የኢትዮጵያ ፌዴራላዊ ዴሞክራላዊ ሪፑብሊክ
የጤና ጥበቃ ሚኒስቴር
Federal Democratic Republic of Ethiopia
Ministry of Health

Implementation Guide for 24hours postnatal care and stay

Ethipian Minstry of Health

August 2018

Table of Contents

Acknowledgment:

The Federal Ministry of Health would like to acknowledge all individuals and organizations that contributed towards the development of this guideline. The contributions of the following individuals were instrumental for the successful completion of this document:

Dr. Abdurahman Usmael, FMOH

Dr. Birkety Mengistu, IHI

Dr. Biruck, St. Paul Hospital

Dr. Ephrem Tekle, FMOH

Dr. Fikru, Adama Hospital

Dr. Hema Magge, IHI

Dr. Meseret Zelalem, FMOH

Dr. Smita Kumar, USAID

Dr. Yared Tadesse, FMOH

Dr. Yayeh Negash, UNICEF

Dr. Yunis Musema, Save the Children

Haney Shamil, FMOH

Sheleme Humnessa, FMOH

Sr. Aster Berhe, UNFPA

Sr. Selamawit Dagnew, JSI/L10K

Sr. TachawitSalilih, EMwA

Acronym

ANC	Antenatal care
BEmONC	Basic Emergency and Obstetric Care
DHS	Demographic Health Survey
EmONC	Emergency Obstetric and Newborn Care
FMOH	Federal Ministry of Health
FP	Family Planning
HEWs	Health Extension Workers
HMIS	Health Management Information System
HSTP	Health Sector Transformation Plan
MCH	Maternal and Child Health
MMR	Maternal Mortality Ratio
PNC	Postnatal Care
PPFP	Post-Partum Family Planning
PPH	Postpartum Hemorrhage
RMNCH	Reproductive, Maternal, Newborn and Child Health
WHO	World Health Organization

Foreword

Childbirth is a highly anticipated joyful time for the mother and her family. However, under some circumstances it can also be one of the most stressful and a very risky undertaking for both the mother and the newborn. In low resource countries, death from

childbirth is very common, and the risk is highest in the immediate postnatal period. Most of these deaths are from preventable causes. As Ethiopia strives to decrease maternal and newborn morbidity and mortality, strengthening the quality of care the mother and the newborn receive in the postnatal period is of critical importance.

Postnatal care is poorly implemented in the country. The percentage of women that receive postnatal care in the critical period of the first 2 days is low. Commonly, women stay in health facilities for only 6hours, with most deaths occurring at home in the hours that follow, even when a mother had delivered at a health facility. In line with the current global recommendation, the Ethiopian Ministry of Health is instituting 24hours postnatal stay for mothers and newborns nationwide.

This implementation guide is developed by the Ministry of Health to support regional health bureaus, woreda health bureaus, health facilities and partner organizations in the successful implementation of this important initiative.

Finally, I would like to thank all the individuals and organizations that partook in the development of this important document.

Kebede Worku, MD, MPH

State Minister, Ministry of Health

1. Introduction

Globally, approximately 303,000 women die every year from preventable causes related to pregnancy and childbirth, with developing regions accounting for approximately 99% (302,000) and with more than half occurring in sub-Saharan African countries (1). Globally, 2.6 million newborns died in 2016 – or 7,000 newborns every day with neonatal deaths accounting for 46 percent of all under-five deaths, an increase from 41 percent in 2000 (2). Maternal and neonatal mortality remains high in Ethiopia with 350

and 29 deaths being seen per 100,000 live births respectively (3). Ethiopia is one of the five countries that accounted for 50% of all global newborn death burdens (2).

Most maternal and neonatal deaths occur during childbirth and the postpartum period. Almost half of all postnatal maternal deaths occur within the first 24 hours, and 66% occur during the first week. In 2016, of the 2.8 million newborns that died in their first month of life ─ 1 million died on their first day (2). Currently, WHO recommends mothers and newborns receive care in a health facility for at least 24 hours after birth. The current practice in Ethiopia is to discharge delivered women without complications 6 hours after delivery.
Very few women in Ethiopia receive any postnatal care in the critical first two days after delivery. According to EDHS 2016, only 17% of women received postnatal care within two days after delivery (3).

The primary audience of this document is health care professionals that provide direct care to women and newborns in health facilities as well as health extension workers who will provide care at home beyond the first 24hours and, in some circumstances, in the first 24hours as well. This document is also expected to be used by administrators at federal, regional, zonal, woreda as well as facility levels who will be playing a crucial role in making resources available so mothers and newborns receive quality care during the first 24 hours after birth.

2. Rationale

Strengthening and promoting institutional delivery through community mobilization using HDAs and health extension workers has been a focus of the Ethiopian Ministry of Health. The extensive work undertaken to improve institutional delivery has resulted in a significant increase in the number of women that deliver in health facilities. However, maternal and neonatal morbidity and mortality are still high despite an increase in facility-based deliveries. As most morbidities and mortalities in both the mother and newborn occur during the postnatal period with 50% of maternal and 39% of neonatal deaths occurring in the first 24 hours after delivery, it is essential to strengthen the quality of postnatal care provided in facilities (2). The current practice of discharging delivered women and neonates within 6 hours of delivery is believed to compromise the quality of postnatal care provided. Thus, in line with global recommendations, the Ethiopian Ministry of Health believes it’s crucial to promote not only institutional delivery but also 24hours postnatal stay in order to tackle the high maternal and newborn morbidity and mortality in the country.

The Ministry of Health has developed this national implementation guideline by adopting the 2013 WHO updated guidelines with a new recommendation for 24hours facility stay

after birth. On the basis of these, 24hours postnatal care services will be implemented within existing health systems with a goal of improving maternal and newborn health outcomes.

3. Purpose of this document

a) To describe the updated PNC protocol with content and timing of postnatal contacts for mothers and newborns.

b) To strengthen clear and uninterrupted communication among healthcare providers, HEWs and mothers, their partners and family members.

4. Objectives of this Document

a) To ensure all mothers and newborns get quality PNC in the critical 24hours after birth.

b) To use missed opportunities including integration of services such as PPFP.

