

Chart # 3 arabic 1 avg
5 columns

-mortality of surgical patients in 12th Gen Hosp from ^{enemies} 27 Jan 1943 to 6 July 1945 - entire period of activity ^{function}.

	BATTLE CASUALTIES			INJURIES			DISEASES		
	Totals	deaths	%	Totals	deaths	%	Totals	deaths	%
<u>U.S.A.</u>									
Officers	427	1	:0.23::	239	2	:0.83::	260	1	:0.38::
Nurses	0		::	19	0	::	90	0	::
Enl Men	5879	12	:0.20::	3429	16	:0.46::	3940	4	:0.1::
Wacs	0		::	3	0	::	6	0	::
Civilian	1	0	::	3	0	::	2	0	::
M. Marine	2	0	::	3	0	::	2	0	::
<u>U.S. NAVY</u>									
Officers	7	0	::	7	0	::	4	0	::
Enl Men	137	0	::	89	1	:1.12::	66	1	:1.5::
<u>BRITISH</u>									
Officers	22	0	::	7	1	:14.2::	1	0	::
Enl Men	146	1	:0.68::	66	1	:1.51::	23	0	::
<u>BR. NAVY</u>									
Officers	0		::	0		::	2	0	::
Enl Men	6	0	::	*19	*1	:5.26::	11	0	::
<u>BRAZ. AF</u>									
Officers	1	0	::	1	0	::	32	0	::
Nurses	0		::	1	0	::	2	0	::
Enl Men	0		::	13	0	::	108	0	::
<u>ITALIAN</u>									
Army	4	0	::	2	0	::	0		::
Civilian	0		::	2	0	::	0		::
<u>FRENCH</u>									
Army	3	0	::	6	0	::	1	1	:100::
Civilian	0		::	7	3	:42.8::	0		::
POWS	769	7	:0.91::	28	0	::	37	0	::
<u>RUSSIAN</u>									
Army	1	0	::	1	0	::	0		::
<u>POLISH</u>									
Army	1	0	::	2	0	::	0		::
TOTALS	7406	21	:0.28::	3948	25	:0.63::	4589	7	:0.15::

* includes 1 M. Marine
(the 1 death in this group)

U.S. troops:									
only	6453	13	:0.20::	3793	19	:0.50::	4372	6	:0.13::
All others :									
British :									
Brazilian:									
Italian :									
French :									
Russian :									
Polish :	184	1	:0.54::	127	6	:4.72::	180	1	:0.55::
POWS	769	7	:0.91::	28	0	::	37	0	::

DEATHS

The deaths may be grouped roughly into the following categories:

Neurosurgical	24
Abdominal	9
General traumatic	7
Thoracic	6
Burns	3
Urologic	2
General surgery	1
Medical	1

No hard and fast rule can be made for this distribution. General traumatic cases contain most but not all of the compound fractures of the extremities. However, it has seemed that the first consideration in these patients is the large one of management of a severe injury, often associated with shock and hemorrhage and that the specialized handling of the fracture was not as important as the expert management of the wounded man. By the same token possibly the same consideration may apply to all cases, however it would appear that injuries to the brain and cord, chest, and urologic tract, and burns call for certain special care even at first instance. Any way in which the cases are divided up there is certain to be a great deal of overlap. Whether a case with multiple wounds should be assigned to one specialty or another depends largely upon one's assay of the case and judgment as to what condition is the most important. Certainly, if one looks at the actual cause of death in any case it is apparent that the lethal condition may not necessarily be due to the primary injury but could well have arisen in any injury. One case is listed as medical death although classed as a battle casualty. Since the wound for which the patient was admitted had long since healed and the fulminant pneumonia had no association whatsoever with it from a medical standpoint.

Neurosurgical

Init- ials :	Date of death :	<u>AFRICA</u> Immediate cause of death	Bc, inj: dis::	Time after onset
M.P. :	14 Feb 43 :	severe brain damage	: A.I. :	few hours
M.A.P. :	7 May 43 :	severe brain damage	: A.I. :	10 hours
S.S. :	15 May 43 :	severe brain damage	: A.I. :	10 hours
R.C. :	2 Jun 43 :	subarachnoid and intraventricular hemorrhage	: A.I. :	4 days
J.Mc :	13 Jun 43 :	bronchopneumonia, sepsis, debility (cord injury)	: B.C. :	44 days
J.F. :	16 Jun 43 :	subdural hematoma	: A.I. :	6 days
W.C. :	20 Jun 43 :	brain abscess and meningitis. Perforating wound of the brain	: B.C. :	53 days
E.C. :	27 Jun 43 :	severe brain damage	: A.I. :	3 hours
C.D. :	30 Jun 43 :	pulmonary embolism, cord damage, dislocated vertebrae	: A.I. :	14 days
L.B. :	12 Sep 43 :	bronchopneumonia, cord, fracture, 4th & 5th cervical vertebrae	: A.I. :	5 days
A.A. :	20 Sep 43 :	penetrating wound of brain, hemolytic transfusion	: B.C. :	11 days

Init-ials :	Date of death :	Immediate cause of death :	Dis, : BC, Inj :	Onset, : Time after :
S.W. :	21 Sep 43 :	respiratory failure, (cord) fracture, 4th X cervical vertebra	A.I. :	2 days
B.C. :	8 Oct 43 :	purulent meningitis (cause ?)	Dis :	8 months
H.S. :	20 Oct 43 :	glioblastoma multiforme	Dis :	1 month

ROME

H.T. :	28 Jul 44 :	bronchopneumonia (cord, fracture dislocation: 6th cervical vertebra)	A.I. :	23 days
D.L. :	1 Sep 44 :	severe brain damage	A.I. :	3½ hours
E.D. :	7 Sep 44 :	severe brain damage	A.I. :	1½ days
L.C. :	14 Sep 44 :	ventriculitis, meningitis, brain abscess, penetrating wound of brain	B.C. :	68 days
V.B. :	17 Sep 44 :	severe brain damage	A.I. :	2½ hours
B.F. :	7 Oct 44 :	meningitis and ventriculitis, probably otitis media	Dis :	71 days
G.I. :	18 Oct 44 :	ventriculitis, gutter wound of brain	B.C. :	40 days

LECHORN

E.M. :	14 Dec 44 :	subdural abscess, frontal sinus infection	Dis :	7 days
N.W. :	24 Jan 45 :	severe brain damage	A.I. :	6 days
P.S. :	15 Feb 45 :	subdural hematoma	A.I. :	18 days

Abdominal

AFRICA

J.M. :	27 May 43 :	extensive spread of unrecognized appendiceal abscess	Dis :	8 - 15 day
T.R. :	11 Jun 43 :	shock and acute bacteremia due to ruptured appendix - during operation	Dis :	3 days
J.Z. :	15 Aug 43 :	shock, hemorrhagic, traumatic; compound compound fracture, skull, rupture of spleen	A.I. :	1 hour
J.D. :	15 Aug 43 :	shock, hemorrhagic, traumatic; rupture of spleen, crushing injury, chest, cerebral inj:	A.I. :	1 hour
W.F. :	24 Oct 43 :	peritonitis, subphrenic abscess, intraperitoneal abscess; GSW, thorax and abdomen	B.C. :	106 days
F.S. :	7 Nov 43 :	paralytic ileus and peritonitis; rupture of sigmoid probably due to air hose	A.I. :	5 days

ROME

V.R. :	13 Jul 44 :	severe fecal peritonitis, due to GSW, abdomen with perforations, duodenum, jejunum & colon	A.I. :	2 days
A.L. : POW	23 Jul 44 :	hemorrhage into bowel and peritoneum following separation of sutured bowel; SFW, abdomen	B.C. :	19 days

Initials	Date of death	Immediate cause of death	Dis, BC, Inj.	Time after Onset
W.K.	27 Sep 44	lobar pneumonia; GSW, abdomen with cecal perforation and mild local peritonitis	A.I.	8 days

General Traumatic

AFRICA

A.L. : 14 Feb 43 : traumatic shock; compound fracture, sacrum and ileum : A.I. : 3 - 4 hours

E.W. : 19 Sep 43 : gas gangrene, compound fracture, femur : B.C. : 10 days

ROME

K.M. : 14 Jul 44 : fat embolism; multiple, penetrating & perforating wounds with compound fracture of femur at knee (POW) : B.C. : 8 days

G.G. : 19 Jul 44 : fat embolism, hemoglobinuria nephropathy; multiple penetrating & perforating wounds with fracture of femur (compound). : B.C. : 5 days

H.I. : 20 Jul 44 : gas gangrene; compound fracture of femur, & humerus (POW) : B.C. : 13 days

J.B. : 26 Jul 44 : pulmonary embolism; sulfonamide nephropathy and uremia, traumatic amputation, leg (POW) : B.C. : 9 days

H.A. : 17 Sep 44 : anaphylactic shock from A.T.S.; traumatic amputation of foot; multiple penetrating and perforating wounds due to mine. Clinical tetanus : B.C. : 9 days

THORACIC

Africa

A.B. : 6 Mar 43 : shock; puncture, left lung, compound fracture: distal left shoulder, compound fracture, tibia, fracture, distal hip (civ) : A.I. : 1½ hrs after inj.

