



**Sri Lakshmi Narayana Institute of Medical Sciences**

Date: 05.04.2020

From  
Dr.G.Jayalakshmi  
Professor and Head,  
Department of Microbiology,  
Sri Lakshmi Narayana Institute of Medical Sciences  
Bharath Institute of Higher Education and Research,  
Chennai.

To  
The Dean,  
Sri Lakshmi Narayana Institute of Medical College  
Bharath Institute of Higher Education and Research,  
Chennai.

**Sub: Permission to conduct value-added course: STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR1**

Dear Sir,

With reference to the subject mentioned above, the department proposes to conduct a value-added course titled: STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR1 for interns May to June 2020. We solicit your kind permission for the same.

Kind Regards

  
Dr.G.Jayalakshmi

**FOR THE USE OF DEANS OFFICE**

Names of Committee members for evaluating the course:

The Dean: Dr. K. Balagurunathan

The HOD: Dr. G.Jayalakshmi

The Expert: Dr. G.Jayalakshmi

The committee has discussed about the course and is approved.

  
Dean  
**DEAN**  
Prof.K.BALAGURUNATHAN M.S.  
(General surgeon)  
SRI LAKSHMI NARAYANA  
INSTITUTE OF MEDICAL SCIENCES  
OSUDU PONDICHERRY

  
Subject Expert  
**Dr. G. JAYALAKSHMI, B.Sc. MBBS, DCCO, M.D. (Micro),**  
DEAN - UNIVERSITY AFFAIRS  
Sri Lakshmi Narayana Institute of Medical Sciences  
Osudu, Kelappakkam, Puducherry- 605 002.

  
HOD



OFFICE OF THE DEAN

## **Sri Lakshmi Narayana Institute Of Medical Sciences**

OSUDU, AGARAM VILLAGE, VILLIANUR COMMUNE, KUDAPAKKAM POST,

PUDUCHERRY – 605 502

### Circular

24.04.2020

**Sub: Organising Value-added Course: STEPS frame work model as TL method in enhancing the procedural and performance skill in CRRI. reg**

With reference to the above mentioned subject, it is to bring to your notice that Sri Lakshmi Narayana Institute of Medical Sciences, Bharath Institute of Higher Education and Research is organizing "STEPS frame work model as TL method in enhancing the procedural and performance skill in CRRI". The course content is enclosed below."

The application must reach the institution along with all the necessary documents as mentioned. The hard copy of the application should be sent to the institution by registered/ speed post only so as to reach on or before 30<sup>th</sup> April 2020. Applications received after the mentioned date shall not be entertained under any circumstances.

**Dean**

**DEAN**

**Prof K.BALAGURUNATHAN M.S**  
(General surgeon)  
**SRI LAKSHMI NARAYANA**  
**INSTITUTE OF MEDICAL SCIENCES**  
**OSUDU PONDICHERRY**

Encl: Copy of Course content

## Course Proposal

Course Title: **STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR I**

### **Course Objective:**

1. To enhance the performance skill of biomedical waste segregation by training the CRR I Using STEPS Framework Model.
2. To assess the BMW segregation performance skill using DOPS after conventional teaching like Didactic lectures and Video demonstration which is equivalent to the first step of the STEPS Model – SET Induction.
3. To assess the BMW segregation performance skill using DOPS after full implementation of all steps of STEPS Framework Model.

To assess the reaction of target CRR I students towards the STEPS Framework Model and DOPS method by getting their feedback.

### **Course Outcome: Improvement in the BMW segregation skill after implementing STEPS TL method**

**Course Audience: Medical Interns of 2015 Batch**

**Course Coordinator: Dr.G.Jayalakshmi**

**Course Faculties with Qualification and Designation:**

**1.Dr.G.Jayalakshmi, Professor & HOD**

**2.Dr.Naveen kumar, Assistant Professor**

**Course Curriculum/Topics with schedule (Min of 30 hours)**

SINo	Date	Topic	Time	Hou rs	Lecture taken by
1.	14.05.2020	Introduction to BWM, Background, Objectives,	4-5p.m	1	<b>Dr.G.Jayalakshmi</b>
2.	15.05.2020	BMW Rules	2-3p.m	1	<b>Dr.G.Jayalakshmi</b>
3.	16.05.2020	Infection and importance of BMW management	4-6p.m	2	<b>Dr.Naveen kumar</b>
4.	18.05.2020	PPE- Donning & Doffing practical & video demonstration	4-6p.m	2	<b>Dr.G.Jayalakshmi</b>
5.	19.05.2020	Categories of BMW, Labels of Bio Hazard Warning	4-6p.m	2	<b>Dr.Naveen kumar</b>
6.	20.05.2020	Collection & Segregation at the source of generation of waste conventional didactic lecture and video.	4-5p.m	2	<b>Dr.G.Jayalakshmi</b>
7.	21.05.2020	conventional didactic lecture and video	4-5P.M	1	<b>Dr.G.Jayalakshmi</b>
8.	22.05.2020	Transportation & common storage	4-5p.m	1	<b>Dr.G.Jayalakshmi</b>
9.	23.05.2020	Transportation and treatment at CTF facility	4-6p.m	1	<b>Dr.G.Jayalakshmi</b>
10.	27.05.2020	Liquid waste from Hospitals and effluent treatment	4-6p.m	2	<b>Dr.Naveen kumar</b>
11.	28.05.2020	Safe Handling of Sharps, needles and management of needle stick injuries	4-6p.m	1	<b>Dr.G.Jayalakshmi</b>

