

**Operational Guidelines for  
Establishment of Burn Units  
in District Hospitals under  
National Programme for  
Prevention & Management of  
Burn Injuries (NPPMBI)- 12<sup>th</sup>  
Five Year Plan**

## **Executive Summary**

Burn Injury is potentially a big Public Health Problem. In fact, more people die due to burn injury than Malaria and Tuberculosis. In India alone, around 7 million persons suffer from burn injury, out of which, 7 lakh need hospital admission and 2.4 lakh become disabled. As per the data extrapolated from the information received from three major Government Hospitals in Delhi, approximately 1.4 lakh people die of burn injuries annually. This comes to one death every 4 minutes due to burns; however, burn injury is mostly unrecognized in our country. Only media reports highlight cases during Diwali festivals, bride burning cases and chemical burn injuries due to acid/alkali attacks.

Moreover, no treatment facilities specific for burn injury are available in most parts of India, and all such cases are treated by General Practitioners and Quacks. Most of the burn victims belong to vulnerable group of the society. The misery of burn patients is further aggravated as the treatment requires prolonged hospitalization and multiple corrective plastic surgeries, leading to economic hardship. A large number of burn injury patients require psychological counselling as well as physiotherapeutic rehabilitation for many years.

Death and disability due to burn injury is preventable to a great extent provided timely and appropriate treatment is given by trained personnel. The management of burns is a distinct branch of medical super specialty. However, trained manpower as well as dedicated burn units are restricted to bigger cities, and that too in a few tertiary care hospitals in our country.

The National Programme for Prevention and Management of Burn Injuries (NPPMBI) is an initiative by the Directorate General of Health Services, Ministry of Health and Family Welfare to strengthen the preventive, curative and rehabilitative services for Burn Victims.

The programme falls within the overall ambit of centrally assisted scheme, namely, "Human resource in Health and Medical Education". As per the financial norms of this umbrella scheme, the financial assistance during the

12<sup>th</sup> FYP will be shared between Central and State Government in a ratio of 75:25. However, this ratio will be 90:10 in respect of North Eastern states and Hilly states of Himachal Pradesh, Uttarakhand and J & K. Rs. 450 cr. has been allocated in the budget for the 12<sup>th</sup> Five Year Plan, for the Medical College component, and Rs 50 cr. for the District Hospital component.

During the 12<sup>th</sup> Five Year Plan, the Programme will be expanded to cover 67 Medical Colleges and 19 District Hospitals for establishment of Burn Units across the country in a phased manner. The unfinished work of the 3 Medical colleges and 6 District Hospitals taken up during 11<sup>th</sup> plan under the pilot project will also be taken up. **The District Hospital component of the programme will be implemented through NHM.**

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## Introduction

1.1 Burn Injury is a major public health problem, yet not addressed properly in our country. Unlike other injuries, Burn Injury is accompanied by trauma, scars and disfigurement that take years to heal both physically and psychologically. Many of the burn injury patients require psychological counselling as well as physiotherapeutic rehabilitation and repeated plastic surgeries for many years, thus, augmenting their financial hardship. Moreover, specialized treatment facility for burn cases is not available in many of the medical colleges, consequently leading to high mortality and morbidity.

1.2 Under such circumstances, and keeping in view the rising number of deaths due to burn injuries, a project was initiated during the 11<sup>th</sup> Five Year Plan by the Directorate General of Health Services, Ministry of Health & Family Welfare, for development of burn units in identified Medical Colleges and District Hospitals. The project is now being continued as a full-fledged National Programme in the name of ***“National Programme for Prevention & Management of Burn Injuries (NPPMBI)”*** during the 12<sup>th</sup> Five Year Plan.

1.3 The programme is being implemented through State Government Medical Colleges and District Hospitals. However, the present guidelines pertain only to programme component being implemented through District Hospital through NHM. For the Medical College component, separate guidelines have already been issued.

## 2. Initiatives taken during 11<sup>th</sup> Five Year Plan:

A Pilot Project was initiated in the middle of the 11<sup>th</sup> FYP, in Oct 2010, wherein, three Medical Colleges and six Districts Hospitals in three states were identified for developing burn units. Under the project financial assistance was provided to the identified Medical Colleges and District Hospitals for development of burn units. It was a 100% centrally sponsored programme and financial assistance was provided for construction/renovation/up-gradation, procurement of equipments and contractual manpower. The pilot project has

been approved to be continued as a National Programme during the 12<sup>th</sup> Five Year Plan.

