Internship Training at NHM Haryana

By

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PGDHM

2012-2014

International Institute of Health Management Research
New Delhi

Internship
Training

At

NRHM Haryana

Assessment of Status of the Equipments and Provider's Knowledge and Practice of Handling New Born Care Corner of Labour Room in District Panchkula,Haryana

By

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Under the guidance
of

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Post Graduate Diploma in Hospital and Health Management

Year 2012-2014

International Institute of Health ManagementResearch
New Delhi

CERTIFICATE OF DISSERTATION COMPLETION

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Monal Nagrath** has successfully completed her dissertation in our organization from February 3, 2014 to April 30, 2014. During this dissertation she has worked on project "**Assessment Of Status Of The Equipments And Provider's Knowledge And Practice Of Handling New Born Care Corner Of Labour Room In District Panchkula,Haryana**" & also co-ordinated for all child health Programmes under the guidance of me and my team at National Health Mission, Haryana .

We wish her good luck for her future assignments.

(Signature) 2/5/14

Deputy Director - MCH & EPI
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FEEDBACK FORM

Name of the Student: Dr. Monal Nagrath

Dissertation Organisation: National Health Mission, Haryana

Area of Dissertation: Facility Based Newborn Care

Attendance: 99%

Objectives achieved: Quality Assessment of Newborn Care Care in District/Sub district Hospitals

Deliverables: To analyze the data & share the gaps/findings with the district/state officials.

Strengths: Hard working, Curious nature

Suggestions for Improvement: Report writing.

Signature of the Officer-In-Charge/ Organisation Mentor (Dissertation)

Medical Officer, Child Health
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Date:
Place:

Certificate of Approval

The following dissertation titled "**Assessment Of Status Of The Equipments And Provider's Knowledge And Practice Of Handling New Born Care Corner Of Labor Room In District Panchkula, Haryana" at National Health Mission,Haryana** is hereby approved as certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of **Post-Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "**Assessment of status of the equipments and provider's knowledge and practice of handling new born care corner of labour room in district panchkula,Haryana**" and submitted by **Dr. Monal Nagrath** Enrollment No. **PG/12/051** under the supervision of **Dr. Vinay Tripathi** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from **5/2/2014. To 30/4/2014** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

TO WHOM SO EVER MAY CONCERN

This is to certify that Monal Nagrath student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at National Health Mission, Haryana From 3/2/14 to 30/4/14 .

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical. The Internship is in fulfillment of the course requirements. I wish him all success in all his future endeavors.

Dean, Academics and Student Affairs

IIHMR, NewDelhi

Professor
IIHMR, New Delhi

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This perspicuous piece of acknowledgement is an opportunity and humble privilege for me to express my deepest sense of gratitude and indebtness to those people without whose help, assistance and guidance, the present work would have been impossible.

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LIST OF AABBREVIATONS

Sr.No	Abbreviation	
1	IMR	Infant Mortality rate
2	U5MR	Under 5 Mortality rate
3	NMR	Neonatal Mortality Rate
4	MDG	Millennium Development Goals
5	JSY	Janani Suraksha Yojna
6	FBNC	Facility Based Neonatal Care
7	SNCU	Special New born Care Unit
8	NBSU	New Born Stabilization Unit
9	NBCC	New Born Care Corner
10	HBNC	Home Based Neo Natal Care
11	ENCR	Essential New Born Care and Resuscitation
12	OT	Operation Theatre

ASSESSMENT OF STATUS OF THE EQUIPMENTS AND PROVIDER'S KNOWLEDGE AND PRACTICE OF HANDLING NEW BORN CARE CORNER OF LABOUR ROOM IN DISTRICT PANCHKULA,HARYANA

1.0 INTRODUCTION

The Infant Mortality is the major contributor in U5MR which is 48 for Haryana as per SRS 2012.The IMR is an important indicator of Child Health. As per SRS 2012, the IMR of Haryana is 42 per 1000 live births. Neo-natal mortality (NMR) for Haryana as per SRS 2012 is 28 and accounts for 66% of the IMR. The goal to reduce IMR will only be achieved if comprehensive facility based neo-natal care strategy is implemented in Haryana backed up by Home Care & Timely referral.[1]

TABLE 1	**HARYANA MORTALITY INDICATORS**			
INDICATOR	**HARYANA**		**INDIA**	
	2011	2012	2011	2012
Under 5 Mortality	51	48	55	52
Infant Mortality	44	42	44	42
Neonatal Mortality	28	28	31	29
Early Neonatal Mortality	24	21	24	23
Late Neonatal Mortality	5	7	7	6

SRS Bulletin

1.1 BACKGROUND

There is a growing recognition that to meet the national goals and Millennium Development Goals(MDG), a substantial reduction in NMR is needed, and reducing deaths in the first week of life is essential to make a progress. A rapidly increasing number of newborns are being delivered in the hospitals after the launch of Janani Suraksha Yojna Scheme(JSY).The roll out of the Integrated Management of Neonatal and Childhood Illness programme has also led to increased contact with newborns at their households and improved detection and referral of sick new borns to health facilities.Bringing these two has resulted in an increased number of sick newborns presenting to referral hospitals.

Provision and delivery services of both Essential New born Care and care of sick new borns in the existing health facilities at district and sub district level has however been found lacking. Facility based new born care has a significant potential for improving newborn survival. It has been estimated that health facility based interventions can reduce neonatal mortality by as much as 25-30%.

A data on the causes of death in infant reveals that sepsis, prematurity and low birth weight, birth asphyxia, respiratory distress, congenital malfunction, diarrhoea of the new born and birth injury are broad categories that account for more than 80% of the infant deaths in Haryana. A large number of these deaths can be prevented by providing better ante-natal maternal services, safe delivery practice and promoting Facility Based Neonatal Care (FBNC) and Home Based Neonatal Care (HBNC).[1]

TABLE 2 FIVE MAJOR KILLERS OF CERTAIN CONDITION ORIGINATING IN THE NEONATAL PERIOD				
Sr. Number	**Name of the disease**	**Male(in %)**	**Female(in %)**	**Total(in %)**
1	Bacterial Sepsis of Newborn	18.9	6.5	25.4
2	Disorders related to short gestation and low birth weight	14.4	8.8	23.2
3	Birth Asphyxia	14.0	16.1	20.2
4	Respiratory distress of newborn	10.7	4.6	15.2
5	Neonatal aspiration and syndromes	4.6	3.2	7.7
	Total	62.5	29.1	91.6

Source: Medical Ceritification of cause of Death,Haryana(2007)

Three levels of neonatal care are envisaged. Newborn-care corners are established at every level to provide essential care at birth, including resuscitation. Level I care includes referral of sick newborns from Primary Health Centres (PHCs) to higher centres and care at Neonatal Stabilization Units (NSUs) in the first referral units. Care in the NSUs includes stabilization of sick newborns and care of low birth weight (LBW) babies not requiring intensive care. Level II care includes functioning of Special Care Newborn Units (SCNUs) at the district hospital level

Neonatal resuscitation is defined as the set of interventions at the time of birth to support the establishment of breathing and circulation. Of 136 million births annually, an estimated 10 million will require some level of intervention. Some non-breathing babies with primary apnea will respond to simple stimulation alone, such as drying and rubbing. Basic resuscitation with a bag-and-mask is required for an estimated 6 million of these babies each year, and is sufficient to resuscitate most neonates with secondary apnea, as their bradycardia primarily results from hypoxemia and respiratory failure.

More advanced measures, including endotracheal intubation, chest compressions and medications are required in <1% of births,and most of these babies require

ongoing intensive care which is not available in most low income country settings. Supplemental oxygen is not associated with survival benefit in term infants, although the effect may differ in very preterm infant.[2]

Labour room and obstetric OT in every facility at every level are required to have appropriate facility for providing essential care to newborns and for resuscitating those who might require it. Thus, Newborn Care Corner refers to the space within the labour room or obstetric OT with essential equipment and logistics for providing immediate care to all newborns.

Newborn care corner provides an acceptable environment for all infants at birth. Services provided in the Newborn care corner include Provision of warmth, Early initiation of breastfeeding,Weighing the neonate and Quick baby-check.The configuration of the corner includes clear floor within the labour room, 20-30 sq feet in size, where the radiant warmer is kept, Resuscitation kit should be placed in the radiant warmer, Availability of oxygen source is desirable and the area should be away from draughts of air and should have appropriate power connection for plugging in the radiant warmer.[3]

Table 3 New Born Care Facilities At Different Levels

Health Facility	All Newborns at birth	Sick Newborns
Primary Health Centre/Sub Centre MCH level 1	New born Care corner in labour room	Prompt referral
Community Health Centre/Referral unit MCH level 2	New born Care corner in labour room and OT	Newborn stabilization unit
District Hospital MCH level 3	New born Care corner in labour room and OT	Special newborn care unit

FBNC Operational Guidelines

Interventions Definitions

1*)* Immediate newborn assessment and stimulation (warming, drying and rubbing the back or flicking soles of the feet).

