**PROPOSAL FOR FREE DIAGNOSTIC INITIATIVE SERVICES, 2020-2021**

Free Diagnostic Initiative programme was implemented in Mizoram in 2016. Due to limited resources, it was rolled out only in Mamit DH during FY 2018-19. In FY 2019-20, the programme was expanded to cover all public health facilities in Mamit district.

The objective of this programme is to ensure availability of basic diagnostic services in public health facilities for smooth delivery of healthcare and also reduce high out of pocket expenditure on diagnostics. Since the existing health insurance schemes in the state do not cover the expenses for outdoor patients, the out of pocket expenditure of outdoor patients is not met. In order to cover these drawbacks, it is essential that basic diagnostic services are available in all public health facilities.

Proposal is prepared to cover the essential pathological diagnostic requirements of 9 Community Health Centres, 9 District Hospitals and 2 Sub District Hospitals. For financial year 2020-21, proposal for Pathological diagnostics for Sub Centres and PHCs are not included under Free Diagnostic Initiative Programme as diagnostic requirements of these facilities will be provided under Health and Wellness Programme.

Proposal for Radiological consumables for 20 PHCs, 9 CHCs, 9 DH and 2 SDH is also included. Out of the total 57 PHCs, there are only 20 PHCs with fully functional X-ray machines. To start implementing this programme within the whole of Mizoram, a larger financial aid is needed to supply free diagnostic services.

Proposal for provision of Anti rabies vaccine and Anti rabies Serum to District Hospitals is also included as directed by the Ministry.

The proposed amount for purchase of essential diagnostics under Free Diagnostic Initiative for FY 2020-21 is **Rs**. **97.14 lakhs**

**Public Health Facilities in Mizoram**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/No** | **Name of District** | **Population** | **No of District Hospital** | **No of CHC** | **No of PHC** | **No of Sub Centre** |
| 1 | Aizawl East | 274340 | 1 | 2 | 6 | 57 |
| 2 | Aizawl West | 188282 | 1 | 0 | 6 | 37 |
| 3 | Champhai | 149887 | 1 | 2 | 11 | 59 |
| 4 | Kolasib | 92270 | 1 | 1 | 5 | 26 |
| 5 | Lawngtlai | 140822 | 1 | 1 | 5 | 37 |
| 6 | Lunglei | 161600 | 1 | 1 | 9 | 70 |
| 7 | Mamit | 95700 | 1 | 1 | 6 | 33 |
| 8 | Saiha | 66478 | 1 | 0 | 4 | 24 |
| 9 | Serchhip | 70486 | 1 | 1 | 5 | 27 |
| 10 | **TOTAL** | **1239865** | **9** | **9** | **57** | **370** |

**1**. **Estimated cost of Essential Diagnostics for Community Health Centre**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Diagnostics** | **Cost of 1 unit in Rupees**  **(A)** | **Requirement for 1 CHC**  **(B)** | **Total Cost in Rupees**  **(A)\*(B)=(C)** |
| 1 | Drabkin’s solution | 400/1L | 1 Litre | 400 |
| 2 | Test tube | 649 / 100 pieces | 1 box (100 pieces) | 649 |
| 3 | Micropipette | 35/piece (5-50microL) | 1 box (100 pieces) | 35 |
| 4 | Calorimeter | 7500 | 1 no | 7500 |
| 5 | Counting chamber | 580 | 1 no | 580 |
| 6 | TLC Diluting Fluid | 125/500ml | 2 bottles | 250 |
| 7 | Glass slide | 68 (50 Slides /pack) | 5 pack | 340 |
| 8 | Cover slip | 85 (8X8mm)/100 pc | 1 box | 85 |
| 9 | Cover slip | 85 (22x50mm)/100/box | 1 box | 85 |
| 10 | Pipette | 104 (5ml) | 5 boxes | 520 |
| 11 | DLC Diluting fluid | 125/500ml | 2 bottles | 250 |
| 12 | Leishman’s stain | 570 /25g | 2 bottles | 1140 |
| 13 | Methanol | 830 /2.5L | 2 bottles | 1660 |
| 14 | Oil Immersion | 1740/125ml | 2 bottles | 3480 |
| 15 | Platelet Diluting Fluid | 100/125ml | 3 bottles | 300 |
| 16 | Reagent (Uniplastin) | 572 /5 ml | 2 nos | 1144 |
| 17 | ESR pipette (Disposable) | 620 /100 pieces | 1 box (100 pc) | 620 |
| 18 | ESR stand | 200 | 1 no | 200 |
| 19 | Lancet | 150/200 pieces | 1 box (200 pieces) | 150 |
| 20 | Filter Paper | 80/100 sheets | 1 box (100 sheets) | 80 |
| 21 | Blood Group Reagent | 475 (3x10ml) | 2 nos | 950 |
| 22 | RBC Diluting fluid | 125/500ml | 2 bottles | 250 |
| 23 | Potassium oxalate solution | 290/500ml | 1 bottle | 290 |
| 24 | Ammonium oxalate solution | 300/500ml | 1 bottle | 300 |
| 25 | Distilled water | 200/5L | 5 Litre | 1000 |
| 26 | Wintrobe’s tube | 6/pc | 10 pieces | 60 |
| 27 | Blood Urea Reagent | 615 (6x100 ml) | 3 nos | 1845 |
| 28 | Serum Creatinine Reagent | 640 (2x50 ml) | 3 nos | 1920 |
| 29 | Serum Bilirubin (Total & Direct) Reagent | 553 (75 ml) | 5 nos | 2765 |
| 30 | SGOT Reagent | 250/5ml | 5 nos | 1250 |
| 31 | SGPT Reagent | 250/5ml | 5 nos | 1250 |
| 32 | S. Alkaline Phosphatase Reagent | 432 (75 ml) | 5 nos | 2160 |
| 33 | S. Total Protein Reagent | 298 (2x50 ml) | 5 nos | 1490 |
| 34 | S. Albumin Reagent | 585 (2X150 ml) | 5 nos | 2925 |
| 35 | S. Total Cholesterol Reagent | 1200 (2x250 ml) | 2 nos | 2400 |
| 36 | S. Triglyceride Reagent | 1100 (2x150 ml) | 2 nos | 2200 |
| 37 | S. HDL Reagent | 230 (160 ml) | 2 nos | 460 |
| 38 | S. LDL Reagent | 1850/50ml | 2 nos | 3700 |
| 39 | S. Amylase Reagent | 2129 (2x10 ml) | 3 nos | 6387 |
| 40 | Rapid Plasma Reagin  (RPR) Kit Test | 250/100 tests | 1 box (100 kits) | 250 |
| 41 | Dengue Rapid Test Kit | 2100 (10 tests) | 1 box (10 kits) | 2100 |
| 42 | Urine Pregnancy Test | 8.5/piece | 100 kits | 850 |
| 43 | Routine Urine Test -Uristix | 135 /100 strips | 1 box (100 strips) | 135 |
|  | | | **TOTAL** | **56405** |

