### POSTNATAL CARE PROTOCOL

#### IMMEDIATE CARE

<table>
<thead>
<tr>
<th>Mother</th>
<th>SUBSEQUENT CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Check B/P, pulse rate, respirations, temperature, uterine contraction, bleeding and bladder function immediately after delivery and 1/2 hour for two hours after delivery</td>
<td>• Review antenatal and delivery records noting:</td>
</tr>
<tr>
<td>• Do not leave the woman until the uterus is well contracted and the bleeding controlled</td>
<td>• Date, time and type of delivery</td>
</tr>
<tr>
<td>• Dry the baby, place skin to skin and cover both mother and baby with a warm cloth</td>
<td>• Total estimated blood loss</td>
</tr>
<tr>
<td>• Assess condition and APGAR score immediately after birth</td>
<td>• Most recent Hb</td>
</tr>
<tr>
<td>• Resuscitate immediately if necessary</td>
<td>• Any recent or current medical or obstetric problems. Give Vitamin A.</td>
</tr>
<tr>
<td>• Check baby for any abnormalities</td>
<td>• Assess condition of the mother twice a day and monitor the following:</td>
</tr>
<tr>
<td>• Observe every 15 minutes for breathing, respiration, color and bleeding from the cord</td>
<td>• Vital signs</td>
</tr>
<tr>
<td>• Initiate breastfeeding within an hour</td>
<td>• Conjointva</td>
</tr>
<tr>
<td>• Conduct thorough assessment of the baby after 1 hour (including birth weight)</td>
<td>• Breasts</td>
</tr>
<tr>
<td>• Apply prophylactic Tetracycline Eye Ointment 1%</td>
<td>• Locha for color, amount and smell</td>
</tr>
</tbody>
</table>

#### CARE ON DISCHARGE

<table>
<thead>
<tr>
<th>Care on discharge</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide discharge advice on:</td>
<td></td>
</tr>
<tr>
<td>• Danger signs for the mother during the puerperium (bleeding, fever, foul lochia, severe headache, oedema of hands and feet)</td>
<td></td>
</tr>
<tr>
<td>• Nutrition and personal hygiene</td>
<td></td>
</tr>
<tr>
<td>• Rest and sleep</td>
<td></td>
</tr>
<tr>
<td>• Use of mosquito net</td>
<td></td>
</tr>
<tr>
<td>• Family planning and condom use (dual protection)</td>
<td></td>
</tr>
<tr>
<td>• Danger signs for the baby (fever, breathing difficulty, poor sucking, redness or pus on the cord, jaundice, lethargy, convulsions)</td>
<td></td>
</tr>
<tr>
<td>• Complication readiness including transport plans</td>
<td></td>
</tr>
<tr>
<td>• Couples could resume sex at 6 weeks</td>
<td></td>
</tr>
<tr>
<td>• Postnatal visit within one week and at six weeks</td>
<td></td>
</tr>
<tr>
<td>• Exclusive breast feeding</td>
<td></td>
</tr>
<tr>
<td>• Ensure that Vitamin A 200,000 units is given to the mother and immunizations to the baby</td>
<td></td>
</tr>
<tr>
<td>• Advise mother on baby care (especially warmth, eye and cord care)</td>
<td></td>
</tr>
</tbody>
</table>

#### Summary of Problems that need immediate attention and action

<table>
<thead>
<tr>
<th>Problem</th>
<th>Action</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raised temperature</td>
<td>Investigate for cause of infection</td>
<td>Puerperal sepsis</td>
</tr>
<tr>
<td>Tachycardia</td>
<td>Check associated signs and symptoms</td>
<td>Puerperal sepsis, DVT</td>
</tr>
<tr>
<td>Offensive lochia</td>
<td>Take swab for culture and sensitivity</td>
<td>Puerperal sepsis</td>
</tr>
<tr>
<td>Sub-involution of the uterus</td>
<td>Ensure bladder and bowels are emptied</td>
<td>Urinary tract infection</td>
</tr>
<tr>
<td>Dystocia</td>
<td>Encourage plenty of fluids</td>
<td>Urinary tract infection</td>
</tr>
<tr>
<td>Urinary incontinence</td>
<td>Establish cause e.g., VVF, stress incontinence, retention with overflow</td>
<td>Dependent on cause: persistent urinary tract infections, permanent VVF</td>
</tr>
<tr>
<td>Soreness of perineum</td>
<td>Establish cause</td>
<td>Haematoma, Sepsis</td>
</tr>
<tr>
<td>Inability to sleep or rest</td>
<td>Counselling</td>
<td>Puerperal psychosis</td>
</tr>
</tbody>
</table>

| **Baby** | | |
| Abnormal temperature | Establish cause. If elevated temperature: check if too much clothing or covers, dehydration or sepsis. | Sepsis, brain damage, hypothermia |
| Jaundice | Determine cause of jaundice | Pathological jaundice |
| Infertility to feed | Assess palate | Cleft palate, Failure to thrive |
| Problems with passing stools or urine | Check presence of offices and amount of feeds | Congenital anomalies e.g., imperforate anus, intestinal obstruction, absence or abnormality of kidneys |

#### Indications for baby that requires resuscitation immediately:

- If meconium staining is present, suction the mouth first and then the nostrils before delivery of chest
- As soon as the baby is born repeat suction the baby first before drying
- Dry and wrap in a clean, dry, warm cloth
- Assess if baby is crying, if NOT crying
- Lie baby on its back with head slightly extended, uncover only face and chest
- Suction first the mouth and then the nose.
- Introduce the penguin suction apparatus into the newborn’s mouth and suck while withdrawing
- Introduce the penguin suction apparatus 2 cm into each nostril and suck while withdrawing until no mucus.
- Repeat each suction if necessary but no more than twice and no more than 20 seconds in total.
- Stimulate once or twice at the back
- Check if breathing

If still NOT breathing:

- Explain to the mother that the baby is not breathing
- Clamp or cut and umbilical cord
- Move to area for ventilation
- Stand at head and select correct size mask

If still NOT breathing: Continue ventilation and ask helper to check heart beat

- If heart rate is slowed (less than 100 bpm) or normal (100 bpm or above), ventilate with bag and mask until breathing established. If regular normal breathing established, monitor with monitor.
- If heart rate is less than 100 bpm or normal (100 bpm and above) but the baby is NOT breathing well or remains blue, continue ventilation and seek advanced care (inform anaesthetic clinical officer or clinical officer or next referral health facility).
- Reassess the Apgar score at 5 and 10 minutes.

The desired outcome is a HEALTHY PINK BABY!

