



SRI BALAJI VIDYAPEETH

Deemed-to-be University

U/S 3 of UGC Act 1956

Accredited with 'A' grade in the First Cycle by NAAC

SBV POLICY ON BIOMEDICAL WASTE AND GENERAL WASTE SEGREGATION – 2018

SRI BALAJI VIDYAPEETH (SBV)
 (DEEMED-TO-BE-UNIVERSITY)
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**SBV POLICY ON BIOMEDICAL WASTE AND
 GENERAL WASTE SEGREGATION - 2018**

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TITLE AND APPLICABILITY:

SBV POLICY ON BIOMEDICAL WASTE AND GENERAL WASTE SEGREGATION - 2018

The policy on biomedical waste and general waste segregation would henceforth be known as **SBV POLICY ON BIOMEDICAL WASTE AND GENERAL WASTE SEGREGATION - 2018**.

1. PREAMBLE

Sri Balaji Vidyapeeth is a health science Deemed to be University having two medical colleges, one dental college, two nursing colleges, School of Pharmacy and Allied Health Sciences, besides designated centres.

The two hospitals are mahatma Gandhi Medical College and Research Institute Hospital located in Main Campus and Shri Sathya Sai Medical College and Research Institute hospital in Off Campus. Through these hospitals, the biomedical waste also known as hospital waste accumulates and need safe disposal. This, in view of the fact, that the hospital waste will either contain infectious or potentially infectious materials. The generation of biomedical waste can arise at the outpatient clinics, minor surgical OTs, Operation Theatres, Clinical and Research laboratories , besides the OTs that largely contribute to the quality and quantity.

The Government of India notified the Bio-Medical Waste (Management and Handling) Rules in July 1998 that essentially comes under the ambit of Environment Act 1986. The rules on biomedical waste disposal have been framed by SBV to help regulate the safe disposal of Biomedical Waste in order to ensure the safety of the staff, patients, public and the environment. Certain amendments to the rules would be effected from time to time. The rules revised during 2016 and further updated in 2018, form the crux of the SBV policy on the collection, segregation and safe disposal of biomedical waste.

2. OBJECTIVES

The Bio-Medical Waste Management policy of the hospitals shall meet the following broad objectives:-

- 2.1. Provide a system for the management of potentially infectious and hazardous waste as per Guidelines and Recommendations of Biomedical Wastes (Management and Handling Rules) 2016.
- 2.2. Identifying, defining and classifying the various categories of waste being generated in the hospitals.
- 2.3. Use of separate colour coded containers for segregation of various categories of waste at point of generation.
- 2.4. Segregation of various categories of waste in separate colour coded containers at the site of generation, so that each category is treated in a suitable manner to render it harmless.
- 2.5. All categories and personnel are responsible as well as accountable for proper waste management.

3. POLICY ON SEGREGATION OF WASTE

Segregation is the responsibility of the personnel of the area where waste is generated for instance doctors, nurses and paramedical personnel.

- 3.1. The hospitals should ensure that clinical and general wastes are segregated at source itself followed by the due placing in colour coded plastic bags and containers. This must be accomplished prior to collection and disposal at the site of generation in all patient care areas/clinical areas. There should be no mixing of biomedical waste.
- 3.2. Colour coded bags are used for purpose of segregation (Yellow, Red, Blue bin, White Puncture proof container)
- 3.3. Segregation of each of the following biomedical wastes is carried out at the point of generation of waste, as cited above:
 - Sharp items
 - Disposable plastic items
 - Glass

- General waste (paper, cardboards, water bottles, discarded food)
- Cytotoxic/radiological/radioactive substances.
- Microbiological/pathological wastes

Two colour posters that are comprehensive in nature should be hosted in the vantage areas of the hospitals located in both the campuses. These posters should be prepared with a view to providing the knowledge on selection of appropriate colour bag for disposal of wastes (See Annexure 1 and 2).

The standard operating procedure to facilitate safe and secured disposal of the various biomedical waste is provided below and various sub-headings.