2) *Basic newborn resuscitation*, defined as airway clearing (suctioning), head positioning and positive pressure ventilation via bag-and-mask or tube-and-mask (noting that tube-and-mask device is no longer recommended for use)

Outcome Definitions

A neonatal death was defined as a death in the first 28 days of life, early neonatal death as death in the first 7 days of life, and perinatal death as a stillbirth (≥1000 gms, ≥ 28 weeks gestation) or death in the first 7 days of life.

Birth Asphyxia

The failure to initiate and sustain breathing at birth is "birth asphyxia", indicating the clinical need for neonatal resuscitation, a syndromic state also commonly referred to as neonatal or perinatal respiratory depression.[2]

2.0 RATIONALE

Of 136 million babies born annually, around 10 million require assistance to breathe. Each year 814,000 neonatal deaths result from intra partum-related events in term babies (previously "birth asphyxia") and 1.03 million from complications of prematurity. And Neonatal Resuscitation is gaining attention in saving lives in their 1st golden minute.[2]

The purpose of this study is to assess the availability of the equipments and the knowledge and practices of the Healthcare providers in handling the equipments and resuscitating the neonate in the first golden minute so that the gaps can be analysed and resources can be channelized for delivery of quality care and which would further help in reducing the intra partum and preterm deaths mainly due to birth asphyxia

3.0 REVIEW OF LITERATURE

Ministry of Health and Family Welfare, Government of India; The Facility based New born care operational guidelines for planning and implementation ,2011 states that the expected services at the New born care corner is broadly categorized into 3 area; Care at birth(Prevention of Infection, Provision of Warmth, Resuscitation, Early breastfeeding and Weighing the newborn), Care of normal new born(Breastfeeding/feeding support) and Care of sick new born(Identification and prompt referral of "at risk" or "sick" newborn).

Wall SN et al conducted a study on Reducing intrapartum-related neonatal deaths in low- and middle-income countries—what works. Assessors interviewed 82 doctors and 142 midwives at 78 facilities on their knowledge of newborn resuscitation and observed them perform the procedure on an anatomical model. Supplies, equipment, and infrastructure were assessed at each facility.The findings of the study suggested that the success of newborn resuscitation depends upon the knowledge and clinical skills of local birth attendants as well as access to basic equipment, including towels or blankets for drying, a bag and mask resuscitator, and a suction device. National surveys assessing the provision of health services in Africa and Asia have found that trained health workers and equipment for newborn resuscitation are not consistently available in all facilities.[4]

Studies in diverse countries, including Cameroon, Ethiopia, Kenya, and Nepal, have identified missing equipment and inadequate provider knowledge and skills as barriers to the performance of newborn resuscitation.[5,6]

Deorari AK et al conducted a study on Impact of education and training on neonatal resuscitation practices in teaching hospitals in India and evaluated the outcome of Birth Asphyxia in 14 teaching hospitals in India. Two faculty members from each institution attended a neonatal resuscitation certification course and afterwards trained staff in their respective hospitals. Each institution provided 3 months pre-intervention and 12 months post-intervention data and it was found that there was a significant shift towards more rational resuscitation practices which was indicated by a decline in the use of chest compression and medication, and an increase in the use of bag and mask ventilation. Although overall neonatal mortality did not decrease, asphyxia-related deaths declined significantly. [7]

Anne CC Lee conducted a meta analysis on Neonatal resuscitation and immediate new born assessment and stimulation for the prevention of neonatal deaths.Systematic reviews were conducted for studies reporting relevant mortality or morbidity outcomes. Evidence was assessed using GRADE criteria adapted to provide a systematic approach to mortality effect estimates for the Lives Saved Tool (LiST). Meta-analysis was performed if appropriate and For interventions with low quality evidence but strong recommendation for implementation, a Delphi panel was convened to estimate effect size.The findings of the study suggested that this simple action of immediate assessment and stimulation could reduce both term intra partum related (i.e “birth asphyxia”) and preterm mortality by 10%. The expert panel also suggested that neonatal resuscitation training in facilities was associated with an additional 30% reduction in intra partum-related neonatal mortality.[2]

Sutapa B Neogi in 2013, conducted a study on Setting up a Quality Assurance Model for Newborn Care to Strengthen Health System in Bihar, India. The first quarter data (from 37 districts and 420 NBCCs) was collected in the month of January 2012 and the second set (38 districts, 463 NBCCs) in April 2012. The data collection process continued for one month. The conclusion drawn from this were as follows 12%, 63%, and 25% units were categorized as good, average and poor based on infrastructure. For equipment, 68% of units performed poorly; for stock maintenance 64% and 35% of NBCCs fell under good and average categories respectively; most (54%) NBCCs had average scores for aseptic measures; 30% fell in the poor category

4.0 OBJECTIVES

General Objective

To assess the status of the equipments and provider's knowledge and the practice of handling new born care corner of Labour room and Operation Theatre in District Panchkula, Haryana

Specific Objectives

1. To assess the availability of the equipments and consumables of the New born care corner in the facility
2. To assess the knowledge and practice of the provider with respect to handling of equipments in the New born care corner
3. To analyse the gaps in knowledge and practices of handling the equipment
4. To recommend possible measures to be taken to fill in the gaps.

5.0 METHODOLOGY

A Cross Sectional Study was conducted in the Panchkula District of Haryana and a structured questionnaire was used to interview 9 Staff nurses at 9 facilities in the District which includes GH, 2CHCs and 6 PHCs. The method of sampling used was Convenient sampling. Knowledge regarding purpose of use, practice of handling of the equipments and disinfection practices were assessed.Data was analysed using Microsoft Excel.

The facilities which were assessed were as follows

Sr. No.	Name of the facilities
1	GH Panchkula
2	CHC Raipur Rani
3	CHC Kalka
4	PHC Hangola
5	PHC Kot
6	PHC Barwala
7	PHC Nanakpur
8	PHC Morni
9	PHC Pinjore

6.0 RESULT

6.1 Availability of the Equipments and consumables of the new born Care Corner

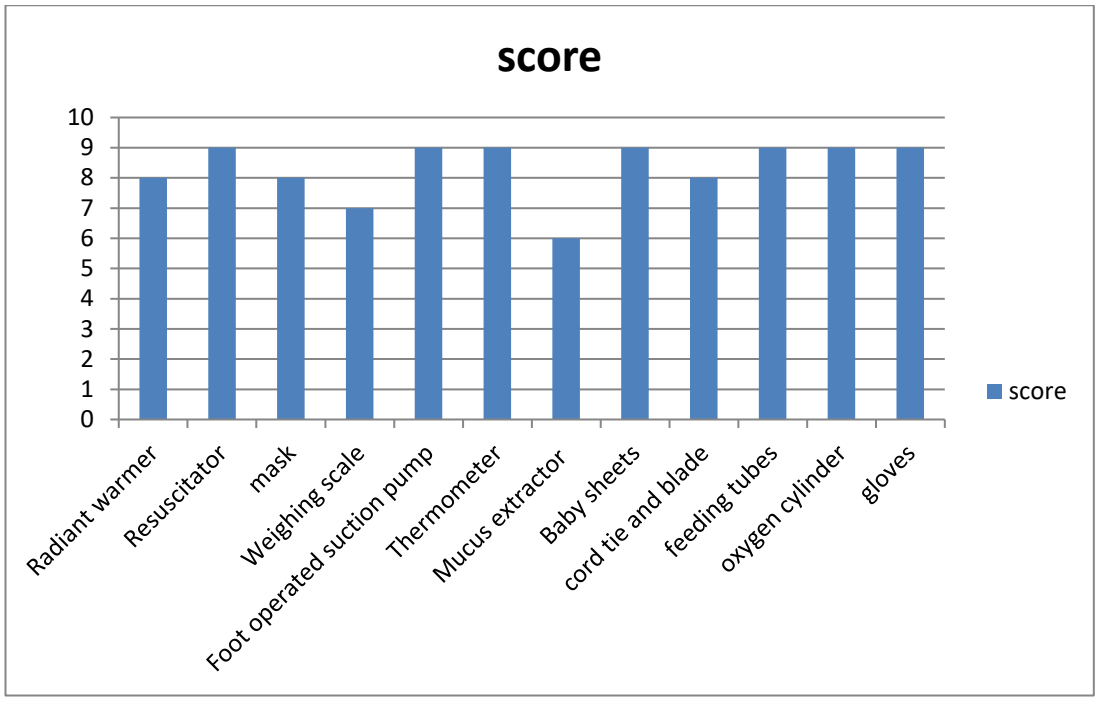

Figure 1 Availability of the Equipments at the facilities

Figure 1 represents the number of facilities equipped with the essential and desirable equipments as per the Facility based operational guidelines . As shown in the graph, Resuscitator, Foot operated suction pump, oxygen cylinder and thermometer are available at all the facilities, whereas Radiant warmer, mask and sterile equipment for cutting the cord is present in 8/9 of the facilities whereas mucus extractor is present in 6 out of 9 facilities.

