

NATIONAL HEALTH MISSION – BLOOD CELL

Note and Justification for PIP proposal for the FY 2022-24

1. State is Providing blood services through 172 Blood Banks and 175 Blood Storage Units. Details are as follows

Type of facility	Total Facilities	Blood Bank	Blood Storage Centre
TH	12	14	---
DH	14	14	---
SDH	28	21	07
CHC	195	02	168
Private	---	121	---
Total		172	175

2. It is proposed to upgrade the 7 blood storage units into blood banks in Sub District Hospitals and 10 blood banks in District Hospitals upgrade to blood bank with components.
3. In the state, a total of 13 Blood Collection & Transportation Vans (BCTV) are available to encourage the voluntary blood donation. As on date 82% of Voluntary blood donations are achieved.
4. During 2021-22, 4 ICHH (Integrated Centres for Hemoglobinopathies & Haemophilia) are approved. Tender process completed for procurement and establishment will be complete by 31.03.2022.

Name of the Programme : Blood Cell

Name of the Scheme/Activity : 146.Screening for blood disorders

S. No	Activity	ROP Approval 2021-22	Proposals 2022-23	Proposals 2023-24	Cost Breakup										
1	DBT	NIL	NIL	NIL	NIL										
2	Infrastructure - Civil works (I&C)	NIL	NIL	NIL	NIL										
3	Equipment (Including Furniture, Excluding Computers)	NIL	NIL	NIL	NIL										
4	Drugs and supplies	NIL	NIL	NIL	NIL										
5	Diagnostics (Consumables, PPP, Sample Transport)	160.00	130.00	130.00	<p>2022-23 Proposing budget for recurring reagents and consumables for screening of blood disorders (i.e., Thalassemia, sickle cell anaemia and haemophilia disorders) for 4 ICHH (Integrated Centres for Hemoglobinopathies and Haemophilia) diagnostic centres established this year in the state, at Rs.32,50,000x4= Rs.1,30,00,000/- per year.</p> <table border="1"> <thead> <tr> <th colspan="2">Hemophilia-Reagents</th> </tr> <tr> <th>S No</th> <th>Particulars</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Cuvette FL Complete (1 pack/500)</td> </tr> <tr> <td>2</td> <td>Standard Human Plasma (10 x 1ml)</td> </tr> <tr> <td>3</td> <td>Control Plasma (10 x 1 ml)</td> </tr> </tbody> </table>	Hemophilia-Reagents		S No	Particulars	1	Cuvette FL Complete (1 pack/500)	2	Standard Human Plasma (10 x 1ml)	3	Control Plasma (10 x 1 ml)
Hemophilia-Reagents															
S No	Particulars														
1	Cuvette FL Complete (1 pack/500)														
2	Standard Human Plasma (10 x 1ml)														
3	Control Plasma (10 x 1 ml)														

