Workshop Report

Data and Information Management in Blood Transfusion Services

December 23, 2014

Pakistan Society for Blood Transfusion
Islamabad, Pakistan
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# Abbreviations

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<tr>
<td>AJK</td>
<td>Azad Jammu and Kashmir</td>
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<td>AMC</td>
<td>Ayub Medical College</td>
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<td>BTA</td>
<td>Blood Transfusion Authority</td>
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<td>BTIS</td>
<td>Blood Transfusion Information System</td>
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<td>BTS</td>
<td>Blood Transfusion Services</td>
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<td>EU</td>
<td>European Union</td>
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<td>GDBS</td>
<td>Global Database on Blood Safety</td>
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<td>GoP</td>
<td>Government of Pakistan</td>
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<tr>
<td>HBB</td>
<td>Hospital Blood Bank</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>IBLS</td>
<td>International Blood Labeling System</td>
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<td>IBTA</td>
<td>Islamabad Blood Transfusion Authority</td>
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<tr>
<td>ICCBBA</td>
<td>International Council for Commonality in Blood Banking Automation</td>
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<td>ICT</td>
<td>Islamabad Capital Territory</td>
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<td>ISBT</td>
<td>International Society of Blood Transfusion</td>
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<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>M/o NHSR&amp;C</td>
<td>Ministry of National Health Services, Regulation &amp; Coordination</td>
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<td>MIH</td>
<td>Maroof International Hospital</td>
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<td>NSF</td>
<td>National Strategic Framework</td>
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<td>PSBT</td>
<td>Pakistan Society for Blood Transfusion</td>
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<td>QSE</td>
<td>Quality System Essential</td>
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<td>SZABMU</td>
<td>Shaheed Zulfiqar Ali Bhutto Medical University</td>
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<td>WHO</td>
<td>World Health Organization</td>
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1. Introduction

The Pakistan Society for Blood Transfusion (PSBT) was established in 2012 to promote blood safety in Pakistan and to support the ongoing blood safety systems reforms being implemented by the government. The Society has been registered under the VSWA Ordinance 1961, Government of Pakistan, with the main objective to create linkages and partnerships among the blood banks, relevant national and international professional societies and the inter-governmental and non-governmental organizations for the purpose of knowledge about good practices in the blood transfusion sector. One of the key objectives of the Society is to enhance the capacity of all stakeholders involved in the vein-to-vein transfusion chain process. The Society also serves as a platform for all national stakeholders and a national voice on all issues related to blood transfusion in the country.

The Islamabad Blood Transfusion Authority (IBTA), Ministry of National Health Services, Regulation & Coordination, is a regulatory body responsible for the regulation of blood transfusion services in the federal capital, Islamabad. The IBTA has been established under the ICT Blood Safety Ordinance promulgated in 2002. The Authority has shown considerable progress in the recent past and completed registration and inspections of all public and private blood banks in Islamabad. A consistent finding of these inspections was lack of proper data management and documentation.

The PSBT and IBTA in collaboration with the International Society of Blood Transfusion organized a training workshop on Data and Information Management in Blood Transfusion Services in Islamabad, Pakistan. The specific objectives of the workshop were to;

1) Highlight the importance of Data and Information Management for BTS in Pakistan;
2) Brief the participants on a comprehensive information management system in BTS (best practices and latest advances);
3) Highlight the significance of good evidence based data management practices;
4) Review the current status and identify gaps in data and information management in Pakistan; and
5) Develop an action plan to improve data and information management of BTS in Pakistan.

During the workshop the participants were updated on the best practices and latest advances on data and information management. The working group discussion identified priority actions and plan for implementation to improve data and
information management for blood banks especially in the Islamabad Capital Territory. The workshop resulted in an improved awareness of good evidence based data management practices also evident from the evaluation of the event.

The PSBT and IBTA appreciate the support provided by the International Society of Blood Transfusion (ISBT) for conducting this workshop. ISBT, founded in 1935, is the premier international professional society for the field encompassing transfusion and transplantation science and medicine. The ISBT Academy is dedicated to education related to blood transfusion medicine. Through the ISBT Academy support, the PSBT had also organized two workshops in 2012 and 2013 respectively. The impact of these trainings has been very positive and considerable improvements seen during field visits. We hope for the same very kind of support in the future as well.

The presence of Dr. Naveed Ahmed, Secretary AJK BTA has been very useful and we appreciate his active participation. The IBTA team including Dr. Amir Maqbool, Usman Waheed, Zain Tareen and Kamran Khan deserve a special mention for their efforts to conduct this workshop in a very professional manner.

Prof. Hasan Abbas Zaheer
President, Pakistan Society for Blood Transfusion
Chairman, Islamabad Blood Transfusion Authority
Ministry of National Health Services, Regulation & Coordination
Government of Pakistan
2. Workshop Proceedings

2.1 Welcome Address: Dr. Amir Maqbool

Dr. Amir Maqbool, Secretary IBTA, welcomed the participants and gave a brief introduction to the blood transfusion services in Pakistan. He said systems reforms are being implemented in the blood transfusion system through the Safe Blood Transfusion Programme, Pakistan. This includes the strengthening of regulatory aspect of BTS. The regulatory authorities have been notified and made functional in most of the provinces. He said the Data Management workshop will be an important contribution to build the capacity of the participants to understand the significance of the data and information systems in BTS which is a key component of regulation. It will also identify priority actions and plan for implementation to improve data and information management for blood banks across in the country and especially in Islamabad.

