



Facilitator's Guide

**For Blood Bank Medical Officers
(Non-BCSU)**

Training Program

Ministry of Health and Family Welfare
Government of India

भानु प्रताप शर्मा
सचिव
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Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare

Foreword

Blood Transfusion Services in India have advanced significantly through the Blood Safety Program which has been an integral part of all phases of the National AIDS Control Programme since 1992. This has contributed immensely in improving access to safe and quality blood, and in promotion of Voluntary Blood Donation, and has also led to several advancements in terms of better policies, improved infrastructure and adoption of modern technologies.

Capacity building and training are a vital part of service delivery. Regular and standardized training leads to improvements in the knowledge, skills and standards of personnel providing blood transfusion services. The scope of a standardized training curriculum on Blood Transfusion Service is to train the Medical Officers, Staff Nurses, Counselors and Lab Technicians of the Blood Bank to become totally familiar with the basic techniques of Blood Banking, and to help them adopt techniques which comply with the regulatory framework in the field of Blood Transfusion.

The set of training modules is intended to emphasize Good Laboratory Practices (GLP) and Quality Management Systems (QMS) in Blood Transfusion Services. Training would be imparted through identified centres identified by National AIDS Control Organization, Ministry of Health and Family Welfare. These training centres will work towards capacity building for all cadres of the Blood bank staff across all facilities situated in different regions of the country.

I am confident that this training module would be very useful for all in the field of blood transfusion services.

(B.P. Sharma)



सत्यमेव जयते

एन. एस. कंग, भा.प्र.से
अपर सचिव

NAVREET SINGH KANG, IAS
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Government of India
Ministry of Health & Family Welfare
National AIDS Control Organisation

Preface

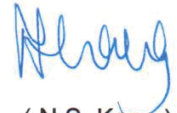
The goals and objectives of the Blood Safety Programme are to ensure the provision of safe and quality blood, even to remote areas of the country. National AIDS Control Organisation (NACO) supports a network of about 1200 Blood Banks in the Government and Charitable sectors through provision of equipment, consumables, manpower and capacity building. Nearly 70% of the country's blood requirement is met through this network. The scenario of blood banking in India owes much of its modernization due to the efforts made during various phases of the National AIDS Control Programme (NACP).

During NACP IV, NACO has identified specific areas for strengthening technical and service quality standards, management structures, partnership mechanisms, and monitoring and evaluation systems to achieve the objective of catering to the country's blood requirements through a nationally coordinated and well networked Blood Transfusion Service.

Blood Transfusion Services Division, NACO and the National Blood Transfusion Council are committed to improve all aspects of Blood Transfusion Services in coordination with State AIDS Control Societies and State Blood Transfusion Councils. With rapid technological advancement in transfusion medicine, there is a felt need for an elaborative and standardized training curriculum so as to comply with the Indian health Policy Framework. The current training curriculum is based on changing needs of transfusion professionals.

This training module has been prepared with an objective of introducing uniform standards in all aspects of blood banking for medical officers, staff nurses, counselors and laboratory technicians working in the blood banks. The module is designed for the better understanding and comprehension of blood banking processes and procedures, in order to improve technical and managerial skills of the personnel.

Appropriate in-service training programmes will facilitate provision of trained manpower to enhance quality of transfusion services and to keep abreast with the latest developments in this fast changing field.


(N.S. Kang)

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Know Your HIV status, go to the nearest Government Hospital for free Voluntary Counselling and Testing



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Acknowledgement

The Training Module for Blood Bank Medical Officers and Laboratory Technicians has been developed by Blood Transfusion Services Division, NACO and National Blood Transfusion Council, Ministry of Health and Family Welfare under the guidance and active leadership of Shri. Lov Verma, I.A.S, Ex-Secretary (Health) and Shri. B.P. Sharma, I.A.S, Secretary (Health).

The constant encouragement of Shri. N.S.Kang, Additional Secretary NACO and Shri. K.B. Agarwal, IAS, Joint Secretary, NACO have greatly helped in undertaking this important activity.

A special thanks to Dr. Shobini Rajan, Assistant Director General (BTS); Dr Harprit Singh, National Programme Officer (BTS) and Dr. Shanoo Mishra, Programme Officer Quality (BTS), NACO and other team members for their constant effort and hard work in preparing the module.

It is commendable to note that a comprehensive set of document has been reviewed with the coordinated and concerted efforts of various organizations and individuals from the Apex Training Institutes, PGI Chandigarh, KEM Mumbai and CMC Vellore. A detailed list of contributors is included within this document. My heartfelt thanks to all for their expertise and time spared towards technical review.

I extend my sincere thanks to the U.S. Centers for Disease Control and Prevention- Division of Global HIV/AIDS (CDC-DGHA), India and Christian Medical Association of India (CMAI) for providing technical assistance and support for the preparation of this set of modules.

(Dr. R.S Gupta)

Dr. Jagdish Prasad
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दिनांक/Dated.....

Message

Ensuring the safety and availability of Blood and Blood products is an essential Public Health responsibility. Measures to ensure blood safety also play a major role in preventing the transmission of HIV, Hepatitis virus and other Blood borne pathogens in health care settings.

Access to sufficient and safe Blood and Blood products provided within a National Blood System is a vital component in achieving Universal health coverage. So far, Blood Transfusion Services were available only through established Blood Banks extending up to district level. In 2003, under National Health Mission these services were made available at sub-district level through Blood Storage Units at First Referral Units. These Centres were aimed at meeting the requirements of blood for pregnant women requiring blood transfusions during pregnancy or labour.

For quality, safety and efficacy of Blood and Blood products, well equipped Blood Centres with adequate infrastructure and trained manpower is an essential requirement. To ensure effective clinical use of Blood and to maintain quality standards in Blood Banking procedures, training of clinical staff is important.

