The Safety and Quality Improvement in National Blood Transfusion Service

Chea Sokhim, M.D. and M.s.c. Health Care Administration, Deputy Director of NBTC;

Contact number:855-78 666 524

Email: cheakhim@gmail.com

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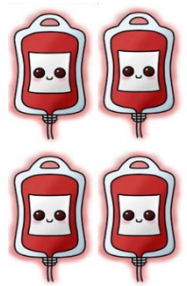


- MISSION: to provide safe, effective and adequate blood and blood products to all patients in needs.
- VALUES:

✓ Promote a value system that ensures quality and integrity in all endeavors.

✓ Respond to crises, big and small.

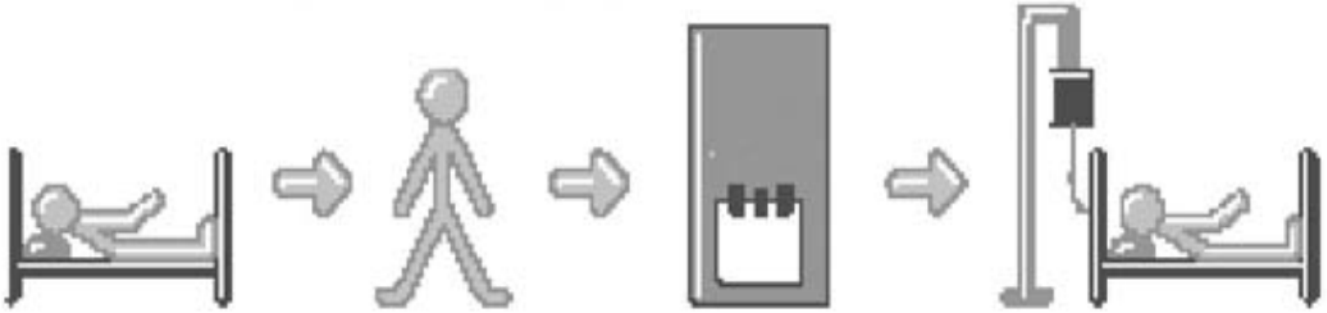
✓ Provide outstanding customer service.

✓ Support a safe and respectful environment for staff and guests.

✓ Commit to research, education, and training.

- VISION: To be a Centre for excellence in the country

BLOOD TRANSFUSION SAFETY



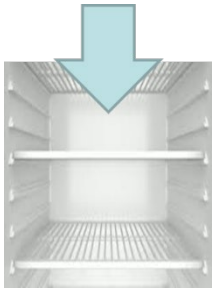
The safety and quality of blood and blood components

- are of essential value in transfusion medicine.
- It is a responsibility of blood establishments to organize their activities so that quality and safety requirements are met.
- implementation and maintenance of an effective quality management system (QMS) will greatly contribute to the achievement of this goal.
- To be fully effective, a QMS should incorporate risk-based thinking in all aspects of the vein-to-vein transfusion process and include quality monitoring, which is carefully planned, continuous and properly evaluated.

National Blood Programme

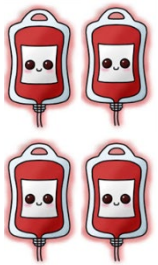
- developed a well-organized blood transfusion service (BTS)
- with quality systems in all areas
- prerequisite for the safe and effective use of blood and blood products
- preventing transfusion-transmitted infections (TTIs):HIV infections, hepatitis B and C viruses, syphilis and othe infectious agents.

Integrated Strategy for Blood Safety



- Establishment of a nationally-coordinated blood transfusion service
- Collection of blood only from voluntary non-remunerated blood donors from low-risk populations
- Testing of all donated blood, including screening for transfusion transmissible infections, blood grouping and compatibility testing
- Reduction in unnecessary transfusions through the effective clinical use of blood, including the use of simple alternatives to transfusion (crystalloids and colloids), wherever possible.

Promote of Blood Safety Programme:



- Secure government commitment and support for the national blood programme
- Establish a blood transfusion service as a separate unit with responsibility and authority, an adequate budget, a management team and trained staff
- Educate, motivate, recruit and retain voluntary non-remunerated blood donors from low-risk populations
- Ensure good laboratory practice in screening for transfusion-transmissible infections, blood grouping, compatibility testing, blood component production and the storage and transportation of blood products
- Reduce unnecessary transfusions through the effective clinical use of blood, including alternatives to transfusion n Establish a quality system for the BTS
- Train all BTS and clinical staff to ensure the provision of safe blood and its effective clinical use

Blood Transfusion Safety

PATIENT BLOOD MANAGEMENT

- PBM is the timely application of evidence-based medical and surgical concepts designed to maintain haemoglobin concentration, optimise haemostasis and minimise blood loss in an effort to improve patient outcomes.
- Defining the patient needs helps define the safety, decision making and administration standards for the use of blood and blood products in Cambodia.
- Acute or delayed complications
- Transfusion carries a risk of transmission of infect agents, such as HIV, hepatitis viruses, syphilis

