before attempting to attach the baby to the breast ▸ Educate mother regarding feeding cues in her baby and when to respond to these appropriately ▸ Teach mother proper positioning and attachment ▸ Hand express some breastmilk from an engorged breast to soften it and make latching easier for the baby ▸ Massage breast before feeding to stimulate milk ejection ▸ Explain to the mother that she can stimulate and shape her nipple just before feeding to assist it to protrude. For an inverted nipple the mother can shape her nipple by placing her thumb and forefinger about 4-6 cm behind the nipple and pulling back gently towards her chest. Some expressed breastmilk on the tip of the nipple can entice the baby to latch with a wide open mouth. Reassure mother that with patience and perseverance baby will learn to feed on any nipple shape
Low milk production and perceived insufficient milk This is when the mother thinks her infant is not getting enough milk because the baby cries often, does not sleep for long periods, sucks fingers, breastfeeds frequently for a long time, and takes supplementary feeds when given. The mother may also think her milk is thin, nothing or little is coming out when she expresses or she does not experience oxytocin reflex. These are not reliable signs that the baby is not getting enough	▸ Delayed start to breastfeeding ▸ Feeding at fixed times ▸ Poor attachment ▸ Poor sucking ▸ Skipping night feeds ▸ Supplementing breastfeeds with water, infant formula or solids ▸ Use of pacifiers / dummies ▸ Lack of confidence in the mother ▸ Tiredness ▸ Stress and worry ▸ Rejection of the baby / delayed bonding	▸ Appropriate antenatal, perinatal and postnatal education of mother regarding breastfeeding and birthing practices ▸ Implementing mother and baby friendly care as outlined in MBFI ▸ Encourage mother to do skin-to-skin at home and to breastfeed her baby skin-to-skin ▸ Assess breastfeed to identify any problems and address those ▸ Support for the breastfeeding mother ▸ Ensure mother understands normal breastfeeding behaviour and signs that the infant is getting enough ▸ Follow-up of mother –infant pair to ensure infant is growing and developing as set out in RTHB which should reassure the mother that her baby is adequately fed There are rare instances when there is a physiological reason for insufficient breast milk supply in a breastfeeding mother. A baby that is not thriving despite "all being done right" should alert the health care worker to explore and refer further.
Fussing and crying infant	▸ Poor breastfeeding technique ▸ Not responding to infants reflexes and feeding cues ▸ Poor attachment technique leading to inadequate feeds ▸ Mother is distracted while breastfeeding ▸ Mother is impatient while breastfeeding or cutting feeds short or timing them ▸ Illness in the baby, thrush or ear problems	▸ Feed infant skin-to-skin ▸ Assess a breastfeed and identify possible problems that can be addressed individually ▸ Ensure good breastfeeding techniques, which in turn will ensure an adequate feed ▸ Support mother to continue breastfeeding ▸ Ensure support for the mother in the community/family to free up her time to pay attention to her infant.

Reference: *Protecting, promoting and supporting exclusive and continued breastfeeding: a breastfeeding course for health care providers. Department of Health 2014 (pg 120-128)*

INFO 12

HOW TO MEASURE THE LENGTH IN INFANTS AND YOUNG CHILDREN

Recumbent length is assessed in children younger than 2 years using a length board (infantometer).

To measure the length of a child younger that two years follow these instructions

- Cover the length board with a thin cloth or soft paper for hygiene purposes
- Explain to the mother what you are going to do
- Ask the mother for help to hold the baby's head in place while you take the measurements.
- Show here where to stand and where to place the baby's head (against the fixed headboard)
- Advise the mother to do this quickly and surely without distressing the baby
- Ask the mother to lay the child on his/her back with the head against the fixed headboard, compressing the hair so that the head comes into contact with the board
- Position the head so that an imaginary vertical line from the lower border is perpendicular to the board (the child's eyes should be looking straight up)
- Ask the mother to move behind the headboard and hold the head in this position
- The child should lie straight along the board, the shoulders should touch the board and the spine should not be curved.
- You (the health worker) stand on the side of the length board where you can see the measuring tape.
- Hold the child's legs down with one hand and move the footboard with the other
- Apply gentle pressure to the knee to straighten the legs as far as possible without hurting the infant/child (if a child is extremely irritated and crying a lot and both legs cannot be held in position, measure with one leg in the correct position.
- While holding the knees, pull the footboard against the child's feet. The soles of the feet should be flat against the footboard, toes pointing upwards.
- Read the measurement and record the child's length in centimetres to the nearest 0.1cm.
- If the child is two years old or more, **subtract 0.7cm from the length** and plot the height on the height-for-age chart. The reason for this is that standing height is about 0.7cm less than recumbent height.
- If the child is less than two years old and will not lie down for the measurement of length, measure standing height and **add 0.7cm to convert it to length.**