4. STANDARD OPERATING PROCEDURES

4.1. Disposal of Sharps Waste:

- 4.1.1. Following use, the needle should be carefully removed from the syringe and discarded into the white puncture proof container immediately.
- 4.1.2. The hub of the syringe shall be cut with help of the hub cutter and the remaining part of the syringe (without needle and hub) is discarded into the red bag.
- 4.1.3. All other sharps are carefully placed inside the white puncture proof container. They should not be discarded into any other colour coded bags.

4.2. Disposal of glass items:

- 4.2.1. Large unbroken glass bottles should carefully be placed inside the blue coloured bin.
- 4.2.2. Broken glass pieces should be carefully removed and placed inside the white puncture proof container. They should not be placed inside any other colour coded bags.

Note: Any material treated with hypo-chlorite solution should never be sent for incineration.

4.3. Disposal of the Contents in Bins and Plastic Bags:

- 4.3.1. The container comprises of an inner bag of same colour depending on the type of waste, and should match the chosen outer container is a plastic bin with handles, and of a size which will depend on the amount of waste generated in that location.
- 4.3.2. The inner polythene bag should be leak proof, and should fit into the container with one-fourth of the polythene bag turned over the rim.
- 4.3.3. An optimum number of easy to use, Standard, uniform, covered, foot-operated bins of appropriate size shall be placed at identified places in all clinical areas.
- 4.3.4. Chemical disinfection of the waste bins using 1% sodium hypochlorite solution should be done frequently at a separate washing facility in the hospital and record should be maintained.

4.4. Collection of Waste Bags, appropriate Labelling, Safe Storage and Transport:

- 4.4.1. All the Biomedical waste must be labelled as waste type, site of generation, date of generation before transportation from the generation site.
- 4.4.2. Waste should be stored in the areas of generation at an identified safe area, for an interim period after which it is transported for temporary biomedical waste storage.
- 4.4.3. Different bins with colour bags are placed in the appropriate places in all the areas of the hospital.
- 4.4.4. Instruction posters with respect to segregation of wastes are pasted near the area of collection of discarded items.

- 4.4.5. The Health Care workers are informed that they should place the wastes in the appropriate coloured bags only by themselves at each point of care.
- 4.4.6. The bags should not be filled more than three fourth of its capacity.
- 4.4.7. The sister-in-charge of the area should write the ward name date and time of removal of bag from the area (or) paste a paper containing all the needed location details.
- 4.4.8. The Biomedical waste bag collecting attender (PSMPL) should tie the bags tightly with plastic made sealing tags.
- 4.4.9. The personnel, handling the specific biomedical waste should comply with bar coding sticker which provides all the necessary information about the source of biomedical waste generated.
- 4.4.10. The waste bag should be handled only from the top of the bag.
- 4.4.11. The personnel should wear shoes, mask, and appropriate gloves. They have to take all the necessary precautions to avoid injury to her/him or others (by any sharp item, which is inadvertently thrown into the bag).
- 4.4.12. The personnel should not touch the sides or bottom of the bag.
- 4.4.13. Only after ascertaining that the ward name, date and time are written by the sister-in-charge, the attender should collect the bag.
- 4.4.14. The personnel should not drag the bag on the floor.
- 4.4.15. The personnel should not lift the bag and walk along the corridor. (Attender or any other person passing that way may hit the bag and may get injured)
- 4.4.16. The bags should be transported in the trolley meant for waste bag collection to the temporary storage area in a secured way.

4.4.17. All the staff is required to duly fill in the biomedical waste collection register - colour wise mentioning the number and size of bags handed over and shall sign the slip for further record.

4.5. Collection and Transport of Biomedical Waste Bags:

According to the MoU made between MGMCRI (includes MGMCRI, Rural and Urban centre) and Puducherry. Solid waste Management Company Private Limited (PSMPL), for collecting, transporting and finally disposing the biomedical wastes generated all the BMW collected and stored in temporary storage area will be taken by them on regular basis.

4.5.1.1. While loading the BMW bags from MGMCRI, regular entry will made in the designated BMW register regarding the number of bags with their respective weight and other details.