6.2 Assessment of the knowledge and practice of the provider with respect to handling of equipments in the New born care corner

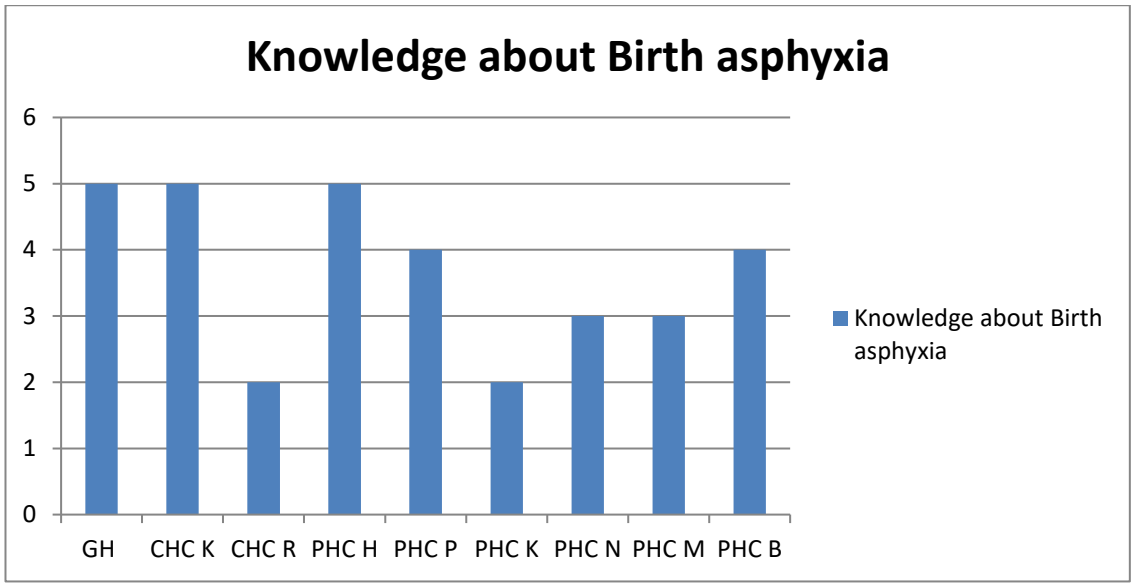

Figure 2 Knowledge Of The Health Provider Regarding Birth Asphyxia At The Facilities

As shown in figure 2, 3 out of 10 Staff Nurses mentioned all the signs of birth asphyxia.

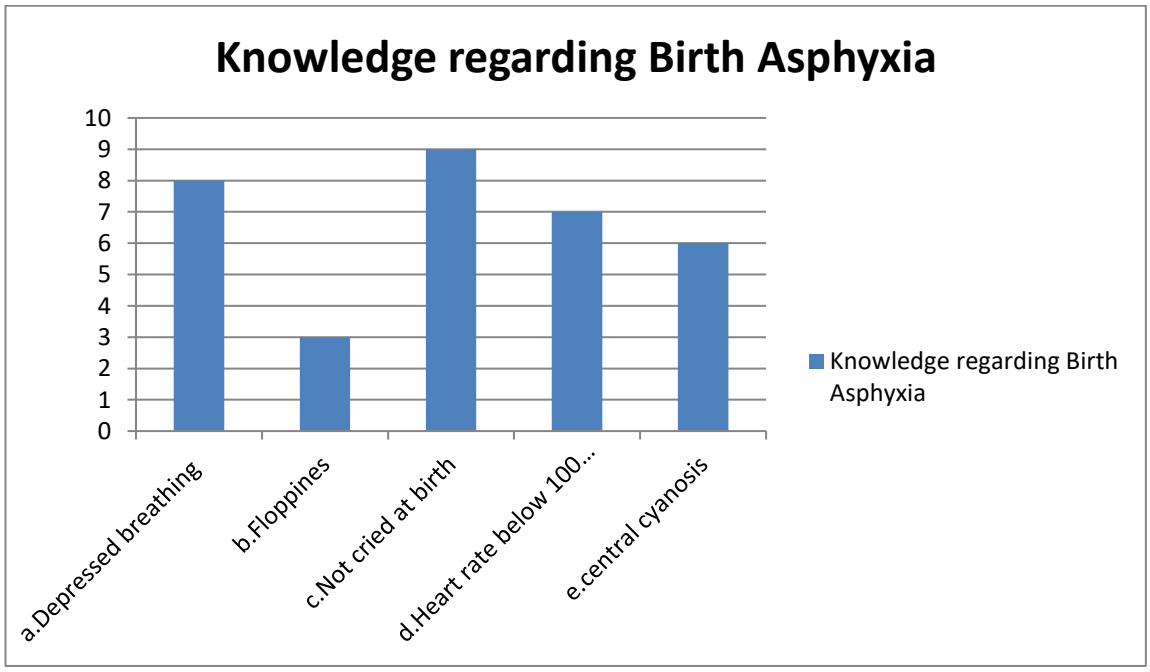

Figure 3 Knowledge regarding signs of Birth Asphyxia

As shown in figure 3 , all the staff nurses mentioned the sign Not cried at birth whereas only 3 out of 9 mentioned Floppiness and 6 out of 9 mentioned central cyanosis when interviewed

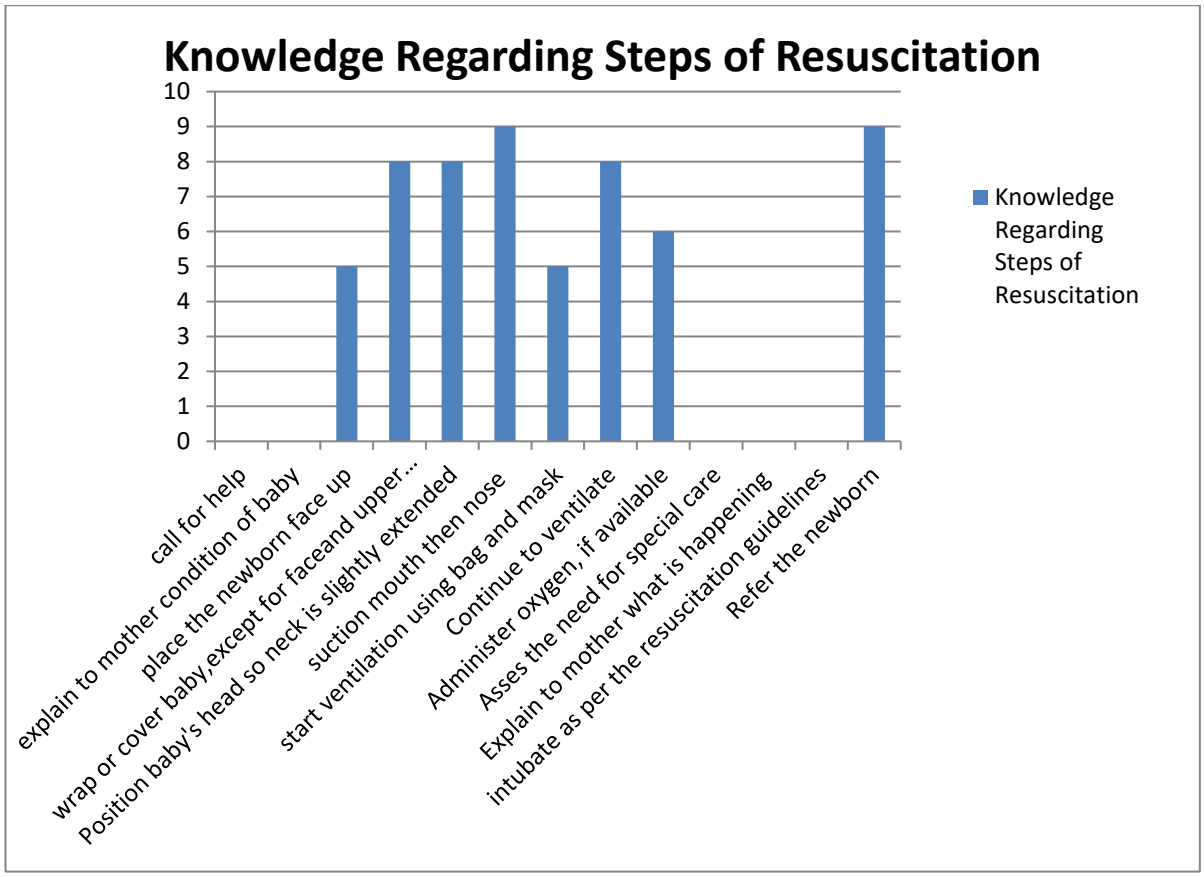

Figure 4 Knowledge Of The Health Provider Regarding the Steps and sequence Of Resuscitation Process

