**Draft PIP – 2021-22 for Blood Services, National Health Mission, Punjab**

**Summary of the Fund Proposed for the Draft PIP- 2021-22**

|  |  |
| --- | --- |
| **Funds proposed** | **Total (in Cr.)** |
| Funds for Blood Services | 15.21 |
| Funds for Haemoglobinopathies and Haemophilia Care | 21.73 |
| **Total Fund proposed** | **36.94 Cr approx.** |

1. **Blood Services :-**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr No** | **Particulars (Blood Services)** | **Fund Proposed (in Cr.)** | **Annexures** |
| 1 | Free Blood Services in Punjab | 3.60 | Annexure I |
| 2 | Blood Collection Transportation Van (BCTV) | 1.03 | Annexure II |
| 3 | Equipment Required for Up gradation of Existing Blood Bank in to Blood Component Separation Units | 1.27777 | Annexure III |
| 4 | Pre transfusion molecular screening of donated blood for HIV, HBV and HCV | 3.78 | Annexure IV |
| 5 | Manpower for Blood Banks | 1.214 | Annexure VI |
| 6 | Frozen Red Cell | 3.25 | Annexure VII |
| 7 | Radio-Frequency Identification (RFID) | 1.05 | Annexure VIII |
| **Total Cost (In Crores)** | | **15.20177** | |

1. **Haemoglobinopathies and Haemophilia (2021-22):-**

|  |  |  |  |
| --- | --- | --- | --- |
| S.no | Particulars | Funds proposed in Rs. (Cr.) | Annexure |
| 1 | Hemophilia (Anti Hemophilia Factor),  and ICHH | 15.1238159 | A |
| 2 | Chelation Drugs and  Leuco Depletion Blood Bags | 4.9210373 | B |
| 3 | Expenditure of Reagents for HPLC machines and S. Ferritin test | 1.42 | C |
| 4 | Awareness and IEC Workshop  (Blood Services and Blood Disorders) | 0.145 | D |
| 5 | Manpower for HPLC Thalassemia Screening | 0.08832 | E |
|  | Total | **Rs. 21.73 (in Cr.) (Approx.)** |  |

**B: - Details for funds for Blood Services**

**Annexure-I**

1. **Free Blood Services in Punjab:- (6.2.7.1)**

As per the PHSC notification No. 1002 dated 31.12.2013, blood and blood components will be provided free of cost to the patients admitted in all the Public Health Institutions Punjab w.e.f. 01.01.2019. The tentative funds of Rs. 3.60 Crores required for free blood services in Punjab

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr No** | **Item** | **Total Qty** | **Unit Price** | **Total Amount** |
| 1 | Blood & its Components | 120000 | 300/- | 3.60 Cr. |

**Annexure-II**

**2. Blood Collection Transportation Van (BCTV) :- (2.1.3.1)**

There are 8 Blood Transportation Vans located at Headquarters Amritsar, Moga, Jalandhar, Bathinda, Pathankot, Patiala, Faridkot and Ludhiana. These vans are being used for transportation, collection of blood from mother blood bank to concerned blood storage centre and also used for VBD Camps. These BT Vans cover their respective districts and other attached areas also depending upon need and workload is high. As per approved PIP procurement of Two BCTVs is in process. So there is need of 2 more BCTVs to cover rest of the area of Punjab and to reduce the work load of existing 8 BT Van +2 BCT Vans as these vans are not sufficient to cover entire 22 districts of Punjab.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr No** | **Name of Item** | **No. of Distt.** | **Quantity** | **Tentative Cost (in Rs lakhs)** | **Total Cost**  **(Rs in Crores)** |
| 1 | BCTV Van | 2 | 2 | 46 | **0.92** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr No** | **Staff** | **Required No. Per BCTV** | **Total Requirement** | **Tentative Salary Per Month** | **Annual Budget of Salary (Amt. in Cr.)** |
| 1 | Medical Lab. Technician | 1 | 2 | 15000/- | 0.036 |
| 2 | Driver BCTV Van | 1 | 2 | 12000/- | 0.028 |
| 3 | Attendant | 1 | 2 | 10000/- | 0.024 |
| 4 | POL Maintenance & Insurance | 10000/- | 2 | 20000/- | 0.024 |
| **Total Amount** | | | | | **0.112 Crore** |