12.	29.05.2020	BMW in Special Situation, Limitations Of The Course And Its Implementation	4-6p.m	2	<b>Dr.G.Jayalakshmi</b>
13.	30.05.2020	Pre course and Post Course evaluation, Feedback analysis from Likert scale	2-5p.m	3	<b>Dr.Naveen kumar</b>
		<b>Practical Class I</b>			
13.	02.06.2020	Steps model explanation and various performance assessment methods	4-5 pm	1	<b>Dr.G.Jayalakshmi</b>
14.	03.06.2020	Orientation of the students about the training program and assessment methodology by DOPS	4-5 pm	1	<b>Dr.G.Jayalakshmi</b>
15.	04.06.2020	Video demonstration of BMW segregation, infection control practice, PPE, Donning & Doffing, Needle stick injuries and Biomedical waste management in special situation	4-6 pm	2	<b>Dr.G.Jayalakshmi</b>
16.	05.06.2020	Biomedical waste segregation procedure by STEPS model	4-6 pm	2	<b>Dr.Naveen kumar</b>
17.	06.06.2020	Assessment by DOPS procedure and giving feedback in weaker areas Obtaining feedback for the session.	2-6p.m	4	<b>Dr.G.Jayalakshmi</b>
		<b>Total</b>		30 hrs	

#### REFERENCE BOOKS:

1. Miller GE(1990), The assessment of clinical skills/competence/performance. Academic medicine, 65(9), 63-67.
2. Sydneysmee ABC of skill learning BMJ 2003; 326.703-706.
3. Biomedical Waste Management & Handling Rules (2016) with Amendment, updated on 2018.
4. BangBangal V. Training and assessment of medical interns using “direct observation of procedural skills (DOPS)” tool in obstetrics and gynecology. *MOJ Womens Health*. 2018;7(4):120–123. DOI: 10.15406/mojwh.2018.07.00181  
V. Training and assessment of medical interns using “direct observation of procedural skills (DOPS)” tool in obstetrics and gynecology. *MOJ Womens Health*. 2018;7(4):120–123. DOI: 10.15406/mojwh.2018.07.00181

Date: 06.06.2020

From  
Dr.G.Jayalakshmi  
Professor and Head,  
Department of Microbiology,  
Sri Lakshmi Narayana Institute of Medical Sciences  
Bharath Institute of Higher Education and Research,  
Chennai.

Through Proper Channel

To  
The Dean,  
Sri Lakshmi Narayana Institute of Medical Sciences  
Bharath Institute of Higher Education and Research,  
Chennai.

**Sub: Completion of value-added course: STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR**

Dear Sir,

With reference to the subject mentioned above, the department has conducted the value-added course titled: Influence of STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR on May to June 2020, 27 interns. We solicit your kind action to send certificates for the participants, that is attached with this letter. Also, I am attaching the photographs captured during the conduct of the course.

Kind Regards,

Dr.G.Jayalakshmi

**Encl: Certificates**

**Photographs**

Influence of STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR1: **TEACHING SESSION**



Influence of STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR1: **ASSESSMENT SESSION**



## VALUE ADDED COURSE

### 1. Name of the programme & Code

STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR I & CD/ME03

### 2. Duration & Period

30 hrs & May– June 2020

### 3. Information Brochure and Course Content of Value Added Courses

*Enclosed as Annexure- I*

### 4. List of students enrolled

*Enclosed as Annexure- II*

### 5. Assessment procedures:

Assessment Evolution by DOPS method - *Enclosed as Annexure- III*

### 6. Certificate model

*Enclosed as Annexure- IV*

### 7. No. of times offered during the same year:

1 times May– June 2020

### 8. Year of discontinuation: 2021

### 9. Summary report of each program year-wise

Value Added Course- May- June 2020					
Sl. No	Course Code	Course Name	Resource Persons	Target Students	Strength & Year
1	CD/ME03	STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR I	Dr. G.Jayalakshmi Dr.C.Naveen Kumar	CRR I Interns	20 students MAY- JUNE 2020

