सत्यमेव जयते

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन

DAKSHATA

Guidance for

MENTORING AND SUPPORT VISIT

MSV 2

Designed and printed with support from
The Children's Investment Fund Foundation

CIFF CHILDREN'S INVESTMENT FUND FOUNDATION

OBJECTIVE

The objective of this visit is to facilitate the process of ensuring availability of essential supplies, improved organization of labor room (LR), onsite capacity building of health workers on key skills, record keeping, and follow-up for completion of activities as planned in the action plan of previous visit.

DELIVERABLES OF MSV 2

Time since completion of training	Availability of drugs and supplies	LR organization	Adherence to IP and cleanliness protocols	Data recording and reporting	Essential practices training
1 month	Ensuring availability of 26 essential items as per Dakshata Guidelines	Ensuring organization of labor tables and functional NBC area, Brief the staff and in-charge on organizing drugs, supplies and medicines	LR cleanliness, IP protocols including PPE	Maintaining case sheets including SCC	Management of second stage of labor and AMTSL, Essential newborn care, Newborn resuscitation

DESCRIPTION OF ACTIVITIES

Prepare

- Inform the facility/medical officer in-charge (MOI/c) at least one day in advance about the visit. Request time to have all relevant staff at one place for on-site training session.
- Ensure complete MSV 2 package and any previous action plan is available on the day of visit.
- Carry mama and neo natalie along for onsite capacity building.
- Meet the facility in-charge after reaching the facility and then proceed to LR.

Observe

Visit the labor room (LR) and complete the MSV sheet:

1. Physically verify the availability of 26 items as per Dakshata guidelines. Note any missing supplies and the level of bottleneck. Review action taken related to supplies as a follow-up of previous visit, with the MOIC/store in-charge.
2. Observe the placement of labor tables, newborn care are and other important equipment, and plan for reorganization to ensure efficient space management.
3. Check the general cleanliness of labor room, and availability and use of personal protective equipment (PPE) by concerned staff.
4. Review 5 case records and the safe childbirth checklist (SCC) randomly to assess the status of completeness.

5. Observe care on any available client and assess:
   a. Conducting delivery, that is, managing the second stage of labor,
   b. Active Management of Third Stage of Labor (AMTSL),
   c. Essential newborn care (ENBC), and
   d. Newborn resuscitation (NBR).

Facilitate

Meet with the MOI/c, LR in-charge, and central store keeper to facilitate the following:

1. Availability of 26 supplies (focus on the ones from last action plan which were to be made available immediately). Ensure that action plans are made with clear timelines and responsibility for supplies that can be ensured at the facility level. For supplies that need support from district, prepare the plan with MOI/c.
2. Advice the MOI/c and LR in-charge on the process of labor room cleaning and standardization including space management, lighting, ventilation, etc. to ensure efficient care provision. Help them plan for it in a way that these actions are completed before your next visit (Annexure I and II).
3. Availability of standardized case sheet and the SCC. Inform them of the need to complete these documents in a timely manner.

Train

Conduct an onsite training session to orient the labor room and other concerned staff on the following (using job-aids attached as annexures):

1. Appropriate use of PPE (Annexure III).
2. Filling of case sheets and SCC for each client. Discuss various components and help clear their doubts about any areas in these documents.
3. Essential practices
   - Management of second stage of labor (conducting delivery) – care during early part of second stage, controlled delivery of head and shoulders, managing cord around the neck (Annexure IV).
   - AMTSL- ensuring availability of pre-filled oxytocin syringe and performance of 3 critical steps, that is, injection oxytocin 10 IU IM within 1 minute of delivery, controlled cord traction (CCT) and uterine massage (Annexure V).
   - ENBC- routine care provided to all normal newborns immediately after birth such as receiving baby in pre-warm towels, injection vitamin K to all newborns at birth etc. (Annexure VI).
   - NBR- basic resuscitation within the first golden minute of life (Annexure VII).
   - Demonstrate care flow for management of 2nd stage, active management of third stage of labor, and essential newborn care using mama and neo natalie.