As shown in the figure 4, All the nurses were aware of doing suction first from mouth followed by suction from nose whereas none of the staff nurses were aware about calling for help and explaining mother the condition of the baby.All the nurses mentioned Referral if the baby doesn't breathe even after using bag and mask whereas none of them mentioned Assessment of the need for special care, explaining to mother the condition of the baby and intubation as per the guidelines.

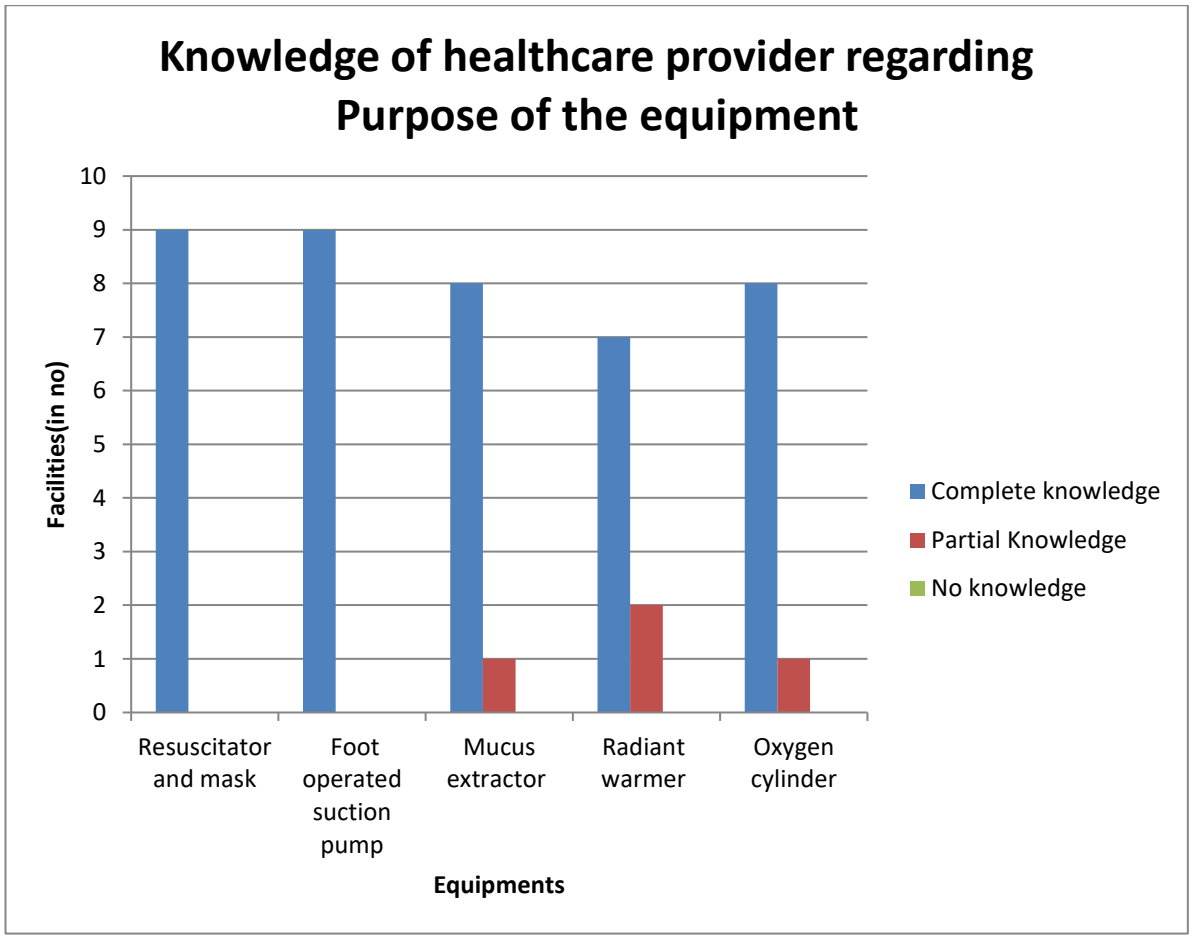

Figure 5 Knowledge of the health provider regarding utility of the equipments

Figure 5 depicts the status of knowledge of healthcare providers regarding the utility of the essential equipments. All the Healthcare providers who were interviewed had complete knowledge regarding the utility of Resuscitator and mask and foot operated suction pump whereas a large proportion of the providers were not aware about all the possible uses of the radiant warmer which includes Pre warm baby sheets, Maintaining temperature of the baby, Routine basis post delivery, Emergency conditions(either mother/baby).They were only aware about maintaining the temperature of baby.

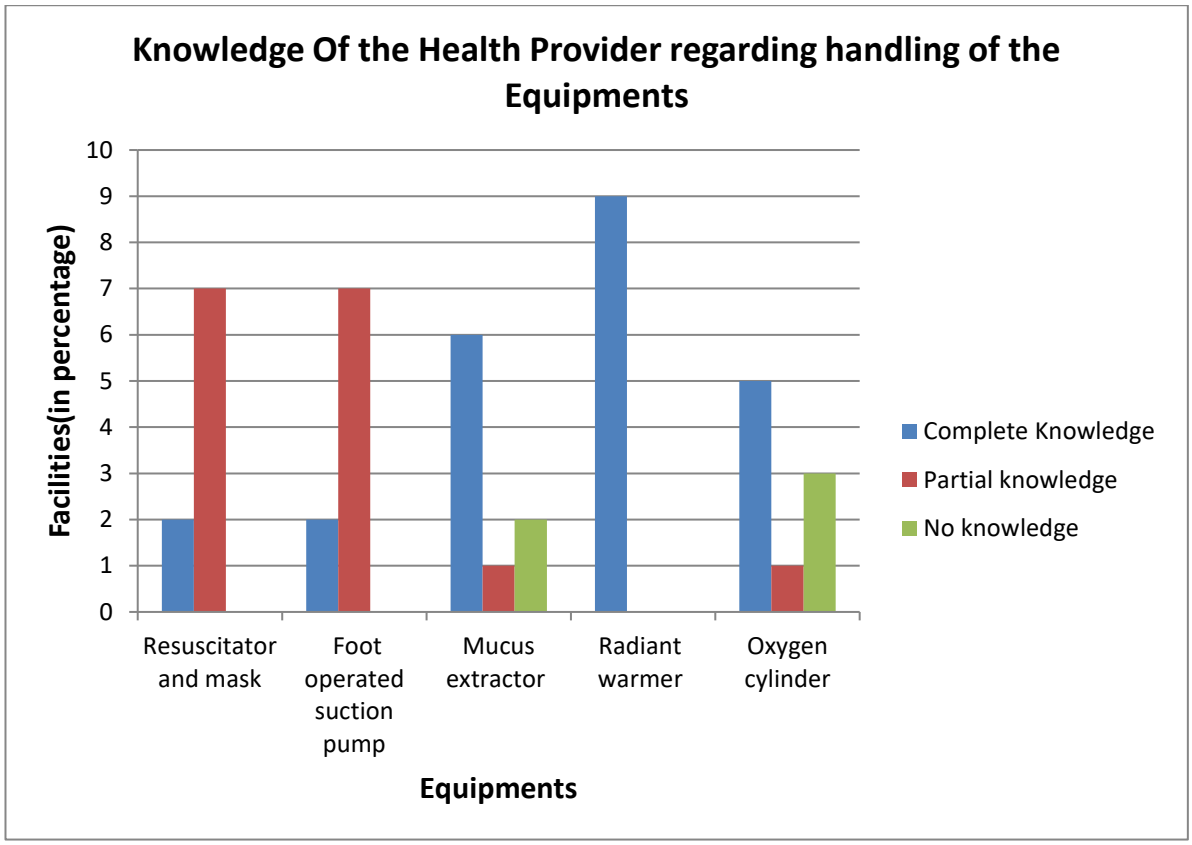

Figure 6 Knowledge Of The Healthcare Provider Regarding Handling Of The Equipments

