

SERUM TIMES

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SERUM MEDICAL BULLETIN

From the desk of the Editor-in-Chief

Dear Doctors/Readers,

At the outset we like to convey you our best wishes in the New Year. The Government of India has already cautioned about the possible attack of another Covid 19 variant, Omicron. Some studies found that it is not very dangerous for human but it is very infectious. But our request has been the same as before, please maintain Covid protocol strictly. Be prepared to fight another wave of Covid as we are not sure yet about status of the ongoing pandemic.



In this issue we are going to discuss matters related to how to deal with the neonatal phase of new born babies by the medical laboratories, particularly, about the babies who are suffering from any sorts of health trouble. The first 4 weeks or 28 days of a new born baby is known as the neonatal period. This is the most vulnerable time for a child's survival. An earlier report of UNICEF pointed out that globally about 2.6 million children die in the 1st month of life. About 7,000 newborns are dying every day, most of which occur within the 1st week of life. A WHO report in 2016 mentioned that neonatal mortality contributes significantly to under-five deaths. The notable thing here is that most of these deaths are preventable.

Neonatal death status quo in India: India is one of the most vulnerable countries for neonatal death. In 2019 neonatal mortality rate in India were 21.7 deaths per 1000 live births. It has been falling only gradually from 84.4 deaths per 1000 live births in 1970. What are the causes of these deaths? There are several reasons - premature births (35%), neonatal infections (33%), births asphyxia (20%) and congenital malformation (9%). The recent UNICEF survey has observed that nearly 46% of all maternal deaths and 40% of neonatal deaths happen during labour or the first 24 hours after births.

The subject for discussion, neonatal care of the clinical laboratories, has been a very vast matter. It is also related to socio-economic and political matters of a country. The next story will only provide some glimpses on the matter, mainly on the basis of UNICEF guideline. The second story is going to discuss some important issues about health related matters of the country depending on the recently published National Family Health Survey fifth round (NFHS-5) of the Government of India.

Again we would like to wish you happy New Year 2022. At the same time we again request you to obey all the Covid restrictions and stay safe.

With good wishes & thanks,

Sanjib Acharya

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UNICEF guideline to deal neonatal care is notable

Here only some glimpses of the immediate neonatal clinical care after birth are discussed. These are all depending on the guidelines suggested by the UNICEF.

First Step - 1) dry the baby especially the head with warm dry towel; 2) rub the back 2-3 times for babies who do not breathe spontaneously; 3) if breathing is abnormal quickly clamp and cut the cord; 4) check whether baby's colour is pink; 5) blue colour of the tongue, lips and trunk means lack of oxygen supply in the blood continuous assessment of activity, pulse, grimace, appearance, respiration (APGAR) score at 1, 5 & 10 minutes.

Step 2 - 1) cut the cord within 1 to 3 minutes after birth and leave it uncovered; 2) clean and dry cord is recommended.

Step 3 - 1) help mother initiate breast feeding within the first hour of birth.

Step 4 - 1) give eye care and antiretroviral (ARV) prophylaxis within one hour of after birth.

Step 5 - prevent bleeding. It means 1) give 1mg of vitamin K intramuscularly (IM) to all neonates after birth; 2) give 0.5 mg vitamin K IM to neonates less than 1 kg; 3) check if cord stump is bleeding. If it is, then put on an additional clamp between the abdomen and the existing clamp.



Step 6 - identify infant. This means place the infant's identification band on the wrist or ankle with mother's name and sex of the baby on it.

Step 7 - weight the new born with sterilized cloth towel beneath the infant. Weigh after the stabilization and warmth. But priority should be given on breastfeeding even before weighing. Inform the mother of newborn's weight and sex. Record data of newborn's weight on mother's chart, delivery book and elsewhere if possible.

Step 8 - record all observations and treatment provided in the appropriate chart.

These are some of the very important steps for the neonates when there are not so difficulties about its health. But there are many more guidelines for neonatal depending on severity in the UNICEF's guidelines for the neonatal.

NFHS-5 reveals many important health issues of India

The National Family Health Survey – 5th round conducted in between January 2020 and April 2021, was released in November 2021. The survey has been conducted by the Ministry of Health and Family Welfare of the Government of India and International Institute of Population Science, Mumbai in 22 states & UTs. Many important observations of the Survey should be noted carefully. The Survey covers issues like fertility, infant & child mortality, family planning, maternal & child health, nutrition, anaemia, etc.

Some findings of NHFS-5 are as follows:

The first thing to mention has been the: 1) sex ratio at birth (no. of females per 1000 male) 952 in majority states but in Telangana, Himachal Pradesh, Goa, Dadra and Nagar Haveli & Daman Diu it is below 900. 2) Child marriage has increased from 2014-15 survey in Tripura to 40.1%, Manipur 16.7%, and Assam 31.8%. 3) Child nutrition: a) malnutrition has been worsened. Stunting (low height compared to age) has risen in 11 out of 18 states; b) Wasting (low weight to height) has increased in 12 states out of 22; c) Over weight: as many as 20 states recorded higher percentage of it for child under 5 years; d) Diarrhoea: it has also increased among the children to 7.2% in 2 weeks preceding the Survey; e) Infant and Child mortality: it is highest in Bihar. In this state Neonatal mortality rate (NMR) 34%, infant MR 47%, under 5 MR 56%; f) Spouse violence: it has increased in 5 states, Sikkim, Maharashtra, HP, Assam and Karnataka.



Karnataka witnessed the largest increase number of spouse violence from 20.6% in NFHS-4 in 2014-15 to 44.4% in the present NHFS-5.

One of the most important observations has been the reduction of fertility rate to replacement rate of fertility at 2.1 in 19 states out of 22 states and UTs. This is just at replacement rate of population. That means a woman, on an average, gives birth to 2.1 child. It implies Indian population has been stabilized earlier than that was expected even a few years ago. That means in India population has not been increasing much. Moreover, it would gradually decline in the not so distant time. In many states population has already been started declining.

Lastly, another chronic problem is, anaemia that has yet been a cause for concern. More than half of children and women are anaemic in 13 out of 22 states and UTs.

The CSR Activity of SERUM throughout December, 2021



Dec 5: AIDS & Thalassemia Awareness Rally from Shyambazar & Blood Donation Camp at Serum Auditorium

Annual General Meeting, 2021 - 22



Dec 2: South 24 Pgs & Nadia Dec 3: Kolkata & North 24 Pgs Dec 10: Burdwan & Birbhum Dec 11: Burdwan Industrial Part, Purulia & Bankura



Dec 11: Jharkhand Dec 12: West Medinipur Dec 12: East Medinipur Dec 12: Howrah



Dec 16: South 24pgs & Kolkata Dec 18: South Bihar Dec 19: North 24pgs & Nadia Dec 19: Hooghly



Dec 26: North East



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This is a Medical Bulletin. Edited, compiled & published by Editorial Board for and on behalf of S SERUM Analysis Centre (P) Ltd., 82/4B, Bidhan Sarani, Kolkata 700004. Chief Editor: Sanjib Acharya. Website: sserumanalysiscentre.com / serumindia.com e-Mail: serum.kol@gmail.com Phone: +91 62895 32188 / 98302 74990 / 98300 16594

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