18 Training Institutes are identified to enhance quality services in Blood Transfusion Services. These Training Institutes will work towards capacity building of the Blood Banks through standardized Training Curriculum for all cadres of staff in the Blood Banks.

These revised editions of training modules for Blood Bank staff will be a useful resource for standardizing Blood Transfusion services across blood banks situated in different regions of the country. My congratulations to, Dr. R.S. Gupta, DDG, the BTS team at NACO and other organizations who contributed in the development of these modules.

(Dr Jagdish Prasad)



सत्यमेव जयते

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Message

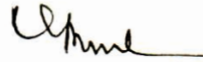
Access to safe blood and maintaining standards in Blood Transfusion Services (BTS) is the predominant responsibility of NBTC. Currently, a network of 1161 blood banks is under the umbrella of NACO support and it is essential to provide regular Training to the Blood Bank staff, throughout the country.

This series of training modules is designed to train the blood bank staff on the basic techniques of Blood Banking which comply with worldwide standards in the field of Blood Transfusion.

The module is intended to incorporate Good Laboratory Practices (GLP), Good Manufacturing Practices (GMP) and quality systems for Blood Bank personnel.

18 Training Institutes have been indentified under NACP IV. These Training Institutes will work towards capacity building of the Blood bank staff through standardized training curriculum for all cadres of staff in Blood Banks.

I would like to place on record my appreciation to Dr. R.S. Gupta, DDG BTS Division, Dr. S. D. Khaparde, ex- DDG, the BTS team at NACO and other organizations who contributed to the development of these guidelines.


(K B Agarwal) 29.5.15

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DAY 1

DAY 1					
Time	Session	Activity	Methodology	Duration	Resource Person
9.00am -9.30am		Registration	Group activity	30 minutes	Training Coordinator
9.30am -10.10am	Session 1 Introduction	Activity 1: Participant introduction	Ice breaker	15 minutes	Senior Doctor/MO blood bank
		Activity 2: Expectation of the participants	Individual Activity	5 minutes	
		Activity 3: Pre training assessment	Pre Structured questionnaire	20 minutes	
10.10am -10.45am	Session 2: Introduction to national blood safety program & National Blood Policy	Activity 1: Over view of National blood safety program	Video	15 minutes	SACS Quality Manager
		Activity 2: National Blood policy	Power point presentation	20 minutes	
10.45am -11.00am	TEA BREAK				
11.00am -1.00pm	Session 3 : Blood donor selection	Activity 1: Donor recruitment and retention	Power point presentation	30 minutes	Senior Counsellor, Senior Staff Nurse, Senior Doctor/MO Blood bank
		Activity 2: Donor room procedure & Adverse Donor Reaction	Power point presentation & Trigger video	60 minutes (Video-20 minutes , PPT-40 minutes)	
		Activity 3: Organization of blood donation camp	Group activity	30 minutes	
1.00pm -1.45pm	LUNCH				
1.45pm - 3.30 pm	Session 4: Immunohaematology	Activity 1: Basic red cell serology	Power point presentation	30 minutes	Senior Doctor/MO blood bank
		Activity 2: ABO and Rh grouping & Typing	Power point presentation & Trigger video	60 minutes (Video-20 minutes , PPT-40 minutes)	
		Activity 3 : ABO grouping discrepancies	Power point presentation	15 minutes	
3.30pm - 3.45pm	TEA BREAK				
3.45pm - 4.45pm	Session 4: Immunohaematology - Contd	Activity 4 : Lab demonstration - HB estimation, ABO , RH Grouping & typing)	Lab demo	60 minutes	Senior lab technician

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for Blood Bank Medical Officers

DAY 1

Session 1: Introduction

Activity 1: Participant Introduction

Objective:

- To help participants to get to know each other.

Time: 15 Minutes**Material:** Soft ball – 1 No.**Methodology**

- Ice Breaker

Instructions to the Facilitator:

- Ask the participants to sit in a circle
- The facilitator can introduce him/herself first
- Throw the ball to one of the participants
- The participant who holds the ball has to introduce him/herself to the group by saying out aloud their name, designation, workplace & hobby.
- The participant holding the ball will now throw it to anyone in the group. The person who gets the ball now introduces him/herself.
- The activity continues till all the participants have introduced themselves.

Session 1: Introduction

Activity 2: Expectation of the Participants

Objective:

- To understand the expectations of the participants from the training program.

Time: 5 minutes**Materials:** Paste it slips, Pens**Methodology**

- Individual Activity

Instructions:

- The facilitator requests the participants to write down their expectations from the training sessions on the paste it slips provided to them.
- The slips to be placed by the participants on the wall / white board.

Note: The expectations must be displayed till the end of the training.

Summarize:

- The facilitator has to list out core participant's expectations.

DAY 1

Session1: Introduction (contd...)

Activity 3: Pre Training Assessment

Objective:

- To assess the knowledge of the participants.

Time: 20 minutes

Material: Pre Structured Questionnaire

Methodology

- Individual activity

Instructions:

- The facilitator will circulate the questionnaire to the participants to be filled up and returned.
- No negative markings
- The pre training questions must be corrected and kept ready before the last day of training.

Session 2: Introduction to National Blood Safety Program and National Blood Policy

Activity 1: Overview of National Blood Safety Program.

Objective:

- To provide an insight to the scenario of the National Blood Safety Program.

Time: 15 minutes

Materials: Projector, Screen

Methodology

- Video show

Instructions:

- The facilitator needs to project the documentary video

Summarize:

- Quickly recap the evolution of the National Blood safety program.
- Clarify any questions by the participants.