As shown in figure 6, the healthcare providers had complete knowledge regarding handling of radiant warmer and a large proportion had partial knowledge regarding handling of Resuscitator and mask in which the 4/9 SNs did not mention the step of positioning yourself behind the baby's head and also that one of the ways to check the functionality of resuscitator is that it is self inflating.7/9 SNs did not mention adjusting the pressure for using foot operated suction machine at 80-100 mm hg and 6/9 did not mention that suction is done while pulling the tube out. Also around 25% of the providers had no knowledge regarding oxygen cylinder and mucus extractor

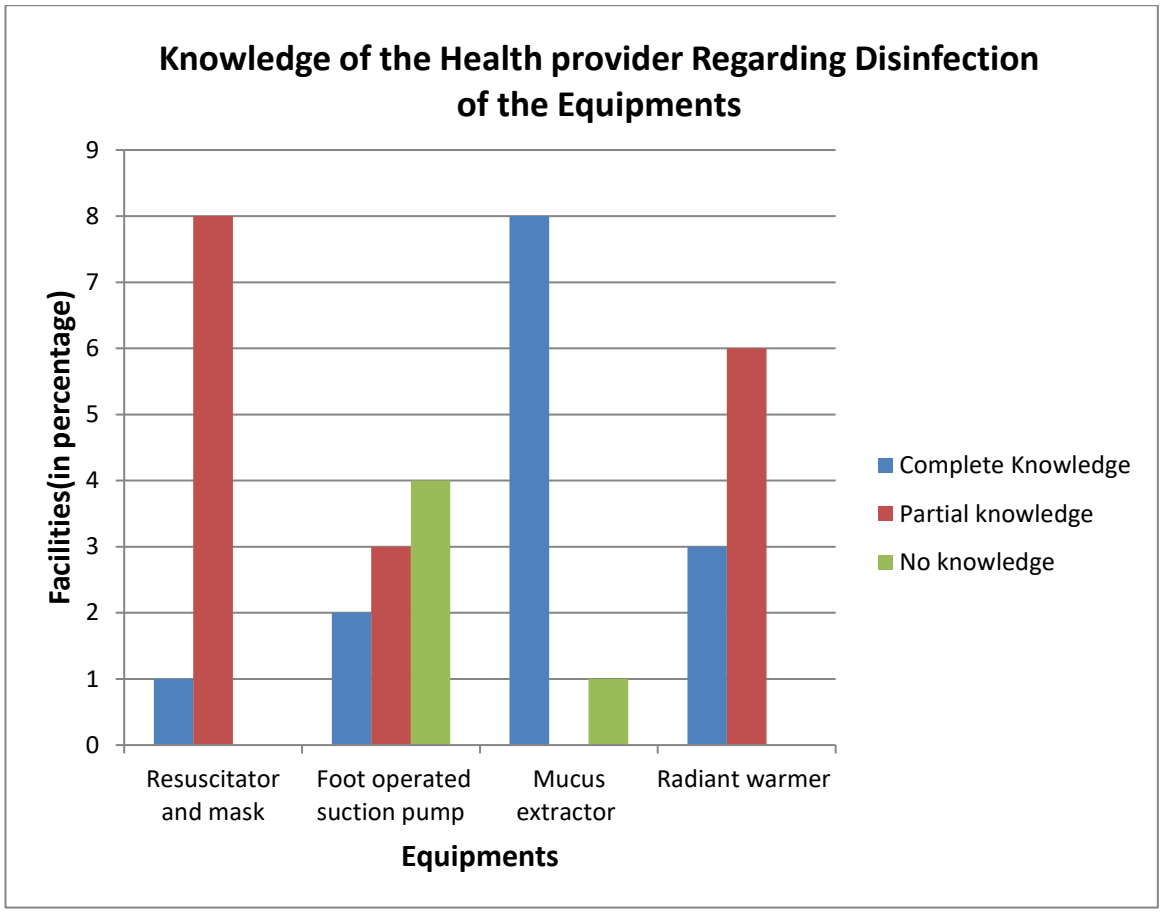

Figure 7 Knowledge Of The Healthcare Provider Regarding Disinfection Of The Equipments

The graph shows the status of knowledge of Health providers regarding the disinfection practices of the equipments. 8/9 of the providers had partial knowledge of disinfection of Resuscitator and mask and did not mention the dismantling and reassembling of the parts of the resuscitator while disinfecting. Only 2/5 SNs had complete knowledge regarding disinfection of suction pump whereas 4/5 SNs had no knowledge and 3/9 did not mention that the suction bottle should be filled with water till 1/3rd level and that the bottle should be cleaned with detergent and cleaned daily.6/9 SNs had partial knowledge regarding disinfection practices and did not mention that it should be cleaned daily with either 2% glutaraldehyde.

7.0 DISCUSSION

According to the Facility based Newborn care corner operational guidelines, Ministry of Health and Family welfare 2011, New born care corner should be established within the labour room of all the health facilities and should be equipped with all the essential equipments.[3] However, as per the study conducted, 67% of the facilities were equipped with all the essential equipments and and 33% of the facilities were equipped with all the essential and desirable equipments. The essential equipments which were lacking included Radiant warmer and mechanical baby weighing scale.

Wall SN et al conducted a study on Reducing intra partum-related neonatal deaths in low- and middle-income countries which stated that In many resource-poor or low-income countries, especially in sub-Saharan Africa, the lack of these essential supplies poses a major barrier to performing effective newborn resuscitation, therefore this issue needs to be addressed urgently. The study also stated that the success of newborn resuscitation depends upon the knowledge and clinical skills of birth attendants as well as access to basic equipment and it was found that a large proportion of the Nurses had comparatively better knowledge than Doctors in all the health facilities. However, after the skill assessment at all the facilities, it was found that 33% of the healthcare providers interviewed had complete knowledge regarding birth asphyxia. . Although a large proportion of the providers mentioned the steps in the desired sequential order , they did not mention the need to explain what is happening to the mother either before or after resuscitation

As stated by Deorar AK et al in their study , training of the healthcare providers in neonatal resuscitation practices has led to a shift to more rational practices which have ultimately led to a decline in asphyxia related neonatal mortality. However, a large proportion of the healthcare providers as per the study have partial or no knowledge regarding handling of the equipments like resuscitator, oxygen cylinder ,mucus extractor and foot operated suction pump. Also, they possess partial knowledge regarding disinfection practices of Resuscitator, foot operated suction pump and radiant warmer.

8.0 CONCLUSION

Over 67% facilities had essential equipments for newborn resuscitation including Muscus extractor, bag and mask. The major equipments which should be procured are Radiant warmer and mucus extractor. Over all the knowledge of the healthcare providers needs to be strengthened and few areas need to be focussed during the supportive supervisory visits and the refresher training for ANM and Staff Nurses which includes performing resuscitation in the desired sequence for the neonates born with birth asphyxia along with importance of each step especially informing the mother regarding the condition of the baby. Staff nurses lack the complete knowledge regarding the Purpose of radiant warmer and practice of handling the oxygen cylinder.A large proportion of the them also possess partial knowledge regarding the practice of handling Foot operated suction pump and resuscitator. Also the knowledge regarding disinfection practices as per the protocols is not satisfactory and needs to be strengthened.

9.0 SUGGESTIONS

1. **Competency-based pre-service and in-service training**, complemented by supportive supervision can ensure continual neonatal resuscitation education and could increase competence in weak skills, and foster providers' confidence .

2. **Refresher training** every 6 monthly should be ensured to address the performance gaps.

3. Newborn resuscitation can be performed without a special resuscitation table, and simple newborn corners can be constructed with locally available materials to provide warmth and light for babies immediately after birth.