4.5.1.2. These bags will not be opened for segregation at temporary storage area (inside MGMCRI). They will be stored in the appropriate hospital waste temporary storage area for not more than 48 hours.

4.5.1.3. The company van from PSMPL will collect the stored BMW bags regularly and unload them in their final disposal area (for appropriate, burial/incineration/autoclaving) locate at Thuthipet, Villianur Commune, Puducherry - 605 502.

4.5.1.4. The trolleys and van used for transport of the waste bags should be cleaned and disinfected with 10% sodium hypochlorite once in a week and recorded.

4.6. Liquid and Chemical Wastes Management:

4.6.1. Chemical disinfection of the liquid waste, at the areas of generation e.g., Labour rooms, OTs, labs, etc is done. These liquid wastes should be disinfected by chemical treatment using at least 1% sodium hypochlorite solution for contact period of 30 Minutes and then

discharged into drains/sewers where it is taken care of by the principle of dilution and dispersal.

5. MANDATORY CONSIDERATIONS NEED TO BE STRICTLY COMPILED WITH IN ENSURING THAT:

5.1. Vaccination to attenders:

All the attenders should be provided with all the three doses of HBsAg vaccine at the time of appointment - 0 month, 1 month and 6th month.

5.2. Continuing Medical Education for attenders and Health Supervisors
Lectures at regular intervals (once in three/four months) will be given to them with respect to hand washing, HBsAg vaccination, PPE, collection and transport of wastes.

5.3. Discarded medicines and Cytotoxic drugs:

The discarded medicines and cytotoxic drugs, which need to be disposed, should be certified by Head of the concerned department, put in a relevant bag, tied and sealed and labelled as with 'Cytotoxic'.

6. PROCEDURE TO BE FOLLOWED IN THE COLLECTION AND SEGREGATION OF GENERAL WASTE IN THE MUNICIPAL WASTE STORAGE AREA

6.1. All the general wastes from various locations will be discarded in Green bin by the person who generates it.

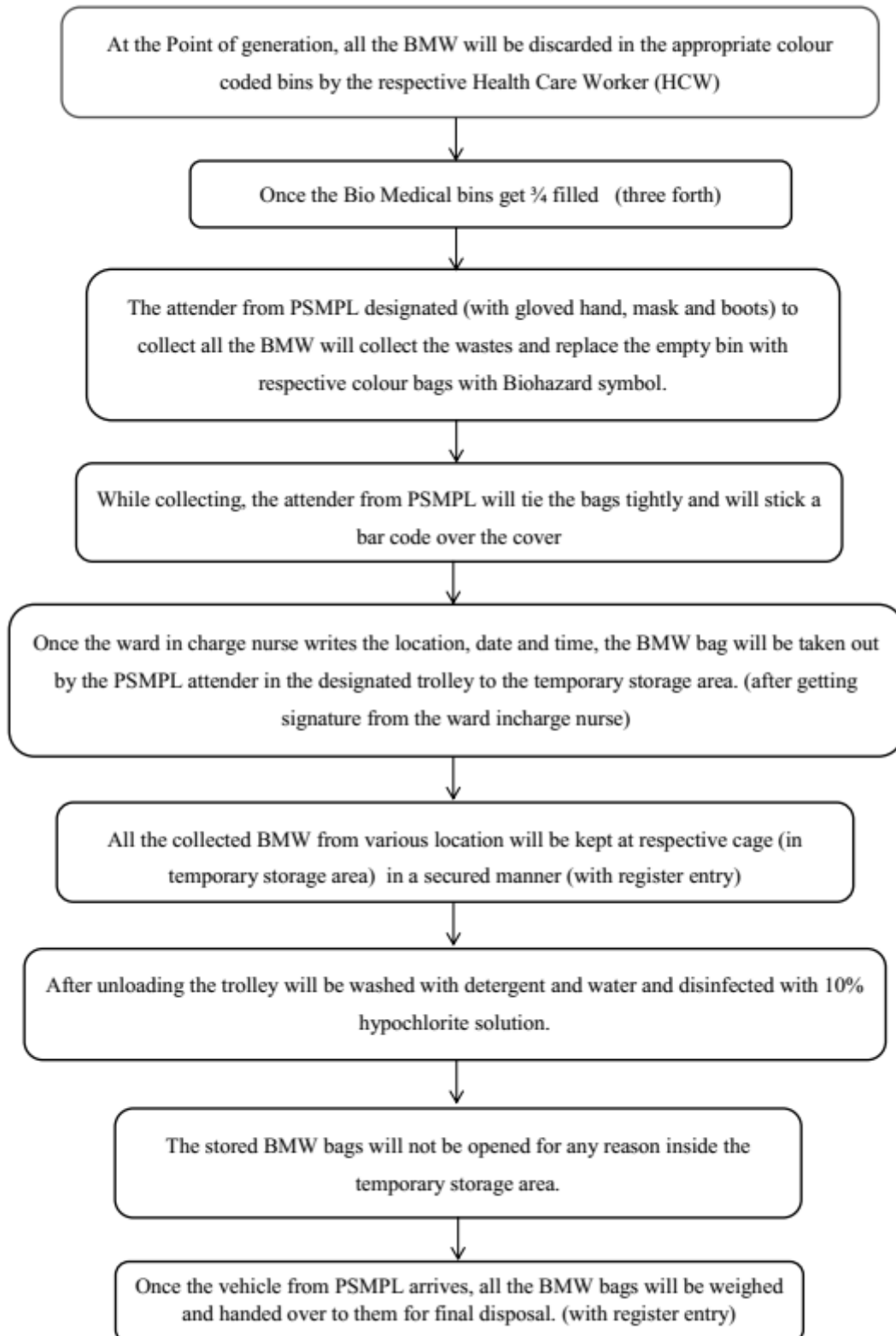
6.2. Once the Green bag gets three fourth filled, the respective hospital maintenance personnel will collect it only after donning gloves and face mask.

