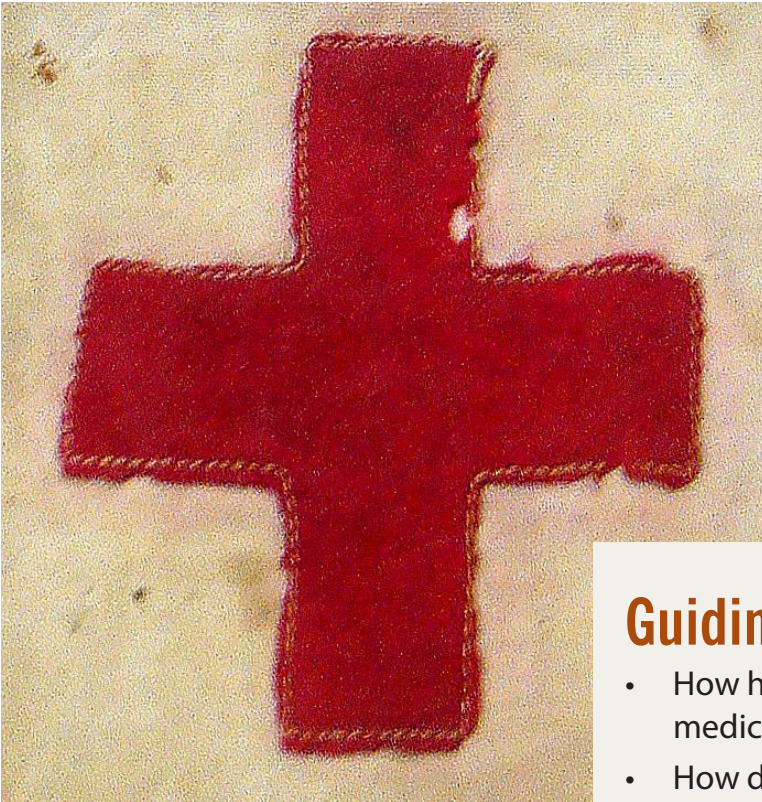




UNDERSTANDING
SACRIFICE

Activity: Advancement of Medical Technology during World War II



Guiding questions:

- How has warfare driven the advancement of medical technology?
- How do medical personnel decide on the best treatment for wounds sustained during combat?
- How are medics affected by their combat experiences?

DEVELOPED BY BRENDAN GALLAGHER

Grade Level(s): 9-12

Subject(s): Science, Social Studies, English / Language Arts

Cemetery Connection: Ardennes American Cemetery
Netherlands American Cemetery
Normandy American Cemetery
North Africa American Cemetery
Manila American Cemetery

Fallen Hero Connection: Private First Class James H. Vrtatko



NHD
NATIONAL
HISTORY DAY

Overview

These lessons are student-centered activities where students will explore medical technological advancements made during World War II and the vital role that medics played in the application of this technology. Students will examine a variety of sources in order to produce an informational artifact highlighting the importance of several medical advancements made during World War II. They will also use sources to determine the best method of implementing combat aid for a variety of injuries and will play the role of a combat medic to determine the best method for wound treatment and triage. Finally, students will gain an understanding of the unique perspective that combat medics had during their service by generating a news story featuring accounts of combat medics.

Historical Context

Throughout history, the exigencies of war have advanced medical technology in order to save the lives of combatants. Many medical techniques and interventions that we take for granted today were developed and employed during war. As military technology advanced, medicine had to advance in order to keep pace with new types of wounds. Medical resources developed during this time were utilized to treat a wide variety of combat injuries. Medics were the ones who had to employ these resources and often had to make very quick decisions and disregard their own safety in order to save lives. Combat medics saw the carnage of the war unlike many other soldiers in order to effectively distribute medical aid to treat injuries and save lives. Private First Class James Vrtatko, a medic, died as a Prisoner of War of the Germans after being captured when his field hospital was overrun outside of Bastogne, France. He was later identified and buried at Ardennes American Cemetery, along with more than 5,000 of his comrades in arms.

Objectives

At the conclusion of this lesson, students will be able to

- Research and summarize medical technologies developed during World War II in order to create a poster or brochure; and

“I believe that project-based learning provides students with the best opportunity for knowledge retention and application. Placing the students in the shoes of a medic allows them to be actively engaged in both scientific and historical inquiry, accesses a variety of learning styles, and makes for an authentic learning experience.”

—Brendan Gallagher

Gallagher teaches at Carroll County Career and Technology Center, Westminster, Maryland.

- Apply their scientific knowledge of battlefield wound treatment in order to evaluate how to best administer aid to soldiers suffering various combat wounds and reflect on how this experience may impact an individual's life.

Documents Used ★ indicates an ABMC source

Primary Sources

Army Talks – Combat Medicine, 1944

Department of the Army

Basic Field Manual: First Aid for Soldiers, 1943

Department of the Army

ibiblio.org/hyperwar/USA/ref/FM/PDFs/FM21-11.PDF

Photograph, *Private Roy W. Humphrey of Toledo, Ohio is being given blood plasma after he was wounded by shrapnel in Sicily on 8/9/43*

National Archives and Records Administration (197268)

research.archives.gov/description/197268

Bernard L. Rice, *Recollections of a World War II Combat Medic*

Indiana Magazine of History, December 1997

12th Armored Division Museum

Thanks to Penicillin...He Will Come Home, 1944

Schenley Laboratories

That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre

med-dept.com/resources/downloads/tmml_booklet.pdf

Veteran's Testimony: Richard 'Doc' Felix, Medical Detachment, D Company, 5th Ranger

Battalion World War II Medical Research Centre

med-dept.com/veterans-testimonies/veterans-testimony-richard-doc-felix/

Veteran's Testimony: Patsy Passero, Medical Detachment, 3rd Battalion, 505th Parachute

Infantry Regiment, 82nd Airborne Division

World War II Medical Research Centre

med-dept.com/veterans-testimonies/veterans-testimony-patsy-passero/

Secondary Sources

“Kits of Medical Personnel”

World War II Medical Research Centre

med-dept.com/medical-kits-contents/medical-kits-contents-kits-of-medical-personnel/

Penicillin: Invention of War

HISTORY®, 0:00-2:56

history.com/shows/modern-marvels/videos/penicillin-invention-of-war

Sheila R. Nelson, *The Combat Medic during World War II*, 2004

United States Army Sergeant Majors Academy Digital Library

cgsc.contentdm.oclc.org/cdm/ref/collection/p15040coll2/id/6129

Stories of Pointe du Hoc ★

American Battle Monuments Commission

abmc.gov/multimedia/videos/stories-pointe-du-hoc

“Use of Contents of First-Aid Kits & Packets”

World War II Medical Research Centre

Materials

Activity One

- Whiteboard/chart paper for each student group

Activity Two

- Poster Analysis Worksheet, National Archives and Records Administration
- *Thanks to Penicillin... He Will Come Home* poster
- Whiteboard/chart paper
- Teacher computer with internet access

Activity Three

- Student computers with internet access
- Poster board, colored pencils, publishing software
- Medical Advancements of World War II Rubric

Activity Four

- Student computers with internet access
- APPARTS Document Analysis worksheet
- Battle Scenarios for Combat Medics
- Medic Deck
- Battlefield Wound Treatment Worksheet
- Treatment Plan for Combat Injuries
- Timer
- Whiteboard/chart paper

Assessment

- Student computers with internet access
- News Story Rubric

Lesson Preparation

Activity One

- Obtain chart paper or divide sections of a whiteboard for each student group.

Activity Two

- Print one Poster Analysis worksheet per student.
- Print one *Thanks to Penicillin ... He Will Come Home* poster for each student group or access the image online.
- Cue *Penicillin: Invention of War* from HISTORY®.

Activity Three

- Gather student materials needed to create brochure, poster, newscast, etc.

Activity Four

- Make one copy (or make available electronically) enough copies of the *Army Talks – Combat Medicine* booklet, *That Men Might Live! The Story of the Medical Service – ETO* booklet, and *The Combat Medic during World War II* essay for each group.
- Print one Treatment Plan for Combat Injuries for each group.
- Print one APPARTS Document Analysis Worksheet and one Battlefield Wounds Treatment handout for each student.
- Print and cut out five Battle Scenarios so that each group can receive one scenario.
- Print and cut out the cards from the Medic Deck.

Assessment

- Cue the video *Stories of Pointe du Hoc* at minute 8:40.
- Print one News Story Rubric for each group.
- Gather student materials needed to create news story.
- Preview sample accounts of medics: Richard “Doc” Felix, Patsy Passero, and Bernard L. Rice.

Procedure

Activity One (15 minutes)

- Quick Write: Ask students to use their prior knowledge to identify or predict medical techniques or interventions used during World War II.
- Use the following questions as a guide for student discussion:
 - What medical interventions were available during the World War II?
 - How were wounds treated?
 - What instruments or facilities were available?
 - What drugs or medications were available to treat disease?
 - What technology and surgical techniques were available to physicians?

Activity Two (15-30 minutes)

- Hand out one Poster Analysis Worksheet to each student and divide students into groups of three to four students each.
- Distribute (on paper or electronically) the *Thanks to Penicillin ... He Will Come Home* poster to each group of students.

- Ask students to use the poster to complete the Poster Analysis Worksheet.
 - Monitor student progress on the completion of the worksheet by asking clarifying questions and guiding the students to both make predictions and generate questions based on the poster.
 - Share analysis, generated questions, and observations with the class.
- Show the video clip *Penicillin: Invention of War* from HISTORY® and summarize how warfare drove the invention and production of penicillin as a pharmaceutical drug.

Activity Three (45-60minutes)

- Assign students to design and produce a brochure, poster, newscast, or webpage, with a group of four that informs and delivers accurate, engaging information to other students about the medical advancements that were made during World War II.
- Review and demonstrate appropriate internet research strategies to access reliable sources and research information about four medical technological advancements during this time period.
- Groups will choose four from the following list of possible topics:
 - penicillin;
 - blood plasma/transfusion technology;
 - surgical techniques;
 - vaccination;
 - battlefield wound care;
 - malaria treatment; or
 - anesthetics.
- Remind students to address the following questions as they explore these medical advancements:
 - Where was the country of origin for the technology/advancement? Was there equal access by both the Allies and the Axis powers?
 - When was it developed? When was it first used in military application?
 - What was the science behind the technology? How did it work? What made it different from or improve upon other technology present at the time?
 - Why was the technology developed? Specifically for the war? Did it already exist in a different application? Was it an accident? Try to find statistics showing the need for that advancement during World War II.

- How did that advancement impact the ultimate outcome of the war? How did it impact medical practice on the home front?
- The final product should be informative, yet simple to follow. The final product must include:
 - title or title page;
 - a clear description of the four medical technological advancements made during World War II;
 - high quality images; and
 - a bibliography containing at least four research sources using appropriate formatting.

Activity Four (90 minutes)

- Divide students into groups of three.
- Distribute (or make accessible online) the *Army Talks – Combat Medicine* booklet, *That Men Might Live! The Story of the Medical Service – ETO*, and *The Combat Medic during World War II* to each group of students.
- Use the APPARTS Document Analysis Worksheet to break down each primary source. Groups should share their findings with each other.
- Analyze the medical tools and supplies available to combat medics by accessing the following websites:
 - Kits of Medical Personnel
 - Use of Contents of First-Aid Kits & Packets
- Complete the Battlefield Wounds Treatment handout by using appropriate internet research strategies to determine five typical wounds experienced by combat troops throughout the different theaters of World War II and the methods used to treat and triage those wounds.
 - Helpful information on treatment can be found in the *Basic Field Manual: First Aid for Soldiers*.
- Shuffle the five Battle Scenarios to match the size of the class (each group will need one scenario).
- Have students draw one battle scenario (one per group). Give them two to three minutes to brainstorm types of injuries specific to that location.
- Give each group shuffled role play cards from the Medic Deck. Students will randomly draw one card from the deck to determine their role in the scenario – each group will have one medic and the other members will have various wound cards specific to that scenario (for example, leg fractures in Operation Market Garden, malaria in Guadalcanal).
- Set timer for 45 seconds for each wounded soldier in the group. Each group’s medic must complete the Treatment Plan for Combat Injuries for each of his or her group members before

time runs out. As part of that plan, he or she needs to determine the order in which soldiers will be treated. Injured members may not assist, but medic can consult the field manual and research on how typical wounds are treated. Any group members not successfully treated when the timer goes off, die as a result of their injuries.

- Spot check treatments at the end of the scenario to determine if the correct treatment plan was implemented for each wounded soldier. If the medic did not treat the soldier in the correct manner, the injured soldier dies in the scenario.
 - Rotate roles so that each student has a chance to be the medic.
- Conduct a whole class debrief at the conclusion of the activity.
- Use the following questions to guide your discussion:
 - How did you feel about the time element of the activity?
 - Who did you decide to treat first?
 - Which injuries were similar across battle scenarios?
 - Which injuries were different across battle scenarios?
 - After your “training,” were you ready to be a medic?
 - Were you happy with the medic in your group?
 - Did friendships complicate anything?

Assessment

Assessment Activity (30 minutes)

- Display the video clip *Stories of Pointe du Hoc* starting at 8:40 from ABMC.
- Students will write about the incredible sacrifice that medics made to help the wounded throughout the war by playing the role of a reporter writing a news story aimed at sharing the experience of a combat medic.
- Students will produce one of the following story formats focusing on data and research collected from a variety of different sources:
 - an informational news article about the day to day life of a combat medic;
 - a fictional short story from the perspective of a combat medic;
 - a fictional journal or blog written by a combat medic; or
 - if available, an interview with an actual combat medic from World War II with the article focused around that one person.