P.C. : 20 Jun 43 : secondary hemorrhage from chest; SFW chest & spine; empyema : B.C. : 36 days

Rome

U.B. : 17 Jul 44 : uremia from transfusion incompatibility; severe thoraco-abdominal wound (POW) : B.C. : 10 days

S. : 23 Jul 44 : sulfonamide nephropathy (acute gastric distress) sucking wound of chest (POW) : B.C. : 14 days

Leghorn

E.H. : 18 April 45 : acute encephalitis and empyema; thoraco-abdominal and abdominal wounds : B.C. : 24 days

E.J. : 26 May 45 : deprivation due to lack of sufficient lung, severe thoraco-abdominal wound, liver hemorrhage and contralateral empyema : B.C. : 98 days

Init- ials :	Date of death :	Immediate cause of death	Dis, : BC, Inj :	Time after Onset
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BURNS

Africa

E.B. : 17 Mar 43 : hemorrhagic shock during skin graft operation: A.I. : 28 days
severe burns

L.L. : 4 Aug 43 : acute yellow atrophy; severe burns : B.C. : 117 days

J.R. : 9 Sep 43 : acute yellow atrophy; severe burns : A.I. : 100 days

UROLOGIC

Africa

F.P. : 21 Sep 43 : secondary hemorrhage into bladder. Penetrating: B.C. : 12 days
wounds, back and buttocks, compound fracture,
femur, sacrum, ilium, penetrating wounds, face

P.E. : 4 Jul 44 : acute pulmonary edema and excess fluid adminis: A.I. : 18 days
tration. Traumatic rupture of bladder; mild
peritonitis and ileus

Rome

GENERAL SURGERY

Africa

D.R. : 22 Jun 43 : hemorrhage from incision of femoral aneurysm. : Dis : few hours
Aneurysm due to old battle casualty

MEDICAL

Rome

W.B. : 19 Sep 44 : lobar pneumonia, fulminant. Wound of wrist : B.C. : 2 days
(POW) entirely healed. Patient in hospital for after on-
16 days before death. set

BATTLE CASUALTY DEATHS

There were 21 deaths in patients with battle casualties, 13 of these in U.S. soldiers, 1 in a British soldier and 7 in German prisoners of war. The death for American battle casualties (13 deaths in 6457 battle casualties) was 0.20%, for British battle casualties (1 in 180) was 0.55%, while the German POWs (7 deaths in 769 POW battle casualties) was 0.91%. A brief diagnostic record of these 21 cases follows. They are split up into categories depending upon the specialty, if any, into which the case would fall.

Neurosurgical Cases

Init- ials :	Date of Death :	Diagnostic Record
J. Mc:	13 Jun 43	: Bronchopneumonia, sepsis, debility. Penetrating wound of back and shoulder, compound fracture of 3rd thoracic vertebra, compression of cord, loculated empyema and bronchopulmonary fistula. 44 days after injury.
W.C. :	20 Jun 43	: Pneumococcal abscess of brain with meningitis. Frontal head wound. Compound fracture of skull with penetrating wound of brain and involvement of frontal sinuses. 53 days after injury.
A.A. :	20 Sep 43	: Hemolytic transfusion. Compound fracture of skull with penetrating wound of brain, loss of much brain tissue. Multiple wounds. Incompatible transfusion, severe transfusion, kidneys, pulmonary edema and focal necrosis of liver. 11 days after injury.
L.C. :	14 Sep 44	: Ventriculitis, meningitis and brain abscess. Penetrating wound of brain, left occipital region, severe; much debris, foreign body, bone and metal. Moderate pulmonary edema, moderate lipid pneumonia, blast pneumonitis, mild sulfonamide nephropathy. 68 days after injury.
G.I. :	18 Oct 44	: Ventriculitis, Fronto-parietal gutter wound of brain. Hypostatic pneumonia. 40 days after injury.

Abdominal wounds

W.F. : 24 Oct 43 : Generalized peritonitis, subphrenic abscesses; intraperitoneal abscesses. Perforating wound of abdomen with perforation of small bowel, perforating wound of chest with hydropneumothorax. Abscess between spleen and diaphragm, left, and between anterior surface, right lobe of liver and diaphragm. Ruptured during operation on left with peritoneal soilage. 106 days after injury.

A.L. : 23 Jul 44 : Secondary hemorrhage from separation of suture line of jejunum. SFW (POW) abdomen, severe, with division of jejunum. Mild sulfonamide nephropathy, emaciation. Previous disruption of abdominal incision. 19 days after injury.

General Traumatic

E.W. : 19 Sep 43 : Gas gangrene. Multiple SFWs, right thigh, and buttock, right and left legs. Left hydrothorax, acute spleenitis, acute parenchymatous degeneration of liver. Compound fracture of right femur. Amputation of right thigh. Extensive gas gangrene of stump, right buttock and entire right side of body. 10 days after injury.

K.M. : 14 Jul 44 : Pulmonary fat embolism. Multiple, severe, penetrating and perforating wounds of upper and lower extremities, face, and buttocks, with compound fracture of femur and tibia and compound fracture, both bones of right forearm. 8 days after injury.

Init- ials :	Date of Death :	Diagnostic Record
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- G.G. : 19 Jul 44 : Died of embolism while under anesthesia and while receiving a transfusion for secondary treatment of wounds. Multiple, severe, wounds of legs, thighs, buttocks, hands and forearms, with compound fracture of femur. Had also transfusion kidney which would probably have lead to uremic death. Mild sulfonamide nephropathy. 5 days afterwounding.
- H.I. : 20 Jul 44 : Died of gas gangrene (clostridial myositis edematiens) from multiple, penetrating wounds of the left thigh, left shoulder, chest, right hand, with compound fracture of femur, fracture dislocation of shoulder and traumatic amputation of thumb and index finger, right. Mild fat embolism. 13 days after injury.
- J.B. : 26 Jul 44 : Died of vascular pulmonary embolism. Traumatic amputation of right leg. Moderately severe fat embolism, severe sulfonamide nephropathy, uremic pneumonitis, central cirrhosis of liver. 9 days after injury.
- H.A. : 17 Sep 44 : Died of anaphylactic shock. Multiple, penetrating mine wounds of legs, thighs, buttocks, perineum, arms, and hands; traumatic amputation of right foot. Clinical tetanus (records now available do not contain data regarding toxoid administration), mild pulmonary fat embolism.

