GOVERNMENT OF ASSAM

Antenatal Checkup

National Health Mission, Assam

- Helps in identifying complications of pregnancy on time and their management
- Ensures healthy outcomes for the mother and her baby
- Necessary for well-being of pregnant woman and foetus

Supplementation during Pregnancy

- Folic acid tab 400 µg daily in Ist trimester
- Iron Folic acid tab daily from 14 weeks onwards
- For Anemic women, Iron Folic acid tab twice daily

Registration and 4 minimum Antenatal Checkups during pregnancy and more if indicated

Registration & 1st ANC	In first 12 weeks of pregnancy
2nd ANC	Between 14 and 26 weeks
3rd ANC	Between 28 and 34 weeks
4th ANC	Between 36 weeks and term

First Visit

- Pregnancy detection test
- Fill up MCP Card and ANC register
- Give filled up MCP Card and Safe Motherhood booklet to the woman
- Past and present history of any illness/complications in this or previous pregnancy
- Physical examination (weight, BP, respiratory rate) and check CVS/Resp system, breast, pallor, jaundice and oedema
- Two doses of Inj. TT 4 weeks apart whenever pregnancy is detected

Investigations

- Hb%, urine examination
- Blood group including Rh factor
- RPR/ VDRL, HBsAg, HIV screening
- RDK test for malaria (in endemic areas)

Information for pregnant woman and her family

- Encourage institutional delivery/ensure delivery by identification of SBA
- Explain entitlement under JSSK & JSY
- Identify the nearest functional PHC/FRU for delivery
- High risk pregnancy to be attended in District Hospital and Medical College
- Pre-identification of referral transport and blood donor

At All Visits

- Physical examination
- Abdominal palpation for foetal growth, foetal lie and auscultation of foetal heart sound

Investigations

- Hemoglobin estimation
- Urine exam for protein, sugar and micro exam
- At 24–28 weeks blood sugar (OGCT)– 2nd or 3rd visit

Counselling for

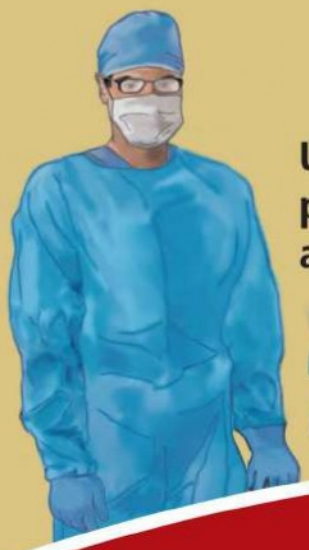
- Adequate rest, nutrition and balanced diet
- Recognition of danger signs during pregnancy, labour and after delivery or abortion and signs of normal labour
- Initiation of breastfeeding immediately after birth
- Counselling for small family norm
- Use of contraceptives (birth spacing or limiting) after birth/abortion

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Universal Infection Prevention Practices

National Health Mission Assam



Use of protective attire

Hand Washing

Ensuring general cleanliness

(walls, floors, toilets and surroundings)

Waste Disposal

Bio-Medical Waste Disposal

1. Segregation
2. Disinfection
3. Proper storage before transportation
4. Safe disposal

Yellow Bag

Human tissue, placenta, products of conception, used swabs/gauze/ bandage, other items (surgical waste) contaminated with blood

Red Bag

Used mutilated catheters, I.V bottles and tubes, syringes, disinfected plastic gloves, other plastic material

Black Bag

Kitchen waste, paper bags, waste paper/ thermocol, disposable glasses and plates, left over food

Proper handling & disposal of sharps

All needles/sharps/I.V. cannulae/broken ampules/ blades in puncture proof container

All plastic bags should be properly sealed, labeled and audited before disposal

Liquid Medical Waste (LMW) Disposal

PEP
(Post Exposure Prophylaxis)
To be given in case of accidental exposure to blood and body fluid of HIV +ve woman

- Avoid splashing
- Treat the used cleaning/disinfectant solution as LMW
- Pour LMW down a sink/drain/flushable toilet or bury in a pit
- Rinse sink/drain/toilet with water after pouring LMW
- Pour disinfectant solution in used sink/drain/toilet at the end of each day (12 hrly)
- Decontaminate LMW container with 0.5% bleaching solution for 10 minutes before final washing

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Management of PPH

National Health Mission Assam

- Shout for help, Rapid Initial Assessment - evaluate vital signs: PR, BP, RR and Temperature
- Establish two I.V. lines with wide bore cannulae (16-18 gauge)
- Draw blood for grouping and cross matching
- If heavy bleeding P/V, infuse RL/NS 1 L in 15-20 minutes
- Give O_2 @ 6-8 L /min by mask, Catheterize
- Check vitals and blood loss every 15 minutes, monitor input and output

↓

- Give Inj. Oxytocin 10 IU IM (if not given after delivery)
- Start Inj. Oxytocin 20 IU in 500 ml RL @ 40-60 drops per minute
- Check to see if placenta has been expelled

Placenta not delivered

- Continue Oxytocin
- Do P/V examination to rule out inversion of uterus
- Attempt controlled cord traction

Placenta not delivered

- Do manual removal of placenta under anesthesia
- Give IV antibiotics

Placenta delivered

- Continue uterine massage and Oxytocin drip

Placenta delivered

- Massage uterus
- Examine placenta and membranes for completeness (if available)
- Explore uterus for retained placental bits – if present, evacuate uterus

P/A for uterine consistency

Uterus well contracted (Traumatic PPH)

- Look for cervical/ vaginal/ perineal tear - repair tear, continue Oxytocin
- Scar dehiscence / rupture uterus – Laparotomy

Uterus soft flabby (Atonic PPH)

Manage as Atonic PPH Chart

If bleeding continues check for Coagulopathy

Blood transfusion if indicated

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Processing of Items for Reuse

Instruments, Gloves and Glass Syringes

National Health Mission, Assam

Wear utility gloves

↓

DECONTAMINATION
Soak in 0.5% chlorine solution for 10 min

↓

Thoroughly wash and rinse instruments

Preferred Method

Sterilization

Chemical
- Soak for 10-24 hrs in 2% Glutraldehyde
- Rinse with sterile water and dry
- Used for endoscopes

Autoclave
- 106 kPa pressure, 121°C
- 20 minutes unwrapped
- 30 minutes wrapped
- Used for linen, rubber tubing, gloves, cotton, instruments, and surgical dressing etc.