- Include the following criteria in the finished product
 - a two-page article that addresses:
 - the use of specific medical advances during World War II and
 - the human element of how a combat medic impacted the lives of individual soldiers on the ground
 - an engaging headline or title
 - at least two high quality images
 - citation of sources (at least four) used for research using appropriate documentation protocol
- This assessment can be scored using the News Story Rubric.

Methods for Extension

- Students can use the photograph of a World War II blood transfusion (*Private Roy W. Humphrey...in Sicily on 8/9/43*) to conduct a photograph analysis.
- Students can create an original political cartoon that shows the significance of medical technology in helping the Allies win the war.
- Students can create and use a “real” medical kit with limited supplies (example: use sugar packets as sulfa powder) for use in a full class mass casualty simulation to deepen understanding of the triage process and limited resources.
- Students can research their own mock injuries for the full class simulation and use stage makeup techniques and props to create realistic wounds and injuries.
- Students can research the role of medics in a different war and present their findings on the similarities and differences to the medics in World War II.

- The American Battle Monuments Commission maintains U.S. military cemeteries overseas. These cemeteries are permanent memorials to the fallen, but it is important that students know the stories of those who rest here. To learn more about the stories of Americans who made the ultimate sacrifice, visit abmc.gov/education and NHDSilentHeroes.org.
- Teachers can enhance students' interest in challenges faced by World War II servicemembers by exploring these related lesson plans:
 - [The Challenges of Deployment: Interactions with Allies in the Pacific](#)
 - [The Red Cross on the Front Line](#)
 - [You've Got V-Mail! The Role of Letters and Communication in World War II](#)

Adaptations

- Teachers can be sure students have access to all documents and handouts on a computer so that students can use online text-to-speech software like Natural Reader as needed.
- Teachers can decrease the number of medical innovations required for groups in activity three or assign specific innovations to groups depending on ease of access to sources and reading level of appropriate sources.
- Teachers can provide links to at least one appropriate source for activity three and/or reduce the number of required sources.
- Teachers can assign heterogeneous groups and assign roles within the group to assist students with chunking the task.
- Students with limited English proficiency or those with severe challenges with writing may choose to do a comic strip or graphic novel for activity three.
- Teachers can assign medics for activity four instead of having them randomly selected within each group.
- Students with slower written communication who serve as medics in the simulation can dictate their treatment plans to an assistant or other student to write on the chart.

Poster Analysis Worksheet

1.	What are the main colors used in the poster? _____ _____ _____
2.	What symbols (if any) are used in the poster? _____ _____ _____
3.	If a symbol is used, is it a. clear (easy to interpret)? _____ _____ b. memorable? _____ _____ c. dramatic? _____ _____
4.	Are the messages in the poster primarily visual, verbal, or both? _____ _____
5.	Who do you think is the intended audience for the poster? _____ _____
6.	What does the Government hope the audience will do? _____ _____
7.	What Government purpose(s) is served by the poster? _____ _____
8.	The most effective posters use symbols that are unusual, simple, and direct. Is this an effective poster? _____ _____

Designed and developed by the Education Staff, National Archives and Records Administration, Washington, DC 20408

Medical Advancements of World War II Rubric

CATEGORY	Exemplary	Accomplished	Developing	Beginning
Content: Description of Medical Advancements	<ul style="list-style-type: none"> Very good description of the four medical advancements Precise information selected and presented with originality and style 	<ul style="list-style-type: none"> Good description of the four medical advancements Accurate and relevant information Well-written and original descriptions 	<ul style="list-style-type: none"> Limited description of the four medical advancements Accurate information with some relevancy Ideas communicated with some clarity and original descriptions 	<ul style="list-style-type: none"> Minimal description of the four medical advancements Inaccurate and/or missing information Ideas communicated with difficulty
Content: Requirements and Questions	<ul style="list-style-type: none"> Includes all required elements as well as some additional and unique information Addresses all required questions and provides new insight 	<ul style="list-style-type: none"> Includes all required elements Addresses all required questions 	<ul style="list-style-type: none"> Includes most required elements Addresses most required questions Some details are missing 	<ul style="list-style-type: none"> Includes some required elements Addresses some required questions Does not include all information or content requirements
Visual Quality: Appeal and Organization	<ul style="list-style-type: none"> Finished product is engaging, highly organized, and very high quality Purposeful layout design and effectively presented 	<ul style="list-style-type: none"> Finished product is organized, high quality and well presented Appropriate layout design 	<ul style="list-style-type: none"> Finished product needs improved organization for effective presentation Demonstrates some evidence of planning 	<ul style="list-style-type: none"> Finished product is minimally organized Demonstrates little evidence of planning
Visual Quality: Graphics	<ul style="list-style-type: none"> Graphics enhance the topic and presented information More than four relevant graphics used 	<ul style="list-style-type: none"> Most graphics are related to the topic and support the information Four graphics used 	<ul style="list-style-type: none"> Graphics somewhat relate to the topic and support the information Three graphics used 	<ul style="list-style-type: none"> Graphics may not relate to the topic and/or support the information Two or fewer graphics used
Conventions	<ul style="list-style-type: none"> Negligible spelling, capitalization, or grammatical errors 	<ul style="list-style-type: none"> Few spelling, capitalization, or grammatical errors 	<ul style="list-style-type: none"> Some spelling, capitalization, or grammatical errors 	<ul style="list-style-type: none"> Many spelling, capitalization, or grammatical errors
Documentation of Sources	<ul style="list-style-type: none"> More than four high quality sources were used All sources properly documented 	<ul style="list-style-type: none"> Four high quality sources were used All sources properly documented 	<ul style="list-style-type: none"> Three high quality sources were used Some source documentation is incorrect or incomplete 	<ul style="list-style-type: none"> Two or fewer high quality sources were used Several source documentation is incorrect or incomplete

APPARTS

AUTHOR

Who created the source? What do you know about the author?
What is the author's point of view?

PLACE AND TIME

Where and when was the source produced?
How might this affect the meaning of the source?

PRIOR KNOWLEDGE

Beyond information about the author and the context of its creation,
what do you know that would help you further understand the primary source?
For example, do you recognize any symbols and recall what they represented?

AUDIENCE

For whom was the source created and how might this affect the reliability of the source?

REASON

Why was this source produced and how might this affect the reliability of the source?

THE MAIN IDEA

What point is the source trying to convey?

SIGNIFICANCE

Why is the source important?
Ask yourself, "So what?" in relation to the question asked.

APPARTS WORKSHEET

Author	
Place and Time	
Prior Knowledge	
Audience	
Reason	
(The) Main Idea	
Significance	

Battle Scenarios for Combat Medic Simulation

Battle of the Bulge

After D-Day, Allied forces drove through and recaptured most of France by November 1944. However, German forces launched a counterattack in December 1944 that caught the Allies unprepared. This battle was fought over the course of several weeks in the bitterly cold winter where Allied troops were inadequately supplied with cold weather gear. There were more than 90,000 American casualties (including 23,000 taken prisoner), making it a tremendously traumatic battle for Allied forces.

Guadalcanal Campaign

Japanese forces were building an air base on the island of Guadalcanal just northeast of the Australian continent. The Allied forces wanted to gain a foothold in the region and launched an attack in summer of 1942. The United States was inadequately prepared for fighting in the dense tropical rainforest of the island and suffered a great deal of casualties over the next several months.

Invasion of Normandy

After months of preparation, the Allied forces crossed the English Channel and launched the D-Day invasion of German-occupied France via the coast of Normandy in June 1944. This invasion gave the United States and Britain a foothold on Europe and allowed the drive toward Germany through the fall of 1944. This invasion was unique in that it featured both airborne landings behind enemy lines and an amphibious assault of combat forces landing on beaches.

Operation Market Garden

In the fall of 1944, the Allies launched the largest airborne operation of the war, dropping over 34,000 troops into the Netherlands and Germany to support and cut off the retreat due to advancing Allied forces. The goal was to circumvent the northern end of Germany's defensive and capture ports vital to supply troops for the final drive into Germany. Allied forces experienced stiff German resistance and many airborne units had to not only deal with assaults from German defenders, but retreating German forces as well.

Tunisia Campaign

This campaign was the result of the invasion of North Africa by Allied forces in order to open up a second front against German forces in the region. The operation featured the heavy use of tanks and aircraft across desert terrain and featured Allied troops who were ill prepared for tank combat, but won a battle of attrition leading to the surrender of over a quarter of a million German troops.

Medic Deck for Normandy Invasion

COMBAT MEDIC	CONSCIOUS: GUNSHOT WOUND TO ARM	UNCONSCIOUS: GUNSHOT WOUND TO ABDOMEN
CONSCIOUS: BROKEN ANKLE	CONSCIOUS: MINE EXPLOSION - LEG ABOVE KNEE GONE	CONSCIOUS: GUNSHOT WOUND TO THROAT
UNCONSCIOUS: ARTILLERY WOUND TO CHEST – ARM MISSING	CONSCIOUS: HYPOTHERMIA AND SHOCK	CONSCIOUS: DISLOCATED SHOULDER AND BROKEN ARM

Medic Deck for Battle of the Bulge

COMBAT MEDIC	CONSCIOUS: GUNSHOT WOUND TO ARM	UNCONSCIOUS: GUNSHOT WOUND TO ABDOMEN
CONSCIOUS: FROSTBITE TO BOTH FEET	CONSCIOUS: ARTILLERY EXPLOSION - LEG ABOVE KNEE GONE	CONSCIOUS: GUNSHOT WOUND TO THROAT
UNCONSCIOUS: ARTILLERY WOUND TO CHEST – ARM MISSING	CONSCIOUS: HYPOTHERMIA AND SHOCK	UNCONSCIOUS: CARBON MONOXIDE POISONING

Medic Deck for Tunisia Campaign

COMBAT MEDIC	CONSCIOUS: GUNSHOT WOUND TO ARM	UNCONSCIOUS: GUNSHOT WOUND TO ABDOMEN
CONSCIOUS: BROKEN ANKLE	UNCONSCIOUS: AIRCRAFT GUN WOUND – RIGHT ARM MISSING	CONSCIOUS: GUNSHOT WOUND TO THROAT
UNCONSCIOUS: ARTILLERY WOUND TO CHEST, SEVERE BLEEDING	CONSCIOUS: HEAT EXHAUSTION	CONSCIOUS: TANK ARTILLERY EXPLOSION – BOTH LEGS MISSING

Medic Deck for Operation Market Garden

COMBAT MEDIC	CONSCIOUS: GUNSHOT WOUND TO ARM	UNCONSCIOUS: GUNSHOT WOUND TO ABDOMEN
CONSCIOUS: BROKEN ANKLE	CONSCIOUS: MINE EXPLOSION – LEG BELOW THE KNEE IS GONE	CONSCIOUS: GUNSHOT WOUND TO THROAT
UNCONSCIOUS: ARTILLERY WOUND TO CHEST – ARM MISSING	CONSCIOUS: HYPOTHERMIA AND SHOCK	CONSCIOUS: DISLOCATED SHOULDER AND BROKEN ARM

Medic Deck for Guadalcanal Campaign

COMBAT MEDIC	CONSCIOUS: GUNSHOT WOUND TO ARM	UNCONSCIOUS: GUNSHOT WOUND TO ABDOMEN
CONSCIOUS: MALARIA	CONSCIOUS: SNAKE BITE	CONSCIOUS: GUNSHOT WOUND TO THROAT
UNCONSCIOUS: ARTILLERY WOUND TO CHEST – ARM MISSING	CONSCIOUS: HEAT SHOCK	CONSCIOUS: BLOODY DIARRHEA

Battlefield Wound Treatment

Presenting Wound	Immediate Medical Treatment by Medic	Further Medical Treatment After Evacuation
<p>bullet wound to upper arm with severe bleeding but little pain</p>	<ul style="list-style-type: none"> • Expose entire wound • Sprinkle sulfa powder to stop bleeding & prevent infection • Cover wound with gauze • Apply direct pressure and raise arm to stop bleeding • Apply tourniquet if bleeding does not stop 	<ul style="list-style-type: none"> • Treatment for shock • Potential amputation of limb • Penicillin for bacterial infections • Blood plasma/transfusion • Potential morphine dose if pain increases

Treatment Plan for Combat Injuries

Battle Scenario:

Soldier Name	Presenting Injury	Course of Action

News Story Rubric

Use this rubric to help you as you write your published account of the life of a combat medic. Your editor (teacher) will use this rubric when they read and evaluate your article.

Newspaper Basics: 15 points

- _____ Headline communicates main idea of story (5)
- _____ Has a byline (name of author) (5)
- _____ Dateline includes date and place (5)

Organization, Style, and Content: 55 points

- _____ Lead catches the reader's attention and makes the reader want to keep on reading (5)
- _____ First paragraph following the lead gives the most important information: who, what, where, when, why, how (10)
- _____ Rest of article gives sufficient and appropriate information, including lots of specific details (10)
- _____ Includes at least two pertinent quotations (5)
- _____ Relates to the use of specific medical advances during World War II (5)
- _____ Relates to the human element of how a combat medic impacted the lives of individual soldiers on the ground (5)
- _____ Includes at least two images (5)
- _____ Is easy to read and understand, and uses appropriate and engaging vocabulary (10)

Format: 30 points

- _____ Is at least two pages long (10)
- _____ Demonstrates correct punctuation: especially no run-on sentences! (7)
- _____ Capitalization is correct: beginning of sentences, proper nouns (7)
- _____ Spelling is correct (6)

TOTAL: 100 points

Comments:

Thanks to Penicillin...He Will Come Home, 1944

Schenley Laboratories

Thanks to PENICILLIN ...He Will Come Home!



★ FROM ORDINARY MOLD—

★ *the Greatest Healing Agent of this War!*

On the gauzy, green-and-yellow mold above, called *Penicillium notatum* in the laboratory, grows the miraculous substance first discovered by Professor Alexander Fleming in 1928. Named penicillin by its discoverer, it is the most potent weapon ever developed against many of the deadliest infections known to man. Because research on molds was already a part of Schenley enterprise, Schenley Laboratories were well able to meet the problem of large-scale production of penicillin, when the great need for it arose.