Thoracic Surgery

- P.C. : 20 Jun 43 : Secondary hemorrhage from SFW of chest. Severe wound with fracture of 10th and 11th thoracic vertebrae, laceration of ling and diaphragm, damage to cord, empyema and hemothorax, confluent bronchopneumonia. 36 days after injury.
- A.B. : 17 Jul 44 : Died of uremia from transfusion incompatibility. Severe thoraco-abdominal wound with empyema, perforating leg wounds and compound fracture of fibula. Marked hemoglobinuria nephropathy. Mild fat embolism. 10 days after wounding.
- S. : 23 Jul 44 : Died of sulfonamide nephropathy with acute gastric dilatation. Penetrating wound, left chest and left lung. Empyema. Acute, severe central necrosis of liver. 14 days after wounding.
- E.H. : 18 Apr 45 : Acute encephalitis from putrid empyema. Perforating wound of right chest, laceration of diaphragm, lung, and liver. Penetrating wound of abdomen with perforation of small bowel over sigmoid. Empyema. Putulent bronchiolitis. Old sulfonamide nephropathy. 24 days after wounding.
- E.J. : 26 May 45 : Oxygen deprivation due to lack of sufficient lung tissue. Thoraco-abdominal wound, right, with loss of liver substance. Repeated hemorrhages from liver bed. Reduction of right lung to part of upper lobe. Left empyema subsequent to embolus, and reduction of aerating surface of left lung by about 75%. 98 days after wounding.

Burn

- L.L. : 4 Aug 43 : Acute yellow atrophy of liver subsequent to extensive tank burns (Br) of face, left arm and right and left legs. 117 days after injury.

Urologic

- F?P. : 21 Sep 43 : Secondary hemorrhagic from pelvic vessels with erosion into bladder. Perforating wounds of head, buttocks, hips, pelvis. Multiple, penetrating wounds of back, traumatic destruction of left eye. Fracture, surgical neck of right femur, compound fracture, sacroiliac joint. Peritonitis. 12 days after injury.

Medical

- W.B. : 19 Sept 44: Fulminant lobar pneumonia in patient with healed wound of wrist. (POW) Bronchopneumonia, acute right heart failure, atelectasis and pulmonary edema. 29 days from time of wound. 1½ days from first symptom.

CAUSE OF DEATH

The causes of death may be grouped in the following categories:

1. Infection: 17
 Direct association or extension from wound:
 Pneumococcal abscess of brain 1
 Gas gangrene 2
 Purulent meningitis 1
 Peritonitis & subphrenic abscess . 1
 Fecal peritonitis 1
 Ventriculitis & meningitis 2
 Ventriculitis 1
 Subdural abscess 1
 Acute encephalitis 1
 Bronchopneumonia, sepsis,
 debility. (cord) 1
 Fulminant bronchopneumonia (cord). 2
 Lobar pneumonia 2
 Ruptured appendix 1
2. Severe brain damage 8
3. Shock 6
 Traumatic 2
 Traumatic & hemorrhagic 2
 Hemorrhagic 1
 Bacteremia & anesthetic 1
4. Hemorrhage 4
 Secondary 3
 I & D aneurysm 1
5. Subdural hematoma 3
 Subdural 1
 Subdural plus intraventricular ... 2
6. Fat embolism 2
7. Acute yellow atrophy of Liver 2
8. Transfusion imcompatibility 2
 Acute 1
 Hemoglobinuria nephropathy 1
9. Miscellaneous..... 9
 Pulmonary embolus 2
 Respiratory failure in high
 cord lesion 1
 Glioblastoma 1
 Paralytic ileus 1
 Acute pulmonary edema 1
 Sulfonamide nephropathy 1
 Anaphylactic shock 1
 Oxygen want 1

Deaths Classified as to Time of Occurrence after Onset of Fatal Injury or Illness:

Few hours - 11 cases (9 in Africa; 2 in Italy (Rome))

AFRICA

Init-ials :	Cause of Death	Class.:	Elapse of-time	Date - death	Status
A.LeG:	Severe traumatic shock	: A.I. :	4 hours:	14 Feb43:	Civ
M.P. :	Extensive brain damage	: A.I. :	2 " :	6 Mar43:	Civ
A.B. :	Severe traumatic shock	: A.I. :	2 " :	6 Mar43:	Civ
M.P. :	Extensive brain damage	: A.I. :	10 " :	7 May 43:	USA-EM
S.S. :	Extensive brain damage	: A.I. :	10 " :	15 May 43:	Br-Off
D.R. :	Hemorrhage from I & D femoral aneurysm	: Dis :	2-3 " :	22 Jun 43:	USA-EM
E.C. :	Extensive brain damage	: A.I. :	3 " :	27 Jun 43:	USN-EM
J.Z. :	Hemorrhagic and traumatic shock	: A.I. :	1 " :	15 Aug 43:	USA-EM
J.D. :	Hemorrhagic and traumatic shock	: A.I. :	1 " :	15 Aug 43:	ESA-EM

ITALY

D.L. :	Extensive brain damage	: A.I. :	4 " :	1 Sep 44:	USA-EM
V.B. :	Extensive brain damage	: A.I. :	2 $\frac{1}{2}$ " :	17 Sep 44:	USA-EM

Few days - 11 cases (6 in Africa; 5 in Italy (Rome, 4; Leghorn, 1))

AFRICA

R.C. :	Subarachnoid and intraventricular hemorrhage	: A.I. :	4 days :	2 Jun 43:	USA-EM
T.R. :	Shock and acute bacteremia	: Dis :	3 days :	11 Jun 43:	USA-Off
J.F. :	Subdural hematoma & intraventricular "	: A.I. :	6 days :	16 Jun 43:	USA-EM
L.B. :	Fulminant bronchopneumonia in cord injury	: A.I. :	5 days :	12 Sep 43:	USA-EM
S.W. :	Respiratory failure in high cord lesion	: A.I. :	2 days :	21 Sep 43:	USA-EM
F.A.S:	Paralytic ileus and peritonitis	: A.I. :	5 days :	7 Nov 43:	Br-M.M.

ITALY

U.R. :	Severe disseminated fecal peritonitis	: A.I. :	2 days :	13 Jul 44:	USA-EM
G.G. :	Fat embolism & acute pulmonary edema	: B.C. :	5 days :	19 Jul 44:	USA-EM
E.D. :	Extensive brain damage	: A.I. :	1 $\frac{1}{2}$ days :	7 Sep 44:	USA-F/O
W.B. :	Fulminant lobar pneumonia	: B.C. :	2 days :	19 Sep 44:	POW*
N.W. :	Extensive brain damage	: A.I. :	6 days :	24 Jan 45:	USA-EM

* This man admitted as POW with B.C. He developed pneumonia not associated with his injury and died less than 48 hours after first complaint.

Few weeks up to 24 days - 18 cases (Africa, 5; Rome, 10; Leghorn, 3)

AFRICA

J.M. :	Extensive spread of appendiceal abscess	: Dis :	8-15 days:	27 May 43:	USA-EM
C.D. :	Embolism - pulmonary	: A.I. :	14 days :	30 Jun 43:	USA-EM
E.W. :	Gas gangrene	: B.C. :	10 days :	19 Sep 43:	USA-EM
A.A. :	Hemolytic transfusion reaction	: B.C. :	11 days :	20 Sep 43:	USA-EM
F.P. :	Secondary hemorrhage	: B.C. :	12 days :	21 Sep 43:	USA-EM

ITALY (Rome)

P.E. :	Acute pulmonary edema	: A.I. :	18 days :	4 Jul 44:	USA-Off
K.M. :	Fat embolism, pulmonary	: B.C. :	8 days :	14 Jul 44:	POW
A.B. :	Uremia from transfusion incompatibility	: B.C. :	10 days :	17 Jul 44:	POW
S. :	Sulfonamide nephropathy	: B.C. :	14 days :	19 Jul 44:	POW
H.I. :	Gas gangrene	: B.C. :	13 days :	20 Jul 44:	POW
A.L. :	Secondary hemorrhage	: B.C. :	19 days :	23 July44:	POW

Init- ials :	Cause of Death	:Class.:	Elapse of time :	Date - Death :	Status
J.B. :	Pulmonary embolism	: B.C. :	9 days	: 26 Jul 44:	POW
H.T. :	Fulminant bronchopneumonia	: A.I. :	23 days	: 28 Jul 44:	USA-EM
H.A. :	Anaphylactic shock (A.T.S.)	: B.C. :	9 days	: 18 Sep 44:	USA-EM
W.K. :	Lobar pneumonia	: A.I. :	8 days	: 27 Sep 44:	Br-EM

