FM 4-02.16 (FM 8-10-16)

ARMY MEDICAL INFORMATION MANAGEMENT

TACTICS, TECHNIQUES, AND PROCEDURES

HEADQUARTERS, DEPARTMENT OF THE ARMY

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PREFACE

This publication establishes Army medical information management (AMIM) procedures and discusses relevant terminology, information technology, and communication systems. These procedures, technology and systems are all a part of the delivery of health service support (HSS) operations. In theater, commanders, information managers, technology managers, HSS planners, surgeons, physician assistants (PAs), other medical officers, and medical enlisted personnel may use this publication. It supplements all Field Manual (FM) 4-02-series and FM 8-series publications but primarily FMs 4-02 and 8-55. It provides tactics, techniques, and procedures (TTP) for AMIM that supports all HSS operations.

Further, this publication establishes the foundation and architectural design for AMIM operations in a theater of operations (TO) at Levels I—IV, through the sustaining base Level V. It addresses a commander's critical information requirement (CCIR).

See Appendix A of this manual for information explaining the medical units/elements information management (IM) and communication capabilities throughout Levels I—IV under the Army of Excellence (AOE). It is also important that the reader become familiar with those communication capabilities, equipment, and the AOE information systems (INFOSYS). Information concerning the INFOSYS and their capabilities is in Appendix B.

This publication is in concert with offensive and defensive information operations (IO) discussed in Joint Publication (JP) 3-13, Army Regulation (AR) 25-1, and FMs 100-6 and 3-13. Further, this publication discusses the synergy of AMIM across the continuum of all military operations. This FM starts with the trauma specialist (formerly referred to as the combat medic) at Level I and discusses the trauma specialist's communication needs and information capabilities from his location with a maneuver element. Each successive chapter discusses what the HSS AMIM communication assets and capabilities are for all the medical units/elements at each level; what their requirements are; who manages the information data from one level to the next; and which INFOSYS is used to disseminate information data from each level. It discusses required procedures; who is responsible for ensuring that information is moved, and how information is passed vertically or horizontally in a TO. This publication identifies all of the medical INFOSYS used throughout all levels of care for AOE, Force XXI, and the Stryker Brigade Combat Team (SBCT) (Appendix A). The publication also discusses:

- Near term technology (Appendices B and C).
- Information management roles from the Office of The Surgeon General (OTSG) level down to the nondigitized and digitized units/elements (Appendix D).
- Enablers (signals and communications systems) that allow for communications for the nondigitized and digitized medical units (Appendix A and B).
- Theater Medical Information Program (TMIP) (Appendix C).

Medical IM is a command responsibility. It is executed under the direction of the organization's information manager as delegated by The Surgeon General (TSG) under the one-staff concept (see Appendix D). Information management procedures and INFOSYS collect, process, store, display, and disseminate data and information. Information management is the scientific portion of command and control (C2). It provides structure through which to communicate. Information management transforms raw information data into usable information so decision-making can occur. The INFOSYS allows for the implementation of those decisions, based on facts, into action using two forms of control—INFOSYS and relevant information.

While IM techniques may assist a commander in making decisions and leading, they are not sufficient to accomplish missions. Management, as stated above, is inherent in C2, but it lacks extensive authority and responsibility in command. Information management is essential to determining critical information, routing information rapidly and accurately, processing information to transform it into knowledge, and disseminating information in a timely manner to lessen confusion that can occur during operations. The Assistant Surgeon General (ASG) for Force Sustainment serves as the principal staff officer for information for HSS (see Appendix D for a complete review). Future INFOSYS ultimately interface with all command communications systems in the continuum of military operations in any environment. Digitization of the Army presents a unique challenge for the future force. The spiral-like development and streamlined acquisition of computer hardware and software have rapidly exceeded the Army Medical Department's (AMEDD's) ability to logistically support these systems. Not only is the AMEDD building the automation support for the fully digitized Force XXI and the SBCT, it is also designing the objective force for the future.

The proponent of this publication is the United States (US) AMEDD Center and School (AMEDDC&S). Comments and recommendations should be forwarded directly to **Commander, AMEDDC&S, ATTN: MCCS-FCD-L, 1400 East Grayson Street, Fort Sam Houston, Texas 78234-5052,** or at e-mail address: Medicaldoctrine@amedd.army.mil.