Hot Air Oven
- 160°C
- Holding time 1 hour
- Used for glassware and sharps

Acceptable Method

High Level Disinfection (HLD)

Boil or Steam
- Lid on, 20 minutes after water boils
- Articles should be completely immersed in water
- Used for gloves instruments and glass syringes

Chemical
- Soak for 20 minutes in 2% Glutraldehyde
- Rinse with sterile water and dry
- Used for endoscopes

- Use only after drying
- Can be stored for 1 week

Preparation of 1 Litre Bleaching Solution

Wear utility gloves and plastic apron

- Take 1 L water in a plastic bucket
- Make thick paste in plastic mug with 3 level teaspoons (15 g) bleaching powder and some water from bucket
- Mix paste in water to make 0.5% of chlorine solution

- Mix 6 part water with one part of Sodium Hypochlorite solution (Liquid bleach)

- Maintain same ratio for large volumes
- Make fresh solution in every shift and preferably keep covered

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Postnatal Care

National Health Mission, Assam

Post natal care ensures well-being of the mother and the baby

1st Check up	1st day of delivery
2nd Check up	3rd day of delivery
3rd Check up	7th day of delivery
4th Check up	6 weeks after delivery

Additional check ups for Low Birth Weight babies on 14th, 21st and 28th days

SERVICE PROVISION DURING CHECK UPs

	Mother	Newborn
Ask	• Heavy bleeding • Breast engorgement	• Confirm passage of urine (within 48 hours) and stool (within 24 hours) • For convulsions, diarrhea and vomiting
Observe & Check	• Pallor, pulse, BP and temperature • Urinary problems and perineal tears • Excessive bleeding (PPH) • Foul smelling discharge (Puerperal sepsis)	• Activity, color and congenital malformation • Temperature, jaundice, cord stump and skin for pustules • Breathing, chest in drawing • Suckling by the baby during breast feeding
Counsel For	• Danger signs • Correct position of breast feeding and care of breast and nipples • Exclusive breast feeding for 6 months • Nutritious diet and calcium rich foods • Maintaining hygiene and use of sanitary napkins • Choosing contraceptive method	• Keeping the baby warm • No bathing on first day • Keep the cord stump clean and dry • Additional check up for the Low Birth Weight babies • On importance of Routine Immunisation • Danger signs in baby
Do	• Hb% estimation • Give IFA supplementation to the mother for 6 months	• Give 0 dose BCG, OPV, Hepatitis B • Give Inj. Vitamin K_1 1 mg IM

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Management of Atonic PPH

National Health Mission Assam

- Placenta expelled, uterus soft and flabby
- Traumatic causes excluded

↓

- Shout for help, Rapid Initial Assessment to evaluate vital signs: PR, BP, RR and Temperature
- Establish two I.V. lines with wide bore cannulae (16-18 gauge)
- Draw blood for grouping and cross matching
- If heavy bleeding, infuse NS/RL 1L in 15-20 minutes
- Give O_2 @ 6-8 L /min by mask, Catheterize
- Check vitals & blood loss every 15 minutes, Monitor input & output

↓

- Perform continuous uterine massage
- Give Inj. Oxytocin 20 IU in 500 ml RL/ NS @ 40 drops/minute
- Do not give Inj. Oxytocin as IV bolus

↓

Uterus still not contracted

↓ If bleeding P/V not controlled

Inj Ergometrine* 0.2 mg IM or IV slowly (contraindicated in high BP, severe anemia, heart disease)

↓

Inj Carboprost* (PGF2) 250 µg IM (contraindicated in Asthma)

↓ If bleeding P/V not controlled

Tab Misoprostol (PGE1) 600 µg Per rectal

↓

Bleeding not controlled by drugs

↓

Explore uterine cavity for retained placental bits

↓

- Perform bimanual compression
- If fails perform compression of abdominal aorta

↓

- Check for coagulation defects
- If present give blood products

Uterine Tamponade (Indwelling Catheters/ Condom/ Sangstaken tube/ Ribbon gauze packing) as life saving measure

Surgical intervention
- Uterine compression suture (B-Lynch)
- Uterine/Ovarian A ligation
- Hysterectomy

Bleeding controlled by drugs

↓

- Repeat uterine massage every 15 minutes for first 2 hours
- Monitor vitals closely every 10 minutes for 30 minutes, every 15 minutes for next 30 minutes and every 30 minutes for next 3-6 hours or until stable
- Continue Oxytocin infusion (Total Oxytocin not to exceed 100 IU in 24 hours)

• Continue vital monitoring • Transfuse blood if indicated • Monitor Input/ Output

* Wherever needed

Inj Carboprost can be repeated every 15 minutes (max 8 doses = 2 mg)

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Neonatal Resuscitation

National Health Mission, Assam

Approximate time

Birth

- Term gestation?
- Amniotic fluid clear?
- Breathing or crying?
- Good muscle tone?