6.3. Another new green bag will be kept for further filling and the collected general wastes bags will be kept in trolley and it will be sent to the Municipal waste storage yard.

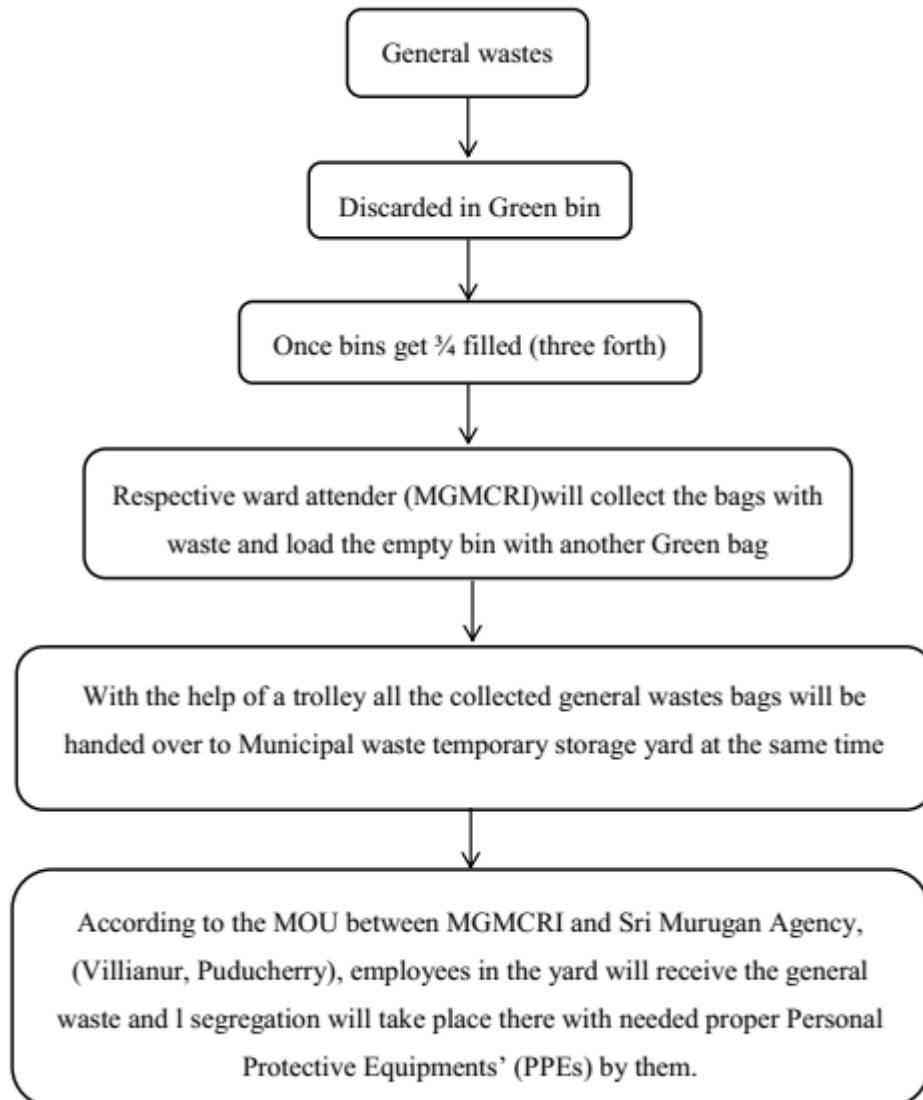
- 6.4. The personnel at the municipal waste yard should necessarily wear shoes, mask and appropriate gloves. The designated Agency will receive the waste and then initiated the general waste segregation in accordance with the guidelines of the company concerned.
- 6.5. The personnel handling biomedical waste should not put his/her hand blindly into the bag contents.
- 6.6. The personnel handling should not directly touch the sides of the bag.
- 6.7. The personnel handling the waste should hold the bottom two corners of the bag lift it and decant the materials on the floor.
- 6.8. The personnel handling the waste should not sift the materials using his/her bare hands.
- 6.9. The personnel should use a stick to separate the contents and pick the item needed carefully.
- 6.10. Following segregation, the unwanted items are returned to the bag, tied, and kept separately for facilitating transport to the final destination site.
- 6.11. The bags are transported through the vehicle specifically meant for the transport of the general wastes from the storage area to the final disposal site, facilitated by suitable personnel who should wear shoes and don the mask and appropriate gloves.