Reference: *DoH Training Manual 1V: Nutrition Advisors in KZN 2013*

INFO 13

COTRIMOXAZOLE DOSAGES FOR INFANTS AND YOUNG CHILDREN

Weight	COTRIMOXAZOLE SYRUP	COTRIMOXAZOLE TABLET	
	(200/40 mg per 5 ml)	400/80 mg	800/160 mg
2,5 to < 5 kg	2,5 ml	¼ tablet	
5 to < 14 kg	5 ml	½ tablet	
14 to < 30 kg	10 ml	1 tablet	½ tablet
≥30 kg		2 tablets	1 tablet

INFO 14

MENTAL HEALTH SCREENING

Suggested words to be used when asking questions about mental health

"We would like to know about all the women who come here: how they are doing physically and emotionally. This helps us to understand the best sort of care we can offer. Please may I ask you three questions about how you are emotionally? Please answer "yes" or "no" to each question"

In the last 2 weeks, have you on some or most days felt unable to stop worrying or thinking too much?	Yes (1)	No (0)
In the last 2 weeks, have you on some or most days felt down, depressed or hopeless?	Yes (1)	No (0)
In the last 2 weeks, have you on some or most days had thoughts and plans to harm yourself or commit suicide?	Yes (1) REFER	No (0)
TOTAL SCORE	1. 2. REFER 3. REFER	
Offered counselling	Yes	No
Accepted counselling	Yes	No
THE SELF-HARM QUESTION WILL REQUIRE URGENT REFERRAL IF THERE ARE BOTH THOUGHTS AND PLANS. IF THERE IS A HISTORY OF A PREVIOUS ATTEMPT, REFERRAL IS REQUIRED EVEN IF THERE ARE THROUGHT ALONE.		

Reference: *Maternity Case Records: National Department of Health: (Western Cape Government)*

VAGINAL DISCHARGE
(TAKEN FROM ADULT PRIMARY CARE 2016/2017)

It is normal for women to have vaginal discharge. Abnormal discharges are itchy or different in colour or smell.
Not all women with a discharge have a STI
First assess and advise the patient with a vaginal discharge and her partner.

If the vulva is red, scratched and inflamed and/or curd like discharge treat for vaginal candidiasis
Cotrimazole vaginal tablet 500 mg single dose inserted at night
If sever, also give Co-trimazole vaginal cream applied to vulva 12 hourly for 3 days after symptoms resolve (maximum 2 weeks)
Avoid washing with soap

Is there lower abdominal pain or cervical tenderness

No	Yes	
Patient < 35 years or has a partner with male urethritis syndrome	Recognise the patient needing urgent attention Recent miscarriage/delivery/termination of pregnancy Pregnant or missed or overdue period Peritonitis (guarding/rigidity/rebound tenderness) **Management** If dehydrated or shocked give IV fluids If referral delayed > 6 hours give Ceftriaxone 1 gram IV stat and metronidazole 400 mg orally stat. If sever penicillin allergy omit ceftriaxone and discuss with doctor Refer same day	Abnormal vaginal bleeding Temperature > 38 degree Abdominal Mass

No	Yes	Approach to patient not needing urgent attention	
Treat for bacterial vaginosis – give metronidazole 2 grams stat Also treat for vaginal candidiasis – give Cotrimazole vaginal tablet 500 mg singledose inserted at night and give Co-trimazole vaginal cream applied to vulva 12 hourly for days	Treat for vaginal discharge syndrome give Ceftriaxone 250 mg IMI stat AND Azithromycin 1 gram orally stat AND If allergic to penicillin give Azithromycin 2 grams orally stat Treat partner	Cervical tenderness with or without abdominal pain	Lower abdominal pain only with no cervical tenderness Check urine dipstick. If nitrate or leucocytes present manage for urinary symptoms
Advise patient to return in 7 days if symptoms persist		Treat for lower abdominal pain. Give Ceftriaxone 250 mg IM stat and azithromycin 1 gr orally and metronidazole 400 mg 12 hourly for 7 days. If server penicillin allergy omit ceftriaxone but increase azithromycin to 2 grams orally stat For pain give ibuprofen 400 mg 8 hourly with food for up to 5 days Treat patients partners Review in 2-3 days. If no improvement refer to doctor same day	

INFO 16

GENITAL SORES OR ULCERS
(TAKEN FROM ADULT PRIMARY CARE 2016/2017)

Assess and advise the patient with genital ulcers and their partners

Treat for herpes

- If painful, give Ibuprofen 400 mg 8 hourly with food for 5 days
- Keep lesions clean and dry
- If HIV positive, or status unknown, or pregnant, give acicoivir 400 mg 8 hourly for 7 days. If pregnant in the 3rd trimester refer.
- Explain that herpes infection is lifelong and that herpes transmission can occur even when asymptomatic. The likelihood of HIV transmission is increased when there is ulcers
- HIV patients with genital herpes for > 1 month have stage 4 HIV and need co-trimoxazole and ART

If patient sexually active in past 3 months also treat for genital ulcer syndrome and check if patient has a vaginal discharge or not.