2.2 Data and Information Management: Role of Regulatory Authorities: Prof. Hasan Abbas Zaheer

Prof. Zaheer informed about one of the key elements of blood safety reform process which is the introduction of a harmonized computer based management information system is the key tool for monitoring and decision making at system level allowing for the national monitoring of blood safety indicators. Currently there is no proper mechanism to facilitate the exchange of information and data between blood establishments and blood services on all aspects of blood supply management in Pakistan. And systematic approach of data reporting about blood centre activities does not exist in most of the blood centres. In the National Strategic Framework 2015-20 developed under the auspices of Safe Blood Transfusion Programme, data management is identified as one of the key strategic areas. Prof. Zaheer outlined the role of blood transfusion authorities in data collection and analysis and elaborated the key elements of inspection by BTAs. Data and information management is needed as they provide the foundation for strengthening governance and leadership and an effective quality system. The management is also essential in ensuring
appropriate donor management, traceability, process control, haemovigilance and evidence based decisions making and planning.

2.3 Data Management in ICT: IBTA Experience: Dr. Amir Maqbool

Dr. Amir introduced the Islamabad Blood Transfusion Authority and its recent progress to regulate the blood transfusion sector in Islamabad Capital Territory (ICT). The overall aim of regulation is to promote blood safety, a gradual process and needs standards, encouragement and support. The collection, management, analysis, and reporting of data for planning, implementation and evaluation of blood transfusion services is one of the main functions of IBTA. The authority functions under the Islamabad Blood Safety Ordinance No. LXXIII 2002, now covered by the 16th Amendment. The Authority has completed the inspection of blood banks in the ICT and issued licenses to the blood banks fulfilling the minimum criteria of licensing according to the law. The blood banks with deficiencies have been provided a set time frame after which they will be re-inspected. The Authority has also developed a data collection form which has been circulated to all the blood banks to collect data for the year 2014. The data and its analysis will be presented in the annual report of the Authority to be published in January 2015. The participants were informed about the lack of documentation which was seen in some of the blood banks and highlighted during inspections. After constant follow-up, the blood banks have started to document and report the data to IBTA. The Authority in the near future will assume a steering role to guide the overall development of Blood Transfusion Services, in its jurisdiction, towards the highest possible standards. The authority will also undertake capacity building measures in ICT blood banks for all levels of professionals along with developing a haemovigilance mechanism and communication network with provincial BTAs.
2.4 Data Management in AJK: AJK BTA Experience: Dr. Naveed Ahmed

Dr. Naveed Ahmed, Secretary, AJK Blood Transfusion Authority, discussed the progress of regulation in the state of Azad Jammu and Kashmir. He said the key issue in the blood transfusion sector of AJK remains lack of governance and an effective regulatory setup. To address this issue, the Government of AJK passed an Act from the parliament to regulate the blood transfusion system. The AJK Blood Transfusion Authority was therefore notified and has initiated the regulation of blood banks in the State of AJK under the AJK Safe Blood Act XVI of 2003 for registration and licensing of blood banks. In November 2014, the Authority inspected 31 blood banks in four of the ten districts of AJK. During inspections, some very critical deficiencies in data management have been noticed. There is heterogeneous state of affairs and blood is being transfused without proper documentation. There is no proper system to trace a donor due to lack of documentation system. A detailed report of the findings has been sent to all the individual blood banks inspected. The Authority will conduct refresher courses and trainings for the staff on all technical aspects of blood banking including data management and documentation. Re-inspection of the blood banks on probation will be conducted within the next three months. The blood banks in the remaining six districts will be inspected in January 2015.

2.5 Data Flow and Data Quality in Blood Transfusion Services: Mr. Muhammad Asim Ansari

Mr. Asim Ansari, Manager, Laboratory and Blood Bank, Kulsum International Hospital, Islamabad, discussed the data flow and data quality in blood transfusion services. He described the traceability of blood in EU. According to EU regulations 2005, hospitals must have total traceability of the fate of each unit of blood and retain
that information for 30 years. Compliance with the regulations is compulsory and monitored. Non-compliance could result in a prison spell for hospital chief executives. The traceability must be bi-directional according to regulations. He specified the main BT processes and functional requirements for blood centres which are:

- Functional support and automation of the major BT processes in blood centre
- Full blood traceability
- Accordance with regulations and safe blood process requirements
- High level of automation including barcodes, on-line communication with laboratory equipment
- Flexibility (parameterization)
- Critical user activity logging
- Statistical and managerial reporting

The practical requirements for traceability requires that hospital must record each blood transfusion, each patient, donor and blood product must be uniquely identified and each producer of blood (blood centre) must keep records linking each blood unit to the donor and records on blood product destination. All documents must be readable during the period of 30 years and all identifiers must be valid during 30 years. The records must not only exist but must be practically searchable. The beauty of software based documentation is that since it is extracted by using a software application hence the quality and outcome is accurate and tempering or manipulation of this data is seldom possible. Mr. Ansari also discussed the information cycle to highlight the importance of data quality in decision making.

The presentation also dealt with problems which may occur with paper based documentation, including:
- completeness and exactness (only positive results recorded)
- no validation of entries
- errors (like typing errors, mistaken identity of donors)
- readability
- difficult searching
- problem in long term archiving
- time consuming
- low reliability of information
- traceability is an illusion
- high dependence on quality of staff
- lack of precise and timely information for management

He informed the participants that errors in data and information management can be prevented by clarity of the instructions, training and motivation of the staff, honesty of the staff, user-friendliness of the support tools, such as data forms and templates and supervision and monitoring. If there are errors in documentation, data cleaning can be done (data cleansing or scrubbing) which deals with detecting errors and inconsistencies from data and removing them. The modality checks and business rules were also briefed.

