Postnatal care during hospital stay

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Postnatal Care during Hospital Stay

1. Scope and background

The purpose of this guideline is to describe the routine essential postnatal care during hospital stay and provide currently available best evidence to health care professionals to provide optimal care for postnatal mothers and newborns. This guideline also recommends management options depending on the resources available in the local setting. The guideline explains the postnatal care except management of psychological wellbeing as it is separately addressed by another guideline.

Immediate postpartum period is critical phase of the life for both mother and infant, setting the stage for an ongoing process of optimizing health and well-being. First 24 hours of delivery where both mother and baby within the facility will provide excellent opportunity for health professionals to initiate essential postnatal care for them and continue thereafter.

2. Summary of key recommendations

2.1 Immediate postpartum monitoring

Modified Obstetric Early Warning System (MOEWS) should be used to monitor vital parameters to recognize early abnormalities of postnatal women.

Monitoring with MOEWS chart should be continued for two hours for vaginal delivery and four hours for caesarean delivery.

2.2 Pain Management

A stepwise approach using multi-model combination of agents should be prescribed.

Acetaminophen (Paracetamol) should be prescribed for perineal discomfort and pain following uncomplicated vaginal delivery.

Non-Steroidal Ante-Inflammatory Drugs (NSAID’s) such as diclofenac and ibuprofen with acetaminophen are relatively safe during postpartum period and should be prescribed for postnatal women with more severe pain.

When, a multimodal approach to analgesia using NSAID’s and acetaminophen given simultaneously on a set schedule is insufficient, a milder opioid (codeine) should be considered especially for caesarean delivery for enhanced recovery.
When caesarean delivery is conducted following general anaesthesia or when intrathecal long acting opioids are not used for spinal anaesthesia, Transversus Abdominis Plane field block (TAP block) should be considered as it provides excellent postoperative pain control and improves postoperative analgesia.

Stronger opioid analgesics (morphine, diamorphine and pethidine) are best reserved for women with inadequate pain control with sufficient doses of multimodal approach.

Drowsiness from opioids use can be interfered with maternal activities and breast feeding.

2.3 Perineal/surgical wound care

For the uncomplicated vaginal delivery, cold packs could be applied for 10 to 20 minutes as it helps to improve pain and edema at the episiotomy site.

Postnatal women should change perineal pad frequently (4 to 6 hours) and have shower at least daily to keep the perineum clean.

Vaginal douching is not recommended in the early puerperium.

The vulva should be cleaned from anterior to posterior and not vice versa, to prevent the possibility of fecal contamination of traumatized area.

If a woman has painful defecation or constipation, laxatives should be prescribed for easy bowel motion.

Routine antibiotics are not recommended for first and second degree perineal tears or episiotomy.

Health professionals should follow a standard protocol for management of Obstetric Anal Sphincter Injuries for the additional recommended care.

A visual assessment of the perineum and vaginal examination should be carried out in all postnatal women prior to discharge to assess healing, breakdown and presence of foreign bodies.

Standard dressings should be removed 24 hours after the caesarean delivery and thereafter consider applying a soft dressing.

Assessment of wound should be done for signs of infection, separation or dehiscence.
The woman should be encouraged to wear loose, comfortable clothes and cotton underwear.

Gentle cleaning and drying the wound should be carried out daily

Removal of sutures or clips should be arranged in 5 to 7 days of caesarean delivery.

2.4 Postpartum Bladder Care

Every postnatal women should be educated from the labour ward to empty the bladder every 4 to 6 hours and the time and volume of first void following delivery must be recorded in the maternal notes.

To ensure that normal bladder function resumes, women should be left no more than six hour following delivery without voiding.

If the women has not pass urine successfully by six hours following delivery prompt action should be taken by the obstetric team.

Effort to assist urination should be advised, such as taking a warm bath or shower. If these measures are not successful, prompt assessment of bladder volume and catheterization should be done.

Where the Post Voidal Residue (PVR) is > 150 or the women is unable to void, an indwelling catheter should be inserted for 24 hours.

Offer removal of the urinary bladder catheter once a woman is mobile after a regional anaesthetic for caesarean birth, but no sooner than 12 hours.

2.5 Care for the Newborn Baby

Aim for a full clinical examination around one hour after birth, when the baby has had his/her first breastfeeding. The baby should be checked again before discharge.

Clean dry cord care is recommended for babies born in health facility.