					<table border="1"> <tbody> <tr><td>4</td><td>PT reagent (10 x 4 ml)</td></tr> <tr><td>5</td><td>APTT reagent (10 x 2 ml)</td></tr> <tr><td>6</td><td>Calcium Chloride Solution (10 x 15 ml)</td></tr> <tr><td>7</td><td>Coagulation Factor VIII deficient Plasma</td></tr> <tr><td>8</td><td>Coagulation Factor IX deficient Plasma</td></tr> <tr><td>9</td><td>3.2% Tri Sodium Citrate (1 x 20 ml) Profact</td></tr> <tr><td>10</td><td>Dade Owner's Vernal Buffer</td></tr> <tr><td>11</td><td>Test Thrombin Reagent</td></tr> <tr><td>12</td><td>Fibrinogen Determination</td></tr> <tr><td>13</td><td>Test Tube 12 x 100 mm (1 box/400)</td></tr> <tr><td>14</td><td>Test Tube 12 x 75 mm (1 box/400)</td></tr> <tr><td>15</td><td>Test Tube 10 x 75 mm (1 box/400)</td></tr> <tr><td>16</td><td>Microtips 2-200ul (1 pack of 1000 nos)</td></tr> <tr><td>17</td><td>Microtips 200-1000ul (1 pack of 500 nos)</td></tr> <tr><td>18</td><td>Filter Paper No.1 12.5cm (100/pkt)</td></tr> <tr><td></td><td></td></tr> <tr><td></td><td>Thalassemia & Sickle cell anemia –Reagents</td></tr> <tr><td>S No</td><td>Particulars</td></tr> <tr><td>19</td><td>HPLC reagent cost per one patient Rs.400/-</td></tr> <tr><td>20</td><td>Bio-Chemistry Analyzer reagent cost per one patient Rs.400/-</td></tr> <tr><td>21</td><td>Cell Counter Reagent (5ltr can)</td></tr> <tr><td>22</td><td>Elisa reader with washer Reagent with serum ferritin</td></tr> </tbody> </table>	4	PT reagent (10 x 4 ml)	5	APTT reagent (10 x 2 ml)	6	Calcium Chloride Solution (10 x 15 ml)	7	Coagulation Factor VIII deficient Plasma	8	Coagulation Factor IX deficient Plasma	9	3.2% Tri Sodium Citrate (1 x 20 ml) Profact	10	Dade Owner's Vernal Buffer	11	Test Thrombin Reagent	12	Fibrinogen Determination	13	Test Tube 12 x 100 mm (1 box/400)	14	Test Tube 12 x 75 mm (1 box/400)	15	Test Tube 10 x 75 mm (1 box/400)	16	Microtips 2-200ul (1 pack of 1000 nos)	17	Microtips 200-1000ul (1 pack of 500 nos)	18	Filter Paper No.1 12.5cm (100/pkt)				Thalassemia & Sickle cell anemia –Reagents	S No	Particulars	19	HPLC reagent cost per one patient Rs.400/-	20	Bio-Chemistry Analyzer reagent cost per one patient Rs.400/-	21	Cell Counter Reagent (5ltr can)	22	Elisa reader with washer Reagent with serum ferritin
4	PT reagent (10 x 4 ml)																																																
5	APTT reagent (10 x 2 ml)																																																
6	Calcium Chloride Solution (10 x 15 ml)																																																
7	Coagulation Factor VIII deficient Plasma																																																
8	Coagulation Factor IX deficient Plasma																																																
9	3.2% Tri Sodium Citrate (1 x 20 ml) Profact																																																
10	Dade Owner's Vernal Buffer																																																
11	Test Thrombin Reagent																																																
12	Fibrinogen Determination																																																
13	Test Tube 12 x 100 mm (1 box/400)																																																
14	Test Tube 12 x 75 mm (1 box/400)																																																
15	Test Tube 10 x 75 mm (1 box/400)																																																
16	Microtips 2-200ul (1 pack of 1000 nos)																																																
17	Microtips 200-1000ul (1 pack of 500 nos)																																																
18	Filter Paper No.1 12.5cm (100/pkt)																																																
	Thalassemia & Sickle cell anemia –Reagents																																																
S No	Particulars																																																
19	HPLC reagent cost per one patient Rs.400/-																																																
20	Bio-Chemistry Analyzer reagent cost per one patient Rs.400/-																																																
21	Cell Counter Reagent (5ltr can)																																																
22	Elisa reader with washer Reagent with serum ferritin																																																
					2023-24 Same as above (i.e., 2022-23)																																												
6	Capacity building incl. training	NIL	NIL	NIL	NIL																																												
7	ASHA incentives	NIL	NIL	NIL	NIL																																												

8	Others including operating costs(OOC)	NIL	NIL	NIL	NIL
9	IEC & Printing	NIL	NIL	NIL	NIL
10	Planning & M&E	NIL	NIL	NIL	NIL
11	Surveillance, Research, Review, Evaluation (SRRE)	NIL	NIL	NIL	NIL