Reference:

- Kindly refer to the video presentation of Day 1 - Session 2 - Activity 1

Facilitator's Guide

for Blood Bank Medical Officers

DAY 1

Session 2: Introduction to National Blood Safety Program and National Blood Policy

Activity 2: National Blood Policy

Objective:

- To create awareness on the National Blood Policy

Time: 20 Minutes**Material:** Projector, Screen, Pointer**Methodology**

- Power Point Presentation

Instructions:

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

1. What are the core points discussed in this presentation?
2. How does it relate to your work?

Reference :

- National Blood policy 2002, Revised version 2007
- PPT No: Day 1 - Session 2 - Activity 2

Session 3 :Blood Donor Selection

Activity 1: Donor Recruitment, Retention

Objective:

- To describe methods of donor identification & selection
- To explain details about donor education
- To explain donor care & recall.

Time: 30 minutes**Material:** Projector, Screen, Pointer**Methodology**

- Power Point Presentation

Instructions:

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 1, sub topic no. 1.1, of the MO & LT Module
- PPT No: Day 1 - Session 3 - Activity 1.

Session 3: Blood Donor Selection

Activity 2: Donor room procedure and adverse donor reaction

Objective:

- To address issues in blood collection to ensure safety of donor and the product.

Time: 60 minutes (Video- 20 minutes , PPT- 40 minutes)

Material: Projector, Screen, Pointer

Methodology

- Power Point Presentation and Trigger video

Instructions:

Step 1: Power Point Presentation

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Step 2: Trigger Video

- Facilitator should ensure necessary arrangements for Trigger video presentation.
- The following two topics to be covered.
 - Haemoglobin Estimation
 - Phlebotomy procedure
- Please instruct the participants that there would be questions at the middle of the video presentation, which the participants have to answer

Summarize:

- Facilitator should ask about participant's observation about the video.
- What are the core points discussed in the trigger video?
- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 1, sub topic no. 1.2, of the MO & LT Module
- PPT No: Day 1- Session 3- Activity 2 (a) and 2 (b)

Facilitator's Guide

for Blood Bank Medical Officers

DAY 1

Session 3: Blood Donor Selection

Activity 3: Organisation of Blood Donation camp

Objective:

- To illustrate the list of procedures required to organize a blood donation camp.

Time: 30 Minutes**Material:** Paper, Pens**Methodology**

- Group Activity

Instructions:

- Divide the participants into 4 groups
- Assign one of the following activities to each group.
- Each group should work as a team on the activity assigned to them
- A volunteer from each group should make a short presentation on their group activity.

Note:

- Time for group discussion: 10 minutes
- Time for presentation by each group: 5 minutes (Total time: 20 minutes)
- Ask other groups to comment on any missed out points.

List of Activities to be assigned to each group for this session are:

- Pre Camp activities & Challenges faced
- Camp site activities & Challenges faced
- Equipment required during camp & Challenges faced
- Records, Storage & Transportation of collected Blood units & Challenges faced

Summarize:

- What are the core points discussed by groups?

Reference:

- Kindly refer to Chapter No. 1, sub topic no. 1.3, of the MO & LT Module

Session 4: Immunohaematology

Activity 1: Basic Red Cell Serology

Objective:

- To describe the basic red cell serology
- To explain antigen antibody reaction.

Time: 30 Minutes**Material:** Projector, Screen, Pointer**Methodology**

- Power Point Presentation

Instructions:

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2.1, of the MO & LT Module
- PPT No: Day 1 - Session 4 - Activity 1

Session 4: Immunohaematology

Activity 2: ABO, Rh Grouping and Typing

Objective:

- To enumerate types of blood groups
- To explain blood group principles
- To explain general precautions followed during blood grouping

Time: 60 minutes (Video- 20 minutes , PPT- 40 minutes)

Material: Projector, Screen, Pointer, Lab facilities

Methodology

- Power Point Presentation and Trigger Video

Instructions:

Step 1: Power Point Presentation

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Step 2: Trigger Video

- Facilitator should ensure necessary arrangements for Trigger video presentation.
- The following topic is to be covered.
*ABO grouping and RH typing
- Please instruct the participants that there would be questions at the middle of the video presentation, which the participants have to answer.

Summarize:

1. What are the core points discussed in this presentation?
2. How does it relate to your work?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2..2, of the MO & LT Module
- PPT No: Day 1 - Session 4 - Activity 2.

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DAY 1

Session 4: Immunohaematology

Activity 3: ABO Grouping Discrepancies

Objective:

- To explain discrepancies in ABO grouping

Time: 15 Minutes**Material:** Projector, Screen, Pointer.**Methodology**

- Power Point Presentation

Instructions:

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2.3, of the MO & LT Module
- PPT No: Day 1 - Session 4 - Activity 3.

Session 4: Immunohaematology

Activity 4: Lab demonstration - HB estimation, ABO, RH Grouping and Typing

Objective:

- To provide hands on exposure to HB estimation, ABO, RH Grouping and Typing.

Time: 60 Minutes**Material:** Samples for demo**Methodology**

- Lab Demonstration

Instructions:

- Facilitator should ensure that necessary arrangements for demonstration have been made at the lab.
- Accompany participants to the concerned lab.
- Participants need to be divided into 2 groups. The following topics would be demonstrated for each group.
 - HB estimation
 - ABO, RH Grouping and Typing
- The groups then swap to do the other procedure

Summarize:

- Ask participants on the key learnings from this session

Reference:

- Kindly refer Chapter No. 2, of the MO & LT Module

DAY 2

DAY 2					
Time	Session	Activity	Methodology	Duration	Resource Person
9.00am -9.30am	Warming Up	Recap of DAY 1 Session	Presentation	30 minutes	Rapporteur & time keeper
9.30am -10.00am	Session 1: Immunoematology (contd)	Activity 1: Antiglobulin test	Power point presentation	30 minutes	Senior Doctor/MO blood bank, Senior lab technician
10.00am -10.30 am		Activity 2: Compatibility testing	Power point presentation	30 minutes	
10.30.am - 10.45am	TEA BREAK				
10.45am - 11.45am	Session 1: Immunoematology (contd)	Activity 3: Group Activity on Compatibility testing	Group activity	60 minutes	Participants
11.45am - 1.00 pm		Activity 4: Q C in Immunoematology	Power point presentation	75 minutes	Senior Doctor/MO blood bank
1.00pm -1.45pm	LUNCH				
1.45pm-2.30pm	Session 2 : Transfusion Transmissible Infection	Activity 1: Basics of TTI	Group activity	45 minutes	Senior Doctor/MO blood bank
2.30pm -3.30pm		Activity 2: Screening of TTI	Power point presentation & Trigger video	60 minutes (Video- 20 minutes , PPT- 40 minutes)	Senior Doctor/MO blood bank, Senior lab technician
3.30pm -3.45pm	TEA BREAK				
3.45pm -4.30pm	Session 2: Transfusion Transmissible Infection (contd)	Activity 3: Laboratory Demonstration (Antiglobulin test , Compatibility testing & TTI screening)	Lab demo	45 minutes	Senior lab technician

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DAY 2

Session 1: Immunohaematology (contd...)

Activity 1: Anti Globulin Test (AGT)

Objective:

- To understand the principles of AGT
- To learn the techniques of AGT and the reagents used.

Time: 30 Minutes**Material:** Projector, Screen, Pointer**Methodology**

- Power Point Presentation

Instructions to the Facilitator:

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2.4, of the MO & LT Module
- PPT No: Day 2 - Session 1 - Activity 1.

Session 1: Immunohaematology (contd...)

Activity 2: Compatibility Testing (Cross Matching)

Objective:

- To understand principles & procedures of cross matching
- To recognize the significance of compatibility testing.

Time: 30 Minutes**Material:** Projector, Screen, Pointer**Methodology**

- Power Point Presentation

Instructions to the Facilitator:

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2.5, of the MO & LT Module
- PPT No: Day 2 - Session 1 - Activity 2.

DAY 2

Session 1: Immunohaematology (contd...)

Activity 3 : Group Activity on Compatibility Test

Objective:

- To understand principles & procedures of cross matching
- To recognize the significance of compatibility testing.

Time:60 Minutes

Material: Projector, Screen, Pointer

Methodology

- Group Activity

Instructions:

- Divide the participants into 3 groups
- Assign one of the following activities to each group.
- Each group should work as a team on the activity assigned to them
- A volunteer from each group should make a short presentation on their group activity.

List of Activities to be assigned to each group for this session are:

1. Compatibility for packed blood cell
2. Selection of appropriate components for all the ABO
3. Selection of appropriate components for all the RH blood group

The topic matrix needs to be developed by each group and presented. The challenges faced in testing should be mentioned by the members.

Note:

- Time for group discussion: 10 minutes
- Time for presentation by each group: 5minutes(Total time: 20 minutes)
- Ask other groups to comment on any missed out points.

Summarize:

- What are the core points discussed by groups?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2.5, of the MO & LT Module

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DAY 2

Session 1: Immunohaematology (contd...)

Activity 3: Quality Control in Immunohaematology

Objective:

- To emphasize the importance of quality control in Immunohaematology.

Time: 75 Minutes**Material:** Projector, Screen, Pointer**Methodology**

- Power Point Presentation

Instructions:

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 2, sub topic no. 2.6, of the MO & LT Module
- PPT No: Day 2 - Session 1 - Activity 3

Session 2: Transfusion Transmissible Infection

Activity 1: Basics of Transfusion Transmissible Infection

Objective:

- To recognize Transfusion Transmissible Infections
- To understand the characteristics of TTIs.

Time: 45 Minutes**Material:** Charts, Sketch pens, Marker pens**Methodology**

- Group Activity

Instructions:

- Divide the participants into 4 groups
- Assign one of the following activities to each group.
- Each group should work as a team on the activity assigned to them
- A volunteer from each group should make a short presentation on their group activity.

List of Activities to be assigned to each group for this session are:

- Epidemiology & Screening of Hepatitis B & Hepatitis C
- Epidemiology & Screening of HIV
- Epidemiology & Screening of Malaria
- Epidemiology & Screening of Syphilis

Each group needs to list down the following with respect to the TTI Agent, Host, Modes of Transmission and Screening tests.

Note:

- Time for group discussion: 10 minutes
- Time for presentation by each group: 5 minutes (Total time: 20 minutes)
- Ask other groups to comment on any missed out points.

Summarize:

- What are the core points discussed by groups?

Reference:

- PPT No: Day 2 - Session 2 - Activity 1

DAY 2

Session 2: Transfusion Transmissible Infections

Activity 2: Screening of TTI

Objective:

- Describe the blood screening process
- Explain Preventive strategies for TTIs.

Time: 60 minutes (Video- 20 minutes , PPT- 40 minutes)

Material: Projector, Screen, Pointer

Methodology

- Trigger Video and Power Point Presentation

Instructions:

Step 1: Trigger Video

- Facilitator should ensure necessary arrangements for Trigger video presentation.
- The following topic is to be covered.
 - * TTI screening.
- Please instruct the participants that there would be questions at the middle of the video presentation, which the participants have to answer.

Step 2: Power Point Presentation

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries.

Summarize:

- What are the core points discussed in the trigger video?
- What are the core points discussed in this presentation?
How does it relate to your work?

Reference:

- Kindly refer Chapter No. 3, of the MO & LT Module
- PPT No: Day 2 - Session 2 - Activity 2.

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DAY 2

Session 2: Transfusion Transmissible Infections

Activity 3: Laboratory Demonstration (Antiglobulin test , Compatibility test and TTI screening)

Objective:

- To help participants in better understanding of the session on Antiglobulin test, Compatibility test and TTI screening.