Bathing should be delayed until 24 hours after birth. If it is not possible due to cultural reasons, bathing should be delayed at least six hours.

The new born baby should be clothed one or two layer of cloths with hat/caps for ambient temperature
Immunization should be promoted as per Expanded Immunization Programme.

2.6 Postpartum Contraception

Discussion on Postpartum Family Planning (PPFP) should be initiated prior to discharge which should be a continuum of antenatal contraception counselling.

The couple should be informed that they are at risk of pregnancy as early as four weeks after delivery if the women is not exclusively breastfeeding.

For women with no other medical illnesses, there is no restriction for the use of the following methods during the immediate postpartum period: Post-Partum Intra uterine Devices (PPIUD) and progestogen implants.

If couple requests PPIUD, it should be offered to women within 48 hours of delivery.

If the couple wishes to have postpartum sterilization, it should be arranged within 48 hours after delivery.

Lactational Amenorrhoea (LAM) alone should not be promoted as a method of contraception due to its high failure rate.

2.7 Lactation Management

Every effort should be taken to commence breastfeeding within the first hour after delivery.

Support must be immediately available for new mothers to initiate breast feeding soon after birth.

Extended support from trained staff should offer training of new mothers and then observe and monitor breastfeeding during hospital stay.

Women and their newborn baby should stay in hospital for at least 24 hours and should not be discharged early until mother is confident about breast feeding.

2.8 Nutrition and General Health Advice on Discharge

Nurse in charge of health education should talk to women, preferably arrange small group discussions.
Women should be advised to eat a greater amount and variety of healthy foods, dairy products, oils, nuts, seeds, cereals, vegetables, to help her to well and strong.

A liquid diet can be offered 2 hours after an uncomplicated cesarean delivery. Women should be reassured that she can eat any normal food.

Continue Iron, folic acid and calcium supplementation during lactation.

Women should avoid sexual intercourse until perineal wound heals and she feels comfortable, preferably until 4-6 weeks postpartum.

3. Introduction

Postnatal period is a time of great change, physically, mentally and socially for mothers, infants and families. While many mothers transition through this time uneventfully, others find it overwhelming or develop significant health issues that may persist for weeks and months after giving birth. Postnatal care of the woman and her newborn baby, is the weakest and the most neglected component of reproductive health care. Global data shows that almost half of the post natal maternal deaths occur within the first 24hrs of childbirth1 and one million of newborns were died on the first day2,3. As the first day of the postpartum period carries the highest risk of adverse outcomes for the woman and her baby, it is essential that comprehensive postnatal care is initiated immediately after delivery and continued until the woman is discharged from hospital.

Essential postnatal care which should be commenced on the first postpartum day itself include: pain management, perineal care, bladder care, care of the new born, postpartum contraception, lactation management and assessment of psychological wellbeing.

The World Health Organization (WHO) recognized the important of the postnatal management and has issued detailed, evidence-based recommendations for postnatal care4.

In Sri Lanka, almost all births are taken place in hospitals with skill birth attendance5. Therefore, we have excellent opportunity to commence comprehensive care for postnatal mothers until they discharged from the facility.

4. Recommendations and discussion

4.1 Immediate Postpartum Monitoring

Modified Obstetric Early Warning System (MOEWS) should be used to monitor vital parameters to recognize early abnormalities of postnatal women.

Monitoring with MOEWS chart should be continued for two hours for vaginal delivery and four hours for caesarean delivery.
Early Warning Scoring Systems are a simple, quick-to-use tool based on routine physiological observations. The scoring of these observations can provide an indication of the overall status of the patient’s condition. Prompt action and urgent medical review when indicated, allow for appropriate management of women at risk of deterioration. The MEOWS tool has been specifically adopted to reflect the physiological adaptations of normal pregnancy and should therefore be used for pregnant, labouring and postnatal women. Use of MOEWS, which alerts care providers of potential impending critical illnesses, is recommended to improve maternal outcomes and safety.

4.2 Postpartum Pain Management

A stepwise approach using multi-model combination of agents should be prescribed.

Acetaminophen (Paracetamol) should be prescribed for perineal discomfort and pain following uncomplicated vaginal delivery.

Non-Steroidal Ante-Inflammatory Drugs (NSAID’s) such as diclofenac and ibuprofen with acetaminophen are relatively safe during postpartum period and should be prescribed for postnatal women with more severe pain.

When, a multimodal approach to analgesia using NSAID’s and acetaminophen given simultaneously on a set schedule is insufficient, a milder opioid (codeine) should be considered especially for caesarean delivery for enhanced recovery.