Genital ulcer with no vaginal discharge	Genital ulcer with vaginal discharge
• Give benzathine penicillin 2.4 million units IM stat • If sever penicillin allergy and not pregnant/breastfeeding do baseline RPR, give doxycycline 100 mg 12 hourly for 14 days instead and advise patient to return in 6 months for repeat RPR • If pregnant/breastfeeding and sever penicillin allergy refer for confirmation of new syphilis infection and possible penicillin desensitisation. Give Ceftriaxone 250 mg IM stat, AND • Azithromycin 1 gm orally stat, • If sever penicillin allergy, omit ceftriaxone and give azithromycin 2 gm orally stat • If sever penicillin allergy and pregnant/breastfeeding refer for confirmation of new syphilis infection and possible penicillin desensitisation. • If woman also has vaginal discharge syndrome also give metronidazole 2 gr orally stat.	• Give Ceftriaxone 250 mg IM stat, AND • Azithromycin 1 gm orally stat, • If severe penicillin allergy, omit ceftriaxone and give azithromycin 2 gm orally stat • If severe penicillin allergy and pregnant/breastfeeding refer for confirmation of new syphilis infection and possible penicillin desensitisation. • If woman also has vaginal discharge syndrome also give metronidazole 2 gr orally stat.

Check if patient also has hot tender swollen inguinal nodes (discrete, movable and rubbery)

No	Yes
• Review after 7 days • If no improvement give azithromycin 1 gm orally stat and review after 2 days • If still no better after 2 days, refer	• Also treat patient / and partner for bubo • Give azithromycin 1 gr stat (if not already given above) and repeat 1 gr after 7 days • If fluctuant lymph node and hernia and aneurism excluded, aspirate pus through health skin in a sterile manner every 3 days as needed • If painful, give Ibuprofen 400 mg 8 hourly with food for 5 days • Review after 14 days. If no better refer to doctor same day

INFO 17

SELF-CARE OF HEALING EPISIOTOMY OR PERINEAL TEAR

- Advise on personal hygiene; sitz baths twice daily in warm water (salt or antiseptics not essential)
- Advise that the sutures will absorb and fall out spontaneously (check that the sutures used are absorbable)
- Pain can be managed with ice packs and/or oral paracetamol one gram orally four times a day
- The mother should return to the clinic if pain worsens or does not respond to simple measures
- First and second degree tears heal faster than episiotomies
- With episiotomy, it may take up to one month before sexual intercourse can resume.

Self-care of healing caesarean section

Ref: “Guidelines for maternity care in South Africa 2016 edition

No direct reference to self-care of healing C/S – to be included later

WASH FOR EVERYONE

WASH ADVOCATES water sanitation hygiene for everyone

NEWBORN AND INFANT HEALTH

- Access to improved water sources and sanitation reduces a nation's infant mortality rate. One study found that the infant mortality rate decreases by 1.14 deaths per 1000 live births with increased access to an improved water source. The rate decreases by 1.66 with increased access to improved sanitation.
- Simple hygiene practices during antenatal care, labor, and birth can reduce the risk of infections, sepsis, and death for infants and mothers by up to 25 percent.
- Handwashing, food hygiene, and household hygiene combined reduces infant diarrhea by more than 33 percent.
- Safe excreta disposal can reduce the risk of infant diarrhea by up to 37 percent.
- Handwashing with soap by both birth attendants and mothers results in a 41 percent reduction of neonatal mortality.

CHILD HEALTH (2-5 YEARS)

- Diarrhea is a leading cause of death in children under five years old.
- Fifty percent of global malnutrition is associated with diseases such as diarrhea and intestinal worms due to a lack of safe drinking water, sanitation, and hygiene. 25 percent of stunting cases can be attributed to five or more episodes of diarrhea before the age of two.
- In 2013, approximately 1,600 children died each day due to diarrhea, or about 580,000 children total.
- Decreasing the one-way walking time to collect water by fifteen minutes is associated with a 41 percent reduction in diarrheal disease and an 11 percent relative reduction in under-five child mortality.
- Regular handwashing by children during their first 30 months of age results in important gains in global developmental quotients such as height, weight, and social skills.

