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Chapter 10: Newborn Care and Multidisciplinary Role of Healthcare Professionals in Maternal and Child Healthcare

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Abstract

Newborn care is an important aspect of maternal and child healthcare since this period is vital for survival and growth. In this chapter, various forms of newborn care are discussed. This constitutes the initial evaluation of a baby after delivery, APGAR score measurement, thermal management, umbilical cord care, hygiene management, and importance of knowledge of symptoms indicating danger. Additionally, attention is paid to newborns' nutrition, especially the role of colostrum and breastfeeding in the first six months. This chapter highlights the significance of growth monitoring, specifically focusing on anthropometric techniques to determine cases of malnutrition and poor growth. In this chapter will also discuss vaccination, milestones concerning development, safe sleep practices and methods of safeguarding against aggressive diseases and health problems related to newly born babies. The chapter tries to underscore the team effort of pediatricians, physicians, nurses, clinical pharmacists, nutritionists, and health workers in ensuring harmonious, best practices in the treatment. It is of crucial importance to concentrate on parental education, and active involvement of the family, and preventive healthcare actions. Thus, in general, effective newborn care is about cooperation of the specialists, families, and communities in order to avoid complications, catch health issues earlier, and ensure adequate growth and development of the child throughout the infancy.

Keywords: Newborn Care, Breastfeeding, Growth Monitoring, Immunization, Maternal and Child Healthcare

10.1 Introduction

Newborn care is regarded as a significant aspect of maternal and child healthcare, aimed at enhancing the health, survival, and growth of infants throughout their early life. The neonatal period is very important as it represents the first 28 days after the birth, during which newborns are at risk of getting infections, hypothermia; facing difficulties in breathing, feeding and many other health problems. Giving birth to newborns and providing them with the necessary care during the neonatal stage helps avoid many diseases and dead cases, thus allowing infants to grow and develop. Essential newborn care involves the management of body temperature right after the birth of a child, start of breastfeeding, umbilical cord care, prevention of infections, doing vaccination, etc. Monitoring growth indicators is essential part of infant health care.[1·2]

The diversification of health personnel plays the role of a cornerstone in maternal and child healthcare provision. The teamwork of pediatricians, neonatologists, nurses, midwives, clinical pharmacists, nutritionists, and community health personnel allows getting preventive, diagnostic, therapeutic, and supportive services.[3] Their tasks comprise monitoring the health of newborns, promoting breastfeeding, ensuring the proper use of medications, educating parents, supporting mothers in the recovery after delivery, and helping in case complications arise. Thus, the approach to providing effective care for newborns must be integrated and comprised of clinical management and preventive healthcare, involvement of families as well as community support.

10.2 Newborn Care after Birth

The care of newborns after delivery involves a set of important steps that aim to guarantee the survival of the baby, preventing complications and ensuring proper development. The first hours of life and days are especially significant as infants need to start breathing, keep their body temperature, and get the right food. Proper care includes evaluation, thermoregulation, breastfeeding, umbilical cord care as well as infection prevention and identification of symptoms of concern. Medical professionals must provide appropriate care and educate the parents on how to take care of their baby properly.

10.2.1 Immediate Newborn Care and APGAR Scoring

After delivery, immediate care is given to a newborn to determine how the baby's respiration, tone of the muscles, and overall condition. If the infant is breathing normally and doesn't suffer from the need for resuscitation, skin-to-skin contact between the baby and the mother should be initiated right away. Skin-to-skin contact is good for thermoregulation and creating the mother-baby attachment at the same time. The infant should be dried with a clean and dry towel, and wet cloths should be removed in order to prevent loss of heat. Routine suctioning of mouth and nose is not recommended unless there is an obstruction of airway. The umbilical cord should be clamped according to the available standards, with delayed clamping usually

preferred in the case of vigorous infants whenever clinically possible. Early breastfeeding is an efficient way to provide the infant nutrition and colostrum, which is full of protective antibodies. The healthcare providers should also perform vitamin K prophylaxis in order to prevent vitamin K deficiency bleeding, and provide the suggested eye care and immunization according to national protocols and guidelines.[4]

As mentioned in (Table 1) The APGAR score refers to a test that measures a newborn's state of health at one and five minutes after birth. It comprises five parts: appearance, which refers to the skin colour; pulse, which means the heart rate; grimace, denoting the reflex; activity, which is the muscle tone; and respiration, which refers to breathing effort. Each of the five parts gets a score of zero, one, or two, thus giving an overall score of maximum of ten. A higher score tends to signify a good adjustment to life outside the womb. A low score implies that, perhaps further actions ought to be taken. In the meantime, an urgent reaction would be wise as soon as the newborn's breathing and heart rate are initially checked without waiting for the APGAR score.[5]

Table 1: APGAR Scoring System for Newborn Assessment

Assessment parameter	Score 0	Score 1	Score 2
Appearance (Skin Colour)	Blue or pale all over	Body pink, hands and feet blue	Completely pink
Pulse (Heart Rate)	Absent	Below 100 beats/minute	100 beats/minute or more
Grimace (Reflex Irritability)	No response to stimulation	Grimace or weak response	Crying, coughing, sneezing or active withdrawal
Activity (Muscle Tone)	Limp; no movement	Some flexion of arms and legs	Active movement with well-flexed limbs
Respiration (Breathing Effort)	Absent	Slow, irregular breathing or weak cry	Good breathing effort with a strong cry
Total score	0 points	1 point per parameter	2 points per parameter

Interpretation of the total APGAR score

Total score	Interpretation
7–10	Generally reassuring
4–6	Moderately abnormal; may require supportive assessment and intervention
0–3	Low score; requires immediate assessment and appropriate resuscitation measures

10.2.2 Thermal Care, Cord Care and Hygiene

To ensure the survival of a newborn, one needs to be able to maintain the normal body temperature since infants, especially preterm full-term babies, often lose heat. When a newborn gets hypothermic, he/she will consume more oxygen and sugar which may lead to serious complications. Thermal protection procedures include drying the newborn immediately after birth, skin-to-skin contact, appropriate clothing, head covering if necessary, and heating of the room where the baby is placed. Kangaroo mother care is very effective for preterm infants and low-birth-weight babies provided it meets clinical standards. Care for the umbilical cord is crucial in reducing the possibility of infection of a newborn baby. The cord stump must be kept clean and dry, while care providers need to wash their hands before touching the stump. The stump itself must not be covered with unclean materials or treated with oils, ashes, powders, etc. Caregivers need to avoid yanking it and let the cord stump separate on its own. In some cases, according to legislation of different countries, using chlorhexidine in caring for the cord is indicated.[6]

Hygiene for newborns involves washing hands before touching the baby, using clean clothes and bedding, cleaning the environment, and bathing the baby in a safe manner. Normally, it is better to delay the bathing of the newborn for some time after delivery, preferably for a day at least, in order to prevent hypothermia and to encourage breastfeeding as well as skin-to-skin contact. In case it is impossible to avoid bathing, the baby should be dried immediately after bathing. Moreover, newborns should not be exposed to smoke, sick people, and crowded places. Hygiene for newborns involves washing hands before touching the baby, using clean clothes and bedding, cleaning the environment, and bathing the baby in a safe manner. Normally, it is better to delay the bathing of the newborn for some time after delivery, preferably for a day at least, in order to prevent hypothermia and to encourage breastfeeding as well as skin-to-skin contact. In case it is impossible to avoid bathing, the baby should be dried immediately after bathing. Moreover, newborns should not be exposed to smoke, sick people, and crowded places.[7]