When caesarean delivery is conducted following general anaesthesia or when intrathecal long acting opioids are not used for spinal anaesthesia, a Transversus Abdominis Plane field block (TAP block) should be considered as it provides excellent postoperative pain control and improves postoperative analgesia.

Stronger opioid analgesics (morphine, diamorphine and pethidine) are best reserved for women with inadequate pain control with sufficient doses of multimodal approach.

Drowsiness from opioids use can be interfered with maternal activities and breastfeeding.

Pain has been documented as a major concern for most TAP block women following childbirth. Management of postpartum pain, however, is a relatively neglected due to under estimation. Inadequate pain relief could lead to interfere with mobilization, breastfeeding, and newborn bonding by impeding mobility, can
increase the risk of postpartum complications. Non-pharmacological and pharmacological therapies are options for pain management. It is also important to consider safety of drug therapy due to concerns of secretion through breast milk. Multimodal analgesia uses drugs that have different mechanism of action, which augments analgesic effect (Appendix no. 1). A Cochrane review of local analgesia infiltration and abdominal nerve blocks found that they improved postoperative analgesia for cesarean delivery. Acetaminophen and NSAIDs are relatively safe during breast feeding. However, opioids should be used cautiously as maternal and neonatal sedation.

4.3 Postpartum Perineal /surgical wound Care

For the uncomplicated vaginal delivery, cold packs could be applied for 10 to 20 minutes as it helps to improve pain and edema at the episiotomy site.

Postnatal women should change perineal pad frequently (4 to 6 hours) and have shower at least daily to keep the perineum clean.

Vaginal douching is not recommended in the early puerperium.

The vulva should be cleaned from anterior to posterior and not vice versa, to prevent the possibility of fecal contamination of traumatized area.

If a woman has painful defecation or constipation, laxatives should be prescribed for easy bowel motion.

Routine antibiotics are not recommended for first and second degree perineal tears or episiotomy.

Health professionals should follow a standard protocol for management of Obstetric Anal Sphincter Injuries for the additional recommended care.

A visual assessment of the perineum and vaginal examination should be carried out in all postnatal women prior to discharge to assess healing, breakdown and presence of foreign bodies.

Standard dressings should be removed 24 hours after the cesarean delivery and thereafter consider applying a soft dressing.

Assessment of wound should be done for signs of infection, separation or dehiscence.

The woman should be encouraged to wear loose, comfortable clothes and cotton underwear.
Gentle cleaning and drying the wound should be carried out daily.

Removal of sutures or clips should be arranged in 5 to 7 days of caesarean delivery.

Perineal damage can cause significant maternal morbidity both immediate and long term. Vast majority of perineal trauma is due to intentionally made episiotomy to facilitate vaginal delivery. Episiotomy rates vary considerably in various countries according to individual practices and policies of staff and institutions. Overall rates of episiotomy in different countries range from 8% to 99%. In Sri Lanka almost all primipara and most of the multipara experience episiotomy. Edema and discomfort may result painful defecation and interfere with mobilization. Although evidence is limited, a meta-analysis found that cold pack applied for 10 to 20 min. improve perineal discomfort and edema. Laxatives should be administered, in immediate postpartum period, if a women has painful defecation or constipation following perineal trauma, to aid easier bowel motion and early discharge from hospital. Routine perineal examination should be carried out by a doctor before discharge to assess the perineum for signs of infection and wound breakdowns. NICE guideline on caesarean delivery recommends to remove standard dressing in 8 to 24 hours but not advised for negative pressure dressing unless risk of bleeding.

4.4 Postpartum Bladder Care

Every postnatal women should be educated from the labour ward to empty the bladder every 4 to 6 hours and the time and volume of first void following delivery must be recorded in the maternal notes.

To ensure that normal bladder function resumes, women should be left no more than six hour following delivery without voiding.

If the women has not pass urine successfully by six hours following delivery prompt action should be taken by the obstetric team.

Effort to assist urination should be advised, such as taking a warm bath or shower. If these measures are not successful, prompt assessment of bladder volume and catheterization should be done.

Where the Post Voidal Residue (PVR) is > 150 or the women is unable to void, an indwelling catheter should be inserted for 24 hours.