If there is no gasping or breathing and there is no heart beat by stethoscope after 10 minutes of ventilation with good chest movement, stop ventilating; the baby is dead. Inform and comfort the mother.
MALARIA AND ANAEMIA PROTOCOL

INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY

- Intermittent presumptive treatment (IPT) of malaria in pregnancy is one of the major malaria preventive strategies in Malawi. At least two doses of SP, 3 tablets for each dose, are given after the first trimester (after 16 weeks gestation), at least four weeks apart, under direct observation (DOT) by a trained healthcare worker.
- Although IPT reduces the risk of malaria in pregnancy, clinical malaria episodes can occur in patients on IPT, as well as in those receiving partial or no IPT.

CLINICAL FEATURES OF MALARIA IN PREGNANCY

- As in non-pregnant adults, malaria in pregnancy may manifest as uncomplicated (severe) disease. The clinical manifestations of malaria in pregnancy are similar to those in adults. However, pregnant women are at particular risk of hypoglycemia (especially as a consequence of treatment with Quinine), at risk of anaemia, and immediate delivery (3rd stage of labour) are at risk of pulmonary oedema.

TREATMENT OF UNCOMPROMISING MALARIA IN PREGNANCY

- Treatment should be initiated as early as possible. Oral Quinine is safe and is the first line treatment in the first trimester of pregnancy. The dose is 10 mg/kg body weight, administered 8 hours for 7 days.
- Give analgesics (Paracetamol 500 mg or Aspirin 300 mg 2 tablets 8 hours for 3 days).
- Ask the woman to return to the clinic if there is no response after 7 days of Quinine treatment.
- In 2nd and 3rd trimester LA should be used in the treatment of uncomplicated malaria.

MANAGEMENT OF COMPLICATIONS

- Those are the same as for any adult. Of special importance in pregnancy is:
  - Pulmonary oedema: careful fluid management, diuretics if necessary, oxygen if possible, nurse in semi-upright position.
  - Hypoglycemia: consider this complication if there is altered consciousness or seizure.
  - Anaemia: be prepared for blood transfusion, especially if the patient is close to parturition. Otherwise, indications for blood transfusion are the same as in others.
  - Renal failure: a particular danger if there has been a eclampsia or shock. Identification and management as above.
  - Shock: consider concealed haemorrhage, continuing blood loss, and sepsisemia. Pay special attention to fluid needs. Culture blood if possible. Administer antibiotics in addition to Quinine.

SEVERE MALARIA DURING PREGNANCY

- In the management of severe malaria in pregnancy, a special concern must be paid to anaemia, hypoglycaemia and pulmonary oedema.
- Quinine is the treatment for severe malaria all through pregnancy.
- The dose is 20 mg/kg body weight loading dose, followed by 10 mg/kg per/kg 12 hours for 7 days.
- Start with IV Quinine in 10% glucose infusion or 5% glucose in normal saline.
- If for some reason Quinine cannot be given by infusion, give 10 mg/kg dosage by IM injection and refer immediately.
- Make sure you give 10% glucose concentration or one liter of 5% glucose before administration of Quinine.
- Take care not to induce pulmonary oedema by monitoring intake and output and observing the woman.
- Random blood sugar should be done before and after Quinine administration.
- Switch to oral Quinine (during 1st trimester) and LA (in 2nd and 3rd trimester) as soon as the patient can take orally.

DEFINITION OF MILD ANAEMIA

- Hb between 7 and 11 g/dl or POV between 20 and 30%.

MANAGEMENT

- Treat malaria and give intermittent presumptive treatment according to protocol.
- Give Albenzamide 400 mg by mouth once after 16 weeks gestation.
- Treat proven schistosomiasis with Praziquantel after 16 weeks gestation.
- Give iron and folic acid daily by mouth.
- Provide dietary advice: encourage dark green vegetable leaves, citrus fruits, liver.

FOLLOW-UP

- Review after 30 days.
- If no improvement, counsel and refer to senior person and arrange for donors.

DEFINITION OF SEVERE ANAEMIA

- Hb < 7 g/dl or POV < 20%.

DURING PREGNANCY AND LABOUR

- Treat malaria.
- Give Albenzamide 400 mg by mouth once after 16 weeks gestation.
- Give iron and folic acid daily by mouth.
- Check FBC and HIV.
- Transfuse packed cells slowly (over 4-6 hours) until Hb > 10 g/dl if gestation > 36 weeks or > 8 g/dl if gestation < 36 weeks.
- Give Furosemide 20 mg IV or by mouth with each unit of blood.
- If Hb not rising despite transfusing at least 2 units of packed cells, refer to central hospital.

DURING LABOUR IN ADDITION TO ABOVE

- Prop woman up.
- Give oxygen at 4 L per minute as required.
- Maintain strict fluid balance chart to prevent fluid overload.
- 2nd stage: assist delivery with vacuum extraction.
- Active management of 3rd stage: give Oxytocin 5 U IM.

POSTPARTUM

- Continue iron and folic acid by mouth for 3 months postpartum.
- Provide dietary advice: encourage dark green vegetable leaves, citrus fruits, liver.
- Counsel for FP (avoid IUCD until in better physical health).

PREVENTIVE & MANAGEMENT OF INFECTIONS ASSOCIATED WITH CAESAREAN SECTION

PREVENTIVE MEASURES

- Encourage the woman to have a warm bath.
- Avoid shaving in labour ward.
- Practice universal infection prevention techniques.
- Do recommended 6 wash technique with chlorhexidine before vaginal examination.
- Provide a clean mackintosh.

PROPHYLACTIC ANTIMICROBIALS

- Give a single dose of chloramphenicol 1 g IV.
- Ampicillin 2 g IV.
- Cotrimoxazole 1 g IV to the mother after the cord is clamped and cut.

THERAPEUTIC ANTIMICROBIALS

- If there are signs of infection or the woman has a fever at the time of operation, give IV Metronidazole 400 mg IV hourly, Benzylpenicillin 2 MU IV every 6 hours and Gentamycin 240 mg IM single dose daily until 48 hrs after the fever subsides, but not less than 5 days. If above antibiotics not available give Chloramphenicol 1 g every 6 hourly until the woman is fever-free for 48 hours, but do not discontinue the course until it has been given for at least 5 days.

POST CAESAREAN SECTION MANAGEMENT GUIDELINES

VITAL SIGNS

- Blood pressure must be stable before leaving the theatre.
- Check HR, pulse rate (feel if pulse is strong), bleeding (from wound and vagina) every 30 minutes for 1st hour, then hourly for 6 more hours, then 6 hourly for one day, then twice a day for another 2 days.
- Check temperature twice a day.

RECORD these findings on an observation chart and immediately contact the most senior person available if there are deviations from normal.

