

## **BLOOD TRANSFUSION SERVICES IN J&K STATE**

### **A. Blood Banks**

#### **Background**

Blood Transfusion Service (BTS) is an essential component of any Modern Health Care System without which efficient Medicare is impossible. To maintain the quality, safety and efficacy of blood and its products, well equipped Blood Bank with adequate infrastructure and trained manpower is an essential requirement. For Rational use of blood it is important to train the blood users (Clinicians) and to make them aware in this regard.

Blood Banking all over the country is governed by Drug & Cosmetic Act and all the Blood Banks should be licensed by the State Drug Controller approved by the Drug Controller of India.

#### **Importance of Voluntary Blood Donation**

Out of Family/Replacement Blood Donation & Voluntary Blood Donation, Voluntary Non-remunerated Blood Donation (VNRBD) is the safest. Replacement blood donors are supposed to be associated with significantly higher prevalence of Transfusion óTransmitted Infections. Voluntary Blood Donors are the cornerstone of safe and adequate supply of blood and blood products.

Action plan of National Blood Policy says that India should have achieved 100% Voluntary Blood donation by December, 2005 which has not been achieved yet. This is because of lack of awareness about Voluntary Blood Donation among the society especially in the rural areas which need to be taken care of scientifically.

#### **Present Status of Blood Banks in the Country & in J&K State**

Presently there are 2609 licensed Blood Banks in the country. In J&K State, there are eight licensed Blood Banks at District Hospitals Kathua, Gandhi Nagar, Udhampur, Doda, Kishatwar, Ramban, Rajouri and Poonch in Jammu division and six licensed Blood Banks in Kashmir Division at District Hospitals Anantnag, Baramulla, Pulwama, Badgam, Leh & Kargil. Recently Blood Bank at CHC Chadura has also been licensed.

**List of equipment required for a Blood Bank with approximate cost**

<b>S.No</b>	<b>Name of equipment</b>	<b>Quantity required</b>	<b>Approximate cost in Lacs</b>
1	Donor Couches	02	3.50
2	Blood Mixer & Shaker	02	5.00
3	Di electric Tube Sealer	02	5.00
4	Sterile Connecting Device	01	9.00
5	Blood Bank Refrigerator with Thermograph	02	3.50
6	Tube Stripper	02	1.00
7	Binocular Microscope	01	0.80
8	Needle Destroyer	01	0.10
9	Double Pan Balance	01	1.50
10	Equipment for Gel Technology for Cross Matching	01	3.50
11	pH Meter	01	0.10
12	Table Top Centrifuge Machine	02	0.50
13	Laminar Air Flow	01	0.50
14	Serological Water Bath	01	0.30
15	Elisa Reader with Printer	01	4.00
16	Automatic Cell Washer	01	1.00
17	Autoclave	01	0.30
18	Dry Incubator	01	0.20
19	Air Conditioner (s)	04	1.50
20	Micropipettes of varying capacities	2 each	0.60
21	Donor Weighing Machine	01	0.20
22	Good Quality BP Apparatus	02	0.04
23	Insulated Blood Bag Containers with provision for maintaining temperature between 2-10 degree Centigrade	02	2.00
	<b>Grand Total</b>		<b>44.14</b>

**Future Planning of setting up of new Blood Banks in J&K State**

Recently Govt. Hospital Sarwal, Jammu has been given the status of district Hospital for which facility of a Blood Bank is needed. Samba & Reasi are two newly created Districts in Jammu Division & Ganderwal, Bandipura, Kulgam and Shopian are the newly created districts at Kashmir division where the facilities of Blood Banks are not available.

In 2012-13, there is an urgent need to set up seven Blood Banks three in Jammu and four in Kashmir divisions in these newly created districts.