When the thunderous battles of this war have subsided to pages of silent print in a history book, the greatest news event of World War II may well be the discovery and development — not of some vicious secret weapon that *destroys* — but of a weapon that *saves* lives. That weapon, of course, is penicillin.

Every day, penicillin is performing some unbelievable act of healing on some far battlefield. Thousands of men will remain home who otherwise would not have had a chance. Better still, more and more of this precious drug is now available for civilian use... to save the lives of patients of every age.

A year ago, production of penicillin was difficult, costly. Today, due to specially-devised methods of mass-production, in use by Schenley Laboratories, Inc. and the 20 other firms designated by the government to make penicillins, it is available in ever-increasing quantity, at progressively lower cost.

Listen to "THE DOCTOR FIGHTS" starring RAYMOND MASSEY. Tuesday evenings, 8 P.M. See your paper for time and station.

SCHENLEY LABORATORIES, INC.

Greenwich, Indiana

Producers of PENICILLIN-Schenley



Army Talks – Combat Medicine, 1944

Department of the Army

Look and Listen

ARMY TALKS, "Warweek" and the American Forces Network are all cooperating to keep the American soldier informed about the progress of the war, current events and the nature of both our enemies and our allies. Combat orientation is specifically focused on your vital problem of how to stay alive while you destroy the enemy. As long as shooting goes on in this or any other theater combat orientation will be of paramount importance.

All these agencies for exchanging information or ideas are dependent on you, the discussion leader, for their successful operation. On the other hand, if you use them to the full, you will find them valuable aids in putting across your unit orientation program.

Warweek

LOOK for your copy of "Warweek," and make sure there is a sufficient supply for all your men. The subject matter of this week's ARMY TALKS will appear in an illustrated GI digest in the "Warweek" supplement of "Stars and Stripes" on **Thursday, 21 September, 1944.** "Warweek," official orientation organ for the ETO, is striving to make the American soldier in this theater the best informed soldier in the world.

AFN

LISTEN in on your American Forces Network Station for a dramatized presentation of the week's ARMY TALKS. To get up with your talk, use it as a self-starter for the discussion. **Time: Saturday, 23 September, 1944, at 1430-1500 hours.** Choose any convenient spot where you have a radio and a spot for your platoon to listen in and follow up discussing the subject.



1st in importance is morale...

GENERAL GEORGE C. MARSHALL



New Blood arrives at airfield in France for shipment to the front.

Combat Medicine



RESTRICTED • EUROPEAN THEATER OF OPERATIONS • UNITED STATES ARMY

Army Talks – Combat Medicine, 1944

Department of the Army

ARMY TALKS EUROPEAN THEATER OF OPERATIONS

Combat Medicine

PPRIVATE JACK MARTIN got some breath back into him and eased over onto his back. He knew he was hit all right, in the chest. The question was, how bad? It didn't hurt; just felt numb. But then, he knew, most wounds were like that.

Fighting off the feeling of fear that surged over him, he pulled open his shirt to take a look. Blood welled from a tear several inches long over the edge of his ribs on the left side. He couldn't tell how deep the hole was, and wondered if the ribs were shattered. Busted ribs, he remembered, are bad medicine for lungs, and he resisted the temptation to try a deeper breath.

From a pocket of his cartridge belt, Martin took a small red and white paper packet marked **WOUND TABLETS**. Fishing out his canteen with as little movement as possible, he washed down the eight white tablets the packet contained.

He was just draining the last of the water when somebody yelled at him through the noise of the firing, "take it easy, pal, be with you in a minute."

Medics A Good Sight When You're Hit

It was a medic, a company aid man. Martin could see the red cross brassard on his left arm as he came up.

"Where are you hit, boy?" the medic asked. "Let's have a look." Working swiftly the aid man produced sulfa powder from his kit which he sprinkled in the open wound. Then he applied a sterile compress, taping it down securely. Next a prepared syrette of pain-preventing morphine administered quickly, skilfully. Urging Martin to take a healthy slug of water from his own canteen, he meantime stuck the wounded man's rifle into the ground alongside and tied a bit of gauze to the stock.

"They'll be along to pick you up in no time," said the aid man as he fastened his kit pack up. "Just lay quiet and rest easy. You got smokes and matches handy? Good. Now, don't worry. You're going to be okay." Then he was gone in the direction of the firing to give a hand to the unit's other casualties.

When this company aid man told Private Jack Martin not to worry, and that he would "be okay," he was not just comforting a hurt man. He meant it. He was speaking with the honest conviction of a man who had seen guys a lot worse off than Martin appeared to be fixed up as good as new.

saved. . . ARMY TALKS are now emphasizing Combat Orientation. These "combat" issues contain the "tricks of the trade"—as reported by the men who have actually used them and know that they work.

You, as a discussion leader, are responsible for seeing that these vital topics are brought before your men and discussed fully. The Army wants to do this job quickly and efficiently with as many men returning home in one piece as is humanly possible. Discussions will help do just that.

We hope your commanders read these pamphlets too. Keep in mind the fact that "Warweek" presents, on Thursdays, a newspaper version of the topic covered in ARMY TALKS. Thus, the GI who reads "Warweek" will come to the discussion hour with some advance knowledge of the meeting's topic.

You, as a discussion leader, are in a position to know how the subjects in ARMY TALKS are going over. If you have any suggestions or criticisms send them in. If you have any topics you think are worthy of discussion let us know. We want to know what you think of ARMY TALKS and will be glad to hear from you.

ARTHUR GOODFRIEND,
Major, AUS,
Chief, Orientation Branch.



"The purpose of the program is to give the soldier psychological preparation for combat, and a better realization of the import of every phase of his military training. Emphasis will be placed on combat orientation. The mental and physical conditioning of the enemy, and a proper evaluation of the enemy's weapons and fighting qualities will be stressed. A better understanding of the background of the war, and the soldier's responsibilities in the post-war world will also be developed. . . ."

BY COMMAND OF GENERAL EISENHOWER,
1 August, 1944, AG 352/2 OpSS, Subject: Combat Orientation Program.

A LETTER FROM THE EDITOR OF



Dear Discussion Leader:

This army of ours is composed of a lot of hard-headed guys who, rightly enough, want to know what the "score" is—who they're fighting, why they're fighting and just what is being accomplished. That is ARMY TALK's job—to give you discussion leaders the "jumping-off-point"—factual information—so that you and your men can discuss these questions and attempt to find a solution.

This week's ARMY TALK gives a straight factual report on how the medics operate, the equipment they use and the latest advances in medicine that are being utilized to save our casualties. No effort is too great for the Medical Corps to make sure that the man who walked into a slug gets immediate medical attention and is transported to safety with the utmost speed and a minimum of discomfort.

Does your unit fully utilize ARMY TALKS? Are your unit commanders aware of the information that they offer—information that means lives

Army Talks – Combat Medicine, 1944

Department of the Army

4

ARMY TALKS

Behind his quiet confidence was the solid fact that in this war only three out of every hundred men of the American Army who are hit in battle, no matter how seriously, and live to receive any treatment, die of their wounds. In the last world war, more than seven in a hundred wounded who lived to be treated still died in a hospital.

If the seriously wounded man today can be gotten into condition to be removed from the combat zone, his chances of pulling through improve to something like 996 out of 1,000. If he makes it to a general hospital back in the communications zone, then his chances of survival increase still further to the point where he actually has odds of about 999 to one on his side for recovery.

New Discovery Speeds Up Recovery

It isn't just a matter of keeping men alive; either. The odds in favor of a wounded soldier being returned to full health and usefulness follow right along with the life and death figures. In the North African Theater of Operations during 1943, which included the Tunisian campaign, the Sicilian campaign and the early part of the Italian campaign, 62.2 percent of all wounded men of American units there were returned to duty within 90 days. Of the remainder, the great majority merely needed further treatment to make the same recovery.

Three things account for the 100 percent better chance the 1944 GI has of pulling through if he should get hit in battle, than the American Doughboy of 1918 had—in spite of the fact that modern war weapons are more destructive, and today's soldier faces greater hazards than his "old man" encountered. They are:

1. The tremendous advances made in medical science in the past 25 years—the discovery of new drugs, surgical technique, etc.
2. The vast, complex yet highly workable system of removing wounded from the combat zone that the Army Medical Department has developed and operated.
3. The system of taking medical and surgical care up into the combat zone right to the wounded man who cannot be removed safely to the distant rear.

The life and rehabilitation figures speak for themselves. The weapons of life-saving that the American Army now wields have more than kept pace with the weapons for killing and crippling that the enemy has produced.

When Jack Martin swallowed the eight white round tablets, he was putting to use one of the greatest discoveries of the present medical age.

Today, every American soldier going into combat carries these sulfadiazine pills, and is instructed to take them immediately with plenty

13 September, 1944

5

of water if he is hit any place except in the belly. They practically amount to a new lease on life, right on the spot.

When a man is hit by a bullet or a shell fragment, the wound is always contaminated. In the past, unless such a wound could be surgically cleaned and dressed within a few hours, infection was an almost inevitable result. That meant complications, long periods of



treatment and slow healing at best. Often, if the wound went beyond those few hours without treatment, it meant gangrene, and amputation or even death.

There were actually more deaths from infection in World War I than from the primary effects of wounds, like bleeding. Now infection seldom gets a real foothold in a battle wound, and, if it does, it is quickly brought under control through prompt surgery and the use of the new drugs.

Sometimes these drugs are taken internally, as in the case of the pills; and sometimes they are administered hypodermically. They act to "pin applied to the open wound, as in the case of the powder the aid man used, the infection down," making it impossible for bacteria to multiply. Then a man's natural defences, the white corpuscles of the blood, sometimes called the body's infantry, can step in and wipe out the isolated remnants of infection.

Great as the sulfa drugs are, however, they have only a limited effectiveness against certain types of bacteria which sometimes take root in wounds, burns and compound fractures. In the main, these are the pus-forming microbes, and that's where penicillin comes into the picture. The "miracle drug," as it is often referred to, has proved to be a safe, sure and rapid treatment for infection of this previously dangerous type.

Penicillin Plays Havoc With Bacteria

Penicillin is a drug that is taken from common green mold, the type that forms in cheese or bread. Scientists are not yet sure what it is chemically, but they have no doubt as to its life-saving power. One form of the drug literally suffocates bacteria by shutting it away from oxygen;

Army Talks – Combat Medicine, 1944

Department of the Army

13 September, 1944

ARMY TALKS

6

another form literally burns the bacteria alive by feeding it too much oxygen.

Wounded American soldiers now get penicillin shots directly into the body, where the drug can do the greatest good, every four hours. Sometimes wounds are flushed with a solution of penicillin salts, and sometimes they are covered with compresses saturated with the parent mold.

The armed forces get practically the entire supply of penicillin that is produced in the United States at present. A supply adequate to the needs of every wounded soldier has been assured by the efforts of the home drug industry in increasing the source of the drug and in speeding its processing.



One of the most terrible results of wound infections in the last war was tetanus, or lockjaw as it is called. Many men died of this extremely painful disease, which is caused by a tiny germ—a germ on which the sulfa and penicillin drugs, potent as they are, would have no effect. Fortunately, an anti-tetanus toxoid of practically 100 percent effectiveness has been developed since World War I, and every man gets the shots that “burn like hell for a minute” long before he gets into combat. Cases of this once terrible threat to the wounded soldier are so infrequent in the American Army in this war as to be a negligible medical problem.

Thousands Were Saved By Blood Banks

Another great victory which medical science has scored since the last war in the interests of the battle casualty, is in the treatment of shock, particularly where it is caused by loss of blood fluid.

Blood transfusion is the best possible means of combating shock, a condition which arises when the heart has difficulty in maintaining a proper flow of blood in the body. The old method of carrying out a transfusion necessitated direct contact between the person giving blood and the person receiving it. Both had to be in the same blood group. This system could only be used under conditions which were difficult to set up near the battlefield.

7

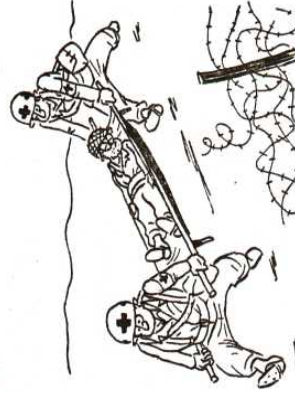
Now medical science has eliminated the need for direct contact between the donor and the recipient. Sometimes whole blood in its natural form is stored in blood banks, where it can be held for a time pending the need for it. Sometimes the blood plasma, that is, blood from which the red corpuscles have been removed, is reduced to a powdered form, in which it is more easily preserved and transported.

Medical field units carry dried blood plasma with them. Since it is a simple matter to place the preserved plasma back into solution, wounded soldiers can be given transfusions very near to the battlefield before the condition of shock can set in. Certainly thousands of men are alive today because the new technique used by the Army Medical Department served to replace and supplement their own blood in time.

Time Is Precious—Medics Know It

Equally important to advances in medical science in the greater saving of wounded American soldiers in today's fighting, is the swift and smooth evacuation system operated by the Army Medical Corps. No longer does the battle casualty lie for precious hours awaiting the treatment or surgery that can give him a running start on the road to recovery.

