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Short Communication

Specific Health Protection Services in Antenatal Care Rendered by the Government of India

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A B S T R A C T

Background/ Problem Statement: Antenatal care (ANC) denotes the care offered by trained healthcare authorities all through the pregnancy to establish that both mother and baby be given excellent health facilities. Preventive services during antenatal care include ante-natal visits, prenatal advice, and specific health protection. Other components of antenatal care include mental preparation, family planning, and paediatric unit. Specific protection is basically primary prevention, aiming to reduce the incidence of disease, carried out by protection of health through personal and community efforts, such as facility of immunisations, safeguarding improved nutritional status, and getting rid of environmental health menaces directed for high-risk individuals and groups, achieved through public health programmes. In a country like India, there are still thousands of women who lack basic health amenities in their childbearing age, and specifically in pregnancy, particularly in rural and remote areas. This eventually increases the disease burden.

Objective: In the present paper, an attempt has been made to explore different facilities/ schemes rendered by the Government of India (GOI) to minimise the health risk of expecting mothers and newborns.

Methodology: Various literature comprising online databases including reputed journals related to public health services in community medicine specifically government schemes for pregnant women in remote areas to provide basic and necessary health care to them and their newborns were searched.

Discussion & Conclusion: Many schemes have been launched by the government of India to protect and safeguard the health of expecting mothers and their newborns with special attention to the high-risk mothers, in rural areas, those who are deprived of the basic and necessary amenities and to reduce the disease burden. The government of India has put forward many services for pregnant mothers, such as nutritional services, immunisation services, medicinal services, family welfare services, and educational services to ensure a healthy mother and child development for a healthy nation.

Keywords: Immunisation, Nutritional Services, Family Welfare, Public Health Programmes

Introduction

In India, more than 1 lakh women die annually on account of pregnancy. Indian women are 100 times more likely to die due to pregnancy than their counterparts in developed countries. Safe motherhood programme aims to prevent pregnancy-related deaths and disability. The duration of pregnancy extends from the time of conception to 42 days after delivery. During this period the progress is notuniform. Therefore, the total period of pregnancy has been divided into 3 periods- the antenatal, the natal, and the postnatal period. Each period has its own special featuresand specific risks. The safe motherhood interventions aredivided accordingly. Safe motherhood interventions - care of the mother includes intervention in 3 phases- antenatal, intranatal, and postnatal. Antenatal care is the care provided to pregnant women with the aim of ensuring maternal and foetal well-being. According to The American Academy ofPediatrics and the American College of Obstetricians andGynaecologists (2002), Prenatal Care or Ante Natal is defined as "A comprehensive antepartum care program that involvesa coordinated approach to medical care and psychosocial support that optimally begins before conception and extends throughout the Antepartum period".[1] The Safe Motherhood Initiative by WHO in 1987 is a global effortdesigned to operate through partners like government agencies, NGOs, other groups and individuals and is aimed to improve women's health through social, community and economic interventions. Many treaties consider it a human rights issue.[2]

Importance: the safe motherhood programme aimed at achieving a maternal mortality rate of 2/1000 live births by 2000 AD. This has not been achieved. At the end of the 9thplan period, MMR still remains at 4/1000 live births.[3]

By virtue of the large group (women 22% children 38% together constitute 60% of the total population. This is also thevulnerable or special risk group of mothers and children. They are the major consumer of health services.[4]

ANC can be defined as the care provided by skilled healthcare professionals to pregnant women and pregnant adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy.[5,6]

Antenatal Services (Rendered by Government of India)

- Nutritional services
- Immunisation service
- Medicinal services
- Family welfare services
- Educational services

Nutritional Services

To prevent malnutrition among mothers and LBW in newborns, all rural, expectant, malnourished mothers are given 'Supplementary food' daily at Anganwadi Centres under revised Nutritional Norms of ICDS, which provides600 kcals of energy including 20 g of proteins, for 300 days in a year. This is done Under the National Program ofIntegrated Child Development Services Scheme (ICDS).[5,6]

Immunisation Services

Against Tetanus: 2 doses of tetanus toxoid (0.5 ml) each, deep intramuscularly in the upper arm or buttocks during pregnancy to prevent maternal and neonatal tetanus.