### 10. Course Feed Back

*Enclosed as Annexure- V*

#### RESOURCE PERSON

1. Dr.G.Jayalakshmi
2. Dr. V. Naveen Kumar

#### COORDINATOR

Dr.G.Jayalakshmi



**STEPS frame work model as TL method in enhancing  
the procedural and performance skill in CRRl**



**PARTICIPANT HAND BOOK**

## COURSE DETAILS

Particulars	Description
Course Title	STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR I
Course Code	CD/ME03
Topics and content of the course in the Hand book	<ol style="list-style-type: none"> <li>1. Introduction of BMW</li> <li>2. Background</li> <li>3. Objectives</li> <li>4. BMW Rules 2016</li> <li>5. Infection and importance of BMW management</li> <li>6. PPE – Donning &amp; Doffing practical &amp; video demonstration</li> <li>7. Categories of BMW and colour coding containers</li> <li>8. Labels of Bio Hazard Warning</li> <li>9. Collection &amp; Segregation at the source of generation of waste conventional didactic lecture and video.</li> <li>10. Transportation &amp; common storage</li> <li>11. Transportation and treatment at CTF facility</li> <li>12. Liquid waste from Hospitals and effluent treatment</li> <li>13. Safe Handling of Sharps, needles and management of needle stick injuries</li> <li>14. BMW in Special Situation</li> <li>15. Limitations Of The Course And Its Implementation</li> </ol>

	<p>16. Pre course and Post Course evaluation</p> <p>17. Feedback analysis from Likert scale</p> <p>18. Practical sessions</p> <ol style="list-style-type: none"> <li>a. Steps model explanation.</li> <li>b. Orientation of the students about the training program and assessment methodology by DOPS.</li> <li>c. Video demonstration of BMW segregation, infection control practice, PPE, Donning &amp; Doffing, Needle stick injuries and Biomedical waste management in special situation.</li> <li>d. Biomedical waste segregation procedure by STEPS model.</li> <li>e. Assessment by DOPS procedure and giving feedback in weaker areas</li> </ol>
<p>Advantages of learning and evaluation</p>	<ul style="list-style-type: none"> <li>• Proper Implementation of Biomedical Waste segregation evaluation by DOPS method</li> <li>• Correction of the mistake on the spot</li> <li>• Mistake will never be repeated</li> </ul>
<p>Further learning Opportunities</p>	<ol style="list-style-type: none"> <li>1. Structured TL methods like STEPS Frame work model are the need of the day.</li> <li>2. Competency based assessment must be evaluated properly as per the IMG 2019 MCI guidelines.</li> <li>3. Boost the self confidence of the students.</li> <li>4. As they are the lifelong learner, the foundation will be laid strong.</li> <li>5. As a responsible person committed to the society they know their roll and contribute to the society.</li> <li>6. Can be included in I MBBS ECE period itself if the study is approved.</li> <li>7. Can be included in the university examination for</li> </ol>

	<p>testing KH, SH, P and ethical issues.</p> <p>8. WPBA conforms to the highest level of MILLER's PYRAMID as'' Does '' is assessed</p> <p>9. Self satisfaction for the student as their performance is evaluated in a transparent method.</p> <p>WPBA asses the optimal and judicious uses of competencies in authentic settings.</p>
Key Competencies	<ul style="list-style-type: none"> <li>• The new curriculum focuses on competencies and outcomes. It gives a list of emphasis to skill development in all places. Competencies S H and P under supervision or independently is listed and they are related to the skill to be developed by IMG. The senior batch which can also be trained like the current batch of August 2019 at least in MUST KNOW areas for developing competencies.</li> <li>• Evaluation by DOPS method will satisfy the criteria of testing the apex of MILLERS PYRAMID.</li> </ul>
Target Student	CRRI Interns
Duration	30hrs May to June 2020
Theory Session	20hrs
Practical Session	10hrs
Assessment Procedure	Assessment Evolution by DOPS method

### **INTRODUCTION:**

Bio Medical Waste Management is the most known area in the Health sector as HAI, following which personal & Community protection from Health hazards can be prevented. BMW segregation Skill is the most needed one among the Interns.

### **Background**

**Bio Medical Waste Management** is the most known area in the health sector as HAI, personal and community protection from health hazards can be prevented. BMW segregation skill is one of the must for any intern.

WPBA is strongly recommended for inclusion in the in-training assessment.

In this study the competencies like knowledge, technical skill, performance skill, attitude and professionalism will be taught and hence all the competencies will be evaluated.

### **AIM OF THE COURSE:**

To evaluate the enhancement of Biomedical Waste(BMW) Segregation performance skills by DOPS method after implementing all steps of STEPS Framework Model.

### **OBJECTIVE**

1. To enhance the performance skill of biomedical waste segregation by training the CRRIs Using STEPS Framework Model.
2. To assess the BMW segregation performance skill using DOPS after conventional teaching like Didactic lectures and Video demonstration which is equivalent to the first step of the STEPS Model – SET Induction.
3. To assess the BMW segregation performance skill using DOPS after full implementation of all steps of STEPS Framework Model.

To assess the reaction of target CRRIs students towards the STEPS Framework Model and DOPS method by getting their feedback.

### **METHODOLOGY**

1. 25 CRRIs students willing to take part in the study were included.
2. The study group students were briefed about the new curriculum, structured TL methods, performance evaluation at each level, DOPS, STEPS model method, and also a brief account of BMW, National guidelines and its importance.
3. Assessors were given instructions and training to contact program. DOPS Score sheet was checked, validated and approved.
4. **STEPS Framework Model** was implemented for Teaching BMW Segregations at source. **First step:** Set Induction of STEPS Model constituted the conventional and teaching method for the study group.