Time: 45 Minutes

Material: Samples for demo

Methodology

- Laboratory Demonstration

Instructions:

1. Facilitator should ensure that necessary arrangements for demonstration have been made at the lab.
2. Accompany participants to the concerned lab.
3. Participants need to be divided into 3 groups. The following topics would be demonstrated for each group.
 - a. Antiglobulin test
 - b. Cross matching (Compatibility test)
 - c. TTI screening
4. The groups then swap to do the other procedure

Summarize:

- Ask participants on the key learnings from this session

DAY 3

DAY 3					
Time	Session	Activity	Methodology	Duration	Resource Person
9.00am -9.30am	Warming Up	Recap of DAY 2 Session	Presentation	30 minutes	Rapporteur & time keeper
9.30am -10.30am	Session 1: Bio safety & BMWM	Activity 1: Bio safety	Power point presentation & video	60 minutes (Video-20 minutes , PPT-40 minutes)	Senior Doctor/MO blood bank
10.30am - 1045am	TEA BREAK				
10.45am-11.00am	Session 1: Bio safety & BMWM (contd)	Activity 2: “Bin it in a minute” Game	individual activity	15 minutes	Participants
11.00 am -12 Noon		Activity 3: Bio medical waste management	Power point presentation	60 minutes	Senior Doctor/MO blood bank
12 Noon - 1.00pm	Session 2: Equipment management	Activity 1: Equipment management & calibration	Power point presentation	60 minutes	Senior Doctor/MO blood bank, Senior lab technician
1.00pm - 1.45pm	LUNCH				
1.45pm -2.45pm	Session 3: Blood components	Activity 1: Blood components	Trigger video & Power point presentation	60 minutes (Trigger video- 20 minutes & PPT-40 minutes)	Senior Doctor/MO blood bank
2.45pm – 3.30pm		Activity 2: QC for components	Power point Presentation	45 minutes	Senior Doctor/MO blood bank
3.30pm – 3.45pm	TEA BREAK				
3.45pm – 4.00pm	Session 3: Blood components (contd)	Activity3: Storage & Transportation	Power point Presentation	15 minutes	Senior Doctor/MO blood bank, Senior lab technician
4.00pm – 4.30pm		Activity4: Administration of blood components	Power point Presentation	30 minutes	Senior Doctor/MO blood bank, Senior lab technician
4.30pm – 5.30pm		Activity 5: Laboratory demonstration (blood components)	Lab demo	60 minutes	Senior lab technician

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for Blood Bank Medical Officers

DAY 3

Session 1: Biosafety and Bio Medical Waste Management	
Activity 1: Biosafety	
Objective: <ul style="list-style-type: none">• Describe the modes of exposure to blood borne pathogens in the laboratory.• Explain General Lab hygiene and Universal precautions.• Safe handling of specimens & Sharps• Management of blood spills• Vaccination for lab personnel• PEP for Hepatitis B, Hepatitis C & HIV.	Time: 60 Minutes <ul style="list-style-type: none">• 20 minutes Video Show• 40 minutes PPT
Material: Projector, Screen & Pointer	
Methodology <ul style="list-style-type: none">• Video Show and Power Point Presentation	
Instructions: Step 1: Video show: <ul style="list-style-type: none">• Facilitator should ensure necessary arrangements for Trigger video presentation.• The following topic is to be covered.<ul style="list-style-type: none">* Bio Safety.• Please instruct the participants that there would be questions at the middle of the video presentation, which the participants have to answer. Step 2: Power Point Presentation <ul style="list-style-type: none">• Please try to explain the crux of the contents in each slide. Do not just read out the points.• Please clarify the participant's queries	
Summarize: <ul style="list-style-type: none">• What was the core points discussed in the video?• What are the core points discussed in this presentation?• How does it relate to your work?	
Reference <ul style="list-style-type: none">• Kindly refer Chapter No. 4, sub topic no. 4.1 & 4.2, of the MO & LT Module• PPT No: Day 3 - Session 1 - Activity 1	

Session 1: Biosafety and Bio Medical Waste Management

Activity 2 & 3 : Game - Bin it in a Minute and Bio Medical Waste Management.

Objective:

- Explain categories of Bio medical waste
- Explain the different color codes & types of containers for waste disposal
- Describe the process of Disinfection & Autoclaving.

Time: 75 Minutes

- Game:15 minutes
- PPT:60 minutes

Material:

- **Game** - Colour coded bins, 15 Yellow colored balls with names of lab consumables / waste to be pasted on it (Gloves, Used syringe, test tubes, etc.),
- **PPT** - Projector, Screen and Pointer

Methodology

- Game: Bin it in a Minute and Power Point Presentation

Instructions:

Game: Bin It In a Minute

- Arrange the colour coded bins. Ask participants to come in batches of 5.
- Hand over three balls to each of the participants.
- Ask the participants to come forward and throw the balls in the appropriate coloured bins.
- Ensure all participants participate. Rectify the mistakes if participants throw the ball in the wrong bin.

Power Point Presentation

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- Was the game on waste segregation useful?
- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference

- Kindly refer Chapter No. 4, sub topic no. 4.3, of the MO & LT Module
- PPT No : Day 3 - Session 1 - Activity 2 & 3

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DAY 3

Session 2: Equipment Management

Activity 1: Equipment Management and Calibration

Objective:

- To understand the concept of equipment management.
- To understand the equipment calibration techniques and frequency of calibration.

Time: 60 Minutes**Material:** Projector, Screen and Pointer**Methodology**

- Power Point Presentation

Instructions:

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- PPT No: Day 3 - Session 2 - Activity 1

Session 3: Blood Components

Activity 1 : Blood Components

Objective:

- Describe the process of component separation
- Explain storage & shelf life of components

Time: 60 Minutes (Trigger video 20 minutes & PPT 40 minutes)**Material:** Projector, Screen and Pointer**Methodology**

- Trigger video & Power Point Presentation

Step 1: Trigger Video

- Facilitator should ensure necessary arrangements for Trigger video presentation.
- The following topic is to be covered.
 - * Component separation
- Please instruct the participants that there would be questions at the middle of the video presentation, which the participants have to answer.

