

CHAPTER 8

BLOOD MANAGEMENT

8-1. Blood Bank Services

Blood bank services are provided in a theater of operations to support US military and, as directed, allied military and indigenous civilian medical establishments. The unified commands maintain individual blood programs to meet their own needs. These programs are theaterwide and interface with the CONUS blood bank system. They are a DOD effort. Blood bank services in a theater of operations include—

- Receiving liquid blood and blood components from CONUS.
- Moving, storing, and distributing liquid blood and blood components.
- Storing, processing, and distributing frozen blood products pre-positioned within the theater.
- Collecting and processing liquid blood on an emergency basis.

8-2. Providing Blood Products in Unified Commands

Each unified command has a separate, integrated system for providing blood products (Class VIII) to the various component MTFs.

a. The joint blood program office (JBPO) serves as the single blood manager in the theater. The single blood manager will interface with the Armed Services Blood Program Office (ASBPO) in CONUS.

b. When the capabilities of the blood program of the unified command are exceeded, the JBPO requests assistance from the ASBPO. The ASBPO, in turn, requests support from the Services. The blood collected and processed in CONUS is shipped to blood transshipment centers (BTCs) located throughout each unified command. The BTCs are operated by the USAF. They are centers for receiving and distributing blood. The BTCs are located at major airfields with tactical

airlift capability. Once at the BTC, the blood products are under the control of the JBPO.

c. Within the unified command, the JBPO will establish area joint blood program offices (AJBPOs). The AJBPO will—

- Implement the blood program policies of the unified command.
- Coordinate the blood activities of the component commands on an assigned geographical area of responsibility (AOR).
- Direct the issue of blood products from BTCs in their AOR to component command blood supply units (BSUs).

d. The BSUs function as the retail blood distribution points for their component MTFs. When directed by the AJBPO, BSUs will also provide blood support to other component MTFs.

8-3. Army Blood Supply Units

a. Army BSUs are task organized from four specialized blood bank units whose individual missions are to—

- Provide command and control.
- Collect, process, and distribute blood products within the theater of operations.

b. Team AJ, headquarters, blood bank service, TOE 08-600H0, provides command and control for blood bank service teams. The commander of the Team AJ is the senior blood bank officer. He serves as the blood bank consultant and blood program staff officer to higher headquarters in the theater of operations. One team AJ is allocated per 10 blood bank service teams, or major fraction thereof.

c. There are three blood bank service teams, TOE 08-620H0. All three teams are attached to Team AJ.

(1) Team NA, blood processing, is allocated on the basis of one per three Teams NB, blood collecting. Team NA receives, processes, and stores blood collected by up to six NB teams.

(2) Team NB is allocated on the basis of one per 80,000 personnel supported. Team NB collects up to 200 units of blood per day from noncombatants, CS, and CSS personnel.

(3) Team NC, blood distribution, is allocated on the basis of one per 100,000 personnel supported. It provides blood storage and supply point distribution of blood products for MTFs.

8-4. Deployment

a. The main source of blood for support of wartime casualty care requirements does not come from collecting and processing blood in theater by the blood bank service teams; it comes from the CONUS base. Initial requirements may be met—

- Through a combination of limited in-theater blood collections performed by forward deployed blood bank assets.
- By the use of pre-positioned frozen blood assets.

In addition to meeting the initial theater blood requirements, pre-positioned frozen blood will augment the main liquid blood supply from CONUS. To provide this frozen blood capability, the unified commands are currently establishing component-operated blood product depots (BPD) for the storage of frozen blood products. In a theater of operations, Army BSUs will provide the manpower required to operate these BPDs.

b. The task organization of the current blood bank service teams into a BSU requires that these units train in peacetime for their expanded mission to distribute frozen and liquid blood. Blood supply units require food service, administration, communications, and motor maintenance support. They must, therefore, be located near MEDSOM units or MTFs that can provide support. In the future, these specialized teams will be converted into a multipurpose blood bank platoon that will function as a BSU. The blood bank platoon will be

part of the medical battalion, (logistics). (See Appendix C.)

NOTE

The blood bank mission has changed from collecting blood in theater to a multipurpose BSU concept. This requires careful attention to ensure that a single, specialized blood bank service team is not given a blood support mission that requires a multipurpose BSU.

8-5. Echelon II Care

a. Blood product support to Army MTFs in the division will be provided by the DMSO. Each clearing station and the DM SO will be equipped with a refrigerator, solid state, biological, portable (National Stock Number [NSN] 4110-01-287-7111). This high-technology refrigerator derives its power from vehicular batteries of transportation assets. (This refrigerator can also provide subsequent storage when connected to a field generator or some other source of electrical power.) The DMSO ships the blood forward to the requesting unit by backhaul on medical vehicles.

b. The DMSO obtains Group O liquid red blood cells from a supporting Army BSU located at the corps level.