4.1 **S**et Induction: Didactic lectures with PP presentation and Video play were showed to project the procedures of segregation, hand washing technique, PPE components, spillage handling including how and when to use the PPE.

All aspects of BMW segregation management was covered in 2 sessions of Didactic lectures 30 minutes each with a break in between .A 20 Minutes session of Video play was done.

4.2 Assessment was done using a pre validated, checked assessment score for BMW segregation performance technical skill by DOPS method of evaluation. Feedbacks were given to the students in weaker areas.

4.3 **T**utor Demonstration: without commentary this was done using Video Sessions for 20 minutes in mute condition showing all the Procedural skill of segregation of BMW into the appropriate color coded containers including PPE, donning, doffing, Hand hygiene and spillage management.

4.4 **E**xplanation was followed demonstrating all the Aspects of segregation by the Expert to the students.

4.5 **P**erformance by Students on their own under practically expert supervision was done.

4.6 **S**ubsequent practice was encouraged until they become competent to do the same on their own without supervision.

4.25. Final assessment of the Students performance of BMW segregating procedural performance skill was done using a pre validated checked ASSESSMENT score by DOPS method of evaluation. Feedbacks were given to the students in weaker areas.

5(a) Feedback were obtained from students for both the training given by STEPS model and the evaluation technique using DOPS method and they were analyzed optional.

b. Feedback was given by students for improvement based on performance.

### **BMW Rules 2016**

- The Government of India made Bio medical Waste Management and Handling rules in July 1998
- Government of India Bio Medical waste Management Rules 2016

- The rule is applicable across the country to all the Health Care establishments

  
**भारत का राजपत्र**  
**The Gazette of India**

**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**NOTIFICATION**

New Delhi, the 28th March, 2016



**Salient features of New BMW Rules 2016**

- Bio-Medical Waste has been classified into 4 categories instead of 10 to improve the segregation at source.
- The ambit of the rules has been expanded to include health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms of schools, forensic laboratories and research labs
- No occupier shall establish on-site treatment and disposal facility, if a service of common bio-medical waste treatment facility is available at a distance of seventy-five kilometre.
- Pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner as prescribed by the WHO or NACO guidelines and then sent to the CBMTF for final disposal
- Provide training to all its health care workers and others, involved in handling of bio medical waste at the time of induction and thereafter at least once every year and the details of training programmes conducted, number of personnel trained and number of personnel not undergone any training shall be provided in the Annual Report
- Immunise all its health care workers and others, involved in handling of bio-medical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste
- Vaccination to be certified & Documented.
- Ensure occupational safety of all its health care workers and others involved in handling of bio-medical waste by providing appropriate and adequate personal protective equipments
- maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the bio-medical waste generated in terms of category and colour coding as specified in Schedule I.



## Hospital A

Month	Nursing details	CBMWTF
Apr-15	73	73
May-15	144	144
Jun-15	79	79
Jul-15	84	84
Aug-15	90	90
Sep-15	75	75
Oct-15	97	97
Nov-15	95	95
Dec-15	12	18
Jan-16	60	75
Feb-16	149.7	83
Mar-16	122	122
<b>Total</b>	<b>1080.7</b>	<b>1035</b>

- BMW Staff- verify the daily bill from CBMWTF & their register. Then accept daily receipt.
- Office Superintendent- verify the monthly consolidated register from Staff nurse & CBMWTF. Then accept the bill from CBMWTF.

- make available the annual report on its web-site and all the health care facilities shall make own website within two years from the date of notification of these rules
- Establish a system to review and monitor the activities related to bio-medical waste management through BMW committee and the Committee shall meet once in every month and the record of the minutes of the meetings of this committee shall be submitted along with the annual report.
- Phase out use of chlorinated plastic bags, gloves and blood bags within two years from the date of notification of these rules
- All plastic bags shall be as per BIS standards (Bureau of Indian Standards).
- Untreated human anatomical waste, animal anatomical waste, soiled waste and, biotechnology waste shall not be stored beyond a period of forty –eight hours

## **Infection**

The infectious agents enter into the body through

- Puncture
- Abrasion
- Cut in the skin
- Through mucous membranes
- By inhalation and ingestion.

## **Most Common Infections**

1. Gastro enteric through faeces and/or vomit

e.g. *Salmonella*, *Vibrio Cholera*, *Helminthes* *Hepatitis A*

2. Respiratory through inhaled secretions

e.g. *Mycobacterium tuberculosis*; *Measles virus*; *Streptococcus pneumoniae*

3. Ocular infections through eye secretions

e.g. *Herpes virus*,

4. Skin infection through pus

e.g. *Streptococcus spp* ,

5. Meningitis through Cerebrospinal fluid

e.g. *Neisseria meningitides*

6. Blood borne diseases

- AIDS

ORGANISM	DISEASES CAUSED	RELATED WASTE ITEM
<u>VIRUSES</u> HIV, Hepatitis B, Hepatitis A,C, Arboviruses, Enteroviruses	AIDS, Infectious Hepatitis, Infectious Hepatitis, Dengue, Japanese encephalitis, tick-borne fevers, etc.	Infected needles, body fluids, Human excreta, soiled linen, Blood, body fluids.
<u>BACTERIA</u> Salmonella typhi, Vibrio cholerae,	Typhoid, Cholera, Tetanus Wound infections, septicemia,	Human excreta and body fluid in landfills and hospital wards,

Clostridium Tetani,  Pseudomonas, Streptococcus	rheumatic fever, endocarditis, skin and soft tissue infections	Sharps such as needles, surgical blades in  hospital waste.
<u>PARASITES</u>  Wucheraria Bancrofti,  Plasmodium	Cutaneous leishmaniasis, Kala Azar, Malaria	Human excreta, blood and body fluids in poorly  managed sewage system of hospitals.