ITALY (Leghorn)

E.M. :	Subdural abscess	: Dis :	7 days+	: 15 Dec 44:	USA-EM
P.S. :	Subdural hematoma	: A.I. :	18 days	: 15 Feb 45:	USA-EM
E.H. :	Acute encephalitis (putrid empyema)	: B.C. :	24 days	: 18 Apr 45:	USA-EM

Four weeks and Over - 13 cases (Africa, 9; Rome, 3; Leghorn, 1)

AFRICA

E.B. :	Hemorrhagic shock during operation	: A.I. :	28 days	: 17 Mar 43:	USA-EM
J.Me :	Bronchopneumonia, sepsis and debility	: B.C. :	44 days	: 13 Jun 43:	USA-EM
P.C. :	Secondary hemorrhage, chest	: B.C. :	36 days	: 20 Jun 43:	USA-EM
W.C. :	Brain abscess and meningitis	: B.C. :	53 days	: 20 Jun 43:	USA-EM
L.L. :	Acute yellow atrophy of the liver	: B.C. :	117 days	: 4 Aug 43:	Br-EM
J.R. :	Acute yellow atrophy of the liver	: A.I. :	100 days	: 9 Sep 43:	USA-EM
B.C. :	Purulent meningitis	: Dis :	8 months	: 8 Oct 43:	USA-EM
H.S. :	Glioblastoma multiforme	: Dis :	1 month	: 20 Oct 43:	USA-EM
W.F. :	Peritonitis & subphrenic abscess	: B.C. :	106 days	: 24 Oct 43:	USA-EM

ITALY (Rome)

L.C. :	Ventriculitis and meningitis	: B.C. :	68 days	: 14 Sep 44:	USA-EM
B.F. :	Ventriculitis and meningitis	: Dis :	71 days	: 7 Oct 44:	Fr-Goumier
G.I. :	Ventriculitis	: B.C. :	40 days	: 18 Oct 44:	USA-EM

ITALY (Leghorn)

E.J. :	Oxygen deprivation, diminished lung tissue:	B.C. :	98 days	: 26 May 45:	USA-Off
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FAT EMBOLISM

This complication was noted in 7 postmortem examinations, in 2 of which it was the immediate cause of death, in five, the fat embolism was mild and not considered to be of any significance. Of the two deaths both occurred in battle casualties, one an American, one was a German POW. Of the five in which fat embolism was an incidental finding at postmortem examination, two (1 battle casualty and 1 accidental injury) were American soldiers, the other three were German POWs. All patients suffered severe injuries and in all there were compound fractures, two of which suffered traumatic amputation of the foot and leg.

Initials :	Date of Death	Dis, :BC, Inj:	Cause of Death & Brief Diagnosis
K.M. (POW)	14 Jul 44	: BC	: Died of <u>fat embolism</u> 8 days after receiving severe, multiple, penetrating and perforating wounds of the upper and lower extremities, face and buttocks with compound fracture of the femur and tibia and both bone compound fractures of the right forearm.
G.G.	19 Jul 44	: BC	: Died of <u>fat embolism</u> 5 days after injury while under anesthesia, for secondary treatment of wounds (and while receiving a transfusion). Multiple severe wounds of legs, thighs, buttocks, hands and forearms with compound fracture of femur. Had also a transfusion. Kidney which would probably have lead to uremic death in a short time. Mild sulfonamide nephropathy.
U.B. (POW)	17 Jul 44	: BC	: Died of <u>uremia</u> from transfusion incompatibility 10 days after wounding. Severe thoraco-abdominal wound with empyema, perforating leg wounds and compound fracture of fibula. Marked hemoglobinuria nephropathy. Mild fat embolism.
H.I. (POW)	20 Jul 44	: BC	: Died of <u>gas gangrene</u> (clostridial myositis edematians) 13 days after wounding. Multiple penetrating wounds of left thigh, left shoulder, chest, right hand, with compound fracture of femur, fracture dislocation of shoulder and traumatic amputation of thumb and index finger, right. Mild fat embolism.
J.B. (POW)	26 Jul 44	: BC	: Died of <u>vascular pulmonary embolism</u> 9 days after wounding. Traumatic amputation of right leg. Moderately severe fat embolism, severe sulfonamide nephropathy, uremic pneumonitis and central cirrhosis of liver.
H.T.	28 Jul 44	: A.I.	: Died of <u>fulminant bronchopneumonia</u> 23 days after injury. Fracture of 6th cervical vertebra with cord damage and fracture of orbital and malar bones. Compound fracture of both bones of left forearm and leg. Ran fat globule in lung. Mild sulfonamide nephropathy.
H.A.	17 Sep 44	: BC	: Died of <u>anaphylactic shock</u> 9 days after injury. Multiple penetrating, mine wounds of legs, thighs, buttocks, perineum, arms and hands, traumatic amputation of right foot. Clinical tetanus. (First care of wound at British C.C.S. - no record now saved shows tetanus toxoid administered). Mild pulmonary fat embolism.

JAUNDICE IN SEVERE CASES OF SURGICAL TRAUMA, 12TH GENERAL HOSPITAL
(from 24 Jan 43 - 1 Jun 45)

Up to approximately 1 June 1945 the 12th General Hospital had discharged 10,161 patients who had sustained some sort of surgical trauma. Of these, 6,730 were battle casualties and 3,431 were injuries. In these cases there were sixteen reported diagnoses of hepatitis, of which twelve had jaundice. There were five deaths. Two of these deaths occurred in patients who had had accidental injuries with jaundice (Elliot and Richardson). In one of these (Elliot) it was felt that death was not directly attributable to the original trauma. There were three deaths in the battle casualty group, all in patients with jaundice. The four patients who had hepatitis without jaundice were battle casualties and recovered.

Since certain more severe types of wounds (arbitrarily, chest wounds, abdominal wounds, compound fractures, burns, and traumatic amputations were considered as "severe" wounds) were considered likely to require administration of blood, all casualties and injuries were categorized under these headings. If a wound of these types was not present, the case was listed simply as "Battle Casualty" or "Injury".

The incidence of the various types of wounds and injuries, singly and in combination follows:

Battle Casualty

	Totals	Hepatitis	
	////////	//////////	
Simple battle casualties	4019	:	:
Compound fractures in battle casualties	2003	:	5
Traumatic amputations, " "	110	:	:
Burns, battle casualties	122	:	2
Chest wounds	128	:	:
Abdominal wounds	105	:	:
Compound fracture and traumatic amputation	50	:	:
Compound fracture and burns	12	:	:
Compound fracture and chest wounds	94	:	1
Compound fracture and abdominal wounds	34	:	:
Compound fracture and abdominal wounds and burns	1	:	1
Compound fracture and chest and abdominal wounds	13	:	:
Chest and abdominal wounds	33	:	2
Post traumatic epilepsy	1	:	1
Traumatic amputation and burns	2	:	:
Traumatic amputation and abdominal wounds	1	:	:
Traumatic amputation and chest wounds	1	:	:
Traumatic amputation and compound fracture and abdominal wds:	1	:	:

Injury

Simple injuries	2603	:	2
Compound fractures in injuries	548	:	:
Traumatic amputations in injuries	47	:	:
Burns in injuries	153	:	:
Burns and atrophy of liver (acute yellow atrophy)	1	:	1
Chest wounds in injuries	24	:	:
Chest and abdominal wounds in injuries	3	:	1
Compound fracture and traumatic amputation in injuries	16	:	:
Abdominal wounds in injuries	20	:	:
Compound fracture and burns in injuries	4	:	:
Compound fracture and abdominal wounds in injuries	5	:	:
Compound fracture, burns, and abdominal wounds	1	:	:
Compound fracture, traumatic amputation, chest & abd wounds :	1	:	:
Compound fracture, chest, and abdominal wounds	1	:	:
Compound fracture, and chest wounds	4	:	:

RENAL DAMAGE

Evidence of renal damage due to sulfonamides was found in 8 of the post-mortem examinations, due to transfusion in 3, and due to toxic hemolytic action of gas gangrene in a single case.