Name of the Programme : Blood Cell

Name of the Scheme/Activity : 147. Support for Blood transfusion

S. No	Activity	ROP Approval 2021-22	Proposals 2022-23	Proposals 2023-24	Cost Breakup
1	DBT	NIL	NIL	NIL	NIL
2	Infrastructure - Civil works (I&C)	NIL	NIL	NIL	NIL
3	Equipment (Including Furniture, Excluding Computers)	NIL	NIL	NIL	NIL
4	Drugs and supplies	NIL	NIL	NIL	NIL
5	Diagnostics (Consumables, PPP, Sample Transport)	NIL	NIL	NIL	NIL

6	Capacity building incl. training	NIL	NIL	NIL	NIL																														
7	ASHA incentives	NIL	NIL	NIL	NIL																														
8	Others including operating costs(OOC)	NIL	NIL	NIL	NIL																														
9	IEC & Printing	10.50	10.50	11.00	<p>2022-23 IEC/BCC activities under blood services and disorders, for printing of Posters on Blood disorders, Blood donation and radio spots on blood services.</p> <table border="1"> <thead> <tr> <th>S No</th> <th>Particulars</th> <th>Proposed Unit</th> <th>Unit Cost (Rs.)</th> <th>Total (In Lakhs)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Posters on Blood disorders and Blood donation (A4 Size) in Multi color</td> <td>15000</td> <td>10</td> <td>150000</td> </tr> <tr> <td>2</td> <td>Pamphlets on Voluntary Blood Donation (in Multi color)</td> <td>100000</td> <td>5</td> <td>500000</td> </tr> <tr> <td>3</td> <td>Radio spots (for 30 sec each) at Vijayawada, Visakhapatnam, Kadapa, Anantapur, Kurnool, Markapur and Tirupati stations.</td> <td>200</td> <td>2000</td> <td>400000</td> </tr> <tr> <td colspan="4" style="text-align: right;">Total Budget</td> <td>1050000</td> </tr> </tbody> </table> <p>2023-24 IEC/BCC activities under blood services and disorders, for printing of Posters on Blood disorders, Blood donation and radio spots on blood services.</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Particulars</th> <th>Proposed Unit</th> <th>Unit Cost(Rs)</th> <th>Total(In Lakhs)</th> </tr> </thead> </table>	S No	Particulars	Proposed Unit	Unit Cost (Rs.)	Total (In Lakhs)	1	Posters on Blood disorders and Blood donation (A4 Size) in Multi color	15000	10	150000	2	Pamphlets on Voluntary Blood Donation (in Multi color)	100000	5	500000	3	Radio spots (for 30 sec each) at Vijayawada, Visakhapatnam, Kadapa, Anantapur, Kurnool, Markapur and Tirupati stations.	200	2000	400000	Total Budget				1050000	S.No	Particulars	Proposed Unit	Unit Cost(Rs)	Total(In Lakhs)
S No	Particulars	Proposed Unit	Unit Cost (Rs.)	Total (In Lakhs)																															
1	Posters on Blood disorders and Blood donation (A4 Size) in Multi color	15000	10	150000																															
2	Pamphlets on Voluntary Blood Donation (in Multi color)	100000	5	500000																															
3	Radio spots (for 30 sec each) at Vijayawada, Visakhapatnam, Kadapa, Anantapur, Kurnool, Markapur and Tirupati stations.	200	2000	400000																															
Total Budget				1050000																															
S.No	Particulars	Proposed Unit	Unit Cost(Rs)	Total(In Lakhs)																															

						1	Posters on Blood disorders and Blood donation (A4 Size) in Multi color	20000	10	200000
						2	Pahmlet on Voluntry Blood Donation(in Multi color)	100000	5	500000
						3	Radio spots (for 30 sec each) at Vijayawada, Visakhapatnam, Kadapa, Anantapur, Kurnool, markapur and Tirupati stations	200	2000	400000
							Total Budget			1100000
10	Planning & M&E	NIL	NIL	NIL	NIL					
11	Surveillance, Research, Review, Evaluation (SRRE)	NIL	NIL	NIL	NIL					