This publication implements or is in consonance with American, British, Canadian, and Australian (ABCA) Quadripartite Standardization Agreement (QSTAG) 2026, Principles and Procedures for Tracing and Tracking Personnel in an ABCA Coalition Force.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

The use of trade or brand names in this publication is for illustrative purposes only and does not imply endorsement by the Department of Defense (DOD).

The AMEDD is in a transitional phase with terminology. This publication uses the most current terminology; however, other FM 4-02-series and FM 8-series may use older terminology. Changes in terminology are a result of adopting the terminology currently used in the joint, and/or North Atlantic Treaty Organization (NATO), and ABCA Armies publication arenas. Therefore, the following terms are synonymous—

- Health service support and combat health support.
- Health service logistics (HSL) and combat health logistics.
- Levels of care, echelons of care, and roles of care.

CHAPTER 1

ARMY MEDICAL INFORMATION MANAGEMENT

1-1. General

Advancements in technology have expanded the scope and capabilities of military forces. Information management and information technology (IT) are key elements for maintaining an effective medical force in a contiguous and noncontiguous area of operations (AO). Integrating both digital and analog medical units will be critical to the success of any HSS mission. Digital C2 systems bring a dramatic increase in the level of situational understanding (SU) units may achieve. They can significantly speed the process of creating and disseminating orders, allow for extensive databasing of information, and increase the speed and fidelity of coordination and synchronization of battlefield activities. At the same time, achieving the full potential of these systems requires extensive training, a high level of technical proficiency by both operators and supervisors, and the disciplined use of detailed standard operating procedures (SOPs). Communications planning and execution to support the digital systems is significantly more demanding and difficult than is planning for units primarily relying on frequency-modulated (FM) and mobile subscriber equipment (MSE) communications.

a. Whether to use FM radio or digital means for communications is a function of the situation and SOP. Even though both systems are critical for effective C2 at the battalion level, the FM radio remains the primary method for control at battalion level and below during operations, with additional support from the SU display provided by Force XXI Battle Command Brigade and Below System (FBCB2). There are limitations that commanders must recognize for units/elements not equipped with FBCB2, especially reserve and guard.

b. This chapter discusses the impact of these changes with regards to digitization, new technology and the integration of Army medical information with the Army's information operations; and briefly discusses how the AMEDD manages medical information in a global environment.

c. The remainder of this manual discusses the AMIM from Level I through Level V. It concentrates on two force structures: Force XXI and SBCT. Information networks are changing to pass medical information more efficiently. These systems allow the flow of medical information through various levels to be transmitted from the trauma specialist to continental United States (CONUS), if necessary.

1-2. Army Medical Information Management

In order to conduct full dimension operations, the processing of information and the INFOSYS used in the delivery of that information requires careful coordination and synchronization. The management of information takes on increasing importance in meeting challenges of global operations as IT continues to change and impact HSS in a global medical information environment (see FM 3-13).

a. Army medical information management is critical to the success of HSS operations. Information technology permits the horizontal (across a level of care) and vertical (between levels of care) movement of information. This information provides input to a commander's decision-making process, potentially improving C2. See Appendix B for a complete discussion of current INFOSYS (hardware and software) which will be used in achieving AMIM throughout all levels of care.

b. As forces disperse on the battlespace, lines of communication (LOC) lengthen, requiring forces to act with greater autonomy. Units/elements dispersal may result in decentralized decision authority and an increased requirement for coordinated and synchronized efforts. As SU increases, nominal span of control is increased and the overall SU becomes more difficult. All of this requires a sophisticated INFOSYS. It becomes more important that the commanders share, manage, and move information rapidly among organizations.

c. Army medical information management enables effective planning, preparing, decision-making, and execution of mission objectives. The HSS information management infrastructure within HSS will be dictated by signal priorities within the theater and will be controlled by the warfighter commander. It should serve to eliminate duplication of efforts and unnecessary redundancy. The INFOSYS will deal with time-sensitive, relevant information as well as trivial routine information (see FM 3-13). As vast and complex as INFOSYS are, individual units have the capability to manage connectivity among their organic assets. The difficulty comes in maintaining connectivity outside of the unit, particularly when linked with joint and combined forces using perhaps incompatible communications equipment and INFOSYS.