Offer removal of the urinary bladder catheter once a woman is mobile after a regional anaesthetic for caesarean birth, but no sooner than 12 hours.
A small number of women (0.4% to 4%) experience long term bladder dysfunction following child birth\textsuperscript{18}. This can cause embarrassment and distress\textsuperscript{19}. The bladder could be an unfortunate victim of child-birth. A single episode of bladder overdistention can lead to irreversible damage to detrusor muscles\textsuperscript{20}. PVR and total urine volume are considered as significant finding when a woman is managed with acute urinary retention. Short while after delivery retention of urine with bladder distention can be a frequent phenomenon due to child birth related denervation an ischemia of the bladder muscles. Urinary retention is most likely to occur in the first 8 to 12 hours following delivery because of its onset may be slow and asymptomatic\textsuperscript{21}. Early diagnosis, interventions and treatment are necessary to prevent permanent bladder damage. Simple measures such as education of women regarding effective voiding and frequency would prevent most of undiagnosed bladder distention. Even though it is recommended by Enhance Recovery After Surgery (ERAS) society to remove urinary catheter immediately after caesarean delivery, it is not practically possible in local setting.

4.5 Care for the Newborn Baby

Aim for a full clinical examination around one hour after birth, when the baby has had his/her first breastfeeding. The baby should be checked again before discharge.

Clean dry cord care is recommended for babies born in health facility.

Bathing should be delayed until 24 hours after birth. If it is not possible due to cultural reasons, bathing should be delayed at least six hours.

The new born baby should be clothed one or two layer of cloths with hat/caps for ambient temperature.

Immunization should be promoted as per Expanded Immunization Programme.

Newborn period refers to the first twenty-eight days of life. However first 24 hours of the life is the most challenging time of human life, since babies are born to an entirely new surroundings. There are several physiological adaptations occurring this period in the baby, which is essential for their survival. Family Health Bureau has issued a comprehensive guideline on new born care for detailed reference\textsuperscript{22}.

4.6 Postpartum Contraception

Discussion on Postpartum Family Planning (PPFP) should be initiated prior to discharge which should be a continuum of antenatal contraception counselling
The couple should be informed that they are at risk of pregnancy as early as four weeks after delivery if the women is not exclusively breastfeeding.

For women with no other medical illnesses, there is no restriction for the use of the following methods during the immediate postpartum period: Post-Partum Intra uterine Devices (PPIUD) and progestogen implants. If couple requests PPIUD, it should be offered to women within 48 hours of delivery.

If the couple wishes to have postpartum sterilization, it should be arranged within 48 hours after delivery.

Lactational Amenorrhoea (LAM) alone should not be promoted as a method of contraception due to its high failure rate.

Fertility returns shortly after childbirth in non-breast feeding women. Non-use of PPFP would result unplanned and unwanted pregnancies. Closely spaced pregnancies leads adverse maternal perinatal and infant outcomes. PPFP enables women to achieve healthy interval between births and potentially averting 25-40% of maternal deaths and reducing child mortality by an estimated 10%. The post-partum period represents the critical window of opportunity for women receive to family planning services. Discussion on PPFP should be carried out antenatally and further discussions and the provision of PPFP should be initiated soon after delivery. For women with no other medical illnesses, there is no restrictions for the use of the following methods in the immediate postpartum period: Post-Partum Intra uterine Devices (PPIUD), progestogen implants and progestogen only pills. The PPIUD enables women to leave the birth facility with a safe and extremely affective, long acting, reversible method already in place. The main advantage of this method is convenient of mother due to timing of insertion.

4.6 Lactation Management

Every effort should be taken to commence breastfeeding within the first hour after delivery.

Support must be immediately available for new mothers to initiate breast feeding soon after birth.

Extended support from trained staff should offer training of new mothers and then observe and monitor breastfeeding during hospital stay.

Women and their newborn baby should stay in hospital for at least 24 hours and should not be discharged early until mother is confident about breast feeding.
Breast feeding is considered as the single most effective low cost intervention to reduce child morbidity and mortality worldwide. Another effort for encouraging breastfeeding practice is "Baby Friendly" hospitals. Support must be available immediately for new mothers to initiate breastfeeding in maternity facilities. It is important to integrate the WHO/UNICEF Ten Steps of Successful Breastfeeding (established in 1989) that describe what maternity facilities should do to enable a successful start to breastfeeding. Improving access to skilled breastfeeding counseling and education has been shown to result in a 90 percent increase in exclusive breastfeeding rates for infants up to five months of age. Sri Lanka ranks first among 97 countries globally on breastfeeding rate according to a new survey conducted by the World Breastfeeding Trends Initiative (WBTi) achieving first “Green” nation status in supporting breastfeeding women.