Estimated cost of Essential Diagnostics for 1 CHC= Rs. **56405**

**Proposed cost of Essential Diagnostics for 9 CHCs = Rs. 507645**

2. **Estimated cost of Essential Diagnostics for District Hospital/Sub District Hospital**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Drabkin’s solution | 400/1 Litre | 1 litres | 400 |
| 2 | Test tube | 649 (12x100 mm)/ 100 pieces | 1 box (100 pieces) | 649 |
| 3 | Micropipette | 35 (5-50microL) | 1 box (100 pices) | 3500 |
| 4 | Micropipette | 35 (100-1000microL) | 1 box | 3500 |
| 5 | ESR pipette (Disposable) | 620/100 pieces | 1 box (100 pieces) | 620 |
| 6 | ESR stand | 200 | 1 no | 200 |
| 7 | Glass slide | 68 (50 Slides /pack) | 5pack | 340 |
| 8 | Oil immersion | 1740/125ml | 2 nos | 3840 |
| 9 | Blood Group Reagent | 475 (3x10ml) | 10 nos | 4750 |
| 10 | Reagent (Uniplastin) | 572 /5 ml | 3 bottles | 1716 |
| 11 | Cover slip | 85 (8X8mm) | 1 box | 85 |
| 12 | Cover slip | 85 (22x50mm)/100/box | 1 box | 85 |
| 13 | Giemsa powder | 635/25g | 10 nos | 6350 |
| 14 | Methanol | 275 /500ml | 10 bottles | 2750 |
| 15 | Papanicolaou stain | 2000/pack | 1 pack | 2000 |
| 16 | India ink | 1140 /23ml | 1 bottles | 1140 |
| 17 | ZN stain | 600/piece | 5 pieces | 3000 |
| 18 | Glucose Kit | 900 (5x100ml) | 3 bottles | 2700 |
| 19 | Micro protein | 715 (1x50ml) | 3 bottles | 2145 |
| 20 | Blood Urea Reagent | 615 (6x100 ml) | 10 bottles | 6150 |
| 21 | Serum Creatinine Reagent | 640 (2x50 ml) | 10 bottles | 6400 |
| 22 | Serum Bilirubin (Total & Direct) Reagent | 553 (75 ml) | 10 bottles | 5530 |
| 23 | SGOT Reagent | 250/5ml | 10 bottles | 2500 |
| 24 | SGPT Reagent | 250/5ml | 10 bottles | 2500 |
| 25 | Serum Alkaline Phosphatase  Reagent | 432 (75 ml) | 10 bottles | 4320 |
| 26 | Serum Total Protein  Reagent | 298 (2x50 ml) | 10 bottles | 2980 |
| 27 | Serum Albumin  Reagent | 585 (2X150 ml) | 10 bottles | 5950 |
| 28 | Serum Calcium  Reagent | 690 (2x75 ml) | 3 bottles | 2070 |
| 29 | Troponin I | 2380 (10 tests) | 2 boxes | 4760 |
| 30 | Serum LDH  Reagent | 600/pack | 5 packs | 3000 |
| 31 | Serum Amylase  Reagent | 2129 (2x10 ml) | 10 bottles | 21290 |
| 32 | Serum Uric Acid  Reagent | 430 (5x25 ml) | 10 bottles | 4300 |
| 33 | Serum Total Cholesterol  Reagent | 1200 (2x250 ml) | 10 bottles | 12000 |
| 34 | Serum Triglyceride Reagent | 1100 (2x150 ml) | 5 bottles | 5500 |
| 35 | Serum HDL  Reagent | 230 (160 ml) | 10 bottles | 2300 |
| 36 | Serum LDL  Reagent | 1850/50ml | 10 bottles | 18500 |
| 37 | TSH Reagent | 4439 | 1 box | 4439 |
| 38 | RPR Digital Centrifuge Machine | 350 | 1 no | 350 |
| 39 | Pipette | 7 (20/box) | 20 boxes | 140 |
| 40 | RPR test kit | 250/100 tests | 2 boxes | 500 |
| 41 | Shaker machine | 4000 | 1 no | 4000 |
| 42 | Dengue Rapid Test | 2100 /10 tests | 1 box | 2100 |
| 43 | Rheumatoid Factor | 770/ box | 2 boxes | 1540 |
| 44 | Anti Streptolysin Factor | 1386 (100 tests/box) | 1 box | 1386 |
| 45 | HBsAg (Rapid) test | 1400 (100 tests/box) | 1 box | 1400 |
| 46 | Serum CRP | 1232 / box | 1 box | 1232 |
| 47 | Petridish | 79/piece (90x17mm) | 10 pieces | 790 |
| 48 | Mueller Hinton Agar | 3205/500g | 1 no | 3205 |
| 49 | Blood Agar | 2884/ 500g | 2 no | 5768 |
| 50 | Mac Conkey Agar | 3080/ 500g | 2 no | 6160 |
| 51 | Antibiotic Disc | 350/ cartridge | 10 | 3500 |
| 52 | Uristix | 135 /100 strips | 2 boxes | 270 |
| 53 | Urine Pregnancy Test | 8.5 | 200 | 1700 |
| 54 | Urine vial | 11 | 50 | 550 |
|  | | | **TOTAL** | **188850** |