- Septicaemia and bacteraemia
- Viral Hepatitis B & C
- Hemorrhagic fevers through body fluids
- Lassa, Ebola and Marburg viruses

### **Genotoxicity and Cytotoxicity**

- Irritant to skin and eyes

E.g. alkylating agent, intercalating agent

- Carcinogenic and Mutagenic

e.g. Secondary neoplasia due to chemotherapy



### Label of Hazard Warnings



inflammable



toxic



Gas bottle



explosive



Radiation



biohazard



corrosive



Health danger

### Segregation at the source of generation of waste

BIHER

SLIMS



### **Pre course and Post Course evaluation**

- At the end of the course, pre validated assessment score using DOPS method after Set induction step of STEPS model i.e. Didactic and video play (conventional teaching) for BMW segregation at source will be compared with the score using DOPS method after final step of the STEPS model i.e. subsequent practice on their own without supervision. And the difference if any will be evaluated.
- Feedback will be analyzed. Opinion, advantages, and requirement of improvements of the method can be inferred.
- Performance level of the CRRI for DOPS has definitely improved after STEPS than conventional teaching method.
- All the interns have given their opinion that this type of teaching learning method and WPBA improves their
  - - Self confidence
  - - Self satisfaction due to the transparency.
  - - Assesses the KH, SH, Performance, communication, ethical, attitude and professional skills.

- - Foundation is laid strongly.
- - As responsible person their contribution to the society will be improved.
- - As all domains are assessed, it satisfies the goals of IMG 2019 and they will be Global Doctors.
- This type of Formative Assessment gives them guidance for improved learning skills due to feedback given on spot.
- Structured TLM like STEPS will make us to touch millers apex of the pyramid
- STEPS seem to be the best TLM for DOPS.
- Feedback of students favours this TLM for DOPS.
- Feedback of faculty indicates some difficulties but still they agree it is the best method.
- Periodic and regular FDP and motivation will make them to mould and adapt.

### **Limitations Of The Course And Its Implementation**

1. Performed with limited no of students.
2. Takes extra time and effort
3. Motivation of all teachers to implement
4. Training of the assessors is mandatory.
5. Study is performed with limited number of interns.
6. Takes extra time and effort than conventional TLM and AM.
7. Periodic FDP is important to motivate the teachers.
8. Pre briefing and training of faculty is necessary for assessment and implementation.
9. Pre briefing of objectives expected out of students is necessary to achieve the goal.

**VALUE ADDED COURSE**

**STEPS frame work model as TL method in enhancing the procedural and performance skill in CRRI and CD/ME03**

**4. List of Students Enrolled May 2020 – June- 2020**

<b>CRR I Interns</b>		
<b>Sl. No</b>	<b>Name of the Student</b>	<b>Roll No</b>
<b>1</b>	AMARNATH.S	U15MB258
<b>2</b>	DHANALAKSHMI.M	U15MB279
<b>3</b>	SIVARAJ.S	U14MB318
<b>4</b>	PIRAI NILA.M	U15MB337
<b>5</b>	MAHESWARI.C	U15MB 318
<b>6</b>	SHAKTHY.K	U15MB364
<b>7</b>	SREERAM.M	U15MB376
<b>8</b>	SOWMYALAKSHMI.I	U15MB375
<b>9</b>	VENKATESH.G	U15MB393
<b>10</b>	SURIYA.S	U15MB384
<b>11</b>	VIGNESH.V	U15MB395
<b>12</b>	ARUL NIVETHINI.V.A	U15MB263
<b>13</b>	ASWIN.B	U15MB269
<b>14</b>	EZHILARASI.R	U15MB286
<b>15</b>	AKSSHAYA.M.R	U15MB257
<b>16</b>	ARUN PRASAD.K	U15MB266
<b>17</b>	PADMA SUNDARI.P	U15MB336
<b>18</b>	ABDUL RAHMAN.A	U13MB151
<b>19</b>	ABINAYA.J	U15MB253
<b>20</b>	DEEPIKA DIVYA KUMARI	U15MB274



<b>21</b>	AARTHI.H	U15MB251
<b>22</b>	SIVASHAKTHIVELAN.A.V	U15MB370
<b>23</b>	ASHOK.VSI	U14MB223
<b>24</b>	DEVANATHAN.R	U15MB277
<b>25</b>	DEVANAND.M	U15MB276
<b>26</b>	DHANUSH.R	U15MB280
<b>27</b>	SHIYAM.M	U15MB368