10.2.3 Essential Newborn Care and Danger Signs

The elements of essential newborn care are breastfeeding assistance, disease prevention, vaccination procedures, standardized preventive interventions, health evaluation, and follow-up monitoring. The first six months of a child's life are the time for exclusive breastfeeding unless in case of a significant health issue needing another feeding method. Vaccinations should be administered according to the national guidelines of vaccination and vitamin K prevention. Healthcare professionals should evaluate the effectiveness of feeding, urine and stool discharge, body temperature, weight, jaundice, and general activity. Proper education should be conducted among parents and caregivers concerning the symptoms indicating the need for treatment of the newborn should be also provided. Some of these are problems in breathing,

fast breathing, chest retraction, cyanosis or blueness of skin, refusal to eat, convulsions, excessive fatigue, and movement reduction, high temperature or very low body temperature, and severe jaundice, especially if it occurs in the first day after childbirth. Redness around the umbilicus and pus need to be assessed too.[8]

Health professionals play an essential role in educating families about safe sleeping practices, appropriate feeding, hygiene, and follow-ups. Infants should be put on their backs on a firm and flat sleeping surface with no loose linens, pillows, or soft toys and objects. Follow-ups help health professionals to monitor the infant's weight, feeding, and general development. Early detection of problems increases the chances of successful treatment. Therefore, effective neonatal care is the result of cooperation in clinical service organization, caregiver education, and regular monitoring.[9]

10.3 Newborn Nutrition

When born, infants need proper nutrition in order to ensure their healthy growth, optimal conditions for developing an immune system, and other vital processes. Proper nutrition allows babies' brains and internal organs to develop properly and protects them from infections and nutritional deficiencies. Breast milk is considered to be the optimal nutrition source for babies as it is rich in nutrients, antibodies, and other bioactive substances; it encourages their healthy development. The WHO (the World Health Organization) recommends starting breastfeeding during the first hour after birth, exclusively breastfeeding for the first 6 months, and beginning the introduction of appropriate complementary foods at six months, while continuing breastfeeding for 2 years or more. Proper nutrition practices, parental teaching, as well as regular weighing will play an important role in the effectiveness of infants' feeding.

10.3.1 Breastfeeding and Colostrum

Breastfeeding is considered the best way to feed the newborn because it provides a well-balanced nutrition formula containing all essential nutrients, including carbohydrates, protein, fat, vitamins, minerals, and immune protective components. The composition of the milk is such that newborns can easily digest it. In addition, the composition of the milk changes depending on the developmental stage of the child. Early initiation of breastfeeding (ideally within the first hour after birth) is important for triggering the lactation process, improving the bond between mother and infant and ensuring successful breastfeeding. Exclusive breastfeeding means feeding the infant and only breast milk, with no solid or liquid food allowed except for the oral rehydration salts solution, iron and vitamin supplements, or medicine if needed. Colostrum is a thick, yellowish first milk secreted by women within a few days of giving birth.[10]

Breastfeeding should start as soon as both the mother and newborn are fit enough. Constant feeding sessions help breast milk production and meet the needs of infants for each meal. It is

very important for mothers to know how to adjust to breastfeeding and the tips of establishing the right product availability. If a mother cannot practice direct feeding, the milk that was expressed previously may be used instead. It is always important to take into account the health of the mother and the baby to adjust feeding strategies accordingly.

10.3.2 Breastfeeding Techniques and Benefits

As shown in (Fig 1), Proper breastfeeding is necessary for transferring the milk and avoiding nipple pain, breast engorgement, and difficulties in feeding. The mother has to be comfortable, and the positioning of her newborn has to be such that the baby's head and the body are in a straight line while being held close to the mother. The infant's nose should be aligned to the nipple and should open its mouth wide before being latched onto the nipple. Normally, a good latch means that the baby takes some portion of the areola into its mouth, with its chin touching the breast and the lips turned outward. During successful feeding, slow deep sucking can be observed along with swallowing sound. The newborns are supposed to be fed when they demand it. The early cues of hunger include hand-to-mouth movements, rooting reflexes, and arousal. Crying is a late hunger signal. During the initial weeks, the baby's feeding occurs 8-12 times in 24 hours. It is just important to know the needs of the baby.[11]

Breastfeeding has several health benefits for infants and mothers. It is ideal for infants since it provides perfect nutrition, protects against several diseases, and ensures the growth of strong babies with a low chance of developing digestion and breathing problems. Breastfeeding is also known to provide an opportunity to avoid some serious diseases in the future. For mothers, breastfeeding helps the uterus shrink after childbirth and reduces the chances of having breast and ovarian cancers. Moreover, nursing a baby is a cheap and easy process as mothers do not have to spend any time cooking the food. Apart from the physical advantages of breastfeeding, mothers and babies develop strong emotional relations. Healthcare specialists, especially nurses, pediatricians, and clinical pharmacists can take part in supporting breastfeeding. It is possible to help mothers with breastfeeding problems through educational and counselling activities.[12]

10.3.3 Complementary Feeding and Nutritional Problems

As shown in (Fig 2), the term complementary feeding has been created to describe the introduction of solids, soft, and semi-solid food when breast milk is not enough to feed an infant. The food is typically suggested to be introduced when the infant reaches six months of age and breastfeeding is still practiced. Foods must be safe, nutritious, age-appropriate, and hygienically prepared. Some of the appropriate foods are mashed vegetables, soft fruits, well-cooked cereals, pulses, and eggs. Foods must be rich in iron and other important vitamins and minerals at this age. Complementary feeding should begin as smooth purees and progress gradually towards thicker food or soft finger foods. The food must be adjusted based on

developmental readiness of an infant as well as the favorable feeding practices. Caregivers should follow amount of food given to children, recognizing signs of hunger and fullness while encouraging children more than forcing the food on them. Foods should have no sugar or salt added, and foods that can cause choking should be avoided as well.[13]