### **3. 12<sup>th</sup> Five Year Plan:**

Unlike the 11<sup>th</sup> FYP, the programme will no more be 100% centrally sponsored. The programme has now been merged within the overall ambit of centrally assisted scheme, namely, “Human resource in Health and Medical Education”. As per the financial norms of this umbrella scheme, the financial assistance during the 12<sup>th</sup> FYP will be shared between Central and State Governments in a ratio of 75:25. However, this ratio will be 90:10 in respect of North Eastern states and Hilly states of Himachal Pradesh, Uttarakhand and J & K. **Rs. 50 crores has been allocated in the budget for the 12<sup>th</sup> Five Year Plan, for the District Hospital component to be implemented through NHM.**

### **4. Objectives of the programme:**

- To reduce incidence, mortality, morbidity and disability due to Burn Injuries.
- To improve the awareness among the general masses and vulnerable groups especially the women, children, industrial and hazardous occupational workers.
- To establish adequate network of infrastructural facilities along with trained personnel for burn management and rehabilitation.
- To carry out research for assessing behavioural, social and other determinants of Burn Injuries in our country for effective need based program planning for Burn Injuries, monitoring and subsequent evaluation.

**5. Focus areas of the programme:** The Programme has four main components: - (i) Prevention (ii) Treatment (iii) Rehabilitation and (iv) Training. A brief overview is given below:-

❖ **Prevention:** Prevention is one of the crucial aspects of any programme; the same is true for the burn programme as well, as a large percentage of burn

injuries can be prevented by taking appropriate preventive measures. Hence, in the National Programme, it is proposed to undertake following activities to ensure better awareness through print and electronic media among the general population for prevention of burn injuries:

- Activities related to electronic media will be undertaken through Doordarshan, Cable TV, Internet, Mobile phone SMS, CCTVs at the railway stations, hospitals, schools and other public places.
- Activities for print media will be taken up through newspapers, advertisements, magazines, posters, charts, folders for disseminating information.
- Conventional methods like melas, rallies and quiz, folk dance etc will also be utilized.
- Awareness campaign for school children and college students will be organized.
- Outdoor publicity will be done in form of Hoardings, Wall Paintings, Neon Signs, Kiosks, Bus Panels, etc.

❖ **Treatment:** Physical Infrastructure in identified District Hospitals will be strengthened by establishing/strengthening burn units through National Programme. Grants will be given to the states for construction/alternation/renovation/modification of the existing structure, engagement of manpower and purchase of equipments.

The burn unit in a District Hospital will have 6 beds (4 general beds + 2 acute care beds) and other facilities. In order to prevent infection, there will be packaged type air cooled/water cooled units with requisite number of air changers.

❖ **Rehabilitation:** Follow up and rehabilitation services will be provided to restore functional capacity of burn patients thereby, enabling the patients to achieve functional independence and better quality of life. Existing Physiotherapy units will be strengthened by adding more equipment, and by providing Physiotherapists and Community Based Rehabilitation Workers for rehabilitation of burn victims.

- ❖ **Training:** Under this component, surgeons, medical officers, paramedics and multi-disciplinary workers will be imparted hands on training in “*Burn Injury Management*” at the identified Central and State Training Centres.

## **6. Support for establishing the Burn Unit**

### **6.1 Design of Burn Unit/Equipment/Manpower Support:**

A design diagram depicting the proposed Burn Unit is enclosed. The Unit would approximately require 400 sq. meters. Burn Units comprising of 6 beds (4 general beds + 2 Acute Care beds + Other Facilities required) will be established in District Hospitals where such facilities do not exist. Where they already exist, the same will be augmented through addition/alteration/renovation so as to ensure that they have the required number of beds. The Burn Unit will be provided with equipment required for treatment and rehabilitation of burns injury patients. The detailed design diagram is enclosed at ***Annexure-I***.

It shall be the responsibility of the states to provide for adequate space/built up structure (for addition/alteration and new construction) which can be suitably modified for creating a burns unit. The cost of construction that has been worked out in consultation with the Central Design Bureau in accordance with CPWD rates should not exceed Rs. 1.20 cr.@ Rs. 30000 per sq. meter for each district hospital. The actual cost of establishment of burn unit may vary depending on whether it is a new construction or renovation/additional/alteration of the existing structure, but should not exceed Rs. 1.20 cr. for each district hospitals. Any extra cost over and above this amount will have to be borne by the State Govt.

### **6.2 Equipment-**

- Furniture
- Material & Supplies
- Equipment for Acute Care Unit :-
  - a) Vital parameter monitors (2),
  - b) Skin Graft Mesher (1),



- c) Humby's knife (4),
- d) Portable light (1)
- For Rehabilitation :- 1) Shoulder Wheel, 2) Over-head pulley, 3) Static Bicycle, 4) Quadriceps table, 5) Hand Gripper, 6) Ladder Wall, 7) Muscular Stimulator, 8) Ultrasound Machine (Therapeutic 1 & 3 MGH), 9) Paraffin wax bath

### 6.3 Manpower support -

The recruitment on contractual basis will be made by the concerned District hospital approved and included in the programme.

S.N	Name of the post & consolidated salary per month	No. of post	Cost / annum (crores)
1.	Physiotherapists / CBR Worker @ Rs. 25,000	2	0.060
2.	Staff Nurses @ Rs. 20,000/- per month	8	0.192
3.	Dresser @ Rs. 15,000/- per month	3	0.054
4.	Multipurpose workers(Nursing orderly/Nursing attendant/ Safai Karamchari @ Rs. 8,000/- per month	8	0.076
	<b>Total</b>	<b>21</b>	<b>0.382</b>

### Total Unit Cost-

S.N	Component	Cost (Rs. in crores)
1.	Construction (400 sq. meter @ Rs. 30000 per sq. meter)	1.20
2.	Manpower	0.38 annual x 3 yrs = 1.14
3.	Equipment	0.29
	<b>Total</b>	<b>2.63</b>

### 7. Release of Funds-

The Mechanism of release of funds will be as per NHM norms. However, the process of release of funds will be initiated only if the plan for establishment of burn unit is formally approved by the State PWD with design diagram along with estimated cost and also has been approved by the concerned health secretary/finance department. The cost estimate prepared

by the state PWD should not exceed the outlay permitted for construction of burn unit.

In the case of procurement of equipment for the burn unit it would be necessary that the concerned district hospital intimates that they have obtained necessary approval for procurement and that they have been delegated necessary financial powers. Funds for procurement will be released only if orders have been placed for supply of equipment. Release of funds for manpower will be considered only after the burn unit is established.

7.1 The proposed grant will be shared between Central Government and State Government in 75:25 (for North Eastern and hill States of Uttarakhand, Himachal Pradesh and Jammu & Kashmir, the ratio will be 90:10). The State Governments will contribute their share of the total estimated expenditure as approved by the CCEA. The funds will be released in the phase manner.

- a) In first instance, the Centre Government will release funds equivalent to its share for construction and equipment after receiving the necessary approvals in respect of PIP.
- b) Further funds will be released after assessment of work progress and gap analysis in respect of available Human Resource in the concerned District Hospital.
- c) Subsequent release shall be regulated on the basis of written report to be submitted by the State indicating the work progress including the following :-
  - (i) Submission of Progress report and Quarterly report (Annex II).
  - (ii) Timely submission of Utilization Certificate, Statement of Expenditure duly audited either by State Auditor General or empanelled Chartered Accountant by CAG of India, in GFR 19A (Annex III).

**8. Utilization of funds by the State Government- This will follow the same norms as per the NHM scheme.**

The state govt. will submit audited Utilization Certificates for the funds released as per the provision of General Financial Rules (Rules 19-A) supported by Audited Statement by a State Auditor or An Auditor Empanelled by the C & AG for the state.

**9. Monitoring and Review- Under the National Programme for Prevention and Management of Burn Injuries there will be a Central Monitoring cell in Dte GHS, New Delhi-**

- 1) Program Manager/Nodal Officer/DDG,
- 2) Programme Officer/Addl.DDG/ADG/CMO
- 3) Consultant (Four),
- 4) Programme Assistant (Two),
- 5) DEO (Four)
- 6) Peon/Helper (One)

**9.1 National Monitoring & Advisory Committee-**

The Committee consists of group of experts from well-established burn units and other eminent persons in the field of burns injury management. This group will interact through meetings at the Centre, and will advise the Program officials on technical aspects of the programme.

**9.2 State level- Monitoring-**

State Implementation Committee will act as an advisory body for monitoring, supporting and dealing with core issues for smooth functioning of the program at state level. The Director/ Jt. Director of Health Services, Director/ Jt. Director of Medical Education, Executive Engineer/Architect from state PWD, State IEC Officer and the State Programme Manager would be the members of the Committee. Regional Directors, Dte. GHS, Ministry of Health and Family Welfare, of the respective states will be member representative of the state monitoring committee. The committee will be headed by the Principal Secretary (Health) of the respective states.