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Annexure A

List of Essential equipments for NBCC

A) Newborn care corner

Item No	Item Description	Essential	Desirable	Quantity
1	Open care system: radiant warmer, fixed height, with trolley, drawers, O_2 bottles	E		1
2	Resuscitator, hand-operated, neonate, 500ml	E		1
3	Weighing scale, spring	E		1
4	Pump suction, foot operated	E		1
5	Thermometer, clinical, digital, 32°-34°C	E		1
6	Light for examination, mobile, 220-12	E		1
7	Syringe hub cutter	E		1

Item Number	Item Description	Essential/ Desirable	Quantity	Available	Functional	Remarks
1	Open care system: Radiant warmer,fixed height with trolley,drawers,o2 bottles	E	1			
2	Resuscitator,hand operated ,neonate,500 ml	E	1			
3	Mask , neonate ,250ml-500ml	E	2			
4	Weighing scale ,spring	E	1			
5	Pump suction,foot operated	D	1			
6	Thermometer,clinical,digital ,32-34 Degrees Celsius	E	1			
7	Light for examination,mobile,220-12	D	1			
8	Syringe hub cutter	E	1			
9	Extractor mucus,20 ml	E	2			
10	Sheets for wrapping and warming the baby	E	2			
11	Sterile equipment for cutting and tying the cord	E				
12	Feeding tubes	E				
13	Oxygen cylinder	D	1			
14	Sterile gloves	E	2			

Provider's Knowledge and Practice checklist

Instructions- Tick on the single right choice or multiple choices as per answers given by the provider . To each row ,a maximum score of 2 will be allotted.As per the number of answers the score will be allotted as 2=good knowledge(all answers given and matched), 1= average knowledge(partially matched) and 0=poor knowledge(no answers matched)

NO	QUESTIONS		SC
Birth Asphyxia	Please describe how you would diagnose birth asphyxia	☐ Depressed breathing	
		☐ Floppiness	
		☐ Not cried at birth	
		☐ Heart rate below 100 beats per minute	
		☐ central cyanosis	
RADIANT WARMER	1.For what purpose is the radiant warmer used?	☐ Pre warm baby sheets	
		☐ Maintaining temperature of the baby	
		☐ Routine basis post delivery	
		☐ Emergency conditions(either mother/baby)	
	2.Is there a mode of backup for the warmer	☐ Yes	
		☐ No	
	3.When do u disinfect the warmer?	☐ Daily	
		☐ Weekly	
		☐ Monthly	
	4.How do you disinfect the warmer	☐ Wet cloth(plain water)	
		☐ Phenyl	
		☐ 2% Glutaraldehyde solution(dilueted)	
2**. RESUSCITATOR, HAND OPERATED AND MASK,NEONATE**	1.For what purpose is the resuscitator used?	☐ To assist in initial breathing in cases of birth asphyxia	

	2.How do you assess the functionality of the resuscitator?	☐ Check if the bag is self inflating
		☐ check the air pressure while inflating
		☐ Check whether the pop up valve is not locked and is functional
	3. If resuscitating with bag and mask,what do you do?	☐ Place mask so it covers baby's chin ,mouth and nose
		☐ Ensure appropriate seal has been formed
		☐ Ventilate 1 or 2 times and see if chest is rising
		☐ Pause and determine whether baby is breathing spontaneously
	4.How do you disinfect the resuscitator?	☐ Dismantle parts
		☐ Clean with soap water
		☐ Immerse in 2% Glutaraldehyde
		☐ Rinse with clean/distilled water and dry with sterile linen
		☐ Reassemble parts
	5.Please describe the sequential steps of neonatal resuscitation	☐ call for help
		☐ explain to mother condition of baby
		☐ place the newborn face up
		☐ wrap or cover baby,except for face and upper portion of chest
		☐ Position baby's head so neck is slightly extended
		☐ suction mouth then nose
		☐ start ventilation using bag and mask
	6.Were the steps mentioned in a sequential order?	Yes
		No
3.**SUCTION PUMP**	1.What is the purpose of the suction pump for the new born?	☐ To clear the airway and facilitate breathing

	2.How do you use it?	☐ fix the suction catheter
		☐ adjust the pressure(80-100mmhg)
		☐ First mouth followed by nose
		☐ Suction done gradually while pulling out the tube
	3.How do you disinfect it?	☐ suction bottle should contain water up to 1/3rd
		☐ Suction bottle cleaned with detergent and changed daily
4.**MUCUS EXTRACTOR**	1.What is the purpose?	☐To clear the airway in case of obstruction
	2.What is the procedure to use it?	☐Method of holding
		☐Positioning of tubes in the mouth of the baby
		☐method of suction
		☐sequence of suction(First mouth then nose)
	3.How many times can a mucus extractor be used for a baby?	☐disposed after every use
		☐ one extractor per baby
		☐ one extractor in a day for all the deliveries
5.**OXYGEN CYLINDER**	1.When is the oxygen cylinder used?	☐ Birth asphyxia
		☐ When breathing cannot be facilitated by resuscitator alone
	2.Please describe the particulars of oxygen cylinder	☐ Predetermined Pressure
	3.If baby doesnt begin to breathe what do you do?	☐ Continue to ventilate
		☐ Administer oxygen, if available
		☐ Asses the need for special care
		☐ Explain to mother what is happening
		☐ Intubate as per the resuscitation guidelines
		☐ Refer the newborn

Annexure B

ORIENTATION PROGRAMME 10-14TH FEBRUARY 2014

An orientation programme was scheduled for the Child health coordinators and Junior consultants on various programmes under NRHM Haryana. Senior consultants at the State gave training on the programmes they were assigned and Dr. Goel Pediatrician General Hospital PKL was invited for a guest lecture On ENBC-R. The programme was organized in Swach NGO PKL.

Day 1

During the first hour Home Based Post Natal Care (HBPNC) was discussed by Dr. Vinod. Earlier the programme was called Home based Natal care , a project of NIPI, later renamed as HBPNC which covered the Pregnant women and infants upto 42 days.The data is collected by ASHA and the supervisory visits are made by the ANMs. Referrals are also an integral part of this programme.

The second half was dedicated to an overview on ENBC-R. Dr. Goel explained the different causes of Infant Death and the ways to prevent it with the help of the ENBC programme. The steps of prevention of early neonates at the facility level that is the facility resdiness were discussed by Dr. Arun and a demonstration of the steps were given on a mannequin by Dr. Kapil.

Day 2 and 3

Universal Immunization Programme was covered in these 2 days by Dr. Sumit, Dr. Nishtha and Dr.Subhash . The schedule was discussed in detail . A pre and post test were held .we were also taught how to make micro plan at the district level for immunization coverage. There were many interactive activities organized to explain the concepts of immunization better. Safe injection practices were also explained.

A demonstration of RI card , tracking bag ,MCH register and Tally sheet was given and the record keeping and reporting procedure were also given. And by the end of the session schedule was revised by each participant and a feedback was taken on the session.

Day 4

An overview on IMNCI was given by Dr. Jaidev along with IDR and MDR. The session began with E IMNCI and IMNCI form was discussed along with hands on training with the help of UNICEF training material.

The second half was taken by the Head of the cold chain Dept. The presentation comprised of the Hierarchy of the department along with the management ways in Haryana. we were also explained our role and responsibilities towards the Department and where do we fit in the cold chain management of our respective districts.

Day 5

The last day covered programmes on nutrition and SNCU set upsat teh district level which was taken by Dr Shibani and Dr Mandar. A brief overview was given on the both the programmes.

DATA QUALITY ASSESSMENT 25/3/14-28/3/14

A workshop conducted by Team Immunization Technical Support Unit Public Health Foundation India on 25th March 2013 followed by 2 days field testing of DQA tool . The workshop gave an insight into the goal and objectives of conducting Data Quality Assessment .The tool is used globally and yamunanagar was selected as the district for field testing, which will later be followed by implementation in 4 other states. The workshop began with a brief introduction of the participants followed by a discussion on the challenges faced in the field regarding quality of data by Dr. Dalpat(DD CH).

The 4 indicators to assess the quality of data were discussed in details along with their method of calculation and an example of Panchkula was stated for further clarity. The 5 Health Sub Centre forms were discussed in details by the nodal officers ITSU .Also the participants were divided into teams for the next 2 days for field testing which was followed by logistic planning.