Action Plan Review

Review the action plan to see the status of activities since the last visit. Discuss timelines for pending activities and record timelines for new proposed activities.

Annexures

I.Protocol for labor room cleaning

Cleaning and disinfection of labor room	• The labor room along with all equipment and all surfaces should be cleaned every morning and all equipment and surfaces used should be cleaned after every delivery • Labor table should be cleaned in each shift and after each delivery with (a) cloth soaked in clean water (and soap water if required) (b) cloth soaked in chlorine solution • Cheatles forceps should not be kept in antiseptic, and should be autoclaved daily and kept in autoclaved bottle with the date and time labelled each day • Toilet should be cleaned with phenyl or lysol at start of each shift and after each delivery • The overhead tank supplying water to the labor room should be cleaned at least once a week
Daily at the beginning of the day	• The floor and sinks should be cleaned with detergent (soap water) or chlorine solution daily in the morning and thereafter every three hours. The floor should be kept dry • All the table tops and other surfaces such as lamp shades, almirah, lockers, trollies, etc. should be cleaned with low level disinfectant (2% carbolic acid) • Monitor machines should be cleaned with 70% alcohol
After each delivery	• Table tops should be cleaned thoroughly with chlorine solution or disinfectant (2% carbolic acid) • Disposable absorbent sheet placed on the labor table should be changed • Any spillage of blood or body fluids on the floor should be soaked with chlorine solution for 10 minutes. Should be absorbed in a newspaper and then mopped. The newspaper should be discarded in appropriate plastic bin
Procedure for mopping	• Prepare 3 buckets with clear water. Put phenyl or lysol or bleaching solution in one of the buckets. (So that you have two buckets of clean water and one bucket containing disinfectant) • The clean water buckets should be labelled as 1st, 2nd and 3rd bucket. The 3rd bucket will be containing disinfectant • The cleaning begins on the floor starting from inside to outside. Towards the end, all corners and groves have to be cleaned • After each sweep of the floor, the mop should be dipped first in the 1st bucket then in the 2nd bucket and lastly in the 3rd bucket containing disinfectant • Mops should be cleaned in the dirty utility area and put in the stand under the sun with the mop head upward and tilted, not straight • Mopping of floors should be done at least thrice a day and in-between

	whenever required • Mopping of floors should be done with water with detergent and disinfectant (phenolic based) in Negative Pressure Isolation rooms • In case of visible blood/body-fluids spills, the protocol of managing spills should be followed • All soiled mops should be treated as soiled linen and transported likewise in a covered (lid) container • At the end of each shift & a cleaning schedule for an area, all soiled mops should be sent through lift, in a hamper, to the laundry for washing • Mops should be visibly clean before starting cleaning of an area • Mops should be replaced after interim cleaning is done, as and when called for and mops kept in the wringer trolley should be well squeezed and out of the solution • Mops should be changed routinely and immediately following the cleaning of blood, body-fluids secretions and excretions, after cleaning contaminated areas, operation theatres or isolation rooms • Mops should not be left wet • Store mops dry in a designated well demarcated area away from the clean area • Mops should be washed in a laundry in a cycle dedicated for mops washing only with 1% Hypochlorite. This should be followed by a non-load disinfectant cycle with 1% Hypochlorite giving an exposure of 20 minutes at least • Personnel carrying out the cleaning and transporting the soiled mops should wear adequate PPE (gloves, mask, gown) • Trolleys transporting mops would be cleaned as per schedule with detergent followed by 1% hypochlorite / 70% isopropyl alcohol –as per compatibility according to manufacturer's instructions • Hand-mops mounted on wipers should be used for the bathroom mopping after putting on gloves

II.Protocol for labor room standardization

Specification for labor room layout

The placement of labor tables should be as per specification below:

- Distance from side wall- at least 3 feet
- Distance from head end wall- at least 2 feet
- Distance between two labor tables- at least 6 feet

Overall specifications for the general environment of labor room:

- No broken window or door panes
- No dampness, cracks, cobwebs, etc. in the walls
- Walls and floors made of white vitrified anti-skid tiles

There should be provision for privacy of clients such as:

- Frosted window and door glass panes
- Curtains/ screens on window and doors
- Screen on three sides for each labor table

Newborn care area should be placed in a way so that it is:

- Accessible within labor room for shifting of newborn within 5 seconds if resuscitation is needed
- Open from 3 sides for ease of movement

LR complex should have provision for adequate lighting:

- LED lights on the ceiling
- One focus light/shadow-less lamp for each labor table

Provision for adequate ventilation in the LR should be as per specification below:

- AC in the labor room/ Air handling unit as per standardization guidelines
- Fan for each labor table

The handwashing station should have:

- Elbow operating tap
- Surgical sink
- 24 hour running water
- Soap

Specification for creating a buffer area:

- Buffer area before entry into the labor room
- Can have provision for changing shoes and wearing PPE by birth companions

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LR complex should have provision for birth companions as below:

- Stool next to each labor table
- Storage lockers near labor room

Recommendation for number of labor tables per health facility based on the delivery load is as follows:

Criteria	No. of labor tables
< 20 deliveries/month	1
20-99 deliveries/month	2
100-199 deliveries/month	4*
200-499 deliveries/month	6*
> 500 deliveries/month	To be calculated as per the given formula for LDR and Conventional Labor Room concept as applicable
FRU CHCs/AH/SDH/DH	To be calculated as per the given formula for LDR and Conventional Labor Room concept as applicable

***The number given is for conventional labor rooms. Even for these facilities, if LDR concept is being used, number of beds should be calculated using the formula given below**

Formula to calculate the number of beds for LDR units:
No. of LDR beds = {(Projected LDR events in a year)*(Average length of stay)}/ {(365)*(Occupancy rate)}

Calculation:

- **Step 1:** Determine the number of LDR events in a year, i.e. the number of vaginal births per annum (projected number of births per annum plus the projected number of unplanned C-section births).
- **Step 2:** Take 0.67 days or 16 hours (12 hours for labor and delivery, 4 hours recovery, including the roomclean-up) as the average length of stay.
- **Step 3:** 75% or 0.75 is the recommended occupancy rate for health facilities.
- **Step 4:** Insert the numbers attained in the above steps, in the formula, and calculate the number of LDR beds required.

Formula to calculate the number of labor beds/tables for conventional labor rooms
No. of labor beds = {(Projected labor events in a year)*(Average length of stay)}/ {(365)*(Occupancy rate)}

Calculation:

- **Step 1:** Determine the number of labor and delivery events in a year, i.e. the number of vaginal births perannum (projected number of births per annum plus the projected number of unplanned C-section births).
- **Step 2:** Take 0.33 days or 8 hours (4 hours for pre-delivery preparations and delivery, and 4 hours for recovery and labor room cleaning) as the average length of stay.
- **Step 3:** 75% or 0.75 is the recommended occupancy rate for health facilities.
- **Step 4:** Insert the numbers attained in the above steps, in the formula, and calculate the number of laborbeds required.

Guidance for applicability to facility

Facilitate availability of adequate number of delivery trays and PPIUCD trays as per delivery load, and other trays as per need

Organize the equipment and supplies into different functional areas, such as:

- Delivery area
- Newborn care area
- Newborn supplies area
- Hand washing and other wet procedures area
- Storage area for sterilized items
- Emergency supplies area
- Storage area for general supplies such as IV fluids, cannulas etc.