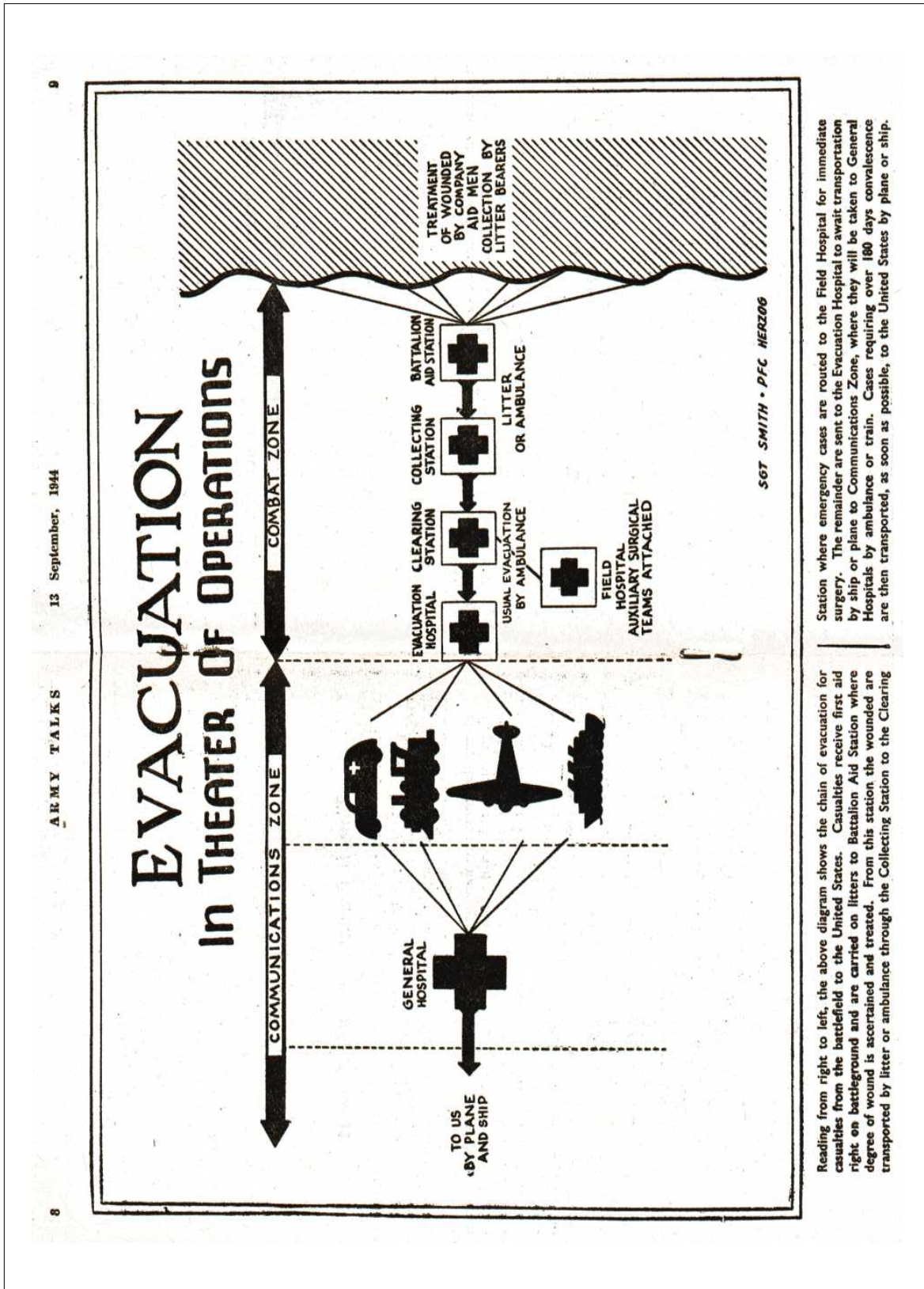
When the company medic who gave first aid to Private Jack Martin told his patient, “They'll be along to get you in no time,” he was referring to the litter bearers who follow close in the wake of battle. They look for the upright rifle flagged with gauze, or some other sign indicating the presence of a fallen soldier. Like the company aid men, the litter bearers are attached to infantry and field artillery units, and work almost continually under fire.



Upon finding a wounded soldier, these trained medical teams carefully place him on the litter and carry him back—usually no more than a few hundred yards—to the battalion aid station. Here the battalion surgeons render emergency medical care. They give immediate treatment

Army Talks – Combat Medicine, 1944

Department of the Army



Army Talks – Combat Medicine, 1944

Department of the Army

10

ARMY TALKS

for shock, check persistent bleeding, give transfusions, immobilize fractures and, in general, prepare the wounded for evacuation to the rear as comfortably and safely as possible.

While major surgery cannot be undertaken at the exposed battalion aid stations, the prompt professional attention given to the wounded at these forward points is responsible for untold numbers of men getting “over the hump.”

Now Starts The “Chain Of Evacuation”

From the battalion aid stations, wounded are removed by personnel of the collecting station, the forward element of the division medical service. Litters, ambulances and, where the military situation of terrain prevents the use of ambulances, improvised transportation by trucks, weapons carriers and jeeps is employed. A metal litter bracket which can be fastened on the back of a jeep was developed in the ETO by the Medical Service, and has proved invaluable in combat.

Next step in the “chain of evacuation” is the clearing station, the rear medical installation of the division. At this point, expert medical officers diagnose wounds, deciding what further treatment each case will require.

Some patients receive such additional preparation as they need in order to continue on their way out of the combat zone. The sick or lightly wounded are kept for 24 hours and, if their condition warrants, are returned



to their units. The clearing stations function like the emergency rooms of large city hospitals in sorting out the wounded, and are completely staffed with doctors and skilled assistants.

Beyond the division clearing stations, most casualties are transported by ambulance to evacuation hospitals located at the rear of the combat zone. The remaining cases, urgent chest and abdominal wounds and the like, are moved instead to nearby field hospitals until they are out of danger.

At the evacuation hospital, a wounded soldier begins to receive complete treatment for his injuries, the kind of treatment that is necessary to restore

13 September, 1944

11

him to full health. Up to this point his treatment has been more in the nature of emergency care, designed to offset the first effects of his wound, and to give him new strength.

Evacuation hospitals in the United States Army medical system are completely equipped installations, where any type of surgery or treatment can be undertaken, but where only men who are expected to recover



rapidly are ordinarily retained. The rest are sent out of the combat zone into the communications zone.

The transporting of battle casualties to the rear communications zone is accomplished by ship and plane from the Continent, but in other theaters where no water must be crossed, hospital trains and ambulances are utilized.

Hospital ships, white-painted and brightly lighted, are designed and equipped to carry battle casualties in large numbers with a minimum of discomfort. The staffs of these carriers include doctors, nurses and medical corps men. Every attention is given to the care and well-being of patients, with treatment continuing while enroute.

A Plane Ride—But You’d Rather Walk

The planes used are C-47s especially equipped for the job of transporting wounded men swiftly and safely to England. The wounded are constantly attended during the brief trip by a professional nurse and trained medical technicians. Thousands of casualties have been flown to England from France in carrier planes thus far in the campaign.

Wounded soldiers evacuated to the communications zone go to huge general hospitals of 1,000 beds or even greater capacity. Here the most exacting and complete treatment is given. In equipment and facilities the U.S. Army general hospitals compare with the finest municipal or private institutions in the world.

There is yet another step in the chain of evacuation, however. If a soldier cannot be returned to duty status within 180 days, he is sent by

Army Talks – Combat Medicine, 1944

Department of the Army

hospital ship to the United States. There he may receive treatment at Halloran General Hospital on Staten Island in New York harbor, or at one of the other great hospitals in the zone of the interior. If a period of convalescence is necessary, the recuperating soldier is removed to the hospital set up for that purpose nearest his own home, where he may see his family and friends frequently. Convalescent hospitals are distributed throughout the States.



Or he may need a series of operations involving delicate skin and cartilage grafts to restore his features or bring usefulness and conformity back to a badly burned or broken hand. Through the miracles of modern surgery amazing physical restorations are possible, and no wounded American soldier is returned to his home without having had the benefit of the finest skill his country affords.

There are a lot of Joes who will be going home from this war, and who wouldn't have gone home from any previous one, simply because the Army Medical Service now takes the surgeon right to the dangerously wounded man far up in the combat zone.

In the last war, wounded men died altogether too often because they had to wait too long for surgery, or because they couldn't stand the rigors of the trip to the rear in their weakened condition.

Specialists Ensure Best Possible Care

Now, the Medical Service has hundreds of highly skilled surgeons, trained technicians and surgical nurses organized into what are known as Auxiliary Surgical Groups. The groups in turn are made up of Auxiliary Surgical Teams which work as separate units attached to field hospitals far forward within the combat zone.

Most of these units do general surgical work, although some of the teams are specially qualified for bone, facial, chest, nerve or brain surgery. A general team may consist of a general surgeon, an assistant surgeon, an anaesthetist, a nurse and two surgical technicians.

Auxiliary Surgical Teams have their own surgical equipment, tents and special trucks which carry sterilizers and an auxiliary power unit to provide current for electric lights. They are highly mobile, and can move on short

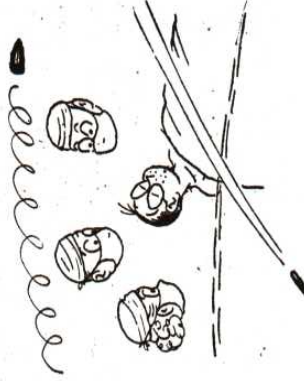
notice. If Jack Martin's ribs had been shattered, with the consequent danger that much movement might have led to a punctured lung or some other internal damage, he would have been taken straight from the division clearing station to the field hospital instead of being sent to an evacuation hospital for shipment to the communications zone by ship or plane.

It's Teamwork All Of Its Own

Chances are, the field hospital would have been set up no more than a stone's throw from the division clearing station. There Jack would have received the attention of the hospital surgeons, or of the personnel of the Auxiliary Surgical Team attached to the hospital. If he had needed an operation to set him right inside, he would have had it then and there.

Only when he could travel without danger of complications from his wound would he have been placed back into the regular channel of evacuation.

The picture of white-clad surgeons calmly saving life by the delicate skill of their hands while rifle fire crackles in the distance and shells whine overhead will always be one of the most dramatic of the war. Yet, it symbolizes the spirit which drives the whole of the United States Army Medical Department—from the men who planned and made this vast machine of mercy to the dogged aid man in the line.



This article has been written by an ARMY TALKS staff writer. The material was gathered from official Medical Corps sources, hospital authorities and the casualties themselves.

It is straight, matter-of-fact reporting on what the Medical Corps is doing to make sure that you get the breaks. It's important—it's your life!

Army Talks – Combat Medicine, 1944

Department of the Army

On the Medical Front

The Army Medical Corps distinguished itself on D-day by moving the wounded so swiftly that many a GI hit on a Normandy beach in the morning found himself in an English hospital that evening.

* Army psychiatrists have OK'd their claim it to be the certain cure for the "Army blues."



The soldier who "bottles his misery up" is heading for a crackup. He should let off steam and really bop! It's the Army way—and for once—the right way.

* Flea, flu, flee! An Army commission reports that they have made an influenza vaccine by growing flu virus in fertile hens' eggs (messy business!). But experiments and tests so far have been quite successful.

* More ersatz—but good! The new synthetic drug, Sontoquine, has been found to be very useful in treating typhus and malaria. It relieves headaches, brings back sleep and works well on nervous phenomena.

* A new advance has been reported in skin grafting. Skin grafting is completed more easily and more successfully with "blood glue." The

HINTS 1. On long marches, men should hook fingers in shoulder straps of packs, continually moving hands and elbows to be sure of good circulation to handle guns when near front.

MEDICS 2. By wearing Plexiglas goggles or masks you can protect your eyes from tiny land mine fragments.

Printed by Newman & Pearson Printing Co., Ltd., Ekmoor Street, N. Kensington, London, W.10.

How to prepare this Army Talk

SOME civilians do not like to talk about life insurance because it brings up the unpleasant possibility of dying. Perhaps a few soldiers shy away from the subject of combat medicine because it suggests the possibility of getting hit. Most men in the Army, however, are tough minded enough to realize the importance of the topic. Knowing what to do if you become a casualty may save your life. Knowing what your chances are and how good the care is if you are wounded will make you a better soldier.

Everybody in the ETO knows that he or she can be wounded through enemy action. A substantial portion of all casualties are so called non-combatant troops. Even paratrooper troopers stationed in England may have a ticket to the hospital delivered by a buzz bomb. So whatever your service or wherever you are stationed you're on Jerry's mailing list. He'll be trying to get in touch with you.

Here are some of the questions which will help get your discussion rolling :

1. What are your chances of recovery as a casualty if you get in the hands of the medics ?
2. Why should a wounded man use a tourniquet if he is losing blood rapidly? Get the low down from your unit medical officer.
3. How do the chances of the wounded of this war compare with those of the last ?
4. How do the chances of the wounded in this theater compare with the casualties in other theaters ?
5. What new developments affecting combat medicines have been devised in this conflict ? (see p. 14).

Start off with a 10 or 12 minute talk on the subject. End up with five minutes of summary. Encourage the free exchange of ideas. Invite anyone in your outfit who has been a casualty or who has seen the medical service function in combat conditions to make a contribution. By all means, if you are near a general hospital ask a convalescent to sit in on your session. If there is a radio available use the ARMY TALKS on the air program over AFN, 1430 hours each Saturday to introduce your discussion.



The Army is now using, behind the lines, a fumigation and bath unit, attached to a truck. It is large enough to accommodate a soldier fully clothed.

* Dichloro - diphenyl - trichloroethane ! (The louse is on the run.) The name's enough to kill 'em ! Anyway, the Army has proved that this jawbreaker's the best typhus preventive yet discovered, better than steam or typhus vaccine.