2.6 Haemovigilance: Dr. Faiza Fahim

Dr. Faiza Fahim, Consultant Haematologist, KRL Hospital, Islamabad, introduced the concept of haemovigilance. She informed the participants that haemovigilance is a set of organized surveillance procedures related to serious adverse or unexpected events or reactions in donors or recipients, and the epidemiological follow up of donors. A haemovigilance system is an integral part of quality management in blood services developed for continual improvement of quality and safety of the transfusion process. It should cover processes throughout the transfusion chain, from blood donation and processing to transfusion for the monitoring, reporting and investigation of adverse events and reactions and near-misses related to blood transfusion. The information gained from the investigations and analyses facilitate corrective and preventive actions to be taken to minimize the potential risks associated with safety and quality in blood processing and transfusion for donors, patients and staff. Such information is also key to introduce required changes in the applicable policies, improve standards, systems and processes, assist in the formulation of guidelines, and increase the safety and quality of the entire process from donation to transfusion. Effectiveness of such systems should be measured not only by data reporting and analysis but by the use of such systems to improve patient safety.
The Safe Blood Transfusion Programme has facilitated the development of the Pakistan Haemovigilance Network (PHN) to promote the practice of haemovigilance in the country. The Islamabad Blood Transfusion Authority (IBTA) is collecting haemovigilance data from licensed blood banks of Islamabad and will publish it regularly in its Annual Report. For this purpose, the IBTA has developed a Donor Vigilance and Patient Vigilance form (available on the IBTA website). The same has also been introduced in the Azad Jammu & Kashmir blood banks through the AJK Blood Transfusion Authority and in Punjab through the Punjab Blood Transfusion Authority. The same model will be followed in remaining provinces.

2.7 Using Data for Quality Improvement in Blood Transfusion Services: Mr. Muhammad Asim Ansari

Mr. Asim Ansari started the presentation with a description of the PDCA or Deming Cycle which is a four-step management technique employed for continuous improvement of processes and products. It stands for Plan, Do, Check and Act and is considered as the basis of modern quality control. He informed the participants that according to WHO, Quality Improvement (QI) is an approach to improvement of service systems and processes through the routine use of health and programme data to meet patient and programme needs. Effective data management plays an important role in improving the quality of a blood centre. Collecting, analyzing, interpreting, and acting on data for evidence based decision making allows blood bank managers to identify where systems are falling short, to make corrective adjustments, and to track outcomes. He also described to the participants the process and outcome based quality management system for medical laboratories and blood banks.

2.8 Record Keeping and Data Management in Blood Transfusion Services: Mr. Usman Waheed

The topic of record keeping and data management in blood transfusion services was discussed by Mr. Usman Waheed, Technical Expert, IBTA and General Secretary, PSBT. He informed the participants about the key difference between a document and record. A document provides guidance and/or direction for performing work, making decisions, or rendering judgments and indicates what is to be done whereas a Record provides evidence as to what procedure or activity was performed and indicates what was done. According to ISO 9000-2015, data are any facts about an object, information is a meaningful data while documented information is any
information that must be controlled and maintained, comes from various sources in any format. Similarly a record is defined as a document that furnishes objective evidence of information obtained, activities performed, or results achieved. Key BTS areas for record keeping are;

- Donor records including details of donor information, rare donor panels, donor deferrals and adverse donor reactions.
- Record of component preparation
- Record of Donation Testing
- Inventory Records of blood, blood components, reagents and consumables, etc.
- Record of compatibility testing.
- Record of issue of blood.
- Patient related records-Laboratory, clinical & transfusion
- Record of discarded blood units.
- Quality control record (which helps in taking corrective actions to improve the performance of any procedure or working of any equipment and reagents).

Mr. Waheed demonstrated some of real life examples of the data and record management in the form of photographs taken during the visits of Blood Transfusion Authorities. He also discussed the topic of record management which is key component of any Quality System. It provides evidence that critical steps in a procedure have been performed appropriately and that products and services conform to specified requirements. It must be created parallel to the performance of each significant step and should clearly indicate the identity of the individuals who performed each step and when it occurred. Review of records is an important tool to help evaluate the effectiveness of the quality management system. Each blood centre should have a policy for altering or correcting records and there should be a process or Standard Procedure for controlling changes. If records are maintained electronically, adequate backups should exist in case of system failure and must be readable for the entire length of their retention period.

It is a common observation that there is plenty of data recorded at the service level. Most of it goes unused at the service level, because it was requested by higher levels and at the same time, it is not used at the policy level because it is felt to be invalid and incomplete. In summary, each blood bank and transfusion service should develop a practical record keeping system, which serves its needs. The record system should make it possible to trace a unit of blood/component from source (donor and collecting facility) to final destinations. The record keeping system should be regularly validated and audited to ensure its reliability and effective implementation and continued improvements.
2.9 WHO Global Database on Blood Safety: Mr. Muhammad Asim Ansari

Mr. Asim Ansari talked about the WHO Global Database on Blood Safety and introduced the database which was established to address global concerns about the availability, safety and accessibility of blood for transfusion. The objective of this activity is to collect and analyse data from all countries (194) on blood and blood product safety as the basis for effective action to improve blood transfusion services globally. A questionnaire, which has been developed as a standardized tool for the collection of data, is sent by WHO to national blood programmes for completion. The questionnaire is based on the WHO Aide-Mémoire for National Health Programmes: Blood Safety, which covers the four major components of the integrated strategy for blood safety advocated by WHO. Data obtained through the questionnaire are supplemented by information collected by experts during on-site visits to ministries of health and blood transfusion services. Based on earlier responses, the questionnaire has been refined in order to enhance the reliability of the information received. It has been translated into the six official languages of WHO and contains additional background information to facilitate its completion. The data collected through the GDBS questionnaire are analysed and reports are published on the WHO website. This is updated with the availability of the latest global data. The focus of the analysis is to provide information on the current status of blood transfusion services, assess country needs in improving blood safety, formulate strategic recommendations to countries, plan and implement activities and evaluate progress.