- First dose of TT - in the first antenatal visit as soon as possible
- Second dose after one month of 1st dose. (at least 1 month before the expected date of delivery)

If in previous pregnancy 2 doses of TT have been administered in the past 3 years, then only one booster doseof TT is required.

If the mother comes very late in the pregnancy, at least one dose of TT must be given. 'No pregnant mother should be deprived of at least one dose of tetanus toxoid'.

Against Erythroblastosis-Foetalis: If the mother is Rh-negative and the foetus is Rh-positive, it provokes an immune response in mothers, resulting in the formation of Rh-antibodies, which can cross the placenta during labour, cesarean section or abortion, causing haemolysis of foetal RBCs, known as Erythroblastosis Foetalis (Rh-Incompatibility). It is characterised by congenital haemolytic anaemia. In the case of 1st pregnancy, if the mother is already sensitised by Rh +ve blood transfusion, the first child is unaffected. The incidence of haemolytic disease due to the Rh factor in India is estimated to be approximately 1 for every 400-500 live births. This condition can be prevented by the administration of Rh anti-D Immunoglobulin to the Rh -ve mother during the 28th week of pregnancy and another dose preferably during the 34th week of pregnancy. If the newborn is found to be Rh +ve another dose of anti-D is given soon after delivery.

Since 'amniocentesis' is a risky process to detect the Rh status of the foetus, it is not performed routinely. If the woman is Rh-ve it is taken into consideration that the foetus is Rh +ve and Rh anti-D is given to the mother. ICT is done after 27 weeks gestation to detect if the mother is sensitised or not and anti-D is given accordingly.[5,6]

Against German Measles (Rubella): It is now a known fact that rubella can be transmitted transplacentally to the foetus resulting in congenital rubella. This transmissionof rubella virus can be prevented by administering a singledose of rubella vaccine to the woman before becoming pregnant. So, it is recommended for all women of childbearing age. Since this is a live attenuated vaccine, it is attenuated to maternal cells and not to the foetal cells.

So this is avoided in pregnancy as it may cause congenital rubella, instead of preventing it.

Therefore, pregnancy is an absolute contraindication for rubella vaccination.[5,6]

Against hepatitis B: There are two conditions of immunisation against hepatitis B for the mother, 1st condition is, if the pregnant woman is HBsAg negative. 2nd condition is, a course of hepatitis B vaccine is given.

However, it will not provide immunity to the newborn because the surface antigen does not pass through the placenta. But, if the pregnant woman is HBsAg positive, it means that she is a carrier and there is a risk to the newborn of getting infected with hepatitis B as HBsAg is transmitted transplacentally at the time of birth. Therefore, the Hep-B vaccine is given to all newborns at birth (means if the mother is HbsAg +ve then her newborn is vaccinated for HEP-B).[5,6]

For the Foetus

Active Immunisation: The post-exposure prophylaxis with the first dose of hepatitis B given within 48 hours of birth followed by a rapid schedule (0, 1, 2 and 12 months), each dose of 10 mcg, intramuscularly.

Passive Immunisation: Also advisable but not mandatory to give with hepatitis B immunoglobulin, one dose, same day (along with hepatitis B vaccine) but on different sites intramuscularly with a dose of 0.05 to 0.07 mL/kg body weight (≈ 2 mL).

In a nutshell, live virus vaccines (Rubella, Measles, Mumps, and Yellow Fever) are contraindicated in pregnancy. Rabies, hepatitis A and B vaccines, and toxoids can be given in the non-pregnant state.[2,5,6]

Medicinal (Supplementation) Services

Under National Anaemia Control Programme

Prophylactic Dose: The expectant mother is provided with a pack of 100 Iron and Folic Acid (IFA) tablets during the second trimester, each large tablet containing 100 mg of elemental iron and 500 micrograms of folic acid, with instructions to take one tablet daily after food to avoid nutritional or iron deficiency anaemia in mother and thereby, preventing LBW in newborns. If the mother has visible signs of anaemia, she is advised.[5,6]

Therapeutic Dose: 2 tablets IFA/day for 3 months (100 days) to correct anaemia.

If the Hb level is < 11gm/dL, repeat for another 3 months during postpartum among women with moderately severe anaemia. And IFA tabs (2/day) continued till the Hb level comes to normal.

Blood Transfusion: For severely anaemic cases

Counselling

Anaemia: Take IFA tablets regularly, preferably on an empty stomach in the morning. If complain of nausea or pain abdomen, take IFA after food.