That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre

“That Men Might Live! The Story of the Medical Service - ETO”

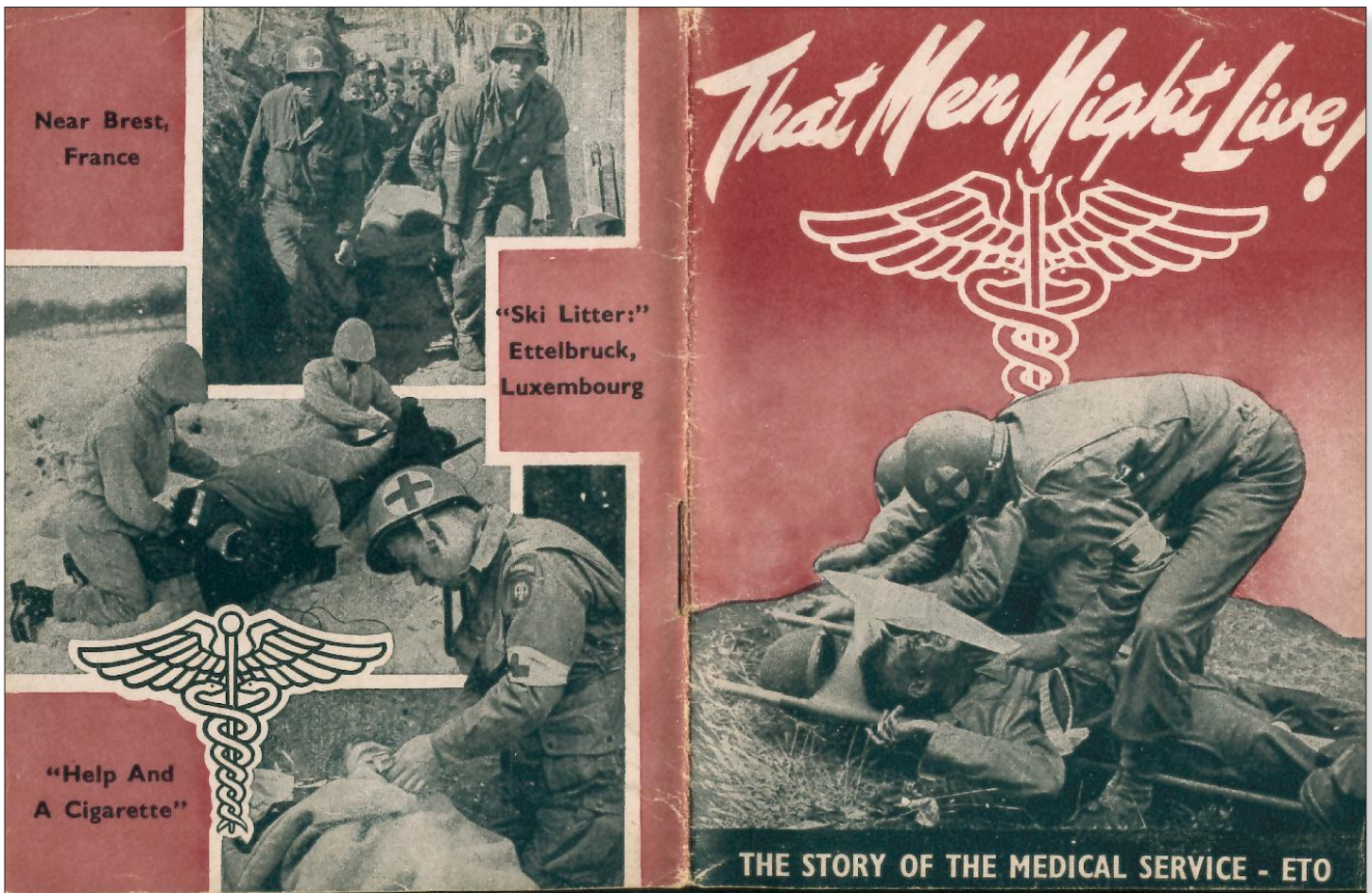
Foreword **by Alain S. Batens:**

This booklet, a small format (approximately 10 cm x 13 cm, or 10 ½ cm x 13 ½ cm) pocket version, is one of a series of **G.I. Stories of the Ground, Air and Service Forces in the European Theater of Operations, issued by the Orientation Branch, Information and Education Division, ETOUSA**. These handy booklets, cover a particular unit or service branch, and were mostly distributed by the units, around the end of WW2 (late 1944-course 1945). They were intended to be taken along, or sent home, by members of that particular unit (passed by Army censors). Most stories were printed in France (after its Liberation), while only a few were printed in Germany (during Occupation).

The booklet is offered here in paper form. The original used in the production of this document was courtesy of Alain S. Batens, and was used with his kind permission. Please feel free to use this as a reference source and print it out for personal use.

For clarity and ease of reading, the booklet has been digitally enhanced and enlarged for the reader’s pleasure. In addition, it has been produced in such a way that it can be read like the original item, and so cannot be printed and stapled together in its current form.

Many thanks,
The WW2 US Medical Research Centre Staff



That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre

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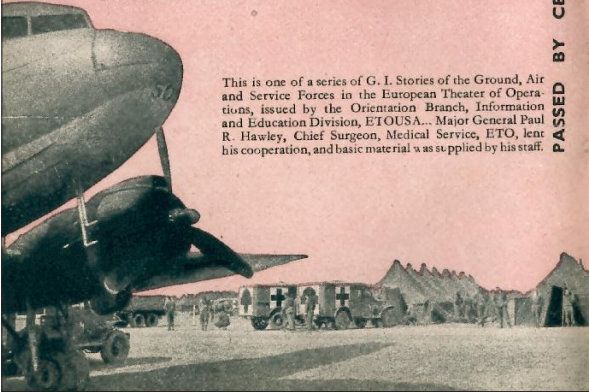
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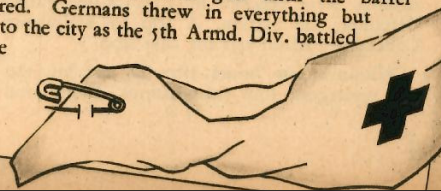
This is one of a series of G. I. Stories of the Ground, Air and Service Forces in the European Theater of Operations, issued by the Orientation Branch, Information and Education Division, ETOUSA. Major General Paul R. Hawley, Chief Surgeon, Medical Service, ETO, lent his cooperation, and basic material was supplied by his staff.


The full story of the Medical Service of the European Theater of Operations has been written by thousands of splendid officers and men of the Medical Department. It is a story of bravery, of which many acts have been recognized in awards as high as the Congressional Medal of Honor, and many others have passed unnoticed. It is a story of devotion to their fellow men, the rewards of which are only the gratitude of the sick and injured and in the inner knowledge of duty well performed. It is a story that cannot be compressed into one volume, nor into a hundred volumes. To these magnificent medical soldiers this booklet is dedicated.

P. R. Hawley
Major General, U. S. Army, Chief Surgeon.

The Story OF THE MEDICAL/SERVICE, ETO

A TOP a half-track, 1st/Sgt. John V. Clarke, Trenton, N. J., fired his machine gun until the barrel glowed red. Germans threw in everything but the key to the city as the 5th Armd. Div. battled a surprise





counter-attack just short of its objective, Mainz-on-the-Rhine.

Unnoticed at the height of the withering cross-fire was the sudden silence of the sergeant's gun. "Medics! Medics! Nate—I've been hit!" came the agonized cry. S/Sgt. Nathan Glassman and Pfc John Curto, both of New York, heard the call and took off.

Curto went down momentarily with a shrapnel gash below an eye, but recovered to reach Clarke's side and help Glassman dress the gunner's stomach wounds. Lying on their sides, the two Medics worked under a hail of murderous shrapnel. Then began the job of inching, dragging the wounded man from the shell-torn terrain.

The war ended for Sgt. Clarke, but the battle for life just had begun. A short distance away from the bursting shells and whining bullets, Sgt. Clarke's wounds were checked by a front-line surgeon at a Battalion Aid Station. A trip by ambulance to the Collecting Station was the next step.

Within a few hours after he was hit, the gunner had undergone four examinations. Blood and plasma

injections had alleviated shock, spared possible death, Sulfa drugs and penicillin had thwarted painful, killing infection. While the big guns still thundered in the distance, Sgt. Clarke lay on the operating table at the 58th Field Hospital. Four days later, he was aboard a hospital train en route to the 48th General Hospital in Paris where he was tagged "Z of I"—Zone of Interior. He soon would be returned to the States.

Sgt. Clarke's story is the story of the Medical Department. He fell on a muddy slope at Mainz-on-the-Rhine, but he might have fallen with the Airborne beyond the Rhine, in a back alley of Bastogne, at Carentan, or on a Normandy beach. Wherever a shot was fired, Medics stood ready—ready to patch the wounded and rush them to the doctors, nurses and technicians who waited, close behind the lines, to continue the job.

While armchair strategists argued whether or not Africa was the second front, Maj. Gen. Paul R. Hawley, Chief Surgeon of the European Theater of Operations, was assembling in England some of the top U. S. medicine and surgery talent. These specialists became the sparkplugs of an organization destined to become the greatest in war time medical history.

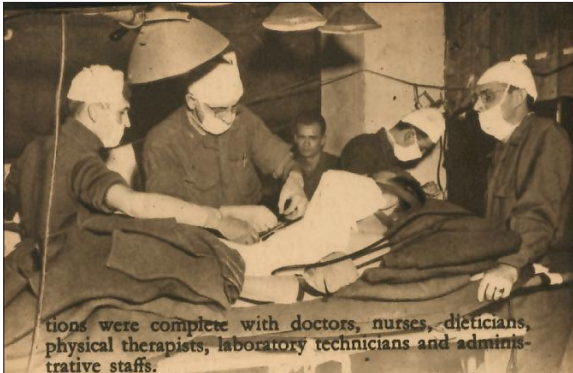
Starting with one hospital two years prior to D-Day, the general and his staff developed a vast network of 108 hospital plants in England. Most of these were 1000-bed general and 750-bed station hospitals.

Like hospitals in metropolitan cities, these installa-

2
3

That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre



tions were complete with doctors, nurses, dieticians, physical therapists, laboratory technicians and administrative staffs.

Thus began an organization that was to include more than 254,000 personnel and 315 fixed and mobile hospitals by V-E Day. It handled 369,181 battle casualties in 10 months and an equal number of disease and non-battle cases.

At the same time, the Medical Department solved special problems for the Air Corps, including flight fatigue. Methods of treating frostbite and otitis, an inflammation of the ears incurred from high altitude flying, were studied, improved. In addition, airmen wounded during combat missions over the Continent were cared for.

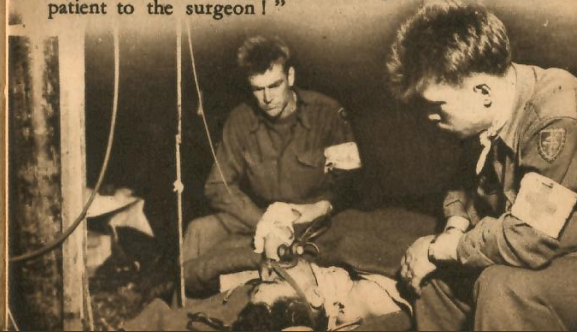
Insisting on precise treatment standards because no one patient would be handled by the same medical officer throughout the course of treatment, Gen. Hawley

4

and his staff prepared a Manual of Therapy standardizing important medical and surgical procedures.

This new concept of war medicine resulted in a sudden slash in mortality rates of wounded soldiers. In World War I, 8 percent of the wounded died. In World War II, the figure in the ETO was 3.9 percent. Contributing factors were vast amounts of medicine, blood plasma, whole blood, sulfa drugs, penicillin and new anesthetics like sodium pentathol which could be transported easily and administered without elaborate equipment.

Gen. Hawley and his Chief of Professional Services, Col. Elliott C. Cutler, placed but a portion of their faith in medicine alone, keying the entire organization to the principle that the earlier the surgery the better the soldier's chance of full recovery. The watchword was: "Get the surgeon to the patient, not the patient to the surgeon!"



D-Day - SIDE BY SIDE WITH FIGHTING MEN

JUNE 6, 1944: Medics invaded the Normandy peninsula alongside the fighting man. Medics jumped with the paratroopers, stormed ashore with the infantry. Wherever a fighting man was wounded, an aid man soon was at his side, distinguishable only by his red cross and lack of weapons.

At H Hour minus 3, Airborne Surgical Team No. 1, Third Surgical Group, glided to crash landings with the 101st Airborne seven miles inland from the French coast. Under heavy enemy fire from the outset, the team administered 25 blood transfusions to crash casualties from on-the-spot donors. Approximately 100 casualties were treated before the seaborne invasion was launched.

Airborne surgeons carried 200 pounds of medical equipment. Enlisted personnel brought additional supplies. Emergency treatment completed, the surgical team braved enemy fire to haul heavy equipment from wrecked gliders.

Following the troopers, this unit entered the Norman village of Hiesville where it set up a hospital in a chateau. Life-saving surgery soon was being performed on three operating tables improvised from litters

6

placed on boxes. Patients were blanketed with parachutes collected by two of the men.

The team sustained only one casualty throughout the entire hazardous action. Capt. Charles Margolies, Brooklyn, suffered a minor injury, then was evacuated three days later when he received a serious head wound.

In achieving success in the first mission of its kind, this team established the value of similar operations for the future. By minimizing the time lag between injury and surgery, the loss of life was immeasurably curtailed. The success, although outstanding, was but typical of the work being done by similar groups.

On the beaches, while D-Day still was being calculated in H-Hour plus minutes, 16 teams of the Third Auxiliary Surgical Group waded ashore under heavy enemy fire. Fighting men came on, wave after wave. So did the Medics.



That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre

Maj. Evan Tansley, Trenton, N. J., led ashore one of the first teams, which was attached to the 5th Engineer Brigade in support of the 1st Inf. Div. The major reported: "There were no Medics on the beach when we got there. The first wounded to fall were lying about on the sands under heavy shell fire and without cover."

