

Operational Guideline for Bio Medical Waste Management Programme -2015-16

Back ground

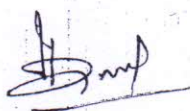
Bio-Medical Waste Management (BMWM) is an integral part of health care service delivery to prevent occupational & environmental health hazard. It is implemented across 30 districts in accordance to the BMW (Management & Handling) Rules 1998 of GoI.

DPH (O) is the monitoring & supervising authority of the rural hospitals in the state supported by Jt. DHS (WM&MH) & Conslt BMW, while DMET(O) is the monitoring authority of the Medical Colleges and all the private hospitals.

The State Pollution Control body is the prescribed authority for Authorization Administration of hospitals in the state by GoI.

Objective & Strategy

1. To implement the BMWM programme components across all hospitals (30 DHHs, 27SDHs, 5 IDHs, 377 CHCs in the first phase. Till date 549 Hospitals are under Authorisation administration of SPCB in comparison to 324 in July 2014. Currently expansion from DHH level to CHC level is done as protocols and recommendation of State Pollution Control Board.
2. To ensure proper segregation, collection, transportation, treatment & Disposal of BMW from the point of generation to the point of disposal. Expansion of current practice of outsourcing of BMW Management from DHH to CHC level is being done (Onsite campus or Offsite campus) as per need basis using the BMW equipments of our DHH & SDH.
3. To ensure Liquid waste management at labour Room, OT, DR, IR and Laboratory of DHH, SDH, MCH & CHCs as per SPCB recommendation. Low cost technology models and designs shared by SPCB will be implemented across all 30 DHH/27SDH/377CHC/5IDH/MCH as per protocols of BMW (M&H) Rules 1998 so as to prevent environmental pollution of water & soil.
4. To protect the Health Staffs against HBV & Tetanus by immunisation. All MOs, Paramedical Staffs Related to BMWM will be protected against Tetanus and Hepatitis B. (28160)
5. To ensure proper segregation, BMWM Logistics & consumables such as colour coded bins, polybags, Needle Syringe Terminators, Hypochlorite Solutions to be procured at District Level for DHH/SDH/IDH/CHC/PHC.
6. Capacity Building: Reorientation of Health Staffs such as MOs, Paramedicals & other staffs related to BMW ongoing each year to upscale the awareness about segregation practices.
7. Out 37 destinations that includes DHH/SDH/IDH ; till date 37 nos BMW equipments are delivered for Treatment and Disposal of BMW at source of generation by the State. Other 14 destinations will be commissioned soon.
8. Monthly Joint Redressal Committee is being convened with SPCB to short out the issues of Show cause notices and Authorisation issues. All the districts have been completed by now.



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- 55 out of 89 showcase notices have been complied with till date by the districts.
9. Liquid Waste Management at Health Care establishments: Low cost technologies model & design shared by SPCB for Liquid waste Management at OT, LR, DR, IR, Laboratory of DHH/SDH/CHC/MCH will be implemented as per mandate of SPCB and Rules of BMW(M&H) 1998. 22 DHH out of 24 DHH have already obtained consent to operate ETP in their premises in the first phase based on bed strength i.e. having more than 100 beds.
10. State Technical Task force Team formed to Quarterly review and monitor the BMW situation in the state.

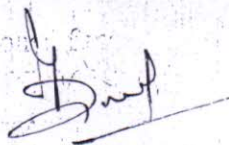
Expected Outcome

- Improved management of Bio-Medical Waste Management at all the hospitals with adequate logistics, consumables, manpower with improved behavioural practices and outsourcing of BMW. This will result in less of Show-cause notices issued to the hospitals by SPCB.
- Liquid waste management as per protocols of BMW (M&H) Rules 1998 and prevention of soil contamination & water contamination.
- Protection of Health care staffs associated with BMW against HBV & Tetanus.
- Adequate logistics and consumables for Bio-Medical Waste Management at all the hospitals.