On 26th march , the teams were headed to their respective Primary Health Centres and Sub Centres. After the teams returned a meeting was arranged for discussion of the issues at the various facilities . the most common issues discussed were as follows

- Regular filling of the tally sheets
- Importance of tally sheet cum due list
- Authentication of tally sheet
- Reliability of the tally sheet
- Issues with respect to the 4 indicators
- Agreement between the registers

The issues were brought to the notice of District Immunization Officer Yamunanagar and possible solutions were discussed

ORIENTATION WORKSHOP ON SAFE CHILDBIRTH CHECKLIST
29/4/14-30/4/14

An orientation workshop was organized by NHM ,Haryana and JHPIEGO on Safe childbirth checklist which will roll on the field in the coming few months. The purpose of the checklist is to increase adherence to the practices at all the levels.

DAY 1

A pre course knowledge assessment was conducted and overview of the checklist was given.The four stages of labour and four pause points in the checklist were discussed.The most interesting part of the workshop was partograph which was unclear until date. The trainers helped us fill the partographs with help of different case studies. Assessment of the need of Magnesium Sulphate was done along with Management of the this drug. Along with Various aspects of Maternal health we were taught about how to fill the 4 pause points in detail.

DAY 2

The day started with a quick recap of the previous day which was done by the participants themselves followed by a role play on the steps in conducting a normal delivery. Also, essential new born care and resuscitation were revised.An interactive discussion and demonstration was given on assessment for excessive vaginal bleeding /PPH followed by need of antibiotic/referral/specialized care for new born.The day ended with practice of filling the checklist with the help of case studies.

READ & DO TOOL

नवजात की त्वरित देखभाल

नवजात की त्वरित देखभाल

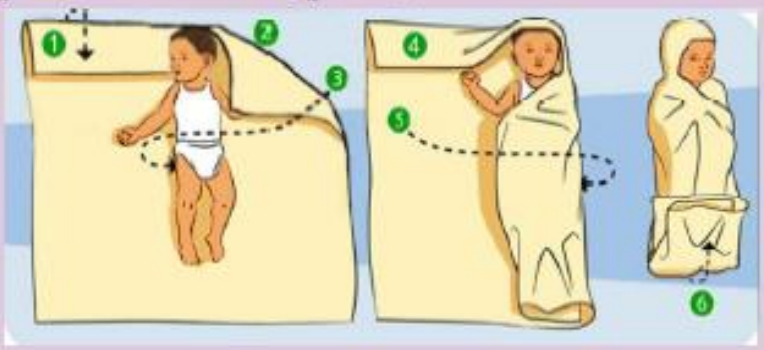
- ☐ जन्म के ठीक पहले माँ के पेट पर एक गर्म एवं स्वच्छ कपड़े बिछाये
- ☐ नवजात के जन्म के तुरंत बाद उसे माँ के पेट पर रखें

नवजात को पोंछने एवं सुखाने का तरीका

- ☐ साफ़ एवं गर्म कपड़े से नवजात के सिर, चेहरा, छाती, आंख, हाथ, पेट, कमर, पैर एवं पीठ को पोंछ कर सुखाना है
- ☐ गीले कपडे को पीठ पोंछते हुए हटाना है
- ☐ गर्मी मिलते रहने के लिए दूसरे गर्म कपड़े से नवजात को लपेटना है।

नवजात को कैसे लपेटना है

- ☐ एक चौकोर कपड़ा लेना है
- ☐ कपड़े को किसी एक कोने से मोड़ना है
- ☐ शिशु का सिर मुड़े हुए हिस्से पर रखना है
- ☐ शिशु का दांया भाग लपेटते हुए कपड़े को बाएँ तरफ दबाना है
- ☐ निचले कोने से शिशु को लपेटते हुए कपड़े को शिशु कि टुड्डी से दबाना है
- ☐ शिशु का दांया भाग लपेटते हुए कपड़े को बाएँ तरफ दबाना है



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READ & DO TOOL
जन्म की तैयारी

जन्म की तैयारी

सुनिश्चित कर लें कि

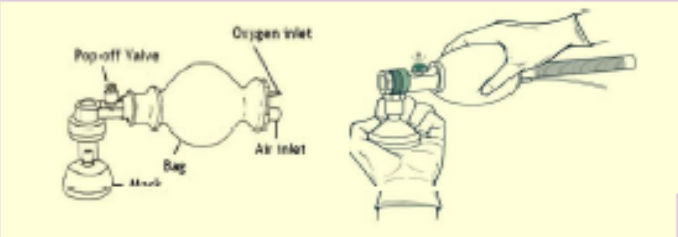
- ☐ प्रसव कक्ष का तापमान 25 डिग्री सेल्सियस से अधिक है
- ☐ रैडिएंट वार्मर चालू है
- ☐ साफ़ पानी एवं साबुन से हाथ धोए हैं
- ☐ उपयोग के लिए दस्तानो के दो सेट ले लिए हैं
- ☐ उपयोग के लिए डिसपोजेबल (साफ़ ब्लेड, नाल बंधने के लिए धागा गोज पीस एवं रूई, क्लीन ड्रेप) किट ले ली है
- ☐ सेल्फ इनफ्लेटिंग बैग चैक करके ले लिया है
- ☐ दोनों प्रकार (0 एवं 1 नम्बर) के फेस मास्क ले लिए हैं

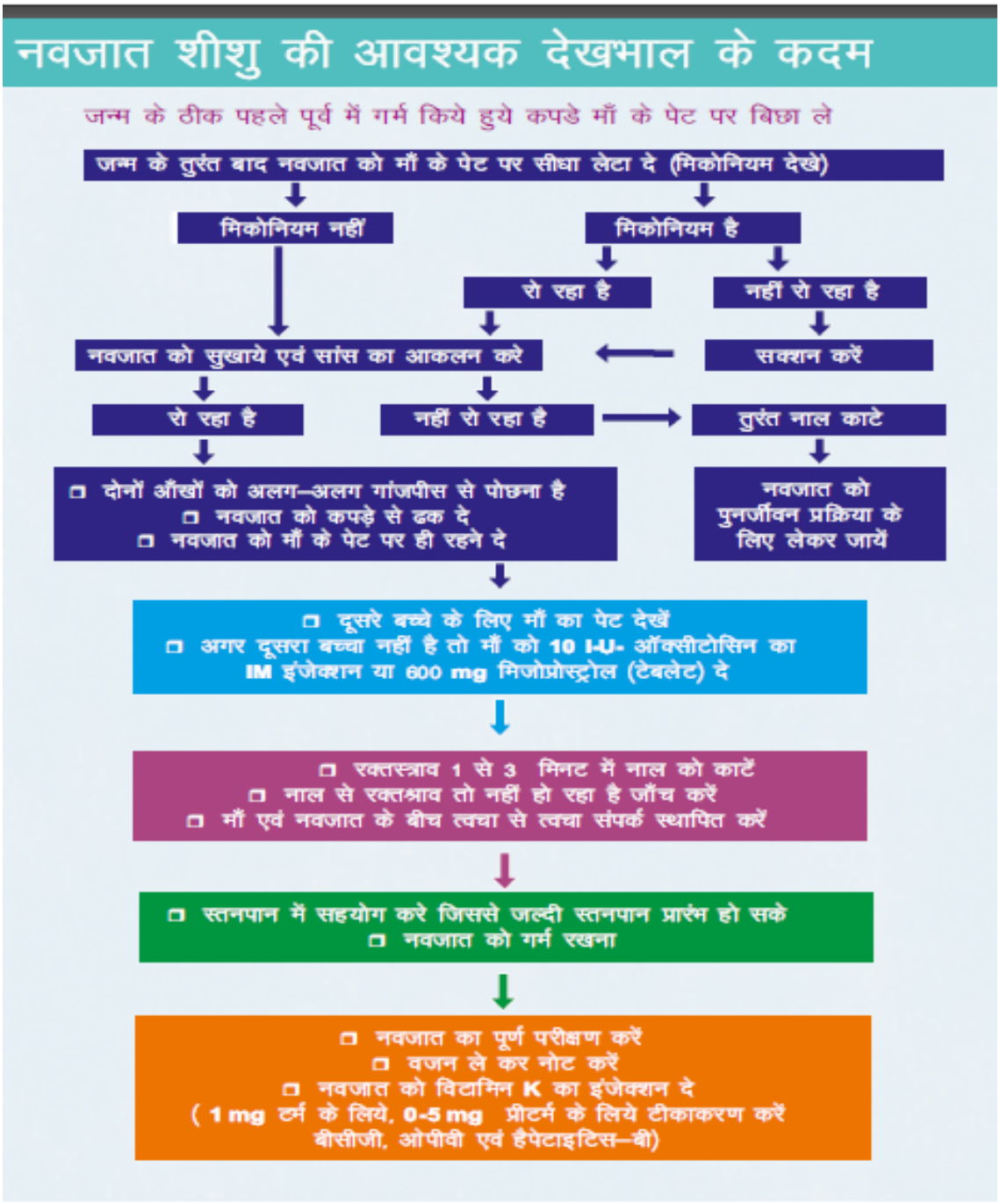
हाथ धोने के आवश्यक कदम

- ☐ हथेली और फिंगर स्पेस
- ☐ डोरसम और फिंगर स्पेस
- ☐ दोनों हाथ के नकल्स
- ☐ दोनों हाथ के अंगूठे
- ☐ नाखून और हथेली की रेखाएँ
- ☐ कलाई से लेकर कोहनी तक