The Islamabad Blood Transfusion Authority (IBTA) has the mandate to collect and analyze the data from ICT blood banks. The Authority has in the recent past shared a questionnaire with all the blood banks to gather the data for the year 2014. The questionnaire is based on the WHO GDBS and will be complemented by the data from other provinces. Ultimately the country data will be shared with WHO at the start of next year. The purpose of this presentation was to sensitize the blood bank staff as they have to send the data from respective blood banks and often there are ambiguities in the filled forms received.
2.10 Eurocode International Blood Labeling System (IBLS) and ISBT 128: Mr. Usman Waheed

Mr. Usman Waheed, Technical Expert IBTA and General Secretary PSBT, gave a brief introduction to the Eurocode IBLS and ISBT 128. He informed the participants that Eurocode IBLS is a labeling system which provides an international non-profit standard for labeling blood products and tissue to enhance security in blood transfusion and tissue transplantation. It was founded in 1998 by Working Party on “Automation and Data Processing” of German Society of Transfusion Medicine and Immunohaematology (DGTI) as a charitable organization by German Tax Code. Currently there are 136 members (124 blood centres, 11 personal members, 1 associated member DGTI). The system ensures easier and quicker registration as a result of barcodes and ensures safety by exchange of products between centers.

Similarly the ISBT 128 is a standard used in 4,600 facilities in 77 countries. The concept of this standard dates back to 1990-91 Gulf War, when is-identification of blood units from multiple countries led to the full realisation of the need to standardise coding and labelling of blood. As a result, the International Society of Blood Transfusion (ISBT) was given the responsibility to develop ISBT 128 which is a global standard for Blood, Cell, Tissue, and Organ identification. ICCBBA (International Council for Commonality in Blood Banking Automation) was set up to manage the standard and is an NGO in official relations with WHO. ISBT accepted ISBT 128 as standard in 1994. The data structures in ISBT 128 generally comprise two elements;

- Data identifiers: a two-character code that identifies the data structure
- Data content: the data characters that provide the information to be conveyed (e.g., coded information that conveys the unit is A, RhD positive)

ISBT 128 specifies (1) a donation numbering system that ensures globally unique identification; (2) the information to be transferred, using internationally agreed reference tables; (3) an international product reference database; (4) the data structures in which this information is placed; (5) a bar coding system for transfer of the information on the product label; (6) a standard layout for the product label; and (7) a standard reference for use in electronic messaging.
2.11 Establishment of a Haemovigilance System at SZAB Medical University, Islamabad: Mr. Muhammad Ishtiaq and Mr. Irfan Shabber

The interns from Blood Transfusion Services, SZAB Medical University presented their study “Establishment of haemovigilance system at SZAB Medical University”. Mr. Muhammad Ishtiaq started the presentation with a brief introduction of BTS, SZABMU and the study objectives. He explained the methodology adopted during the study. The observations of the practices before the start of this study were discussed. He said that these practices were poor and modifications were required to establish a surveillance system. The role of staff nurse working in the donor section of BTS has improved donor vigilance practices. To improve the practices, meetings with the management and staff were arranged and interventions were planned including staff capacity building and close monitoring of their work. In case of process vigilance, same methodology was applied for improvement of current poor practices.

Mr. Hafiz Irfan Shabber presented the slides regarding bedside vigilance, transportation and handling of blood components after they are issued from the BTS. He highlighted the issues regarding the incomplete and illegible blood request forms making track-back difficult. He shared the outcomes of the study with the participants of workshop and urged them to establish haemovigilance system in their blood banks and hospitals also.

2.12 Example of a Functional BTIS, SZAB Medical University, Islamabad: Mr. Bilal Ahmed Khan Tareen

Mr. Bilal Tareen, Medical Technologist, briefed about the information system functional at the blood bank of SZAB Medical University (PIMS), Islamabad. He informed the participants that the hospital information system including blood bank module and LIMS have been developed as part of the hospital management information system (HMIS) since 1996. However, main development works have been financed through a PC-1 of the Federal Government during the period 2005-2007.
The system has been developed by an external supplier in collaboration with the hospital. HMIS in SZAB Medical University is based on Microsoft Technology (MS SQL Server) with Visual Basic front end. Workstations in the Blood Bank and laboratories are linked to the local hospital network (LAN). The system itself is able to provide various reports. Software maintenance and user support is safeguarded by internal MIS department. Hospital data centre is equipped with reliable technology; server room provides adequate operational environment for the IT equipment and backup devices are installed and operational.

The information system is able to support all the functions of a Regional Blood Centre but has some limitations such as:

- No bar code support
- Unique identification of donors is possible but not mandatory
- Labeling is not supported by the system
- Laboratory analyzers used for blood screening are not connected on-line to the system

The presentation also included the screen shots of the system at various modules. The participants took keen interest and a detailed question answer session followed the presentation.
3. Working Groups

Presentations were followed by working group discussions. The objective of this interactive session was to actively involve the participants in the current issues and to come up with solutions to tackle the problems.

3.1 Group 1: Gaps identification in vein-to-vein chain documentation

**Rapporteur and Facilitator:** Mr. Abdul Rauf, Assistant Manager Technical, BCL Blood Bank, Ali Medical Centre, Islamabad.