ORAL INTAKE FOLLOWING VERIFICATION BY SENIOR PERSON

- Allow patient to drink after 6-8 hours.
- If patient is able to retain oral fluids, allow her to eat semisolid food (porridge) 12 hours after uncomplicated surgery.
- Allow patient to take normal diet after 24 hours but the food should be soft.

IV FLUIDS

- Infuse 1 litre of Ringer’s Lactate 8 hourly for 24 hours (i.e., 3 litres in 24 hours), then discontinue if patient is drinking sufficiently.

CATHETER

- Remove catheter after 24 hours, unless there is a reason to monitor intake and output or there was obstructed labour or an impending rupture.

MOBILISATION

- Mobilise patient as soon as possible (not later than 24 hours after surgery).

PAIN RELIEF

- Give Paracetamol 1000 mg every 6 hours for 24 to 48 hours.
- Give Cefuroxime 250 mg IM 6 hourly for 24 to 48 hours.
- Give Declofenac suppository 12 hourly for 5 days.
- Give Paracetamol 1 g orally 6 hourly after 48 hours.

WOUND CARE

- Exposure the wound after 2 days and leave uncovered if clean.
- Remove all stitches on day 7.

LACTATION

- Check HR on day 2 and again before discharge if excessive blood loss or pallor.

REVIEW

- Clinical officer or doctor should review the patient the same day (after C/S) on the ward, daily thereafter.
- Monitor vital signs and check wound, abdominal distension, lochia, anaemia.

If the clinical response is poor after 48 hours:
- Ensure adequate dosages of antibiotics are being given.
- Evaluate the woman for other sources of infection (e.g., malaria, urinary tract infection, mastitis).
- Check for signs of peritonitis or abscess; consider reopening the abdomen and draining the pus or hysterectomy.
- Consider altering treatment according to reported microbial sensitivity.

If culture facilities are not available, consider altering treatment to chloramphenicol.

- Women with blood-stream infections will require antibiotics for at least 7 days.
## Reproductive Health Unit Obstetric Management Protocols

### Bleeding Protocol

#### Antepartum Haemorrhage (APH)

**Definition**
Vaginal bleeding from 28 weeks of pregnancy before delivery

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Typical Signs &amp; Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abruptio Placenta</td>
<td>• Abdominal pain&lt;br&gt;• Tense/tender uterus&lt;br&gt;• Foetal distress or absent FHS&lt;br&gt;• +/- vaginal bleeding</td>
</tr>
<tr>
<td>Placenta Prævia</td>
<td>• Shock&lt;br&gt;• Slight/severe vaginal bleeding&lt;br&gt;• Uterus soft, non-tender and relaxed&lt;br&gt;• Malpresentations are common&lt;br&gt;• Foetal heart present or absent</td>
</tr>
<tr>
<td>Ruptured Uterus</td>
<td>• Shock&lt;br&gt;• Dehydration&lt;br&gt;• Abdominal distension&lt;br&gt;• Tender abdomen&lt;br&gt;• Easily palpable foetal parts&lt;br&gt;• Foetal distress or no FHS</td>
</tr>
</tbody>
</table>

#### Primary Postpartum Haemorrhage (PPH)

**Definition**
Increased vaginal bleeding (500 ml or greater and/or causing worsening of pulse rate and blood pressure) within the first 24 hours after childbirth

**Management**
Placenta in:
• Call for help

Explain to woman:
• Rub up a contraction
• Give or repeat Oxytocin 10 Units IM

Applying CCT:
• Empty bladder/insert catheter
• Repeat Controlled Cord Traction (CCT)
• Take blood for Hb, grouping and cross-matching
• Put on IV line with saline or Ringer’s lactate and run it fast; add 20 Units Oxytocin

If CCT failed, remove placenta manually
• If manual removal fails, counsel and refer the client with blood donor

Placenta out:
• Call for help
• Explain to woman
• Rub up a contraction
• Give or repeat Oxytocin 10 IU IM

Expel the clots
• Empty bladder and maintain indwelling catheter
• Put up IV line with saline or Ringer’s lactate with 20 to 40 Units Oxytocin

Take blood for Hb, grouping and cross-matching
• Repair tears of vulva, vagina, perineum, cervix or uterus
• Check pulse and blood pressure quarter hourly

If uterine atony persists in spite of the above:
• Put 20 units of Oxytocin in 1 L of normal saline or Ringer’s lactate and run at 60 drops per minute initially, then 40 drops per minute with a maximum of 3 L
• If bleeding due to uterine atony persists, do bimanual compression
• If there is no improvement, refer to hospital with donors

#### Secondary PPH

**Definition**
Increased vaginal bleeding after the first 24 hours to six weeks after childbirth

**Signs and symptoms**
- Bleeding is lighter of heavy
- Uterus is softer and larger than expected
- Fever
- Offensive lochia
- Anaemia

**Management**
Admit the woman
• Rub up a contraction
• Empty bladder/insert catheter
• Inspect vagina
• Give Oxytocic 10 Units IM
• Take blood for Hb, grouping and cross-matching
• Set up IV line with saline or Ringer’s Lactate
• Put 20 units of Oxytocin in 1 L of IV fluid, if necessary
• Give Metronidazole 500 mg IV stat, Gentamycin 240 mg IM stat, Benzyl penicillin 2 mega units IV/IM stat then refer
• If above treatment not available give Chloramphenicol 1 g IV stat

#### Postabortion Haemorrhage

**Definition**
Vaginal bleeding after an abortion

**Management**
- Explain to woman
- Rub up uterine contraction (in case of late abortion)
- Give Oxytocic drug
- Empty the bladder
- Put up an IV drip with saline and run it fast
- Do VE and remove products of conception from vaginal canal
- Conduct Manual Vacuum Aspiration
- Check vital signs
- If SEPTIC, give Metronidazole 500 mg IV stat, Gentamycin 240 mg IM stat, Benzyl penicillin 2 mega units IV/IM stat then refer
- If above treatment not available give Chloramphenicol 1 g IV stat
- Counsel and refer to hospital with donors