Step 2: Power Point Presentation

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

DAY 3

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference

- Kindly refer Chapter No. 5, of the MO & LT Module
- PPT No: Day 3 - Session 3 - Activity 1

Session 3: Blood Components

Activity 2 : QC for Blood Components

Objective:

- Describe the quality control of components separation

Time: 45 Minutes

Material: Projector, Screen and Pointer

Methodology

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference

- Kindly refer Chapter No. 5, of the MO & LT Module
- PPT No: Day 3 - Session 3 - Activity 2

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DAY 3

Session 3: Blood Components *Activity 3 : Storage and Transportation*

Objective:

- Explain Storage and Transportation

Time: 15 Minutes**Material:** Projector, Screen and Pointer**Methodology**

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference

- Kindly refer Chapter No.5, sub topic no. 5.4 & 5.5, of the Nurses Module
- PPT No: Day 3 - Session 3 - Activity 3

Session 3: Blood Components

Activity 4 : Administration of Blood Components

Objective:

- Understanding about Administration of Blood Components

Time: 30 Minutes**Material:** Projector, Screen and Pointer**Methodology**

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference

- Kindly refer Chapter No.5, of the Nurses Module
- PPT No: Day 3 - Session 3 - Activity 4

DAY 3

Session 3: Blood Components

Activity 5 : Laboratory Demonstration (Blood Components)

Objective:

- To help participants in better understanding of the session on Blood Components.

Time: 60 Minutes

Material: Samples for demo

Methodology

- Lab Demonstration

Instructions:

- Facilitator should ensure that necessary arrangements for demonstration have been made at the lab.
- Accompany participants to the concerned lab.
- Participants need to be divided into 2 groups. The following topic would be demonstrated for each group.
 - Component separation
- The groups then swap to do the other procedure

Feedback on quality of training

- The facilitator circulates a feedback form with information on the following areas;
 - Quality of training
 - Facility & logistics
 - Suggestions

The feedback form needs to be filled up by the participants and handed over the next day

Summarize:

- Ask participants on the key learnings from this session

DAY 4

DAY 4					
Time	Session	Activity	Methodology	Duration	Resource Person
9.00am - 9.30am	Warming Up	Recap of DAY 3 Session	Presentation	30 minutes	Rapporteur & time keeper
9.30 am - 10.30 am	Session 1: Pre transfusion issues & Bed side practices & Transfusion reaction	Activity 1 : Pre transfusion issues & bed side practices	Power point presentation	30 minutes	Senior Doctor/MO blood bank
		Activity 2 : Transfusion reaction	Power point presentation	30 minutes	
10.30am - 10.45am	TEA BREAK				
10.45am - 11.45am	Session 2 : Roles & responsibilities of MO	Activity 1: Roles & responsibilities of MO	Power point presentation	60 minutes	Senior Doctor/MO blood bank
11.45am - 1.00 pm	Session 3: QMS in BTS	Activity 1: "Simon Says" Game	Group activity	15 minutes	By Participants
		Activity 2: Quality Management & Haemovigilance	Power point presentation	60 minutes	Senior Doctor/MO blood bank
1.00pm-1.45pm	LUNCH				
1.45pm - 3.15pm	Session 4: Record keeping, documentation & legal aspects	Activity 1: Record keeping & documentation	Power point presentation	45 minutes	Senior Doctor/MO blood bank
		Activity 2: Legal aspects of Blood bank	Power point presentation	45 minutes	
3.15pm-3.30pm	TEA BREAK				
3.30pm-4.00pm	Session 5 : Licensing and Regulation, Drugs and Cosmetic Act	Activity 1: Licensing and Regulation, Drugs and Cosmetic Act	Power point presentation	30 minutes	Senior Doctor/MO blood bank
4.00pm-4.30pm	Session 6: Data analysis, computer use and reporting	Activity 1: Data analysis, computer use and reporting	Power point presentation	30 minutes	
4.30pm - 5.30pm	Session 7: Post training assessment & wrap up	Activity 1: Post training assessment & feedback on quality of training	Pre Structured questionnaire	30 minutes	Training Coordinator
		Activity 2: Valedictory & certificate distribution		30 minutes	Training Coordinator

DAY 4

Session 1: Pre Transfusion Issues, Bed side practices and Transfusion Reactions.

Activity 1: Pre Transfusion Issues & Bed side practices.

Objective:

- Describe the procedure for blood sample collection from patient for Pre transfusion.

Time: 30 minutes

Material: Projector, Screen and Pointer

Methodology

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference

- Kindly refer chapter no.7 of the MO & LT Module
- PPT No : Day 4 - Session 1- Activity 1 (a) and 1 (b)

Session 1: Pre Transfusion Issues & Bed side practices, Transfusion Reactions.

Activity 2: Transfusion Reactions.

Objective:

- Explain the classification, signs & symptoms of transfusion reactions
- Describe Haemolytic transfusion reactions.

Time: 30 minutes

Material: Projector, Screen and Pointer

Methodology

- Power Point Presentation
- Discussion

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer chapter no 8 of the MO & LT Module
- PPT No: Day 4 - Session 1 - Activity 2

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DAY 4

Session 2: Roles & Responsibilities of MOs

Activity 1: Roles & Responsibilities of MOs.

Objective:

- Describe Administrative role & co-ordination
- Donor Camp & Management
- Component Management
- Clinical Services.