Fund provision

- State Health Society has provisioned funds for logistics & consumables for 32 DHHs, 25 SDHs, 38 FRUs during 2015-16 (NHM IMEP)
- State non plan fund (1.84 Crores) provisioned since each year is meant for (30 DHHs, CHBBSR & RGH RKL) outsourcing fees & Logistics only.
- No separate funds received for outsourcing charges & logistics for 27 SDH, 377 CHC, 51 DH, 79 OH, 1226 PHC(N).
- Funds have been provisioned in the State plan Budget 2015-16 for 2 SDHs, 329 CHCs, 1226 PHC(N) and 5 IDHs regarding BMW Logistics & consumables.





Key Strategies:

1. Continued Medical Education on BMW of Health staffs related to BMW. (30 DHH, CH, RGH, 27 SDH, 5 IDHs, 377 CHCs)
2. Ensuring proper BMW logistics such as colour coded bins, Needle Syringe Terminators (NSTs) & Consumables (NAOCL, Bleaching Powder, polybags, PPEs, waste trollys) from DHH to PHC(N) Level (329 CHCs, 2 SDH, 1226 PHCs).
3. Ensuring safe & secure treatment & disposal of BMW in all hospitals through outsourcing agencies or their own arrangements. (30 DHH, CH BBSR, RGH RKL, 27 SDH, 377 CHC, 5 IDHs)
4. Ensuring obtaining authorization for 30 DHH, CH BBSR, RGH RKL, 27 SDH, 5 IDH & 377 CHCs hospitals in the first phase from SPCB.
5. Setting up of low cost technologies for liquid waste management at 30 DHH, 27 SDH, 377 CHC, 2 IDH, 14 MCH hospitals generating liquid wastes from LR, OT & LR.

1. Continued Medical Education on BMW

All the Health staffs associated with Bio-Medical Waste management will be imparted reorientation training on protocols of segregation, collection, transportation, treatment & disposal and record maintenance of BMW.

- Four State TOTs of one day duration to be conducted- ADMO PH, ADMO Med, Hospital Managers of DHH, SDH, MCH, CH & RGH, Senior Matrons or Senior Staff Nurses.
- One District TOT of one day duration to be conducted in each district to impart reorientation to the health staffs at CHC level. The participants include one MO CHC / SDH, Pharmacist, Sr. SN, PHEIO, LT, MPHS, & BPM.
- As the no. of staffs at each DHH, SDH, IDH & CHC vary in numbers, the batch size to be limited to 30-40.
- Two batches to be conducted at 27 DHHs (excluding Deogarh, Boudh, Sonepur, Baragarh, Jharasuguda) & 2 IDHs (excluding Hatibari IDH, Sambalpur, UN TB Hospital, Kalahandi, Leprosy home, Cuttack),
- One batch of half day duration to be conducted at 5 DHHs, 27 SDHs, 3 IDHs,
- Two batches of half day duration to be conducted at each CHCs. At CHC level, MOs of PHC (N)/OHs, Pharmacist, one each of Staff Nurse, HQ HWs, Attendant and Sweeper can be included as participants.
- CME costs estimated for DHH@20000 per batch; SDH@1000 per batch; CHC@1000 per batch.
- Immunisation sessions with HBV & TT can be conducted along with the trg Sessions.

(The participants must include the waste management committee members, MOs, Pharmacist, Matron or Senior Staff nurses, PHEIO, Radiographers, Laboratory Technicians, Hospital Managers, BPM, HQ MPHS, HQ HWs, SN, Attendants, Sweepers, OS staffs and other staffs associated with BMW management. At CHC level, MOs of PHC (N)/OHs, Pharmacist, one each of Staff Nurse, HQ HWs, Attendant and Sweeper can be included as participants)

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2. BMW Logistics and Equipment:

The generation points of BMW have been identified at DHH, SDH, CHC, PHC, OH, IDH level for location of colored coded bins, needle syringe terminators, polybags & 1% Hypochlorite solutions.