Name of the Programme : Blood Cell

Name of the Scheme/Activity : 148. Blood Bank/BCSU/BSU/Day Care Centre

S. No	Activity	ROP Approval 2021-22	Proposals 2022-23	Proposals 2023-24	Cost Breakup
1	DBT	NIL	NIL	NIL	NIL

2	Infrastructure - Civil works (I&C)	NIL	NIL	NIL	NIL																																																				
3	Equipment (Including Furniture, Excluding Computers)	1529.57	1024.20	0	<p>2022-23</p> <p>New activity proposing, 1. for establishment of BSU at 25 CHCs where blood services are not available (at Rs.5,65,450/- per each unit)</p> <table border="1"> <thead> <tr> <th>S No</th> <th>Equipment name</th> <th>Unit cost</th> <th>total cost</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Solar IL Refrigerator</td> <td>399950</td> <td>9998750</td> </tr> <tr> <td>2</td> <td>Domestic refrigerator</td> <td>87500</td> <td>2187500</td> </tr> <tr> <td>3</td> <td>Colorimeter</td> <td>14000</td> <td>350000</td> </tr> <tr> <td>4</td> <td>Centrifuge</td> <td>46000</td> <td>1150000</td> </tr> <tr> <td>5</td> <td>Binocular Microscope</td> <td>18000</td> <td>450000</td> </tr> <tr> <td></td> <td>Total</td> <td>565450</td> <td>14136250</td> </tr> </tbody> </table> <p>2. New activity proposing for upgradation of BSU to blood bank in 7 Area Hospitals. (at Rs.19,30,200/- per each unit)</p> <table border="1"> <thead> <tr> <th>S No</th> <th>Equipment name</th> <th>Unit cost</th> <th>total cost</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tube sealer, stripper with cutter</td> <td>1,74,000</td> <td>1218000</td> </tr> <tr> <td>2</td> <td>Tabletop centrifuge</td> <td>46,000</td> <td>644000</td> </tr> <tr> <td>3</td> <td>Blood Bank (2-6 deg) refrigerator</td> <td>3,19,900</td> <td>4478600</td> </tr> <tr> <td>4</td> <td>donor couch</td> <td>2,40,000</td> <td>3360000</td> </tr> <tr> <td>5</td> <td>Autoclave</td> <td>1,59,300</td> <td>1115100</td> </tr> </tbody> </table>	S No	Equipment name	Unit cost	total cost	1	Solar IL Refrigerator	399950	9998750	2	Domestic refrigerator	87500	2187500	3	Colorimeter	14000	350000	4	Centrifuge	46000	1150000	5	Binocular Microscope	18000	450000		Total	565450	14136250	S No	Equipment name	Unit cost	total cost	1	Tube sealer, stripper with cutter	1,74,000	1218000	2	Tabletop centrifuge	46,000	644000	3	Blood Bank (2-6 deg) refrigerator	3,19,900	4478600	4	donor couch	2,40,000	3360000	5	Autoclave	1,59,300	1115100
S No	Equipment name	Unit cost	total cost																																																						
1	Solar IL Refrigerator	399950	9998750																																																						
2	Domestic refrigerator	87500	2187500																																																						
3	Colorimeter	14000	350000																																																						
4	Centrifuge	46000	1150000																																																						
5	Binocular Microscope	18000	450000																																																						
	Total	565450	14136250																																																						
S No	Equipment name	Unit cost	total cost																																																						
1	Tube sealer, stripper with cutter	1,74,000	1218000																																																						
2	Tabletop centrifuge	46,000	644000																																																						
3	Blood Bank (2-6 deg) refrigerator	3,19,900	4478600																																																						
4	donor couch	2,40,000	3360000																																																						
5	Autoclave	1,59,300	1115100																																																						