All of the 8 examples of sulfonamide nephropathy were observed between June and November 1944 at the Rome set-up. Five were in U.S. troops, of which two were battle casualties and three were accidental injuries. Three were in German prisoners of war, in two of which the nephropathy was very severe, and in one of these it was the cause of death. In the other POW and in the 5 American soldiers the condition was mild and had no effect upon the clinical course.

There were 3 cases of transfusion kidneys, in all of which the condition was an important factor in the death of the patient. One was in a patient with an immediate reaction who died approximately three hours after the transfusion, in one (a German POW) a uremia directly attributable to the transfusion damage was the cause of death, while the third patient was saved from a uremic death by fat embolism.

On one instance microscopic findings similar to those of transfusion kidney were attributed to gas gangrene.

Sulfonamide Nephropathy

Severe

Init- Dis,
ials : BC, Inj.:

- S. : BC : Died 14 days after injury of sulfonamide nephropathy with acute gastric dilatation. Sucking wound of the chest.
Micro: Severe internal hydronephrosis especially marked in the proximal convoluted tubules, due to mucoid pole retaining casts in distal tubules, occasional calcified casts.
Negative peroxidase reaction.
Path. Diag: Sulfonamide nephropathy, severe.
- J.B. : BC : Died 9 days after injury of pulmonary embolism; source, saphenous vein, right thigh. Traumatic amputation, right leg and numerous other wounds.
Micro: Marked interstitial hydronephrosis from brown-staining casts in collecting tubules and to lesser extent in distal convoluted tubules. Much tubular reaction up to necrosis of tubules and destruction and disappearance or polymorphonuclear invasion of casts. Peroxidase, negative. Associated liver changes thought also to be due to sulfonamides.
Path. Diag: Sulfonamide nephropathy, severe.

Mild

- V.R. : AI : Died 2 days after injury of severe fecal peritonitis due to gun-shot, perforating wound of the abdomen with perforations of duodenum, jejunum, and colon. Five grams of sulfanilamide left in abdominal cavity at end of operation. None otherwise.
Micro: Widening of proximal convoluted tubules, cellular mucoid casts.
Path. Diag: Mild sulfonamide nephropathy.
- A.L. : BC : Died 19 days after injury of secondary hemorrhage from separation of small bowel suture line. Previous wound disrupture.
Micro: Acute passive congestion and occasional sulfonamide cast.
Path. Diag: Mild sulfonamide nephropathy.
- H.T. : AI : Died 23 days after injury of fulminant bronchopneumonia. Frac-

Init- Dis,
ials : BC, Inj :

- H.T. : AI : ture dislocation of 6th cervical vertebra with complete interruption
cont'd of cord.
Micro: Dilated upper nephron. Occasional pigmented cast in distal convoluted and collecting tubules. Peroxidase, negative. Glomeruli swollen and prominent.
Path. Diag: Mild sulfonamide nephropathy.
- L.C. : BC : Died 68 days after injury of ventriculitis, meningitis and brain abscess. Severe penetrating wound of brain.
Micro: An occasional convoluted tubule contains amorphous brown material infiltrated with polys. These casts have caused marked nuclear reaction in surrounding tubular epithelium.
Path. Diag: Mild sulfonamide nephropathy.

Transfusion Kidneys

- A.T. : BC : Died 11 days after injury of hemolytic transfusion reaction. Penetrating wound of skull and brain.
Path. Diag: Transfusion kidneys with hematin crystals in collecting tubules.
- U.B. : BC : Died 10 days after injury of uremia subsequent to transfusion in-
(POW) compatability. Was icteric.
Thoraco-abdominal wound, multiple penetrating wounds.
Micro: Marked tubular degeneration. Distal convoluted and collecting tubules contain orange staining peroxidase positive casts. There are some less frequent brown cellular casts indicative of sulfonamides.
Path; Diag: Hemoglobinuria nephropathy due to transfusion.
- G.G. : BC : Died 5 days after injury of fat embolism and acute pulmonary edema during transfusion.
Multiple severe penetrating and perforating mine wounds with compound fracture of femur.
Micro: Well marked internal hydronephrosis with masses of granular acidophilic pigment in collecting tubules which give positive peroxidase reaction. In addition scattered cellular casts in distal convoluted tubules and rare interstitial granuloma.
Path. Diag: Hemoglobinuria nephropathy (hemolytic transfusion reaction) Sulfonamide nephropathy minimal.
Hemoglobinuria nephropathy in gas gangrene.
- E.W. : BC : Died 10 days after injury of gas gangrene. Severe compound fracture of right femur.
Micro: Cloudy swelling of convoluted tubules. Pigmented acid hematin casts in convoluted and collecting tubules.
Path. Diag: Probably due to hemolysis of gas gangrene.

Sulfonamide Nephropathy

Mild (Omitted from above)

- G.I. : BC : Died 40 days after injury of ventriculitis. Severe gutter wound of skull and brain.
Path. Diag: Impression subsiding sulfonamide nephropathy

DISTRIBUTION OF 4274 BATTLE CASUALTY INJURIES IN 2065 PATIENTS - AFRICA

	:Soft Tissue	:Fractures	:Burns	:Periph:		
	:Open	:Closed	:Open	:Closed	:Nerve	
Hand	: 106:	1 :	99:	9 :	150 :	8 :
Forearm and wrist	: 118:	:	70:	12 :	53 :	37 :
Arm (incl.shoulder)	: 405:	3 :	79:	4 :	58 :	85 :
Wrist joint	: :	:	3:	1 :	:	1 :
Elbow joint	: 2:	2 :	17:	2 :	:	2 :
Shoulder joint	: 1:	2 :	8:	:	:	:
Clavicle and scapula:	: ^{acc} 2 ^{jt} :	:	29:	3 :	:	:
No site	: 2:	:	:	:	:	:
Foot	: 109:	5 :	46:	46 :	8 :	:
Leg	: 465:	7 :	178:	50 :	43 :	32 :
Thigh and hip	: 422:	13 :	87:	7 :	20 :	37 : 1 urethra, 2 rectum, 1 sm.bowel
Ankle joint	: 3:	11 :	:	:	:	:
Knee joint	: 40:	32 :	37:	4 :	:	3 :
Hip joint	: 1:	1 :	:	1 :	:	:
Pelvic girdle	: :	3 :	17:	8 :	:	:
Buttock	: 49:	:	4:	:	4 :	5 : 7 urologic inj; 11 bowel inj.
Perineum	: 6:	:	:	:	:	: 1 rectal inj. 1 rectum, bladder, and small bowel.
Cranio cerebral	: 55:	37 :	81:	3 :	8 :	1 :
Maxillo facial	: 140:	1 :	:	:	80 :	8 :
Maxilla	: :	:	19:	:	:	:
Mandible	: :	:	23:	1 :	:	:
facial bones	: :	:	17:	:	:	:
?	: :	:	2:	1 :	:	:
Neck	: 56:	1:	2:	:	17 :	5 : 1 hyoid frac; 1 thyroid frac.
Chest	: 240:	6 :	36:	4 :	3 :	1 : 70 lung involved, 2 bile fistulae, 6 liver inj; 3 severe abd. inj; 1 heart injury.
Abdomen	: 88:	4 :	:	:	1 :	1 : 23 large bowel, 22 sm. bowel; 5 stomach, 1 duodenum, 6 assoc. chest; 8 bladder, 5 kidney, 1 ureter.
Spine and back	: 99:	35 :	24:	24 :	13 :	1 : 4 plus abdomen, 34 with cord damage.
Eyes	: 84:	4 :	2:	:	2 :	: 1, loss two eyes; 23, loss one eye
Ears	: 13:	5 :	:	:	:	:
Ruptured drum	: 60:	:	:	:	:	:
External genitalia	: 15:	:	:	:	:	: 4 urethra
TOTALS	: 2579:	175 :	880:	180 :	460 :	227 :