1-3. Integrating Digital and Analog Units

It will be several years before the majority of the Army is digitally equipped. That fact does not escape HSS. Even then, it is completely possible that the digital force will operate with medical units/elements without digital equipment, especially in joint or coalition operations. The units most likely to still be analog are National Guard, Army Reserve, light forces, corps artillery, and corps-level HSL units with whom the digital force and its battalions will operate. This will require that integrating digital with analog units is essential for the SBCT.

a. The FM radio and MSE are the primary communications mediums with the analog medical units/elements.

b. Hard copy orders and graphics are required.

c. The battalion surgeon staff must recognize that integrating an analog unit/element into a digital force requires the retention of most of the analog control techniques. In essence, two control systems must remain in operation with particular attention to keeping the analog unit apprised of all pertinent information that flows digitally.

1-4. Army Medical Information Management Operations

The increased range and lethality of weapons systems, faster tempo, shorter decision cycles, and extended battlespace to include an electromagnetic spectrum will serve to increase confusion and the volume of information. The key to achieving SU and avoiding information overload is identifying relevant information and filtering out distractions.

a. To support the fast-paced battlespace that technology allows, the medical elements have interoperable communications and will share medical information within the scope of the HSS system in any operational environment.

b. The HSS communications systems and digital connectivity in theater must be capable of reading across other Army, joint, host nation, coalition forces, and other governmental agencies and to the CONUS. To support the fast-paced battlespace, the joint medical community must have interoperable and secure communications. The INFOSYS must be capable of transmitting large amounts of information quickly and accurately with all of the imported and supporting units/elements.

CHAPTER 2

ARMY MEDICAL INFORMATION MANAGEMENT FOR THE DIGITIZED BATTALION

2-1. General

This chapter discusses the medical elements within Level I and how they communicate with supporting medical elements from Level II; the communications capabilities of all of the medical functions for both the Force XXI and the digitized force INFOSYS, and networks incorporated at Level I.

2-2. Information Management for the Medical Platoon

All computers will be set to Zulu time in the contiguous and noncontiguous AO. In the event of communications failure or nonavailability, all medical data (at all levels) is transported via the most expeditious means possible. All medical units/elements develop SOPs for continuation of operations, regular backup of local databases (LDB), and purging of unneeded medical data from all Medical Communications for Combat Casualty Care (MC4) computers. (See Figure 2-1.)

a. The medical platoon has three treatment teams versus the two treatment teams fielded in the analog (nondigitized) AOE units and elements (see Appendix A). The digitized medical platoon has one more PA and three more health care specialists than the AOE medical platoon.

b. The battalion surgeon has a FBCB2 tactical computer that is linked through the tactical radio, voice only Single-Channel Ground and Airborne Radio System (SINCGARS) to the data only Enhanced Position Location Reporting System (EPLRS).

c. Refer to Appendix B for a complete discussion of this equipment. The FBCB2 is to be used for requesting medical evacuation (MEDEVAC) requests for casualties in both Force XXI and digitized tables of organization and equipment (TOE) (contiguous and noncontiguous AO) organizations.

(1) The FBCB2 is a digitized battle command INFOSYS that provides on-the-move, real-time and near-real-time battle command information to combat, combat support (CS), and combat service support (CSS) leaders and soldiers. (See Appendix B.)

(2) The EPLRS is a high-speed radio system capable of carrying FBCB2 data to the brigade surgeon, the Adjutant (US Army) (S1), and the Supply Officer (US Army) (S4).

d. The platoon headquarters operates the platoon net control station (NCS). Approaching air ambulances use this net for patient pickup.

(1) When treatment squads/teams of the medical company/troop are deployed in direct support (DS), or are attached to the supported battalion aid station (BAS), they normally operate on the medical operations net of the supported BAS.

(2) The treatment squads/teams must be provided appropriate signal operating instructions (SOI) for support operations.