Throughout the day, the team collected wounded and administered aid under direct fire from the still visible enemy. Late that night, the Medics moved into a tank trap 200 yards off the beach and continued to work in total darkness. By morning, 250 casualties had been evacuated, among them Medical Corps Capt. George Freedman, Chicago, and Capt. Bill Ferraro, Springfield, Ill. One other officer and four enlisted men were lost to the team during that first day.

A vital link in the evacuation chain during those crucial days were LSTs. Special litter brackets accommodating 140 casualties had been built into the sides of the barge-like vessels. Additional wounded were placed on the tank deck.

As the LSTs beached and disgorged their heavy materials of war, litter bearers and vehicles brought casualties aboard via the ramps. Rhino ferries plied between the shores and LSTs; DUKWs carrying 11 litters left the sands to churn to the waiting LSTs where they drove up the ramps, unloaded their wounded and returned to shore. LCTs, drawing only 18 inches of water, were beached, loaded with casualties and

8



dispatched to the waiting LSTs, where, by joining ramp to ramp, they could unload and race back.

Aboard the LSTs, surgical teams made up of men like Capt. Joe Messey, Cpl. Chuck Brokschmidt and Pfc Howie Sinks began life saving surgery in operating rooms improvised from tarpaulins. They fought 54 sleepless hours to save the wounded as their ship tossed and rolled through heavy seas and enemy air and E-boat attacks on its way to England. Such cross-channel evacuation required the closest cooperation between Army and Navy.

Back on the beaches and the hards of England, casualties were sorted and immediately dispatched to installations prepared to administer the type of medical attention required. Patients whose condition permitted were loaded into ambulances and driven to transit

9

hospitals. More seriously wounded were moved to hospitals set up near the port. There, patients were treated for shock, X-rayed, operated.

Patients remained at these installations until they could make the journey inland to general hospitals where definitive treatment could be administered. The over-all procedure was coordinated with train schedules and space available in the hospitals.

Heroes ARE BORN ON NORMANDY BEACHES

As the invasion continued in full fury, grim-faced doughs lashed through enemy fire that spewed from cement and steel beach fortresses. When the fire was so devastating that infantrymen were forced to take cover, Medics were the last to take shelter. Describing a particularly rugged encounter, a grimy mortar squad leader said: "It was too hot even for the Medics."

Among the first medical units ashore was the 261st Medical Bn., especially trained for amphibious landings, making its fourth major invasion in support of an engineer brigade.

This outfit landed H plus 2, set up its equipment

10

within point blank range of the receding enemy and began emergency treatment of the casualties. When engineers were too busy to clear the area of mines, medical soldiers undertook the unaccustomed task. In six hours they had de-mined the field, established a clearing station and begun major surgery. A Presidential Unit Citation later was awarded the 261st.

Treatment of casualties by this battalion during those first hectic days was superior. Blood plasma, sulfa drugs, penicillin—everything known to surgery and medicine that could be brought in—was available for whomever needed it.

Among those who distinguished themselves during the action, and in the preceding days of preparations, were: S/Sgt. Frederic E. Hoyle, Methuen, Mass.



That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre

T/4 Walter Silva, Fall River, Mass.; T/5 William A. Kuhn, Maplewood, N. J. All were awarded the Bronze Star.

These men were not alone. They were but typical of the hundreds who worked everywhere along the sands and in the fields under constant fire. Sixty hours after landing on D plus 2, the 51st Field Hospital had handled more than 1000 casualties. This unit was one of the first field hospitals ashore and was followed closely by the 13th, 42nd, 45th and 47th. The 128th and 91st were the first Evacuation Hospitals in France.

It was a women's war, too, because nurses came with them. This was only D plus 4. As the war moved inland, stories of bitter fighting and heroism, in which the Medical Service ranked high, were told.

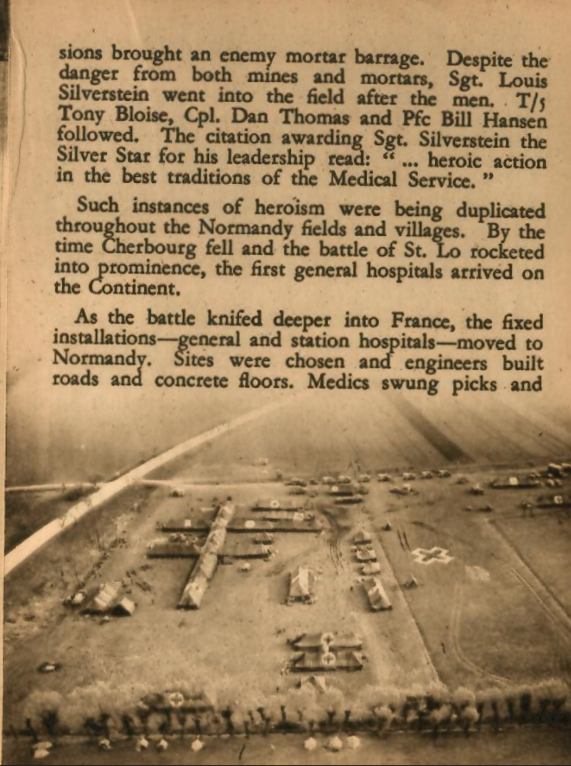
While waiting on the beach to be evacuated, Infantryman Pfc Alfred Savcie, Conimicut, R. I., said: "It takes plenty of guts to go through what the Medics are right now. We were 12 miles inland when we were ambushed and I went down. There was a hot scrap going on but stretcher bearers got to me anyway. It was a long trip back to the beach—especially for them. I haven't any kicks about the trip because they had to dodge sniper and machine gun nests all the way."

A short distance away, 11 men of the 619th QM Depot failed to see an "Achtung Minen" sign. All went down from the unexpected blasts. The explo-

sions brought an enemy mortar barrage. Despite the danger from both mines and mortars, Sgt. Louis Silverstein went into the field after the men. T/5 Tony Bloise, Cpl. Dan Thomas and Pfc Bill Hansen followed. The citation awarding Sgt. Silverstein the Silver Star for his leadership read: "... heroic action in the best traditions of the Medical Service."

Such instances of heroism were being duplicated throughout the Normandy fields and villages. By the time Cherbourg fell and the battle of St. Lo rocketed into prominence, the first general hospitals arrived on the Continent.

As the battle knifed deeper into France, the fixed installations—general and station hospitals—moved to Normandy. Sites were chosen and engineers built roads and concrete floors. Medics swung picks and



12

lugged sacks of cement. Later, they pitched tents and began receiving casualties.

Tents were a temporary measure. As soon as the work of the Medics was under way, engineers, starting with the operating rooms, began construction of semi-permanent huts to replace tents. Treatment of casualties went on uninterrupted.

Then, Gen. Patton's Third Army broke out of St. Lo and streaked across France. Medics soon learned there was little damage to buildings suitable for hospitals. Many buildings had been used by the Germans for similar purposes.

The 108th General Hospital took over the ultra-modern Hospital Beaujon in Paris just four days after the Nazis had evacuated, leaving several Canadian patients behind. Show place of the Luftwaffe for two years, the 13-story, American designed structure was built in 1934 as a French civil hospital.

This was hardly typical of hospital plants taken over by the Americans in France, Belgium and Holland, however. Often it was necessary to utilize school buildings and military barracks and to convert them quickly into surgically clean, modern, army hospitals. The 56th General Hospital in Belgium took over a location from an enemy horse-drawn artillery unit and removed tons of hay and manure from the stables to transform the installation into an immaculate 1000-bed hospital. The staff settled down to work through the devastating buzz bombings that followed.

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EVACUATION CHAIN
10 Links TO LIFE

By the time France was totally liberated and Allied Armies were well on their way to Berlin, there was sufficient elbow room on the Continent for the Medical Service's 10-link chain of evacuation to function in all its varieties.

The basic chain: (1) company aid men (2) litter bearers (3) battalion aid stations (4) division collecting and clearing stations (5) field hospitals (6) evacuation hospitals (7) hospital trains, planes and ships (8) general hospitals (9) convalescent hospitals (10) general hospitals in the United States.

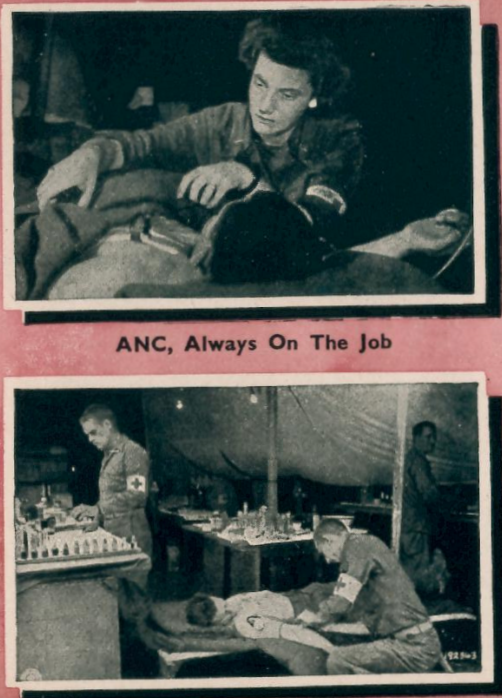
Company aid men, litter bearers, ambulance drivers and battalion aid personnel—all combat Medics—rank high among the heroes of this war. Tales of their heroism were recorded daily. To the combat soldier,

14

15

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World War II Medical Research Centre



ANC, Always On The Job

Evacuation Hospital, France

swam directly into the withering fire and towed the boat to safety.

T/5 John Hoglund, Providence, R. I., wears a Purple Heart and a Bronze Star. While under heavy fire, this Medic stayed on a bridge site with engineers for 17 hours, tending their wounds. Using only a pen-knife and sulfa drugs, he amputated a soldier's foot.

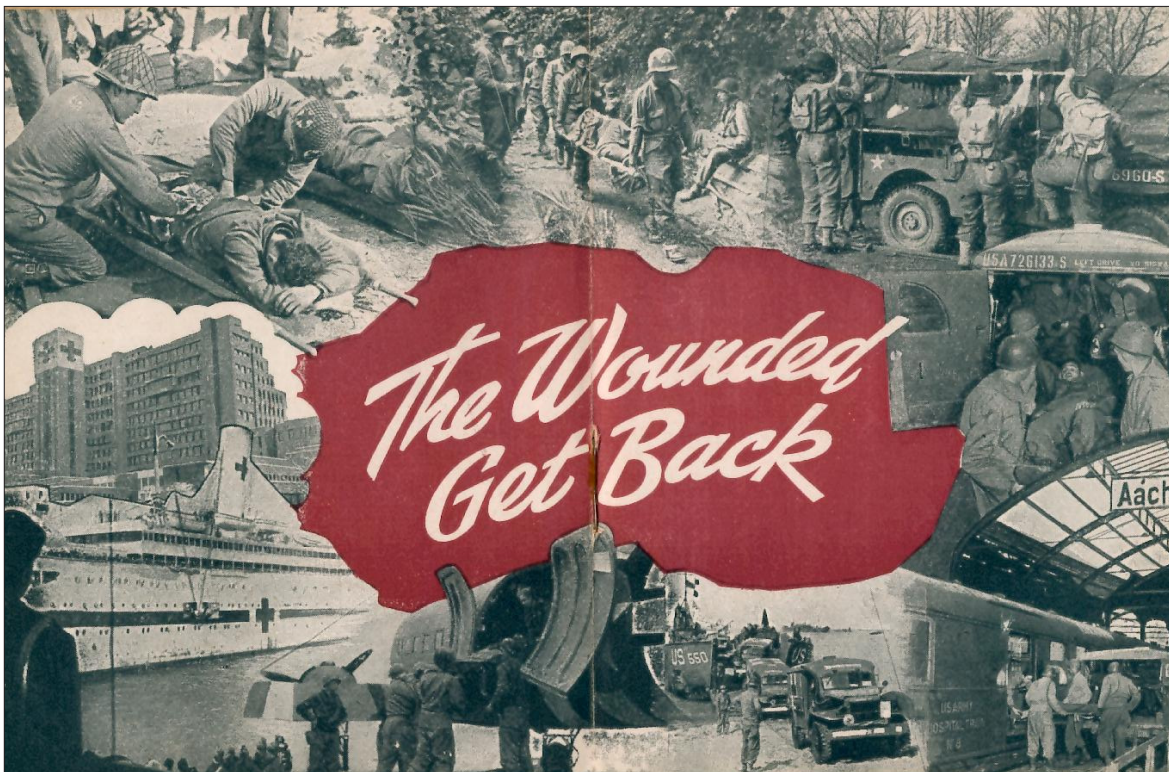
Col. Mc Fayden, 26th Inf. Div. Chief of Staff, said: "Combat Medics perform several times a day acts of valor which performed one time by an infantryman result in a military award."

Pfc R. G. Conway, 379th Inf., wrote the following which appeared as an editorial in *The Stars and Stripes*:

The second platoon of Able Co. was flushing out some houses in a German town. A call rang out. "Medic!" Out he came, disregarding any danger to himself. On both arms he wore the red cross which was his only weapon. He ran a few feet, then stumbled and fell. Word passed up and down the line. Soon everybody knew that we no longer had a Medic. The boys remembered the many times he had helped them. He was cool, calm, and above all, a friend to everyone. And now he was gone, killed by a shot from a sniper.

Teamed with company aid men were litter bearers, who also performed heroically under many difficulties. In deep snows of the Hurtgen Forest and Vosges Mountains, they rigged skis on litters, often waded deep, swift streams with litters high above their heads.

17



That Men Might Live! The Story of the Medical Service – ETO, 1944

World War II Medical Research Centre

To gain speed with their evacuations, litter bearers used sleighs, half-tracks, tanks, jeeps, hay racks.

Front-line doctors were in charge of battalion aid stations, first stop for litter bearers. Typical of these was Capt. Ed J. Hackett, 87th Cav. Recon Sqdn., whose posthumous award of the Distinguished Service Cross read: "On many occasions he went forward under enemy fire to aid wounded and evacuate. In September, in the woods near Malmaison, France, he went to within 10 yards of where the enemy was dug in to aid a wounded man. In doing so he was mortally wounded."