Yes →

Routine care

- Place baby on mother's abdomen
- Dry and cover mother and baby
- Wipe mouth and nose
- Clamp and cut cord (after 1-3 minutes of birth)
- Watch color and breathing
- Initiate breastfeeding

If any no

30 secs

- Cut cord
- Shift to newborn corner, provide warmth
- Position the baby
- Clear airway (oropharyngeal suction)*
- Dry, stimulate, reposition

Evaluate respiration, heart rate and color

Breathing HR > 100 and Pink → Observe

Apneic or HR < 100

Breathing, HR > 100 But Cyanotic → Give supplemental oxygen by face mask

Breathing HR > 100 and Pink

30 secs

Persistent cyanosis

- Provide bag and mask ventilation*
- Call for Pediatrician

→ Post-Resuscitation Care

HR < 60

HR > 60

- Continue bag and mask ventilation*
- Administer chest compression

30 secs

HR < 60

- Administer epinephrine if needed 1 in 10000, 0.1-0.3 ml/kg IV/umbilical vein
- Vol expander NS/RL 10 ml/kg in 5-10 minutes through umbilical vein

*Endotracheal Intubation can be done at these stages by Pediatrician/Anesthetist if available

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Active Management of Third Stage of Labour (AMTSL)

National Health Mission Assam

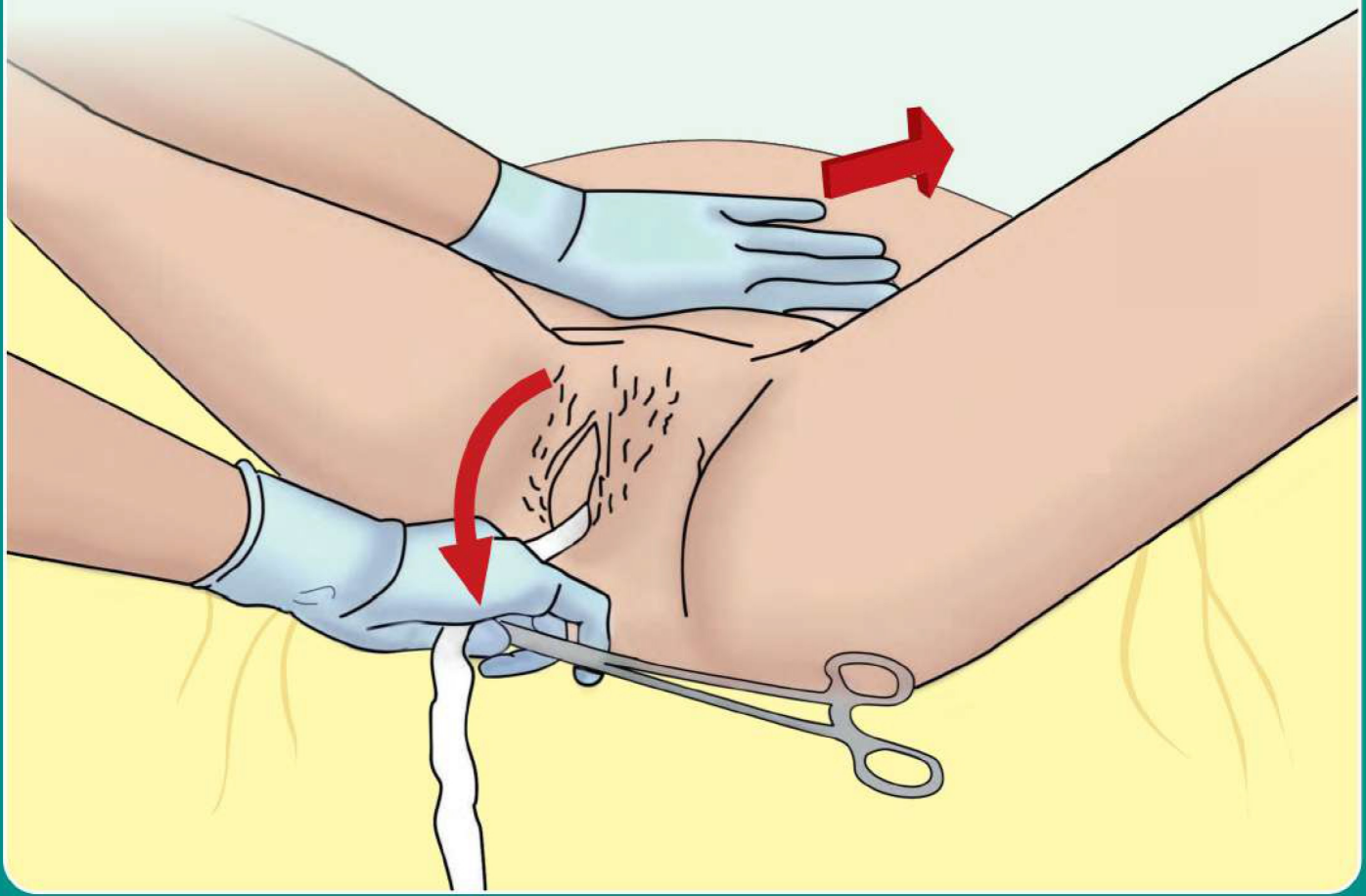
- Mandatory for all deliveries (vaginal)
- Exclude presence of another baby after delivery of first baby

Step 1 Inj. Oxytocin 10 units IM immediately after birth

Step 2

- Controlled cord traction once uterus is contracted and cord is cut
- Apply cord traction (pull) downwards and give counter-traction with other hand by pushing uterus up towards umbilicus