### **9.3 Evaluation-**

The programme will be evaluated by an independent agency at the end of the 12<sup>th</sup> plan. There will also be a mid-term evaluation.

### **10 Areas for Concerted Action-**

- No District Hospital will be selected unless the concerned State Government expresses its willingness to join the programme.
- Preference will be given to those District hospitals which satisfy the following conditions of (i) being located in remote/hilly/in-accessible terrain or (ii) belonging to North Eastern States or (iii) District Hospitals having a heavy case load of Burn injury patients or (iv) in exceptional cases District Hospitals which are adjacent to Medical Colleges which have heavy load of burn injury patients, so as to ease the burden on those medical colleges, will be selected.
- District Hospitals will be inspected to assess the technical and operational feasibility before inclusion in the programme.
- 6 District Hospitals already covered under Pilot Programme will be reviewed to monitor the progress.
- Funds will be released to 19 District Hospitals for construction and procurement of equipments and also to units recurring grant for manpower to 6 District Hospitals already covered under pilot programme.
- Monitoring and inspection of construction/ renovation of burn unit will be followed by monitoring of procurement of equipments by newly identified District Hospitals.

### **11 The state govt. will agree with the following firm commitments as per NRHM guidelines-**

- 1) The State Government hereby undertakes that it will take over the responsibility for maintaining the Burns unit at the end of 12<sup>th</sup> five year plan i.e. 31.3.2017.

- 2) State Government shall take over the liability of the staff recruited on contractual basis at the end of 12<sup>th</sup> five year plan i.e. 31.3.2017. State Government shall take steps in advance to engage manpower on permanent basis for running their Burns unit.
- 3) State shall create regular posts against sanctioned contractual positions so that at the end of 12<sup>th</sup> five year plan i.e. 31.3.2017 necessary posts exist for smooth continuation of burns care services. The officials to be engaged on contract basis initially shall be engaged only if they are found eligible as per the guidelines laid down. The process of creating regular posts against the sanctioned contractual positions should be initiated at the time of allocation of the funds and the monitoring of the same will be undertaken by Directorate General of Health Services/ Ministry of Health and Family Welfare.
- 4) The State Government shall ensure that funds made available under the project to support the identified District Hospitals are used only for implementation of the agreed Action plan and the funds are not diverted for meeting any expenditure other than burns care related activities.
- 5) The State Government shall ensure that the Utilization Certificate (duly audited by the office of State AG) are sent to the Ministry of Health & Family Welfare, Government of India as per General Financial Rules- 19 format. Further funds will be released only on receipt of Utilisation Certificates for the funds released earlier. Ministry of Health & Family Welfare reserves the right to request the C & AG of India to audit the accounts and countersign the certificate through the State Accountant General concerned.

- 6) The State Government shall agree to the inspection of the identified institutions by the representatives of the Ministry of Health & Family Welfare, Government of India and provide access to such information as may be necessary to make an assessment of the progress of the activities included under the scheme.
- 7) The responsibility for maintenance of equipments and building shall be with the State Government. Necessary mechanism to keep the equipment fully functional and operational to provide unhindered services to the beneficiaries should be ensured.

## **12 Registration and reporting of burn case-**

Quarterly Format has been developed for registration and reporting of burn patients **(Annexure-II)**. Each identified District Hospital will have to fill up these formats and communicate the same to the monitoring cell at Dte.GHS for the purpose of analysis.

## **13 Outcomes & Deliverables**

### **13.1 Outcomes-**

- Burn units will be established at identified District Hospitals, for providing round the clock treatment facilities, thereby reducing incidence, mortality, morbidity and disability due to Burn Injuries.
- Enhanced awareness will be created among general masses and vulnerable groups especially the women, children, industrial and hazardous occupational workers through Information, Education, and Communication activities.

### **13.2 Deliverables-**

- Development of a Practical Handbook on Burn Injury Management to serve as a guide for conducting training programmes.
- Training of Surgeons/Medical Officers/ Paramedics of District Hospitals burn units are established.
- Initiation of the process of Burn Registry, thus initiating a process of data collection, collation and interpretation in respect of

epidemiology of burn injuries in the country, that will help in formulation of scientifically sound policies.

## 14 Guiding Principles