Leaving the aid station, wounded were transported by ambulance to collecting and clearing stations where they were tagged for urgent treatment or travel priority. Ambulances were in operation continuously. Much of the work was done at night and some drivers crawled along bomb-pocked roads following the glow of a cigarette cupped in the hand of an assistant driver walking ahead.


Not all the dangerous work was done at the front. T/3 John S. Lavino drove his ambulance out on a wrecked pier to pick up an injured Canadian seaman. During the round trip of more than a mile, he was in constant danger of being washed into the sea. Lavino was awarded the Soldier's Medal.

Forward ambulance drivers transported patients either to field or evacuation hospitals. Field hospitals, compact mobile units working under tents, primarily were concerned with severely wounded, non-transportable cases. These units worked as far forward as a division clearing company to bring surgery closer to the battlefield.

To relieve unexpected strains on field and evacuation hospitals, special surgical teams, working out of auxiliary surgical group headquarters, rushed in to care for certain types of wounds. Each team had its specialty: orthopedic, thoracic, neurosurgical.

Maj. Tansley and his team, after following in the wake of the fighting forces, were ordered to relieve pressure on a field hospital during the Battle of the Bulge. The major didn't return to headquarters, but, as a PW, he cared for 250 wounded Americans imprisoned at Heppenheim. He worked with Capt. Lea W. Merrill, Berkeley, Calif.

Making the hazardous glider flight to Bastogne to give medical care to the wounded of the 101st Airborne were Maj. Lamar Soutter, Boston; Capt. Edward Zinschlag, St. Louis; Capt. Henry M. Hills, Jr., Iowa City; Capt. Foy Moody, Corpus Christi, Tex.; Sgt. John Knowles, St. Joseph, Mo.; T/3 Jack Donahue,



19

Newark, N. J.; T/4 Lawrence Rethwisch, Jersey City; T/4 Clarence Metz, Chicago.

A 101st sergeant said: "The prettiest sight in the world were those docs gliding in. You've got to hand it to them—some of them never had been in a plane before. They saved a lot of lives in that church where they performed emergency operations all night after landing."

Evacuation hospitals were located a few miles back of the division clearing stations. These hospitals had 400 to 750-bed capacities and retained patients longer than did field hospitals. Semi-mobile, they kept up with the advance, moving into an area, erecting tents and receiving first casualties, all within a few hours.

During big drives when casualties were high, 10 to 12 operating tables were in use 24 hours a day. More than 10,000 operations were performed by the 2nd Evac alone during eight months on the Continent.


Men with minor wounds often returned to duty from the evacs, but others requiring additional treatment and long convalescence were sent to Com Z general hospitals by trains and planes. After Paris was liberated, hospital trains became a vital link in the evacuation chain. These trains, almost complete hospitals within themselves, made runs from battlefronts to rear line hospitals or evacuation ports.

Staffed by three officers, four nurses and 35 enlisted men, the trains had their own emergency operating room and pharmacy. Seven or eight ward cars transported litter cases and one or two coaches handled walking wounded. A litter type car accommodated 30 casualties, an ambulatory car approximately 50.

The first American hospital train to support the invasion was improvised from the French 40-and-8s. These cars were discarded when Cherbourg was opened and the modern trains arrived from England. Typical of the 47 trains built by the French and British for the U. S. Army Medical Department was "Old 27," staffed by Hospital Train Group No. 43. This outfit brought the first hospital train to the Continent, was first into Paris and Belgium with it, blazed the way into Germany.

At a press conference in May, 1944, Gen. Hawley went on-record in favor of large scale evacuation by air. "We will evacuate by air to the maximum extent that airplanes become available for Medical Department use..." he said.

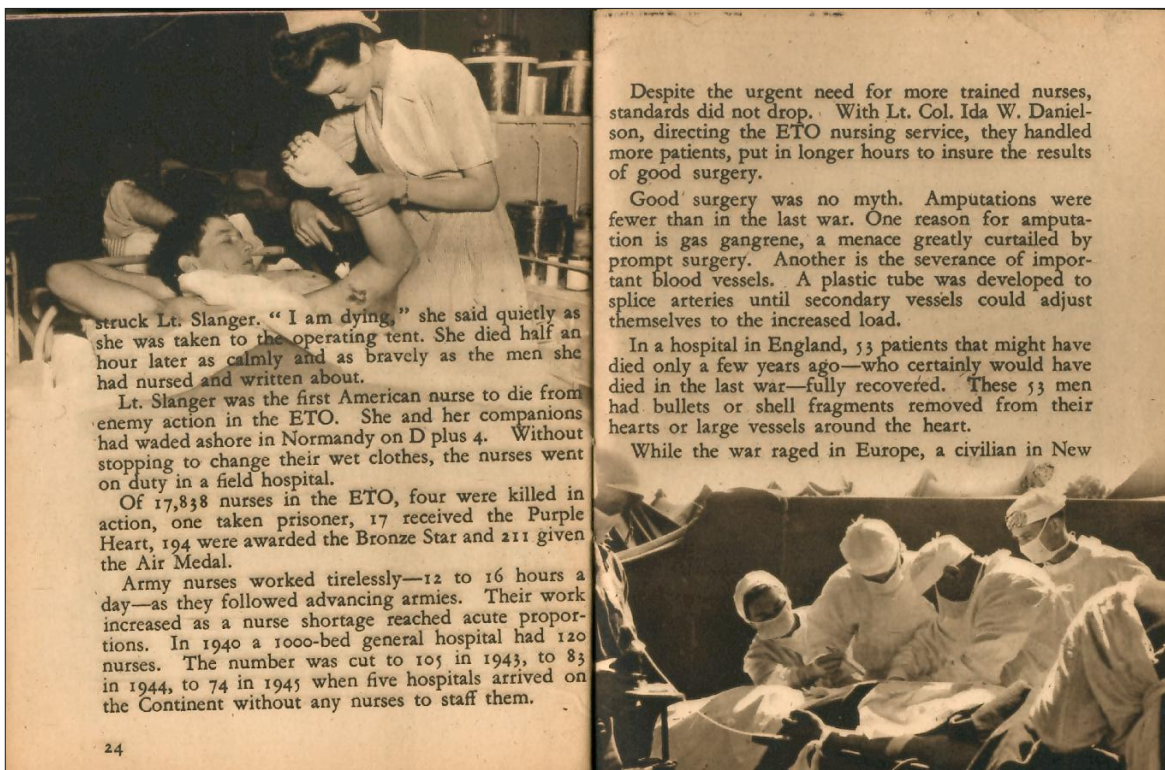
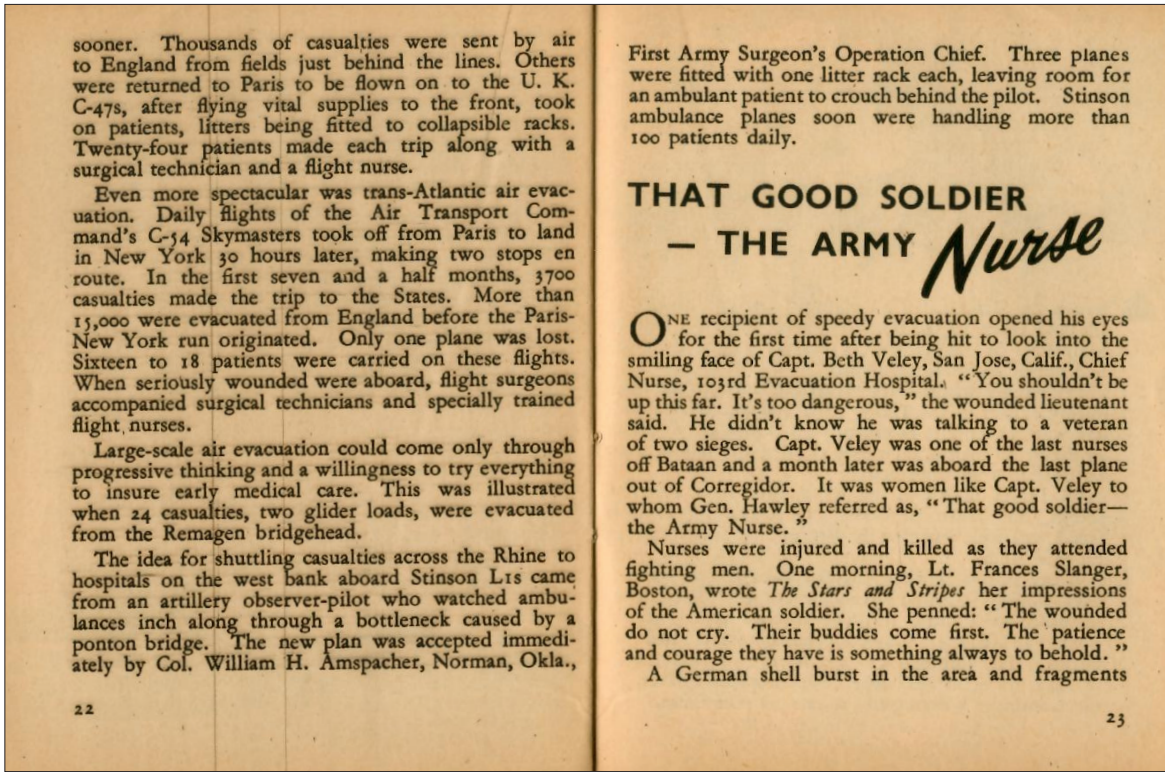
The general hoped to begin such evacuation from Normandy beaches by D plus 8. It began four days



20

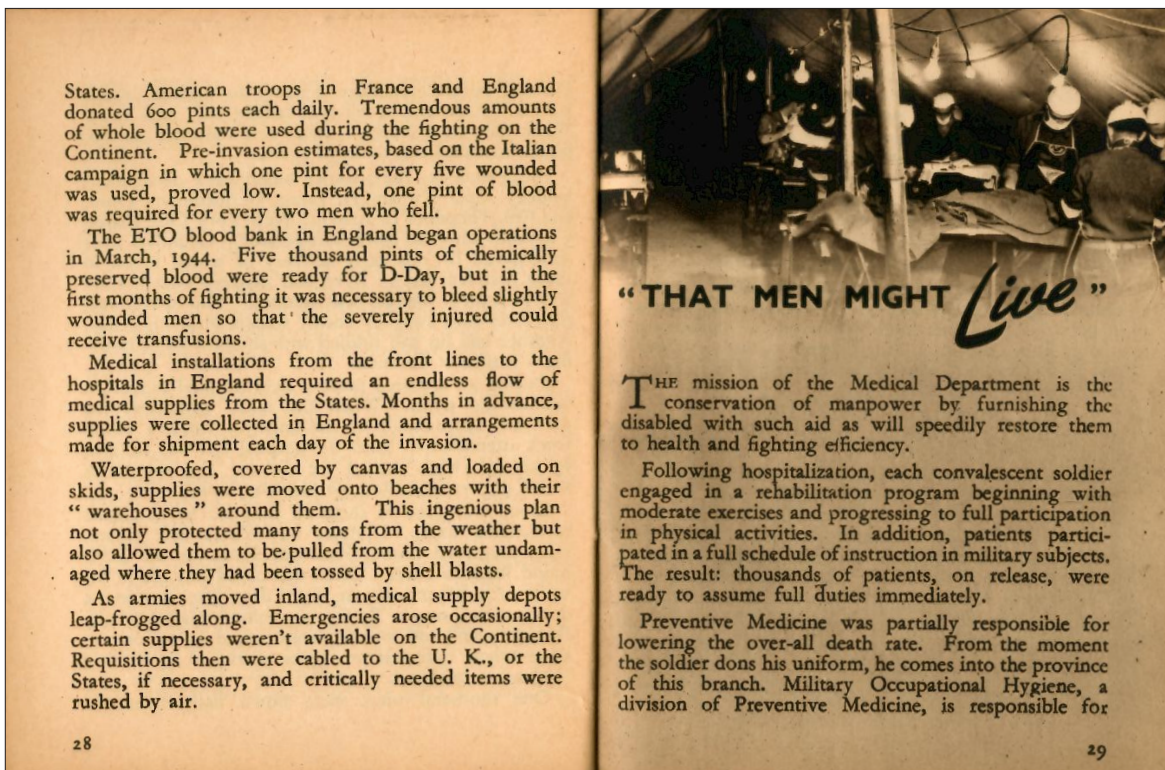
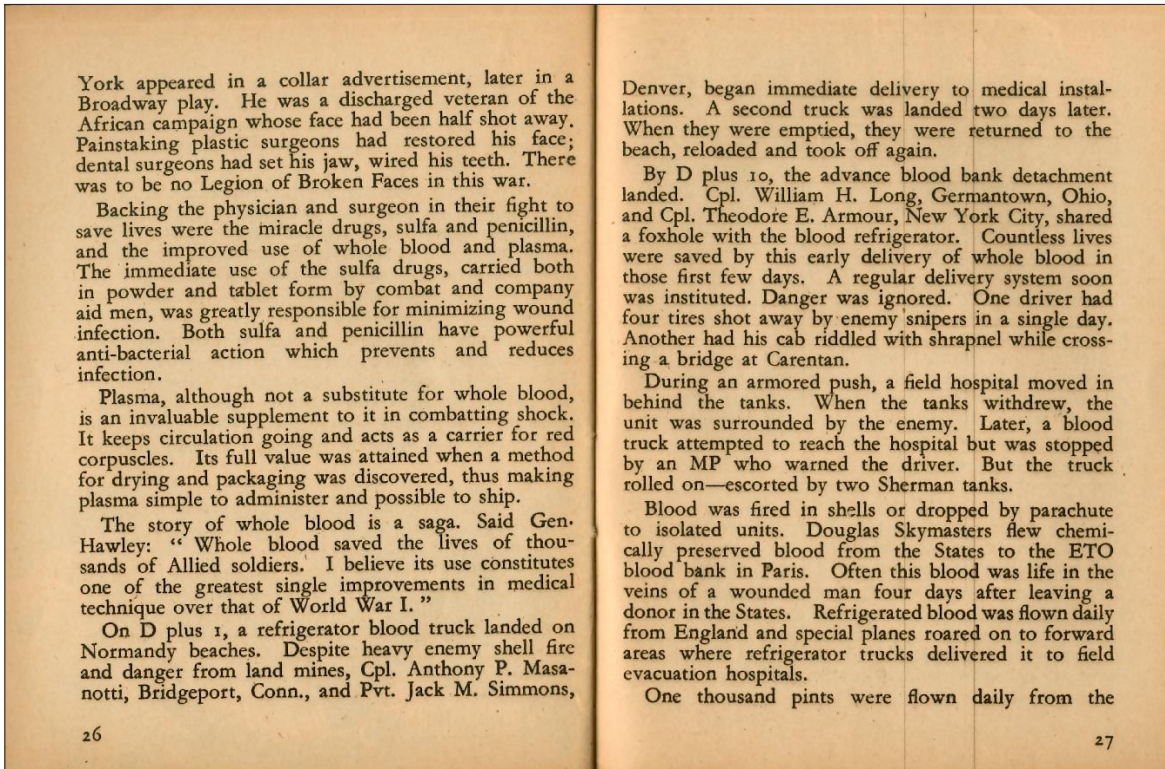
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World War II Medical Research Centre

the adequate clothing, laundry and bathing facilities and cheerful environment of the soldier. It guards against such dangers as gasses in tanks and pillboxes, conditions in foxholes that can result in trench foot and other threats to health.