Step 3 Uterine massage to keep uterus contracted



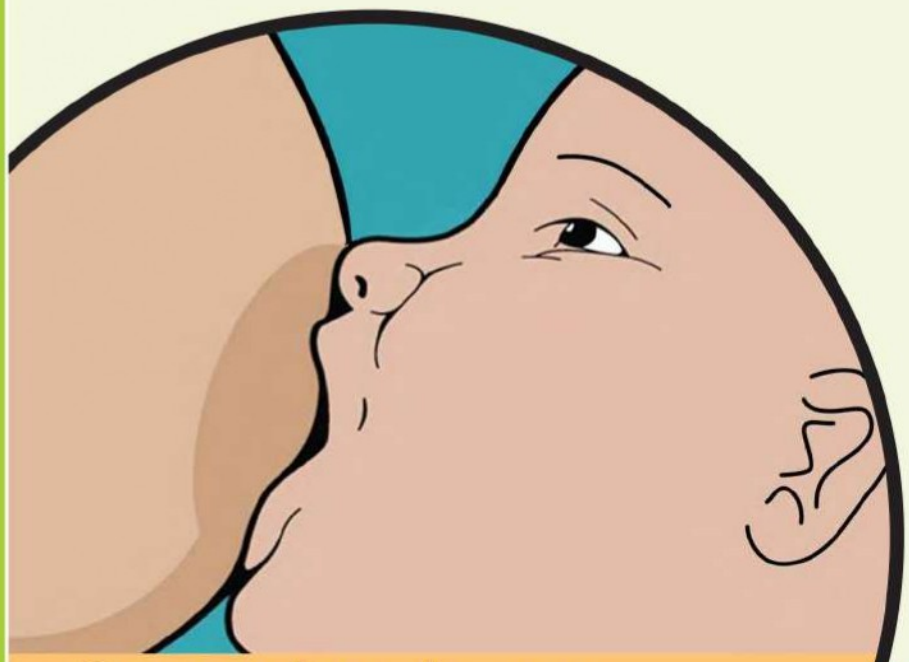
For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

Breastfeeding

National Health Mission, Assam

- Start breastfeeding within 1 hour of delivery
- Feed on demand
- Feed completely on one breast, then shift to other breast



Correct Attachment

Baby well attached to the mother's breast

- Chin touching breast
- Mouth wide open
- Lower lip turned outward
- More areola visible above than below the mouth

Exclusive breastfeeding for 6 months; continue breastfeeding for 2 years

Wrong Attachment

Baby poorly attached to the mother's breast

For use in medical colleges, district hospitals and FRUs

GOVERNMENT OF ASSAM

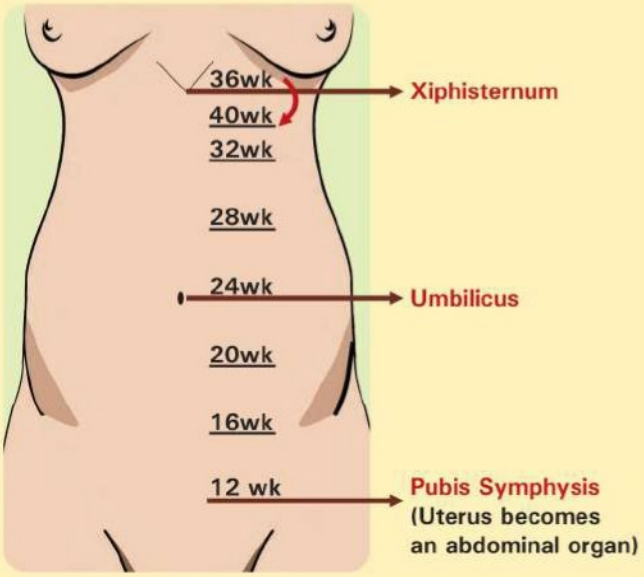
Antenatal Examination

National Health Mission Assam

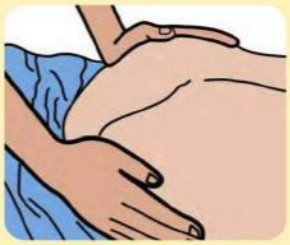
Preliminaries

- Respect woman's rights
- Explain procedure and ensure privacy
- Ensure bladder is empty
- Examiner stands on right side
- Abdomen is fully exposed from xiphisternum to pubis symphysis
- Keep woman's legs straight
- Centralise uterus

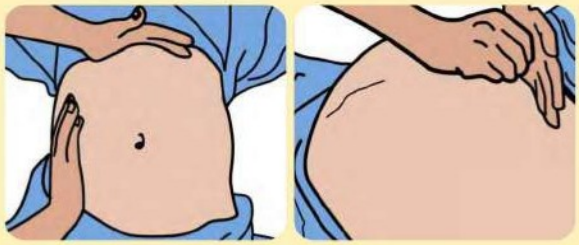
FUNDAL HEIGHT



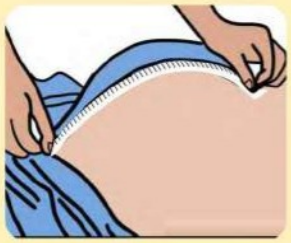
Symphsio-fundal height in cms corresponds to weeks of gestation after 28 weeks



Correct dextrorotation



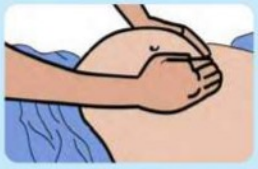
Ulnar border of left hand is placed on upper most level of fundus and marked with pen



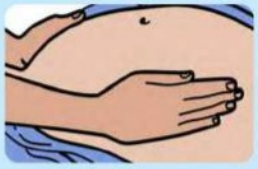
Measure distance between upper border of pubic symphysis and marked point