4.7 Nutrition and General Health Advice on Discharge

Nurse in charge of health education should talk to women, preferably arrange small group discussions.

Women should be advised to eat a greater amount and variety of healthy foods, dairy products, oils, nuts, seeds, cereals, vegetables, to help her to well and strong.

A liquid diet can be offered 2 hours after an uncomplicated cesarean delivery.

Women should be reassured that she can eat any normal food.

Continue Iron, folic acid and calcium supplementation during lactation.

Women should avoid sexual intercourse until perineal wound heals and she feels comfortable, preferably until 4-6 weeks postpartum.

As postnatal mothers have increase demand of nutrition due to rapid recovery of pregnancy related physiological changes and breastfeeding, they needs high quality food and greater amount of eating. There are numerous myths and taboos in different cultures, exposing women to limited intake. Therefore, postnatal education and counseling is impotent, should complement antenatal education and counseling and should be implemented prior to discharge from the hospital. Ideally, postnatal education and counseling need to be individualized and flexible, although there could be barriers to do so. The largest trial to study early feeding conventional feeding within 18 hours or early feeding within 2 hours and demonstrated a reduction in thirst and hunger and improved maternal satisfaction, ambulation, and infections. A systematic review and meta-analysis of 17 studies also supported these findings.
5 Clinical Governance

5.1 Quality of care
With increasing numbers of births in health facilities, attention has shifted to the quality of care, as poor quality of care contributes to morbidity/mortality and maternal unsatisfaction. A hospital providing maternity services should have the mission of every pregnant woman and newborn receives high-quality care throughout pregnancy, childbirth and the postnatal period. To accomplish the mission, standard quality assessment procedure should be implemented and monitor in regular basis.

5.2 Training
The maternity staff should be regularly trained with updated knowledge and skills to provide comprehensive postnatal care. Communication and counseling workshops should be arranged for health professionals for better communication with postnatal women and their families.

5.3 Incident reporting
The hospital should adopt effective way of incident reporting and feedback mechanism for adverse events. The prompt investigation of particular incident and implementation of recognized recommendations should be carried out by the institutions.
References

1. Every Newborn, An Executive Summary for The Lancet’s Series. 2014.


17. NICE clinical guideline on caesarean section, No. 132,2011.


   (Accessed 30.09.2020)


29. World Breastfeeding Trends Initiative year 2019,
   https://www.worldbreastfeedingtrends.org/wbti-country-ranking.php
   (Accessed 30.09.2020)


Appendix 1

**World Health Organisation Pain Ladder**

1. **Mild pain**
   - Local anaesthetics, ± Paracetamol ± NSAIDs

2. **Moderate pain**
   - Local anaesthetics, Paracetamol ± NSAIDs, ± Paracetamol + Codeine

3. **Severe pain**
   - Local anaesthetics, Opioids + Paracetamol ± NSAIDs

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**Recommended Research Area**

Caesarean wound care

**List of abbreviations**

MOEWS – Modified Obstetric Early Warning System

NSAID’s – Non – Steroidal –Inflammatory Drugs

PVR – Post Voidal Residue

PPFP – Post Partum Family Planning

PPIUD – Post Partum Intra Uterine Device

WHO – World Health Organization

OASIS – Obstetrics Anal Sphincter Injuries

LAM – Lactational Amenorrhoea

WBTi – World Breastfeeding Trends Initiatives
## Postnatal discharge checklist

**Name:**  
**Age:**  
**BHT No:**

**Mode of delivery:**

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<th>Component / Assessment</th>
<th>Finding</th>
<th>Action</th>
</tr>
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<td>Temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pallor</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Hb %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Uterine fundus</td>
<td>Level – below the umbilicus / High Tenderness – present / No</td>
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<tr>
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<td>Breast</td>
<td>Normal/Inverted Present/Absent Present/Absent</td>
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</tr>
<tr>
<td></td>
<td>- Nipples</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Engorgement</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td>- Mastitis</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Episiotomy</td>
<td>Well apposed Oedema Haematoma Signs of infection</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>LSCS wound</td>
<td>Well apposed Gapping Signs of infection</td>
<td></td>
</tr>
<tr>
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<td>Vaginal examination</td>
<td>Lochia (normal / excess) Bleeding (normal / excess) Foreign bodies (present/ absent)</td>
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<td>9</td>
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