7. ROAD MAP TO DEPICT THE HANDLING AND SAFE DISPOSAL OF BIOMEDICAL WASTE AND GENERAL WASTE





Workflow for the safe disposal of Bio Medical Waste



Workflow for the safe disposal of General Waste



Annexure 1

MAHATMA GANDHI MEDICAL COLLEGE & RESEARCH INSTITUTE		BIO-MEDICAL WASTE SEGREGATION
மருத்துவ கழிவுகளை பிரித்தெடுத்தல்		
 மஞ்சள் நிற கூடை YELLOW BAG	<ul style="list-style-type: none"> ▶ இரத்தம், மலம், சிறுநீர், சளி மற்றும் உமிழ்நீர் தோய்ந்த பொருட்கள் (பஞ்சு, துணி, காசீதம்) ▶ விலங்குகளின் உறுப்புகள் மற்றும் உடல்கள் ▶ காலாவதியான மற்றும் விலக்கப்பட்ட மருந்து ▶ தீர்சயான கழிவு மற்றும் தீர்வ கழிவுகள் ▶ மைக்ரோபயாலஜி, பயோ-வெக்னாலஜி மற்றும் பிற மருத்துவ ஆய்வக கழிவுகள் 	<ul style="list-style-type: none"> ▶ ITEM CONTAINING BLOOD & BODY FLUIDS(COTTON SWAB, GAUZE, DRESSING MATERIALS, SOILED PLASTERCASTS, LINEN) ▶ ANIMAL TISSUES AND BODIES ▶ EXPIRED OR DISCARDED MEDICINES ▶ CHEMICAL WASTE & LIQUID WASTE ▶ MICROBIOLOGY, BIO-TECHNOLOGY & OTHER CLINICAL LAB WASTE
 சிவப்பு நிற கூடை RED BAG	<ul style="list-style-type: none"> ▶ கை உறைகள் ▶ ஐ.வி செட்ஸ் மற்றும் பாட்டில்கள் ▶ சிறுநீர் பை ▶ சர்க்கரை அளவை சோதிக்கும் அட்டை ▶ சிரிஞ்சு (ஊசி கீவ்வைத்து) ▶ கேத்திரிகள் ▶ விளாஸ்டிக் பொருட்கள் மற்றும் குழாய்கள் 	<ul style="list-style-type: none"> ▶ GLOVES ▶ IV TUBES, SETS & BOTTLES ▶ URINE BAGS ▶ BLOOD GLUCOSE MONITORING STRIP ▶ SYRINGE WITHOUT NEEDLE ▶ CATHETERS ▶ TUBING
 நீல நிற கூடை BLUE BAG	<ul style="list-style-type: none"> ▶ உடையாத மற்றும் பெரிய கண்ணாடி பாட்டில்கள் 	<ul style="list-style-type: none"> ▶ UNBROKEN AND LARGE GLASS BOTTLES
 வெள்ளை நிற, துளைக்க முடியாத விளாஸ்டிக் பெட்டி WHITE BOX	<ul style="list-style-type: none"> ▶ உடைந்த கண்ணாடி குப்பிகள் மற்றும் பாட்டில்கள் ▶ கவர்மையான பொருட்கள்(ஊசி, கத்தி) ▶ கவர்மையான விளாஸ்டிக் மற்றும் உலோகப் பொருட்கள் 	<ul style="list-style-type: none"> ▶ BROKEN GLASSES AND VIALS ▶ BLADES, NEEDLES, SYRINGE WITH FIXED NEEDLE ▶ SHARP PLASTIC ITEMS & METAL STILLET
HOSPITAL INFECTION CONTROL COMMITTEE, E.mail : hicc@mgmcri.ac.in, Extn. No : 278		

Annexure 2



Annexure 3

GREEN BAG

பச்சை நிற கடை

- ▶ உணவு பொருட்கள்
- ▶ டீ கப்புகள், காசிடம்
- ▶ பிளாஸ்டிக் தண்ணீர் பாட்டில்கள்
- ▶ சமையலறை கழிவுகள்

- ▶ FOOD WASTE
- ▶ TEA CUPS, PAPERS
- ▶ WATER BOTTLES
- ▶ ALL KITCHEN WASTE



உசி, கண்ணாடி மற்றும் கூர்மையான பொருட்களை பச்சை நிற கடைபில் போடக்கூடாது

DO NOT DISCARD NEEDLES, GLASS & OTHER SHARPS ITEMS INTO GREEN BAG



8. INVOLVEMENT OF MEDIA, IF ANY

NIL

9. INVOLVEMENT, IF ANY OF MAJOR FINANCIAL IMPLICATIONS CONCERNING EXTERNAL AGENCIES

Financial implications are in place pertaining to the external agencies involved in the safe disposal of waste including the municipal yard waste.

10. EXCEPTIONS, IF ANY

NIL

11. ANY OTHER PERTINENT DETAILS

The collection, segregation and disposal of biomedical and general waste should be in total compliance with a SBV policy for biomedical waste and General waste that would be ammended from time to time to comply with the rules of the government (Union Territory of Puducherry and Government of India).

12. ENQUIRIES

All enquiries related to this policy should be addressed to the Head Human Resources with copies marked to the General Manager (Administration) and Medical Superintendents of the Hospitals and Registrar.

Sl.No	Role	Name	Designation	Signature
1	Prepared by	1.Dr. Kalavani R 2. Dr. Jayapal	Associate Professor of Microbiology, MGMCRI Professor of Microbiology & Chairperson HICC, MGMCRI, SBV	R. Thome Jayapal
2	Reviewed by	Dr. Nirmal Coumare V	Medical Superintendent, MGMCRI	Le

Approved by: Prof.A.R.Srinivasan, Registrar, SBV:

