

Bharati Vidyapeeth (DTU) Medical College, Pune

Best practices of Institution

2019-2020

Department of Biochemistry

1) Title of the practice

Newborn screening programme (NBS)

2) Objective of the Practice

We have initiated this programme from August 2019 for all in - born neonates (Birth Weight \geq 2.5 Kg & Gestational age \geq 34weeks) of BHRC, Pune for screening for the following commonest inherited disorders disorders.

- a) Congenital Hypothyroidism
- b) Congenital Adrenal Hyperplasia
- c) Galactosemia
- d) Glucose 6 Phosphate dehydrogenase deficiency.

3) The Context:

Newborn Screening is a system for identifying genetic, metabolic disorders and other health problems in newborns so that important action can be taken during the critical time before symptoms develop.

It is the most important preventive public health programme of the 21st century. Although yet not done mandatory by Central or State Government authorities.

4) The Practice

- Collection of sample by Heel Prick Method on specific filter paper and recording all the details on Test Requisition form.
- Sample Transportation to the Central Clinical laboratory.
- Processing of the received samples by ELISA, every week in batch.
- Implementing all QC practices for the same.
- Informing critical/alert reports, if any to neonatology department.

5) Evidence of Success

The program has been initiated on 01/08/2019, we have screened a total of more than 900 New-borns till 31st July 2020. The parents after receipt of reports, are counselled and guided further if required at paediatric OPD.

6) Problems encountered and resources required

- Training of the Nursing Staff for collection of the Heel Prick sample on Dried Blood Spot.
- Well Trained Technicians for processing the samples by ELISA.
- Well Trained Faculty for interpretation of the results.
- Appropriate counselling and future follow up with the patients if required.

- Centralised Data Recording in Hospital Information System for the screening programme.

1) **Title of the practice:** COVID 19 designated Hospital in collaboration with Pune Municipal Corporation.

2) **Objective of the Practice:**

- To develop state of art facility to cater Covid 19 patients efficiently.
- To strengthen infection control practices
- To be a referral centre for complicated cases of COVID
- To train health care workers in management of COVID patient in all its aspects
- To organise training sessions for non-medical faculty, non-teaching staff and other personnel of University

3) **The Context:**

COVID 19 pandemic hit India and first case in Maharashtra was in Pune. Pune being an IT hub and destination for education for students from all over India, movement of general population in and out of Pune is huge. Thus the chances of Pune being the epicentre of COVID pandemic in state of Maharashtra was very high. In 2010 H₁N₁ cases in Pune were highest.

So considering the past history and the travel history related to the city, Bharati hospital decided to convert the hospital into a dedicated COVID centre.

The Pune Municipal Corporation (PMC) also appealed to the management of Bharati Hospital to develop a dedicated COVID centre. The hospital management and the management of the organisation wanted to serve the community as a whole. The result was Bharati Hospital became the first COVID dedicated hospital from the private sector in the city of Pune.

A MOU was signed with PMC. Infrastructural changes were made in the hospital to deal with huge burden of Covid patients. Changes were made to deal with huge number of Covid patients that were likely to be admitted and may need ICU & Oxygen support along with non Covid patients.

4) **The Practice:**

As a response to PMC after making a MOU, designated beds were reserved for COVID patients. A separate fever OPD started on 13.4.2020 to deal with suspected COVID cases. Training of all faculty, PG students and other staff was done specially in Infection control practices. The procurement of required material was done. Separate entry & exit points were started. All persons coming to hospital were screened by thermogun and patients having fever were directed to fever OPD. Suspected patients' swabs were taken and depending on clinical condition further management were done in isolated hospital wing. The COVID wards were initially divided into ICU, wards with oxygen supply, ward with mild or asymptomatic patients. Later when the government changed guidelines, home

isolation OPD was started and the number of oxygen beds were increased. Bharati hospital laboratory was one of the earliest ones to get the permission from government for COVID testing.

5) Evidence of Success:

Till now Hospital treated more than 2500 patients. The cure rate in hospital was high. The efforts of hospital was appreciated by patients, their relatives, media and Government also. The ICU faculty of our hospital was enlisted by Government for training of medical officers from Government. The hospital is one of best hospital in Pune city dealing with COVID patients. Patients from Sangli, Satara, Miraj, Kolhapur and adjoining cities were also referred to Bharati Hospital, Pune.

6) Problems encountered and resources required:

- Infrastructural changes
- Procurement of PPE kits
- Procurement of drugs
- Trained manpower
- Training of staff & Facility
- Availability of oxygen
- Counselling of relatives as they were not allowed to visit the patients