Preventive Medicine determined the army's nutritional needs. It set standards for food provided by the Quartermaster and for the drinking water that the Engineers chlorinate and distribute. Sewage and garbage disposal regulations also were established.

More spectacular was this branch's successful struggle against typhus—a disease which caused more deaths in previous wars than high explosives. This menace sprang from the filth and destruction within Germany late in the war. It was found among prisoners, labor battalions and in the Wehrmacht.

A line of defense more effective than the Maginot or Siegfried—a "cordon sanitaire"—was thrown up along the Rhine and Waal Rivers. Before crossing this line, all German civilians and displaced personnel were examined and dusted with DDT powder, deadly to the typhus bearing body lice. This powder was 100 percent effective in combatting typhus in Naples during the Italian campaign. Only two cases were reported among Americans, both medical officers working with the disease. Two other cases were found among soldiers recovered from German prison camps.

The success of the Medical Department in this war is due to the tremendous efforts of highly trained and specialized personnel in its various corps—medical,

30

dental, veterinary, sanitary, nurse, dietitian, physical-therapist, pharmacy and medical administrative.

Enlisted men, many of whom were entirely foreign to hospital work, were trained as surgical, medical, X-ray, dental, laboratory and sanitary technicians. Others became wardmasters, clerks, drivers, litter bearers and front line aid men.

Each Army in the ETO had its medical authority and responsibility lay in the hands of various key men—surgeons who supervised the medical installations under their command. Hospitals were scattered widely over France, Belgium, Holland, England and were grouped according to locale under base sections, each with a base section surgeon.

Gen. Hawley's office, maintaining supervision over this vast network, was composed of separate divisions



which coordinated in their ultimate aim. They were Dental, Intelligence, Hospitalization, Operations, Personnel, Preventive Medicine, Nursing, Veterinary, Field Survey, Historical and Professional Services, including the chief consultants in Surgery, Medicine, Dermatology, Neuro-Psychiatry, Plastic Surgery, Orthopedics and other specific branches of medicine and surgery. Included in those divisions was Supply without which none of the others could function.

This is the story of the Medical Service in the ETO. It is the story of the one phase of this war dedicated to the preservation of life rather than to death and destruction. It does not end with the last shot, the last skirmish, or the last casualty. It will continue until each of the wounded has recovered, until all of the sick are well, until the last man is sent home for final care.



The Team—

Photos: U.S. Army Signal Corps, and Photo Lab, Office of the Chief Surgeon, ETO. Printed by Paul Dupont, Paris.



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The Combat Medic during World War II

BY

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November 22, 2004

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The Combat Medic during World War II

The Combat Medic during World War II played a critical role in the medical treatment of wounded soldiers. Their selflessness and heroic acts greatly contributed to the successful outcome of Allied Forces during World War II. This paper will discuss the training of medical personnel, equipment used by the combat medic, and specific acts of heroism by medics during World War II.

At the beginning of WWII, The Army Medical Department (AMEDD) faced huge challenges increasing its training base to provide the Army with the amount of medical soldiers needed for this war. Some of the problems the AMEDD faced were mobilizing and housing personnel to constructing facilities and activating installations. Other challenges included training personnel for a variety of different medical duties. Training personnel so they could practice their skills in any type of climate and environment proved very difficult. And last, finding qualified and competent cadre to handle the great influx of personnel presented problems as well.

Medical Department soldiers of World War II came from all walks of life. Medical Replacement Training Centers, and those of other arms and services, applied the techniques of mass production to military training. In the image of the industrial process, centers took raw material from reception centers, forged a standardized product, and fed their output into medical units where the separate parts were finished and linked into the working whole. The accent was on economy, speed, uniformity, and volume production.

Ultimately, the goals of these training centers were to produce basic medical soldiers and some administrative specialists to support different medical units, ranging from Battalion Aid Stations to Interior Hospitals. These medics had to be able to provide first aid under fire, recognize diseases and wounds, and evacuate wounded soldiers over difficult terrain. Also,

despite being non-combatants, they still had to be trained to protect themselves, their units and their patients. The Medical Training Centers provided the collective and individual training needed to meet these critical skills.

During World War II, from 1942-1944, there were four of these Medical Replacement Training Centers. They were located at Camp Pickett, Va., Camp Barkeley, Tx., Camp Grant, In., and Camp Robinson, Ark. These centers consisted of 5-7 training battalions of approximately 1000 men each. At the onset of the war, these training centers faced many challenges, ranging from logistical problems to lack of qualified cadre. Another serious issue was the demands put upon these training centers by the War Department. As the need for medics increased, the MTC's were required to adjust the training cycles, creating constant changes to the program of instruction (Mackenzie, D. 31-45).

For the most part, the training of medical soldiers consisted of three phases (Smith, R. 91). Phase I, the equivalent of Basic Training lasted two weeks. Phase II consisted of medical training that lasted six weeks. The training culminated with two weeks of tactical training. During WWII, over 293,000 soldiers were trained at these Medical Replacement Centers. After Phase one of the training, the enlisted recruit was expected to display and care for his uniform and equipment, understand military courtesies, and have acquired a fundamental knowledge of basic military subjects such as individual discipline and march discipline.

During phase two of the training, medical soldiers were taught individual and collective first aid tasks. Skills taught during this phase included providing first aid to sick and wounded soldiers, recognizing diseases and wounds, and treating minor wounds and lacerations. They were taught how to treat casualties for shock, stop bleeding by tourniquet and pressure dressings, and how to apply leg and arm splints. Also, during this phase they learned evacuation of injured

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soldiers by various means, to include litter training. Last, they learned basic operator skills to assist a doctor in a combat hospital, such as preparing patients for operations, assisting in the operating room, and proper sterilization procedures. During phase three of this training, a master field problem was conducted to incorporate all of the soldier skills taught during phase one and two. Specifically, the tactical training involved during this phase consisted of each training battalion setting up a battalion aid station. One company of the training battalion acted as infantry, while a second played the part of a medical detachment supporting an infantry regiment. A third company acted as a collecting company, and a fourth acted as a clearing company. Each training company within the battalion was called upon to select sites, set up its equipment, and function as it would in combat. At the end of each period, the companies were rotated, and the trainees changed jobs so that every man would have an opportunity to practice a job in each unit.

The Combat Medic in WWII carried their medical equipment on the left and right hip (Steinert, D). The medical items carried on the right hip consisted of: Canvas pouch, Six Black Rubber Vials, Folding Box for Tablets, 2 Adhesive Surgical Plasters, 1 Hypodermic Set, 1 Hypodermic Needle Sterilizer, 1 Lead Pencil, 1 Clinical Thermometer, 1 Carton of Large Safety Pins, 1 Carton of Medium Safety Pins, 1 Metal Container with 12 Iodine Swabs, 1 EMT Book with 20 Tags, and 2 Litter Carrying Straps. The medical items carried on the left hip consisted of: 4 Plain Sterilized Gauze Packets, 4 Compressed Absorbent Cottons, 1 Canvas Pouch, 8 Plain Gauze Compressed White Bandages, 4 Triangular Compressed White Bandages, and 1 Small White Towel.

The key drugs and medicines used by the Combat Medic in WWII vary greatly from what a medic uses today (Steinert). During WWII, the medic used Cocaine as a local anesthesia prior to he or a physician operating on a casualty. The medic typically used Morphine to relieve

soldiers' pain and assist them in sleeping. The medic also used an Opium based tablet as a sedative and tranquilizer for those soldiers that were sick and injured. Other drugs that the WWII medic predominantly used to aid sick and injured soldiers were: Strychnine and Atropine (both used as a respiratory & circulatory stimulant), Nitroglycerin (used as a dilating agent), Quinine (used to prevent fever and malaria), Iodine (used to sterilize around wounds), and Ammonia Spirit (used to revitalize and prevent fainting).

Each medic carried an EMT (Emergency Medical Tag) book in one of his canvas pouches. The Emergency Medical Tag was attached to the patient's clothing, usually over the breast, or as near as possible to it for ease of reading by medical personnel. The frontline medic filled out the tag with data such as the patient's identity, branch or service, full diagnosis as well as the treatment given. This record helped medical personnel in the rear know what had been done on the front line to help the wounded soldier. The doctor scrutinized the tag to determine if further treatment was necessary. Carbon copies served to compile daily listings of casualties so medical commanders could prepare the necessary reports for higher headquarters. When soldiers were killed in action, medical personnel removed the tag prior to the body going to the Graves Registration Service. The chief surgeon, after recording the contents of the tag, would then forward the tag to the Surgeon General's Office.

There are many accounts of heroic and selfless acts by medical personnel during World War II. Many of these acts of heroism are surely lost in the chaos of the battlefields of WWII. However, two accounts of heroics by enlisted medics are well documented. Two heroes, CPL Thomas Kelley and Technician 4th Grade Laverne Parrish, received the ultimate recognition for their actions with the awarding of the Congressional Medal of Honor (AMEDD Regimental Historian). During WWII, CPL Thomas Kelly served with the Medical Detachment, 48th

Infantry Battalion, 7th Armored Division. He was an aid man with the 1st Platoon of Company C during an attack on the town of Alemert, Germany on 05 April 1945. The platoon, committed in a flanking maneuver, had advanced down a small, open valley overlooked by wooded slopes hiding enemy machineguns and tanks. Then, murderous fire stopped the American ranks, inflicting heavy casualties. Ordered to withdraw, CPL Kelly reached safety with uninjured remnants of the unit. However, on realizing the extent of casualties suffered by the platoon, he voluntarily retraced his steps and began evacuating his comrades under direct machine gun fire.

Forced to crawl, he dragged the injured behind him for most of the 300 yards separating the exposed area from a place of comparative safety. Two other volunteers who attempted to negotiate the hazardous route with him were mortally wounded, but he kept on with his herculean task after dressing their wounds and carrying them to friendly hands. In all, he made 10 separate trips through the brutal fire, each time bringing out a man from the death trap. He guided and encouraged seven more casualties who were able to crawl by themselves to escape from the hail of fire. After he had completed his heroic, self-imposed task and was near collapse from fatigue, he refused to leave his platoon until the attack had been resumed and the objective taken. CPL Kelly's gallantry and intrepidity in the face of seemingly certain death saved the lives of many of his fellow soldiers and was an example of bravery under fire.

Another enlisted medical hero, Technician 4th Grade Laverne Parrish, paid the ultimate sacrifice with his life. Technician 4th Grade Parrish was assigned to the Medical Detachment, 161st Infantry, 25th Infantry Division. He was medical aid man with Company C during the fighting in Binalonan, Luzon, Philippine Islands from 18-25 January 1945. On 18 January 1945, he observed two wounded men under enemy fire and immediately went to their rescue. After moving one of the men to cover, he crossed 25 yards of open ground to administer aid to the

second man. Then, in the early hours of 24 January 1945, his company, crossing an open field near San Manuel, encountered intense enemy fire and was ordered to withdraw to the cover of a ditch. While treating the casualties, Technician Parrish observed two wounded men still in the field. Without hesitation he left the ditch, crawled forward under enemy fire, and in two successive trips brought both men to safety. He next administered aid to 12 casualties in the same field, crossing and re-crossing the open area raked by hostile fire. Making successive trips, he then brought 3 more wounded men to cover. After treating nearly all of the 37 casualties suffered by his company, he was mortally wounded by mortar fire, and shortly after was killed. The indomitable spirit, intrepidity, and gallantry of Technician Parrish saved many lives at the cost of his own.

In conclusion, the Combat Medic during World War II played a critical role in the successful outcome of the war. At the onset of the war, the great need for medical soldiers was met by the initiation of the Medical Training Centers. These centers met the needs of the War Department, despite significant challenges. The equipment used enabled the combat medic to sustain injured soldiers, and stabilize those soldiers to the rear. And, last, the training and equipment used by the medic played a significant role in their ability to save many soldiers throughout the war. Although many of these selfless acts of heroism have been lost in the sands of time, the sacrifices made by the Combat Medic contributed greatly to the success of the United States Army and Allied Powers in the defeat of Germany and Japan during World War II.