5. Scope

This postnatal care implementation guidelineapplies to postnatal service provided after an **uncomplicated vaginal delivery**at all levelsof the health care system as well as to the care provided in the home.

6. Principles of care

The quality of care the mother and newborn receive in the first 24hours after delivery is crucial in making sure both mother and neonate stay healthy beyond the immediate postnatal period. The care that is provided to the mother should focus on prevention, early detection as well as treatment of any birth related complications while putting into consideration the physiological as well as psychological changes that are common during childbirth. Similarly, the care that is provided to the neonate should focus on prevention, early detection and treatment of any complication that arise after birth. Moreover, the immediate postpartum period is a crucial time to support the mother to establish breastfeeding, provide family planning that puts into consideration the wishes of both parents, and counsel the mother on essential care for herself as well as her newborn. In this regard, the main principles of postnatal care are:

1. Each postnatal contact should be provided in accordance with the principles of individualized care for both the mother and her baby.

2. A coordinating healthcare professional should be identified for each woman and her baby.
3. **At each postnatal contact, all mothers and their newborns should be:**
    - Provided evidence-based care that puts into consideration the physiological changes related to birth as per the principles of compassionate & respectful care.
    - Offered an opportunity to talk about their birth experiences and to ask questions about the care they received during labor.
    - Offered relevant and timely information to enable them to promote their own and their babies' health and wellbeing and to recognize and respond to problems.
    - Asked about their health and wellbeing and that of the baby and perform necessary clinical evaluations for both the mother and the baby.
    - Offered consistent information and clear explanations to empower the woman to take care of her own health and that of her baby.
    - Asked if they have any question and answer thoroughly.
    - Encouraged to report any concerns in relation to their physical, social, emotional and mental health.
    - Provided privacy and clean and hygienic environment at all times.

    Additionally:
    - Healthcare professionals should document in the care plan all identified problems and follow up plan.
    - A documented, individualized care plan should be developed for each mother and newborn and each encounter should be documented in the patient chart as well as in the newborn and postnatal registers.

7. Content of PNC for the Mother and Newborn

7.1. Management of themother

When the ANC record is available, it should be thoroughly reviewed prior to delivery in order to extract any preexisting condition of the mother or newborn or history of previous
deliveries that can put the woman as well as the newborn at increased risk during the postpartum period.

All postpartum women should have regular assessment of:

1. Vaginal bleeding
2. Uterine contraction

3. Fundal height
4. Temperature and heart rate(pulse)
5. Blood Pressure
6. Urine void
7. Breastfeeding status
8. Pain
9. Emotional wellbeing and bonding with the newborn

7.1.1.Minimizing the risk of Complications during the Postpartum Period

The major complications during the postpartum period are **hemorrhage, hypertensive disorders of pregnancy and infection.** Health care providers should keep these in mind during care provision as well as during patient teaching and counseling.

Postpartum Hemorrhage:

Postpartum hemorrhage is the number one cause of morbidity and mortality in Ethiopia. Although certain women are at higher risk of PPH, majority of women that experience PPH do not have any risk factor, thus making it essential to keep PPH in mind while caring for all women (5). ***See Annex 1 for summary offacility-based protocol for management of postpartum hemorrhage***

Hypertensive Disorder of Pregnancy:

Hypertensive Disorder of Pregnancy (HDP) is a complication that can happen during pregnancy or the postpartum period and can potentially be deadly. In order to identify HDP early, all women should have:

- Blood pressure measured and documented at least once during the first hour after delivery.
- Postpartum women should be routinely assessed for headache, visual disturbance, and epigastric pain.

All women that are diagnosed with HDP should receive prompt treatment **(See Annex 2 for summary of current protocol for management of HDP)** or referred to the appropriate facility.

Infection:

Puerperal infection contributes to 75,000 maternal deaths around the world, majority of them take place in Sub Saharan African countries (6). Women that experience fever, complain of shivering, or foul smelling vaginal discharge should be given special attention to determine if they have infection and receive appropriate treatment ***(See Annex 3 for summary of current protocol for management of puerperal infection)***

7.1.2. Initiation of Family Planning

All postpartum women and their partners should receive counseling on family planning as soon as stable after delivery. The counseling should focus on initiation of long-term family planning methods such as intrauterine contraceptive device (IUCD) andImplants***(based on current postpartum FP protocols)***. Women that are interested in initiating a family planning method should receive the appropriate method of their choice before discharge. If the woman was adequately counseled during ANC and has decided to initiate IUCD, it can be inserted during delivery. It should be noted that **insertion of IUCD is contraindicated between 48hrs and 4 weeks** of the postpartum period, thus every effort should be made to insert the IUCD soon after delivery, if that is the method of choice for the mother.

7.1.3. Initiation and support for Breastfeeding

The immediate postpartum period is a crucial period to establish breastfeeding. The mother needs to be educated and supported to establish breastfeeding in the first hour after delivery. Breastfeeding education needs to be supplied with proper demonstration of techniques as well as how to ensure proper positioning and latching of the baby. Mothers should also be educated about common issues related to breastfeeding and how to manage them at home.

7.1.4. Respectful and Compassionate Maternity Care

Although pregnancy and birth are time of joy and celebration, it is also a time that can make women feel physically and emotionally vulnerable. **Provision of care at each and every contact that respects the woman's dignity regardless of her situation and choices is the responsibility of every healthcare provider.** Health care providers have professional responsibility to be sensitive to each woman's individual needs and show respect and understanding so that women and their families develop trust in the health care system.

7.1.5. Special consideration for women who experience perinatal loss

Although childbirth is generally a joyful period for the mother and her family, perinatal loss is not uncommon. According to EDHS 2016, 62% of births in Ethiopia are at high risk for perinatal death (both stillbirth and early neonatal death) and the perinatal mortality rate is 33 per 1000 pregnancy. Dealing with a loss of a fetus or neonate can be a devastating period for the mother and her family. Women who experience perinatal losshave an increased risk of postpartum blue and depression. It is therefore very important that women receive appropriate care and receive bereavement counseling in the immediate postnatal period and beyond. The mother and her support system should receive reliable, accurate information given in a supportive manner that puts in consideration each woman's unique needs, situation and ability to cope.