Help better organize the medicines by ensuring the following:

- Different medicines are stored in clearly labelled containers/partitioned areas in the medicine tray with date of expiry
- There should be some space/good partition between different medicine containers/storage areas to avoid mixing of drugs
- Drugs most commonly used should be stored in forward sections

III.Personal protective equipment

IV.Conducting delivery

A.Steps of normal delivery, AMTSL and ENBC

S.No	Steps to be performed
1	**Preparation for safe delivery**
	• Allows the woman to adopt the position of her choice
	• Maintains privacy
	• Tells the woman and her support person what is going to be done and encourages them to ask questions
	• Listens to what the woman and her support person have to say
	• Provides emotional support and reassurance
	• Removes all the jewelry and wears PPE
	• Washes hands thoroughly with soap and water, air dries them and wears sterile gloves on both the hands
	• Cleans the perineal area from above downward with cotton swabs dipped in antiseptic lotion
2	**Conduction of delivery**
	Delivery of the head once crowning occurs: • Keeps one hand gently on the head under the sub-pubic angle as it advances with the contractions to maintain flexion • Supports the perineum with the other hand and covers the anus with a pad held in position by the hand • Tells the mother to take deep breaths and to bear down only during a contraction • Once the head is out, uses gauze to gently wipe the mucus off the baby's face • Feels gently around the baby's neck for the presence of the umbilical cord, checks: ▪ If the cord is present and is loose around the neck, delivers the baby through the loop of the cord, or slips the cord over the baby's head ▪ If the cord is tight around the neck, places two artery clamps on the cord and cuts between the clamps, and then unwinds it from around the neck
	Delivery of the shoulders and the rest of the body: • Waits for spontaneous rotation of the head and shoulders and delivery of the shoulders. This usually happens within 1–2 minutes • Applies gentle pressure downwards on the shoulder under the sub-pubic arch to deliver the top (anterior) shoulder • Then lifts the baby up, towards the mother's abdomen, to deliver the lower (posterior) shoulder • The rest of the baby's body follows smoothly by lateral flexion

	Integrated essential newborn care (ENBC) and active management of third stage of labor (AMTSL): • Notes the sex and time of birth
	• Places the baby on the mother's abdomen in a supine position
	• Looks for breathing or crying of the baby. If the baby is breathing or crying*, proceeds immediately to dry the baby with a pre-warmed towel or piece of clean cloth. (Does not wipe off the white greasy substance–vernix, covering the baby's body)
	• After drying, discards the wet towel or cloth after wiping the mother's abdomen also • Wraps the baby loosely in another clean, dry and warm towel. If the baby remains wet, it leads to heat loss
	AMTSL: Palpates the mother's abdomen to feel for fetal parts to exclude the presence of another baby • **A. Uterotonic drug:** Gives 10 units Oxytocin IM in the anterolateral aspect of the woman's thigh (or gives 600 mcg of misoprostol orally)
	Continues ENBC: Checks for cord pulsations • Clamps the cord with artery clamps at two places when cord pulsations stop. Puts one clamp on the cord at least 3 cms away from the baby's umbilicus and the other clamp 5 cms from the baby's umbilicus. • Cuts the cord between the artery clamps with a sterile scissors by placing a sterile gauze over the cord and scissors to prevent splashing of blood • Applies the disposable sterile plastic cord clamp tightly on the cord 2 cms away from the umbilicus just before the artery clamp (instrument) and removes the artery clamp on the side of the baby's abdomen; gently places and directs the other clamped cord end towards the contaminated waste bin under the labor table to avoid spillage • (In the absence of sterile disposable cord clamp, ties, clean thread ties tightly around the cord at approximately 2-3 cm and 5 cms from the baby's abdomen and cuts between the ties with a sterile, clean blade. If there is oozing, places a second tie between the baby's skin and the first tie) • Places the baby between the mother's breasts for warmth and skin to skin care. Tells the mother or the attendant to hold the baby in place to prevent falling • Puts the identification tag on the baby. Covers the baby's head with a cloth. Covers the mother and the baby with a warm cloth • Gives injection vitamin K intramuscular to the baby
	Continues AMTSL: • **B. Controlled cord traction (CCT):** (attempts only when the uterus is contracted) ▪ Assures the woman that delivering the placenta will not hurt, because it is much smaller and softer than the baby ▪ Clamps the maternal end of the umbilical cord close to the perineum with an artery clamp