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# Blood Pressure Protocol

<table>
<thead>
<tr>
<th>Severe Preeclampsia</th>
<th>Eclampsia</th>
<th>Additional Details on Magnesium Sulphate Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosis</strong></td>
<td>The following symptoms and signs are typically present:</td>
<td><strong>Loading dose</strong></td>
</tr>
<tr>
<td>• Diastolic BP 110 or over,</td>
<td>• Convulsions</td>
<td>• 4 g of 20% solution in 500 ml of normal saline over 5 minutes plus 5 g of 50% solution in each buttock deep IM</td>
</tr>
<tr>
<td>• Gestation 20 weeks or more, and</td>
<td>• Diastolic BP 90 mm Hg or more after 20 weeks gestation</td>
<td><strong>Observe closely for side effects if any</strong></td>
</tr>
<tr>
<td>• Proteinuria 3+</td>
<td>• Proteinuria 2+ or more</td>
<td>• Common side effect = flushing</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>A small proportion of women with eclampsia have normal BP or no proteinuria. Treat all women with convulsions as if they have eclampsia until another diagnosis is confirmed.</td>
<td>• Less common side effects = nausea, vomiting, muscle weakness, thirst, headache, drowsiness and confusion</td>
</tr>
<tr>
<td>• Admit in labour ward</td>
<td><strong>Differential diagnoses</strong></td>
<td>• Rare side effects = respiratory depression, respiratory and cardiac arrest</td>
</tr>
<tr>
<td>• Put up an IV line normal saline</td>
<td>Epilepsy, cerebral malaria, meningitis, encephalitis, hypoglycaemia</td>
<td><strong>Keep antidote ready</strong></td>
</tr>
<tr>
<td>• Give 4 g of 20% of Magnesium Sulphate solution IV over 5 minute period (20 mls)</td>
<td><strong>General management</strong></td>
<td>In case of respiratory arrest:</td>
</tr>
<tr>
<td>• Administer 5 g of 50% Magnesium Sulphate (20 mls) with 1 ml of 2% Lignocaine IM deep in each buttock (total 10 g)</td>
<td>• Place the woman on her side to reduce risk of aspiration</td>
<td>• Assist ventilation (mask and bag)</td>
</tr>
<tr>
<td>• Catheterize</td>
<td>• Keep airway clear</td>
<td>• Give Calcium Gluconate 1 g (10 ml of 10% solution) IV slowly until respiration begins to stabilize</td>
</tr>
<tr>
<td>• Monitor BP every 15 minutes until BP is lowered, then hourly</td>
<td>• Protect the woman from injury</td>
<td></td>
</tr>
<tr>
<td>• In the event of a convulsion after 15 minutes administer 2 g of 50% Magnesium Sulphate solution IV over 5 minutes (4 mls)</td>
<td>• Put up an IV line normal saline</td>
<td></td>
</tr>
<tr>
<td>• Monitor foetal heart half hourly</td>
<td>• Give 4 g of 20% of Magnesium Sulphate IV over 5 minute period (20 mls)</td>
<td></td>
</tr>
<tr>
<td>• Refer to hospital labour ward and the midwife to escort the woman</td>
<td>• Administer 5 g of 50% Magnesium Sulphate (20 mls) with 1 ml of 2% Lignocaine IM deep in each buttock (total 10 g)</td>
<td></td>
</tr>
<tr>
<td><strong>Loading dose</strong></td>
<td><strong>Catheterize</strong></td>
<td><strong>Keep antidote ready</strong></td>
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<td>• Protect the woman from injury</td>
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<td>• Put up an IV line normal saline</td>
<td>• Refer to hospital labour ward and the midwife to escort the woman</td>
<td><strong>Common side effect</strong> = flushing</td>
</tr>
</tbody>
</table>

**A small proportion of women with eclampsia have normal BP or no proteinuria. Treat all women with convulsions as if they have eclampsia until another diagnosis is confirmed.**

**Differential diagnoses**
- Epilepsy
- Cerebral malaria
- Meningitis
- Encephalitis
- Hypoglycaemia

**General management**
- Place the woman on her side to reduce risk of aspiration
- Keep airway clear
- Protect the woman from injury
- Put up an IV line normal saline
- Give 4 g of 20% of Magnesium Sulphate IV over 5 minute period (20 mls)
- Administer 5 g of 50% Magnesium Sulphate (20 mls) with 1 ml of 2% Lignocaine IM deep in each buttock (total 10 g)
- Catheterize
- Monitor BP every 15 minutes until BP is lowered, then hourly
- In the event of a convulsion after 15 minutes administer 2 g of 50% Magnesium Sulphate IV over 5 minutes (4 mls)
- Monitor foetal heart half hourly
- Refer to hospital labour ward and the midwife to escort the woman

**Loading dose**
- 4 g of 20% solution in 500 ml of normal saline over 5 minutes plus 5 g of 50% solution in each buttock deep IM

**Observe closely for side effects if any**
- Common side effect = flushing
- Less common side effects = nausea, vomiting, muscle weakness, thirst, headache, drowsiness and confusion
- Rare side effects = respiratory depression, respiratory and cardiac arrest

**Keep antidote ready**
- In case of respiratory arrest:
  - Assist ventilation (mask and bag)
  - Give Calcium Gluconate 1 g (10 ml of 10% solution) IV slowly until respiration begins to stabilize
# PRELABOUR RUPTURE OF MEMBRANES

<table>
<thead>
<tr>
<th>Definition</th>
<th>Rupture of the membranes before labour has begun (before, at or after 37 weeks gestation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Watery vaginal discharge</td>
</tr>
</tbody>
</table>
| Management | Gestation less than 34 weeks:  
- No digital vaginal examination should be done  
- Provide pad and observe for amount, color and smell  
- Monitor foetal condition  
- Monitor vital signs every 4 hours:  
  - BP  
  - Respiration  
  - Temperature  
  - Pulse  
- Observe for signs of labour  
- Refer to the hospital for further management  
Gestation 34 weeks or greater:  
- Do vaginal examination to rule out cord prolapse (unnecessary if the head is engaged and the foetal heart normal). If in doubt, do sterile speculum exam and refer to the hospital immediately.  
- Provide pad and observe for amount, color and smell  
- If there are signs of infection, give triple antibiotic therapy  
- Monitor foetal condition  
- Observe for signs of labour  
- Monitor vital signs every 4 hours:  
  - BP  
  - Respiration  
  - Temperature  
  - Pulse |

## CHORIOAMNIONITIS

<table>
<thead>
<tr>
<th>Definition</th>
<th>Acute inflammation of the foetal membranes (Amnion and Chorion) due to bacterial infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Foul-smelling vaginal discharge after 28 weeks of pregnancy, fever/chills, uterine tenderness</td>
</tr>
</tbody>
</table>
| Management | • If signs of intra-uterine infection are evident, give: Metronidazole IV 400 mg 8 hourly, Benzylpenicillin 2 MU IV every 6 hours and Gentamycin 240 mg IM single dose daily until 48 hours after the fever subsides, but not less than 5 days. (If above antibiotics not available give Chloramphenicol 1 g 6 hourly.)  
  - Give Paracetamol 1 g orally stat  
  - Counsel and refer to hospital |