**RESOURCE PERSON**

**COORDINATOR**

## Sri Lakshmi Narayana Institute of Medical Sciences

Attendance List

DATE :06.06.2020

S.NO.	NAME OF THE CRR I	ID.NO	SIGNATURE OF THE CRR I
1	AMARNATH.S	U15MB258	
2	DHANALAKSHMI.M	U15MB279	
3	SIVARAJ.S	U14MB318	
4	PIRAI NILA.M	U15MB337	
5	MAHESWARI.C	U15MB 318	
6	SHAKTHY.K	U15MB364	
7	SREERAM.M	U15MB376	
8	SOWMYALAKSHMI.I	U15MB375	
9	VENKATESH.G	U15MB393	
10	SURIYA.S	U15MB384	
11	VIGNESH.V	U15MB395	
12	ARUL NIVETHINI.V.A	U15MB263	
13	ASWIN.B	U15MB269	
14	EZHILARASI.R	U15MB286	
15	AKSSHAYA.M.R	U15MB257	
16	ARUN PRASAD.K	U15MB266	
17	PADMA SUNDARI.P	U15MB336	
18	ABDUL RAHMAN.A	U13MB151	
19	ABINAYA.J	U15MB253	
20	DEEPIKA DIVYA KUMARI	U15MB274	
21	AARTHI.H	U15MB251	
22	SIVASHAKTHIVELAN.A.V	U15MB370	
23	ASHOK.VSI	U14MB223	
24	DEVANATHAN.R	U15MB277	
25	DEVANAND.M	U15MB276	
26	DHANUSH.R	U15MB280	
27	SHIYAM.M	U15MB368	

  
 RESOURCE PERSON

  
 COORDINATOR



**SRI LAKSHMI NARAYANA INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

Annexure - III

**Influence of STEPS frame work model as TL method in enhancing the procedural and performance skill in CRR**

**Direct Observation Of Procedural Skills**

**DOPS Score Assessment Form**

***Sri Lakshmi Narayana Institute of Medical Sciences, Puducherry***

**CANDIDATE AND ASSESSOR INFORMATION**

Course code: CD/ME03

<b>Candidate Name</b>		<b>Assessor Name</b>	
<b>Date of Assessment</b>		<b>Assessor Position</b>	

**PATIENT INFORMATION**

Age of patient	NA	Patient gender	NA	Setting	WPBA Work Place Based Assessment
Procedure	BMW Segregation Procedure and Performance skill		Discipline	Microbiology	

Please record a rating for each component of the procedure observed on the scale 0(extremely poor) to 4 (extremely good). A score of 0- is not observed, 1-is considered below expected level, 2 –borderline 3– adequate performance 4 above expected level, for the **MBBS standard**. Support ratings of 1-2 with an explanation / example in the comments box. Please add other relevant comments about this doctor’s strengths and weaknesses that support your ratings and guide future learning.

0-not observed	Below expected level (0 to 1)	Borderline (1 to 2)	Adequate performance (2 to 3)	above expected level (3 to 4)
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**( I ) Able to demonstrate the understanding of basic concepts of BMW, indications ,LIFECYCLE and implications with RULE**

**3x4=12**

1. What are the indications for Biomedical Waste Separation and Special Treatment?

**(Marks)**



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2. What is BMW Life cycle? Tell the components of it?

3. What are the various Bio Medical Rules with amendments you know off?

**(II) Obtains Ethical / Informed Consent**

**3x4=12**

1. XDR TB patient is attending OP. You want to collect sputum from the patient and to do Bronchoscopy for the patient.

a)What advice and precaution you will give to the patient? b)What you are supposed to collect?

2. You want to collect blood from patient.

a) What precaution you will take.

b) Apart from blood what else you will collect?

**(III)Aseptic Technique**

**3x 4= 12**

1. How and where will you dispose Sputum cups of plastic container containing sputum?

2. Why you want to use fresh hypochlorite? How will you prepare 1% hypo from 10% hypo?

3. Demonstrate six steps of hand washing techniques.

**(IV) Demonstrates appropriate preparation: PPE procedural Donning**

Donning: Sequence as follows

**1 x 4 = 4**

Donning:



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Shoe cover, Hand disinfection, Gown, Head cap- hand disinfection, Goggles, Mask, Gloves

**(V) Demonstrates relevant indications, infrastructure, and Technical skills for the existing situation**  
**3 x 4 = 12**

1). Availability of 4 containers, Availability of general waste container, PPE, Hand disinfection solution. Availability of 2% glutaraldehyde, 1% and 10% hypochlorite solution.

2). How and where will you dispose broken glass ampoule containing cytotoxic drug?

3). Observes HIV BLOOD Spilled on the floor due to accidental dropping of a glass tube in transport.  
 What action to be taken? What is spill kit? What are the risks associated? What preventive and Corrective measures you will take?