- i) 30 DHHs & CHBBSR & RGH RKL have more than 20 points of generation of BMW but at least 20 points needs to have coloured coded bins with NSTs in places such as – Operation Theater, Labour Room, laboratory, Dressing Room, minor OT, Injection room, SNCU, NBCs, Blood Banks, Drug Dispensing room PPC, ICTC Clinics for HIV, TB sputum collection Centers, Sentinel sites Laboratory for Malaria, OPD, Casualty Wards (O&G, Paediatric, Medicine (M&F), Surgery (M&F), ICU, Infectious, Isolation ward for HINI/Ebola/Heat wave, X-ray room, Specialist OPD (O&G, Skin & VD, Geriatric, Immunisation Clinic, District Vaccine & logistic store, district Central ware house NCD clinic, NRC, Post Mortum Houses, Kitchen, Attendant Rest Shade etc.
- ii) 27 SDHs have more more than 10 points of generation of BMW but at least 10 points needs to have coloured coded bins with NSTs in places such as – Operation Theater, Labour Room, laboratory, Dressing Room, Injection room, Drug Dispensing room, NBCs, Blood Banks, ICTC Clinics for HIV, TB sputum collection Centers, OPD, Casualty Wards (O&G, Paediatric, Medicine (M&F), Surgery (M&F), Infectious, Isolation ward for HINI/Ebola/Heat wave, X-ray room, Specialist OPD (O&G, Med, Paed), Immunisation Clinic, ILR points, PM Houses, Kitchen & Attendant Rest Shade etc.
- iii) 377 CHCs have more more than 5 points of generation of BMW but at least 5 points needs to have coloured coded bins with NSTs in places such as – Operation Theater, Labour Room, laboratory, Dressing Room, Drug Dispensing room, NBCs, Blood storage units at FRUs, FICTC Clinics for HIV at FRUs, TB sputum collection Centers, OPD, Casualty Wards (M&F), Infectious, Isolation ward for HINI/Ebola/Heat wave, X-Ray at FRUs, Immunisation Clinic, ILR points & Kitchen.
- iv) Out of 5 IDHs, four IDHs (IDH Puri (108 beds), BBMSN Nayagarh (220 beds), Leprosy Home Cuttack (120 beds), UN TB hospital Kalahandi (65 beds) have more than 10 generation points of BMWs in comparison to IDH, Hatibari, Sambalpur.
- v) 1226 PHC(N), 79 OHs, 8 CHCs (urban) have more than five points of BMW generation such as – OPD, Dressing room, labour Room, drug dispensing room, Immunisation Clinic of HQ HW, Ward for male and Female patients.

We need to place five coloured coded bins of appropriate size along with Needle syringe terminators as per location needs-30 DHH (20 Points), SDH (10 points), 4 IDH (10 Points), 1226 PHC (5 points), 79 OH (5 Points) for proper segregation and collection of BMWs.

- State Health Society has provisioned funds for logistics & consumables for 32 DHHs, 25 SDHs, 38 FRUs during 2015-16 (NHM IMEP)
- State non plan fund (1.84 Crores) provisioned since each year is meant for (30 DHHs, CHBBSR & RGH-RKL) outsourcing fees & Logistics only.
- No separate funds received for outsourcing charges & logistics for 27 SDH, 377 CHC, 5 IDH, 79 OH, 1226 PHC(N).
- Funds to be provisioned in the State plan Budget 2015-16 for 2 SDHs, 329 CHCs, 1226 PHC(N) and 5 IDHs regarding BMW Logistics & consumables.

3. Ensuring safe & secure treatment & disposal of BMW- Out sourcing charges

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- Waste Management Committees at State, District and Block level are monitoring the safe & secure disposal of BMW by Chemical disinfectants locally or by BMW Equipments as per protocols of BMW(M&H) Rules, 1998
- Presently all the 30 DHHs, CH BBSR, RGH RKL have outsourced their BMW management to outsourcing agencies. Majority of the districts are managed by OS agencies that have entered into contract with the district CDMO and SPCB.
- The rate of charging ranges from Rs.4.70 to Rs. 7.95 per day per bed for BMW based on sanctioned bed strength of DHHs only. The total beds in 30 districts amounts to be 12653 till CHC level. However we may also include the functional beds while applying for authorisation to SPCB.
- The OS agencies utilize our BMW Equipments (on site) or transport the BMW to their Common biomedical waste treatment facilities (CBMWTF) i.e. offsite for treatment & disposal of BMW. They are also regulated by SPCB as per Rules.
- During 2015-16, the 27 SDHs, three IDHs, 7 districts (JS Pur, Deogarh, Boudh, Sonepur, Puri, Mayurbhanj, Nayagarh) are being provided with BMW Equipments (Separate Auto Clave & Shredder) for treatment & disposal of BMW in their premises by Hospital.
- However all the 27 SDHs, Five IDHs, 377 have not yet included or given any funds for outsourcing management of BMW onsite or off site. Besides, Attendants and sweepers are in less numbers at CHC/SDH level. Therefore additional fund provision has been done in the State Budget 20 15-16.
- For improved management of BMW we need to outsource the BMW to Outsourcing agencies/ Gram Panchyats for which we need additional funds for SDH, CHC & IDH. We need to place one sweeper cum attendant who may be hired on daily wages at SDH/CHC for better facility management of wastes.
- These outsourcing agencies or Gram Panchyats may utilise the BMW equipments, liquid waste management methods at SDH/CHC for disinfection, treatment or disposal of BMWs.