## Puerperal/Postabortion Sepsis

<table>
<thead>
<tr>
<th>Definition</th>
<th>Infection of the genital tract following delivery/abortion any time after delivery/abortion to 6 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Fever (38°C or more), foul-smelling discharge, tender uterus and subinvoluting, increased pulse rate and respiratory rate</td>
</tr>
</tbody>
</table>
| Management | • Check vital signs  
  - Put up IV line  
  - Give Metronidazole IV 500 mg 8 hourly, Benzylpenicillin 2 MU IV every 6 hours and Gentamycin 240 mg IM single dose daily until 48 hours after the fever subsides, but not less than 5 days. (If above antibiotics not available give Chloramphenicol 1 g 6 hourly.)  
  - Give Paracetamol 1 g orally stat  
  - Counsel and refer to hospital with donors |

## HIV and AIDS

| Antenatal |  
- Ascertain HIV status, review health passport  
- Offer HTC if not done  
- If woman is already on ART, continue  
- If not initiated, start ART as per PMTCT/ART protocol  
- Give CPT to mother  
- Give NVP syrup to mother for infant prophylaxis at birth (2 hours after delivery)  
- Counsel on drug adherence health facility delivery  
- Screen for chest infection/TB  
- Refer to hospital for TB initiation if found with TB  
- Provide LLIN if not received |
| If woman is in labour |  
- Ascertain HIV status  
- Offer HIV test if status unknown or tested negative the past 3 months  
- If woman already on ART, continue  
- If not initiated, start ART  
- Do not perform routine Episiotomy  
- Avoid frequent vaginal examination and adhere to all infection prevention practices  
- Deliver within 4 hours after rupture of membranes  
- During third stage of labour do not milk the cord before cutting  
- Follow up on the following:  
  - Early Infant Diagnosis (DBS for PCR) at 6 weeks  
  - Cotrimoxazole for mother  
  - Cotrimoxazole for baby at 6 weeks  
  - Counsel on infant and young child feeding |
| Postnatal |  
- Fill in exposed follow up card and register in HIV care clinic (HCC)  
- Initiate breast feeding within an hour of birth  
- Counsel for follow up after six weeks for DBS (PCR test) collection and CPT initiation of baby from 6 weeks to 18 months  
- Cotrimoxazole initiation or continuation for the mother  
- Counsel on safe sex, nutrition and family planning  
- Counsel for postnatal care at one week and six weeks |

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This poster was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Cooperative Agreement AID-012-A-11-00003 (Support for Service Delivery Integration - Services (SSID-Integration) program) and the Leader with Associates Cooperative Agreement GHS-A-00-08-00022-00 (Maternal and Child Health Integrated Program [MCHIP]). The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.
# Malpresentation Protocol

## Definition

**Obstructed Labour**

Obstructed labour refers to a situation where the descent of the presenting part is arrested during labour despite strong uterine contractions.

**Ruptured Uterus**

A tear of the uterus is usually caused by obstructed labour.

**Malpresentation**

Presentation of the foetus that is not cephalic e.g., Breech, transverse lie, oblique lie, and compound.

## Signs and Symptoms

### Obstructed Labour

- Secondary arrest of: (i) cervical dilatation and (ii) descent of presenting part
- Caput (2+ or more)
- Moulding (2+ or more)
- Cervix poorly applied to presenting part
- Oedematous cervix
- Ballooning of lower uterine segment
- Formation of retraction band (Bandl’s ring)
- Maternal and foetal distress

### Ruptured Uterus

- Severe abdominal pain (may decrease after rupture)
- Cessation of the uterine contractions
- Foetal distress or no foetal heart
- Ballooning of lower uterine segment
- Formation of retraction band (Bandl’s ring)
- Maternal and foetal distress

### Malpresentation

- Shock
- Abdominal distension/free fluid
- Abnormal uterine contour
- Tender abdomen
- Easily palpable fetal parts
- Absent foetal movements and foetal heart sounds
- Rapid maternal pulse

## Management

### Obstructed Labour

1. Explain condition to mother
2. Take blood for Hb, grouping and cross-match
3. Put up IV line (Ringer’s Lactate if in shock, Dextrose 5% if exhausted and ketotic) with large (No. 14) cannula
4. Insert urinary catheter
5. Give Chloramphenicol 1 g IV stat
6. Monitor vital signs
7. Measure and record fluid intake and urinary output accurately
8. Nil per os
9. Check foetal heart sounds
10. Counsel and refer with blood donors
11. Document all interventions and observations

### Ruptured Uterus

1. Restore blood volume by infusing IV fluids (normal saline or Ringer’s Lactate) with large (No. 14) cannula
2. Give Chloramphenicol 1 g IV
3. Monitor vital signs
4. Measure and record fluid intake and urinary output accurately
5. Nil per os
6. Document all interventions and observations
7. Counsel and refer to hospital with donors

### Malpresentation

1. Evaluate gestational age and size of baby
2. If malpresentation persists after 36 weeks, counsel and refer to hospital

## Indications

- Delayed second stage of labour—after 30 minutes in multipara and 60 minutes in primigravida
- Foetal distress in second stage of labour
- Maternal exhaustion
- Maternal condition requiring speedy delivery (anaemia, asthma, preeclampsia)
- Cord prolapse in second stage with cord pulsating

## Contraindications

- CPD
- Malpresentation
- Prematurity (<37 weeks)
- Descent more that 1/5
- Incomplete cervical dilatation
- Suspected ruptured uterus
- Intrauterine death

## Criteria for Vacuum Extraction

- Position of the occiput should be exactly known (do not place on the posterior fontanel)
- Contractions must be present
- The bladder must be empty
- The vertex must be presenting
- Descent 0/5; no moulding no caput
**MANAGEMENT OF ABRUPTIO PLACENTA**

- Admit woman in labour ward
- Explain the condition to the woman
- Accurate history taking to determine the severity and type of bleeding
- Take blood samples for FBC, blood group and cross-matching
- Insert IV line normal saline or Ringer’s Lactate
- Do bedside clotting test (Failure to clot after 7 minutes or a soft clot that breaks down easily suggests coagulopathy)
- Check vital signs hourly
- Monitor contractions and foetal condition
- Provide a pod to monitor bleeding
- Record fluid intake and output
- Transfuse as necessary, preferably with fresh blood
- Do vaginal examination only in theatre unless placenta praevia has definitely been ruled out

- **If bleeding is heavy, resuscitate and deliver as soon as possible** if the cervix is fully dilated, deliver by vacuum extraction
- **If vaginal delivery is not imminent, deliver by C/S as soon as the woman’s condition has been stabilized, treating shock and replacing fluids until blood is available**
- In case of coagulopathy correct it with fresh frozen plasma and platelets
- C/S is required if there is an obvious obstetrical indication such as transverse lie, or if uterine contractions cannot be stimulated, or when clinical shock due to haemorrhage has been uncontrollable
- **If bleeding is light to moderate and foetal heart rate is absent, do ARM**
- **If contractions are poor, augment labour with Oxytocin**
- **If cervix is unfavourable (firm, thick, closed), perform C/S**
- **If bleeding is light to moderate and foetal heart rate is abnormal, perform rapid vaginal delivery**