**Total Expenditure (in crores) - approx. 1.03 crores**

**Annexure-III**

1. **Equipment Required for Up gradation of Existing Blood Bank in to Blood Component Separation Units (6.1.2.3):**

For effective implementation of objective, rational use of blood and its component as per National Blood Policy 2006, there is a need of up gradation of existing 3 Blood Banks licensed for Whole Human Blood I.P. in to Blood Component Separation Units; the following equipments are required for the same.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 Blood Banks to be upgraded in to BCSU i.e. Abohar (3753), Mohali (Blood Bank in Newly established Medical College) (1759), and Indian Red Cross Society Ludhiana(5821) | | | | |
| **Sr. No.** | **Name of Equipment** | **Unit Price** | **Quantity** | **Total Cost**  **(in Crores)** |
| 1. 1 | Digital analytical balance | 70000 | 3 | 0.021 |
| 1. 2 | Refrigerated Centrifuge\* | 1400000 | 3 | 0.42 |
| 1. 3 | -300 C Deep freezer\* | 400000 | 3 | 0.12 |
| 1. 4 | -400 C Deep freezer\* | 400000 | 3 | 0.12 |
| 1. 5 | Laminar Air flow bench\* | 400000 | 3 | 0.12 |
| 1. 6 | Plasma expresser (Manual) | 7000 | 6 | 0.0042 |
| 1. 7 | Platelet incubator with agitator\* | 25000 | 3 | 0.0075 |
| 1. 3 | Refrigerated water bath (Cryobath) | 150000 | 3 | 0.045 |
| 1. 9 | Cell counter\* | 370000 | 3 | 0.111 |
| 1. 10 | Coagulometer\* | 100000 | 3 | 0.03 |
| 1. 11 | pH meter | 10000 | 3 | 0.003 |
| 1. 12 | Sterile Connecting Device\* | 700000 | 3 | 0.21 |
| 1. 13 | Generator 10KVA | 90000 | 3 | 0.027 |
| 1. 14 | Plasma thawing bath | 130000 | 3 | 0.039 |
|  | **Total Tentative Cost (In Crores)** | | | **1.2777** |

**Annexure-IV**

1. **Pre transfusion molecular screening of donated blood for HIV, HBV and HCV (1.1.7.7) :-**

A high technology machine may be installed at one of the Govt Medical College of Punjab to increase the highest quality standards of Transfusion Transmitted Infections (TTI) testing and reduces the window period and false negative results. The tentative expenditure to be incurred on Equipment & Reagents is as under;

**Tentative expenditure;**

* Total number of thalassemia patients = 1500 (approx.)
* Cost of Equipment = Rental
* Cost of Reagents:-
* Cost of Test= Rs 1050
* Total Cost= 3,78,00,000 (1500 \* 24\* 1050)
* **Total Tentative Cost = 3,78,00,000 = 3.78 Cr. (Approx.)**

**Annexure-VI**

1. **Manpower for Blood Banks :-**

It is submitted that the following staff is required for providing round the clock 24x7 services of blood bank for patients in public interest.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr No** | **FMR Code** | **Staff** | **Required No. Per Blood Bank** | **No. of Blood Banks** | **Salary Per Month** | **Annual Budget of Salary**  **in Crore** |
| 1 | 8.1.14.4 | MLT | 1 | 46 | 10,000/- | 0.552 |
| 2 | 8.1.14.5 | Data Entry Operator | 1 | 46 | 12,000/- | 0.662 |
|  | **Total Amount Tentative (in Crore)** | | | | | 1.214 |