The basic aim of group discussion was to analyze the gaps in Vein 2 vein transfusion chain documentation. The group discussion was presented by Mr. Abdul Rauf. All members of the group unanimously agreed upon the facts that many gaps exist in documentation of Blood Bank records in most of the centres even in the jurisdiction of IBTA. Mutual understanding between haematologist, blood bank staff and ward staff including physician must be on the same page to follow the right directions. Everything should be traceable through documents either it is from blood bank side or from physician or nursing side. Focus was to provide complete patient related information to blood bank, patient/donor registration/ID, dual identification of sample and related document and same dual verification from blood bank at the time of issuance. Record keeping of empty bag and incinerated bags/material was also highlighted during the discussion and strongly recommended by the group.
3.2 Group 2: How to implement a Haemovigilance System

Rapporteur and Facilitator: Mr. Babar Hameed Awan, Senior Manager Diagnostics, Maroof International Hospital, Islamabad.

The working group discussed the need to have a formal documentation for any blood bank, manual or SOPs in general. Once that is in hand, we need to start communication to all stakeholders, blood bank staff, medical staff, nursing and other hospital staff. Next we need to train all related staff and do the capacity building where required. Then is the implementation phase for all the SOPs and documents we prepared to perform Blood Bank activities as described. Supervision and monitoring is the step where we start the haemovigilance in real spirit. This can be done more efficiently when we have dedicated blood bank staff.

The location of blood bank and dedicated donor area can help us do the haemovigilance in better and effective way. Leadership of blood bank can be vital and we must empower the blood bank staff for the implementation of haemovigilance. Incentives can be announced for implementation and accountability for non-compliance can play vital role. Then follow up and follow up meetings can help us redefine any SOP or haemovigilance procedure.
3.3 Group 3: Steps in BTIS implementation

Rapporteur and Facilitator: Dr. Muneeba Azmat, Ayub Medical College, Abbottabad.

Group 3 participants included representatives from various blood banks who had a robust discussion on steps of implementation of blood transfusion information system. Mutually agreed steps are as follows:

a) Need assessment based on work load and accreditation board.
b) Resource allocation (financial, technical resources)
c) Development of reporting tools (standardised)
d) Implementation team formulation (IT, BB, Staff, Admin, Finance)
e) Procurement and Development of information system
f) Pre-testing
g) Authority scale for using BTIS
h) Training of staff and implementation of BTIS
i) Quality assurance (close monitoring)
j) Periodic review of data
k) Data compilation ensuring confidentiality rights of people
l) Submission to respective authority
m) Publication of a central report by the authority
n) Further analysis and discussion

The working group later presented the steps in a presentation followed by a detailed question and answer session.
4. **Concluding Remarks**

The workshop ended with a vote of thanks from President PSBT, Prof. Hasan Abbas Zaheer. He thanked the participants and speakers for their presence and appreciated the efforts of the organizing team in conducting the workshop in a professional manner. He said the active participation from all hospitals and blood banks professionals has been very encouraging and we hope the same kind of support in the future.

Souvenirs and certificates were distributed among the keynote speakers and participants by the President PSBT, Prof. Hasan Abbas Zaheer, Secretary IBTA, Dr. Amir Maqbool and Secretary AJK BTA, Dr. Naveed Ahmed.
5. **Workshop Assessment**

The workshop was evaluated before the concluding session through an Evaluation Questionnaire which is an effective method to assess the learning effectiveness and continue improving the instructor’s teaching ability. The results of the evaluation provided valuable information regarding the participants’ learning and effectiveness of teaching. The results will be used to further improve the capacity building programmes of the Society.

![Evaluation Questionnaire](image.png)

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**EVALUATION QUESTIONNAIRE**

The participants are kindly requested to complete the questionnaire and hand it over to Registration Desk prior to leaving. As the objective of this workshop is to provide education to attendees, it is important for both ISBT and PSBT to assess the degree of impact and the quality of learning gained.

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Reasons to Attend the Subject Workshop


Which presentations did you benefit most from? (you may write more than one)


On a scale of 1-10 (where 10 is best) how did you rate the following?

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<td>Discussion</td>
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How did you rate the quality of presenters?

<table>
<thead>
<tr>
<th>Item</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
<th>Not Rated</th>
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<tbody>
<tr>
<td>Planning and Organization</td>
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<td>Communication and Interaction</td>
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<tr>
<td>Training, coaching and mentoring</td>
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<td>Time management</td>
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<td>Confidence</td>
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<tr>
<td>Focus</td>
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</table>
State one important learning point from each presentation?

Presentation Title ______________________________________________________________
Learning Point ______________________________________________________________

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Learning Point ______________________________________________________________

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Presentation Title __________________________________________________________
Learning Point ______________________________________________________________

General Comments
________________________________________________________________________
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Thank you very much for your feedback.
Reasons to attend the subject workshop

26% To acquire up-to-date knowledge regarding blood banking information systems
21% To get acquainted with the concept of haemovigilance
19% To learn about the basics of data management according to IBTA standards
18% To learn about the computerized tools for documentation
16% Miscellaneous answers

Which presentation did you benefit most from?

21% Haemovigilance
16% Record Keeping and Data Management in BTS
12% Establishment of Haemovigilance System
11% Using Data for Quality Improvement in BTS
09% Data Management: Role of Regulatory Authorities
09% Data Management in ICT: IBTA Experience
07% Data Management in AJK: AJK BTA Experience
07% Example of a Functional BTIS
06% Data Flow and Data Quality in BTS
01% WHO Global Database on Blood Safety
01% Eurocode and ISBT 128

On a scale of 1-10 (where 10 is best) how did you rate the following?

Workshop Programme

[Pie chart showing ratings]
Knowledge Provided

Venue

Working Group Discussion
How did you rate the quality of presenters?