GRIPS

Legs are slightly flexed and separated for obstetrical grips

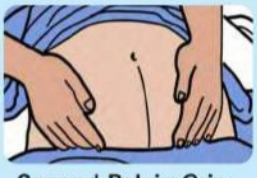


Fundal Grip

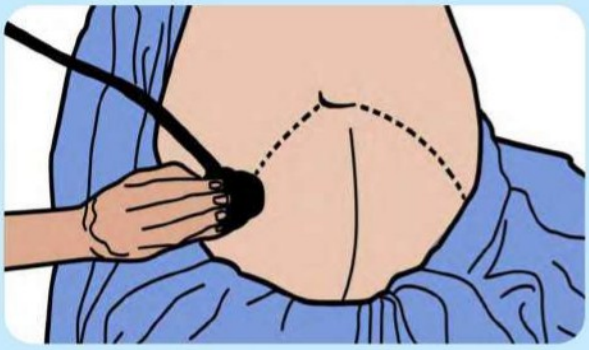


Lateral Grip

First Pelvic Grip



Second Pelvic Grip



Foetal heart sound is usually located along the lines as shown

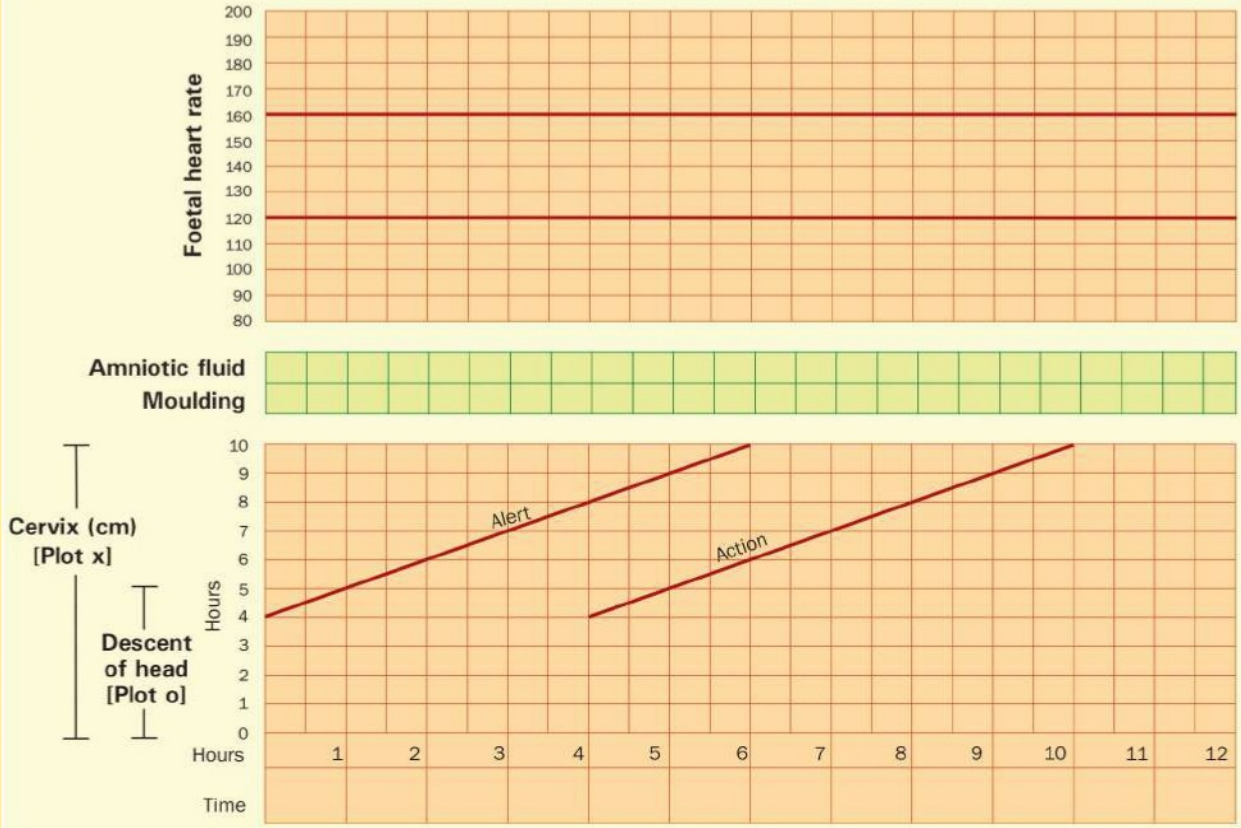
For use in medical colleges, district hospitals and FRUs