	BATTLE CASUALTIES					INJURIES					DISEASES							
	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med see	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med see	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med
<u>U.S.A.</u>																		
Officers	: 136 :	: 20 :	: 199 :	: 1 :	: 71 :	dis ::	: 116 :	: 18 :	: 77 :	: 2 :	: 26 :	dis ::	: 156 :	: 58 :	: 31 :	: 1 :	: 14 :	: 1292 :
Nurses	:	:	:	:	:	::	: 16 :	:	: 3 :	:	:	::	: 76 :	:	: 13 :	:	: 1 :	: incl :
Enl Men	: 2389 :	: 453 :	: 2025 :	: 12 :	: 1000 :	::	: 1607 :	: 326 :	: 955 :	: 16 :	: 525 :	::	: 2270 :	: 835 :	: 463 :	: 4 :	: 368 :	: udes :
Wacs	:	:	:	:	:	::	: 3 :	:	:	:	:	::	: 5 :	:	: 1 :	:	:	: BC, :
Red Cross	:	:	:	:	:	::	: 1 :	:	:	:	:	::	: 2 :	:	:	:	:	: Inj, :
Civilian	: 1 :	:	:	:	:	::	: 3 :	:	:	:	:	::	: *1 :	:	: 1 :	:	:	: & Dis :
Mer Marine:	:	:	: 2 :	:	:	::	: 1 :	:	: 2 :	:	:	::	:	:	: 2 :	:	:	:
<u>U.S. NAVY</u>																		
Officers	:	:	: 7 :	:	:	::	: 2 :	:	: 5 :	:	:	::	: 3 :	:	: 1 :	:	:	:
Enl Men	: 14 :	:	: 121 :	:	: 2 :	::	: 21 :	:	: 65 :	: 1 :	: 2 :	::	: 23 :	:	: 42 :	: 1 :	:	:
<u>BRITISH</u>																		
Officers	: 2 :	:	: 20 :	:	:	::	:	:	: 5 :	: 1 :	: 1 :	::	: 1 :	:	:	:	:	:
Enl Men	: 21 :	: 3 :	: 120 :	: 1 :	: 1 :	::	: 24 :	: 4 :	: 31 :	: 1 :	: 6 :	::	: 10 :	: 1 :	: 12 :	:	:	:
<u>BR NAVY</u>																		
Officers	:	:	:	:	:	::	:	:	:	:	:	::	: 2 :	:	:	:	:	:
Enl Men	:	:	: 6 :	:	:	::	: 10 :	:	: 7 :	: 1 :	: 1 :	::	: 9 :	:	: 2 :	:	:	:
<u>BRAZ. AF</u>																		
Officers	: 1 :	:	:	:	:	::	: 1 :	:	:	:	:	::	: 32 :	:	:	:	:	:
Nurses	:	:	:	:	:	::	: 1 :	:	:	:	:	::	: 2 :	:	:	:	:	:
Enl Men	:	:	:	:	:	::	: 9 :	:	: 2 :	:	: 2 :	::	: 103 :	:	: 5 :	:	:	:
<u>ITALIAN</u>																		
Army	: 2 :	:	:	:	: 2 :	::	: 2 :	:	:	:	:	::	:	:	:	:	:	:
Civilian	:	:	:	:	:	::	:	:	:	:	: 2 :	::	:	:	:	:	:	:
<u>FRENCH</u>																		
Army	: 2 :	:	:	:	: 1 :	::	:	:	:	:	: 6 :	::	:	:	:	: 1 :	:	:
Civilian	:	:	:	:	:	::	: 3 :	:	:	: 3** :	: 1 :	::	:	:	:	:	:	:
<u>POW</u>	: 354 :	:	: 5 :	: 7 :	: 403 :	::	: 22 :	:	:	:	: 6 :	::	: 33 :	:	:	:	: 4 :	:
<u>RUSSIAN</u>																		
Army	:	:	: 1 :	:	:	::	: 1 :	:	:	:	:	::	:	:	:	:	:	:
<u>POLISH</u>																		
Army	: 1 :	:	:	:	:	::	: 2 :	:	:	:	:	::	:	:	:	:	:	:
<u>TOTALS</u>	: 2923 :	: 476 :	: 2506 :	: 21 :	: 1480 :	::	: 1845 :	: 348 :	: 1152 :	: 25 :	: 578 :	::	: 2727 :	: 894 :	: 573 :	: 7 :	: 387 :	: 1292 :

(**includes
1 Arab
("Mer Marine"))

(*infant)

AFRICA

	BATTLE CASUALTIES					INJURIES					DISEASES							
	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis
<u>U.S.A.</u>						see					see							
Officers	31	12	122		6		37	14	55		6		41	29	21	1	3	725
Nurses							12		3				43		9			incl
Enl Men	462	160	1022	7	110		491	177	647	10	109		582	200	322	3	66	udes
Red Cross													1					BC
Wacs							2						3					Inj
Civilian													*1					Dis
M. Marine			2				1		2						2			
<u>U.S. NAVY</u>																		
Officers			7				2		5				3		1			
Enl Men	14		121		2		19		64	1	2		22		42	1		
<u>BRITISH</u>																		
Officers	2		20						5	1			1					
Enl Men	21	3	120	1			17	4	31				7	1	12			
<u>BR NAVY</u>																		
Officers													2					
Enl Men			6				10		7	1	1		9		2			
<u>FRENCH</u>																		
Army											1							
Civilian							3			3**	1							
<u>TOTALS</u>	530	175	1420	8	118		594	195	819	16	120		714	230	411	5	69	725

(**includes
1 Arab)

("Mer Marine)

(*infant)

	BATTLE CASUALTIES					INJURIES					DISEASES							
	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis
<u>U.S.A.</u>						see				see								
Officers :	64	2	35	28		dis	44	3	8	2	11	dis	51	11	2		8	279
Nurses :							4						15		2		1	incl:
Enl Men :	1131	218	533	4	469		663	89	144	*4	135		931	373	37		82	udes:
Wacs :							1								1			BC, :
Red Cross :							1											Inj, :
Others :	1						2											Dis.:
<u>U.S. NAVY</u>							2		1				1					
Enl Men :																		
<u>BRITISH</u>											1							
Officers :																		
Enl Men :				1			1		1	3								
<u>ITALIAN</u>																		
Army :	2			2														
Civilian :											1							
<u>POWS</u>	354		5	7	402		22			6		33				4		
<u>FRENCH ARMY:</u>	2			1						5					1			
<u>RUSSIAN "</u>			1				1											
<u>POLISH "</u>	1						2											
<u>BRAZILIAN "</u>									1	2								
<u>TOTALS</u>	1555	220	574	11	903		743	92	154	7	164		1031	384	42	1	95	279

(* includes
1 CRO)

Leghorn

	BATTLE CASUALTIES					INJURIES					DISEASES							
	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis	"A" duty	"B" duty	"C" duty	Other deaths	To disps	Med dis
<u>U.S.A.</u>																		
Officers :	41	6	42	1	37	see dis	35	1	14		9	see dis	64	18	8		3	288
Nurses :													18		2			incl:
Enl Men :	796	75	470	1	421		453	60	164	2	281		757	262	104	1	220	udes:
Wacs :													2					BC, :
Red Cross:													1					Inj, :
Civilian :							1								1			Dis :
<u>BRITISH</u>																		
Enl Men :							6				3		3					
<u>ITALIAN</u>																		
Army :							2											
Civilian :											1							
<u>POWS</u>					1													
<u>BRAZ AF</u>																		
Officers :	1						1						32					
Nurses :							1						2					
Enl Men :							9		1				103		5			
<u>TOTALS</u> :	838	81	512	2	459		508	61	179	2	294		982	280	120	1	223	288