**Planning and organization**

- Excellent: 76%
- Good: 13%
- Average: 6%
- Poor: 3%
- Not Rated: 2%

**Communication and interaction**

- Excellent: 90%
- Good: 2%
- Average: 7%
- Poor: 1%
- Not Rated: 0%

**Training, coaching and mentoring**

- Excellent: 56%
- Good: 33%
- Average: 5%
- Poor: 6%
- Not Rated: 0%
Time management

Confidence

Focus
Remarks from the Participants

Mr. Muhammad Rehan, Student, Federal Medical & Dental College, Islamabad.
Attending the workshop as a medical student and representing a blood donation society, I get a very good idea about blood banking, data and information management. It is not usually practiced to involve the clinical side concept. It is indeed a great experience understanding the clinical side and haemovigilance. A lot of work is needed in this field, this is just the start. More workshops and training sessions should be held. In the end, I would like to thank to all members of workshop, and especially Prof. Hasan.

Mr. Babar Hameed Awan, Maroof International Hospital, Islamabad.
First of all, thank you very much to PSBT and IBTA for holding such a wonderful workshop and giving Maroof International Hospital a chance to be a part of this activity. Special thanks to the organizing team who under the leadership of Prof. Zaheer is doing such a commendable effort for safe blood transfusion. The professional conduct of the IBTA team has been amazing and overwhelming. IBTA is facilitating the hospitals and blood banks for safer blood in the Islamabad and even making untiring efforts to work all over Pakistan including Azad Kashmir. These workshops are wonderful forum where staff from different hospitals and blood banks meet and share ideas which lead us to total quality management. And all the credit goes to Prof. Hasan Zaheer, Dr. Amir, Mr. Usman and all other team members. In future, other hospital staff like Nurses and Management staff should also be included.

Dr. Muneeba Azmat, Ayub Medical College, Abbottabad.
I would like to appreciate the PSBT and IBTA team for successfully organizing the event. It was a great learning experience regarding the basics of data and information management which is quite often neglected but vital to the quality services in a blood bank. The speakers have tried their best to deliver the knowledge in a way which is easily digestible by the participants. I was also happy to learn about the regulation of BTS in the State of AJK and hope for the same in all the provinces.
ANNEXES
## Annex 1  Workshop Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Subjects</th>
<th>Format</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30</td>
<td>Registration</td>
<td>Individual</td>
<td>All participants</td>
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<tr>
<td>08:40</td>
<td><strong>OPENING</strong></td>
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<tr>
<td>08:40-08:45</td>
<td>Recitation from the Holy Quran</td>
<td>Recitation</td>
<td>Mr. Hafiz Irfan</td>
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<tr>
<td>08:45-08:50</td>
<td>Introduction of the participants</td>
<td>Joint activity</td>
<td>All participants</td>
</tr>
<tr>
<td>08:50-09:00</td>
<td>Welcome Address / Objectives of the Workshop</td>
<td>Speech</td>
<td>Dr. Amir Maqbool Secretary, IBTA</td>
</tr>
<tr>
<td>09:00-09:20</td>
<td>Data Management: Role of Regulatory Authorities</td>
<td>Presentation</td>
<td>Prof. Hasan A. Zaheer, President, PSBT &amp; Chairman IBTA</td>
</tr>
<tr>
<td>09:20-09:40</td>
<td>Data Management in ICT: IBTA Experience</td>
<td>Presentation</td>
<td>Dr. Amir Maqbool Secretary, IBTA</td>
</tr>
<tr>
<td>09:40-10:00</td>
<td>Data Management in AJK: AJK BTA Experience</td>
<td>Presentation</td>
<td>Dr. Naveed Ahmed Secretary, AJK BTA</td>
</tr>
<tr>
<td>10:00-10:20</td>
<td>WHO Global Database on Blood Safety</td>
<td>Presentation</td>
<td>Mr. M. Asim Ansari Manager Pathology &amp; Blood Bank, KIH</td>
</tr>
<tr>
<td></td>
<td><strong>(20 min) Tea Break and Group Photograph</strong></td>
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<tr>
<td>10:40-11:00</td>
<td>Haemovigilance</td>
<td>Presentation</td>
<td>Dr. Faiza Fahim Consultant Haematologist, KRL Hospital</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>Data Flow and Data Quality in BTS</td>
<td>Presentation</td>
<td>Mr. M. Asim Ansari Manager Pathology &amp; Blood Bank, KIH</td>
</tr>
<tr>
<td>11:20-11:40</td>
<td>Record Keeping and Data Management in BTS</td>
<td>Presentation</td>
<td>Mr. Usman Waheed, Secretary General, PSBT &amp; Technical Expert, IBTA</td>
</tr>
<tr>
<td>11:40-12:00</td>
<td>Using Data for Quality Improvement in BTS</td>
<td>Presentation</td>
<td>Mr. M. Asim Ansari Manager Pathology &amp; Blood Bank, KIH</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>Example of a Functional BTIS</td>
<td>Presentation</td>
<td>Mr. Bilal Ahmed Khan Tareen Manager Blood Bank, SZAB Med. Uni.</td>
</tr>
<tr>
<td>12:20-12:40</td>
<td>Eurocode and ISBT 128</td>
<td>Presentation</td>
<td>Mr. Usman Waheed, Secretary General, PSBT &amp; Technical Expert, IBTA</td>
</tr>
<tr>
<td>12:40-13:00</td>
<td>Establishment of Haemovigilance System</td>
<td>Presentation</td>
<td>Mr. Irfan Shabbir /Mr. M. Ishtiaq Interns, Blood Bank SZAB Med University</td>
</tr>
<tr>
<td>01:00-01:40</td>
<td><strong>Working Groups</strong></td>
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<td></td>
<td><strong>G1: Gaps identification in V2V Chain Documentation</strong></td>
<td>Discussion</td>
<td>Mr. Abdul Rauf Manager, BCL Blood Bank, Ali Medical Centre</td>
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<tr>
<td></td>
<td><strong>G2: How to implement a Haemovigilance System?</strong></td>
<td>Discussion</td>
<td>Mr. Babar Hameed Awan Sr. Manager, MIH Laboratory &amp; Blood Bank</td>
</tr>
<tr>
<td></td>
<td><strong>G3: Steps in BTIS Implementation</strong></td>
<td>Discussion</td>
<td>Dr. Muneeba Azmat Ayub Medical College, Abbottabad</td>
</tr>
<tr>
<td></td>
<td><strong>(40 min) Lunch Break</strong></td>
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<tr>
<td>02:20-02:50</td>
<td>Results from Working Groups (3)</td>
<td>Presentations</td>
<td>Group Facilitators</td>
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<tr>
<td>02:50-03:10</td>
<td>Q/A Session</td>
<td>Discussion</td>
<td>Facilitators</td>
</tr>
<tr>
<td>03:10-03:30</td>
<td>Assessment of the Workshop</td>
<td>Joint activity</td>
<td>Mr. Usman Waheed, Secretary General, PSBT &amp; Technical Expert, IBTA</td>
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<tr>
<td>03:30-04:00</td>
<td>Concluding Remarks</td>
<td>Speech</td>
<td>Prof. Hasan A. Zaheer, President, PSBT &amp; Chairman IBTA</td>
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<td></td>
<td>Certificates/Souvenirs Distribution</td>
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**PSBT & IBTA**
## Annex 2  List of Participants