**(VI) Technical skill** **16 x 1 = 16**

Cotton soaked with pus+ blood, Drinking water bottle.  
 Petri dishes with media, Blood bag, Blood transfused set, Blade, Blood smeared glass slides,  
 Broken glasses, Expired tablets, Tissue paper and newspaper, Ascetic fluid, Urobag ,  
 Endotracheal tube, Needle Syringes, Platinum metal dental implant ,amputated leg

**(VII) In necessary situation seeking attenders/manpower /using resources /spot decision and action Planning**  
**3 x4 = 12**

**1) Unknown acid bottle broken with fumes all over**

- 1) What action to be taken
- 2) To make everybody alert
- 3) To open the windows
- 4) To lower the temperature

**2) See the mercury spillage on the ground. Ask them to tell 1) what they have to do like seek the help of an attender 2 ) plunge into action 3) cordoning off the area.**



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3) **How to collect the spill?**

**(VIII) Post procedure management plan Doffing.**

**1x4=4**

(i) Removes gloves- yellow bin (ii) Removes gown - yellow bin (iii) Remove head cap- yellow bin (iv) Removes shoe cover- yellow bin. Checking the area for cleaner Proper disposal of all the materials.

**(IX) Communication skills:**

**2x 4 = 8**

(1) Do you know what is being done for BMW in CBMWTF- how do they dispose of.

(2) What are the various symbols you know off used in medical field of BMW? Can you explain 4 R s?

**(X) Consideration for patient/ professionalism.**

**2 x 4 = 8**

What will be your reaction with the following situations?

1) If you see the autoclave temperature is set less than 121° C required for sterilization- your Reaction.

2) If a disposable needle syringe being reused for another Person without disposing it Off.

**TOTAL MARKS OBTAINED BY THE CANDIDATE =**

**(XI) Overall performance**

**Please make sure to provide verbal feedback to the train once you complete the assessment.  
Please use this space to give trainee suggestions about areas of strength and areas of improvement.**



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**Assessor name                      Signature                      Date                      Time taken for assessment**

**Examinees name                      Signature                      Date                      Time taken for assessment**



**SRI LAKSHMI NARAYANA INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

④ AARTHI *Arthy*

Direct Observation Of Procedural Skills  
Pre-intervention- DOPS Score Assessment Form  
*Sri Lakshmi Narayana Institute of Medical Sciences, Puducherry*

CANDIDATE AND ASSESSOR INFORMATION

Candidate Name Dr. AARTHI  
Date of Assessment 06/06/2020

Assessor Name Dr. SAYALAKSHMI  
Assessor Position

PATIENT INFORMATION

Age of patient NA Patient gender NA Setting WPBA Work Place Based Assessment  
Procedure BMW Segregation Procedure and Performance skill Discipline Microbiology

Please record a rating for each component of the procedure observed on the scale 0 (extremely poor) to 4 (extremely good). A score of 0- is not observed, 1- is considered below expected level, 2 -borderline 3- adequate performance 4 above expected level, for the **MBBS standard**. Support ratings of 1-2 with an explanation / example in the comments box. Please add other relevant comments about this doctor's strengths and weaknesses that support your ratings and guide future learning.

0-not observed	Below expected level (0 to 1)	Borderline (1 to 2)	Adequate performance (2 to 3)	above expected level (3 to 4)
----------------	-------------------------------	---------------------	-------------------------------	-------------------------------

( I ) Able to demonstrate the understanding of basic concepts of BMW, indications ,LIFECYCLE and implications with RULE 3x4=12 → (17)

1. What are the indications for Biomedical Waste Separation and Special Treatment? (Marks)

3  ③

2. What is BMW Life cycle? Tell the components of it?

2    ②

3. What are the various Bio Medical Rules with amendments you know off?

2    ②

(II) Obtains Ethical / Informed Consent 3x4=12 → (17.5)

1. XDR TB patient is attending OP. You want to collect sputum from the patient and to do Bronchoscopy for the patient.

a)What advice and precaution you will give to the patient? b)What you are supposed to collect?

2    ②





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b) Apart from blood what else you will collect

**(III) Aseptic Technique**

3 x 4 = 12 → (8)

1. How and where will you dispose Sputum cups of plastic container containing sputum?

2. Why you want to use fresh hypochlorite? How will you prepare 1% hypo from 10% hypo?

3. Demonstrate six steps of hand washing techniques.

**(IV) Demonstrates appropriate preparation: PPE procedural Donning**

Donning: Sequence as follows

Donning:

Shoe cover, Hand disinfection, Gown, Head cap- hand disinfection, Goggles, Mask, Gloves

1 x 4 = 4 → (3)

**(V) Demonstrates relevant indications, infrastructure, and Technical skills for the existing situation**

3 x 4 = 12 → (7.6)

1). Availability of 4 containers, Availability of general waste container, PPE, Hand disinfection solution. Availability of 2% glutaraldehyde, 1% and 10% hypochlorite solution.

2). How and where will you dispose broken glass ampoule containing cytotoxic drug?

3). Observes HIV BLOOD Spilled on the floor due to accidental dropping of a glass tube in transport. What action to be taken? What is spill kit? What are the risks associated? What preventive and Corrective measures you will take?

**(VI) Technical skill**

16 x 1 = 16 → (15)

Cotton soaked with pus+ blood, Drinking water bottle.