BATTLE CASUALTIES

INJURIES

DISEASES

	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	
<u>U.S.A.</u>																			
Officers :	136	20	199	1	71	see disease column	116	18	97	2	24	see disease column	156	58	31	1	14	1292 This figure Represents all transf. to Med. whether B. C. Int, or Dis.	
Nurses							16		3				76		13		1		
Enl Men	2389	453	2025	12	1000		1607	326	955	* 13 + 1 (CRO)	525		2270	835	463	4	368		
Wacs							3						5		1				
Red Cross							1						2						
Civilian	1 ^(OSS)						2 ³						(1) INFANT BORN		1				
<u>M. Marine</u>			2				1		2									2	
Officers (navy)			7				2		5				3		1				
Enl Men (navy)	14		121		2		21		65	1	2		23		42	1			
<u>BRITISH</u>									5	1	1		1						
Officers	2		20																
Enl Men Officers (navy)	21	3	120	1	1		24	4	31	1	6		10	1	12				
Enl Men (navy)			6				10		7	1 MH	1		9		2			1 (MERCHANT MARINE)	
<u>BRAZILIAN</u>																			
<u>AIR FORCE</u>																			
Officers	1						1						32						
Nurses							1						2						
Enl Men							9		2		2		103		5				
<u>ITALIAN</u>					2		2												
Army	2																		
Civilian											2								

<u>FRENCH</u> Army	2				1						6						1		
Civilian						3					³ (1 an ARAB)	1							
POWS	354	5	7		403	22					6		33				4		
<u>RUSSIAN</u> Army		1				1													
<u>POLISH</u> Army	1					2													
	2923	476	2506	21	1480	1844 ⁵	348	1152			⁺² 22 24	578	2728	894	573		87	387	1292

* Includes
 * 2 EM deaths (injuries) died in O.R., not admitted to any Surgical Ward

1 Infant

AFRICA
 ROMA
 LIVORNO
 (Consolidated)

Africa

BATTLE CASUALTIES

INJURIES

DISEASES

	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	
<u>U.S.A.</u>																			
Officers	31	12	122		6	See Disease column	37	14	55		6	See Disease Column	41	29	21	1	3	(725) This figure represents all Transfers To Medicine whether BC, Inj or Dis	
Nurses							12		3				43		9				
Enl men	462	160	1022	7	110		491	177	647	* 10 (8+2)	109		582	200	322	3	66		
Red Cross													1						
Wacs							2						3						
Civilian													(1) infant born						
Merchant Marine			2				1		2						2				
Officers (navy)			7				2		5				3		1				
Enl men (navy)	14		121		2		19		64	1	2		22		42	1			
<u>BRITISH</u>																			
Officers	2		20						5	1			1						
Enl Men	21	3	120	1			17	4	31				7	1	12				
Officers (navy)													2						
Enl men (navy)			6				10		7	1 man	1		9		2				1 (Merchant Marine)
<u>FRENCH</u>																			
Army												1							
Civilian							3			3 (1 an Arab)	1								
	530	175	1420	8	118		594	195	819	136	120		714	230	411	5	69	725	

* 2 EM deaths (injuries), died in OR, not admitted to any Surgical Ward

ROMA

BATTLE CASUALTIES

INJURIES

DISEASES

	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	
<u>U. S. A.</u>						see Disease Column						see disease column							279
Officers	64	2	35		28		44	3	8	2	11		51	11	2		8		includes Be + Inj also
Nurses							4						15		2		1		
Enl Men	1131	218	533	4	469		663	89	144	3+ 1(CRO)	135		931	373	37		82		
Wacs							1								1				
Red Cross							1												
Others	1 (O.S.S.)						2												
Enl Men (navy)							2		1				1						
<u>BRITISH</u>																			
Enl men					1		1			1	3								
Officers											1								
<u>ITALIAN</u>																			
Army	2				2														
Civilian											1								
POWS	354		5	7	402		22				6		33					4	
FRENCH ARMY	2				1						5						1		
RUSSIAN ARMY			1				1												
POLISH ARMY	1						2												
BRAZILIAN "									1		2								
	1555	220	574	11	903		743	92	154	7	164		1031	384	42	1	95	279	

LIVORNO

Final Disposition of 4542 pts. from Sangreli Service 3 Dec 44 to 6 July 45

Chart 1.

	BATTLE CASUALTIES						INJURIES						DISEASES					
	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Others disps	To Med	"A" duty	"B" duty	"C" duty	deaths	Other disps	To Med
<u>U.S.A.</u>																		
Officers	41	6	42	1	37	see disease column	35	1	14		9	see disease column	64	18	8		3	288
Nurses													18		2			This figure represents all types To Med w/ether BE, Enj or Dis
Enl Men	796	75	470	1	421		453	60	164	2	281		757	262	104	1	220	
Wacs													2					
Red Cross													1					
Civilian							1								1			
<u>BRITISH</u>																		
Enl Men							6				3		3					
<u>ITALIAN</u>																		
Army							2											
Civilians											1							
POWS					1													
<u>BRAZILIAN AIR FORCE</u>																		
Officers	1						1						32					
Nurses							1						2					
Enl men							9		1				103		5			
	838	81	512	2	459		508	61	179	2	294		982	280	120	1	223	288
	292	347					184	54	115	52	57		27	89	53			387

AFRICA

Register Number	INJURY		How		Associated		Initial Treatment		Secondary Treatment		Disposition	RMF P.S.								
	Soft Tissue	Bony	Injury	Incur.	Injury	Initial	Soft	Bony	Soft	Bony	12th General Hosp	Elsewhere	Hospital days	B - Max - facial	B - Other	C - Max - facial	C - Other			
1207 ✓						Primary suture														
5610 ✓						Primary suture														
9916 ✓	✓					Primary suture														
4578 ✓			✓			Primary suture														
6041																				
83																				
1138						Primary suture														
7666						Primary suture														
8524 ✓						Primary suture														
9624 ✓						Primary suture														
9915 ✓						Primary suture														
10098 ✓						Primary suture														
10629 ✓						Primary suture														
10510 ✓						Primary suture														
						Internal fixation														
						External fixation														
						Bandage														
						Open reduction														
						None														
						Tracheotomy														
						Debridement														
						Primary suture														
						Sec suture														
						None														
						Internal fixation														
						External fixation														
						Bandage														
						Open reduction														
						None														
						Tracheotomy														
						12th General Hosp														
						Elsewhere														
						Hospital days														
						A														
						B - Max - facial														
						B - Other														
						C - Max - facial														
						C - Other														

*Tearing because of the
 examination. 9 days after repair
 the anterior table of frontal
 table fracture was fixed by
 drainage
 Displacement corrected by
 extraction of bony fragments
 Ostromyctes of jaw.
 Large excavation of
 cyst.
 Frontal sinuses. Cuts
 excised
 Auto accident
 Repair of orbit - success*

ROME

Register Number	INJURY		How		Associated		Initial Treatment		Secondary Treatment		Disposition		RMF RIS:				
	Soft Tissue	Bony	Injury	Incur.	ed injury	Injury	Soft	Bony	Soft	Bony	Elsewhere	Hospital days	B - Max - facial	B - Other	C - Max - facial	C - Other	
1997	✓										✓	35					No other treatment indicated.
1998	✓										✓	10					
1999	✓										✓	44					
2000	✓										✓	20					
2001	✓										✓	15					
2002	✓										✓	32					fracture of maxilla of mandible.
2003	✓										✓	38					fracture of maxilla of mandible.
2004	✓										✓	59					fracture of zygoma was indicated.
2005	✓										✓	32					
2006	✓										✓	38					
2007	✓										✓	32					
2008	✓										✓	38					
2009	✓										✓	32					
2010	✓										✓	32					
2011	✓										✓	32					
2012	✓										✓	32					
2013	✓										✓	32					
2014	✓										✓	32					
2015	✓										✓	32					
2016	✓										✓	32					
2017	✓										✓	32					
2018	✓										✓	32					
2019	✓										✓	32					
2020	✓										✓	32					
2021	✓										✓	32					
2022	✓										✓	32					
2023	✓										✓	32					
2024	✓										✓	32					
2025	✓										✓	32					
2026	✓										✓	32					
2027	✓										✓	32					
2028	✓										✓	32					
2029	✓										✓	32					
2030	✓										✓	32					
2031	✓										✓	32					
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2096	✓										✓	32					
2097	✓										✓	32					
2098	✓										✓	32					
2099	✓										✓	32					
2100	✓										✓	32					

ROME

1604	14910	14962	16672	16682	16813	13112	16322	16327	16818	16716	16753	16827	16827	Register Number
✓	✓		✓	✓	✓			✓	✓		✓	✓	✓	Cheek & Face
														Tongue
														S. Palate
														Nose
														Eyelids
														Neck
														Lips
														Mandible
														Maxilla
														Zygoma
														Nose
														Sinuses
														Orbit
														Severe
														Moderate
														Accidental
														WLA
														Cranial
														Optic
														Nerve
														Torso
														Upper extremity
														Lower extremity
														Debridement
														Primary suture
														Internal
														External
														Bandage
														Open reduction
														None
														Tracheotomy
														Debridement
														Primary suture
														Sec suture
														None
														Internal
														External
														Bandage
														Open reduction
														None
														Tracheotomy
														12th General Hosp
														Elsewhere
														Hospital days
														A
														B - Max - facial
														B - Other
														C - Max - facial
														C - Other
														Disposition
														RM: RMS:

Chin + forehead

Admission

Surgeon's cert.