**Annexure VII**

1. **Frozen Red Cell:-**

The most common approach to the freeze-preservation of red blood cells. In order to make the availability of Red Cells in all remote/distant areas of Punjab at the time of need/disaster, State of Punjab wants to initiate a new project of frozen red cell in one of the Govt. Medical College of Punjab i.e. GMC Amritsar that will also covers the adjoining districts. The tentative expenditure is as follows:-

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr No** | **FMR Code** | **Site** | **Tentative Expenditure (in Cr.)** |
| 1 | 1.1.7.3 | GMC Amritsar and its adjoining districts | 3.25 Cr. |

**Annexure VIII**

1. **Radio Frequency Identification (RFID):-**

In order to ensure safe transfusions, state of Punjab has taken new initiative to implement RFID, as it uses radio frequency tags attached to the objects to provide identification, tracking, security and other fixations.

The tentative expenditure is as follows:-

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr No** | **FMR Code** | **Site** | **Tentative Expenditure (in Cr.)** |
| 1 | 1.1.7.7 | GGSMC Faridkot and its adjoining districts | 1.05 Cr. |

1. **Description of Funds proposed for Haemoglobinopathies and Haemophilia:-**

**Annexure-A**

**Total number of patients of Haemophilia:-**

|  |  |
| --- | --- |
| **Hemophilia A** | **400 ( Adults= 326, Pediatric= 74)** |
| **Hemophilia B** | **63 (Adults= 49, Pediatric= 14)** |
| **Inhibitor patients** | **22 (Adults= 14, Pediatric= 8)** |

**Previous Year Consumption 2019-20:-**

|  |  |  |  |
| --- | --- | --- | --- |
| Punjab Factor Requirement Scenario | Total Strength of Vials consumed | As per Rate Contract , cost of per Vials | Total Expenditure (in Rs.) |
| Factor VIII | 5089500 | 8.12 | 4,13,26,740 |
| Factor IX | 12,25,200 | 10.26 | 1,25,70,552 |
| Factor VII (A) | 576 mg | 41,275.50 | 2,37,74,688 |
| FEIBA | 927 | 28350 | 2,62,80,450 |
| Emicizumab (mimic) | - | 507 | 1,20,00,000 |
| Total |  |  | 11,59,52,430 |
| 30 % Buffer Stock |  |  | 3,47,85,729 |
| **Total (6.2.7.2)** |  |  | **15,07,38,159** |

**Integrated Centre for Hemoglobinopathies and Haemophilia (6.2.7.2);**

|  |  |  |
| --- | --- | --- |
| **Total Established** | **Target** | **Total cost** |
| **19(22)** | **3** | **5 ,00,000** |

**Summary of Cost Involved:**

|  |  |
| --- | --- |
| FY | 2021-22 |
| AHF | 15,07,38,159 |
| ICHH | 5,00,000 |
| Total | **15,12,38,159** |

**Annexure- B**

**Drugs and consumables for Blood Transfusion (6.2.7.2):-**

|  |  |  |  |
| --- | --- | --- | --- |
| **Items** | **Previous Year Consumption** | **Rate Contract** | **Total Cost (in Rs)** |
| Leukodepletion Blood Bags | 22000 | 846.72 | 1,86,27,840 |
| Bed Side Filters | 5000 | 538 | 26,90,000 |
| Chelation Drugs |  |  |  |
| Deferiprone (oral dose) ( 250 mg) | 96240 | 4.58 | 4,40,780 |
| Deferiprone (500 mg) | 780900 | 7.67 | 59,89,503 |
| Deferasirox. (oral) ( 250 mg) | 210780 | 7.76 | 16,35,653 |
| Deferasirox. (oral) ( 400 mg) | 76560 | 11.09 | 8,49,050.4 |
| Deferasirox. (oral) ( 500 mg) | 657576 | 11.59 | 76,21,306 |
| Total |  |  | 3,78,54,133 |
| 30% Buffer Stock |  |  | 1,13,56,240 |
| Total |  |  | 4,92,10,373 |