In addition to educating the mother with perinatal loss on the normal physiological changes related to birth, the mother also needs to receive education on **how to manage breast engorgement.**

Every effort should also be made to keep the woman in a non-maternity ward to minimize the woman's distress from being with mothers and newborns in the maternity ward.

7.2. Management of the Newborn

7.2.1. Assessment of the baby

The following danger signs should be assessed immediately at birth, at one hour after birth, and every four hours thereafter as well as at discharge. If any of the danger signs are present, the newborn should receive pre-referral treatment and promptly referred to a health facility with NICU for further evaluation:

- Stopped feeding well
- History of convulsions
- Fast breathing (breathing rate ≥60 per minute)
- Severe chest in-drawing
- Movement only when stimulated or no movement even when stimulated
- Fever (temperature ≥37.5 °C)
- Low body temperature (temperature <35.5 °C)
- Any jaundice in first 24 hours of life, or yellow palms and soles at any age.

7.2.2. Exclusive Breastfeeding:

- All babies should be exclusively breastfed from birth until 6 months of age. The mother should be supported to initiate breastfeeding within the first hour of delivery. To ensure adequate feeding, **no more than 4hours should lapse** without feeding.

7.2.3. Cord care:

- Daily chlorhexidine Gel (7.1% chlorhexidine digluconate, delivering 4% chlorhexidine) should be applied to the umbilical cord stump during the first week of life.**Appropriate education should be given so the medicine is not mistakenly applied to the eye.**

7.2.4. Bathing:

- Bathing should **be delayed until after the first 24 hours** of birth.

Additional instructions for newborn care:

- Appropriate clothing of the baby for ambient temperature is important. This means one to two layers of clothes more than adults and use of hats/caps at all times.
- The mother and baby should not be separated and should stay in the same room 24 hours a day to establish bonding unless medically contraindicated.
- Communication and play with the newborn should be encouraged. Simple actions such **as looking at the baby, cuddling, making eye contact, smiling, and singing** are important for bonding and the baby's growth and development.
- Immunizations should be given per the national EPI protocol.
- Preterm and low-birth-weight (LBW) babies should be identified immediately after birth and should receive special care and referred to NICU. Special care for all preterm and LBW babies should include:
  - ✓ Kangaroo Mother Care
  - ✓ Special support for breastfeeding
  - ✓ Ensuring appropriate caloric intake
  - ✓ Do not discharge before feeding is well established, infant is gaining weight and body temperature is stable.

7.3. Key Discharge Instructions for the Mother and Newborn

After an uncomplicated vaginal birth at a health facility, healthy mothers and newborns should receive care in the facility for at least 24 hours after birth. Discharge only if mother's **bleeding is normal, mother's and baby's vital signs are stable without any sign of infection or other diseases and the baby is breast-feeding well.**

- The mother should receive counseling on danger signs for herself as well as the baby.
- The discharge counseling should be provided in a private set up to allow the mother to ask questions and express any concerns freely.

- The father of the baby or any close family member should be part of the discharge teaching, if the mother wishes so, in order to support the mother once she is at home.
- The mother should be informed on follow up visits for herself as well as the neonate.
- Immunization card or immunization passport filled with all relevant information should be given to the mother if birth doses are given before discharge, with instruction to bring it to every clinic visit with the newborn.
- Instruct the mother to have the **newborn registered with Vital Registration within 30days of birth.**

Before the mother is discharged home:

- Ask the mother about her wellbeing, including her **mental and physical readiness to care for herself and her newborn**. The mother's response should be documented and discharge plan made accordingly.
- Provide iron folate tablets and teach her about the need to continue for 3 months.
- Sunlight exposure
- Urine voiding
- Advice on avoiding harmful traditional practices
- Immunize against tetanus toxoid (1stor subsequent dose).
- Provide chlorhexidine Gel (7.1% chlorhexidine digluconate) to be applied for six consecutive days for umbilical cord care of the baby.

In addition to counseling on the danger signs, the mother should receive appropriate education on:

- **Breastfeeding**
- **Personal hygiene**
- **Emotional wellbeing**
- **Pain control**
- **Physical activity**
- **Family planning**
- **Sexual intercourse**
- **HIV prevention**
- **Maternal Diet**
- **Malaria control if in malaria endemic region**
- **Advise on follow up care.**

The discharge instruction to the mother should also include teaching about **danger signs of the newborn i**ncluding:

- Poor feeding or sucking
- Fast breathing >60 breaths /min
- Slow breathing <30 breaths /min
- Skin pustules or bullae > 10mm
- Fever or hypothermia (> 380C or <350C)
- Eyes swollen, sticky or draining pus
- Lethargy
- Cord red, bleeding or draining pus
- Jaundice (yellow skin)
- Persistent vomiting
- Vomiting with a swollen abdomen
- Eye discharge
- Watery or dark green stools with mucus or blood

7.4. Number and Timing of Postnatal Contacts:

At least threeadditional PNC contacts are recommended for all mothers and newborns **after the first 24hours stay** in a health facility. These contacts can take place either at a health facility or in the home, depending on the specific situation.

- First visit should bewithin 72hours after delivery
- Second visit should be between 73hours up to 7th day after delivery.
- Third visit between 7th day and 6th week**.**

- **In an event where the birth has taken place at home**, the HEW should provide the first postnatal contact as soon as she finds out about the delivery and advise the mother to immediately go to health facility as both the mother and the newborn need to receive continuous care at a health facility for the first 24hours.

The HEW should make every effort to make an ambulance available for the mother to go to the health facility as soon as she gives birth.

- On subsequent visits after discharge, it is important to enquire about maternal complaints &conduct complete physical examination on both the mother and neonate.

8. Role of the community in the implementation of 24hours PNC

The role of community in ensuring universal health coverage through **increasing demand generation** and **utilization** of health services is clearly stated in the current HSTP. Thus the contribution of the community is the successful implementation of 24hours PNC is paramount. In addition, given that 72% of deliveries occur at home (EDHS 2016), the first encounter in the postnatal period is likely to be at home through the HEW. The community can be empowered to support the mother in her decision to deliver at home as well as receive 24hours postnatal care at a health facility.

In this section, community refers to the HEWs, HDA, faith-based and community-based platforms such as religious and clan leaders, community elders, women associations, and traditional birth assistants.