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name and Contact Details</th>
</tr>
</thead>
</table>
| 1.     | **Prof. Hasan Abbas Zaheer**  
       President, PSBT  
       Chairman, Islamabad Blood Transfusion Authority  
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       E: hazaheer@gmail.com |
| 2.     | **Dr. Amir Maqbool**  
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       E: amirmaqbool62@gmail.com |
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       Government of AJK  
       E: dr_naveed7@hotmail.com |
| 4.     | **Dr. Faiza Fahim**  
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       Department of Pathology  
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| 5.     | **Dr. Fazal Majeed**  
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| 6.     | **Surg. Lt. Cdr. Dr. Syed Mohsin Manzoor**  
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       Technical Expert, Islamabad Blood Transfusion Authority  
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10. **Mr. Asim Ansari**  
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11. **Mr. Abdul Rauf**  
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12. **Mr. Babar Hameed Awan**  
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13. **Dr. Muneeba Azmat**  
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14. **Mr. Bilal Ahmed Tareen**  
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Shaheed Zulfiqar Ali Bhutto Medical University (PIMS), Islamabad.  
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15. **Dr. Kiran Tauseef**  
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E: kiran.tauseef@yahoo.com
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Position</th>
<th>Organization</th>
<th>Address</th>
<th>Phone</th>
<th>Email</th>
</tr>
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<tbody>
<tr>
<td>16.</td>
<td>Dr. Zaheer Ahmed</td>
<td>Associate Professor of Pathology</td>
<td>Rawal Institute of Health Sciences</td>
<td>Khana Dak, Lehrtrar Road, Islamabad.</td>
<td>0333-5125983</td>
<td></td>
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<tr>
<td>17.</td>
<td>Dr. Bushra Anwar</td>
<td>Assistant Professor/In-charge Blood Bank</td>
<td>Rawal Institute of Health Sciences</td>
<td>Khana Dak, Lehrtrar Road, Islamabad.</td>
<td>0333-5404341</td>
<td><a href="mailto:bushrasubzwari@yahoo.com">bushrasubzwari@yahoo.com</a></td>
</tr>
<tr>
<td>18.</td>
<td>Mr. Wafa Hussain</td>
<td>Admin Assistant</td>
<td>AJK Blood Transfusion Authority</td>
<td>Islamabad</td>
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<tr>
<td>19.</td>
<td>Mr. Kamran Khan</td>
<td>Admin Assistant</td>
<td>Islamabad Blood Transfusion Authority</td>
<td>M/o NHSR&amp;C, Government of Pakistan</td>
<td>0334-9991163</td>
<td><a href="mailto:wafa_hussain2008@hotmail.com">wafa_hussain2008@hotmail.com</a></td>
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<tr>
<td>20.</td>
<td>Mr. Irfan Shabbir</td>
<td>Intern Blood Bank</td>
<td>SZAB Medical University (PIMS)</td>
<td>G-8/3, Islamabad</td>
<td>0346-5490660</td>
<td><a href="mailto:kayani.irfan@hotmail.com">kayani.irfan@hotmail.com</a></td>
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<tr>
<td>21.</td>
<td>Mr. Muhammad Ishtiaq</td>
<td>Intern Blood Bank</td>
<td>SZAB Medical University (PIMS)</td>
<td>G-8/3, Islamabad</td>
<td>0346-5490660</td>
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<tr>
<td>22.</td>
<td>Mr. Muhammad Aamer Nisar</td>
<td>Office Assistant</td>
<td>Blood Donor Centre</td>
<td>Pakistan Red Crescent Society</td>
<td>0321-5352136</td>
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<tr>
<td>23.</td>
<td>Mr. Muhammad Yaqoob</td>
<td>Laboratory Technician</td>
<td>BCL Blood Bank</td>
<td>Ali Medical Centre, F-8 Markaz, Islamabad.</td>
<td>0344-9476158</td>
<td><a href="mailto:m.yaqoob1.@outlook.com">m.yaqoob1.@outlook.com</a></td>
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<tr>
<td>No.</td>
<td>Name</td>
<td>Title</td>
<td>Institution</td>
<td>Address</td>
<td>Contact Information</td>
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<td>24.</td>
<td>Mr. Arsalan Gul</td>
<td>Laboratory Technician</td>
<td>BCL Blood Bank</td>
<td>Ali Medical Centre, F-8 Markaz, Islamabad.</td>
<td>Cell: 0334-8971843 E: <a href="mailto:arslan.friends10@yahoo.com">arslan.friends10@yahoo.com</a></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Mr. Muhammad Salis Azad</td>