सेल्फ इनफलेटिंग बैग चेक करने के कदम

- ☐ बैग छोड़ने पर वापस अपनी स्थिति में आ रहा है या नहीं देखना है
- ☐ हथेली पर हवा का दवाब महसूस हो रहा है या नही
- ☐ पॉप ऑफ वाल्व की गति एवं आवाज़ को देखकर एवं सुनकर जाँचना है कि उपकरण सही काम कर रहा है या नहीं।




नवजात शीशु की आवश्यक देखभाल के कदम
जन्म के ठीक पहले पूर्व में गर्म किये हुये कपडे माँ के पेट पर बिछा ले
जन्म के तुरंत बाद नवजात को माँ के पेट पर सीधा लेटा दे (मिकोनियम देखे)
मिकोनियम नहीं
मिकोनियम है
रो रहा है
नहीं रो रहा है
सक्शन करें
नवजात को सुखाये एवं सांस का आकलन करे
रो रहा है
नहीं रो रहा है
तुरंत नाल काटे
दोनों आँखों को अलग–अलग गांजपीस से पोछना है
नवजात को कपड़े से ढक दे
नवजात को माँ के पेट पर ही रहने दे
नवजात को पुनर्जीवन प्रक्रिया के लिए लेकर जायें
दूसरे बच्चे के लिए माँ का पेट देखें
अगर दूसरा बच्चा नहीं है तो माँ को 10 I.U. ऑक्सीटोसिन का IM इंजेक्शन या 600 mg मिजोप्रोस्ट्रोल (टेबलेट) दे
रक्तस्त्राव 1 से 3 मिनट में नाल को काटें
नाल से रक्तश्राव तो नहीं हो रहा है जाँच करें
माँ एवं नवजात के बीच त्वचा से त्वचा संपर्क स्थापित करें
स्तनपान में सहयोग करे जिससे जल्दी स्तनपान प्रारंभ हो सके
नवजात को गर्म रखना
नवजात का पूर्ण परीक्षण करें
वजन ले कर नोट करें
नवजात को विटामिन K का इंजेक्शन दे
(1 mg टर्म के लिये, 0-5 mg प्रीटर्म के लिये टीकाकरण करें
बीसीजी, ओपीवी एवं हैपेटाइटिस–बी)
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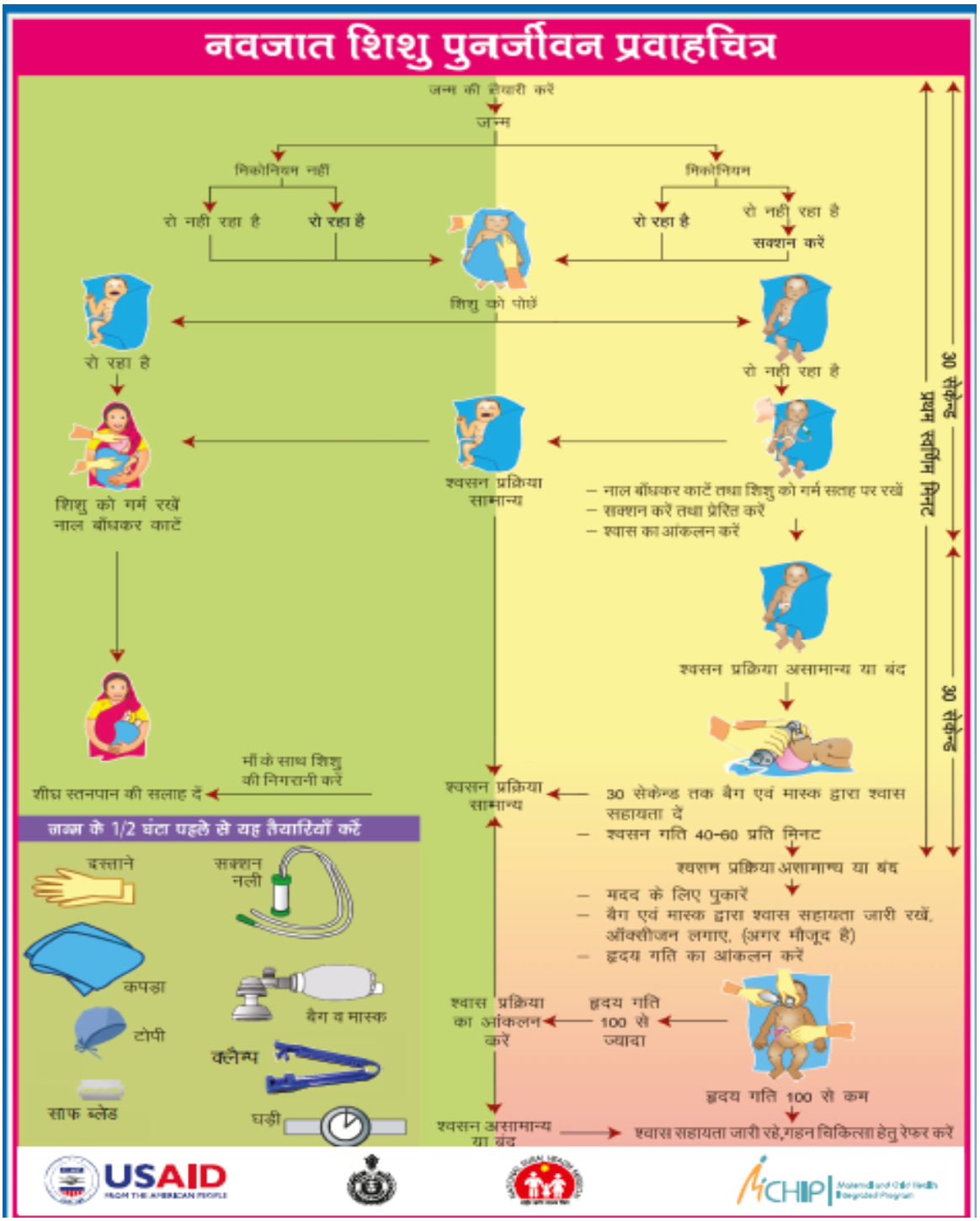
नवजात शिशु पुनर्जीवन प्रवाहचित्र
जन्म की होशियारी करें
जन्म
मिकोनियम नहीं
मिकोनियम
रो नहीं रहा है
रो रहा है
रो रहा है
रो नहीं रहा है
सक्शन करें
शिशु को पोछें
रो रहा है
रो नहीं रहा है
शिशु को गर्म रखें
नाल बाँधकर काटें
श्वसन प्रक्रिया सामान्य
– नाल बाँधकर काटें तथा शिशु को गर्म सतह पर रखें
– सक्शन करें तथा प्रेरित करें
– श्वास का आंकलन करें
श्वसन प्रक्रिया असामान्य या बंद
प्रथम स्वर्णिम मिनट
30 सेकेन्ड
30 सेकेन्ड
शीघ्र स्तनपान की सलाह दें
माँ के साथ शिशु की निगरानी करें
श्वसन प्रक्रिया सामान्य
30 सेकेन्ड तक बैग एवं मास्क द्वारा श्वास सहायता दें
– श्वसन गति 40-60 प्रति मिनट
श्वसन प्रक्रिया असामान्य या बंद
– मदद के लिए पुकारें
– बैग एवं मास्क द्वारा श्वास सहायता जारी रखें, ऑक्सीजन लगाए, (अगर मौजूद है)
– हृदय गति का आंकलन करें
जन्म के 1/2 घंटा पहले से यह तैयारियाँ करें
दस्ताने
सक्शन नली
कपड़ा
बैग व मास्क
टोपी
क्लैम्प
साफ ब्लेड
घड़ी
श्वास प्रक्रिया का आंकलन करें
हृदय गति 100 से ज्यादा
हृदय गति 100 से कम
श्वसन असामान्य या बंद
श्वास सहायता जारी रहे,गहन चिकित्सा हेतु रेफर करें
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