Estimated cost of Essential Diagnostics for 1 DH and SDH= Rs. 188850

**Proposed cost of Essential Diagnostics for 9 DH and 2 SDH = Rs. 2077350**

**3. Proposed estimate for radiological diagnostics for PHCs, CHCs, DH and SDH**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No** | **Items** | **Rate per unit in Rupees** | **Requirement** | **Total amount in Rupees** |
| 1 | X- ray film (12x15 inch) | 2598 | 3 boxes | 7794 |
| 2 | X -ray film (10x12 inch) | 1734 | 3 boxes | 5202 |
| 3 | X- ray film (8x12 inch) | 1154 | 3 boxes | 3462 |
| 5 | Developer powder 1 kg | 45/Kg | 2kg | 90 |
| 6 | Fixer 1 kg | 45/Kg | 2kg | 90 |
|  | | | **TOTAL** | **Rs. 16638** |

Cost of radiological diagnostics for 1 facility= Rs.16638

**Proposed cost of radiological diagnostics for 40 facilities = Rs.6,65,520**

**4.Proposal for Anti Rabies Vaccine & Anti Rabies Serum (under free diagnostic services of NHM)**

**a. No. of ARV vials to be procured =** Total no. of animal bites per year + 10% buffer stock + wastage

= 2000 + 200+ 45

= 2245

Rate of ARV per vial = Rs. 360

**Budget for ARV =** Rs. 360 x 2245 **=** **Rs. 8,08,200**

**b. No. of ARS vials to be procured =** (Total no. of animal bites per year x 0.50) + 10% buffer stock + wastage

= (2000 x 0.50) + 100 + 20

= 1120

Rate of ARS per vial = Rs. 5050

**Budget for ARV =** Rs. 5050 x 1120 **=** **Rs. 56,56,000**

**TOTAL PROPOSAL FOR ARV & ARS = Rs. (8,08,200+ 56,56,000)**

**= Rs. 64,64,200**

**TOTAL AMOUNT PROPOSED FOR FREE PATHOLOGICAL AND RADIOLOGICAL DIAGNOSTICS FOR 2020-21**

|  |  |
| --- | --- |
| Proposed amount for 9 Community Health Centres | **Rs. 5.07** |
| Proposed amount for 9 District Hospitals and 2 Sub District Hospitals | **Rs. 20.77** |
| Proposal for free radiological diagnostics | **Rs. 6.65** |
| Proposal for ARV and ARS | **Rs.64.64** |
| **TOTAL AMOUNT PROPOSED** | **Rs. 97.14** |