MATERNAL HEALTH

- Access to an improved nearby water source can decrease maternal mortality by reducing the risk of intestinal worms and thus anemia and diarrheal diseases, which can cause nutritional deficiencies and hepatitis.
- Infections that can be directly linked to unhygienic conditions during labor and birth, at home or in facilities, and to poor hygiene practices after birth lead to 8 percent of global maternal deaths, and approximately 10-15 percent of maternal deaths in developing countries.
- The causes of maternal death are mostly preventable including sepsis, which causes 11 percent of maternal deaths.16 Sepsis can be caused by unhygienic conditions and poor infection control practices during delivery.

SIERRA LEONE CASE:

- Post-caesarean section wound sepsis stood at 60% at a hospital that lacked sufficient water and lighting, prolonging hospital stay up to 1 month in some cases.
- The maternity and neonatal unit were reconstructed and staff were trained in basic WASH principles and wound care. Results led to a dramatic reduction in post- caesarean wound sepsis from 60% to less than 10% within 3 months.

INFO 19

IMMUNISATION SCHEDULE AND CATCH UP IMMUNISATION

Reference: *Road to Health booklet. This schedule may change but amended schedule can be added to this section*

AGE	VACCINE	ROUTE OR SITE
Birth	BCG	Intradermal Right arm
	OPV0	Oral
6 weeks	OPV1	Oral
	Rotavirus 1	Oral
	PCV 1	IM Right Thigh
	Hexavalent (DTaP-IPV-HiB-HBV1)	IM Left Thigh
10 weeks	Hexavalent (DTaP-IPV-HiB-HBV2)	IM Left Thigh
14 weeks	Rotavirus 2	Oral
	PCV 2	IM Right Thigh
	Hexavalent (DTaP-IPV-HiB-HBV3)	IM Left Thigh
6 months	Measles 1	S/C Left Thigh
9 months	PCV 3	IM Right Thigh
12 months	Measles 2	S/C Right Arm
18 months	Hexavalent (DTaP-IPV-HiB-HBV4)	IM Left Arm

CATCH UP FOR CHILDREN WHO HAVE MISSED SCHEDULED DOSES

ALL EPI VACCINES CAN BE SAFELY GIVEN AT THE SAME TIME, BUT ALWAYS IN DIFFERENT SITES

If a child has missed the scheduled doses for age, he/she should be vaccinated with all the missed doses as appropriate for age. The doses given for the first time should be recorded as first doses, regardless of the age. The child should be given the next booster dose after the recommended interval between doses.

CATCH UP IMMUNISATIONS

VACCINE	AGE OF CHILD	FIRST DOSE	INTERVAL FOR SUBSEQUENT DOSES		
			SECOND	THIRD	FOURTH
BCG	<1 year	Give one dose			
	≥ 1 year	Do not give			
OPV	<6 months	Give first dose	4 weeks		
	≥6 months	Do not give			
Hexavalent (DTaP-IPV-HB-Hib)	Up to 5 years	Give first dose	4 weeks	4 weeks	12 months (do not give before child is 18 months old)
Rotavirus	<20 weeks	Give first dose	4 weeks		
	20–24 weeks	Give one dose			
	>24 weeks	Do not give			
PCV	<6 months	Give first dose	4 weeks	Give at 9 months of age	
	6–12 months	Give first dose	4 weeks	8 weeks	
	1–6 years	Give one dose			
Measles	<11 months	Give first dose	At 12 months		
	≥11 months	Give first dose	4 weeks		
Td	>6 years	Give first dose	At 12 years		

Reference: *Vaccinator's manual "Immunisation that works"*

PNEUMOCOCCAL CONJUGATE VACCINE (PCV) - PREVENAR®

- If a child presents to a health facility before 6 months and has not been vaccinated with PCV, give 2 doses of PCV, 4 weeks apart and the third dose at 9 months
- If a child presents between 6-9 months and has not been vaccinated with PCV, give the first dose of PCV, give the second dose 4 weeks later. After the second dose of PCV the child comes back 8 weeks later for third dose of PVC. Ensure a minimum interval of 4 weeks between first and second dose of PCV and 8 weeks minimum interval between the second and third dose.
- Children who are older than 1 year but below 2 years, who have not been vaccinated with PCV should be given 1 dose of PCV
- **Remember to keep a minimum interval of 4 weeks between the 1st and 2nd dose of PCV**
- **Remember to keep a minimum interval of 8 weeks between the 2nd and 3rd dose of PCV**

ROTAVIRUS VACCINE (RV) ROTARIX ®CATCH UP

- If a child has missed the 1st dose of RV at 6 weeks of age and is younger than 20 weeks give the 1st dose of RV and the 2nd dose 4 weeks later
- If the child missed the 1st dose of RV and is older than 20 weeks and younger than 24 weeks, give one dose of Rotavirus vaccine
- **Rotavirus vaccine should not be given to any child older than 24 weeks**
- Keep a minimum interval of 4 weeks between the 1st and 2nd dose of RV