The role of each of these stakeholders is briefly stated below:

Health Extension Workers

HEWs can play multiple roles in the community to increase early PNC service uptake. Home visit is a critical opportunity for HEWs to provide postnatal care in addition to their engagement in social behavioral change communication (SBCC).

The HEWs:

- Play a key role in creating community awareness through mobilizing the HDA and other community stakeholders including religious leaders.
- Use ANC and pregnant women conferences to raise awareness regarding the importance of 24 hour PNC.
- Should encourage pregnant mothers to utilize maternity waiting homes to increase 24 hour PNC service utilization.

For mothers who have delivered in health facilities, HEWs

- Need to provide PNC services to the mother and her newborn at home based on the following schedule by working closely with the catchment health center:
  - The first PNC before 72 hours
  - The second PNC between 73hrs-7 days
  - Third PNC between the 7th day and the 6th week.

The HEWs are expected to provide adequate and quality postnatal care including counseling on hygiene, early childhood development, family planning, nutrition, and danger signs using the family health guide to all delivered women and newborns. For the details of the technical interventions to be undertaken by HEWs, ***refer the MNCH part of the national Integrated Refresher Training (IRT) document.***

For mothers who have delivered at home, HEWs:

- Need to encourage the mother with her newborn to visit the nearby health facility for the 24-hour PNC service; if this is not possible, the HEW should provide PNC as soon as she finds out about the delivery and encourage the mother and the newborn to visit a health facility as soon as possible.
- Need to continue provision of the subsequent PNC services to the mother and her newborn at home based on the following schedule by working closely with the catchment health center:
  - The first PNC before 72 hours
  - The second PNC between 73hrs-7 days
  - Third PNC between the 7th day and the 6th week.

Women Development Army (WDA)

The women development army can:

- Encourage pregnant women to use health facility for childbirth.
- Assist pregnant women and her family members on birth preparedness and complication readiness plan.
- Counsel pregnant women on the benefits of PNC including the benefit of staying at health facility for 24hours following delivery.
- Provide information on maternal and newborn danger signs during the postnatal period.
- In case of home delivery, encourage women to have 24-hours postnatal care at nearby health facility.
- Inform immediately all home deliveries in their catchment to HEWs for facilitating referral to the nearby health facility for 24hours PNC services.
- Create awareness on the frequency and timing of postnatal visits early during pregnancy.

Religious Leaders:

Religious leaders can:

- Endorse the importance of early PNC before baptism for Christian communities.
- Assist in birth notification to HEWs.
- Teach family members (husbands, in-laws) to support the mother to utilize 24hours PNC service at a health facility.
- Promote utilization of FHG (also read the FHG)
- Invite HEWs for community education on PNC during special occasions and holidays.
- Immediately refer sick newborns and sick mothers to health post for treatment.
- Promote that medical treatment and religious practices do not conflict with each other.

Women's Associations/ Close family members

In Ethiopia, it is customary to visit delivered mothers to share the joy of motherhood. Hence, in collaboration with the health facility staff and management, this group can organize a place

and needed resources for traditional ceremony such as coffee making, ‘genfo’ or any other food at the health facility.

Women’s associations as well as close family members can:

- Provide psychosocial support,including for those with perinatal loss.
- Mobilize community members to actively participate in the referral system including traditional ambulance service provision.
- Encourage men involvement in facility based childbirth and 24 hours PNC stay.
- Mobilize resource (in kind and cash) to strengthen maternity waiting homes and referral system to increase 24hours PNC utilization.

9. Logistics and supplies needed for implementation of PNC at community level

Logistics requirement for PNC at community level ranges from tools necessary for awareness creation to supplies and equipment that need to be available for managing newborn and/or maternal problems in health posts that may occur during the postnatal period. The main logistics and supplies needed are:

- **SBCC material:**
  - Family health guide (FHG)
  - Flyers
  - Posters
- **Supplies and equipment:**

Salter scale B/P apparatus Stethoscope Thermometer Watch Soap Clean towel Vitamin A Iron & Folate tab Referral and feedback tools Ambulance	Tetracycline eye ointment Chlorhexidine Gel for umbilical cord care Gentamycin Syringe and needle Amoxicillin DT Counseling and screening card for PNC. Record Book, Referral form and pen

10. Implementation Activities

10.1. Roles and Responsibilities

1. **Roles and responsibilities of the Ministry of Health.**

- Develop and disseminate PNC guideline, standardized job aids & SOPs that emphasize on at least 24 hours stay in health facility after birth.
- Ensures coordination among responsible directorates support health facilities renovate their MCH units.
- Revise the minimum standard for health facilities to accommodate 24hours PNC stay.
- Mobilize and allocate resources for the implementation of the guideline.
- Assist regions to build technical and logistic capacity to implement 24hours postnatal care guideline.

- Monitor the implementation status of the 24 hour PNC guideline through regular supportive supervision, reporting, review meeting, evidence generation and operational researches and program evaluation.
- Update BEmONC and Integrated refresher training (IRT) material as per the 24 hour PNC guideline.

2. Roles and responsibilities of the Regional Health Bureau.

- Assign a focal point to coordinate the overall 24-hour guideline PNC implementation in the region.
- Disseminate the PNC guideline and related tools to all Zone/sub-city health management and stakeholders in the region.
- Mobilize and allocate resources for facility renovation or PNC room expansion, human resource, supplies & equipment required to accommodate additional demands.
- Increase community awareness on the need for 24-hour stay after delivery through existing platforms.
- Ensure coordination among responsible core processes/programs to support health facilities implement the 24 hour PNC guideline.
- Coordinate and monitor the role of GOs, NGOs, FBOs, CBOs and private sector to implement 24 hour PNC guideline in the region.
- Monitor the implementation status of the 24 hour PNC guideline through regular supportive supervision, reporting, review meeting and program evaluation.
- Support capacity building of health workers on 24 hour PNC guideline through BEmONC and Integrated refresher training (IRT).

3. Roles and responsibilities of the Zonal Health Department.

- Assign a focal point to coordinate the overall 24-hour guideline PNC implementation in the zone.
- Disseminate the PNC guideline and related tools to woreda health management, health facilities and stakeholders in the zone.
- Support community awareness creation activities on the need for 24-hour stay after delivery through existing platforms.
- Ensure coordination among responsible core processes/programs to support health facilities implement the 24 hour PNC guideline.
- Support and monitor the role of GOs, NGOs, FBOs, CBOs and private sector to implement 24 hour PNC guideline in the region.
- Monitor the implementation status of the 24 hour PNC guideline through regular supportive supervision, reporting, review meeting and program evaluation.