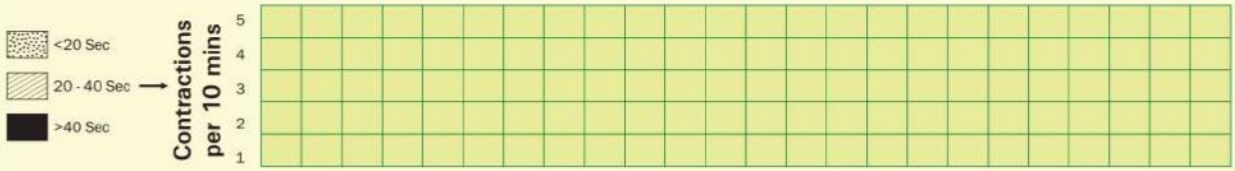
GOVERNMENT OF ASSAM

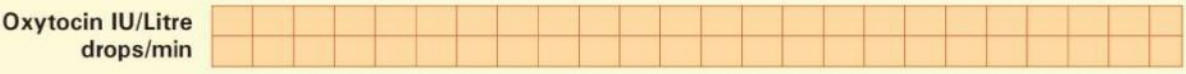
Partograph

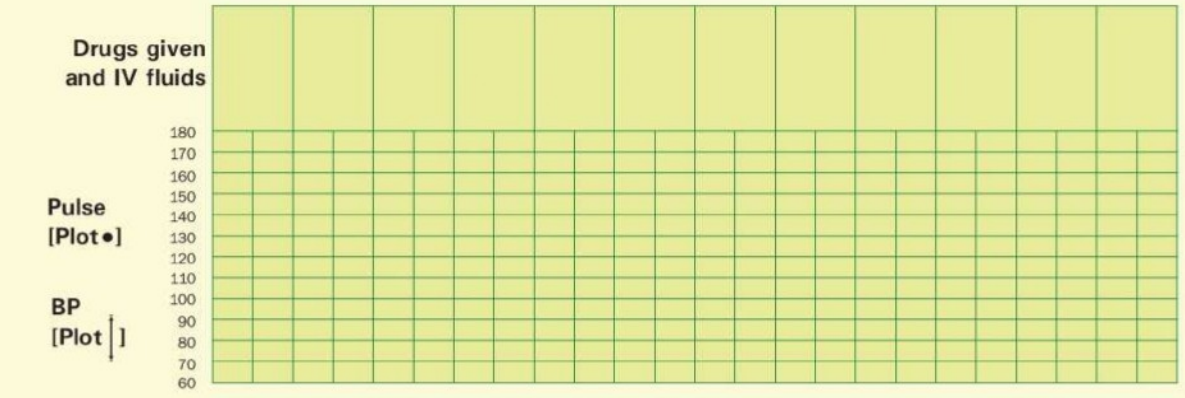
National Health Mission, Assam

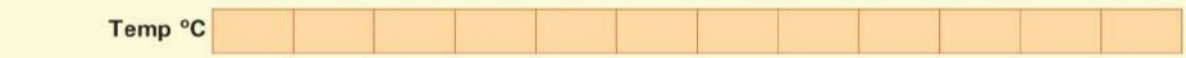
Name	Gravida	Para	Hospital number
Date of admission	Time of admission	Ruptured membranes	Hours

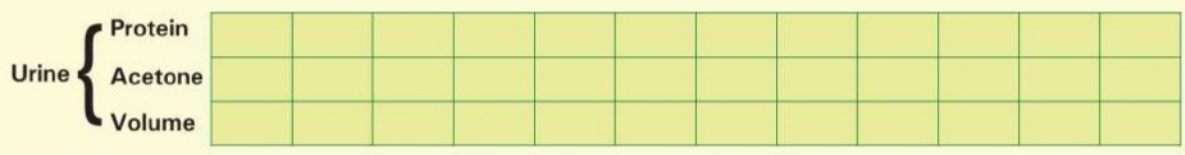












For use in medical colleges, district hospitals and FRUs

Vaginal Bleeding
(Before 20 Weeks)

Light Bleeding

- Mild pain
- No H/O expulsion of Product of Conception
- Uterus size corresponds to Period of Gestation
- Os closed

↓

Threatened abortion

↓

USG

↓

Foetus viable ← Bleeding persists – repeat USG for foetal viability after 1 week → Foetus not viable

Foetus viable:

↓

Threatened abortion

↓

- Reassure
- Rest and abstinence

↓

Bleeding stops – routine ANC

Foetus not viable:

↓

Missed abortion

- Uterus < 12 wk size → Manual Vacuum Aspiration/ Electric Vacuum Aspiration
- Uterus > 12 wk size → Misoprost 400 mcg oral 4 hourly max 5 doses (2000 mcg) → Check for completeness → If still bleeding-MVA/ EVA/check curettage

---

- Mild pain
- H/O expulsion of Product of Conception
- Uterus normal size/ bulky
- Os closed

↓

Complete abortion

↓

Observe and follow up

- Severe pain
- Uterus normal size/bulky
- Tenderness in fornix/mass

↓

Ectopic pregnancy
Confirm by UPT and USG

↓

Manage as ectopic pregnancy

Heavy Bleeding

- H/O expulsion of Product of Conception
- Uterine size < Period of Gestation
- Os may be open

↓

Incomplete / Inevitable abortion

↓

- Rapid Initial Assessment
- Resuscitate if in shock

↓

Transfuse blood if needed

- Uterus < 12 wk size → Manual Vacuum Aspiration/ Electric Vacuum Aspiration
- Uterus > 12 wk size →
  - Start 10-20 U Oxytocin in 500 ml NS/RL @ 40-60 drops/min
  - Evacuate uterus

Any Bleeding with

- H/O passage of vesicles → Vesicular mole → Confirm by USG
  - S.βHCG
  - Chest X-ray
  - TVS for thecalutein cyst

  → Manual Vacuum Aspiration/ Electric Vacuum Aspiration → Follow up as mole
- Pain
- H/O interference

→ Septic abortion →

- Broad spectrum IV Antibiotics
- USG

→

- Evacuate uterus
- Laparotomy if bowel injury/ pyoperitoneum

Counsel to avoid pregnancy for at least 6 months

Advise contraception

For use in medical colleges, district hospitals and FRUs

Antepartum Haemorrhage

(Vaginal bleeding after 20 weeks)

- Rapid Initial Assessment– monitor PR, BP, RR
- Resuscitate if necessary and start IV fluids
- Ask for pain; check for uterine contour/tenderness
- Exclude local causes by P/S examination
- Arrange & transfuse blood if needed
- Confirm diagnosis by USG if available

Placenta Previa

No PV to be done

Immediate LSCS

- Bleeding PV heavy and continuous irrespective of gestational age
- Term pregnancy with Type II post, III, IV placenta
- Dead/Malformed foetus (irrespective of POG) with Type III and IV placenta
- Term pregnancy with malpresentation or other obstetric indication

Expectant Management

- Bleeding PV light/stopped
- POG < 37 weeks
- Live baby, no gross foetal anomaly
- Women not in labor

- Hospitalize
- Correct Anemia
- Arrange Blood
- Feto-maternal surveillance
- Steriods if POG < 34 weeks

- Terminate if 37 weeks or persistent/heavy bleeding PV
- P/V under double set up in OT