DTAP-IPV-HB-HIB (HEXAVALENT) AND DTAP-IPV/HIB (PENTAVALENT)

- Give all missed doses with the minimum interval of 4 weeks
- Children who missed DTaP-IPV-HB-Hib (Hexavalent) or DTaP-IPV/HiB (Pentavalent) doses at 6, 10, 14 weeks should receive all catch up doses. The first dose on first contact, 2nd dose 4 weeks later, and 3rd dose 8 weeks after the 2nd dose.
- Children below 24 months who missed the 4th hexavalent or pentaxim dose at 18 months should receive 4th dose as soon as they are identified.

MEASLES VACCINE

- All children below 11 months who have missed the 6 months measles dose, should receive their first measles vaccine dose and receive the second dose at 12 months or soon after **(ensure a minimal interval of 4 weeks between doses)**
- All children from 12 months and above who have missed the first dose of measles vaccine should receive the first measles does and receive the second measles dose **after four weeks.**

Concurrent administration of BCG and Measles vaccines in missed opportunities

- In missed opportunities, BCG and Measles can be given on the same day BUT use separate sites.
- BCG vaccine should NOT be given to children older than one year

CHECK FOR FEEDING AND GROWTH (ALTERNATIVE CHART FOR NON-BREASTFED INFANTS)

ASK:

- How is feeding going?
- What milk are you giving?
- How many times during the day and night?
- How much is given at each feed?
- How are you preparing the milk?
- Let caregiver demonstrate or explain how a feed is prepared, and how it is given to the baby.
- Are you giving any breastmilk at all?
- What foods and fluids in addition to replacement milk is being given?
- How is the milk being given? Cup or bottle?
- How are you cleaning the utensils?

LOOK, LISTEN, FEEL:

- Plot the weight on the RTHB to determine the weight for age.
- Look at the shape of the curve. Is the child growing well?
- If the child is less than 10 days old:
  - Has the child lost more than expected body weight?
  - Has the child regained birth weight at 10 days?
  - Is the child gaining sufficient weight?
- Look for ulcers or white patches in the mouth (thrush).

NOTE:

- Young infants may lose up to 10% of their birth weight in the first few days after birth, but should regain their birthweight by ten days of age
- Thereafter minimum weight gain should be:
  Preterm: 10g/kg/day OR Term: 20g/kg/day

10% OF BIRTH WEIGHT = BIRTH WEIGHT DIVIDED BY 10

Classify FEEDING and GROWTH in all young infants

• Not able to feed or • Not sucking at all	**NOT ABLE TO FEED**	⇨ Treat as possible serious bacterial infection (p. 4) ⇨ Give first dose of ceftriaxone IM (p.13). Test for low blood sugar, and treat or prevent (p. 12) ⇨ Refer URGENTLY —make sure that the baby kept warm
• Milk incorrectly or unhygienically prepared. or • Giving inappropriate replacement milk or other foods/fluids. or • Giving insufficient replacement feeds. or • Using a feeding bottle. or • Thrush	**FEEDING PROBLEM**	⇨ Counsel about feeding and explain the guidelines for safe replacement feeding (p. 22 - 24) ⇨ Identify concerns of caregiver and family about feeding ⇨ If caregiver is using a bottle, teach cup feeding (p. 22) ⇨ If thrush, treat and teach the caregiver to treat it at home (p. 14) ⇨ Follow-up in 2 days (p. 16)
• More than 10% weight loss in the first week of life. or • Weight less than birth weight at or after 10 days of age. or • Weight gain is unsatisfactory. or • Weight loss following discharge of LBW infant.	**POOR GROWTH**	⇨ Check for feeding problem (p. 20) ⇨ Counsel about feeding (p. 22-24) ⇨ If less than 2 weeks old follow-up in 2 days (p. 16) ⇨ If more than 2 weeks old follow-up in 7 days (p. 16)
• Not low weight for age and no other signs of inadequate feeding. • Less than 10% weight loss in the first week of life	**FEEDING AND GROWING WELL**	⇨ Counsel the caregiver on home care for the young infant emphasising the need for good hygiene (p. 15). ⇨ Praise the caregiver

MALNUTRITION IN THE YOUNG CHILD (FROM IMCI)

CHECK ALL CHILDREN FOR MALNUTRITION

LOOK, LISTEN, FEEL:

- Weigh the child and plot the child's weight on RTHB.
- Look at the shape of the child's weight curve. Does it show weight loss, unsatisfactory weight gain or satisfactory weight gain?
- Is the child's weight normal, low or very low?
- If the child is six months or older measure the child's Mid-Upper Arm Circumference (MUAC) and record in the child's RtHB.
- Measure the child's length/ height and plot on the Weight-for-Length/Height chart in the child's RTHB.
- Look for oedema of both feet
- Conduct an Appetite Test if indicated (p. 19)

* MUAC is Mid-Upper Arm Circumference which should measured in all children 6 months or older using a MUAC tape.