- Holds the clamped end with one hand and places the other hand just above the symphysis pubis, for counter traction on the uterus to prevent inversion
- Holds the cord with the help of the clamp and waits for a contraction
- Only during contractions, gently pulls the cord downwards and then downwards and forwards to deliver the placenta
- With the other hand, pushes the uterus upwards by applying counter traction. (If the placenta does not descend within 30-40 seconds of CCT, does not continue to pull on the cord. Waits for about 5 more minutes for the uterus to contract strongly, then repeats CCT with counter traction)
- As the placenta appears at the vaginal introitus, holds it with both hands and twists it clock wise to deliver it complete and prevents tearing of the membranes
  Gently keeps twisting the placenta with membranes so that they get twisted in to a rope and are expelled and slip out of the introitus intact and complete
- Places the placenta in a tray

- **C. Uterine Massage:**
  - Places the cupped palm on the uterine fundus and feels for the state of contraction
  - If the uterus is soft and not-contracted, massages the uterine fundus in a circular motion with the cupped palm until the uterus is well contracted. A well contracted uterus feels like a cricket ball or the forehead
  - When the uterus is well contracted, places her fingers behind the fundus and pushes down in one swift action to expel clots
  - Estimates and records the amount of blood loss approximately
  - Encourages the attendant to help the woman to breast feed

•Examination of the lower vagina and perineum

- Ensures that adequate light is falling on the perineum
- With gloved hands, gently separates the labia and inspects the perineum and vagina for bleeding, laceration/tears
- If lacerations/tears are present, manages them as per the protocols (will be dealt with in detail during PPH)
- Cleans the vulva and perineum gently with warm water or an antiseptic solution and dries with a clean soft cloth
- Places a pad or clean, sun-dried cloth on the woman's perineum
- Removes soiled linen to make the woman comfortable and shifts her up to lie comfortably on the delivery table

•Examination of the placenta, membranes and the umbilical cord:

• Maternal surface of the placenta:
- Holds the placenta in the palms of the hands, keeping the palms flat. Makes sure the maternal surface is facing up
- Checks if all the lobules are present and fit together
- After the maternal side has been rinsed carefully with water, it should shine because of the decidual covering
- If any of the lobes is missing or the lobules do not fit together, suspects that some

	placental fragments may have been left behind in the uterus • Fetal surface: ▪ Holds the umbilical cord in one hand and lets the placenta and membranes hang down like an inverted umbrella ▪ Looks for holes which may indicate that a part of the lobe has been left behind in the uterus ▪ Looks for the point of insertion of the cord, the point where it is inserted into the membranes and from where it travels to the placenta • Membranes : ▪ Puts one hand inside the membranes to open them and see for any holes or irregular edges other than the one from where the membranes ruptured and the baby came out ▪ Places the membranes together and makes sure that they are complete • Umbilical cord: ▪ Inspects the umbilical cord for two arteries and one vein. If only one artery is found, looks for congenital malformations in the baby
	•Decontamination and disposal of waste: • Decontamination and disposal of waste: ▪ Disposes the placenta in the yellow colored contaminated waste bin after removing the artery clamp ▪ Places the instruments used in 0.5% chlorine solution for 10 minutes for decontamination
	▪ Decontaminates or disposes off the syringes and needles
	▪ Immerses both the gloved hands in 0.5% chlorine solution o Removes the gloves by turning them inside out o For disposing of the gloves, places them in a leak proof container or red plastic bin
	• Washes hands thoroughly with soap and water and air dries • Completes the records of the woman
*	**Prepare for newborn resuscitation (NBR) if required:** Immediately after birth- • If the baby is not crying or not breathing, performs suction to the mouth and then the nose (only if meconium is present), to clear the airways while the baby is on the mother's abdomen and quickly dries the baby with the warm towel
	• Assesses the baby's breathing: ▪ If the baby starts breathing well and the chest is rising regularly, between 30–60 times a minute, provides routine care ▪ If the baby is still not breathing or is gasping, calls for help. Clamps the cord immediately, and takes the baby to the radiant warmer at the NBCC for resuscitation with bag and mask ▪ The steps of resuscitation (as described in the checklist for NBR) need to be carried out immediately