**Note: - The above consumables includes both RBSK and non-RBSK patients.**

**Annexure-C**

|  |  |  |  |
| --- | --- | --- | --- |
| **Expenditure of Reagents for HPLC machines (FMR Code – 2.3.3.1)** | | | |
|  | Cost | Kits and Controls | Total Tentative cost (in Rs) |
|  | Cost of High Variant HPLC machines installed at three Govt. Medical Colleges i.e. Amritsar, Faridkot, and Patiala  1 Kit= 500 tests  Cost of 1 kit= 90972  Cost of 1 control = 26813 | 15 kits and 15 control each for three Govt. Medical Colleges, Punjab.  45 kits and 45 controls. | 1. 45 kits \* 90972 = 4093740 2. 45 controls \* 26813= 1206585 3. Total = 53,00,325 |
|  | Cost of low variant HPLC machines installed at 5 District Hospitals namely Bathinda, Ludhiana, Gurdaspur, Hoshiarpur, and Jalandhar.  1 kit = 200 tests  Cost of 1 kit= 45000  Cost of 1 control= 23940 | 10 Kits and 10 controls each for 5 District Hospitals namely Bathinda, Ludhiana, Gurdaspur, Hoshiarpur, and Jalandhar | 1. 10 kits \*45000=4,50,000 2. 10 controls \* 23940= 2,39,9400 3. Total = 6,89,400 |
|  | Serum Ferritin test | Ferritin level should be checked every month | Approx. 50,000,00 |
| 2. | 30 % Buffer stock | - | 3296917.5 of total amount |
|  | Total | | Rs. 1.42 crores (approx.) |

**Annexure-D**

**Awareness and IEC Workshop for Blood Services and Blood Disorders (11.2.2):-**

|  |  |
| --- | --- |
| **Name of the Activity** | **No/ rate in Rs** |
| Video and Audio Spots  1 Video | 1 x 600000= 6,00,000/- |
| Visual Aids  Posters 50000  Banners 1000  Pamphlets 100000 | 50000x 5 = 2,50,000/-  1000x 30 = 3,00,000/-  100000 x 1 = 1,00,000/- |
| Electronics Media AIR Two Months @ Rs 1000000/- per month | 2,00,0000/- |
| **Total** | **14,50,000/-** |

**Annexure –E**

**Manpower for HPLC Thalassemia Screening (FMR Code 8.1.14.4):-**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr No** | **Staff** | **Required No.** | **HPLC machine** | **Type of machine** | **Salary Per Month** | **Annual Budget of Salary** |
| 1. | MLT | 3 | 3 | High Variant | 9200 | 0.03312 |
| 2. | MLT | 5 | 5 | Low Variant | 9200 | 0.0552 |
|  | | **Total Amount Tentative (in Crore)** | | | | **0.08832** |

1. **HPLC Machine**

**Summary of funds proposed for Haemoglobinopathies and Haemophilia (2021-22):-**

|  |  |  |  |
| --- | --- | --- | --- |
| S.no | Particulars | Funds proposed in Rs. (Cr.) | Annexure |
| 1 | Hemophilia and Training (Anti Hemophilia Factor) | 15.1970159 | A |
| 2 | Chelation Drugs  and Leuco Depletion Blood Bags | 4.9210373 | B |
| 4 | Expenditure of Reagents for HPLC machines: and Training of Thalassemia | 1.42 | C |
| 5 | Awareness and IEC Workshop  (Blood Services and Blood Disorders) | 0.75 | D |
| 6. | Manpower for HPLC Thalassemia Screening | 0.8832 | E |
|  | Total | Rs. (in Cr.) (Approx.) | |

**Collection more than 3000= 27**

Equipment Cost = 30.00 Lacs

Total = 8.10 (in Cr.)

Test = Rs. 350

Total Collection = 199962 \* 350

= 7.00 Cr. (Approx.)

Total Cost = Total Equipment Cost + Total Collection cost

= 8, 10, 00,000+ 6, 99, 86,700