						6	Elisa reader washer	2,94,000	2058000																												
						7	blood collection monitor	1,51,500	4242000																												
						8	Incubator	1,12,500	787500																												
						9	water bath	93,000	651000																												
						10	hot air oven	96,000	672000																												
						11	cell counter -3 part	1,88,000	1316000																												
						12	weighing machine	1,500	10500																												
						13	Hemoglobinometer	500	3500																												
						14	pH meter	54,000	378000																												
							Total	19,30,200	20934200																												
						<p>3. New activity proposing for upgradation of blood banks to blood bank with components in 10 District Hospitals (at Rs.67,35,000/- per each unit)</p> <table border="1"> <thead> <tr> <th>S No</th> <th>Equipment name</th> <th>Unit cost</th> <th>total cost</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>minus (-)40 Deep Freezer</td> <td>470000</td> <td>4700000</td> </tr> <tr> <td>2</td> <td>minus (-)80 Deep Freezer</td> <td>680000</td> <td>6800000</td> </tr> <tr> <td>3</td> <td>Laminar Air Flow Bench</td> <td>190000</td> <td>1900000</td> </tr> <tr> <td>4</td> <td>Plasma expresser (manual)</td> <td>90000</td> <td>900000</td> </tr> <tr> <td>5</td> <td>Plasma expresser (Automated)</td> <td>2500000</td> <td>25000000</td> </tr> <tr> <td>6</td> <td>Platelet incubator with agitator</td> <td>250000</td> <td>2500000</td> </tr> </tbody> </table>				S No	Equipment name	Unit cost	total cost	1	minus (-)40 Deep Freezer	470000	4700000	2	minus (-)80 Deep Freezer	680000	6800000	3	Laminar Air Flow Bench	190000	1900000	4	Plasma expresser (manual)	90000	900000	5	Plasma expresser (Automated)	2500000	25000000	6	Platelet incubator with agitator	250000	2500000
S No	Equipment name	Unit cost	total cost																																		
1	minus (-)40 Deep Freezer	470000	4700000																																		
2	minus (-)80 Deep Freezer	680000	6800000																																		
3	Laminar Air Flow Bench	190000	1900000																																		
4	Plasma expresser (manual)	90000	900000																																		
5	Plasma expresser (Automated)	2500000	25000000																																		
6	Platelet incubator with agitator	250000	2500000																																		

						7	Refrigerated water bath (Cryobath)	180000	1800000	
						8	Coagulometer	185000	1850000	
						9	Blood Bank (2-6 deg) refrigerator	190000	1900000	
						10	Refrigerator Centrifuge	2000000	20000000	
							Total	6735000	67350000	
4	Drugs and supplies	NIL	NIL	NIL	NIL					
5	Diagnostics (Consumables, PPP, Sample Transport)	NIL	NIL	NIL	NIL					
6	Capacity building incl. training	NIL	NIL	NIL	NIL					
7	ASHA incentives	NIL	NIL	NIL	NIL					
8	Others including operating costs(OOC)	0	200.00	200.00	2022-23 Proposing a lump sum of Rs.200.00 lakhs for strengthen of the blood services facilities in Govt. hospitals established previously for maintenance and operational cost of the equipment. 2023-24 Proposing a lump sum of Rs.200.00 lakhs for strengthen of the blood services facilities in Govt. hospitals established previously for maintenance and operational cost of the equipment.					
9	IEC & Printing	NIL	NIL	NIL	NIL					
10	Planning & M&E	NIL	NIL	NIL	NIL					
11	Surveillance, Research, Review,	NIL	NIL	NIL	NIL					

Evaluation (SRRE)				
-------------------	--	--	--	--

Name of the Programme : Blood Cell

Name of the Scheme/Activity : 149. Blood collection and Transport Vans

S. No	Activity	ROP Approval 2021-22	Proposals 2022-23	Proposals 2023-24	Cost Breakup
1	DBT	NIL	NIL	NIL	NIL
2	Infrastructure - Civil works (I&C)	NIL	NIL	NIL	NIL
3	Equipment (Including Furniture, Excluding Computers)	NIL	NIL	NIL	NIL
4	Drugs and supplies	NIL	NIL	NIL	NIL
5	Diagnostics (Consumables, PPP, Sample Transport)	NIL	NIL	NIL	NIL
6	Capacity building incl. training	NIL	NIL	NIL	NIL
7	ASHA incentives	NIL	NIL	NIL	NIL
8	Others including operating costs(OOC)	16.80	46.80	46.80	2022-23 Ongoing Activity, being continued and proposing for 13 vehicles, @ Rs.30000 per vehicle per month for 13 Blood Collection and transportation vans for 12 months (Rs.30000x12x13=46,80,000) 2023-24 Same as above (2022-23)
9	IEC & Printing	NIL	NIL	NIL	NIL