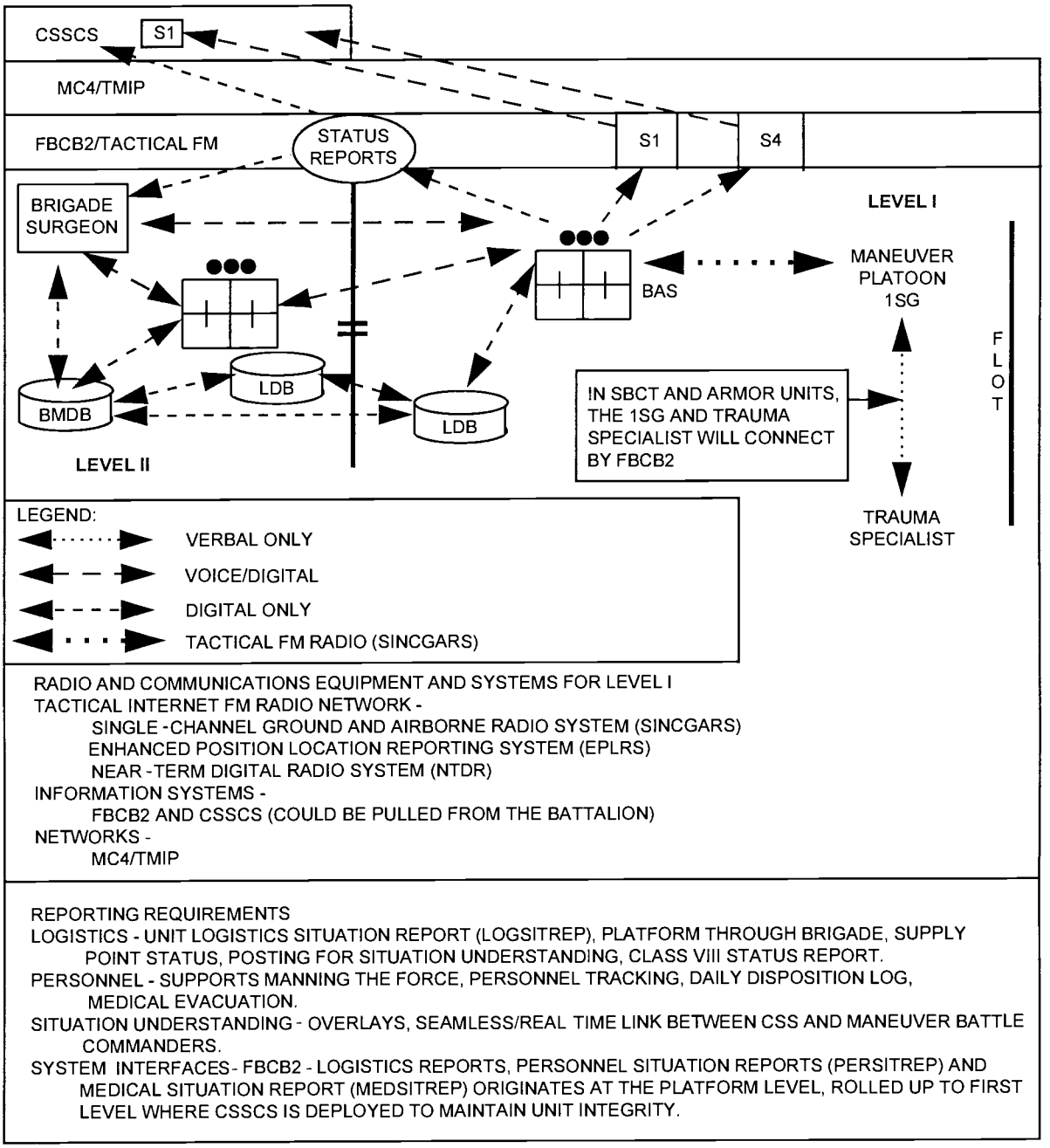

Figure 2-1. Information systems and reporting requirements in Level I.

e. The medical platoon under the digitized force structure consists of—

(1) *Headquarters section*. Under the direction of the medical platoon leader, this section provides for the command, control, and communications (C3) for the platoon. The headquarters section will have access to notebook computers and printers. (See Figure 2-2.)

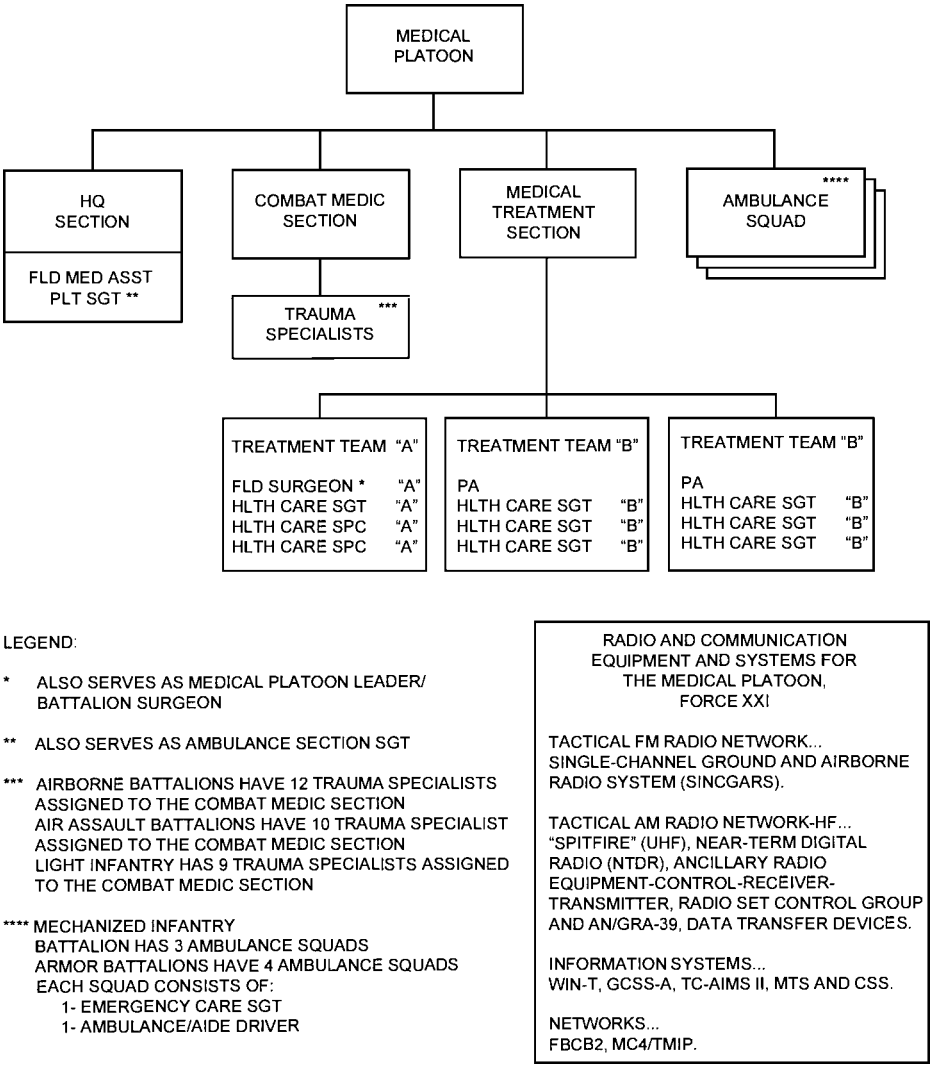

Figure 2-2. The medical platoon under the digitized organizational design.

(*a*) The field medical assistant and the platoon sergeant man the headquarters. The headquarters section is normally collocated with the treatment squads at the BAS. The medical platoon has access to the battalion wire communications network. Wireless communications for this section consists of a tactical FM radio mounted in the platoon headquarters vehicle and serves as the NCS for the platoon (see Appendix B). The medical platoon headquarters section is under the direction of the battalion surgeon and is collocated with the BAS. The headquarters section provides the C3 (through the use of a FM tactical radio) for the medical platoon. The platoon has access to the battalion Area Common User System (ACUS) communications network for communications with all major elements of the battalion and with supporting units in the battalion area.

1. The medical platoon leader is responsible for the—

- Location of the forward treatment site (BAS).

- Ground and air MEDEVAC routes.

- Ambulance exchange points (AXP), and forward casualty collection points (CCP).

2. The battalion surgeon communications responsibilities and communications assets:

- The field medical assistant coordinates HSS operations with the battalion Operations and Training Officer (US Army) (S3) and the S4 using the battalion wire net.

- Patient evacuation is also coordinated with the supporting medical company using a FM tactical radio. The FM tactical radio is normally deployed as the medical platoon's operations net.

3. The medical platoon sergeant—

- Supervises the operations of the medical platoon.

- Prepares reports and requests general supplies as well as medical supplies.

- Advises on supply economy procedures and maintains authorized stockage levels of expendable supplies.

4. The BAS—

- Elements (treatment teams and evacuation teams) use the administrative/logistics net.

- Is under the operational control of the medical platoon leader.