Petri dishes with media, Blood bag, Blood transfused set, Blade, Blood smeared glass slides,

Broken glasses, Expired tablets, Tissue paper and newspaper, Ascetic fluid, Urobag,

Endotracheal tube, Needle Syringes, Platinum metal dental implant, amputated leg



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(VII) In necessary situation seeking attenders/ manpower / using resources / spot decision and action Planning

3 x 4 = 12

8

1) Unknown acid bottle broken with fumes all over

- 1) What action to be taken
- 2) To make everybody alert
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3) How to collect the spill?

(VIII) Post procedure management plan Doffing.

1x4=4

- Removes gloves- yellow bin
- Removes gown - yellow bin
- Remove head cap- yellow bin
- Removes shoe cover- yellow bin. Checking the area for cleaner Proper disposal of all the materials.

(IX) Communication skills:

2x4=8

(1) Do you know what is being done for BMW in CBMWTF- how do they dispose of.

(2) What are the various symbols you know off used in medical field of BMW? Can you explain 4 R s?

(X) Consideration for patient/ professionalism.

2 x 4 = 8

What will be your reaction with the following situations?

1) If you see the autoclave temperature is set less than 121° C required for sterilization- your Reaction.

2) If a disposable needle syringe being reused for another Person without disposing it Off.

TOTAL MARKS OBTAINED BY THE CANDIDATE =



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(XI) Overall performance

Please make sure to provide verbal feedback to the trainee once you complete the assessment.

Please use this space to give trainee suggestions about areas of strength and areas of improvement.

Communication skills to improve  
 Seeking help and preventive steps implementation  
 Overall familiarity and checks for BMW

Strength  
 Technical skill  
 + f

Assessor name assessment: Dr. Jayalal  
 Signature: [Signature]  
 Date: \_\_\_\_\_  
 Time taken for: 20 min.

Examinees name assessment: Aarthi  
 Signature: [Signature]  
 Date: \_\_\_\_\_  
 Time taken for: 20 min.

PRE-interventive domis  
 Total marks - 69.05  
 Grade -

1) Demonstration understanding	(12)	-	7
2) obtains ethical consent	(12)	-	7.5
3) aseptic techniques	(12)	-	8
4) Pre preparation	(4)	-	3.2
5) Relevant Indications	(12)	-	7.6
6) Technical skills	(16)	-	15
7) seeks help	(12)	-	8
8) Post procedure	(4)	-	3
9) Communication skills	(8)	-	4.75
10) Consideration Professionalism	(8)	-	5
			<u>69.05</u>

**Student Feedback Form**

**Course Name:** STEPS frame work model as TL method in enhancing the procedural and performance skill in CRRl

Subject Code: CD/ME03

Name of Student: \_\_\_\_\_ Roll No.: \_\_\_\_\_

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

**Feedback Form  
FIVE POINT LIKERT SCALE**

1. All the Sessions covered all the competencies like knowledge, analysis, training, practical Demonstration, Performance skill on your own and all other aspects related to overall global skills.

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

2. The content, method of delivery and ambience in the lecture session will help you to develop an overall performer?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

3. Procedural skill by Tutor demonstration was done with clarity and made you to understand thoroughly.

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

4. This Methodology of Teaching Learning method made you to understand all aspects of Technical skill thoroughly.

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

5. You really feel that this method is good and there is increase in the self-confidence?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

6. This method of Teaching Learning method is comprehensive in developing all competencies.

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

7. By DOPS Assessment method your knowledge, performance general skills and overall ability were completely assessed?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

8. This method of assessment is Transparent?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

9. You were given chance to analyze your mistakes and rectify in future in the form of feedback from Examinee?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

10. Though it is elaborate and time consuming we can apply in future?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

11. It would be liked and supported by you to have such comprehensive competency testing assessment methods in future?

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

12. It would be liked, supported and strongly recommended by you if this type of TL Method and assessment method is implemented in future.

1, Strongly Disagree, 2. Disagree, 3. Neither Agree nor Disagree, 4. Agree, 5. Strongly Agree

**Signature of the CRR:**

**Date:**

## FEEDBACK FORMS OF STUDENTS

■ St. Disagree

■ Disagree



6

## Feedback Form FIVE POINT LIKERT SCALE

1. All the Sessions covered all the competencies like knowledge, analysis, training, practical Demonstration, Performance skill on your own and all other aspects related to overall global skills.

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Signature of the Student

Date:

  
Signature of the CRR I

Date: 06/06/2020





# Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research  
(Deemed to be University under section 3 of the UGC Act 1956)




## CERTIFICATE OF MERIT

This is to certify that AMAR NATH. S has

actively participated in the Value Added Course on STEPS frame work model as TL method in enhancing the procedural and performance skill in CRRI in BMW held during May 2020 – June 2020 Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

  
Dr. G. Jayalakshmi  
RESOURCE PERSON

  
Dr. G. Jayalakshmi  
COORDINATOR

Dr. G. JAYALAKSHMI, B.Sc., MBBS, DTCD, M.D. (Micro),  
DEAN - UNIVERSITY AFFAIRS  
SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES  
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