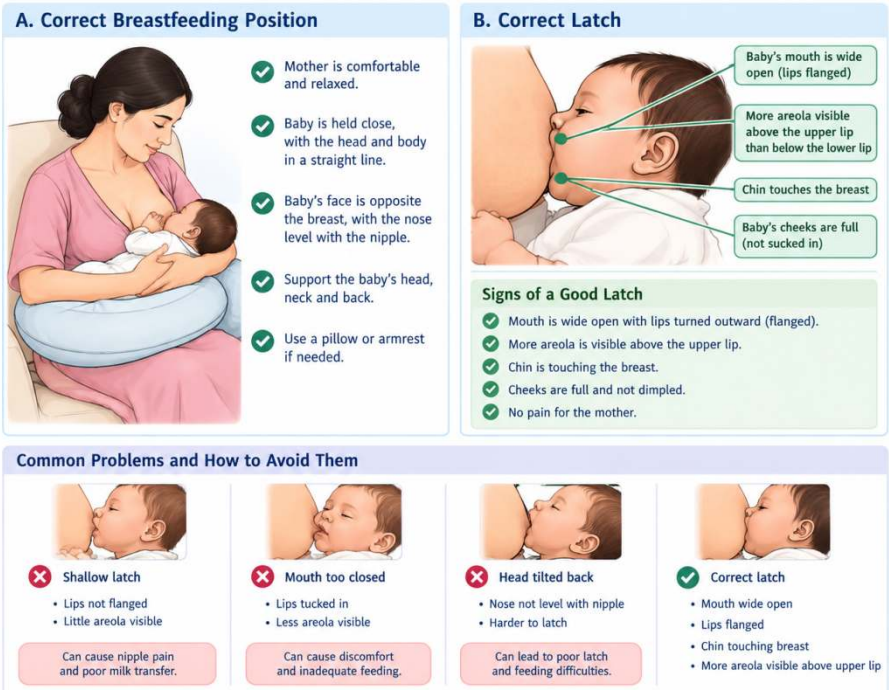


Fig 1: Correct Breastfeeding Position and Latch

There may be nutritional problems in infants due to insufficient milk consumption, ineffective nursing, delayed or inappropriate complementary feeding, recurrent infections, or the presence of certain medical conditions. There are many issues that could arise in infant nutrition. Poor nutrition can have an impact on physical development, immunity, and cognitive development. However, newborns can experience problems from overeating as a result of the consumption of foods with high calories. In order to detect nutritional issues early, regular weight, age, and head circumference measurements need to be planned.Guardians and parents should contact medical professionals in case of problems related to appetite, to few wet diapers per day ratio, recurrent vomiting, extreme lethargy, or poor growth. The therapy may include lactation assistance, nutrition, and treatment planning. The effort should involve a team of specialists, including nannies, doctors, and nutritionists.[14]

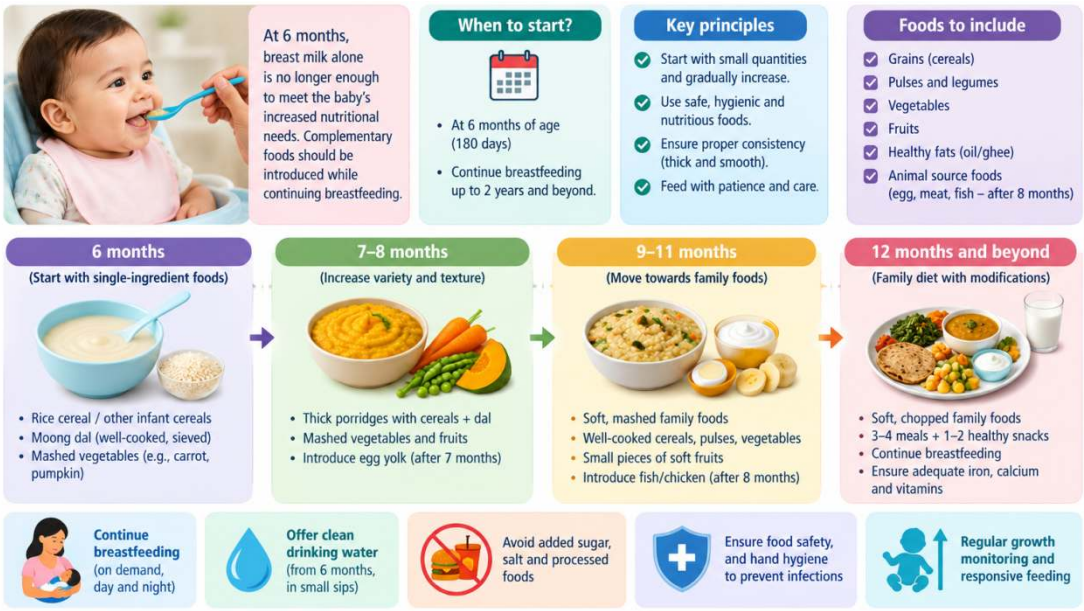


Figure 2: Introduction of Complementary Foods from Six Months

10.4 Growth Monitoring

Growth monitoring refers to the process of consistently measuring a child's physical growth and observing the changes that occur over a period of time. This allows healthcare workers to know whether a child is developing correctly according to the age and gender and to spot early signs of health problems and malnutrition. A lot of growth happens during infancy and regular growth monitoring can help assess the child's feeding methods, provide the necessary information to parents and make sure that appropriate measures are taken in case of any abnormalities. During the process of growth monitoring, weight, length and circumferences of the head of a child are measured, recorded on assigned growth plots and interpreted with time. The conclusion is based on what has been found during monitoring of the child's health and diet history.

10.4.1 Anthropometric Measurements and Growth Charts

Anthropometric measurements are measurements that are used to define the growth as well as nutritional status of children and fishes. As shown in (Fig 3), the main measurements are weight, recumbent length, and head circumference. Weight can indicate overall growth and nutritional status, and has to be measured by means of an appropriate weighing scale. Recumbent length is measured when the infant is lying on the infant length board. The infant's head circumference is measured using a non-stretchable tape placed around the head in the widest part of the head. The use of consistent measuring techniques ensures visibility. Growth charts refer to graphical representations used in evaluation of some child's measurements

against usual/standard growths. WHO Child Growth Standards are implemented almost all over the world in assessing growth of a child from infancy to five years. These standards include charts that measure weight-for-age, length-for-age, weight-for-length and head circumference-for-age. In age-appropriate groups body mass index-for-age could also be used. Generally WHO standards are used in India as part of clinical practice wherever suitable.[15]

Data is recorded based on the age and sex of the child, and the resulting information is interpreted through the use of standard deviation scores (Z-scores). Since a single data point provides very limited information, it is crucial to obtain multiple measurements since that would enable one to establish whether the child is within the expected growth curve. For premature infants, the use of corrected age is important when interpreting growth and development. Moreover, in order to understand what is revealed through the measurements, it is necessary to take into consideration the accuracy of the measurements, feeding methods, history of birth, and health conditions of the infant. Information regarding the growth curve of the child should be shared with the parents in an easy-to-understand form and the parents need to participate in regular health visits as the growth assessment allows for providing timely nutritional advice, correct supplementation at the time needed, and referral for further assessment in case abnormal patterns are detected.[16]

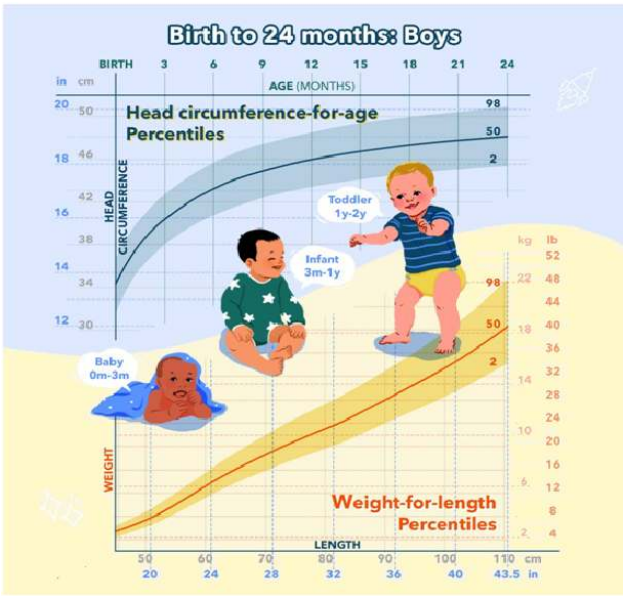


Fig 3: Anthropometric Measurements for Newborn and Infant Growth Monitoring

10.4.2 Identification of Growth Faltering and Malnutrition

Growth faltering is the term used to describe a situation when a child's weight gain or general physical growth appears slower than average. This condition can be a result of insufficient

nutrition, wrong nutritional habits, breastfeeding problems, frequent infections, malabsorption, chronic diseases, or higher than usual nutritional consumption. A decrease in weight for age or Z-scores associated with any parameter of growth can be an indicator that further interventions are necessary. Malnutrition includes under- nutrition which involves lack of important nutrients required for maintaining good health. In case of infants and children under the age of five, undernutrition would manifest itself in the form of wasting. Stunting is defined as short height for age and often indicates long-term lack of nutrition; recurrent infections; or other adverse circumstances. Underweight is when the weight for age is too low, reflecting on wasting, stunting, or both. Deficiencies in nutrition may also impair the growth; immunity; and neurodevelopment, including lack of iron. Overnutrition leads to an excessive increase in weight and may expose a person to metabolic disorders. Diagnosing malnutrition and growth faltering calls for a holistic evaluation which includes evaluation of anthropometrics, dietary habits, breast feeding, complementary feeding, health history, development, and family environment. Clinical examinations would show signs such as low muscle mass, loss of the layer of fat under the skin, swelling, pale skin color, and retardation of development.[17]

Severe signs of wasting and swelling, problem with feeding, fatigue, and symptoms of dehydration may require urgent medical assessment. Management will depend on the nature and extent of the problem. Treatment measures may include breastfeeding support, dietary adjustments suitable for the age of the child, nutritional advice and guidance regarding treatment of infections or other underlying diseases and micronutrient therapy, based on the clinical situation. Children with uncomplicated malnutrition or serious medical problems should be assessed and treated according to strict clinical protocol. Follow-up measurements help ensure whether the intervention is effective and if any more treatment is needed. Health professionals play important role in growth problems prevention by routine screening, proper documentation, educational activities for parents and timely referrals. The cooperation between pediatricians, nurses, dieticians, clinical pharmacists, and community health workers helps to identify any concerns related to nutrition measures. Effective monitoring of processes' lets improve the child's development and achieve the best long term results in health.[18]

10.5 Immunization Schedule

Immunization has been proven to be one of the best methods of preventive healthcare for the protection of infants and children from serious infectious diseases. At the stage of infancy, the immune system is not fully developed; hence, timely vaccination is necessary to avoid possible infections, complications, disabilities, and deaths. Vaccines work by preparing the immune system to recognize certain pathogens and form immunity to them without making the child suffer from a disease. In India, vaccines for children and expecting mothers can be accessed through the Universal Immunization Programme (UIP). The National Immunization Schedule displays the right age for vaccination for infants and children as well as the necessary number

of doses for achieving immunity. Child vaccination should be performed on time along with the proper records of vaccinations obtained by the infant and the education of parents.

10.5.1 National Immunization Schedule in India

The National Immunization Schedule under India's Universal Immunization Programme incorporates vaccines that can save people from various significant infectious diseases. Vaccination starts at birth and continues through childhood time and has booster doses administered at each recommended age.[19]

Table 2: National Immunization Schedule for Infants and Children in India

Age	Vaccines
At birth	BCG, OPV-0, Hepatitis B birth dose
6 weeks	OPV-1, Pentavalent-1, Rotavirus-1, fIPV-1, PCV-1
10 weeks	OPV-2, Pentavalent-2, Rotavirus-2
14 weeks	OPV-3, Pentavalent-3, Rotavirus-3, fIPV-2, PCV-2
9–12 months	MR-1, PCV booster, JE-1 in endemic areas, Vitamin A first dose
16–24 months	MR-2, DPT booster-1, OPV booster, JE-2 in endemic areas, Vitamin A second dose
5–6 years	DPT booster-2
10 years	Td
16 years	Td

As mentioned in (Table 2), The BCG vaccine gives protection from severe versions of child tuberculosis, so the hepatitis B vaccine prevents hepatitis B infection. The oral polio vaccine (OPV) and fractional-inactivated polio vaccine (fIPV) provide immunity from poliomyelitis. The Pentavalent vaccine offers protection against diphtheria, whooping cough, tetanus, hepatitis B, and Haemophilus influenzae type b (Hib). The rotavirus vaccine checks severe diarrhoea, and pneumococcal conjugate vaccine (PCV) helps in preventing pneumococcal infections in the body. The measles-rubella (MR) vaccine is used for measles and rubella and Japanese encephalitis (JE) vaccine is offered in specific endemic regions. Vitamin A helps in maintaining the growth, vision and overall immunity of the body. The parents of a kid must keep the child's immunization card safe and undertake vaccination programs at the right time. In case of missing any vaccine dose, the parents must consult with healthcare professionals. The health workers must share the meaning of every immunization vaccine.[20]

10.5.2 Vaccine Safety and Adverse Events

Safety of vaccines plays an important role in immunization schemes. Vaccines are tested for safety before receiving the marketing authorization and continue to be monitored even after being introduced into general use. Most of the time vaccines are tolerated well but there may be certain reactions by some children. Proper preparation may help the parents to know more about such reactions and feel sure about vaccination. Various side effects may occur including fever, pain, redness, swelling and tenderness in the area of the injection. The baby may be fussy, sleepy and a loss of appetite may also occur but these symptoms are temporary. In the majority of cases, the side effects resolve by themselves without any treatment. People should continue their normal feeding and give their baby time to rest before giving fever and pain-reducing medications. Adverse event following immunization is understood as an episode of undesired health condition arising after vaccination that may or may not be attributable to a vaccination. Adverse events following immunization can be caused by the vaccine, a defect of the vaccine, improper storage or use of the vaccine, reaction of anxiety, or another disease present at the time the vaccination is carried out.[21]

Bad reactions to vaccination are uncommon, but certain signs need medical attention without delay. Such signs include: breathing problems, swelling of the face or throat, fainting, spasms, and loss of consciousness. Parents should get immediate medical care in case any of these symptoms arise. All serious cases of suspected AEFI must be recorded, reported, and investigated according to national procedures. Safe immunization is done using the cold chain, proper doses and routes, sterile practices, and all records kept. Also, medical professionals must make sure that the necessary emergency services are available in the place of vaccination. Finally, good communication with parents about expected reactions and symptoms is important to avoid complications and help parents cope with anxiety.[22]

10.6 Developmental Milestones

Developmental milestones are defined as the abilities and skills most children achieve during their development and that include abilities related to physical movements or movements of the body, communication, learning, thinking, and social skills. The assessment of developmental milestones is critical in child and infant healthcare. It allows for establishing whether child development is adequate with regard to the child's age. Factors affecting developmental progress include genetic predisposition, nutrition, environmental conditions, the type of interaction in family, and health issues. It is possible to establish developmental progress of a child through observational studies and caregiver interviews, physical examinations, and developmental screening tests. Parents and caregivers play a tremendous role in providing children with the environment that is safe, responding to the child's needs, promoting and supporting the child's development.

10.6.1 Physical, Cognitive and Motor Development

Physical growth includes the changes in a child's size, body weight, length and head circumference. The rapid period of growth occurs during infancy when the brain, bones, muscles and other organs develop. Since the monitoring of weight, height and/or head size is important for evaluating the nutritional status of the infant, and for diagnosing possible abnormalities. Adequate nutrition, sleep and proper health care are vital for the normal physical development of children. Motor skills constitute the slow process of learning how to move and coordinate different actions. The gross motor skills are related to the large amount of muscles, thus include the ability to control the head, roll over, sit, crawl, stand and walk.[23] The fine motor skills are about working with the smaller muscles of the body, thus include the ability to grasp objects or toys, move them from one hand to the other, take small objects with fingers and or explore surroundings. Motor skills develop gradually, along with muscle power, stability and the functioning of the nervous system. Cognitive development refers to the evolution of thinking, memory, attention, problem-solving, and learning skills. Children begin to recognize their caregivers and respond to sounds, objects, and simple relationships of cause and effect from an early age. As time goes by, they develop curiosity, ability to imitate, knowledge of object permanence, and can solve simple problems. Talking, reading picture books, singing, and providing opportunities for interactive play are essential for the process. Health practitioners check the child's development progress regarding physical development and give recommendations to parents regarding activity types suitable for their kids.[24]

10.6.2 Language, Social and Emotional Development

The process of language development is about being able to recognize sounds, show feelings, and eventually use language to communicate. Young children use facial expressions, gestures, and cries to communicate. After some time, they will be able to sound their first words, identify their names and learn basic vocabulary. The next step is to combine two words to form a simple sentence. Each child develops at their own pace, so it is important to take into account many factors such as hearing skills, connections with language and child's development in general. Parents and adults may take part in children's language development. They can speak clearly, listen to children's sounds, sing songs and read books. The social and emotional development refers to a capacity to build relationships, express emotions, identify specific people, and act appropriately in diverse social situations. The process of social smiling, forming attachments to caregivers, expressing emotions, and being interested in interacting with others develops gradually in babies. With the progress of time, the child develops the ability to imitate adults, develop preferences, demonstrate love, participate in simple games, and become independent. Stable relationships, constant care, love, and appropriate responses provide the basis for the child's emotional health. It is vital for the people to encourage his or her social development through playing together, talking, and engaging in the age-relevant interactions with adults and

peers. The role of medical personnel in helping parents identify their child's development is invaluable in this regard.[25]

10.6.3 Developmental Delays and Early Intervention

Developmental delay refers to when a kid fails to develop the expected skills in one or more developmental domains in accordance to their respective age, including the motor skills, language, cognition, social interaction, or emotional development. Some causes include prematurity or low weight at birth, lack of nutrition, impairment of hearing or vision, genetic conditions, neurological diseases, long-term acute diseases, etc. It should also be noted that a delay in a specific area of development does not mean that other areas of development also get disturbed.[26] Among the warning signs of developmental delay may be inadequate head control past the age when such control is expected, little reaction to sounds, absence of expected forms of social behavior, inability to feed oneself, prolonged delay in crawling or walking, limited gesture use, etc. It is necessary to point out that regression of skills is an alarming sign and requires medical treatment. Early intervention is the term used to describe the provision of care and advice to children who have developmental problems or who are at risk of developing them. This can consist of physiotherapy for motor problems, speech and language therapy, occupational therapy, hearing and sight tests, food assistance, and developmental care services.

Pediatricians will organize further investigations and referrals based on their clinical assessment and findings. It is also important that parents be closely involved, as regular practice and supportive interaction at home can enhance the effect of therapy. The screening process must be built into routine visits, paying special attention to preterm babies or babies with significant neonatal problems. Screening tools allow to identify children requiring a more thorough assessment but are not a substitute for the proper developmental assessment. In India, adequate referral services and early intervention programs available for children can help children and parents to meet their needs.[27] Proper diagnosis and treatment will improve the functioning capabilities, communication, learning, and involvement in day-to-day activities of a child. Coordinated care is achieved by ensuring close cooperation among doctors, nurses, therapists, nutritionists, pharmacists, and health workers in the community. Parents and their regular education, follow-up, and assistance also play an essential role in the development of children.

10.7 Baby Care Practices

To ensure healthy development and avoid any infections, it is crucial to follow proper practices of taking care of babies. Babies require special care in their first months of life because their skin is sensitive, they cannot regulate their body temperature, and they have not yet fully developed their immune systems. As mentioned in (Table 3), Some of the major practices that should be adhered to include maintaining hygiene, ensuring that babies are bathed and sleep in

a safe environment and that they get enough food, in addition to recognizing the first signs of illness. Parents and caregivers must receive appropriate advice from professionals who can help them to take care of their newborns in the correct way.

10.7.1 Bathing, Hygiene and Skin Care

Newly born bathing and hygiene help to keep newborns clean and avoid skin irritation and infection. Ideally, the first bath can be done not earlier than 24 hours which allows maintaining body warmth, to breastfeed and to practice skin-to-skin method. The following baths should be taken in comfortably warm water and in a warm room without draughts. The infant's head and body must be supported during the bathing process and he/she must not be left unattended even for a few seconds. The bathing must be quick and baby must be dried as soon as it is over with a clean and soft towel to avoid losing heat. The skin of newborns is very sensitive to exposure to detergent products, so undergoing Drying could lead to drying and irritation of skin. Only the mild products should be used while bathing not to harm the infant's skin. Moreover, avoiding excessive use of ointments, powders and other creams is advised. You should treat diaper area delicately, dry it properly and maintain the area clean. You should frequently change a diaper, especially after defecation, as well as apply an appropriate cream in case of irritation. Umbilical cord care is another key element of newborn hygiene. It is important that the stump is kept clean and dry and that caregiver wash their hands prior to touching the stump. Substance such as oil, powder, ash, or other traditional methods should not be used. The stump will fall off on its own. In the event that the surrounding skin becomes red, pus develops, unpleasant smell originates or bleeding occurs it is time to seek medical help. Caregivers must also ensure that the baby's clothes, bedding, and feeding equipment is clean. Importance of hand washing before and after the care is also stressed.[28]

10.7.2 Safe Sleep and Temperature Maintenance

Following safe sleep guidelines is crucial to lowering the chances of infant deaths caused by sleep and assuring proper comfort. Infants must sleep their back all the times regardless of whether it is night time or daytime nap. Parents need to make sure to make them sleep on a proper level surface. Proper sleep surroundings imply that nothing that can hinder breathing, such as soft toys, extra pillows, or loose blankets is around the baby. Room sharing is encouraged, and this means that baby is sleeping in the same room as the baby caregiver but is on a separate sleeping place. Parents are discouraged from co-sleeping with their babies when they are sleeping on the sofa or armchairs and co-sleeping in the baby's bed may lead to the risk of suffocating or facing other sleeping dangers.[29]

Keeping the appropriate body temperature is critical, because newborns lose heat much faster than older children and adults. Hypothermia can lead to higher demand for oxygen and energy and cause serious problems, particularly in premature and low-birth-weight babies. Caregivers

should dress the newborn according to the environment while making sure he/she isn't overdressed. A hat can help in cold environments or immediately after the birth, but it should be avoided indoors during the routine sleep period once the newborn is warmed up, to avoid overheating. Skin-to-skin contact is essential for maintaining body temperature and support breast feeding and bonding process. Kangaroo care is especially useful for preterm and low-birth-weight babies when it is performed in the proper medical setting. Caregivers are supposed to monitor the baby's temperature in case of the occurrence of any problem such as high or low temperature, and ask medical advice if needed. Avoiding direct contact with devices such as heaters or hot water bottles, because of the high risk of burns and overheating is also recommended.[30]

10.7.3 Infection Prevention and Home-Based Care

Preventing infections is a core aspect of caring for infants at home because young babies are susceptible to infections. Parents must wash their hands with soap before feeding their infant or touching his/her body, after changing diapers and after being exposed to potentially infected surface. When visited by anyone, cleanliness must be maintained, especially if the visitor is suffering from coughing or respiratory illnesses. Most importantly, breastfeeding is recommended for the baby when medically suitable. If the use of bottles is unavoidable, parents should ensure that they are properly sterilized before use. Parents need to make sure to stick to recommended immunization schedule, keep regular postpartum visits and maintain good hygiene in preparing breast milk or whichever diet is recommended by doctor. It is wise to limit the new baby's approach to any crowded place especially during very first weeks of life.

The process of home-based care incorporates aspects such as feeding habits, urine and stool output, temperature measurement, skin discoloration, physical activity and behaviour of the baby. Warning signs which need attention include breathing difficulties, problems with feeding, fever, very low temperature, convulsions, severe lethargy or poor jaundice. Redness of the skin around the umbilical cord or pus discharge may also suggest some infection. In such cases, it is advisable to seek medical help and avoid treating emergencies at home. Among other duties, the healthcare professionals need to inform families about the guidelines for good hygiene, breastfeeding, safe sleeping, temperature management, vaccination and visiting doctors on time. Nurses as well as members of the community assist in implementing these instructions, while doctors are concerned with treating illness and paying attention to child growth.[31]

Table 3: Essential Home-Based Newborn Care Practices

S. No.	Care component	Essential practices
1	Thermal care	Maintain warmth through skin-to-skin contact and proper clothing.

2	Breastfeeding	Initiate early breastfeeding and provide exclusive breastfeeding for six months.
3	Cord care	Keep the umbilical cord clean and dry.
4	Hand hygiene	Wash hands before handling the newborn.
5	Skin and diaper care	Maintain cleanliness and change diapers regularly.
6	Safe sleep	Place the baby on the back on a firm, flat surface.
7	Danger signs	Seek urgent care for breathing difficulty, poor feeding, fever, or lethargy.
8	Immunization	Follow the recommended national immunization schedule.
9	Growth monitoring	Attend regular check-ups to monitor growth and development.
10	Parental education and follow-up	Educate caregivers on newborn care and attend scheduled postnatal visits.

10.8 Common Newborn Health Problems

An infant is susceptible to a number of health issues. This is due to the organs and immunity of the infant still developing and the infant needing to adapt to life outside the womb. Common neonatal disorders include jaundice, hypothermia, infections, inability to feed, and complications with prematurity or low birth weight. Some of the ailments are mild in severity and are corrected with proper treatment, while others develop rapidly and require emergency medical treatment. Hence, parents and caregivers need to be informed about common neonatal disorders, also how to prevent them, and when urgent medical attention is required.

10.8.1 Neonatal Jaundice and Hypothermia

Neonatal jaundice refers to yellowing of the skin and eyes due to a bilirubin build-up. It usually occurs within the first seven days of life because the newborn's liver has not yet matured enough to break down the bilirubin in the bloodstream. Physiological jaundice usually appears by the second day of life and progresses over time. However, jaundice may also develop due to blood incompatibility, infection, preterm birth, poor feeding, or some other medical condition. The diagnosis involves checking the skin and eyes of the newborn, reviewing the age of onset, assessing feeding habits, weight, and levels of bilirubin when appropriate. Assessment using clinical examination alone may be insufficient to estimate the severity of the problem. Treatment depends on bilirubin level, the age of the infant in hours, gestational age, and other risk factors. Phototherapy is the most commonly used method of treatment after bilirubin goes above the treatment threshold, while exchange transfusion might be needed in the most severe cases. Proper feeding and constant monitoring will help prevent possible complications.[32]

Hypothermia occurs in neonates when their body temperature drops below the normal range. If the body temperature drops from the normal neonatal temperature of 36.5°C and below, it

indicates hypothermia in neonates. Premature and low-weight neonates are more likely to suffer from hypothermia due to less fat in their systems to maintain a warm body, as well as undeveloped body heat mechanisms and a relatively large surface area compared to their body weight. Exposure to cold surroundings can play a part in loss of body heat, together with not drying the baby after birth properly. Some other methods of preventing hypothermia include immediate drying of the newborn, keeping him against the skin of his mother (skinto-skin contact), dressing properly, creating a warm environment for warming the body, and promoting breastfeeding as soon as possible after birth. Kangaroo-mother care is particularly beneficial for preterm and low-birth-weight neonates. Use of auxiliary temperature control technologies will be helpful for diagnosing hypothermia. It should be remembered that the newborn may suffer from hypoglycaemia or other diseases if he is cold. If the baby has experienced severe or prolonged hypothermia, just using warming methods will not be effective.

10.8.2 Infections, Feeding Difficulties and Prematurity

Neonatal infections are serious diseases that can affect the blood, lungs, brain, or other organs. Neonates possess an underdeveloped immune system that can become infected despite various micro-organisms that were introduced to them at any point before, during, or after birth. Factors that could put the newborn at risk of becoming infected include prematurity, leaking of the membranes for prolonged periods , infections in the mother, improper and nonsterile methods used during delivery, and lack of hand hygiene. Signs of sepsis in the newborn are very vague and nonspecific as they are demonstrated in the form of reduced appetite, a slowing down of activity of the infant, changes in temperature of the body, difficulties with breathing, vomiting, and abdomen swelling. There are cases when the newborns suffering from sepsis do not have fever so it is important to pay special attention to the children with sepsis. Preventive measures include sterile delivery, handwashing, proper umbilical cord care, early breastfeeding, and treatment of maternal and neonatal infections. In the case of suspected neonatal infection prompt hospitalization is warranted. During hospitalization, several tests are performed, including blood cultures depending on the case. In the event of neonatal sepsis antibiotics and other treatments are applied in accordance with the neonate’s condition. Delayed treatment of neonatal infections can lead to severe health complications; therefore, it is important to seek prompt medical attention whenever a patient has suspected infection.[33]

Feeding difficulties can arise from lack of bonding, poor sucking ability, birth before term, illness, physical differences, or breastfeeding not fully established. Indicators of feeding problems can include inability to feed at the breast, ineffective sucking, unable to feed for long periods of time, reduced urination, loss of weight, and lethargy during feeding. Insufficient nutrition can lead to dehydration, inadequate growth, hypoglycemic episodes, and worsening jaundice. Healthcare personnel can provide advice on feeding techniques, assess the infant's weight, and offer personalized guidance on breastfeeding practices. If breastfeeding is

ineffective for a period, milk can be pumped or alternative feeding methods adopted. Prematurity is defined as delivery before 37 weeks of gestation. Premature babies may have issues with lung development, regulation of body temperature, as well as difficulty feeding, ability to fight infections, and a probability of neurological problems. Low-weight babies (less than 2,500 g at the time of delivery) may require further care. Treatment is dependent on the gestational age and weight at the time of birth.

10.8.3 Warning Signs and Emergency Care

Knowing the warning signs in newborn babies is vital since serious illness can develop quickly, sometimes even without presenting any signs at the onset of the illness. Parents and caregivers should be informed of what actions to take to find immediate help. Some indicators of possible danger are difficulty in breathing, rapid breathing, pulling in of the chest while breathing, discoloration of the skin (blue or grey), inability to feed, convulsions, marked lethargy, lack of or little movement, fever, and abnormally low temperature. In case of a newborn having a temperature of 38°C or higher, or lower than 36.5°C, it is necessary to assess this situation, especially if the newborn is not feeling well. Caregivers do not have to wait for numerous alarming signs and symptoms to appear before seeking medical help. Newborns that are unresponsive, having severe breathing problems, or having convulsions require immediate medical assistance. The first step in emergency care management is assessing the patient's breathing, circulation, temperature, consciousness level, and, if needed, glucose level.[34]

Health care professionals will implement the necessary measures aimed at stabilization of the patient, such as providing adequate breathing support and keeping body temperature and intravenous therapy correct and according to the diagnosis. If specialized care is needed, the infant has to be transported to a medical institution that provides neonatal services. In serious health conditions requiring resuscitation, it may be necessary to address problems of breathing or circulation. Parents have to be instructed not to give over-the-counter medicine to infants who obviously require urgent care. It is very important to assure proper medical transport and timely delivery of health records. At the moment of discharge, caregivers of the infant must be informed about the feeding process, sanitation, thermal treatments used, vaccination, and medical examination. A team approach involving specialists from paediatrics and neonatology as well as nurses, pharmacists, and community health workers must take place in order to detect and treat an infant's health problems properly.[35]

10.9 Multidisciplinary Role of Healthcare Professionals

Maternal and child care is facilitated through teamwork by health professionals representing different fields in order to provide mothers and children adequate health services. The process of care starts in pregnancy and lasts into labor, puerpium, infancy and childhood. The utilization of multidisciplinary approach allows for prevention of complications, assessment and

treatment, nutritional support and medication management, education in health and monitoring of development. Teamwork among doctors helps identify possible complications and promote quality of care. The specialists involved in the provision of maternal and child healthcare serve their own functions. Providing clinical assessment and treatment is the responsibility of doctors and nurses, clinical pharmacists are engaged in safe and effective medicine use, while nutritionists advise mothers on proper feeding of mothers and children, community health workers help to link families with required services.

10.9.1 Role of Doctors, Paediatricians and Nurses

The role of doctors in the evaluation of maternal and newborn health is very significant because they are involved in diagnosing various health issues, providing treatment and dealing with complications. Obstetricians and gynecologists, in general, offer antenatal care, keep track of the mother's condition during pregnancy and manage labor and delivery, as well as identify problems like gestational hypertension, gestational diabetes, and obstetric emergencies. Additionally, obstetricians must offer postpartum care, evaluate the recovery of the mother after childbirth, and educate her in areas like contraception and breastfeeding. Pediatricians and neonatologists are responsible for giving specialized care to newborns and children. Their main duties include conducting a physical examination of the newborn, monitoring the baby's growth and development, detecting birth defects, providing treatment for neonatal jaundice and infections, and helping premature or low-weight babies. Furthermore, pediatricians need to advise mothers on vaccination, feeding, preventive treatment, and warning signs. During the pregnancy, delivery, and after, nurses and midwives offer never-ending care and help. Nurses have many duties that include checking vital signs, helping with the delivery process, supporting the mother with breastfeeding, taking care of the child, giving prescribed medicines and vaccination, and keeping records of the observations made about the baby. They also inform mothers of things they should know including proper nutrition and hygiene as well as signs that may require medical attention.

10.9.2 Role of Clinical Pharmacists and Nutritionists

Clinical pharmacists play an important role in maternal and child healthcare by facilitating the safe and effective use of medications. Decision-making about medications during pregnancy and lactation takes into account factors such as benefits to the mother versus risks to the fetus and infant, as well as dosage and side effects. The role of clinical pharmacists includes reviewing prescriptions, identifying drug therapy complications, and providing evidence-based advice to physicians. Clinical pharmacists are also involved in the process of medication reconciliation, where antibiotics are used in a proper way and adverse drug events are monitored. In neonatal and pediatric medicine, clinical pharmacists would verify whether dosing according to weight is accurate, the right dose formulation is used, and the drug is dispensed safely to patients. They may also assist patients' parents in learning how to use

medicines. In the case of newborns, this is especially necessary as babies have similar medicines dosed differently due to poor bodily functions.

Both nutritionist and dietitian work for maternal and child health by assessing the nutritional needs of pregnant and postpartum women and creating appropriate dietary plans. They provide guidance on a balanced diet, caloric and protein intake, hydration, and the availability of important substances such as iron, folic acid, calcium, and vitamin D during pregnancy and lactation. Proper nutritional counseling positively influences both the prevention of nutritional deficiencies and recovery of the mother from childbirth and breastfeeding. Nutritionists support breastfeeding of infants and young children and provide information on the start of complementary feeding at the age of six months and the detection of nutritional issues among children, which include losing weight or not gaining enough weight and having vitamin deficiency. They can also work together with pediatricians to create an individual nutritional plan for children who were born preterm, have feeding problems, or develop slowly.

10.9.3 Role of Community Health Workers

Community health workers are instrumental in establishing a link between mothers and children with health services especially in rural and deprived communities. In India, the role of Accredited Social Health Activists (ASHAs), Auxiliary Nurse Midwives (ANMs), and Anganwadi Workers with regard to maternal and child healthcare is notable due to their outreach, education and follow up services provided in the community. Their work helps improve access to necessary health care facilities and motivates families to utilize timely services. Community health workers provide information on antenatal check-ups, delivery at hospitals, maternal nutrition, breastfeeding, and care of newborn. They may assist with identification of high-risk pregnancies and urge women to seek medical treatment. They also aid routine immunization programs, growth tracking, nutrition programs, and follow-ups for children who skip medical appointments. Through continuous communication with the families and medical providers, community health workers can uncover the reasons for care barriers, including difficulties with transportation, a lack of knowledge about health issues, and limited finances. Their presence in the community enables them to offer appropriate education and to advice families to develop healthy habits. Community health workers are not a substitute for trained medical specialists when it comes to treating or diagnosing serious health conditions. In fact, their role is to ensure that families get connected to medical services.