(1) Shipment of blood forward is either coordinated by the corps BSU with the corps movement control center or accomplished by backhaul on medical vehicles (air or ground).

(2) Emergency resupply can be accomplished by air ambulances in the evacuation battalion.

8-6. Echelons III and IV Care

The DEPMEDS improves the blood bank transfusion capability of the Army hospital units. The MASH will have blood storage capability and be provided fresh Group O packed red cells. The other Echelon III and IV hospitals will have blood banks

capable of providing liquid and frozen blood services in a separate 3:1 International Organization for Standardization (ISO) shelter. The blood bank will contain—

- One ultralow temperature freezer that will hold up to 500 units of frozen blood products.
- Four cell washers to deglycerolize the frozen blood products.
- One blood bank refrigerator which can hold up to 500 units of liquid blood products.
- Equipment for compatibility testing for type-specific blood.
- Emergency capability to collect 180 units of blood under emergency conditions.

8-7. Communications

a. Blood supply units operating in either the CZ or the COMMZ are under the operational control of a medical command and control unit which provides communication support. Blood supply units should communicate with both supporting and supported units by voice, teletype, or data transmission. Direct communication between the BSU and its supported units is an absolute necessity. Due to the critical and urgent nature of many blood requests, the inherent delays caused by communications through command channels should be avoided. Direct communication with the BSU and informational communication with command and control elements is encouraged. Blood supply units should also have access to automatic digital network (AUTODIN) facilities.

b. Each activity in the joint blood distribution scheme will communicate blood status information using joint interoperability of tactical command and control system (JINTACCS) approved voice, message, or computer blood report formats. The medical blood management (MEDBLD) subsystem of the TAMMIS has been designed to provide automation to blood program activities in the theater. (See Chapter 13 for a discussion on the TAMMIS MEDBLD subsystem.)

8-8. Transportation

Blood products will be transported and delivered by various modes which include ground, air, sea, and parachute. The preferred method is for the BSU to establish a blood supply point from which the MTFs obtain their blood supply. When the tactical situation does not allow for supply point distribution, the procedures for use of AMEDD backhaul, AMEDD-directed assets, or nonmedical transportation assets should be implemented. The BSU must coordinate with the S3 and S4 of the medical command and control unit to which it is attached for the use of AMEDD backhaul or AMEDD-directed assets. The BSU will need to coordinate with the S3 and S4 who will coordinate with the movement control elements of the TRANSCOM to arrange for nonmedical transportation assets.

8-9. Blood Support for Enemy Prisoners of War

a. The Army is responsible for providing medical care and treatment for EPW. The Army may become responsible for providing medical care or assistance to displaced persons, refugees, civilian internees, and detained personnel. Articles 13 and 130 of the Geneva Convention Relative to the Treatment of Prisoners of War do not prohibit the maintenance of lists of the blood types of prisoners of war who have volunteered to furnish blood. There is nothing improper in accepting donated blood from EPW. To perform this function, available intelligence data should be used in computing requirements for blood support, supplies, and equipment needed. The decision to use donated blood from EPW to treat US casualties, though not a violation of the Geneva Conventions, would also be dependent upon available medical intelligence data concerning the incidence and prevalence of infectious diseases in the EPW population.

b. Blood stocks, supplies, and equipment captured from the enemy are considered to be neutral and protected property and are not to be intentionally destroyed. The blood materiel should be turned over to a designated BSU. Since captured medical personnel are familiar with their blood supplies and equipment, the captured items are especially valuable in the treatment of EPW. The BSU will use these blood supplies to support the

MTF assigned responsibility for the care and treatment of EPW. Use of these captured items for EPW and the indigenous population helps to conserve other blood stocks, supplies, and equipment.

This paragraph implements NATO STANAGs 2939, 2135, and QSTAG 815.

8-10. Allied Support Agreements

The exchange of blood stocks, supplies, and equipment between US forces and those of allied

forces is established under bilateral and/or multilateral blood assistance agreements.

a. In Europe, NATO STANAG 2939 establishes technical standards for blood, blood donors, and associated equipment. Blood requirements which exceed normal national blood supply capability can be requested from NATO nations using procedures contained in STANAG 2135.

b. The aim of QSTAG 815 is to establish a policy for blood supply in the area of operations in which members of two or more participating nations are deployed.