- Support capacity building of health workers on 24 hour PNC implementation through BEmONC and Integrated refresher training (IRT).
- Coordinate community participation and contribution (in kind and money) to strengthen 24 hours stay after delivery.

4. Roles and responsibilities of Woreda Health Office.

- Assign focal point to coordinate the overall 24 hour PNC implementation in the woreda.
- Disseminate the PNC guideline and related tools to health facilities and stakeholders in the woreda.
- Mobilize and allocate resources for facility renovation or PNC room expansion, clinical staff deployment, provision of adequate supplies and materials required to implement the 24 hour postnatal care.
- Create community awareness and encourage community participation and contribution (in kind and money) for 24-hour stay after delivery through existing platforms.
- Coordinate program teams to support health facilities in the implementation of the 24 hour PNC guideline.
- Support GOs, NGOs, FBOs, CBOs and private sector to implement 24 hour PNC guideline in facilities.
- Monitor the implementation of the 24 hour PNC guideline through regular supportive supervision, reporting, review meeting and program evaluation.
- Support capacity building of health workers on 24 hour PNC implementation through BEmONC and Integrated refresher training (IRT).

5. Roles and responsibilities of Health Facilities:

- Assign responsible focal person, preferably a Senior Midwife, to coordinate implementation of 24hours PNC.
- Equip and arrange postnatal rooms to accommodate delivered mothers and their neonates for at least 24hours post-delivery.
- Ensure the availability of adequate human resource to care for postnatal clients.
- Encourage culturally appropriate food and practices that promote physical, emotional and social wellbeing of women and newborns.
- Work closely with catchment facilities and cluster health posts, Kebele & religious leaders and others in the community to ensure sustainability of the program.
- Create awareness regarding 24 hours through existing modalities like ANC visits, Health education, and pregnant women conference etc.
- Make available clinical tools, job aids, IEC materials.
- Ensure integration of PNC service according to the current 24 hour PNC guideline.

- Strengthen existing maternity waiting homes or establish new ones with at least two separate rooms including sanitation services (bathing, clean water, etc.) for pregnant and delivered mothers per the current guideline.
- Strengthen referral linkage through existing catchment link.
- Ensure MCH staffs are trained on the 24 hour PNC clinical service through updated BEmONC training.
- Ensuring availability of adequate supplies and materials required to implement the 24 hour PNC.
- Ensure the 24 hour PNC service is recoded and reported as per the HMIS.

6. **Roles and responsibilities of Health Extension workers:**

- Follow the mother and newborn at home starting from the second day (of delivery) if the delivery has occurred at a health facility.
- In case of home delivery provide the first PNC within the first 24 hours.
- Work closely with the catchment health center to ensure all delivered women and newborns receive adequate and quality postnatal care.
- Create community awareness through exiting platforms and opportunities such as ANC visits, pregnant women conferences and HDA/WDA.
- Apply standard clinical tools, job aids, IEC materials to provide quality postnatal care.
- Strengthen referral linkage through existing catchment link.
- Ensuring availability of adequate supplies and materials required to implement the 24 hour PNC.
- Record and report 24 hour PNC service as per HMIS.

10.2. Implementation Process

As 24hours PNC is a new recommendation in the country, it is essential for regional health bureau and the woreda health bureau to support health facilities in the implementation process.

1. **Orientation:** Orientation need to take place at all levels with a goal of getting a buy-in from those directly responsible for implementation of the guideline at the facility level. Following the orientation of regional health bureau officials by the Ministry of Health, responsible personnel

at the woreda, health facility and community level need to be appropriately guided to carry on the implementation.

   a. Woreda health bureau will orient the PHCU directors on the new guideline and come to agreement on the effective date.
   b. PHCU directors will orient MCH staff
   c. HEW focal at the Health Centers will orient the HEWs in their catchment.

2. Health facilities will:
   a. Update facility level guidelines
   b. Plan for additional staff and material needs at the facility level.
   c. Plan on how to maximize utilization of available resources such as beds and consumables.
   d. Make all possible changes in patient rooms and maternity waiting homes to create additional area as needed.
   e. Include PNC 24hours in patient teaching regarding birth preparedness during ANC visit.
3. HEWs will:
   a. Include PNC 24hours in all patient teaching activities such as ANC visits and pregnant women conferences.
   b. Include in community awareness activities with HDAs and religious leaders.

11. Monitoring and Evaluations

Monitoring and evaluation are essential management functions that help to strengthen program planning and improve the effectiveness of actions and interventions aimed at improving the quality of delivery care. Monitoring and evaluation is done at different levels of the health system geared towards24 hours stay of postnatal mothers and their newborns. Monitoring and evaluation can be done at all levels of the health system at different intervals depending on the indicator.

10.1.Supportive supervision

Regular supportive supervision is critical to direct and support staff to enable them to perform their duties effectively. With decentralization of service provision, the need for supervision becomes more critical. Supportive supervision includes observation, discussion, onsite problem identification, support, guidance and problem solving; and is an important tool in programme management, ensuring quality of services and timely corrective actions. Supervision of PNC services will be integrated into the existing functions of federal, regional, zonal and woreda health sector offices.

During the roll out of 24hours PNC stay, it is recommended to conduct supportive supervision focused on 24hours PNC and stay. Once the program is fully implemented, the supportive supervision can be integrated into the existing supportive supervision plans at every level. It is to be noted that current supportive supervision checklists at all levels need to be update to include questionnaire regarding 24hours postnatal care and stay.

10.2. Review Meetings

Review meetings organized at various levels create a good opportunity to review the status of program implementation, achievements and challenges and come up with workable solutions for the problems and challenges encountered. In these meetings, issues related to PNC 24 hours stay, the care provided, activity reports including major achievements and challenges or constraints encountered during the period under review shall be discussed and action points will bedeveloped.