**Financial Implications for setting up of seven Blood Banks.**

Cost of equipments required for setting up of one Blood Bank = 44.14 lakhs

Cost of equipments required for setting up of seven Blood Banks =308.98 lakhs

## **B. Blood Component Separation Unit/Lab**

### **Background**

Presently there is only one licensed Component Separation lab in whole of Jammu Division functioning at SMGS Hospital Govt, Medical College, Jammu and two Component Separation Labs one at SKIMS and another at SMHS Hospital Govt. Medical College Srinagar in Kashmir Division. **There is no component lab available in health Department in whole of J&K state.**

As per Action plan of **National Blood Policy**, **80 %** of total collected units of Blood should be converted into components which is not being done in the State of Jammu & Kashmir

### **List of equipments needed for setting up of one Component Separation Lab and their approximate cost**

S.No	Name of equipment	Quantity required	Approximate cost in Lacs
1	Refrigerated Centrifuge Machine	01	10.00
2	Tube sealer	01	2.50
3	Sterile Connecting Device	01	9.00
4	Platelet Agitator & Incubator with thermograph	01	3.00
5	Deep freezer -30 and -80 C	01 each	10.00
6	Blood Bank refrigerator with thermograph	01	1.75
7	Plasma Expresser	01	0.40
8	Binocular Microscope	01	0.80
9	Air Conditioners	02	0.60
10	Generator 10 KVA	01	4.00
	<b>Grand Total</b>		<b>42.05</b>

### **Future Planning of Blood Component Labs in J&K State**

J&K State consists of three regions viz Jammu, Kashmir & Ladakh. There is a need to set up three Component labs one in each region. During 2012-13, it is proposed to set up two Component Labs one at Govt. Hospital Gandhinagar Jammu where a full fledged licensed Blood Bank is functioning and the construction work of Component Separation lab has also been completed & requirement for the equipment already stands communicated to the Director Health Services Jammu through Medical Superintendent of the Hospital. The second Component Separation lab is proposed to be set up at JLNH Hospital Rainawari Srinagar. The required documents for issuance of license in favour of this Blood Bank stand communicated to the concerned licensing authority. As and when the license is issued, the process of setting up of the Component Lab shall be taken up. The undersigned has inspected this Blood Bank and submitted the technical report.

### **Financial Implications for setting up of two Component labs**

Cost of equipment needed for one component lab = 42.05 lakhs.

Cost of equipment needed for two component labs = 84.10 lakhs.

## C. BLOOD STORAGE CENTERS (BSCs)

### Background

There has been a significant improvement in the health status of the Indian population, however MMR due to causes related to pregnancy and childbirth continue to be high. There was a need to provide adequate Emergency Obstetric Care Service close to the community and under **Child Survival and safe Motherhood (CSSM)** Programme (1992-97) concept of setting up of FRU at CHC/SDH was started. Initially, 1724 FRUs were identified and strengthened for doing Leptomies, Caesarian Sections etc but they could not be made fully functional because of non availability of facilities for storage of blood and its utilization.

**Drug and Cosmetic Act** was amended with the objective of setting up of BSCs at FRUs/CHCs and PHCs level.

**Manpower required:** The Staff needed for a Blood Storage Centre is one existing Medical Officer and a lab technician , trained on for three days on -Storage and utilization of bloodø from some recognized centre

### Aims and objectives of setting of BSC s at the FRUs in J&K State

The State of Jammu & Kashmir is predisposed to natural and manmade calamities owing to its terrain and geographical location. Most of the areas are hilly& unapproachable and it is very difficult for the needy patient to reach the district Hospitals and avail the facility of blood transfusion. To reduce the MMR, facility for Blood Storage, Cross Matching and issuance of Blood should be made at the FRUs so that the patient may get the required blood at the time of need.

### List of Equipment needed for one Blood Storage Centre with approximate cost

S.No	Name of Equipment	Quantity required	Approximate cost in lacs
01	Blood Bank Refrigerator having capacity of 50 blood units	01	1.00
02	Air Conditioner	01	0.35
3	Autoclave	01	0.30
4	Binocular Microscope	01	0.80
5	Deep Freezer for freezing ice packs	01	1.50
6	Dry Incubator	01	0.20
7	Insulated Blood Bags Containers	01	1.00
8	Table Top Centrifuge	01	0.20
9	Micropipettes of different capacities	One each	0.40
10	Consumables, reagents,disinfectants	As per workload	---
	<b>Grand Total</b>		<b>5.75</b>

## **Present Status of BSCs**

Presently only seven FRUs are licensed and functioning in Jammu Division. No BSC is licensed and functioning in Kashmir Division.