<td>Laboratory Technician</td>
<td>Department of Pathology and Blood Bank</td>
<td>PNS Hafeez Naval Hospital Islamabad.</td>
<td>Ph: 0336-3183908</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Mr. Muhammad Touseef Ashraf</td>
<td>Laboratory Technician</td>
<td>Maroof International Hospital</td>
<td>F-10 Markaz, Islamabad</td>
<td>Cell: 0321-6532807 E: <a href="mailto:touseef.ashraf@maroof.com.pk">touseef.ashraf@maroof.com.pk</a></td>
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<tr>
<td>27.</td>
<td>Mr. Asif Nawaz</td>
<td>Laboratory Technician</td>
<td>Maroof International Hospital</td>
<td>F-10 Markaz, Islamabad</td>
<td>Cell: 0315-3376768 E: <a href="mailto:asif.nawaz@maroof.com.pk">asif.nawaz@maroof.com.pk</a></td>
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<tr>
<td>28.</td>
<td>Mr. Ahmed Saeed</td>
<td>Blood Bank Technician</td>
<td>Punjab Employees Social Security Hospital</td>
<td>I-12, Islamabad.</td>
<td>Cell: 0333-5214461 E: <a href="mailto:tamoorbinhanif@gmail.com">tamoorbinhanif@gmail.com</a></td>
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<tr>
<td>29.</td>
<td>Mr. Waseem Raza</td>
<td>Laboratory Assistant</td>
<td>Punjab Employees Social Security Hospital</td>
<td>I-12, Islamabad.</td>
<td>Cell: 0346-5765453 E: <a href="mailto:tamoorbinhanif@gmail.com">tamoorbinhanif@gmail.com</a></td>
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<tr>
<td>30.</td>
<td>Mr. Sadiq Khan</td>
<td>Medical Technologist</td>
<td>Capital Hospital Blood Bank</td>
<td>Islamabad.</td>
<td>Ph: 0300-5130590 E: <a href="mailto:sadiqkhanch@yahoo.com">sadiqkhanch@yahoo.com</a></td>
<td></td>
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<tr>
<td>31.</td>
<td>Mr. Husnain Ahmad</td>
<td>Laboratory Technician</td>
<td>Kulsum International Hospital</td>
<td>Kulsum Plaza, Blue Area Islamabad.</td>
<td>Cell: 0343-9494875 E: <a href="mailto:nain4875@gmail.com">nain4875@gmail.com</a></td>
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<tr>
<td></td>
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<td>Institution</td>
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<tr>
<td>32.</td>
<td>Mr. Haji-ur-Rehman</td>
<td>Medical Technologist</td>
<td>Kulsum International Hospital</td>
<td>Kulsum Plaza, Blue Area</td>
<td>Cell: 0333-9662167 E: <a href="mailto:hajirehmanokz@gmail.com">hajirehmanokz@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>Mr. Waqas Khan</td>
<td>Manager Operations</td>
<td>Blood Bank Services</td>
<td>Medicis Hospital, F-7 Markaz, Islamabad.</td>
<td>Cell: 0321-5048444 E: <a href="mailto:waqaskn1@gmail.com">waqaskn1@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>Mr. Muhammad Tariq</td>
<td>Assistant Warrant Officer</td>
<td>Pathology Department and Blood Bank</td>
<td>PAF Hospital, E-9, Islamabad.</td>
<td>Cell: 0321-7557085 E:</td>
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<tr>
<td>35.</td>
<td>Mr. Abdul Sattar</td>
<td>Laboratory Technician</td>
<td>Federal General Hospital</td>
<td>NIH Premises, Chak Shahzad, Islamabad.</td>
<td>Ph:0332-5295879 E: <a href="mailto:sattarkhos31@gmail.com">sattarkhos31@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>Mr. Bahadur Sher</td>
<td>Laboratory Technician</td>
<td>Federal General Hospital</td>
<td>NIH Premises, Chak Shahzad, Islamabad.</td>
<td>Ph: 0331-5220249 E: braveion4502gmail.com</td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>Ms. Farzana Ramzan</td>
<td>Assistant Lab Manager</td>
<td>Quaid-i-Azam International Hospital</td>
<td>Golra Morr, Islamabad.</td>
<td>E: <a href="mailto:farzanaramzan986@gmail.com">farzanaramzan986@gmail.com</a></td>
<td></td>
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<tr>
<td>38.</td>
<td>Ms. Sonia Nisar</td>
<td>Secretary</td>
<td>Data Management</td>
<td>Quaid-i-Azam International Hospital</td>
<td>Golra Morr, Islamabad.</td>
<td>E: <a href="mailto:sonianisar@hotmail.com">sonianisar@hotmail.com</a></td>
</tr>
<tr>
<td>39.</td>
<td>Mr. Noor Hamid</td>
<td>Laboratory Technician</td>
<td>Blood Bank</td>
<td>SZAB Medical University (PIMS)</td>
<td>Islamabad.</td>
<td>Cell: 0300-5580000 E: <a href="mailto:noorhameedkhan@gmail.com">noorhameedkhan@gmail.com</a></td>
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<tr>
<td></td>
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<td>Institution</td>
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Annex 3  Workshop Photographs