Key discussion points during review meetings are:

- Status of implementation: how long has it been since implemented?
- Success stories: what has worked in the implantation process.
- Challenges: client willingness, community level resistance, challenges with infrastructure, challenges with human resources.
- Solutions: what has been tried to resolve challenges? What has worked, what hasn't?
- Experience sharing from other facilities on the implementation of 24hours PNC.
- Changes that have been noted in patient outcomes.

10.3.Routine Reporting on HMIS:

24hours PNC is part of the HMIS and will capture it as planned. It needs to be noted that only women who stayed in health facility for the entire 24hours will be reported as having received 24hours PNC.

References:

1. World Health Organization. Maternal Mortality Fact Sheet. November 2016. www.who.int.

2. UN Inter-agency Group for Child Mortality Estimation. Levels and Trends in Child Mortality. 2017.

3. Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

4. Central Statistical Agency (CSA) [Ethiopia] and ICF. 2011. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

5. WHO recommendations for the prevention and treatment of postpartum haemorrhage. 2012. www.who.int

6. WHO recommendations for prevention and treatment of maternal peripartum infections. 2015. www.who.int

Annex 1: Postpartum Hemorrhage

(Summarized from the Management Protocol on Selected Obstetrics Topics for health centers, FMOH, 2014)

Definition

- Vaginal bleeding in excess of 500 mL after childbirth; or
- Any amount of vaginal bleeding after childbirth that is sufficient enough to make the patient symptomatic and/or results in signs of hypovolemia.

Classification

Primary: Postpartum hemorrhage (PPH) occurring within 24 hours of delivery.
Secondary: Postpartum hemorrhage occurring after 24 hours of delivery. Most late PPH is due to retained products of conception or infection or both combined

Causes

- Atonic uterus
- Genital trauma
- Retained placenta or placental fragments
- Acute inversion of the uterus
- Coagulation failure

Management General management

- ✓ Shout for help, urgently mobilize all available personnel.
- ✓ Make a rapid evaluation of the general condition of the woman including vital signs (pulse, blood pressure, respiration, temperature).
- ✓ If shock is suspected immediately begin treatment. Even if signs of shock are not present, keep shock in mind as you evaluate the woman further because her status may worsen rapidly. If shock develops, it is important to begin treatment immediately.
- ✓ Massage the uterus to expel blood and blood clots. Blood clots trapped in the uterus will inhibit effective uterine contractions.
- ✓ Give oxytocin 10 units IM.
- ✓ Start an IV and infuse fluids, establish two IV lines if necessary.
- ✓ Take blood (5 mL) for hemoglobin (Hg)/ hematocrit (Hct), cross matching, etc
- ✓ Empty the bladder.
- ✓ Check to see if the placenta has been expelled and examine the placenta to be certain it is complete.
- ✓ Examine the cervix, vagina and perineum for tears.
- ✓ Provide specific treatment for the identified specific cause (see below).

Specific Management

Management of Primary PPH Atonic uterus

An atonic uterus fails to contract after delivery. Atonic uterus is the most common cause of primary PPH.

- ✓ Continue to massage the uterus.
- ✓ Administer oxytocin 20-40IU/1 litre normal saline or Ringer's lactate solution and infuse at 60dps/minute. Continue dose at arte of 40dps/minute for at least 6hrs OR (if oxytocin is not available)
- ✓ Give ergometrin 0.2 mg IV or IM; repeat after 15 minutes and continue the same dosage every four hours up to 1mg OR give misoprostol 800 micrograms (mcg) rectally stat, 600 mcg orally or 400mcg sublingual
- ✓ ***If bleeding continues:***

Check placenta again for completeness;

- ✓ If there are signs of retained placental fragments (absence of a portion of maternal surface or torn membranes with vessels), remove remaining placental tissue.

- ✓ Assess clotting status using a bedside clotting test. Failure of a clot to form after 7 minutes or a soft clot that breaks down easily suggests coagulopathy.

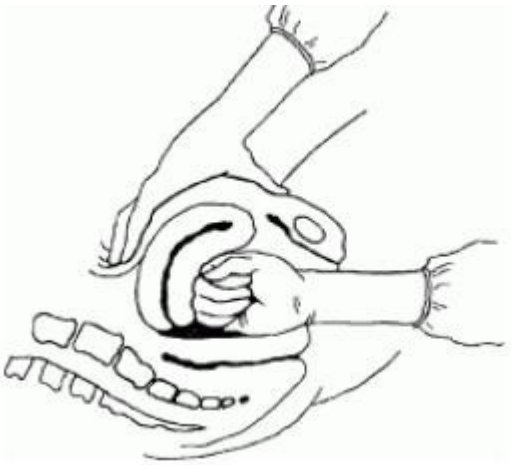
Note: If coagulopathy is diagnosed refer urgently.

- ✓ If bleeding continues in spite of management above: Perform bimanual compression of the uterus:

- ❖ Wearing high-level disinfected gloves insert a hand into the vagina and form a fist;

- ❖ Place the fist into the anterior fornix and apply pressure against the anterior wall of the uterus; ***see figure below:***

Figure: Bimanual compression

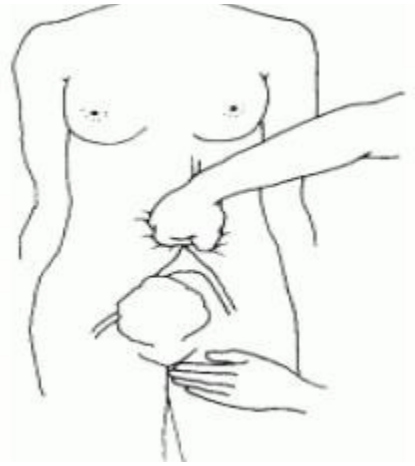


- ❖ With the other hand, press deeply into the abdomen behind the uterus applying pressure against the posterior wall of the uterus;

- ❖ Maintain compression until bleeding is controlled and the uterus contracts. Alternatively compress the aorta:

- ❖ Apply downward pressure with a closed fist over the abdominal aorta directly through the abdominal wall. ***See figure below:***

Figure: Technique for compression of abdominal aorta



- - The point of compression is just above the umbilicus and slightly to the left;
- - With the other hand, palpate the femoral pulse to check the adequacy of compression:
- - If the femoral pulse is palpable during compression, the pressure exerted by the fist is inadequate;
- - If the femoral pulse is not palpable, the pressure exerted is adequate;
- - Maintain compression until bleeding is controlled.