** Growth curve flattening/ decreasing is defined by changes on the growth curve over a 2-3 month period

Classify all children's NUTRITIONAL STATUS

<u>One or more of the following</u> • Oedema of both feet. • WFL/H Z-score < - 3 • MUAC < 11.5cm • Very low weight for age AND <u>One or more of the following:</u> • Any danger sign • Any other RED or YELLOW classification • Weighs 4 kg or less • Is less than six months of age • Is not able to finish RUTF (fails the Apetite Test (p.19))	**SEVERE ACUTE MALNUTRITION WITH MEDICAL COMPLICATION**	⇨ Test for low blood sugar, then prevent (p. 36) ⇨ Keep the child warm (p. 12) ⇨ Give first dose of Ceftriaxone (p. 36) ⇨ Give stabilizing feed or F75 (p. 36) ⇨ Give dose of Vitamin A (p. 35) ⇨ Refer URGENTLY
• WFL/H Z-score < - 3 OR • MUAC < 11.5 cm. AND • Able to finish RUTF • No oedema of both feet • Six months or older • Weighs 4 kg or more • No other RED or YELLOW classification	**SEVERE ACUTE MALNUTRITION WITHOUT MEDICAL COMPLICATION**	⇨ Give amoxicillin for 5 days (p. 38) ⇨ Give dose of Vitamin A (p. 35) ⇨ Treat for worms if due (p. 35) ⇨ Assess the child's feeding and counsel the caregiver on the feeding recommendations (p. 18 - 20) ⇨ Assess for possible HIV & TB infection (p. 33 & 34) ⇨ Provide RUTF (p. 42) and counsel caregiver on how to use it (p. 24) ⇨ Advise caregiver when to return immediately (p. 46) ⇨ Refer to for home visits ⇨ Follow up in 7 days (p. 49) ⇨ Refer URGENTLY if child develops any medical complication
• WFL/H between -3 and –2 zscore OR • MUAC ≥ 11.5 cm < 12.5cm • No oedema of both feet	**MODERATE ACUTE MALNUTRITION**	⇨ Give dose of Vitamin A (p. 35) ⇨ Treat for worms if due (p. 35) ⇨ Assess the child's feeding and counsel the caregiver on the feeding recommendations (p. 18 - 20) ⇨ Assess for possible HIV & TB infection (p. 33 & 34) ⇨ Provide RUTF according to local guidelines (p. 42) ⇨ Advise caregiver when to return immediately (p. 46) ⇨ Refer for home visits ⇨ Follow up in 7 days (p. 49) ⇨ Refer URGENTLY if develops any medical complication
• Losing weight OR • Weight gain unsatisfactory	**NOT GROWING WELL**	⇨ Assess the child's feeding and counsel the caregiver on the feeding recommendations (p. 18 - 20) ⇨ Assess for possible HIV & TB infection (p. 33 & 34) ⇨ Treat for worms and give Vitamin A if due (p. 35) ⇨ Advise caregiver when to return immediately (p.46) ⇨ If feeding problem follow up in 7 days (p. 49) ⇨ If no feeding problem, follow-up after 14 days (p. 49)
• Weight normal AND • Weight gain satisfactory AND • WFL/H –2 z-score or more AND • MUAC 12..5 cm or more	**GROWING WELL**	⇨ Praise the caregiver ⇨ If the child is less than 2 years old, assess the child's feeding and counsel the caregiver on feeding according to the feeding recommendations (p. 18 - 20) ⇨ If feeding problem, follow up in 7 days (p. 49)

INFO 22

HOW TO ASSESS AND MANAGE FOOD INSECURITY

Reference: *SOP on the Prevention and Management of Malnutrition in KZN 2018*

Measure the weight and MUAC in all pregnant and lactating women. Measure the BMI if less than 20 weeks pregnant or > 6 weeks lactating. Note weight loss. Check for signs of visible wasting. Take a diet history and assess food security