**MANAGEMENT OF PLACENTA PRAEVIA**

- Admit the woman in labour ward for close observations
- Explain the condition to the mother
- Accurate history taking to determine the severity and type of bleeding
- Check vital signs hourly
- Monitor contractions and foetal condition
- Provide a pod to monitor bleeding
- NEVER perform a vaginal examination in labour ward
- Take blood samples for Hb, blood group and cross-matching
- Insert IV line normal saline or Ringer’s Lactate
- Locate placenta if reliable ultrasound examination can be performed
- **If bleeding is light or if it has stopped and the fetus is alive but premature, give steroids to the mother**
- **If heavy bleeding occurs, keep in hospital, ensure blood is ready for emergency transfusion**
- **If term pregnancy and the bleeding is heavy, deliver by C/S**
- **If term pregnancy with light bleeding, deliver vaginally**
- **At term, if bleeding is light and there is Type I or II anterior placenta praevia, an in active phase of labour vaginal delivery may be possible**
- **Type II posterior, IV and should deliver by C/S**

**Post-ABSORPTION HAEMORRHAGE**

- Examine each patient following an abortion for signs of infection, uterine, vaginal or bowel injury.

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**REPRODUCTIVE HEALTH UNIT OBSTETRIC MANAGEMENT PROTOCOLS**

**DISTRICT/CENTRAL HOSPITAL**

**BLEEDING PROTOCOL**

**Antepartum Haemorrhage (APH)**

- **Definition:** Vaginal bleeding from 28 weeks of pregnancy before delivery

**Primary Postpartum Haemorrhage (PPH)**

- **Definition:** Increased vaginal bleeding after the first 24 hours to six weeks after childbirth

**Secondary PPH**

- **Definition:** Vaginal bleeding after an abortion

- **Management**
  - Call for help
  - Explain to the woman
  - Empty the bladder
  - Put up an IV drip with saline and run it fast
  - Do VE and remove products of conception from vaginal canal
  - Check vital signs
  - **If gestation was less than 14 weeks, perform manual vacuum aspiration (MVA)**
  - **If gestation was greater than 14 weeks, inform clinical officer or doctor to do an evacuation**
  - After procedure, observe: TPR, BP, uterine tone, blood loss, general condition
  - Give antibiotics if septic (see puerperal/post abortion sepsis protocol)
  - Correct anaemia (see anaemia protocol)
  - Provide emotional support, counselling and chosen family planning method including condoms (dual protection) before discharge

**Reproductive Health Unit Obstetric Management Protocols**

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### SEVERE PRE-ECLAMPSIA

<table>
<thead>
<tr>
<th>Blood Pressure Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of the third stage of labour</td>
</tr>
<tr>
<td>- Maintain anticonvulsant therapy for 24 hours after delivery or the last convulsion, whichever occurs last</td>
</tr>
<tr>
<td>- Continue with antihypertensive therapy as long as the diastolic pressure is 110 mm Hg or more</td>
</tr>
<tr>
<td>- Monitor urinary output every hour for the first 4 hours and output should be 30 ml per hour or more</td>
</tr>
<tr>
<td>- If there were convulsions, birth took place within 12 hours following the convulsion or, in the absence of convulsions, within 24 hours</td>
</tr>
<tr>
<td>- Administer 5 g of 50% Magnesium Sulfate solution (20 ml) IV over a 5 minute period</td>
</tr>
<tr>
<td>- Intake and output monitoring every 4 hours</td>
</tr>
</tbody>
</table>

**ADDITIONAL DETAILS ON MAGNESIUM SULPHATE ADMINISTRATION**

- Loading dose: 4 g of 20% solution in 500 ml of normal saline over 5 minutes plus 5 g of 50% solution in each buttock deep IM
- Maintenance dose: 5 g of 50% solution every 4 hours till delivery or after the last convulsion which ever was the last
- Monitor the patient closely

### ECLAMPSIA

<table>
<thead>
<tr>
<th>Blood Pressure Protocol</th>
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<tbody>
<tr>
<td>The following symptoms and signs are typically present in a woman with 20 weeks gestation or more:</td>
</tr>
<tr>
<td>- Convulsions</td>
</tr>
<tr>
<td>- Diastolic BP 90 mm Hg or more</td>
</tr>
<tr>
<td>- Proteinuria 2+ or more</td>
</tr>
</tbody>
</table>

**Eclampsia can occur before, during and after delivery.**

**DIFFERENTIAL DIAGNOSES**

- Epilepsy, cerebral malaria, meningitis, encephalitis, hypoglycaemia

**GENERAL MANAGEMENT**

- Place the woman on her side to reduce risk of aspiration |
- Administer Oxygen 4–6 litres/minute |
- Protect the woman from injury |
- Put IV line of normal saline or Ringer’s Lactate |
- Administer 4 g of 20% Magnesium Sulfate solution (20 ml) IV over a 5 minute period |
- In the event of a second convulsion after 15 minutes, administer 2 g of 50% Magnesium Sulfate solution (4 ml) IV over a 5 minute period |
- Insert urinary catheter |
- Monitor urinary output every hour for the first 4 hours and output should be 30 ml per hour or more |
- Monitor fluid balance |
- Monitor foetal heart rate |
- Evaluate clotting time at bedside |
- If there were convulsions, birth took place within 12 hours following the convulsion or, in the absence of convulsions, within 24 hours |
- If curve of cervical dilatation runs to the right |
- Administer 5 g of 50% Magnesium Sulfate solution (20 ml) IV over a 5 minute period |
- Monitor foetal heart rate |
- Monitor maternal respiratory rate |
- Evaluate clotting time at bedside |
- If there were convulsions, birth took place within 12 hours following the convulsion or, in the absence of convulsions, within 24 hours |
- Antihypertensive treatment (if diastolic BP is 110 mm Hg or more): |

#### Plan 1: Hydralazine

- 5 mg IV slowly every 5 minutes or 12.5 mg IM every 2 hours, until diastolic BP stabilizes between 90 and 100 mm Hg |

#### Plan 2: Nifedipine

- 5 mg sublingual, repeating the dose if the diastolic BP is still more than 110 after 10 minutes |
- Monitor foetal heart rate |
- Monitor urinary output every hour for the first 4 hours and output should be 30 ml per hour or more |
- Monitor respiration (should be more than 16/minute) |
- Monitor Postnatal reflexes (should be present) |

**NURSING CARE**

- Administer 5 g of 50% Magnesium Sulfate solution (20 ml) IV over a 5 minute period |
- Monitor foetal heart rate |
- Evaluate clotting time at bedside |
- If there were convulsions, birth took place within 12 hours following the convulsion or, in the absence of convulsions, within 24 hours |
- Antihypertensive treatment (if diastolic BP is 110 mm Hg or more): |