Tears of Cervix, Vagina or Perineum

- ✓ Inspect for bleeding from episiotomy site and perineum. Examine the vagina and cervix for presence of tears.
- ✓ Inspect a segment of the cervix by holding two sponge forceps at a time.
- ✓ Do not repair non-bleeding small tears.
- ✓ Refer urgently if bleeding cannot be controlled or if it is a cervical tear that extends into the uterus or their apex.
- ✓ If there is no tear that accounts for the PPH in the vagina and cervix, check for uterine rupture.

Annex 2: Management of Hypertensive Disorders of Pregnancy

(Summarized from the Management Protocol on Selected Obstetrics Topics, FMOH, 2010)

Introduction

Hypertension in pregnancy is defined as a systolic blood pressure >140 mm Hg or diastolic blood pressure > 90 mm Hg measured on two occasions at least 4 hours apart and within one week period; or a single blood pressure recording of >160/110 mm Hg in a woman who had a normal blood pressure prior to or during early pregnancy.

Initial Evaluation

- **If a woman is unconscious or convulsing**,
  - **SHOUT FOR HELP.**Urgently mobilize all available personnel.
  - Make a rapid evaluation of the general condition of the woman including vital signs (pulse, blood pressure, respiration) while simultaneously finding out the history of her present and past illnesses either from her or her relatives.
  - If she is not breathing or if her breathing is shallow: Check airway patency; suction secretions and assist ventilation using Ambu bag and mask or give oxygen at 4–6 L per minute with mask or nasal cannula.
- **If she is unconscious:**
  - Check airway and temperature;
  - Position her on her left side;
  - Check for neck rigidity;
  - Insert airway.
- **If she is convulsing:**
  - Position her on her left side to reduce the risk of aspiration of secretions, vomit and blood;
  - Protect her from injuries (fall), but do not attempt to restrain her;
  - Provide constant supervision;

Diagnosis and Management of the different stages of hypertensive disorders during pregnancy (HDP)

Women with HDP may progress from mild disease to a more serious condition.
The stages of HDP are:

- Mild pre-eclampsia
- Severe preeclampsia/Eclampsia

HDP without Proteinuria or Edema

Clinical features

- Two blood pressure readings > 140/90mm Hg, 4 hours apart
- There will be no symptoms and hypertension is the only sign at this stage.

Management

- Manage as an outpatient (especially if at <36wks GA)
- Follow up weekly and check for increasing blood pressure, urine (for proteinuria) and fetal condition.
- If blood pressure worsens and proteinuria ensues, manage as pre-eclampsia (see below)
- Counsel the woman and her family on danger signs indicating severe preeclampsia (headache, blurred vision and epigastric pain) or eclampsia and provide advice on preparedness for hospital delivery.

Mild Pre-eclampsia

Clinical Features

- Blood pressure >140/90 but less than 160/110 mmHg
- Proteinuria of < 2+
- No symptoms of severity, signs or laboratory findings of severe pre-eclampsia

Management

Management varies depending on the gestational age. Once the diagnosis of preeclampsia is made, refer mother for hospital level care whenever possible. In all mild preeclampsia cases patients have to be referred to a hospital for complete work up.

Severe Pre-eclampsia

Clinical Features- includes any one or more of the following:

- Blood pressure of > 160/110 mmHg and/oro Proteinuria of >3+ or 5gm/24 hour protein and/or
- Any of these manifestations of multi organ involvement
  - ✓ Headache: increasing in frequency, unrelieved by regular analgesics (frontal/occipital)

- ✓ Clouding of vision (blurred vision/photophobia)
- ✓ Oliguria <400ml in 24 hrs
- ✓ Severe nausea and vomiting
- ✓ Upper abdominal pain (epigastric or right upper quadrant pain)

- **Lab changes**- include (if possible to determine)
  - ✓ Increased hematocrit (hemoconcentration)
  - ✓ Blood smear (----> hemolysis)
  - ✓ Platelets < 100,000 (when there is CBC machine in the center)
  - ✓ Serum creatinine (↑ed) (where there is RFT diagnostic capacity in the center)
  - ✓ Significantly altered liver function tests (where LFT diagnostic capacity is available)

Management of Severe Pre-eclampsia – similar to the management of eclampsia

- The appearance of any of the above manifestations of multi-organ involvement constitutes **an obstetrical emergency and the woman should be referred to the hospital as soon as possible.**
- **Before the woman is referred, she has to be managed with initial stabilization and magnesium sulphate loading dose (as described below).**

Eclampsia

Management

Treatment of eclampsia at the health center level is symptomatic and consists of the following aspects:

1. General measures
2. Control of convulsions (to stop ongoing convulsion and prevent repeated convulsion)
3. Immediate referral to hospitals

General Measures in the management of Eclampsia

1. Position the patient on her side (left lateral) position to reduce risk of aspiration of secretions, vomits or blood.
2. Aspirate (suction) the mouth and throat as necessary and ensure open airway.
3. Give oxygen with mask at 6 liters per minute.

4. Avoid tongue bite by placing an airway or padded tongue blade between the teeth t protect the woman from injury but do not actively restrain.
5. Set up IV line and maintain intravascular volume by giving IV crystalloids (Normal saline, Ringerslactate, Dextrose in normal saline)
6. Place an indwelling catheter to monitor urine output and urine test for protein.
7. Observe vital signs

Management of Hypertensive Emergencies

- ❖ If diastolic >110 hyrdralazine 5mg IV push slowly every 20 minutes
- ❖ If hydralazine is not available nifedipine 20mg PO stat.

• **Anticonvulsant Therapy**

Protocol for Administration of Magnesium Sulphate for Treating Severe Pre – eclampisa and Eclampisa at Health Centers

- ❖ **Administer loading dose of MgSO4**

1. Dosage of MgSO4 for loading purposes

- ❖ 4 gm MgSO4 as 20% solution IV given over 5 minutes(Mix 8ml of 50% MgSO4 solution with 12ml of D5W or 0.9% normal saline to make 20% solution)and
- ❖ 10gm MgSO4 as 50% solution IM divided in to 5gm (10ml) given in each buttock (Add 2mL lidocaine 1% solution to syringe prior to administration)

Referral

*Facilitated referrals imply:

- ✓ Referring clients after giving loading dose of MgSO4 with appropriate care and an ambulance.
- ✓ Inform the referral center by radio or phone.
- ✓ Send clients with skilled birth attendants, essential emergency drugs and supplies.
- ✓ Keep clients in the left lateral position during transportation.
- ✓ Keep a record of all IV fluids, medications prescribed, time of administration and women‘s conditions.