Time: 60 Minutes**Material:** Projector, Screen and Pointer**Methodology:** Power Point Presentation**Instructions**

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer the annexure of the MO & LT Module
- PPT No : Day 4 - Session 2 - Activity 1

Session 3 : QMS in BTS

Activity 1 : "Simon Says" Game

Objective:

- To energize the group

Time: 15 Minutes**Material:** Nil**Methodology**

- Group activity

Instructions:

- The facilitator tells the group that they should follow instructions when the facilitator starts the instruction by saying 'Simon Says'.
- If the facilitator does not begin the instructions with the words 'Simon Says', then the group should not follow the instructions!
- The facilitator begins by saying something like "Simon says clap your hands" while clapping their hands.
- The facilitator speeds up the actions, always saying 'Simon says' first. After a short while, the 'Simon says' is omitted.
- Those participants who do follow the instructions anyway are 'out' of the game.

DAY 4

Session 3 : QMS in BTS

Activity 2 : Quality Management & Haemovigilance

Objective:

- Discuss the policy & procedures for lab supplies
- Explain about the quality Assurance and Quality control in BTS.
- Explain about the Haemovigilance program of India

Time: 60 Minutes

Materials: Projector, Screen and Pointer

Methodology:

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- Kindly refer Chapter No. 8, of the MO & LT Module
- PPT No : Day 4 - Session 3 - Activity 1 & 2

Session 4: Record keeping , Documentation and Legal Aspects

Activity 1: Record keeping & documentation

Objective:

- Emphasize the importance of record keeping & documentation

Time: 45 Minutes

Material: Projector, Screen and Pointer

Methodology

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- PPT No : Day 4 - Session 4 - Activity 1

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DAY 4

Session 4: Record keeping , Documentation and Legal Aspects

Activity 2: Legal Aspects in Blood Banking

Objective:

- To provide an understanding of the legal aspects associated with Blood Banking.

Time: 45 minutes**Material:** Projector, Screen and Pointer**Methodology**

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide. Do not just read out the points.
- Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- PPT No : Day 4 - Session 4 - Activity 2

Session 5: Licensing & Regulation, Drugs and Cosmetic Act

Activity 1: Licensing & Regulation, Drugs and Cosmetic Act

Objective:

- To provide an insight of licensing, regulation & Drugs & Cosmetic Act.

Time: 30 Minutes**Material:** Projector, Screen and Pointer**Methodology**

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- PPT No : Day 4 - Session 5 - Activity 1

DAY 4

Session 6: Data Analysis, Computer use and Reporting

Activity 1: Data Analysis, Computer use & Reporting

Objective:

- To provide an insight of licensing, regulation & Drugs & Cosmetic Act.

Time: 30 Minutes**Material:** Projector, Screen and Pointer**Methodology**

- Power Point Presentation

Instructions

- Please try to explain the crux of the contents in each slide.
- Do not just read out the points. Please clarify the participant's queries

Summarize:

- What are the core points discussed in this presentation?
- How does it relate to your work?

Reference:

- PPT No : Day 4 - Session 6 - Activity 1

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DAY 4

Session 7: Post Training Assessment and Wrap Up

Activity 1: Post Training Assessment & feedback on the quality of the training

Objective:

- To have an insight on the participants understanding and their knowledge level after the training program.
- To get the participants feedback on quality of training.

Time: 30 Minutes

Material: Questionnaire, and Paste it Slips.

Methodology

- Individual Activity

Instructions:

Post training Assessment

- The facilitator will circulate the questionnaire to the participants to be filled up and returned.
- No negative markings
- The post training questions must be filled up and handed over to the facilitator.
- The filled in questionnaires to be randomly distributed back to the participants and corrected by the participants