10	Planning & M&E	NIL	NIL	NIL	NIL
11	Surveillance, Research, Review, Evaluation (SRRE)	NIL	NIL	NIL	NIL

Name of the Programme : Blood Cell

Name of the Scheme/Activity : 150. Other Blood Services & Disorders Components

S. No	Activity	ROP Approval 2021-22	Proposals 2022-23	Proposals 2023-24	Cost Breakup
1	DBT	NIL	NIL	NIL	NIL
2	Infrastructure - Civil works (I&C)	NIL	NIL	NIL	NIL
3	Equipment (Including Furniture, Excluding Computers)	NIL	NIL	NIL	NIL
4	Drugs and supplies	1580.89	1749.67	1907.88	2022-23 Drugs and supplies for blood related disorders Hemoglobinopathies and Haemophilia. 1. Provision of leuko filters for 2912 thalassemia&sickle cell anaemia patients requiring blood transfusions every month for 1 year per filter sets with a cost of Rs.349.44 lakhs 2. Medicines for thalassemia&sickle cell anemia patients desferrioxamine 500, deferiprone, Deferasirox-(FCT), folic acid, calcium 500, BT sets, cannula fixer, IV cannula, Total 2912 thalassemia & sickle cell anaemia patients with cost of Rs.412.33 lakhs and monoclonal antibody for P-selectin inhibition for sickle cell disease patients @Rs.200.00 lakhs 3. A new proposal as pilot for Extended Half Life factors for VIII (60ptsx5000x15) & IX (25ptsx5000x40) @Rs.95.00

					<p>lakhs and</p> <p>4. provision of Anti hemophilic factors, for factor VIII cases 1225 (1225x5000iux9) @Rs.551.25 lakhs, factor IX cases 218 (218x6000iux11) @Rs.143.88 lakhs, VWF cases 177 (177x4000iux6) @Rs.42.48 lakhs, factor VII & inhibitors cases 69 (69x10mgx44165) @Rs.304.73 lakhs a total haemophilia drugs cost of Rs.1137.34 lakhs.</p> <p>2023-24</p> <p>1. Provision of leuko filters for 2912 thalassemia&sickle cell anaemia patients requiring blood transfusions every month for 1 year per filter sets with a cost of Rs.349.44 lakhs</p> <p>2. Medicines for thalassemia&sickle cell anemia patients desferrioxamine 500, deferiprone, Deferasirox-(FCT), folic acid, calcium 500, BT sets, cannula fixer, IV cannula, Total 2912 thalassemia & sickle cell anaemia patients with cost of Rs.412.33 lakhs and monoclonal antibody for P-selectin inhibition for sickle cell disease patients @Rs.200.00 lakhs</p> <p>3. A new proposal as pilot for Extended Half Life factors for VIII (60ptsx5000x15) & IX (25ptsx5000x40) @Rs.95.00 lakhs and</p> <p>4. factor VIII cases 1225 (1225x6000iux9) @Rs.661.50 lakhs, factor IX cases 218 (218x8000iux11) @Rs.191.84 lakhs, VWF cases 177 (177x4000iux6) @Rs.42.48 lakhs, factor VII &inhibitors cases 69 (69x10mgx44165) @Rs.304.73 lakhs total hemophilia drugs of Rs.1200.55 lakhs, total haemophilia drugs cost for Rs.1295.55 lakhs</p>
5	Diagnostics (Consumables, PPP, Sample Transport)	NIL	NIL	NIL	NIL
6	Capacity building incl. training	NIL	NIL	NIL	NIL

7	ASHA incentives	NIL	NIL	NIL	NIL
8	Others including operating costs(OOC)	NIL	NIL	NIL	NIL
9	IEC & Printing	NIL	NIL	NIL	NIL
10	Planning & M&E	NIL	NIL	NIL	NIL
11	Surveillance, Research, Review, Evaluation (SRRE)	NIL	NIL	NIL	NIL

Submitted,