10.9.4 Interprofessional Collaboration in Maternal and Child Healthcare

Interprofessional collaboration pertains to healthcare experts cooperating, exchanging valuable information, and executing adjacent decisions to satisfy the requirements of mothers and their kids. Maternal and children's health conditions generally require specialists from multiple sectors. For example, the care of a prematurely born baby requires the involvement of a

neonatologist, a pediatric nurse, a clinical pharmacist, a nutritionist, and a lactation consultant for treating the newborn's respiratory condition, ensuring the safety of the medication administered, organizing nutrition, and preventing infections. In this context, enough collaboration is influenced by effective communication, respect to professional duties, proper recording, and timely sharing of medical information. Joint evaluations, organized meetings, prescription channels, and unified procedures would help to avoid mistakes in medications, eliminate duplication of functions, and guarantee proper continuity of care.

Another significant aspect of teamwork is family-centered care. The involvement of parents and caregivers in the processes of care and treatment should be promoted with communication tailored to their levels of understanding. Their input on feeding, behavior, and other development aspects could assist health professionals in making necessary changes in treatment plans. The efforts of specialists on continuous education, the process of clinical audit, and the measures aimed at quality improvement enable collaboration as well. The working of health staff in coordination with families and community services allows achieving efficient and collaborative services provision to clients from pregnancy to childhood.

10.10 Parental Education and Family Participation

The education of the families and parents along with their active participation in maternal and child health visits is highly important in fulfilling their roles by ensuring that mothers and families perform their functions. The families and parents are important caregivers and protectors, thus providing continuous and safe care for infants and children. Caregivers' training should cover the following topics: breastfeeding, hygiene, mandatory vaccination, growth monitoring, and danger signals as these aspects may protect families from possible health complications related to their children. Healthcare providers should use clear, simple, and culturally appropriate instructions for the population. The families should receive instructions on how to start breastfeeding and practice exclusive breastfeeding for the first six months, followed by the introduction of solid food. Other topics for the training include bathing the baby, caring for the umbilical cord, washing hands, retaining the temperature of the infant's body, and sleeping safety principles. Families should also know the importance of vaccination and growth monitoring, as well as being able to recognize the signs of health complications, such as breathing problems, troubles with eating, fever, abnormal temperature, convulsions, and lethargy.

Assistance from family is crucial for providing emotional, mental, and practical aid to mothers during pregnancy. The father and other family members can help the woman with her domestic duties, keep things tidy and safe, provide breastfeeding support, and help her eat healthily and sleep enough. The source of emotional support effectively alleviates stress and helps maternal confidence in handling the newborn baby. Family members' awareness of the mother's physical condition and emotional state is necessary in order to identify issues that require professional

assistance. Healthcare professionals can help parents acquire knowledge through counseling, presentations and informative literature, contacts made during postpartum visits, and community programs. It is important to present information in the language parents are familiar with. Also, families should be offered assistance based on their newborn age, and those who might face some difficulties in accessing health care due to geographic, social, or financial circumstances need to be paid attention to. When family involvement takes place, attention should be shown to what parents prefer, their cultural traditions, and their rights. There should be a respectful discussion of harmful traditions while providing safer alternatives. Both fathers and caregivers should be encouraged to contribute to childcare and not treat it as the mother's exclusive responsibility.

10.11 Preventive Healthcare and Follow-Up

Preventive medicine and consistent follow-up care play a vital role in the proper growth and development of babies and toddlers. The first few months of life are crucial, as newborns can be affected by infections, lack of nutrients, developmental issues, and other health-related problems. The whole concept of preventive care revolves around trying to identify any health problems early enough, in order to encourage the implementation of healthy habits and conduct appropriate treatments with the goal of minimizing illnesses and avoid fatal cases. Performing routine postnatal check-ups allows healthcare providers to estimate the newborn's general condition and the way he or she eats, the body temperature, the weight of the baby, jaundice, and the symptom of infection. In addition, regular check-ups can make it possible to identify breastfeeding issues as well as the inadequacy of the weight of the baby. Vaccination is an important aspect of preventive health. Vaccines guard children against multiple life-threatening diseases, and they need to be given following India's National Immunization Schedule. Health workers must keep correct immunization records, notify parents about future vaccines, and inform them about the importance of immunization. Parents must be given knowledge about common reactions to vaccines and the fact that they must contact the doctor if needed.

As important is a dietary consultation that needs to take place during the follow-up consultations. Breastfeeding should be exclusive during the first six months of life and supplemented with complementary foods with breastfeeding continued for up to two years. Medical workers must evaluate feeding practices and teach mothers how to breastfeed correctly. Preventive health care means also hygiene, safe sleeping practices, clean home conditions, and reduction of the risk of infection. Parents should be advised to wash their hands prior to interacting with the baby, ensure that the umbilical cord is taken care of properly, avoid exposure to cigarettes, and keep the child away from people with contagious diseases. They should be able to notice the first warning symptoms early on - breathing difficulties, poor appetite, either a high or very low temperature, convulsions, and lack of responsiveness. These signs should be treated promptly by the doctors. The pediatrician and other health care

practitioners including nurses, pharmacy specialists, nutritionists, and field workers should organize follow-ups, considering the individual needs of the mother and baby. Community service organizations might offer families vaccinations, nutrition education, regular checkups, and referrals. Communication between health professionals and the family is very important.

10.12 Conclusion

Infant care is one of the primary aspects of maternal and child healthcare since neonatal stage is significant for ensuring healthy growth, development, and survival. Effective neonatal care involves immediate infant care, thermal protection, hygiene practices, breastfeeding, immunizations, monitoring growth, and evaluation of development which will decrease the likelihood of complications and ensure infant health. It is essential to detect potential health issues in the newborns, recognize the danger signs, and provide timely and effective medical treatment as these activities decrease the level of infant morbidity and mortality. Multidisciplinary work of pediatricians, physicians, nurses, clinical pharmacists, dieticians, and social health workers will ensure comprehensive and effective care provided to newborns. Each medical worker contributes to the process through medical services, ensuring the safety of medications, nutrition, education of parents, preventive care, and treatment follow-up. Additionally, involving parents and family members in the newborn care ensures the efficiency of medical procedures and helps create an appropriate patient environment at home. Proper health check-ups, adherence to the immunization schedule, appropriate feeding practices and the launch of early treatments for developmental issues are crucial for ensuring infant health. Combining preventive medicine with educating families and interprofessional cooperation can help to improve health status. Consequently, comprehensive newborn care presupposes constant collaboration of healthcare practitioners, parents and the community.

10.13 References

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