	Immediate care of mother after delivery (within 1 hour of delivery near the labor room):
	• Checks the uterus and vaginal bleeding at least every 15 minutes in fourth stage, massaging as and when necessary to keep it hard. Makes sure the uterus does not become soft (relaxed) after massage is discontinued. Ensures, the mother is comfortable and her vitals are normal. • Ensures the baby is breathing normally. Checks weight of the baby and gives injection Vitamin K intramuscular, 1 mg to > 1000 gms baby and 0.5 gm to the baby weighing < 1000 gms in the anterolateral thigh to prevent hemorrhagic disease of the newborn. • If both mother and baby are normal shift them together to the postpartum ward

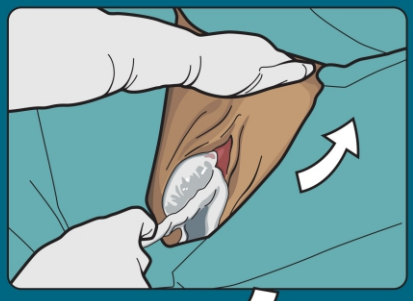
V.Active management of third stage of labor

Pre-filled syringe with Inj. Oxytocin 10 IU (2ml = 2 amp)/Tab. Misoprostol 600mcg (200mcg, 3 tab) must be kept ready in the delivery tray before conducting birth to ensure the injection is given within one minute of birth, after exclusion of second baby.

Active Management of Third Stage of Labour

(AMTSL)

After the birth of the baby, exclude the presence of another baby and give Injection Oxytocin 10 units I.M.