Fund Provision

- Funds (1.84 Cr State Non Plan) provided to 30 DHHs, CH BBSR, RGH RKL only towards outsourcing charges, logistics and consumables which is distributed in ranges from 2.5 lakh per districts to 10 lakh per district. which is quite inadequate to meet the needs of the district from DHH to CHC level.
- NHM PIP 2015-16 has no provision for outsourcing fees for DHH, SDH, IDH & CHC.
- Also no funds provisioned in State Plan of 2014-15 for the purpose.
- From OHSP funds of 2014-15, 27 SDHs, three IDHs and 7 Districts to be provided with BMW Equipments.

4. Liquid Waste Management at DHH, SDH, IDH, MHC & CHC

As per mandate of SPCB, liquid waste management generated from OT, LR, Dressing Room, Immunisation room & laboratory in the hospitals and consent to operate effluent treatment plants (ETPs) is essential in all 100 bedded hospitals.

In this regard four DHHs (Khurda, Puri, Gajapati, Balasore) and one SDHs (Jeypore) have received show cause notices from the SPCB.

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- Till date we are managing the liquid wastes by chemical disinfectants locally at DHH level.
 - Recently SPCB shared the low cost technologies (drum & soak pit method) for management of liquid waste at the point of generation as adopted in Karnataka districts. We may adopt this low cost technologies at LR,OT, DR,Immunisation room & Laboratory as adopted in Karnataka ie at DHH,SDH, MCH& CHC level..
 - To safe gard against environmental hazard we may utilise this low cost methods in our in our 30 DHH, 27 SDH,377CHC,2 IDH,14 MHCs.We need to place prefabricated model at DHHs to avoid space constraints. The Soak pit & drum model can be utilised at SDH,IDH,MCH and CHC level for management of liquid waste management.
 - The designs of Models, estimate provided by Engineering Deptt. of NHM has already been shared with the districts. We may adopt low cost technologies for liquid waste management at points of Generation of Liquid wastes as per manadate of OSPCB till ETPs are provided by PHED Deptt.
 - ETP Site plan, cost estimate has not yet been provided by the PHED Deptt. in respective districts. While district wise Fees for consent to operate for ETP is provided to the districts in the budget.

5. Immunisation of Health Care Staffs

We will immunise health care staffs such as MOs,SNs, Pharmacists, LTs, RGs, Attendants & Sweepers(28160) and other related staffs against HBV & TT for protecting them against these diseases due to accidental injuries due to sharps.

6. State BMW Cell

State BMW Cell operational since Febraury for which office expenditures,Quarterly meeting for BMW, OE for day to day expenditures , Telephone charges, net charges & othe Office Stationaries.other prority expenditures like authorisation fees for hospitals, conset fees of ETPs may also be provisioned in the state budget 2015-16.

- #### 7. Contingency Expenditure:
- other prority expenditures like authorisation fees for hospitals, conset fees of ETPs, Repair/Renovation of Containment area, other logistics as per need, Other Eexpenditures as per need has also be provisioned.

Expected Outcome

- Improved management of Bio-Medical Waste Management at all the hospitals with adequate logistics, consumables, manpower with improved behavioural practices and outsourcing of BMW. This will result in less of Show-cause notices issued to the hospitals by SPCB.
- Liquid waste management as per protocols of BMW (M&H) Rules 1998 and prevention of soil contamination & water contamination.
- Protection of Health care staffs associated with BMW against HBV & Tetanus.
- Adequate logistics and consumables for Bio-Medical Waste Management at all the hospitals.

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