## **Future Planning for Blood Transfusion Services in J&K State during 2012-13**

After joining as State Programme Manager, Blood Transfusion & Lab Services, the undersigned prepared the PIP for 2012-13 where in 07 Blood Banks at newly created Districts of the state, three Component Laboratories one each at Jammu, Kashmir and Ladakh Regions and 26 BSCs, 13 each for Jammu & Kashmir Divisions were included in the PIP and submitted to the GOI. The proposal was rejected with the remarks that **“Normally the cost for procurement of equipments for the Blood Bank and Blood Component Separation Units is supported by NACO. State may reflect the budget in the NACO PIP submitted through the SACS, J&K.** Accordingly, I along with Project Director JK SACS attended a meeting of Annual Action Plan 2012-13 of Blood Safety at NACO Office Delhi on 16<sup>th</sup> March, 2012 where it was decided that a fresh proposal for setting up of New Blood Banks and Component Laboratories be submitted through JK SACS to the NACO authorities. Accordingly a new proposal was prepared and submitted to the NACO through PD JK SACS vide his office letter No JK SACS/AO/2012/665 dated 30/05/2012 and action taken in this regard is still awaited.

26 BSCs, 13 each for Jammu Division & Kashmir Division were approved as per the ROP of NRHM (list enclosed) with the condition that **“the State should ensure deployment of necessary HR to these facilities and to ensure they are functional as FRUs. Special review to be undertaken within three months”**. To set up these BSCs, the following initiatives have been taken:

1. **Inspections of proposed BSCs:** The undersigned visited and inspected the proposed BSCs and already functioning Laboratories at FRUs Bishnah, R. S. Pura, Billawar, Kalakot, Thannamandi and Katra in Jammu Region and Charar-i-Sharief in Kashmir Division and submitted the technical reports to the concerned authorities for execution through Mission Director NRHM J&K.

In addition, the undersigned also visited, inspected and reports submitted in respect of the Blood Bank, laboratory and proposed Component lab at district Hospital Gandhinagar, Jammu, Blood Bank and Laboratory at district Hospitals Rajouri, Kathua and Udhampur, BSCs and Labs at FRU Akhnoor, Sunderbani, Nowshera and Labs at PHC Chowki Chora & Lamberi of district Rajouri

2. **Procurement of equipments:** The detail of equipments for BSCs and their specifications stand communicated to the Chairman Purchasing Committee No 1, Govt. Medical College Srinagar through Mission Director NRHM vide his office letter No.SHS/NRHM/J&K/3352-54 dated 22.06.2012 and reminder No SHS/NRHM/J&K/7576-79 dated 02.08.2012 for issuance of Rate Contract.
3. **Deployment of Required Staff:** List of Medical Officers and Lab Technicians who underwent Training Course for three days on **“Storage of Blood and its**

**utilization”** at Blood Bank Govt. Medical College Jammu and need to be deployed in proposed BSCs stand communicated to the Director Health Services Jammu through Mission Director NRHM vide his office letter No.SHS/NRHM/J&K/7572-75 dated 02.08.2012. HOD Blood Bank Govt. Medical College Srinagar has been requested to provide the list of the trained Medical Officers and Lab Technicians to be deployed at BSCs at Kashmir division.

**The remaining BSCs of both the divisions of the state shall be visited and inspected as per the following schedule:**

BSCs at FRUs Chenani, Ramgarh, Hiranagar, Basohli, Gandoh, Thathri and Banihal of Jammu Division shall be visited and inspected by ending September, 2012.

BSCs at FRUs Bijbehra, Kokernag, Sogam, Tangdhar, Krolpora, Pampore. Uri, Khalsti, Sopore, Kreeri and Tangmarg of Kashmir division shall be visited and inspected by 15<sup>th</sup> October, 2012.

Dr T. R. Raina  
State Programme Manager  
Blood Transfusion & Lab Services