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**POSTPARTUM CARE**

- Monitor foetal heart rate |
- Monitor urinary output every hour for the first 4 hours and output should be 30 ml per hour or more |
- Monitor respiration (should be more than 16/minute) |
- Monitor Postnatal reflexes (should be present) |

**PREVIOUS CAESAREAN SECTION**

- Admit at hospital at 37 weeks (if coming from far) |
- Make an assessment |
- Find out why the C/S was done |
- Check the presentation and size of the baby |
- Take blood samples for haemoglobin, blood group and cross-matching |
- Deliver by C/S if |

#### More than one previous C/S or a classical scar by elective C/S at 38 weeks |

#### Malpresentation (if persisting to term) |

#### History of previous obstructed labour |

#### Other contraindications to vaginal delivery |

**TRIAL OF LABOUR**

- A cephalic presentation |
- A normal size baby (estimated weight less than 3,500 g) |
- A normal segment scar |
- No contraindications to vaginal delivery |

**MANAGEMENT OF THE FIRST STAGE OF LABOUR**

- Evaluate the progress of labour carefully with the use of maternal or foetal distress |
- Monitor closely |
- Monitor foetal heart rate |
- Evaluate clotting time at bedside |
- If there were convulsions, birth took place within 12 hours following the convulsion or, in the absence of convulsions, within 24 hours |
- Antihypertensive treatment (if diastolic BP is 110 mm Hg or more): |

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**KEEP ANTIDOTE READY**

- Intravenous (IV) or Intramuscular (IM) Analgesia |
- Assist ventilation (mask and bag, anesthesia apparatus, intubation) |
- Give Calcium Gluconate 1 g (10 ml of 10% solution) IV slowly until respiration begins to stabilize |

**ADDITIONAL DETAILS ON MAGNESIUM SULPHATE ADMINISTRATION**

- Loading dose: 4 g of 20% solution in 500 ml of normal saline over 5 minutes plus 5 g of 50% solution in each buttock deep IM |
- Maintenance dose: 5 g of 50% solution every 4 hours till delivery or after the last convulsion which ever was the last |
- Monitor the patient closely |
- Observe closely for side effects if any |
- Common side effect = flushing |
- Less common side effects = nausea, vomiting, muscle weakness, thirst, headache, drowsiness, confusion |
- Rare side effects = respiratory depression, respiratory and cardiac arrest |
- Before repeat administration, ensure that |

- Respiratory rate is at least 16 per minute |
- Patellar reflex present |
- Urinary output is at least 30 ml per hour |

**WITHHOLD OR DELAY DRUG IF**

- Respiratory rate falls below 16 per minute |
- Patellar reflex are absent |
- Urinary output falls below 30 ml per hour over preceding 4 hours |

**C/S DURING FIRST STAGE OF LABOUR**

- Admit at hospital at 37 weeks (if coming from far) |
- Make an assessment |
- Find out why the C/S was done |
- Check the presentation and size of the baby |
- Take blood samples for haemoglobin, blood group and cross-matching |
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<tr>
<th>PRELABOUR RUPTURE OF MEMBRANES</th>
<th>PUERPERAL/POSTABORTION SEPSIS</th>
<th>CHORIOAMNIONITIS</th>
<th>HIV AND AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
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<td><strong>Antenatal</strong></td>
</tr>
<tr>
<td>Rupture of the membranes before labour has begun (before, at or after 37 weeks gestation)</td>
<td>Infection of the genital tract following delivery-abortion any time after delivery-abortion to 6 weeks</td>
<td>Acute inflammation of the foetal membranes (Amnion and Chorion) due to bacterial infection</td>
<td>• Ascertain HIV status, review health passport</td>
</tr>
<tr>
<td><strong>Diagnosis</strong></td>
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<td>• Offer HTC if not done</td>
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<tr>
<td>Watery vaginal discharge</td>
<td>Fever (38°C or more), foul-smelling discharge, tender uterus and subinvolution, increased pulse rate and respiratory rate</td>
<td>Foul-smelling vaginal discharge after 28 weeks of pregnancy, fever/chills, uterine tenderness</td>
<td>• If woman is already on ART, continue</td>
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<tr>
<td><strong>Management</strong></td>
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<td><strong>Management</strong></td>
<td>• If not initiated, start ART as per PMTCT/ART protocol</td>
</tr>
<tr>
<td>Gestation less than 34 weeks:</td>
<td>• No digital vaginal examination should be done</td>
<td>• If signs of intra-uterine infection are evident, give Metronidazole IV 500 mg 6 hourly. Benzylpenicillin 2 MU IV every 6 hours and Gentamicyn 240 mg IM single dose daily until 48 hours after the fever subsides, but not less than 5 days</td>
<td>• Give CPT to mother</td>
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<tr>
<td>• When in doubt, perform speculum examination</td>
<td>• Check vital signs</td>
<td>• If above antibiotics not available, give Chloramphenicol 1 g 6 hourly</td>
<td>• Give NVP syrup to mother for infant prophylaxis at birth (2 hours after delivery)</td>
</tr>
<tr>
<td>• Check temperature 4 hourly, inspect liquor daily, assess foetal heart rate</td>
<td>• Put up IV line</td>
<td>• Continue with Paracetamol 1 gram stat</td>
<td>• Counsel on drug adherence health facility delivery</td>
</tr>
<tr>
<td>• Give prophylactic antibiotics: Erythromycin 250 mg by mouth 3 times per day for 7 days PLUS Metronidazole 400 mg by mouth tds for 7 days</td>
<td>• Give Paracetamol 1 gram stat</td>
<td>• Take a cervical swab or preferably a blood culture to establish the causative organism</td>
<td>• Screen for chest infection/TB</td>
</tr>
<tr>
<td>• Give Corticosteroids: Betamethasone 12 mg IM, 2 doses 12 hours apart; OR Dexamethasone 6 mg IM, 4 doses 6 hours apart</td>
<td>• Give Tetracycline 500 mg 6 hourly</td>
<td>• Give IV Metronidazole IV 500 mg 8 hourly, Benzylpenicillin 2 MU IV every 6 hours and Gentamicyn 240 mg IM single dose daily until 48 hrs after the fever subsides, but not less than 5 days</td>
<td>• Refer to hospital for TB initiation if found with TB</td>
</tr>
<tr>
<td>• Do ultrasound scan</td>
<td>• Continue with Paracetamol 1 gram orally 6 hourly</td>
<td>• Check Malaria Parasites and FBC. If Malaria Parasites positive, give LA.</td>
<td>• Provide LLIN if not received</td>
</tr>
<tr>
<td>• If signs of intra-uterine infection develop (temperature 37.5°C or more, purulent or offensive liquor, foetal tachycardia), inform the most senior person available, who should plan urgent delivery</td>
<td>• Check Malaria Parasites and FBC</td>
<td>• Evacuate remaining products of conception</td>
<td>• If woman is in labour</td>
</tr>
<tr>
<td>• Deliver at 34 weeks</td>
<td>• Continue monitoring of her clinical condition and vital signs 4 hourly until fever subsides</td>
<td>• Encourage bed rest and make the woman comfortable</td>
<td>• Ascertain HIV status</td>
</tr>
<tr>
<td>Gestation 34 weeks or greater:</td>
<td>• Encourage ambulation</td>
<td>• Use a fan and give tepid sponging to help reduce fever</td>
<td>• Offer HIV test if status unknown or tested negative the past 3 months</td>
</tr>
<tr>
<td>• Do vaginal examination to rule out cord prolapse (unnecessary if the head is engaged and the foetal heart normal). If in doubt, do speculum exam.</td>
<td>• Observe lochia for smell colour and consistency</td>
<td>• Provide cold drinks and assist the woman in her personal care, ensure vulval hygiene and use frequent clean pads or rags</td>
<td>• If woman already on ART, continue</td>
</tr>
<tr>
<td>• If membranes have been ruptured for more than 18 hours, give prophylactic antibiotics: Ampicillin 2 g IV every 6 hours OR X R 2 mega units IV</td>
<td>Follow-up:</td>
<td>• Continue with Paracetamol 1 gram orally 6 hourly</td>
<td>• If not initiated, start ART</td>
</tr>
<tr>
<td>• A change of antibiotics every 6 hours until delivery</td>
<td>• If fever is still present after 72 hours, re-evaluate the patient, revise the diagnosis and treatment. Consider doing an exploratory laparotomy!</td>
<td></td>
<td>• Do not perform routine Episiotomy</td>
</tr>
<tr>
<td>• If labour does not begin spontaneously within 24 hours, assess the cervix and induce labour, if no contraindication to vaginal delivery. If unsuccessful, deliver by C/S.</td>
<td></td>
<td></td>
<td>• Avoid frequent vaginal examination and adhere to all infection prevention practices</td>
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<td>• Deliver within 4 hours after rupture of membranes</td>
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<td>• During third stage of labour, do not milk the cord before cutting</td>
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<td>• Initiate breast feeding within an hour of birth</td>
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<td>• Counsel for follow up after six weeks for DBS (PCR test) collection and CPT initiation of baby from 6 weeks to 18 months</td>
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**Definition**
Obstructed labour refers to a situation where the descent of the presenting part is arrested during labour despite strong uterine contractions.