ASSESS	CLASSIFY	MANAGE
Financial support Does anyone in the household have regular income?	If yes, then classify as financially supported. If no, then classify as no financial support	If no financial support and food security is placing the patient at risk of developing malnutrition, refer to social worker for DSD/SASSA referral. Patients requiring support from other government departments should be referred to their local OSS War Room.
Food Access Have there been days in the past few weeks when there has not been enough food available to feed the child. For example when you have had to skip meals yourself of for the child or given smaller amounts? If yes, then ask, does this happen every week?	If the answer to both questions is yes, then classify as serious food shortage. If the answer is yes to the first question and the answer is no to the second question, classify as food shortage.	For children under 18, pregnant and lactating women, and the elderly refer urgently to DSD/SASSA if social worker not available. Patients requiring support from other government departments should be referred to their local OSS War Room.
For children under 5, identified with malnutrition and food insecurity, referrals to SASSA can be made directly from the health facility to the local SASSA office. At hospital/CHC level the dietitian or nutritionist can do this. At clinic level, the referral should be signed by the Operational Manager before referring the patient. Please ensure to indicate in the facility tick register (under the comments section) that a referral was made, for tracking purposes.		

INFO 23

CALCULATION AND MANAGEMENT OF BMI IN LACTATING MOTHERS

All lactating mothers should have height, weight and MUAC measured. From 6 weeks post-partum calculate the BMI
To calculate the BMI use the following: Weight / (Height X Height) = BMI in kg/m2
Summary of Nutritional Classification of women (classification based on adults pg 76 and management pg 49)

Severe acute malnutrition	MUAC < 21 cm BMI < 16kg.m2	Needs 1800kcal / day Enriched maize meal – 4 X 50 gram servings per day Lactose Free Energy drink – 3 servings RTUF (Ready to use therapeutic food) 3 teaspoons per day
Moderate acute malnutrition	MUAC 21-23 cm BMI 16-18.4 kg.m2	Needs 1130kcal / day Enriched maize meal – 2 X 50 gram servings per day Lactose Free Energy drink – 2 X 50 gram servings per day RTUF (Ready to use therapeutic food) 3 teaspoons per day
Normal	MUAC > 23 cm BMI 18.5-24.9 kg.m2	Counsel the mother on health eating during lactation
Overweight	BMI 25-29.9 kg.m2	Individualised nutrition education Encourage intake of 5 or more servings of fruit and vegetables per day Minimise or eliminate consumption of sugar containing beverages Decrease hours of television/electronic devices and increase physical activity (> 1 hour per day) Reduce added fat and sugar in the diet (fried foods, processed foods, chips, sweets, chocolate, juices and biscuits.
Obese	BMI > 30 kg.m2	

DIABETES MELLITUS

PREGESTATIONAL DIABETES MELLITUS	All women who have diabetes mellitus before pregnancy must be referred to a specialist health facility/clinic with expertise in managing diabetes in pregnancy. Follow-up care may be continued at a district hospital in accordance with instructions from the specialist clinic depending on facilities, level of kill and stability or control of the diabetes. Foetal movement monitoring is indicated for high risk pregnancies, including women with diabetes.
GESTATIONAL DIABETES MELLITUS	All pregnant women with risk factors for diabetes in pregnancy should be screened at the first antenatal visit and again at 28 weeks, if the initial screen was negative.

RISK FACTORS FOR GESTATIONAL DIABETES

Underlying patient factors	Patient from ethnic group with high prevalence of diabetes (e.g. Indian) Obesity (patient BMI ≥ 35) Age ≥ 40 years
Previous history	Previous history of gestational diabetes (diabetes in previous pregnancy) First degree relative with diabetes Previous unexplained intrauterine fetal death Previous macrosomic baby (birth weight ≥4 kg)
Current pregnancy	Polyhydramnios Fetus large for gestational age Glycosuria (glucose 1+ or more on dipstick urine)

SCREENING

Different screening methods may be used depending on the preference at the local specialist referral centre. Clinic and district hospitals are advised to liaise with their specialist referral centre and follow their local recommendations regarding screening method and diagnostic criteria. Screening should be done on-site on the same day that the women is first seen and one which uses glucometer readings rather than laboratory tests.

SCREENING METHODS

- When a woman arrives at the ANC unfasted, give oral glucose 75g dissolved in 250-300ml water and take glucometer reading one hour after giving glucose
- A value of ≥7.8 mmol/L is a positive test and indicates that a diagnostic glucose tolerance test is required. This require the patient to come back fasted on another day and may be done on-site or may require referral to a high risk clinic, depending on local specialist referral center protocols.

DIAGNOSTIC TEST

- Patient must be fasting (only water from 22H00 the night before). Do screening first thing in the morning.
- Take a fasting glucose test and then give oral glucose 75g dissolved in 250-300ml water and take blood for glucose level two hours after giving glucose.
- A fasting blood glucose level of ≥5.6 or a two hour value of ≥7.8 mmol/L indicates diabetes and the women should be managed as a gestational diabetic.
- Alternatively, the patient can bring her own breakfast to the clinic instead of the glucose load.