- May operate in a split-team mode for limited periods of time.

- Stabilizes patients requiring further evacuation and returns to duty all other patients as soon as possible.

5. The BAS AMIM functions include—

- Receiving and reporting patient administration data for all patients treated at the medical treatment facility (MTF). The patient administration data is received and reported by messenger with hard media backup files by using the battalion wire communications, administrative/logistics net, or FM radio.

- Providing notification of all patients processed through the BAS to the S1 and battalion surgeon giving identification and disposition of patients.

- Preparing the Department of Defense (DD) Form 1380, US Field Medical Card (FMC), as required for all patients.

- Verifying information contained on the FMC for all patients evacuated to the BAS.

- Requesting MEDEVAC of patients from the forward support medical company (FSMC) by using the tactical FM radio net and/or using ambulance drivers as messengers, if necessary.

6. Within Level I, the medical platoon submits requests for HSL support to the supporting FSMC in the brigade area, transmitting these requests by tactical FM radio or by using messengers. Requests for items not available at the FSMC are forwarded to the division support command (DISCOM) medical materiel management branch (MMMB).

(*b*) Supplies and/or resupply to the BAS are transported directly from the FSMC by ground ambulances, or directly by throughput from corps.

(*c*) Medical resupply may also be by preconfigured Class VIII packages throughput from the medical logistics (MEDLOG) battalion in the corps. Each medical platoon maintains a 2-day (48-hour) stockage of medical supplies. In a tactical environment, the emergency medical resupply (ambulance backhaul) system is used. In this environment, medical supplies are obtained informally and as rapidly as possible, using any available medical transportation assets.

(*d*) Medical evacuation requests are made through the MEDEVAC request, where available, on FBCB2. Where FBCB2 is not available, evacuation requests are made via radio (tactical FM radio) or landline.

(*e*) Medical evacuation notification is made by the BAS to the battalion S1 via FBCB2, landline, or radio.

(*f*) All medical encounter data for each patient is downloaded to a disk/hard media (floppy disk, Zip® disk, tape, and so forth) and transported to the next MTF. Medical documentation (FMC or the Standard Form [SF] 600, Health Record—Chronological Record of Medical Care) for a casualty from the trauma specialist or emergency care specialist accompanies that casualty as he is evacuated.

(*g*) Class VIII resupply requests by the headquarters section use digital transmission—Defense Medical Logistics Standard System—Assemblage Management (DMLSS-AM), MC4/TMIP, FBCB2, or the tactical radio. In the absence of electronic means, requests may be written or saved on a floppy disk and sent to the FSMC via courier.

(*h*) The medical platoon manages their assemblages using DMLSS-AM. As head-quarters section receives Class VIII requests, they are filled from medical platoon stocks.

(*i*) The medical platoon manages the LDB by using a laptop computer. Medical data collected from other computers within the medical platoon are saved to the notebook laptop computer that

serves as the LDB, and then downloaded to the interim theater database (ITDB) in the brigade support area (BSA) per SOP.

(*j*) Local database backups are performed in accordance with (IAW) SOP and sent to the battalion Communications Staff Officer (US Army) (S6).

(*k*) For administration, a notebook laptop computer serves as the LDB for the BAS. Medical data is collected from the other BAS computers, stored on the LDB, and then sent to the ITDB as well as to each of the command surgeon databases.

(*l*) The unit mission application administrator (MAA) and mission application users (MAU) perform a daily backup of the BAS LDB. The backup is stored at the battalion S6, not at the medical platoon level.

(*m*) Security. The battalion S6 assigns passwords and roles. System rights depend on the user's role.

(*n*) Network.

1. Internal. The BAS notebooks connect to the battalion local area network (LAN).

2. External. Data sent to the ITDB and the various command surgeon databases are only sent from the BAS LDB.

(2) *The combat medic section.* Trauma specialists are allocated on a basis of one trauma specialist per maneuver platoon and a senior health care sergeant per each company. The combat medic section assigns trauma specialists to support the maneuver companies and their subordinate platoons. The platoon trauma specialist positions himself near the element leader trailing the base squad forward of the second team. The company trauma specialist normally collocates with the unit's/element's first sergeant (1SG). The individual platoon trauma specialist does not have dedicated two-way communications equipment in Level I under Force XXI.