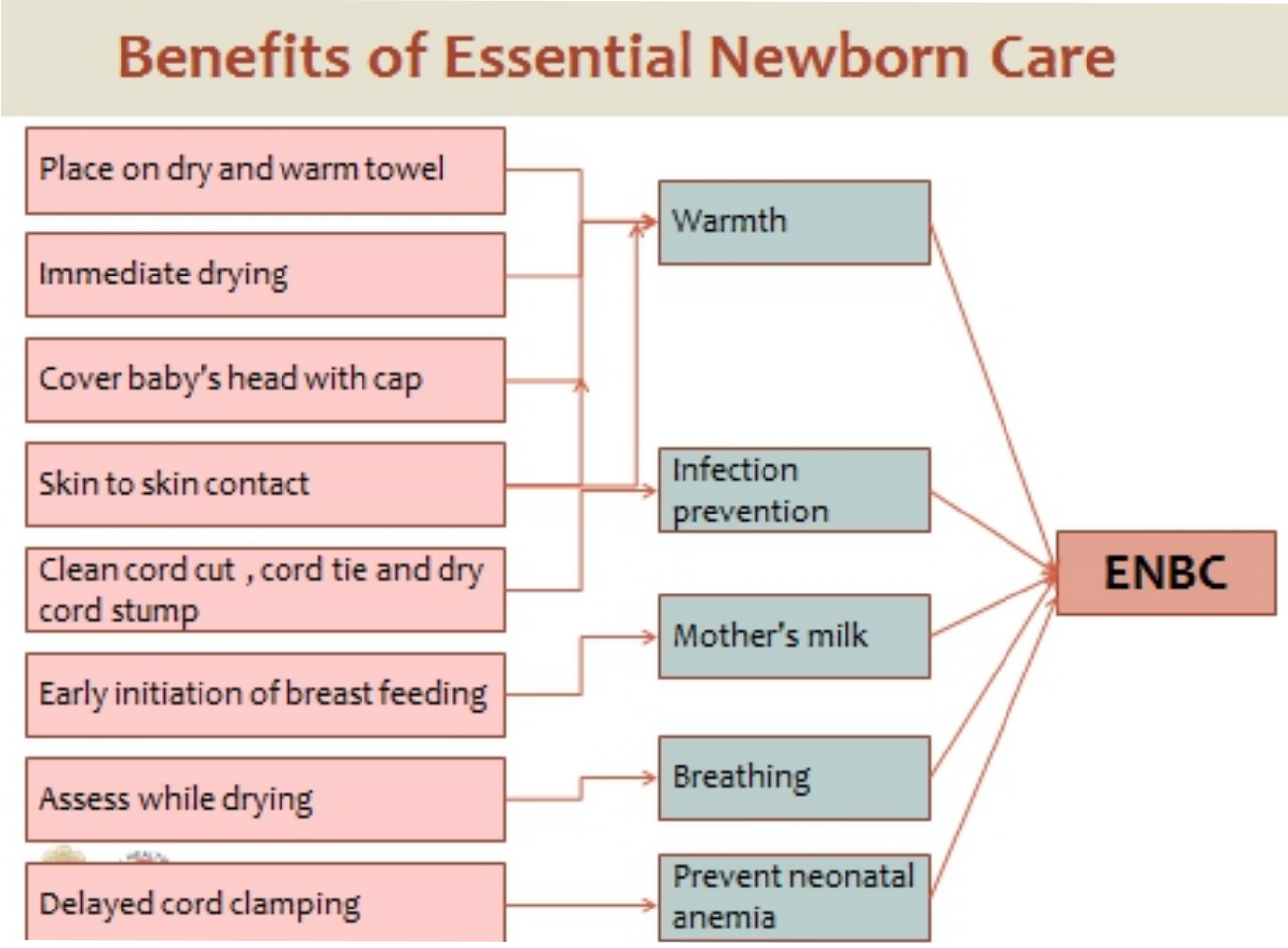


Once the uterus is contracted, apply c[illegible]traction (pull) downwards and give counter-traction with the other hand by pushing uterus up towards the umbilicus.

Uterine massage to prevent atonic PPH

VI.Components of essential newborn care (ENBC)

A.Steps of ENBC



Use of Injection Vitamin K Prophylaxis in Newborns

Who
will receive?

All newborns delivered in the facilities at all levels (both public and private)

Preparation
to be used

Injection Vitamin K1 (Phytonadione):

a) 1 mg/1 ml
b) 1 mg/0.5 ml

Dose
to be given

- Birth weight 1000 gm or more: 1 mg
- Birth weight less than 1000 gm: 0.5 mg

Site and route
of injection

- Antero-lateral aspect of the thigh, intramuscular injection

Who
will give?

- Medical Officer, staff nurse or ANM

Where
it will be given

- In labor room
- It can be given in post-natal ward if missed in labor room
- In case of referral the injection should be given at the SNCU/NBSU

When
it will be given

- Soon after delivery, ensuring skin-to-skin contact with mother and initiation of breast feeding
- Not later than 24 hours of birth