Coordination Service

- Donor selection is the first step in transfusion safety
- The risks associated with transfusion can only be avoided by close collaboration between the National Blood Transfusion Centre (NBTC) and clinicians in managing the components of the transfusion process
  - ✓ An adequate supply of safe blood and blood products
  - ✓ The effective clinical use of blood and blood products

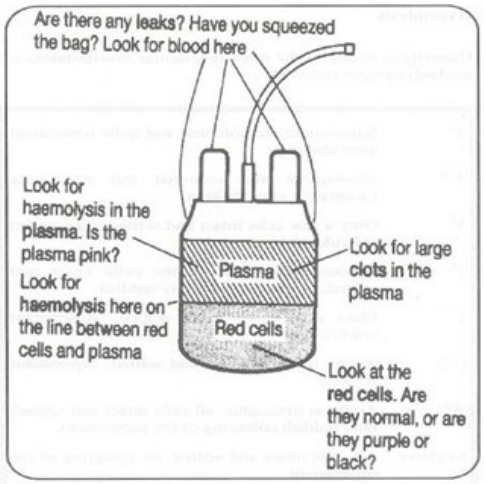
BLOOD & BLOOD PRODUCT SAFETY

The pillars of safety to minimize pathogen transmission are:

- ✓ a reliable, stable voluntary non-remunerated and regular, donor system,
- ✓ appropriate suitability testing (donor selection),
- ✓ proper documentation, and standardized laboratory testing.

BLOOD & BLOOD PRODUCT SAFETY

- Whole Blood collection
- Apheresis
- Product label:
  - ✓ unit identification number (donation number),
  - ✓ product identification,
  - ✓ collection date,
  - ✓ expiry date / time,
  - ✓ ABO blood group and RhD type,
  - ✓ test information (tested and found negative),
  - ✓ possible other typing (e.g. c, E and K), and
  - ✓ possible modifications (e.g. irradiation/ leucocyte depletion/washing).



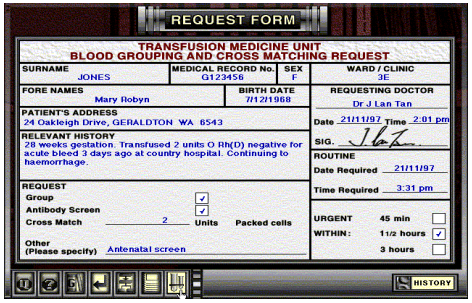
Blood Product Label

For each product:

- ✓ unit identification number (donation number),
- ✓ product identification,
- ✓ collection date,
- ✓ expiry date / time,
- ✓ ABO blood group and RhD type,
- ✓ test information (tested and found negative),
- ✓ possible other typing (e.g. c, E and K), and
- ✓ possible modifications (e.g. irradiation/ leucocyte depletion/washing).

Patient Identification

- ✓full name,
- ✓age or date of birth,
- ✓full address,
- ✓hospital identification number,



Transfusion Safety

- The recipient of a transfusion may experience adverse events unrelated to transmissible disease risk.
- All adverse events require specific clinical management.
- Immune based transfusion adverse events may be immediate or delayed

Effective Clinical Use of Blood[Demand Side]

Can reduce unnecessary transfusions:-

- Development of a national policy and guidelines on the clinical use of blood
- Training in the clinical use of blood for all clinicians involved in the transfusion process and for BTS staff
- Commitment to the prevention, early diagnosis and treatment of conditions that could result in the need for transfusion (obstetrical complications, trauma and other causes of anaemia)
- Availability of intravenous replacement fluids (crystalloids and colloids) for the correction of hypo-volaemia
- Availability of pharmaceuticals and devices to minimize the need for blood n Effective clinical use of blood and blood products in accordance with national guidelines
- Monitoring and evaluation of the clinical use of blood.

Blood Transfusion Centres[Supply Side]

(1) Blood Policy (2019

(2) Quality Manual for National Blood Transfusion Service 2019\

(3) Facility and Safety Manual for Blood Transfusion Centre 2019

(4) Training Procedure for Blood Transfusion Service 2019

(5) Standard of Procedures for Blood Transfusion Service 2019

(6)National Guideline for Transfusion Practice 2019

(7) Sustainability of safety and quality improvement in national blood transfusion service is required sufficiency of resources in order to maintain an effective quality management system.

Coordination Blood Centre and Hospital

BLOOD PROGRAM/ BLOOD CENTRE	HOSPITAL HEALTH CARE/ TRANSFUSION MEDICINE
ANZSBT	National Guideline for Blood Transfusion Practice
ISBT	1.PBM-Critical Bleeding/Massive Transfusion
✓ AFSBT	2.PBM-Perioperative
AABB	3.PBM-Medical
EBA	4.PBM-Critical Care
✓ AATM	5.PBM-Obstetrics and Maternity
WHO - BSP	6.PBM-Neonatal and Pediatrics
BP-JRCS	7.HTC,Haemo-Vigillance System


THANK YOU
BALI
BORNEO