Type I, II Ant
- ARM + Oxytocin
- Deliver vaginally

Type II post, III and IV
- LSCS

Abruptio Placentae

LSCS

- Heavy bleeding PV with vaginal delivery not imminent
- Fetal distress

ARM + Oxytocin

- Bleeding PV light/ moderate
- FHS normal
- Dead foetus

Monitor for
- Hemorrhage and shock
- Coagulopathy
- Renal failure

Rupture Uterus

- Bleeding PV light/moderate
- H/o labor followed by sudden cessation of pains
- Previous LSCS
- Tender abdomen
- Loss of uterine contour
- FHS absent
- Foetal parts superficially palpable

Laparotomy and repair of uterus/Hysterectomy

If previous LSCS with Placenta previa keep Placenta accreta in mind

Be prepared for PPH in all cases of APH

For use in medical colleges, district hospitals and FRUs

Hand Washing

Routine Hand Washing

Using plain soap and water for about 30 – 60 seconds

- Before touching (or handling) neonate
- Before and after examining any patient
- When hands visibly soiled
- After removing gloves

0

Wet hands with water

1

Apply enough soap. Cover all hand surfaces

2

Rub hand palm to palm

3

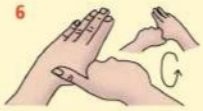
Right palm over left dorsum with interlaced fingers and vice versa

4

Palm to palm with fingers interlaced

5

Backs of finger to opposing palms with fingers interlocked

6

Rotational rubbing of left thumb clasped in right palm and vice versa

7

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice-versa

8

Rinse hands with water

9

Dry hands thoroughly with a single use towel

10

Use towel to turn off faucet

11

Your hands are now safe

Surgical Hand Washing

Medicated soap and water for about 3-5 minutes

- Before all invasive procedures including surgery
- Repeat after 4 cases/1 hour which ever is earlier

1 & 2

Remove all jewelry on your hand and wrists. Adjust the water to a warm temperature and wet your hands and forearms thoroughly

3

Clean each fingernail with a stick or brush. It is important for all surgical staff to keep their fingernails short

4

Holding your hands up above the level of your elbow, apply the antiseptic. Using a circle motion, begin at the fingertips of the hand and lather and wash between the fingers, continue the fingertip to elbow. Repeat this with the second hand and arm. Continue washing in this way for 3-5 minutes

5

Rinse each arm separately, fingertips first, holding your hands above the level of your elbow

6

Using a sterile towel, dry your hands and arms-from fingertips to elbow-using a different side of the towel on each arm

7

Keep your hand above the level of your waist and do not touch anything before putting on surgical gloves

Alcohol Hand Rub

With Alcohol for about 20 – 30 seconds

Alternative for routine hand wash in between examination and procedures if hands not visibly soiled

For use in medical colleges, district hospitals and FRUs

Eclampsia

Pregnancy with Convulsion; BP≥140/90 mmHg; Proteinuria

Immediate Management

1. Keep her in quiet room in bed with padded rails on sides
2. Position her on left side, Oropharyngeal airway to be kept patent.
3. Ensure preparedness to manage maternal and foetal complications

Oxygen by mask at 6-8 l/min, Start IV fluids-RL/ NS at 60 ml/hr, Catheterize with indwelling catheter

Anti Hypertensive

- If Diastolic BP≥ 100 mmHg
- Strict BP monitoring
- Oral Nifedepine 10 mg stat, repeat after 30 minutes if needed (if pt unconscious through ryles tube) OR
- Inj Labetalol 20 mg IV bolus, repeat 40 mg after 10 minutes again repeat 80 mg every 10 minutes if needed (maximum 220 mg) with cardiac monitoring

Anti Convulsants

- Magnesium Sulfate is drug of choice
- Loading dose:
  - 50% of 4 gm diluted to 20% (8 ml drug with 12 ml NS) to be given slowly IV in 5 minutes
  - 5 gm IM (50%) each buttock with 1 ml of 2% Xylocaine (Total 10 gm)
  - If recurrent fits after 30 minutes of loading dose – repeat 2 gm 20% (4 ml drug with 6 ml NS) slow IV in 5 minutes
- Maintenance dose:
  - 5 gm IM (50%) alternate buttocks after monitoring every 4 hourly
- Monitor:
  - Presence of patellar jerks
  - Resp. rate (RR) ≥16/min
  - Urine output ≥ 30 ml/hr in last 4 hours
- Continue till 24 hours after last fit/delivery which ever is later
- If Patellar jerk absent or urine output<30 ml/hr withhold Magsulf and monitor hourly– restart maintenance dose if criteria fulfilled
- If RR<16/min, withhold Magsulf, give antidote – Calcium Gluconate 1 gm IV 10 ml of 10% solution in 10 minutes

- Deliver the baby irrespective of gestational age
- Admission-delivery interval should not be more than 12 hours

Favourable Cervix

- Induction with ARM and Oxytocin
- 2nd stage to be cut short by Forceps/ Ventouse

Unfavourable Cervix

- Ripening with Dinoprostone gel/ intracervical indwelling catheter and after 6 hours

LSCS:

- If fits not controlled/ status eclampticus
- Failed Induction
- Foetal distress
- Any other obstetric indication
- Deteriorating maternal condition

For use in medical colleges, district hospitals and FRUs

Labour Room Sterilization

- Sterilization is a process which should be practised and adhered to by all individuals at all times
- Labour Room should be centrally air conditioned with air handling unit
- Alternatively cross ventilation with exhaust is required if air conditioning is not present

Cleaning and disinfection daily at beginning of day after wearing utility gloves

- Clean the floor and sinks with detergent (soap water) and keep floor dry
- Clean table tops and others surfaces like light shades, almirahs, lockers, trolley etc with low level disinfectant Phenol (Carbolic Acid 2%)
- Clean monitor machines with 70% alcohol
- In case of spillage of blood, body fluids on floor, absorb with newspaper (discard in yellow bin), soak with bleaching solution for 10 minutes and then mop
- Discard placenta in yellow bins
- Discard waste and gloves in proper bins and not on floor
- Discard soiled linen in laundry basket and not on floor. Disinfect with bleaching solution followed by washing and autoclaving
- Mop the floor every 3 hours with disinfectant solution