(*a*) The trauma specialist must rely on the maneuver platoon radio operator to communicate with the company trauma specialist through the unit's 1SG. The information requirements for the trauma specialist supporting the maneuver platoon include—

- Requesting MEDEVAC support.
- Requesting medical resupply.
- Requesting augmentation or reinforcement.
- Reporting patient treatment information.

(*b*) The trauma specialist will use the FMC for documenting all emergency treatment for a patient. All entries will be made by hand. Patient data generated by the trauma specialist will accompany the casualty during MEDEVAC. The FBCB2 MEDEVAC and text messages, where available, will be used to advise the BAS of the need for a MEDEVAC and any special requirements. Where FBCB2 is not available, the evacuation request will be transmitted via tactical voice radio.

1. Sick call documentation of patient encounter data will be written to the FMC or SF 600. Completed documentation will be transported to the BAS by the ambulance team or other vehicles, as they are available.

2. For Class VIII resupply the trauma specialist requests resupply through the 1SG/company trauma specialist. However, the trauma specialist will use FBCB2, where available, to request Class VIII from the BAS. Where FBCB2 is not available, resupply requests will be verbal or handwritten requests made by the trauma specialist to the emergency care specialist (ECS). Whenever possible, the ECS will resupply the trauma specialists from the medical supplies carried on the evacuation vehicles.

NOTE

Trauma specialists assigned to units that do not have a treatment team (such as engineer companies) will send their emergency and sick call patient encounter data to the BAS that will provide area medical support. When their unit moves into an area, the trauma specialist will notify the supporting BAS and identify their medical support requirements.

3. The request may be made through the maneuver platoon radio operator, verbally and/or in writing, to the supporting ground ambulance driver. The trauma specialist must be able to request MEDEVAC (to include aeromedical evacuation) in a timely manner. Once the trauma specialist determines his evacuation requirements, he notifies the maneuver platoon radio operator of his requirements. (The ground ambulance driver serves as a messenger in medical channels when required. Refer to FM 8-10-6 for additional information.)

4. If the maneuver platoon trauma specialist is wounded or killed, or is faced with a mass casualty situation, a request for reinforcement, augmentation, or replacement is made through the maneuver platoon radio operator to the company 1SG/company trauma specialist.

- The company's senior trauma specialist must have a SU of the battle as it unfolds, so he may—
  - Direct forward-sited MEDEVAC platforms to the platoons requiring support.
  - Reallocate resources to stay abreast of the changing tactical situation.

- Request replacement, augmentation, or reinforcement, as required from the BAS.

- Monitor the company CCP.

NOTE

When the trauma specialists are not issued voice communications equipment, all communications with the BAS is passed from the trauma specialist to the platoon 1SG (FM 4-02.4).

- The trauma specialist uses the FMC to document patient treatment. All entries are made by hand. Patient data generated by the trauma specialist accompanies the casualty during MEDEVAC. The FBCB2 MEDEVAC and text messages, where available, are used to advise the BAS of the need for a MEDEVAC and any special requirements. Where FBCB2 is not available, the evacuation requests are transmitted via voice radio.

- Patient encounter data is written on the FMC or SF 600. Completed documentation is transported to the BAS by the ambulance team or other vehicles, as they are available.

NOTE

Trauma specialists assigned to units that do not have a treatment team (such as engineer companies) send their emergency and sick call patient encounter data to the BAS that provides area medical support. When their unit moves into an area, the trauma specialist notifies the supporting BAS and identifies their medical support requirements.

(3) *Medical treatment section*. The medical platoon's medical treatment section is the basic treatment element of the BAS. For communications, each treatment team uses a FM tactical radio and is deployed in the medical platoon's operations net. Under certain tactical conditions, the battalion S4 may require BAS elements to use the S4 net. There are three treatment teams in the digitized medical battalion; they are the basic medical treatment elements of the BAS and provide medical treatment and care at Level I. Patient encounter information that is collected and collated by the treatment teams is transmitted to the LDB. The maneuver platoon's radio operator notifies the maneuver platoon's 1SG to request MEDEVAC. If dedicated MEDEVAC assets are unavailable, the maneuver platoon's 1SG may advise the trauma specialist to use any available transportation platform to perform casualty evacuation. (For an in-depth discussion on the differences between casualty evacuation and MEDEVAC, refer to Joint Pub 4-02.2 and FM 8-10-6.)