**Signs and symptoms**
- Secondary arrest of: (i) cervical dilatation and (ii) descent of presenting part
- Caput (2+ or more)
- Moulding (2+ or more)
- Cervix poorly applied to presenting part
- Oedematous cervix
- Ballooning of lower uterine segment
- Formation of retraction band (Bandl’s ring)
- Maternal and foetal distress

**Management**
- Explain condition to mother
- Take blood for Hb, grouping and cross-match and identify donor(s)
- Rehydrate patient (Ringers Lactate if in shock, Dextrose 5% if exhausted and ketotic ) with large (No. 1) cannula
- Insert urinary catheter
- Give Chloramphenicol 1 G IV stat
- Monitor vital signs
- Measure and record fluid intake and urinary output accurately.
- Nil per os
- Check fetal heart sounds
- If rupture is likely C/S should be done
- Deliver by C/S

**Postpartum**
- Keep indwelling catheter for 7 days
- Continue triple antibiotic therapy; IV Metronidazole 400 mg 8 hourly, Benzyl Penicillin 2 MU 6 hourly and Gentamicyn 240 mg IM single dose daily till fever subsides for 48 hours
- If above drugs not available:
  - Give Chloramphenicol 1 G 6 hourly until fever subsides for 48 hours
  - Measure and record fluid intake and urinary output accurately.
  - Document all interventions and observations
  - During follow up postpartum visit ask for VVF or RVF

**RUPTURED UTERUS**

**Definition**
A tear of the uterus is usually caused by obstructed labour

**Signs and symptoms**
- Severe abdominal pain (may decrease after rupture)
- Cessation of the uterine contractions
- Foetal distress or no foetal heart
- Bleeding (intra-abdominal and/or vaginal)

**NOTE:** Rupture of the lower uterine segment into broad ligament will not release blood into the abdominal cavity.

**Signs and symptoms sometimes present**
- Shock
- Abdominal distension/free fluid
- Abnormal uterine contour
- Tender abdomen
- Easily palpable foetal parts
- Absent foetal movements and foetal heart sounds
- Rapid maternal pulse

**Management**
- Call for help
- Explain the condition to the Patient
- Restore blood volume by infusing IV fluids (Normal Saline or Ringer’s lactate) with large (No. 14 G) cannula
- Give Chloramphenicol 1 G IV
- Catheritize the bladder
- Check vital signs and monitor urine output
- Blood for cross-match and keep 2 units of blood
- When vital signs become stable, immediately refer for a laparotomy and deliver the baby and placenta

**Post-operative care**
- Give Metronidazole IV 400 mg 8 hourly, Benzyl Penicillin 2 MU IV every 6 hours and Gentamicyn 240 mg IM single dose daily until 48 hrs after the fever subsides, but not less than 5 days. (If above antibiotics not available give Chloramphenicol 1 g 6 hourly) until fever-free for 48 hours, but do not discontinue the course until it has been given for at least 5 days.
- Keep the bladder catheter in place for at least 7 days if the bladder was damaged.
- If BTL was not done, offer family planning and advice on elective C/S next time.

**MALPRESENTATION**

**Definition**
Presentation of the foetus that is not cephalic e.g., breech, transverse lie, oblique lie, and compound

**Signs and symptoms**
- Severe abdominal pain (may decrease after rupture)
- Cessation of the uterine contractions
- Foetal distress or no foetal heart
- Bleeding (intra-abdominal and/or vaginal)

**Contraindications**
- CPD
- Malpresentation
- Prematurity (<37 weeks)
- Descent more that 1/5
- Incomplete cervical dilatation
- Gestational age less than 37 weeks
- Suspected ruptured uterus
- Unengaged presenting part
- Intrauterine death

**Indications**
- Delayed second stage of labour—after 30 minutes in multipara and 60 minutes in primigravida
- Foetal distress in second stage of labour
- Maternal exhaustion
- Maternal condition requiring speedy delivery (anaemia, asthma, preeclampsia)
- Cord prolapse in second stage with cord pulsating

**MALPRESENATION PROTOCOL**

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