Cleaning after each delivery

Clean table top with Phenol/ Bleaching solution

Fogging

Need based

- Following construction/renovation work
- Any infectious outbreak

- H_2O_2 based commercially available disinfectant for fogging and mopping
- If fogger not available spray or mop liberally in room, table tops etc
- Allowing 30 minutes contact time (shut down of Labour Room not required)

General Measures

- Unnecessary entries to the Labour Room must be restricted
- Labour Room doctors and paramedics should wear mask all the time
- Proper clothing of Labour Room personnel necessary including cap, mask, shoes/slippers and gown at the time of delivery
- Individual autoclaved instrument set should be provided for each delivery
- Random swab sampling to be taken from surfaces and disinfected articles monthly
- Air quality sampling to be done by Settle plate method monthly

For use in medical colleges, district hospitals and FRUs

Operation Theatre Sterilization

- Sterilization is a process which should be practised and adhered to by all individuals at all times
- OT should be centrally air conditioned with air handling unit
- Alternatively cross ventilation with exhaust is required if air conditioning not present

Cleaning and disinfecting daily at beginning of day after wearing utility gloves

- Clean the floor and sinks with detergent (soap water) and keep floor dry
- Clean table tops and others surfaces like light shades, almirahs, lockers, trolley etc with low level disinfectant Phenol (Carbolic acid 2%)
- Clean monitor machines with 70% alcohol
- In case of spillage of blood, body fluids on floor, absorb with newspaper (discard in yellow bin), soak with bleaching solution for 10 minutes and then mop
- Discard waste and gloves in proper bins and not on floor
- Discard soiled linen in laundry basket and not on floor. Disinfect with bleaching solution followed by washing and autoclaving
- Mop the floor every 3 hours with disinfectant solution

Fogging weekly

Aldehyde based spray is used

- Sprayed or mopped liberally in room, table tops etc
- Allowing 30 minutes contact time (shut down of OT not required)

General Measures:

- Access to OT should be through 'Buffer Zone'
- Unnecessary entries to the OT must be restricted
- Proper occlusive clothing of OT personnel necessary
- Instruments to be sterilized by autoclaving
- Each case should have separate instrument sets

Quality Control:

- Microbiological sample should be taken randomly at 2 months interval by Settle plate method
- Random microbiological sampling to be done by Settle plate/Air sampling method
  - Following construction/renovation work
  - Any infectious outbreak
- Any colony of Fungus/Staph aureus needs to be reported. If found positive, servicing of air handling unit and/or AC duct recommended

For use in medical colleges, district hospitals and FRUs

Pre Eclampsia

- BP≥140/90 mm Hg on 2 occasions, 4 hours apart
- Urine proteinuria ≥ traces or ≥ 300 mg/24 hrs sample
- Period of gestation > 20 weeks

Mild Pre eclampsia

- BP ≥ 140/90 mm Hg
- Protienuria ≥ traces to 2 + or ≥ 300 mg/24 hrs

- Hospitalize to evaluate and investigate
- Reassure, no restriction on routine salt intake
- Rest with limited activity
- Start anti hypertensive when DBP ≥ 100 mm Hg
- Tab Alpha Methyl Dopa 250–500 mg 6-8 hourly (max 2 gm/day) OR
- Tab Labetalol 100 mg BD (max 2.4 gm/day)
- Investigate – Hgm, LFT, KFT, S Uric acid, S LDH and fundus exam
- BP and urine output monitoring

- Continue OPD management in mild disease
- Continue hospitalization in worsening hypertension/proteinureia
- Regular foetal + maternal surveillance (foetal movement count, NST, AFI, wt gain, BP and urine output monitoring, weekly Hgm, LFT, KFT, S Uric acid and S LDH)

- Maintain DBP 90-100 mm Hg
- No foetal compromise

If disease severe, manage as severe pre eclampsia

- Deliver at 38-39 weeks

Severe Pre eclampsia

- BP ≥ 160/110 mm Hg
- Proteinuria ≥ 3 + by dipstick or ≥ 5 gm/24 hrs
- Headache, epigastric pain, blurring of vision, oliguria, pulmonary odema, thrombocytopenia, IUGR. Creatinine > 1.2 mg/dl, ↑ serum transaminase levels, S LDH > 600 IU/L

- Urgent hospitalization
- Start anti hypertensive
- Oral Nifedepine 10 mg stat, repeat after 30 minutes if needed OR
- Inj Labetalol 20 mg IV bolus, repeat 40 mg after 10 minutes if BP not controlled again repeat 80 mg every 10 minutes (max 220 mg) with cardiac monitoring

- Continue Tab Nifedepine 10 mg TDS (max 80 mg/day) OR Tab Labetalol 100 mg BD (max 2.4 gm/day)
- Investigate – Hgm, LFT, KFT, S Uric acid, S LDH and fundus exam
- Urine output charting
- BP Monitoring

< 24 weeks

Foetal salvage difficult

≥24 -<34 weeks

Inj. Betamethasone
- 12 mg IM
- Repeat 12 mg after 24 hours

≥34 weeks

≥37 weeks

Treatment should be individualised

BP controlled
- Explain maternal and foetal adverse effect to relatives
- Regular maternal + foetal surveillance

Terminate at 37 weeks

BP uncontrolled
- Worsening of clinical / biochemical parameters
- Signs of foetal compromise

- Terminate pregnancy
- Induction of labor as per Bishop score and give Magsulf as in Eclampsia

No role of diuretics

For use in medical colleges, district hospitals and FRUs