INITIAL MANAGEMENT OF GESTATIONAL DIABETES

- Advise the women to start with lifestyle modifications (stop smoking, moderate exercise), dietary advice immediately and refer to a dietician.
- Call the woman bac to the high-risk clinic two weeks later, advise her to come “fasted” in the morning and carrying her breakfast with her.
- Check fasting blood glucose level (glucometer) on arrival and then two hours after breakfast (post-prandial).
- If fasting blood sugar <6 mmol/L and post-prandial <8mmol/L it is appropriate to continue with dietary management.
- Recheck fasting and post-prandial blood glucose every two weeks.

Reference: *Guidelines for Maternity Care in South Africa (2016 pg 96-97)*

INFO 25

DEVELOPMENTAL SCREENING

	HEARING / COMMUNICATION	VISION AND ADAPTIVE	COGNITIVE / BEHAVIOUR	MOTOR SKILLS
6 weeks				
10 weeks				
14 weeks	● Startles to loud sounds	● Follows face or close objects with eyes	● Smiles at people	● Holds head upright when held against shoulder. ● Hands are open most of the time
6 months	● Moves eyes or head in direction of sounds. ● Responds by making sounds when talked to.	● Eyes move together (no squint). ● Recognises familiar faces. ● Looks at own hands.	● Laughs aloud. ● Uses different cries of sounds to show hunger, tiredness or discomfort.	● Grasps toy in each hand. ● Lifts head when lying on tummy.
9 months	● Babbles “ma-ma, da-da” ● Turns when called.	● Eyes focus on far objects	● Throws, bangs toys/objects ● Reacts when caregiver leaves, calms when she/he returns	● Sits without support ● Moves objects from hand to hand.
12 months	● Uses simple gestures (e.g. lifts arms to be picked up. ● Has one meaningful word (dada, mama) although may not be clear. ● Imitates different speech sounds.	● Looks for toys/objects that disappear. ● Looks closely at toys/objects and pictures.	● Imitates gestures (e.g. clapping hands). ● Understands “no”	● Stand with support. ● Picks up small objects with thumb and index finger
18 months	● Understands names of at least 2 common objects e.g. cup. ● Uses at least 3 other words other than names	● Looks at small things and pictures	● Follows simple commands (e.g. come here)	● Walks alone ● Uses fingers to feed
3 years	● Child speaks in simple 3 word sentences	● Sees small shapes clearly at a distance (across the room)	● Plays with other children / adults. ● Uses pretend play (e.g. feed doll)	● Runs well ● Eats on own
5-6 years	● Speaks in full sentences ● Caregiver understands child’s speech	● No reported / observed vision problems	● Interacts with children and adults ● Understands multiple commands (e.g. go to the kitchen and bring me your plate)	● Hops on one foot ● Holds with fingers at top or middle of pencil or stick to draw ● Dresses self

Reference: *Road to Health booklet*

INFO 26

FOETAL MOVEMENT MONITORING

Foetal movement counting is only indicated for high risk pregnancies, e.g. pre-eclampsia, diabetes mellitus, intrauterine growth impairment and previous unexplained stillbirth.

- Ask the mother to count foetal movements (not just kicks) for one hour at the same time every day, usually after breakfast.
- The number of movements should be recorded on a foetal movement chart
- If there are 4 or more movements in one hour, the count is repeated at the same time on the next day.
- If there are less than 4 movements in one hour, or less than half of the hourly averages (after about a week of counting), the mother should count foetal movements for one additional hour
- In the second hour, if there are still less than 4 movements or less than half of the hourly averaged, CTG is indicated to assess foetal well-being. Delivery may be considered depending on the clinical situation
- The person should preferably rest on her side for this period

Foetal movement chart (Guidelines for Maternal Care in South Africa: 2016)

DATE	TIME STARTED	MOVEMENTS IN FIRST HOUR	NB	MOVEMENTS IN SECOND HOUR	NB
			If less than 4 movements in first hour, go to the second hour and count again		If less than 4 movements in second hour, please go to your clinic for a further test.

Foetal movement chart (Maternity Case Record)

DATE	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	✓✓✓✓✓✓ ✓✓✓✓✓✓ (12)	✓✓✓✓✓✓✓ ✓✓✓✓✓✓✓ ✓✓ (14)	✓✓✓✓✓✓ ✓✓✓✓✓✓ (12)	✓✓✓✓✓✓✓ ✓✓✓✓✓✓✓ ✓✓ (14)	✓✓✓✓✓✓ ✓✓✓✓✓✓ (12)	✓✓✓✓✓✓ ✓✓✓✓✓ (11)	✓✓✓✓✓✓ ✓✓✓✓✓✓ (12)

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REFERENCES

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