- If black-coloured stool is passed, don't worry. It is normal while taking IFA tablets.
- If constipated, drink more water and take a high-fibrous diet.
- IFA tablets are not to be taken with coffee, tea, milk or calcium tablets, which reduces absorption of iron. Anthelmintic drug (Mebendazole) 400 mg should be given once during the 2nd trimester, for deworming
- If VDRL test is +ve, congenital syphilis can be prevented by giving long-acting penicillin (Benzathine penicillin 24 to 48 lakhs units) if she has symptoms of primary or secondary syphilis
- **Malaria Prophylaxis:** In malaria hyperendemic areas, pregnant women are given long-lasting insecticidalnets (LLINs).
- If HIV test is +ve: Voluntary prenatal testing for HIV infection is suggested, early in pregnancy, especially for those who are at greater risk.[5,6]

Family Welfare Services

Primigravida, are sensitised for spacing with an IUD after delivery. In 2nd gravida, motivation for sterilisation. All India Postpartum Programme services are reachable to every expecting female in India.

Educational Services

As and when the mother develops any health problem, she is educated to take treatment correctly and completely. She is also educated about the art of child care and various vaccines given to the child at birth and during infancy.[5,6]

GOI Initiatives for Mother and Child

GOI has taken a number of steps to accelerate the rate of reduction of maternal mortality by focusing on various interventions and strategies like the Mother and Child Protection Card in collaboration with the Ministry of Women and Child Development to monitor service delivery for mothers and children. Programming of Village Health and Nutrition days are prearranged in countryside regions such as an outreach activity, for providing ANC.

Ministry of Health and Family Welfare, GOI has also launched an initiative SUMAIV- "Surakshit Matritva Aashwasan" to provide assured, dignified, respectful, and quality healthcare without absconding any woman or baby from getting healthcare amenities coming to public health services area. The abovementioned initiative targets 'zero preventable maternal and newborn deaths and high quality of maternal care delivered with dignity and respect.'

Under National Health Mission, the Government of India has

taken various steps to improve ANC. For this, various schemes and programmes are started like Janani Suraksha Karyakaram, Janani Suraksha Yojna, DAKSHATA implementation package, Pradhan Mantri Surakshit Matritva Abhiyan etc. GOI also adopted the reproductive, maternal, newborn, child, and adolescent health (RMNCH+A) framework in 2013 which is aimed at reducing the causes of mortality and morbidity among women and children.

In rural India, under NRHM and Janani Suraksha Yojna (JSY) Scheme, Accredited Social Health Activists (ASHA) work as a link person among the beneficiaries at the village level with Auxillary Nurse Midwife (ANM) and doctors. Hence, improving institutional deliveries with encouragement and incentives.[2] Partnerships with various agencies and programmes were also done to reach Millenium Development Goals 4 and 5.

Reproductive And Child Health (RCH) Care was founded as a composite and integrated approach for the advancement of the health situations of women and children in India. It holds inventiveness of GOI (NRHM-2005, NPP-2000 etc.) and supports donor agencies like World Bank, WHO, etc. The motive of this initiative is to provide safe motherhood, child survival, adolescent health, family planning, prevention and management of infections (STI/ RTI).[2,7]

PMSMA or Pradhan Mantri Surakshit Matritva Abhiyan popularly known as 'I pledge 9' aims to invite private sectors to provide free ANC services on the 9th of every month on a voluntary basis to pregnant, especially living in under-served, semi-urban, poor and rural areas.

MCTS is web assisted endowment to track females in requirement of maternal care to ensure ANC, INC and PNC have been introduced.[8]

Conclusion

The antenatal period is an important period for a pregnant woman, it must be given utmost importance so as to ensure the health and wellbeing of the mother and the newborn in order to develop a healthy nation. For this very aim, the Government of India has rendered many healthcare facilities, services and schemes which include public health programmes based on nutritional services like Under revised nutritional norms of ICDS at the Anganwadi centre and National Anemia Control Program need special mention. Immunisation against life-threatening diseases like Hep-B, Congenital Rubella, Erythroblastosis foetalis, congenital syphilis, etc. Family welfare services, for e.g., All India Postpartum Programme services including contraception methods, counselling, education, motivation, etc.

Conflict of Interest: None

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