Working out about 1/2 hr of fracture. Surely state 'typical' fragments cleaned. Removing main part.

Eye

LEGNORN

Register Number	INJURY		How		Initial Treatment		Secondary Treatment		Disposition		R.M.R.S.	
	Soft Tissue	Bony	Injury	Accidental	ed injury	soft	Soft	Bony	fixation	fixation		
2161	✓				✓	✓	✓				✓	140
2162	✓				✓	✓	✓				✓	117
2163					✓	✓	✓				✓	155
2164	✓				✓	✓	✓				✓	16
2165	✓				✓	✓	✓				✓	23
2166	✓				✓	✓	✓				✓	19
2167	✓				✓	✓	✓				✓	25
2168	✓				✓	✓	✓				✓	26
2169	✓				✓	✓	✓				✓	21
2170	✓				✓	✓	✓				✓	18
2171	✓				✓	✓	✓				✓	23
2172	✓				✓	✓	✓				✓	34
2173	✓				✓	✓	✓				✓	16
2174	✓				✓	✓	✓				✓	48
2175	✓				✓	✓	✓				✓	16
2176	✓				✓	✓	✓				✓	48
2177	✓				✓	✓	✓				✓	16
2178	✓				✓	✓	✓				✓	16
2179	✓				✓	✓	✓				✓	16
2180	✓				✓	✓	✓				✓	16
2181	✓				✓	✓	✓				✓	16
2182	✓				✓	✓	✓				✓	16
2183	✓				✓	✓	✓				✓	16
2184	✓				✓	✓	✓				✓	16
2185	✓				✓	✓	✓				✓	16
2186	✓				✓	✓	✓				✓	16
2187	✓				✓	✓	✓				✓	16
2188	✓				✓	✓	✓				✓	16
2189	✓				✓	✓	✓				✓	16
2190	✓				✓	✓	✓				✓	16
2191	✓				✓	✓	✓				✓	16
2192	✓				✓	✓	✓				✓	16
2193	✓				✓	✓	✓				✓	16
2194	✓				✓	✓	✓				✓	16
2195	✓				✓	✓	✓				✓	16
2196	✓				✓	✓	✓				✓	16
2197	✓				✓	✓	✓				✓	16
2198	✓				✓	✓	✓				✓	16
2199	✓				✓	✓	✓				✓	16
2200	✓				✓	✓	✓				✓	16
2201	✓				✓	✓	✓				✓	16
2202	✓				✓	✓	✓				✓	16
2203	✓				✓	✓	✓				✓	16
2204	✓				✓	✓	✓				✓	16
2205	✓				✓	✓	✓				✓	16
2206	✓				✓	✓	✓				✓	16
2207	✓				✓	✓	✓				✓	16
2208	✓				✓	✓	✓				✓	16
2209	✓				✓	✓	✓				✓	16
2210	✓				✓	✓	✓				✓	16
2211	✓				✓	✓	✓				✓	16
2212	✓				✓	✓	✓				✓	16
2213	✓				✓	✓	✓				✓	16
2214	✓				✓	✓	✓				✓	16
2215	✓				✓	✓	✓				✓	16
2216	✓				✓	✓	✓				✓	16
2217	✓				✓	✓	✓				✓	16
2218	✓				✓	✓	✓				✓	16
2219	✓				✓	✓	✓				✓	16
2220	✓				✓	✓	✓				✓	16
2221	✓				✓	✓	✓				✓	16
2222	✓				✓	✓	✓				✓	16
2223	✓				✓	✓	✓				✓	16
2224	✓				✓	✓	✓				✓	16
2225	✓				✓	✓	✓				✓	16
2226	✓				✓	✓	✓				✓	16
2227	✓				✓	✓	✓				✓	16
2228	✓				✓	✓	✓				✓	16
2229	✓				✓	✓	✓				✓	16
2230	✓				✓	✓	✓				✓	16
2231	✓				✓	✓	✓				✓	16
2232	✓				✓	✓	✓				✓	16
2233	✓				✓	✓	✓				✓	16
2234	✓				✓	✓	✓				✓	16
2235	✓				✓	✓	✓				✓	16
2236	✓				✓	✓	✓				✓	16
2237	✓				✓	✓	✓				✓	16
2238	✓				✓	✓	✓				✓	16
2239	✓				✓	✓	✓				✓	16
2240	✓				✓	✓	✓				✓	16
2241	✓				✓	✓	✓				✓	16
2242	✓				✓	✓	✓				✓	16
2243	✓				✓	✓	✓				✓	16
2244	✓				✓	✓	✓				✓	16
2245	✓				✓	✓	✓				✓	16
2246	✓				✓	✓	✓				✓	16
2247	✓				✓	✓	✓				✓	16
2248	✓				✓	✓	✓				✓	16
2249	✓				✓	✓	✓				✓	16
2250	✓				✓	✓	✓				✓	16
2251	✓				✓	✓	✓				✓	16
2252	✓				✓	✓	✓				✓	16
2253	✓				✓	✓	✓				✓	16
2254	✓				✓	✓	✓				✓	16
2255	✓				✓	✓	✓				✓	16
2256	✓				✓	✓	✓				✓	16
2257	✓				✓	✓	✓				✓	16
2258	✓				✓	✓	✓				✓	16
2259	✓				✓	✓	✓				✓	16
2260	✓				✓	✓	✓				✓	16
2261	✓				✓	✓	✓				✓	16
2262	✓				✓	✓	✓				✓	16
2263	✓				✓	✓	✓				✓	16
2264	✓				✓	✓	✓				✓	16
2265	✓				✓	✓	✓				✓	16
2266	✓				✓	✓	✓				✓	16
2267	✓				✓	✓	✓				✓	16
2268	✓				✓	✓	✓				✓	16
2269	✓				✓	✓	✓				✓	16
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2275	✓				✓	✓	✓				✓	16
2276	✓				✓	✓	✓				✓	16
2277	✓				✓	✓	✓				✓	16
2278	✓				✓	✓	✓				✓	16
2279	✓				✓	✓	✓				✓	16
2280	✓				✓	✓	✓				✓	16
2281	✓				✓	✓	✓				✓	16
2282	✓				✓	✓	✓				✓	16
2283	✓				✓	✓	✓				✓	16
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2285	✓				✓	✓	✓				✓	16
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2289	✓				✓	✓	✓				✓	16
2290	✓				✓	✓	✓				✓	16
2291	✓				✓	✓	✓				✓	16
2292	✓				✓	✓	✓				✓	16
2293	✓				✓	✓	✓				✓	16
2294	✓				✓	✓	✓				✓	16
2295	✓				✓	✓	✓					

LEGHORN

Register Number	INJURY		HOW		Associated		Initial Treatment		Secondary Treatment		Disposition		RM: P.S.:	
	Soft Tissue	Bony	Injury	Degree	Incur	ed injury	Soft	Bony	Soft	Bony	Hospital days	B - Max - facial	C - Max - facial	
							fixation	fixation						
29733														
29734														
29735														
29736														
29737														
29738														
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