Notes:

- ❖ ***Magnesium sulfate is the drug of choice for preventing and treating convulsions in severe pre-eclampsia & eclampsia.***

Diazepam

Diazepam is an effective alternative, but it increases the risk of respiratory depression and newborn asphyxia, in babies who may already be suffering from the effects of utero- placental ischemia and pre-term birth. The effects may last for several days.

Diazepam schedule for severe Pre-eclampsia and eclampsia

Intravenous administration

Loading dose

- ❖ Diazepam 10 rng IV slowly over 2 minutes o If convulsion recurs repeat the loading dose

Maintenance dose

- ❖ Diazepam 40 mg in 500 ml IV fluids (N/S or Ringer's lactate L) number of drops titrated to keep the woman sedated but arousable.

Note: Maternal respiratory depression may occur when the dosage exceeds 30 mg /hr

Diazepam may be given rectally when IV access is not possible.

- ✓ Peak levels are reached within 10-20 minutes

- ✓ This is invaluable during transportation and at primary health care level.

- ✓ Use loading dose of 20 mg followed by maintenance dose of≥ 10 mg/hr depending on the size of the woman and her clinical response.
- ✓ A urinary catheter or a 10 ml syringe can be used to install the drug in to rectum.
- ✓ Draw the drug in to a syringe, remove needle, lubricate the barrel and insert the syringe in to the rectum to 1/2 of its length, discharge the content and leave the syringe in place holding the buttocks together for 10 minutes to prevent the expulsion of the drug.

Annex 3: Management Of Puerperal Febrile Morbidities

(Summarized from the Management Protocol on Selected Obstetrics Topics for health centers, FMOH, 2014)

Definition Puerperal fever, also known as postpartum fever is defined as temperature of 38.0^{0}C or higher during the first 10 days postpartum, ***exclusive of the first 24 hours.***

Fever in the first 24 hours after delivery often resolves spontaneously and cannot be explained by an identifiable infection. A mother may have a fever owing to prior illness or an illness unconnected to childbirth. However, any fever during 10 days postpartum should be aggressively investigated and timely managed.

Risk Factors:

- ➢ Prolonged and premature rupture of the membranes,
- ➢ Prolonged (more than 24 hours) labor,
- ➢ Frequent vaginal examination,
- ➢ Retained placental fragments or membranes,
- ➢ Anemia and poor nutrition during pregnancy,
- ➢ Immunocompromisation
- ➢ Genital or urinary tract infection prior to delivery,
- ➢ Cesarean birth (20-fold increase in risk for puerperal infection),
- ➢ Obesity,
- ➢ Diabetes, and
- ➢ Indwelling urinary catheter.

Prevention

- Avoid risk factors.
- Keep the episiotomy site clean.

Investigation

- Blood film
- CBC including ESR
- Urinalysis,
- Stool exam

Management

For cases that can be managed at health center level like mastitis and metritis, follow the treatment protocol as follows:

METRITIS

Give a combination of antibiotics until the woman is fever-free for 48 hours:***Ampicillin 2 g IV every 6 hours;*** **PLUS** ***Gentamicin 5 mg/kg body weight IV every 24 hours; PLUS metronidazole 500 mg IV every 8 hours***;

MASTITIS:

Treat with antibiotics:***Cloxacillin 500 mg by mouth four times per day for 10 days***; OR ***Erythromycin 250 mg by mouth three times per day for 10 days.***

Encourage the woman to:

- Continue breastfeeding;
- Support breasts with a binder or brassiere;
- Apply cold compresses to the breasts between feedings to reduce swelling and pain.
- Give paracetamol 500 mg orally as needed.
- Follow up 3 days after initiating management to ensure response.

BREAST ABSCESS:

- Treat with antibiotics:***Cloxacillin 500 mg orally four times a day for 10 days;*****OR** ***erythromycin 250 mg orally three times a day for 10 days.***
- ***And if at health center level: refer the woman,*** advising her to support breasts with a binder or brassiere.

INFECTION OF PERINEAL AND ABDOMINAL WOUNDS:

- ✓ If there is superficial fluid or pus, open and drain the wound.
- ✓ Remove infected skin or subcutaneous sutures and debride the wound. Do not remove fascial sutures.
- ✓ If infection is superficial and does not involve deep tissues, monitor for development of an abscess and give a combination of antibiotics:

  Ampicillin 500 mg orally, four times a day for 5 days*; PLUS *metronidazole 400 mg orally, three times a day for 5 days.

- ✓ Place a damp dressing in the wound and have the woman return to change the dressing every 24 hours.

- ✓ If the infection is deep it involves muscles and causes necrosis (necrotizing fasciitis), start a combination of antibiotics (below) and ***refer urgently to a higher facility:***

  Ampicillin 2gm IV every 6 hours; PLUS gentamicin 5 mg/kg body weight IV every 24 hours;* PLUS *metronidazole 500 mg IV every 8 hours;

  - ✓ For perineal wound infection advise on sitz bath twice a day (1tsp of salt with 1 liter of water solution), PO analgesics and broad-spectrum antibiotics (Amoxacillin for 7 days). If infection involves muscles and is causing necrosis (necrotizing fasciitis), start a combination of antibiotics (above) ***and refer urgently to a higher facility.***

  - ✓ In the case the patient suffers from pelvic abscess, peritonitis and acute pyelonephritis provide initial supportive care (hydration, analgesics/antipyretics and a dose of ***Ampicillin 2 g IV every 6 hours; PLUS Gentamicin 5 mg/kg body weight IV every 24 hours;* PLUS *metronidazole 500 mg IV every 8 hours. After the treatment, if at health center levelurgently refer mother tohospital.***

  - ✓ For severe complicated malaria and hepatitis, give initial treatment as per management guidelines and ***urgently refer mother.***