Logistics
required

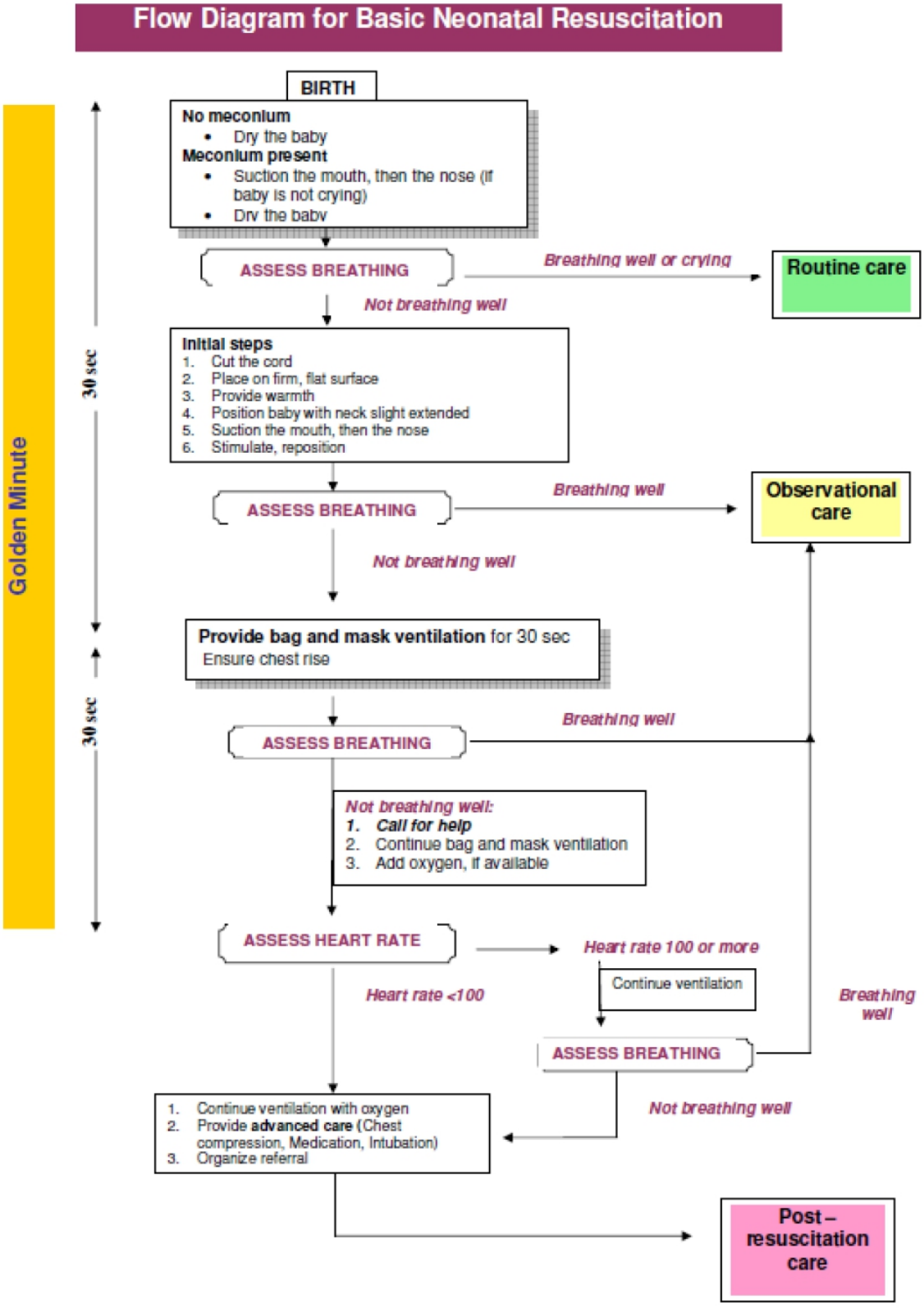
- 26 gauze needle and 1 ml syringe

Storage

- Room temperature in a dry place

Recording

- Labor room register
- Case sheet
- Referral slips
- Discharge ticket of the newborn


Flow Diagram for Basic Neonatal Resuscitation
BIRTH
No meconium
• Dry the baby
Meconium present
• Suction the mouth, then the nose (if baby is not crying)
• Dry the baby
ASSESS BREATHING
Breathing well or crying
Routine care
Not breathing well
Initial steps
1. Cut the cord
2. Place on firm, flat surface
3. Provide warmth
4. Position baby with neck slight extended
5. Suction the mouth, then the nose
6. Stimulate, reposition
ASSESS BREATHING
Breathing well
Observational care
Not breathing well
Provide bag and mask ventilation for 30 sec
Ensure chest rise
ASSESS BREATHING
Breathing well
Not breathing well:
1. Call for help
2. Continue bag and mask ventilation
3. Add oxygen, if available
ASSESS HEART RATE
Heart rate 100 or more
Continue ventilation
Heart rate <100
Breathing well
ASSESS BREATHING
Not breathing well
1. Continue ventilation with oxygen
2. Provide advanced care (Chest compression, Medication, Intubation)
3. Organize referral
Post – resuscitation care
Golden Minute
30 sec
30 sec