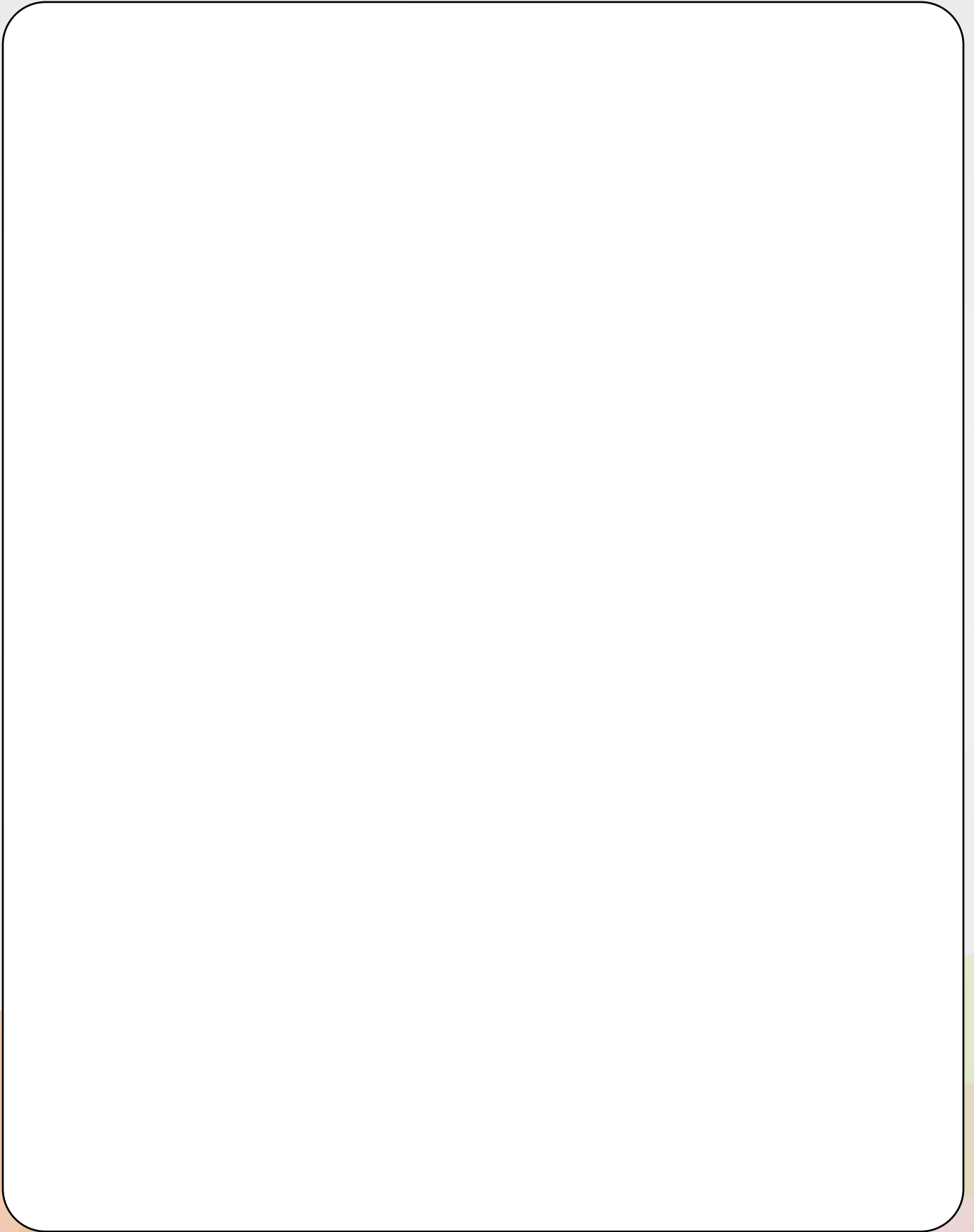
Feedback on quality of training

- The facilitator randomly picks out the feedback form and reads aloud the suggestions provided by the participants
- Randomly pick few slips of participants expectation pasted on the wall and read it aloud. Just ask participants whether expectations were met.

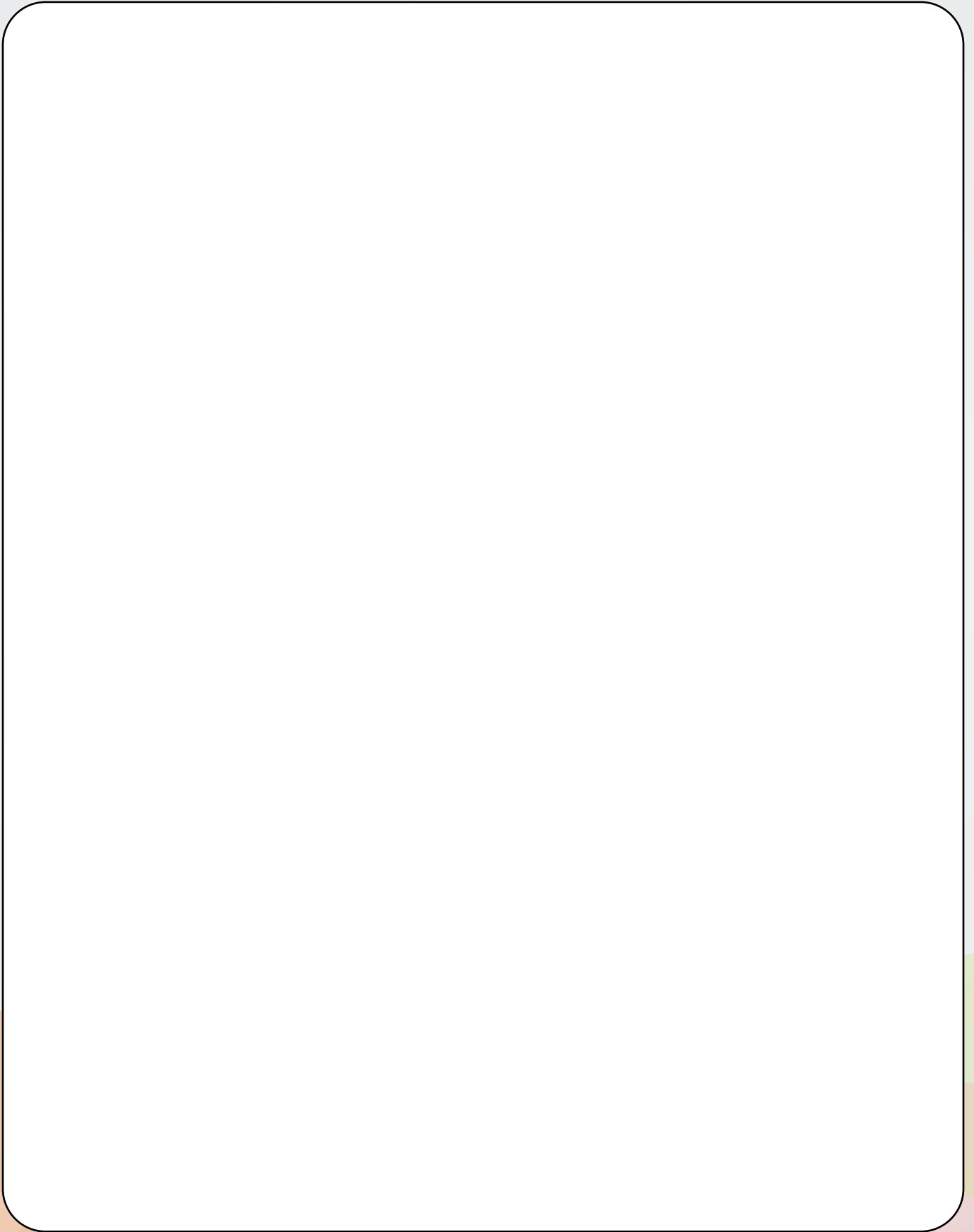
Summarize:

- Thank participants for active participation. Provide contact details of resource persons & training centre for future technical support.

NOTES

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NOTES

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